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GENERAL **CATALOGUE** 24/25

**OFFICE AND WAREHOUSE**

C/ Thomas Alva Edison, 16-17
Pol. Industrial Plans d'Arau
08787 La Pobla de Claramunt (Barcelona) Spain

FACTORY AND LABORATORY

C/ Thomas Alva Edison, 12-13
Pol. Industrial Plans d'Arau
08787 La Pobla de Claramunt (Barcelona) Spain

CUSTOMER SERVICE

Tel. +34 93 808 79 80
export@sofamel.es

www.sofamel.com

Sofamel S.L. is a Spanish company dedicated to the production of electrical material of connection as well as safety and electrical protection material.

Sofamel's main objective has been to reach a high degree of specialization with the aim of providing a global solution for our clients. The same backed up by strict quality standards and by important investments in machinery and design for the manufacturing of all those products that our factory produces. This has allowed us to offer one of the most extensive ranges of articles that exists on the market.

Our commitment with excellent quality work allows our company to own the quality management system certificate under standard UNE-EN ISO 9001:2015 and R+D+i certificate under standard UNE 166002:2021, both duly granted by the Spanish Association for Standardization and Certification (AENOR).



The image shows a modern, two-story industrial or office building with a dark, metallic, ribbed facade. Large windows on the right side reveal an interior with office desks and chairs. The 'sofamel' logo is mounted on the building's facade in large, blue, three-dimensional letters. In the foreground, there is a paved area, some greenery, and a small blue and white sculpture. The sky is overcast with soft, pinkish clouds.

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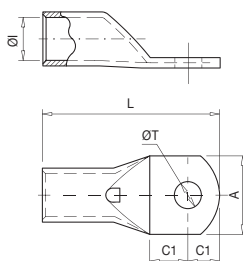
344-350

Copper connectors
Fuse screw connectors
Aluminum connectors
Bimetallic connectors
Compression and mechanical clamps
Screw connectors
Crimps
Studded clamps and terminals strips
Cord end terminals
Insulated terminals
ABC connectors
Earthing rods and accessories
Connections for photovoltaic installations



Connections





10101 T

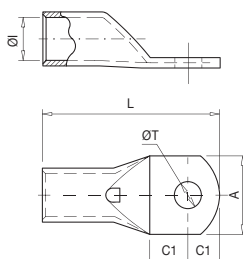
Copper cable lug

T cable lug manufactured from electrolytic copper tubing with a tin-plated surface finish to improve electrical contact. Incorporates inspection hole to check the correct cable positioning.

According to IEC 61238-1-1 standard.



Code	Ref.	Section (mm ²)		Dimensions (mm)						Kg x 100	Bag	Box
				ØI	L	ØT	A	C1	C2			
010100	T-1,5/4	1.5	4	1.8	18.0	4.3	8.7	5.0	4.0	0.074	100	3000
010110	T-1,5/5		5		18.5	5.3	8.7	5.0	4.5	0.071	100	3000
010120	T-1,5/6		6		20.0	6.4	11.0	6.0	5.0	0.081	100	2000
010130	T-2,5/4	2.5	4	2.7	18.0	4.3	8.7	5.0	4.0	0.111	100	2000
010140	T-2,5/5		5		19.0	5.3	8.7	5.5	4.5	0.112	100	2000
010150	T-2,5/6		6		20.0	6.4	9.0	6.0	5.0	0.110	100	1800
010160	T-2,5/8		8		24.0	8.3	12.0	8.0	7.0	0.128	100	1800
010170	T-4/4	4	4	3.3	21.0	4.3	8.7	5.0	4.5	0.168	100	1600
010180	T-4/5		5		21.0	5.3	8.7	5.0	4.5	0.163	100	1600
010190	T-4/6		6		23.0	6.4	11.0	6.0	5.5	0.171	100	1600
010200	T-4/8		8		26.5	8.3	14.0	8.0	7.0	0.179	100	1200
010210	T-6/4	6	4	3.8	23.0	4.3	10.3	6.0	5.0	0.204	100	1600
010220	T-6/5		5		23.0	5.3	10.3	6.0	5.0	0.202	100	1500
010230	T-6/6		6		24.0	6.4	10.3	6.0	5.5	0.200	100	1500
010240	T-6/8		8		27.0	8.3	14.0	8.0	7.0	0.208	100	1300
010260	T-10/5	10	5	4.7	25.5	5.3	11.9	6.0	5.5	0.364	100	1000
010270	T-10/6		6		27.0	6.4	11.9	7.0	6.0	0.361	100	1000
010280	T-10/8		8		30.0	8.3	15.0	8.0	8.0	0.388	100	800
010290	T-10/10		10		34.0	10.5	18.0	10.5	9.5	0.414	100	600
010310	T-16/5	16	5	5.6	26.5	5.3	11.9	6.0	5.0	0.465	100	700
010320	T-16/6		6		28.5	6.4	11.9	7.0	6.0	0.489	100	700
010330	T-16/8		8		31.0	8.3	15.0	8.0	7.5	0.500	100	600
010340	T-16/10		10		34.5	10.5	18.0	10.0	9.0	0.524	100	500
010350	T-16/12		12		38.5	13.0	20.0	12.0	11.0	0.552	100	500
010360	T-25/6	25	6	7.1	31.0	6.4	13.8	7.0	6.0	0.700	50	450
010370	T-25/8		8		34.0	8.3	15.0	8.5	7.5	0.742	50	450
010380	T-25/10		10		39.0	10.5	18.0	11.0	10.0	0.811	50	400
010390	T-25/12		12		41.0	13.0	21.0	12.0	11.0	0.793	50	300
010410	T-35/6	35	6	8.7	34.0	6.4	15.7	7.0	6.0	1.081	50	300
010420	T-35/8		8		38.0	8.3	15.7	9.0	8.0	1.165	50	300
010430	T-35/10		10		42.0	10.5	19.0	11.0	10.0	1.221	50	200
010440	T-35/12		12		44.0	13.0	21.0	12.0	11.0	1.231	50	200
010450	T-35/14		14		48.0	14.5	21.0	14.0	13.0	1.315	50	200
010500	T-50/6	50	6	9.8	41.0	6.4	17.9	8.0	7.0	1.570	20	200
010510	T-50/8		8		43.0	8.3	17.9	9.0	8.0	1.591	20	180
010520	T-50/10		10		47.0	10.5	20.0	11.0	10.0	1.706	20	160
010530	T-50/12		12		51.0	13.0	21.0	13.0	12.0	1.746	20	160
010540	T-50/14		14		53.0	14.5	25.0	14.0	13.0	1.793	20	140
010550	T-50/16		16		55.0	16.5	26.0	15.0	14.0	1.771	20	140



10101 T

Copper cable lug

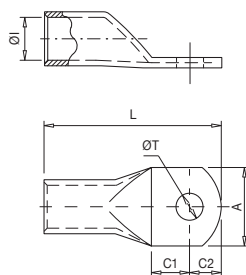
T cable lug manufactured from electrolytic copper tubing with a tin-plated surface finish to improve electrical contact. Incorporates inspection hole to check the correct cable positioning.

According to IEC 61238-1-1 standard.



Code	Ref.	Section (mm ²)		Dimensions (mm)						Kg x 100	Bag	Box
				ØI	L	ØT	A	C1	C2			
010570	T-70/8	70	8	11.5	47.0	8.3	21.5	9.0	8.0	2.385	20	120
010580	T-70/10		10		51.0	10.5	21.5	11.0	10.0	2.510	20	120
010590	T-70/12		12		53.0	13.0	21.5	12.0	11.0	2.504	20	120
010600	T-70/14		14		58.0	14.5	25.0	15.0	13.0	2.698	20	100
010610	T-70/16		16		59.0	16.5	26.0	15.0	14.0	2.617	20	100
010630	T-95/8	95	8	13.5	52.0	8.3	24.7	10.0	9.0	3.354	20	80
010640	T-95/10		10		55.0	10.5	24.7	11.0	11.0	3.387	20	80
010650	T-95/12		12		57.0	13.0	24.7	12.0	12.0	3.468	20	80
010660	T-95/14		14		61.0	14.5	24.7	15.0	13.0	3.622	20	80
010670	T-95/16		16		64.0	16.5	27.0	16.0	15.0	3.690	20	80
010690	T-120/8	120	8	15.6	56.0	8.3	28.9	10.0	9.0	5.357	10	60
010700	T-120/10		10		58.0	10.5	28.9	11.0	10.0	5.452	10	60
010710	T-120/12		12		63.0	13.0	28.9	14.0	12.0	5.800	10	60
010720	T-120/14		14		67.0	14.5	28.9	16.0	14.0	6.068	10	60
010730	T-120/16		16		71.0	16.5	28.9	17.0	16.0	6.296	10	60
010750	T-150/10	150	10	16.5	69.0	10.5	30.4	13.0	11.0	7.125	10	50
010760	T-150/12		12		75.0	13.0	30.4	16.0	14.0	7.749	10	50
010770	T-150/14		14		79.0	14.5	30.4	18.0	16.0	7.891	10	50
010780	T-150/16		16		79.0	16.5	30.4	18.0	16.0	7.694	10	40
010800	T-185/10	185	10	18.8	74.0	10.5	34.0	13.0	11.0	9.842	10	40
010810	T-185/12		12		80.0	13.0	34.0	16.0	14.0	10.447	10	40
010820	T-185/14		14		84.0	14.5	34.0	18.0	16.0	10.991	10	40
010830	T-185/16		16		85.0	16.5	34.0	18.0	17.0	10.831	10	40
010850	T-240/10	240	10	21.2	82.0	10.5	38.4	14.0	12.0	12.466	5	25
010860	T-240/12		12		86.0	13.0	38.4	16.0	14.0	12.916	5	25
010870	T-240/14		14		90.0	14.5	38.4	18.0	16.0	13.352	5	25
010880	T-240/16		16		91.0	16.5	38.4	18.0	17.0	13.198	5	25
010900	T-300/12	300	12	23.4	93.0	13.0	41.7	16.0	14.0	15.780	5	15
010910	T-300/14		14		94.0	14.5	41.7	16.0	15.0	17.249	5	15
010920	T-300/16		16		100.0	16.5	41.7	19.0	18.0	18.161	5	15
010940	T-400/12*	400	12	26.8	110.0	13.0	47.8	21.0	19.0	24.560	5	10
010950	T-400/16*		16		110.0	16.5	47.8	21.0	19.0	24.246	5	10
010960	T-400/20*		20		116.0	21.0	47.8	24.0	22.0	25.010	5	10
010980	T-500/16*	500	16	29.8	115.0	16.5	54.8	22.0	19.0	42.990	1	9
010985	T-500/20*		20		120.0	21.0	54.8	24.0	22.0	46.702	1	9
010988	T-630/16*	630	16	34.5	128.0	16.5	64.4	22.0	19.0	66.260	1	5
010990	T-630/20*		20		134.0	21.0	64.4	24.0	23.0	68.680	1	5

* Not according to UL certified.



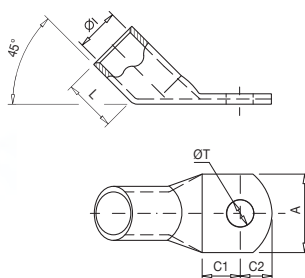
10102 TL

Copper cable lug long barrel

TL cable lug manufactured from electrolytic copper tubing with a tin-plated surface finish to improve electrical contact. The longer barrel length ensures a better electrical connection in more adverse conditions.

According to IEC 61238-1-1 standard.

Code	Ref.	Section (mm²)		Dimensions (mm)						Kg x 100	Bag	Box
				ØI	L	ØT	A	C1	C2			
006270	TL-10/6	10	6	4.7	35	6.4	11.9	7.0	6.0	0.492	100	600
006280	TL-10/8		8		38	8.3	15.0	8.0	8.0	0.513	100	600
006320	TL-16/6	16	6	5.6	39	6.4	11.9	7.0	6.0	0.685	100	400
006330	TL-16/8		8		41.5	8.3	15.0	8.0	7.5	0.691	100	400
006370	TL-25/8	25	8	7.1	50	8.3	15.0	8.5	7.5	1.128	50	250
006380	TL-25/10		10		55	10.5	18.0	11.0	10.0	1.193	50	200
006420	TL-35/8	35	8	8.7	53	8.3	15.7	9.0	8.0	1.685	50	150
006430	TL-35/10		10		57	10.5	19.0	11.0	10.0	1.765	50	150
006520	TL-50/10	50	10	9.8	63	10.5	20.0	11.0	10.0	2.372	20	120
006530	TL-50/12		12		67	13.0	21.0	13.0	12.0	2.402	20	100
006580	TL-70/10	70	10	11.5	69	10.5	21.5	11.0	10.0	3.600	10	40
006590	TL-70/12		12		71	13.0	21.5	12.0	11.0	3.561	10	40
006650	TL-95/12	95	12	13.5	79	13.0	24.7	12.0	12.0	5.260	10	40
006660	TL-95/14		14		83	14.5	24.7	15.0	13.0	5.137	10	40
006670	TL-95/16		16		86	16.5	27.0	16.0	15.0	5.191	10	40
006710	TL-120/12	120	12	15.6	87	13.0	28.9	14.0	12.0	8.231	10	30
006720	TL-120/14		14		91	14.5	28.9	16.0	14.0	8.630	10	30
006730	TL-120/16		16		95	16.5	28.9	17.0	16.0	8.834	10	30
006760	TL-150/12	150	12	16.5	99	13.0	30.4	16.0	14.0	10.243	10	30
006770	TL-150/14		14		103	14.5	30.4	18.0	16.0	10.290	10	30
006780	TL-150/16		16		103	16.5	30.4	18.0	16.0	10.423	10	30
006810	TL-185/12	185	12	18.8	108	13.0	34.0	16.0	14.0	14.417	10	20
006820	TL-185/14		14		112	14.5	34.0	18.0	16.0	14.891	10	20
006830	TL-185/16		16		113	16.5	34.0	18.0	17.0	14.746	10	20
006860	TL-240/12	240	12	21.2	114	13.0	38.4	16.0	14.0	17.324	5	15
006870	TL-240/14		14		118	14.5	38.4	18.0	16.0	17.978	5	15
006880	TL-240/16		16		119	16.5	38.4	18.0	17.0	17.914	5	15
006920	TL-300/16	300	16	23.4	132	16.5	41.7	19.0	18.0	22.698	6	12
006950	TL-400/16	400	16	26.8	140	16.5	47.8	21.0	19.0	32.130	4	8
006980	TL-500/16	500	16	29.8	143	16.5	54.8	22.0	19.0	53.430	1	7
006985	TL-630/16	630	16	34.5	155	16.5	64.4	22.0	19.0	85.713	1	3

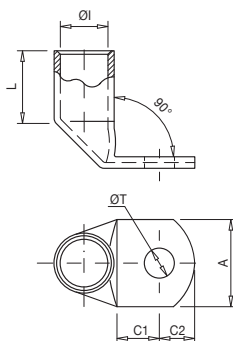


10103 T45° Copper cable lug 45°

T45° cable lug manufactured from electrolytic copper tubing with a tin-plated surface finish to electrical contact. Its particular orientation makes it suitable for installations where connection needs a specific placement.

According to IEC 61238-1-1 standard.

Code	Ref.	Section (mm ²)		Dimensions (mm)						Kg x 100	Bag	Box
				ØI	L	ØT	A	C1	C2			
007270	T45-10/6	10	6	4.7	10	6.4	11.9	7.0	6.0	0.391	100	800
007280	T45-10/8		8			8.3	15.0	8.0	8.0	0.400	100	800
007320	T45-16/6	16	6	5.6	11	6.4	11.9	7.0	6.0	0.518	100	600
007330	T45-16/8		8			8.3	15.0	8.0	7.5	0.527	100	600
007370	T45-25/8	25	8	7.1	13	8.3	15.0	8.5	7.5	0.731	50	350
007380	T45-25/10		10			10.5	18.0	11.0	10.0	0.803	50	350
007420	T45-35/8	35	8	8.7	16	8.3	15.7	9.0	8.0	1.157	50	250
007430	T45-35/10		10			10.5	19.0	11.0	10.0	1.219	50	200
007520	T45-50/10	50	10	9.8	19	10.5	20.0	11.0	10.0	1.822	20	120
007530	T45-50/12		12			13.0	21.0	13.0	12.0	1.768	20	120
007580	T45-70/10	70	10	11.5	21	10.5	21.5	11.0	10.0	2.470	20	100
007590	T45-70/12		12			13.0		12.0	11.0	2.514	20	100
007660	T45-95/14	95	14	13.5	24	14.5	24.7	15.0	13.0	3.606	20	60
007670	T45-95/16		16			16.5	27.0	16.0	15.0	3.619	20	60
007720	T45-120/14	120	14	15.6	28	14.5	28.9	16.0	14.0	5.948	10	50
007730	T45-120/16		16			16.5		17.0	16.0	6.260	10	40
007770	T45-150/14	150	14	16.5	32	14.5	30.4	18.0	16.0	7.814	10	40
007780	T45-150/16		16			16.5		18.0	16.0	7.618	10	30
007830	T45-185/16	185	16	18.8	34	16.5	34.0	18.0	17.0	10.540	10	20
007880	T45-240/16	240	16	21.2	38	16.5	38.4	18.0	17.0	13.126	5	20

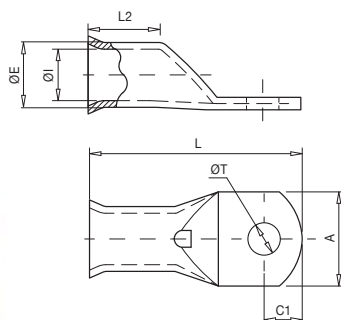


10104 T90° Copper cable lug 90°

T90° cable lug manufactured from electrolytic copper tubing with a tin-plated surface finish to electrical contact. Its particular orientation makes it suitable for installations where connection needs a specific placement.

According to IEC 61238-1-1 standard.

Code	Ref.	Section (mm ²)		Dimensions (mm)						Kg x 100	Bag	Box
				ØI	L	ØT	A	C1	C2			
008270	T90-10/6	10	6	4.7	10	6.4	11.9	7.0	6.0	0.374	100	800
008280	T90-10/8		8			8.3	15.0	8.0	8.0	0.396	100	700
008290	T90-10/10		10			10.5	18.0	11.0	10.0	0.444	100	100
008320	T90-16/6	16	6	5.6	11	6.4	11.9	7.0	6.0	0.500	100	600
008330	T90-16/8		8			8.3	15.0	8.0	7.5	0.509	100	600
008370	T90-25/8	25	8	7.1	13	8.3	15.0	8.5	7.5	0.768	50	300
008380	T90-25/10		10			10.5	18.0	11.0	10.0	0.813	50	300
008420	T90-35/8	35	8	8.7	16	8.3	15.7	9.0	8.0	1.295	50	250
008430	T90-35/10		10			10.5	19.0	11.0	10.0	1.157	50	200
008520	T90-50/10	50	10	9.8	19	10.5	20.0	11.0	10.0	1.788	20	160
008530	T90-50/12		12			13.0	21.0	13.0	12.0	1.983	20	160
008580	T90-70/10	70	10	11.5	21	10.5	21.5	11.0	10.0	2.586	20	100
008590	T90-70/12		12			13.0		12.0	11.0	2.614	20	100
008660	T90-95/14	95	14	13.5	24	14.5	24.7	15.0	13.0	3.737	20	60
008670	T90-95/16		16			16.5	27.0	16.0	15.0	3.730	20	60
008720	T90-120/14	120	14	15.6	28	14.5	28.9	16.0	14.0	6.350	10	30
008730	T90-120/16		16			16.5		17.0	16.0	6.508	10	30
008770	T90-150/14	150	14	16.5	32	14.5	30.4	18.0	16.0	8.000	10	30
008780	T90-150/16		16			16.5		18.0	16.0	7.860	10	30
008830	T90-185/16	185	16	18.8	34	16.5	34.0	18.0	17.0	10.850	10	20
008880	T90-240/16	240	16	21.2	38	16.5	38.4	18.0	17.0	13.630	5	15



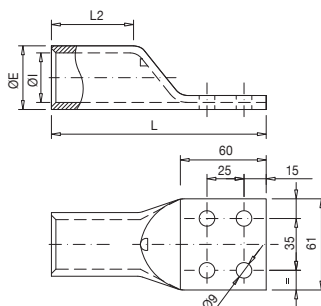
10105 TT

NF C20-130 Tulip copper cable lug

TT cable lug manufactured from electrolytic copper tubing with a tin-plated surface finish to improve electrical contact. The tulip shape at the end of the barrel facilitates the introduction of the cable.

According to NF C20-130 standard.

Code	Ref.	Section (mm ²)		Dimensions (mm)							x 100	Bag	Box
				ØE	ØI	L	ØT	A	C1	L2			
009220	TT-6/5	6	5	5.5	3.3	30.50	5.3	13.0	8.0	11.0	0.243	100	1200
009230	TT-6/6		6			32.50	6.5				0.366	100	1000
009270	TT-10/6	10	6	6.8	4.3	30.50	6.5	12.0	6.5	12.0	0.598	100	800
009280	TT-10/8		8			37.00	8.5				0.485	100	600
009320	TT-16/6	16	6	8.0	5.3	33.30	6.5	12.0	6.3	14.0	0.712	100	500
009330	TT-16/8		8			37.50	8.5				0.752	100	500
009360	TT-25/6	25	6	9.5	6.6	36.30	6.5	13.0	6.3	15.0	0.874	50	300
009370	TT-25/8		8			42.00	8.5				1.022	50	300
009380	TT-25/10		10			46.00	10.5				1.139	50	250
009420	TT-35/8	35	8	11.0	7.9	44.00	8.5	17.0	10.0	17.0	1.591	50	200
009430	TT-35/10		10			49.00	10.5				1.592	50	200
009510	TT-50/8	50	8	12.5	9.2	47.00	8.5	18.0	10.0	19.0	2.109	20	140
009520	TT-50/10		10			52.00	10.5				2.264	20	140
009530	TT-50/12		12			54.00	13.0				2.101	20	120
009570	TT-70/8	70	8	15.0	11.0	51.00	8.5	21.0	10.0	21.0	2.241	20	100
009580	TT-70/10		10			55.00	10.5				3.357	20	80
009590	TT-70/12		12			59.00	13.0				3.449	20	80
009640	TT-95/10	95	10	17.0	13.1	60.00	10.5	25.0	12.0	22.0	4.518	20	60
009650	TT-95/12		12			62.00	13.0				4.292	20	60
009660	TT-95/14		14			66.50	15.0				4.354	20	60
009670	TT-95/16		16			70.00	17.0				4.714	20	60
009710	TT-120/12	120	12	19.0	14.5	66.00	13.0	28.0	13.0	26.0	6.544	10	50
009720	TT-120/14		14			69.50	15.0				5.972	10	50
009730	TT-120/16		16			72.00	17.0				6.198	10	50
009760	TT-150/12	150	12	21.0	16.2	73.00	13.0	30.0	15.0	30.0	8.578	10	40
009770	TT-150/14		14			73.00	15.0				8.069	10	40
009780	TT-150/16		16			75.00	17.0				7.865	10	40
009810	TT-185/12	185	12	23.0	18.0	81.00	13.0	33.5	16.0	32.0	10.255	10	40
009830	TT-185/16		16			87.00	17.0				10.596	10	30
009860	TT-240/12	240	12	26.0	20.6	93.50	13.0	38.0	21.5	35.0	14.383	5	25
009880	TT-240/16		16			93.50	17.0				14.240	5	25
009920	TT-300/16	300	16	28.0	23.0	102.00	17.0	41.0	19.0	44.0	16.270	5	10
009950	TT-400/16	400	16	32.0	26.0	115.00	17.0	46.5	19.0	44.0	26.819	4	8

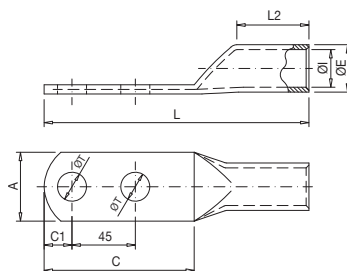


10106 T4H

Copper cable lug with 4 holes palm

The T4H copper cable lug with 4 holes palm is manufactured from electrolytic copper with a tin-plated surface finish to improve electrical contact.

Code	Ref.	Section (mm²)	Dimensions (mm)				Kg x 100	Bag	Box
			ØE	ØI	L	L2			
001100	T-185/4H	185	23.7	18.8	124.0	46.0	14.924	1	30
001110	T-240/4H	240	26.2	21.2	128.0	48.0	17.328	1	15
001120	T-300/4H	300	28.6	23.4	133.0	50.0	21.280	1	15
001130	T-400/4H	400	32.8	26.8	134.0	50.0	28.570	1	10
001140	T-500/4H	500	38.4	29.8	139.0	54.0	51.860	1	8
001150	T-630/4H	630	44.7	34.5	145.0	60.0	76.075	1	4
001160	T-800/4H	800	52.0	40.0	160.0	70.0	115.175	1	3

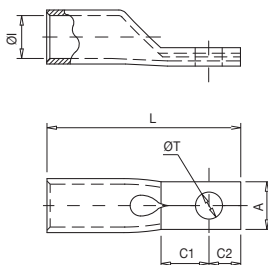


10107 TDT

Copper cable lug with 2 holes palm

The TDT copper cable lug with 2 holes palm is manufactured from electrolytic copper with a tin-plated surface finish to improve electrical contact.

Code	Ref.	Section (mm²)	Dimensions (mm)								Kg x 100	Bag	Box
			ØE	ØI	L	ØT	A	L2	C1	C			
002530	TDT-50/12	50	14.0	11.0	130.0	13.0	20.5	40.0	14.5	75.0	5.757	30	60
002590	TDT-70/12	70	15.0	12.0	130.0	13.0	21.4	40.0	17.0	80.0	6.365	30	60
002650	TDT-95/12	95	18.0	14.0	132.0	13.0	26.0	42.0	17.0	80.0	10.676	10	30
002710	TDT-120/12	120	20.0	16.0	135.0	13.0	29.0	42.0	17.0	80.0	11.952	10	30
002760	TDT-150/12	150	22.0	17.0	150.0	13.0	31.5	50.0	17.0	80.0	18.350	5	25
002810	TDT-185/12	185	23.0	18.2	150.0	13.0	33.0	50.0	17.0	80.0	18.678	5	20
002860	TDT-240/16	240	28.0	22.0	150.0	17.0	40.0	50.0	17.0	80.0	27.072	5	15
002900	TDT-300/16	300	32.0	25.0	180.0	17.0	46.0	68.0	21.5	89.0	44.516	6	12
002940	TDT-400/16	400	37.0	30.0	180.0	17.0	54.0	60.0	22.0	90.0	55.198	2	8
002980	TDT-500/16	500	40.0	31.0	180.0	17.0	57.5	60.0	23.5	93.0	72.520	2	8



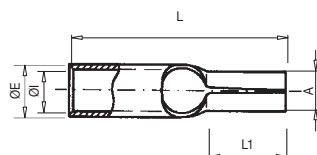
10108 TPE

Copper cable lug narrow palm

TPE cable lug manufactured from electrolytic copper with a tin-plated surface finish to improve electrical contact. The narrow palm design makes it suitable for reduced spaces.

According to IEC 61238-1-1 standard.

Code	Ref.	Section (mm ²)		Dimensions (mm)						Kg x 100	Bag	Box
				ØI	L	ØT	A	C1	C2			
032125	TPE-50/8	50	8	9.8	50.0	8.5	15.0	10.0	8.0	1.826	20	160
032126	TPE-50/10		10			10.5				1.724	20	160
032131	TPE-70/8	70	8	11.5	55.0	8.5	15.0	12.0	8.0	2.800	20	100
032132	TPE-70/10		10			10.5				2.730	20	100
032140	TPE-95/8	95	8	13.5	60.0	8.5	15.0	11.0	10.0	3.739	20	80
032145	TPE-95/10		10			10.5				3.763	20	80
032149	TPE-120/8	120	8	15.6	65.0	8.5	21.0	10.0	11.0	6.186	10	60
032150	TPE-120/10		10			10.5				6.105	10	60
032155	TPE-150/8	150	8	16.5	72.0	8.5	21.0	13.0	12.0	8.112	10	40
032160	TPE-150/10		10			10.5				7.284	10	40
032161	TPE-150/12		12			12.5				7.178	10	40
032170	TPE-185/10	185	10	18.9	75.0	10.5	26.0	13.0	12.0	9.710	10	30
032171	TPE-185/12		12			12.5				9.570	10	30
032180	TPE-240/10	240	10	21.2	85.0	10.5	26.0	13.0	12.0	12.772	5	25
032181	TPE-240/12		12			12.5				12.584	5	25



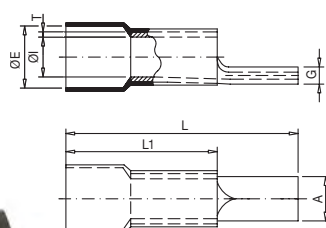
10109 CP

Pin terminal

CP pin terminal manufactured from electrolytic copper tubing with a tin-plated surface finish to improve electrical contact.

Its design makes it suitable for those applications of the conductor to the clamp.

Code	Ref.	Section (mm ²)	Dimensions (mm)					Kg x 100	Bag	Box
			ØE	ØI	L	A	L1			
025100	CP-1.5	1.5	3.5	1.7	17.0	2.0	10.0	0.600	100	2000
025110	CP-2.5	2.5	4.2	2.5	17.5	2.0	10.0	0.700	100	2000
025120	CP-6	6	6.0	3.7	20.0	2.5	10.0	1.490	100	1500
025130	CP-10	10	6.8	4.7	25.0	5.0	12.0	0.423	100	1000
025140	CP-16	16	7.8	5.6	31.0	6.0	15.0	0.573	100	800
025150	CP-25	25	9.4	7.1	34.0	7.0	18.0	0.829	100	500
025160	CP-35	35	11.3	8.7	42.0	9.0	18.0	1.420	100	300
025170	CP-50	50	12.6	9.8	46.0	10.0	21.0	1.849	50	200



10109 CPP

Connection tip isolated

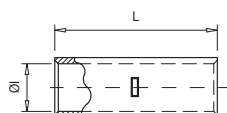
CPP connectors are made from electrolytic copper tubing with a tin-plated surface finish for improved electrical contact. The design facilitates connection of the cable lugs in the terminals.

The shape of the cable end facilitates cable insertion.

The insulation provides an additional degree of protection.



Code	Ref.	Section (mm ²)	Dimensions (mm)							Kg x 100	Bag	Box
			ØE	ØI	L	L1	G	A	T			
025180	CPP-10	10	9.0	4.5	29.5	15.5	2.4	4.3	1.1	0.290	100	600
025190	CPP-16	16	10.5	5.9	35.0	19.0	2.6	5.5	1.2	0.470	100	300
025200	CPP-25	25	11.5	7.0	44.5	24.5	2.6	6.8	1.2	0.750	100	200
025210	CPP-35	35	14.0	8.7	54.0	29.5	3.2	8.0	1.5	1.320	50	150
025220	CPP-50	50	15.8	9.8	61.0	35.0	3.8	9.5	1.8	2.040	50	100
025230	CPP-70	70	18.0	11.6	75.0	44.0	4.2	11.0	2.0	3.310	25	50
025240	CPP-95	95	21.6	13.5	75.0	44.0	5.2	12.5	2.5	4.740	20	40



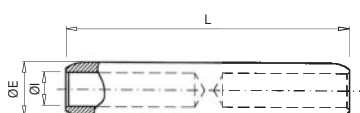
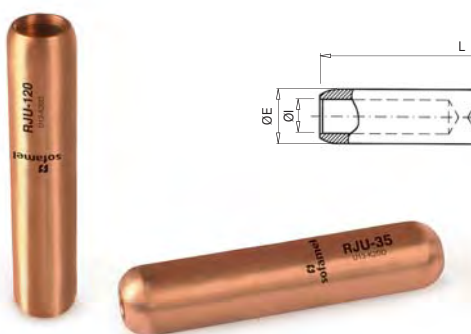
10110 M

Copper butt-connector

M copper butt-connector manufactured from electrolytic copper tubing with a tin-plated surface finish to improve electrical contact. Incorporates a central stop which facilitates the correct cable positioning.

According to IEC 61238-1-1 standard.

Code	Ref.	Section (mm ²)	Dimensions (mm)		 x 100	 Bag	 Box
			ØI	L			
015100	M-1.5	1.5	1.8	15.0	0.072	100	5000
015110	M-2.5	2.5	2.7	15.0	0.109	100	3500
015120	M-4	4	3.3	22.0	0.204	100	1600
015130	M-6	6	3.8	22.0	0.227	100	1300
015140	M-10	10	4.7	25.0	0.397	100	800
015150	M-16	16	5.6	27.0	0.516	100	600
015160	M-25	25	7.1	29.0	0.730	50	400
015170	M-35	35	8.7	33.0	1.127	50	250
015190	M-50	50	9.8	35.0	1.434	20	200
015200	M-70	70	11.5	39.0	2.149	20	120
015210	M-95	95	13.5	43.0	2.906	20	80
015220	M-120	120	15.6	47.0	4.730	10	60
015230	M-150	150	16.5	58.0	6.375	10	50
015240	M-185	185	18.9	64.0	8.929	10	40
015250	M-240	240	21.2	75.0	11.834	5	30
015260	M-300	300	23.4	90.0	16.082	5	15
015270	M-400	400	26.8	90.0	20.998	5	10
015280	M-500	500	29.8	98.0	40.235	1	5
015290	M-630	630	34.5	105.0	64.730	1	1

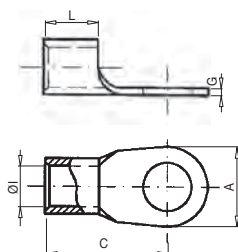


10111 RJU

Medium voltage copper join

The medium voltage copper joint RJU manufactured from electrolytic copper bar. Incorporates a central stop which facilitates the correct cable positioning.

Code	Ref.	Section (mm ²)	Dimensions (mm)			 x 100	 Bag	 Box
			ØE	ØI	L			
017160	RJU0-25	25	20	7.5	95	23.28	1	25
017170	RJU0-35	35	20	8.5	95	22.32	1	25
017180	RJU1-50	50	20	9.5	95	21.23	1	25
017190	RJU1-70	70	20	11	95	19.37	1	25
017200	RJU1-95	95	20	13	95	16.48	1	25
017210	RJU2-120	120	20	14.2	95	14.51	1	25
017220	RJU2-150	150	25	16	102	27.51	1	15
017230	RJU4-185	185	25	18	102	22.92	1	15
017240	RJU4-240	240	32	20	105	48.53	1	10



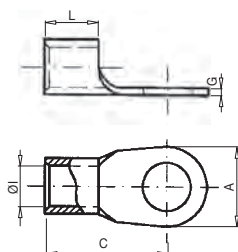
10112 TD

Welded copper cable lug

TD cable lug manufactured from welded copper strip with a tin-plated surface finish to improve electrical contact.

According to DIN 46234 Standard.

Code	Ref.	Section (mm ²)		Dimensions (mm)					Kg x 100	Bag	Box
				ØI	L	A	C	G			
020100	TD-1.5/3	1.5	3	1.6	5.0	6.0	11.0	0.8	0.055	100	4000
020110	TD-1.5/4		4			8.0	12.0		0.070	100	3500
020120	TD-1.5/5		5			10.0	13.0		0.084	100	3000
020130	TD-2.5/3	2.5	3	2.3	5.0	6.0	11.0	0.8	0.064	100	3000
020140	TD-2.5/4		4			8.0	12.0		0.077	100	3000
020150	TD-2.5/5		5			10.0	14.0		0.080	100	2000
020160	TD-2.5/6		6			11.0	16.0		0.110	100	2000
020170	TD-2.5/8		8			14.0	17.0		0.135	100	2000
020180	TD-6/4	6	4	3.6	6.0	8.0	14.0	1.0	0.139	100	800
020190	TD-6/5		5			10.0	15.0		0.157	100	800
020200	TD-6/6		6			11.0	16.0		0.168	100	800
020210	TD-6/8		8			14.0	19.0		0.213	100	800
020220	TD-6/10		10			18.0	21.0		0.279	100	800
020230	TD-10/5	10	5	4.5	8.0	11.0	16.0	1.1	0.229	100	600
020240	TD-10/6		6			11.0	17.0		0.240	100	600
020250	TD-10/8		8			14.0	20.0		0.290	100	600
020260	TD-10/10		10			18.0	21.0		0.349	100	500
020270	TD-10/12		12			22.0	23.0		0.414	100	400
020280	TD-16/5	16	5	5.8	10.0	10.0	20.0	1.2	0.406	100	600
020290	TD-16/6		6			11.0	20.0		0.381	100	600
020300	TD-16/8		8			14.0	22.0		0.425	100	600
020310	TD-16/10		10			18.0	24.0		0.502	100	500
020320	TD-16/12		12			22.0	26.0		0.600	100	400
020330	TD-25/6	25	6	7.5	11.0	12.0	25.0	1.5	1.400	50	300
020340	TD-25/8		8			16.0	25.0		1.480	50	300
020350	TD-25/10		10			18.0	26.0		1.560	50	300
020360	TD-25/12		12			22.0	31.0		1.920	50	200
020370	TD-25/16		16			28.0	35.0		2.320	50	200
020380	TD-35/6	35	6	9.0	12.0	15.0	26.0	1.6	1.920	50	200
020390	TD-35/8		8			26.0	26.0		1.920	50	200
020400	TD-35/10		10			18.0	27.0		2.040	50	200
020410	TD-35/12		12			22.0	31.0		2.360	50	200
020420	TD-35/16		16			28.0	36.0		2.880	50	200



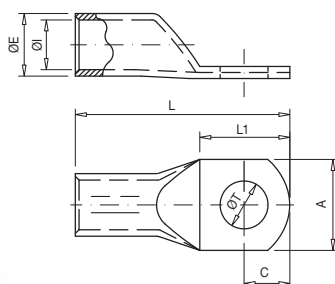
10112 TD

Welded copper cable lug

TD cable lug manufactured from welded copper strip with a tin-plated surface finish to improve electrical contact.

According to DIN 46234 Standard.

Code	Ref.	Section (mm ²)		Dimensions (mm)					Kg x 100	Bag	Box
				ØI	L	A	C	G			
020430	TD-50/6	50	6	11.0	16.0	18.0	34.0	1.8	1.760	25	150
020440	TD-50/8		8			18.0	34.0		1.720	25	150
020450	TD-50/10		10			18.0	34.0		1.680	25	150
020460	TD-50/12		12			22.0	36.0		1.840	25	150
020470	TD-50/16		16			28.0	40.0		2.120	25	100
020480	TD-70/6	70	6	13.0	18.0	22.0	38.0	2.0	2.600	10	80
020490	TD-70/8		8			22.0	38.0		2.600	10	80
020500	TD-70/10		10			22.0	38.0		2.600	10	80
020510	TD-70/12		12			22.0	38.0		2.600	10	80
020520	TD-70/16		16			22.0	38.0		2.600	10	80
020530	TD-95/8	95	8	15.0	20	24.0	42.0	2.5	4.100	10	60
020540	TD-95/10		10			24.0	42.0		4.100	10	60
020550	TD-95/12		12			24.0	42.0		4.000	10	60
020560	TD-95/16		16			28.0	44.0		4.100	10	60
020570	TD-120/8	120	8	16.5	22	24.0	44.0	3.0	5.600	10	60
020580	TD-120/10		10			24.0	44.0		6.200	10	60
020590	TD-120/12		12			24.0	44.0		5.400	10	60
020600	TD-120/16		16			28.0	48.0		5.700	10	40
020610	TD-150/10	150	10	19.0	24	30.0	50.0	3.2	8.400	5	30
020620	TD-150/12		12			30.0	50.0		8.600	5	25
020630	TD-150/16		16			30.0	50.0		7.700	5	20
020640	TD-185/10	185	10	21.0	28	36.0	50.0	3.5	11.100	5	20
020650	TD-185/12		12			36.0	50.0		10.800	5	20
020660	TD-185/16		16			36.0	50.0		10.700	5	20
020670	TD-240/10	240	10	23.5	32	38.0	56.0	4.0	15.200	5	20
020680	TD-240/12		12			38.0	56.0		15.000	5	20
020690	TD-240/16		16			38.0	56.0		14.700	5	15



10113 TCD

DIN 46235 copper cable lug

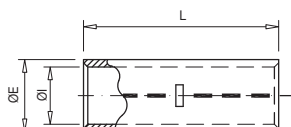
TCD cable lug manufactured from electrolytic copper with a tin-plated surface finish to improve electrical contact.

According to DIN 46235.



Code	Ref.	Section (mm ²)		Dimensions (mm)							Kg x 100	Bag	Box
				ØE	ØI	L	ØT	A	L1	C			
005270	TCD-10/6	10	6	6.0	4.5	37.5	6.4	9.0	19.5	9.5	0.350	100	700
005280	TCD-10/8		8			40.0	8.4	13.0	21.0	11.0	0.354	100	600
005320	TCD-16/6	16	6	8.5	5.5	46.5	6.4	13.0	18.5	9.5	1.194	50	250
005330	TCD-16/8		8			49.0	8.4	13.0	23.0	11.0	1.206	50	250
005370	TCD-25/8	25	8	10.0	7.0	51.0	8.4	16.0	23.0	12.0	1.551	50	200
005380	TCD-25/10		10			53.0	10.5	17.0	27.0	14.0	1.543	50	200
005420	TCD-35/8	35	8	12.5	8.2	55.0	8.4	17.5	23.0	12.0	3.010	20	120
005430	TCD-35/10		10			57.0	10.5	19.0	27.0	14.0	2.997	20	120
005520	TCD-50/10	50	10	14.5	10	67.0	10.5	22.0	27.0	14.0	4.497	20	100
005530	TCD-50/12		12			68.0	13.0	24.0	29.0	15.0	4.403	20	100
005580	TCD-70/10	70	10	16.5	11.5	70.0	10.5	24.0	27.0	14.0	6.029	20	60
005590	TCD-70/12		12			71.0	13.0	24.0	27.0	14.0	6.065	20	60
005650	TCD-95/12	95	12	19.0	13.5	78.0	13.0	28.0	26.0	13.0	8.373	10	40
005660	TCD-95/14		14			79.5	15.0	32.0	29.0	14.5	8.357	10	40
005670	TCD-95/16		16			81.0	17.0	32.0	32.0	16.0	8.596	10	40
005700	TCD-120/10	120	10	21.0	15.5	85.0	10.5	30.0	27.0	14.0	10.728	10	30
005710	TCD-120/12		12			86.0	13.0	30.0	29.0	15.0	10.436	10	30
005720	TCD-120/14		14			88.0	15.0	30.0	31.0	16.0	10.820	10	30
005730	TCD-120/16		16			89.0	17.0	30.0	35.0	18.0	10.650	10	30
005760	TCD-150/12	150	12	23.5	17.0	94.0	13.0	34.0	29.0	15.0	13.374	10	20
005770	TCD-150/14		14			96.0	15.0	34.0	31.0	16.0	15.514	10	20
005780	TCD-150/16		16			97.0	17.0	34.0	35.0	18.0	15.436	10	20
005810	TCD-185/12	185	12	25.5	19.0	98.0	13.0	37.0	29.0	15.0	18.167	10	20
005820	TCD-185/14		14			100.0	15.0	37.0	31.0	16.0	17.852	10	20
005830	TCD-185/16		16			101.0	17.0	37.0	35.0	18.0	18.227	10	20
005860	TCD-240/12	240	12	29.0	21.5	108.0	13.0	42.0	29.0	15.0	25.766	5	10
005870	TCD-240/14		14			110.0	15.0	42.0	31.0	16.0	25.780	5	10
005880	TCD-240/16		16			111.0	17.0	42.0	35.0	18.0	26.587	5	10
005920	TCD-300/16	300	16	32.0	24.5	119.0	17.0	48.0	35.0	18.0	31.472	5	10
005950	TCD-400/16*	400	16	38.5	27.5	140.0	17.0	55.0	45.0	24.0	53.380	2	4
005980	TCD-500/16*	500	16	42.0	31.0	150.0	17.0	60.0	45.0	24.0	78.187	1	4

*Not according to UL certified.



10114 MCD

DIN 46267 copper butt-connector

MCD butt-connector manufactured from electrolytic copper with a tin-plated finish to improve electrical contact.

According to DIN 46267.

Code	Ref.	Section (mm ²)	Dimensions (mm)			 x 100	 Bag	 Box
			ØE	ØI	L			
004130	MCD-6	6	5.5	3.8	30	0.317	100	1000
004140	MCD-10	10	6.0	4.5	30	0.320	100	700
004150	MCD-16	16	8.5	5.5	50	1.387	100	200
004160	MCD-25	25	10.0	7.0	50	1.683	50	150
004170	MCD-35	35	12.5	8.2	50	2.988	20	120
004190	MCD-50	50	14.5	10.0	56	4.073	20	80
004200	MCD-70	70	16.5	11.5	56	5.169	20	60
004210	MCD-95	95	19.0	13.5	70	8.157	10	40
004220	MCD-120	120	21.0	15.5	70	8.231	10	40
004230	MCD-150	150	23.5	17.0	80	13.810	10	30
004240	MCD-185	185	25.5	19.0	85	16.332	5	25
004250	MCD-240	240	29.0	21.5	90	22.368	5	15
004260	MCD-300	300	32.0	24.5	100	27.634	5	10
004270	MCD-400	400	38.5	27.5	150	73.500	2	6
004280	MCD-500	500	42.0	31.0	160	86.740	1	2
004290	MCD-625	625	44.0	34.5	160	79.900	1	2
004300	MCD-800	800	52.0	40.0	200	151.616	1	8
004310	MCD-1000	1000	58.0	44.0	200	197.510	1	8

sofamel

Shear Head Bolt Connectors

Connections

GENERAL CATALOGUE 24/25

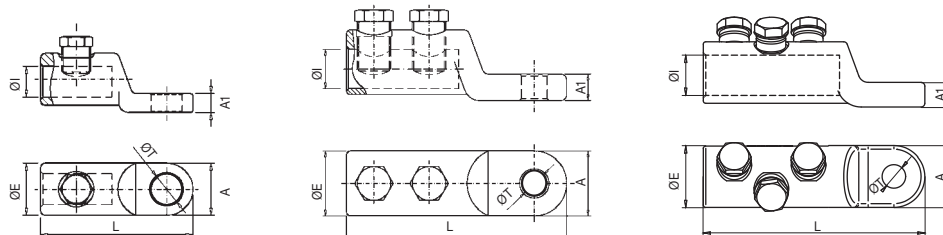


10201 TTG

Shear head bolt cable lug

TTG cable lugs are manufactured from high conductivity smelted aluminium of purity higher than 99.5% and with a tin-plated surface finish that covers the complete cable lug surface by means of an electrolytic process.

*According to UNE 211024-3 standard.
Have the  AENOR certified mark.



Code	Ref.	Section (mm ²)		Strip length			Dimensions (mm)								
							ØE	ØI	L	ØT	A	A1			
101102	TTG-16/50/8	16 to 50	1	35	1 x M12	12	22	10	64	9	22	8	4.500	1	100
101103	TTG-16/50/10						22	10	64	11	22	8	4.300	1	100
101104	TTG-16/50/12						22	10	64	13	22	8	4.300	1	100
101105	TTG-50/8*	25 to 50	1	35	1 x M12	12	22	10	64	9	22	8	4.500	1	100
101106	TTG-50/10*						22	10	64	11	22	8	4.300	1	100
101107	TTG-50/12*						22	10	64	13	22	8	4.300	1	100
101113	TTG-95/8*	50 to 95	1	35	1 x M12	12	22	13	64	9	22	8	4.400	1	100
101114	TTG-95/10*						22	13	64	11	22	8	4.300	1	100
101115	TTG-95/12*						22	13	64	13	22	8	4.000	1	100
101135	TTG-150/10*	95 to 150	2	60	2 x M17	17	26	16	100	11	26	10	11.000	1	50
101136	TTG-150/12*						26	16	100	13	26	10	10.800	1	50
101099	TTG-240/10*	95 to 240	2	60	2 x M17	17	33	20	112	11	33	13.5	17.300	1	45
101100	TTG-240/12*						33	20	112	13	33	13.5	17.400	1	45
101119	TTG-400/12	240 to 400	2	75	2 x M22	22	40	26	135	13	40	13.5	27.500	1	30
101120	TTG-400/16						40	26	135	17	40	13.5	28.500	1	30
101124	TTG-630/12/T3	500 to 630	3	92	3 x M24	24	52	32.5	165	13	52	20	70.940	1	-
101125	TTG-630/16/T3						52	32.5	165	17	52	20	70.560	1	-
101126	TTG-630/20/T3						52	32.5	165	21	52	20	64.560	1	-
101127	TTG-1000/20/T4	800 to 1000	4	105	4 x M22	22	65	41	175.5	21	65	30	126.400	1	-



Shear Head Bolt Connectors

Connections

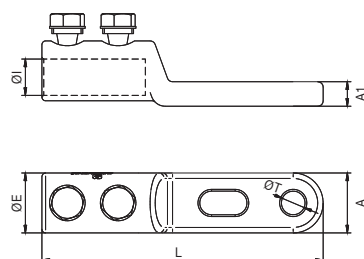
GENERAL CATALOGUE 24/25



10201 TTG2

Shear head bolt cable lug

TTG/2 cable lugs are manufactured in high conductivity smelted aluminium of purity higher than 99.5%, with a tinned surface finish over the entire surface of the cable lug by means of electrolytic bath.



Code	Ref.	Section (mm ²)		Strip length			Dimensions (mm)								
							ØE	ØI	L	ØT	A	A1			
101180	TTG/2-240/10	95 to 240	2	60	2 x M17	17	33	20	155	11	33	13.5	22.300	1	-
101185	TTG/2-240/12						33	20	155	13	33	13.5	21.700	1	-

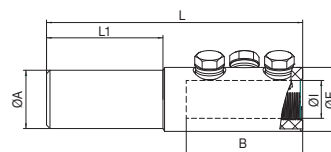


10202 BTF

Bimetallic cable lug

BTF cable lugs are manufactured from high conductivity aluminium.

Shear head bolts are designed to be broken by suitable torque as per conductor section, being perfectly flush against the connector wall. 15 µ tinned surface finish giving a greater protection against corrosion.



Code	Ref.	Section (mm ²)	Strip length			Dimensions (mm)										
						ØA	B	ØE	ØI	L	L1	M	P			
101380	BTF-400/630	400 - 630	105	3 x M24	22	50	100	55	32.5	220	100	M24	22	1.16	1	-
101385	BTF-800/1000	800 - 1000	120	4 x M22			115	65	42	250		M22		1.53	1	-

Shear Head Bolt Connectors

Connections

GENERAL CATALOGUE 24/25

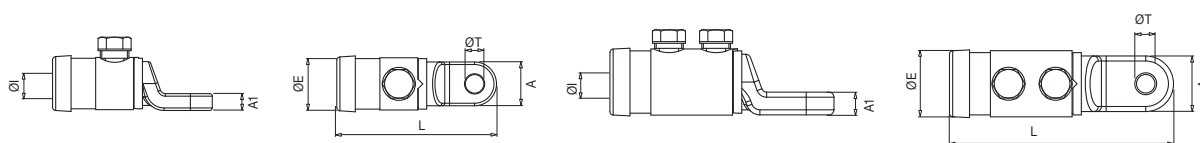


10203 TTGA

Insulated terminals with shear head bolts

TTGA cable lugs are manufactured from high-conductivity cast aluminium with a finish covering the complete cable lug surface using a tinplating process. They feature an insulated cover and different-coloured bands to differentiate between phases: black, brown and grey and neutral in blue.

According to UNE 211022 standard.
Have the  AENOR certified mark.



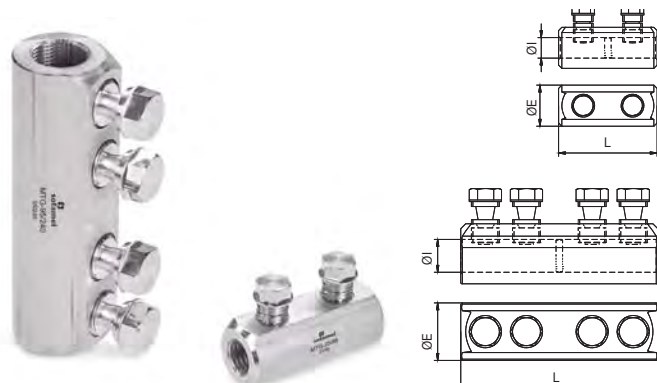
Code	Ref.	Section (mm ²)	T1/T2		T3		Strip length	Dimensions (mm)						Kg x 100	Bag	Box
								ØE	ØI	L	ØT	A	A1			
101400	TTGA-50/8	25 to 50	1 x M12	12	8	13	35	29	13	79	9	22	8	6.600	1	50
101405	TTGA-50/10				10	17		29	13	79	11	22	8	6.700	1	50
101410	TTGA-50/12				12	19		29	13	79	13	22	8	7.100	1	50
101415	TTGA-95/8	50 to 95	1 x M12	12	8	13	35	29	13	79	9	22	8	6.400	1	50
101420	TTGA-95/10				10	17		29	13	79	11	22	8	6.600	1	50
101425	TTGA-95/12				12	19		29	13	79	13	22	8	7.000	1	50
101438	TTGA-150/10	95 to 150	2 x M17	17	10	17	60	33	16	118	11	26	10	11.300	1	30
101439	TTGA-150/12				12	19		33	16	118	13	26	10	11.100	1	30
101450	TTGA-240/10	150 to 240	2 x M17	17	10	17	60	40	20	133	11	33	13.5	21.000	1	25
101455	TTGA-240/12				12	19		40	20	133	13	33	13.5	21.700	1	25



Shear Head Bolt Connectors

Connections

GENERAL CATALOGUE 24/25



10202 MTG

Shear head bolt connector

MTG connector manufactured from high conductivity aluminium.

Shear head bolts are designed to be broken by suitable torque as per conductor section, being perfectly flush against the connector wall, 15 µ tinned surface finish giving a greater protection against corrosion.

According to UNE 211024-3 standard.

Code	Ref.	Section		Dimensions (mm)			x 100	Bag	Box
				ØE	ØI	L			
101204	MTG-25/95	25 to 95	2	25	12.5	60	9.000	1	-
101200	MTG-95/240	95 to 240	4	35	20	120	21.800	1	40
101201	MTG-240/400	240 to 400	6	42	26	170	60.180	1	-
101202	MTG-500/630	500 to 630	6	52	33	200	88.810	1	-
101203	MTG-630/1000	630 to 1000	8	65	41	220	151.250	1	-

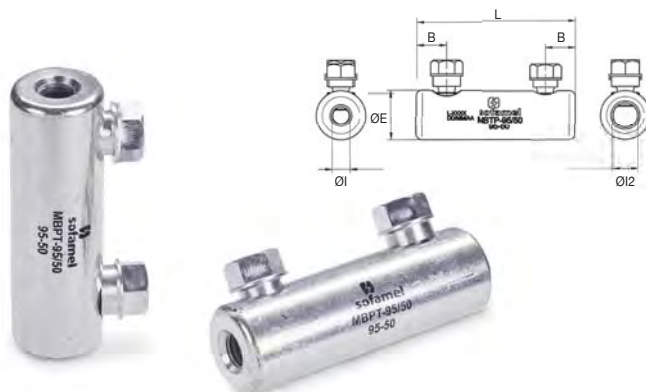


10202 MTG/R

Shear head bolt connector reducer

MTG/R connector manufactured in high conductivity aluminium. Fuse splicers are designed to break according to the conductor section, flush with the connector, 20 µ tinned surface finish giving a greater protection against corrosion.

Code	Ref.	Section		Dimensions (mm)						x 100	Bag	Box
		S1	S2	ØE	ØI1	ØI2	L	L1	L2			
101230	MTG/R-240/95	95-240	16-95	35	12.5	20	100	31	66	22.500	1	75



10202 MBPT-95/50

Shear head bolt connector

Bimetallic earthing connector for 95 mm² aluminium to 50 mm² aluminium sections.

Recommended for subterranean networks not subject to mechanical traction.

Installation by tightening shear bolt.

High-strength aluminium alloy connector.

With 20 µ tinplated finish.

For bimetallic use.

Code	Ref.	Section		Dimensions (mm)					x 100	Bag	Box
		Al	Al	ØE	ØI1	ØI2	L	B			
101210	MBPT-95/50	95	50	25	9	12.6	80	15	10.300	1	75

Shear Head Bolt Connectors

Connections

GENERAL CATALOGUE 24/25

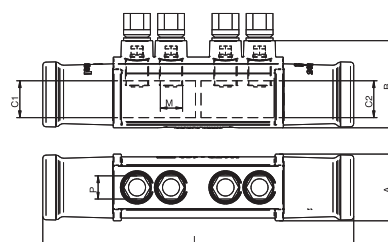
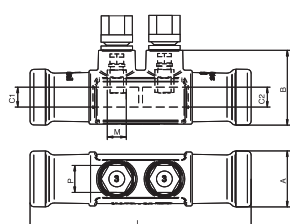
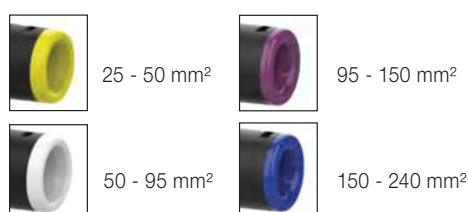


10204 MTSA

Insulated shear head bolt connector

Joint sleeve fuse for aluminium connection of sections ranging from 25 to 240 mm².
Recommended for underground networks.
Installation through torque using insulated fuse connectors.
Sleeve in high-resistance aluminium alloy.
Fitted with insulating cover and sealing ring at the ends.

According to UNE 211022 standard.
Have the  AENOR certified mark.



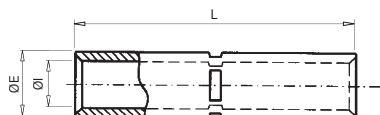
Code	Ref.	Section mm ²	Section Cable		Dimensions (mm)						 x 100	 Bag	 Box
			C1	C2	A	B	L	M	P	Par Nm			
101250	MTSA-50	25-50	25-50	25-50							16.000	1	-
101255	MTSA-95	50-95	50-95	50-95	35	47	139	2 x M12	17	22 ±2	16.000	1	-
101270	MTSA-25/95	25-95	25-50	50-95							16.000	1	-
101260	MTSA-150	95-150	95-150	95-150							51.000	1	-
101265	MTSA-240	150-240	150-240	150-240	48	64	229	4 x M17	17	30 ±3	51.000	1	-
101275	MTSA-95/240	95-240	95-150	150-240							51.000	1	-

sofamel

Aluminium Connectors

Connections

GENERAL CATALOGUE 24/25



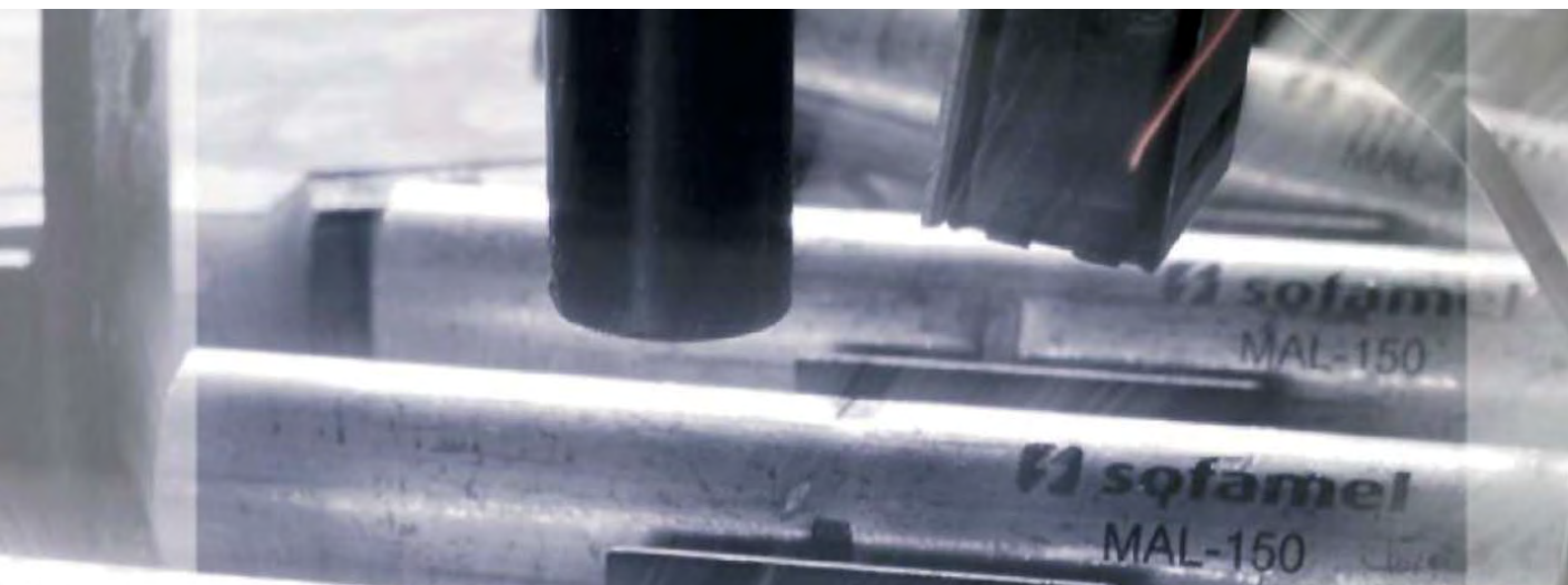
10301 MAL

Aluminium butt-connector

MAL butt-connector manufactured from aluminium alloy tube of purity equal or higher than 99.5%. Incorporates a central buffer stop which divides the connector in two equal parts. Both holes contain neutral grease to avoid aluminium oxidation.

For overhead cable

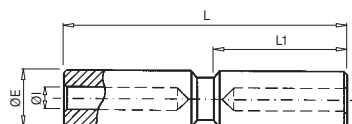
Code	Ref.	Section (mm ²)	Dimensions (mm)			 x 100	 Bag	 Box
			ØE	ØI	L			
080100	MAL-25	25	11.0	6.5	100	1.880	1	250
080110	MAL-35	35	13.3	7.8	100	2.660	1	200
080120	MAL-50	50	15.2	9.7	100	2.840	1	200
080130	MAL-70	70	17.0	11.0	100	3.700	1	150
080140	MAL-95	95	19.3	12.5	100	4.700	1	130
080150	MAL-120	120	21.7	14.1	140	9.200	1	90
080160	MAL-150	150	25.0	15.5	140	12.300	1	85
080170	MAL-185	185	28.1	18.3	140	13.800	1	60
080180	MAL-240	240	32.0	19.5	140	18.800	1	50
080190	MAL-300	300	34.0	23.3	145	25.000	1	50



Aluminium Connectors

Connections

GENERAL CATALOGUE 24/25

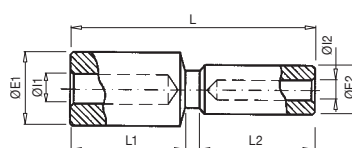


10302 BT

Aluminium joint

BT joint manufactured from aluminium alloy of purity equal or higher than 99.5%. Incorporates a central buffer stop which divides the joint in two equal parts. Both holes contain neutral grease to avoid aluminium oxidation.

Code	Ref.	Section (mm ²)	Dimensions (mm)				Kg x 100	Bag	Box
			ØE	ØI	L	L1			
085100	BT-25	25	20.0	6.5	100	47.5	7.500	1	125
085110	BT-35	35	20.0	8.0	100	47.5	7.200	1	125
085120	BT-50	50	20.0	9.0	100	47.5	6.600	1	125
085130	BT-70	70	20.0	11.0	100	47.5	5.900	1	125
085140	BT-95	95	20.0	12.5	100	47.5	5.700	1	125
085150	BT-120	120	25.0	13.7	135	64.0	13.300	1	75
085160	BT-150	150	25.0	15.5	135	64.0	11.900	1	75
085170	BT-185	185	32.0	17.0	135	64.0	21.600	1	50
085180	BT-240	240	32.0	19.5	135	64.0	20.000	1	50
085190	BT-300	300	40.0	23.3	187	90.0	34.000	1	25
085200	BT-400	400	40.0	26.0	187	90.0	32.000	1	25



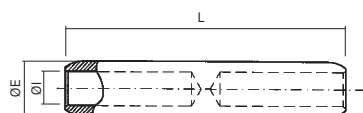
10303 RBT

Reducer aluminium joint

RBT joint manufactured from aluminium alloy of purity equal or higher than 99.5%. Incorporates a central buffer stop which divides the joint in two equal parts. Both holes contain neutral grease to avoid aluminium oxidation.

Code	Ref.	Section Al. (mm ²)		Dimensions (mm)							Kg x 100	Bag	Box
		1	2	ØE1	ØI1	ØE2	ØI2	L	L1	L2			
090100	RBT-50/25	50	25	20.0	9.0	20.0	6.5	100.0	47.5	47.5	7.000	1	125
090110	RBT-95/50	95	50	20.0	12.5	20.0	9.0	100.0	47.5	47.5	5.000	1	125
090120	RBT-150/50	150	50	25.0	15.5	20.0	9.0	118.5	64.0	47.5	9.000	1	75
090130	RBT-150/95	150	95	25.0	15.5	20.0	12.5	118.5	64.0	47.5	8.800	1	75
090140	RBT-240/95	240	95	32.0	19.5	20.0	12.5	118.5	64.0	47.5	13.600	1	50
090150	RBT-240/150	240	150	32.0	19.5	25.0	15.5	135.0	64.0	64.0	16.000	1	50

* Consult for other reducers.



10304 RJ1A

Aluminium joint

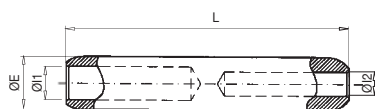
RJA joint manufactured from aluminium alloy of purity equal or higher than 99.5%. Incorporates a central buffer stop which divides the joint in two equal parts. Both holes contain neutral grease to avoid aluminium oxidation.

According to UNE 211024 standard.

Have  AENOR certified mark.*



Code	Ref.	Section (mm ²)	Dimensions (mm)			 x 100	 Bag	 Box
			ØE	ØI	L			
095100	RJ1A-25	25	20.0	6.5	106.5	7.900	1	125
095110	RJ1A-35	35	20.0	8.0	106.5	7.600	1	125
095120	RJ1A-50*	50	20.0	9.0	106.5	7.160	1	125
095130	RJ1A-70	70	20.0	11.0	106.5	7.000	1	125
095140	RJ1A-95*	95	20.0	12.5	106.5	5.700	1	125
095150	RJ2A-120	120	25.0	13.7	133.0	13.000	1	90
095160	RJ2A-150*	150	25.0	15.5	133.0	11.300	1	90
095170	RJ4A-185	185	32.0	17.0	143.5	22.000	1	50
095180	RJ4A-240*	240	32.0	19.5	143.5	19.000	1	50
095190	RJ5A-300	300	40.0	23.3	218.0	48.000	1	15
095200	RJ5A-400*	400	40.0	26.0	218.0	43.000	1	15



10305 RJ1A

Reducer aluminium joint

RJA joint manufactured from aluminium alloy of purity equal or higher than 99.5%. Incorporates a central buffer stop which divides the joint in two equal parts. Both holes contain neutral grease to avoid aluminium oxidation.

They are used for Al-Al or Al-Cu connections, ensuring that the aluminum conductor is always larger and the copper conductor is smaller. It is essential to properly seal any possible entry points for external agents to prevent oxidation.

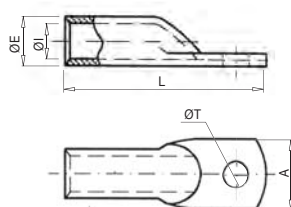
Code	Ref.	Section Al. (mm ²)		Dimensions (mm)				 x 100	 Bag	 Box
		1	2	ØE	ØI1	ØI2	L			
100100	RJ1A-50/25	50	25	20	9.0	6.5	106.5	7.450	1	125
100140	RJ1A-95/50	95	50	20	12.5	9.0	106.5	6.340	1	125
100150	RJ2A-150/50	150	50	25	15.5	9.0	133.0	11.880	1	90
100160	RJ2A-150/95	150	95	25	15.5	12.5	133.0	10.900	1	90
100165	RJ4A-240/50	240	50	32	19.5	9.0	143.5	21.030	1	50
100170	RJ4A-240/95	240	95	32	19.5	12.5	143.5	20.080	1	50
100180	RJ4A-240/150	240	150	32	19.5	15.5	143.5	19.010	1	50

* Consult for other sizes.

Bimetallic Connectors

Connections

GENERAL CATALOGUE 24/25

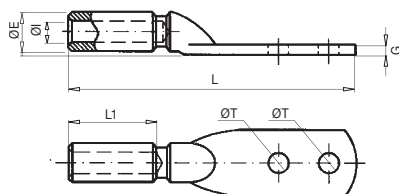


10401 TBE

Tinned aluminium cable lug

TBE cable lug manufactured from aluminium alloy tube of purity equal or higher than 99.5% with a tin-plated finish to improve electrical contact. Incorporates neutral grease to avoid aluminium oxidation.

Code	Ref.	Section (mm ²)	Dimensions (mm)					Kg x 100	Bag	Box
			ØE	ØI	ØT	L	A			
115090	TBE-16	16	8.7	5.5	8.5	43.0	15.0	0.437	1	400
115100	TBE-25	25	11.0	6.5	8.5	52.0	16.0	0.860	1	300
115110	TBE-35	35	13.3	7.8	8.5	56.0	19.0	1.360	1	250
115120	TBE-50	50	15.2	9.7	13.0	68.0	22.0	1.880	1	200
115130	TBE-70	70	17.0	11.0	13.0	75.0	25.0	2.700	1	200
115140	TBE-95	95	19.3	12.5	13.0	81.0	28.0	3.880	1	150
115150	TBE-120	120	21.7	14.1	13.0	94.0	32.0	5.600	1	100
115160	TBE-150	150	25.0	15.5	13.0	104.0	35.0	8.200	1	75
115170	TBE-185	185	28.1	18.3	13.0	112.0	40.0	10.600	1	50
115180	TBE-240	240	32.0	19.5	15.0	125.0	44.0	17.200	1	50
115190	TBE-300	300	34.0	23.3	15.0	140.0	47.0	20.700	1	40



10402 TBEM/S

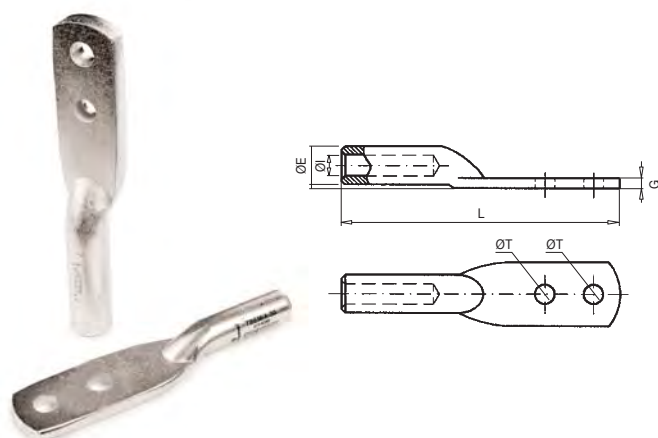
Tinned bimetallic cable lug

TBEM/S bimetallic cable lug manufactured from aluminium alloy tube of purity equal or higher than 99.5%. The complete cable lug surface is tinned by means of an electrolytic process. Incorporates neutral grease to avoid aluminium oxidation. It is designed for underground cable connections.

Underground cables

Code	Ref.	Section (mm ²)	Dimensions (mm)						Kg x 100	Bag	Box
			ØE	ØI	ØT	L1	G	L			
125120	TBEM/S-50	50	20.0	9.0	13.0	47.5	7.7	170	12.000	1	60
125140	TBEM/S-95	95	20.0	12.5	13.0	47.5	7.7	170	11.200	1	50
125160	TBEM/S-150	150	25.0	15.5	13.0	64.5	11.6	190	19.400	1	40
125180	TBEM/S-240	240	32.0	19.5	13.0	64.5	11.6	199	27.800	1	30

* For other sizes, please inquire. Supplied without screws.



10402 TBEM/A

Tinned bimetallic cable lug

TBEM/A bimetallic cable lug manufactured from aluminium alloy tube of purity equal or higher than 99.5%. The complete cable lug surface is tinned by means of an electrolytic process. Incorporates neutral grease to avoid aluminium oxidation. It is designed for overhead cable connection.

Overhead cables

Code	Ref.	Section (mm²)	Dimensions (mm)					Kg x 100	Bag	Box
			ØE	ØI	ØT	G	L			
125190	TBEM/A-30	LA-30	20.0	7.6	13.0	7.7	170	12.200	1	80
125200	TBEM/A-56	LA-56	20.0	10.0	13.0	7.7	170	11.800	1	80
125210	TBEM/A-78	LA-78	20.0	12.0	13.0	7.7	170	10.600	1	80
125230	TBEM/A-110	LA-110	25.0	14.5	13.0	11.6	190	19.800	1	40
125250	TBEM/A-180	LA-180	32.0	18.3	13.0	11.6	199	32.500	1	30

* For other sizes, please inquire. Supplied without screws.

10402 Screw kit

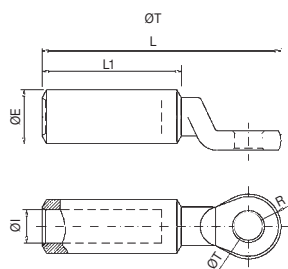


Code	Ref.	Content
125500	SCREW KIT M-12 x 40 INOX	2 screws, 4 nuts and 4 stainless steel washers.
125600	SCREW KIT M-12 x 50 INOX	

Bimetallic Connectors

Connections

GENERAL CATALOGUE 24/25



10403 TDC/S

Bimetallic cable lug

TDC/S bimetallic cable lug manufactured from aluminium alloy bar of purity equal or higher than 99.5%. The complete cable lug surface is tinned by means of an electrolytic process.

Incorporates neutral grease to avoid aluminium oxidation.

According to UNE 211024-2 standard.

Have  AENOR certified mark.*

Code	Ref.	Section (mm ²)	Dimensions (mm)						 x 100	 Bag	 Box
			ØE	ØI	ØT	R	L1	L			
111085	TDC/S-16/10 ¹	16	16.0	5.5	10.7	13.0	47.1	75.0	-	1	125
111090	TDC/S-16/12	16			12.9				5.300	1	125
111099	TDC/S-25/10 ¹	25		6.5	10.7				-	1	125
111100	TDC/S-25/12	25			12.9				5.000	1	125
111110	TDC/S-35/12 ¹	35		8.0	12.9				4.800	1	125
111118	TDC/S-50/8*	50	20.0	9.0	9.0	13.0	48.0	75.0	4.940	1	125
111119	TDC/S-50/10*	50			10.7				4.890	1	125
111120	TDC/S-50/12 * ¹	50		11.0	12.9				4.840	1	125
111130	TDC/S-70/12 ¹	70			10.7				4.300	1	125
111139	TDC/S-95/10*	95		12.5	12.9				4.250	1	125
111140	TDC/S-95/12 * ¹	95			12.9				4.240	1	125
111150	TDC/S-120/12 ¹	120	25.0	13.7	12.9	15.0	65.0	98.0	9.210	1	80
111159	TDC/S-150/10 *	150		15.5	10.7				8.740	1	80
111160	TDC/S-150/12 * ¹	150			10.7				8.640	1	80
111170	TDC/S-185/12 * ¹	185	32.0	17.0	12.9	18.0	65.0	104.0	15.000	1	50
111179	TDC/S-240/10 *	240			10.7				14.625	1	50
111180	TDC/S-240/12 * ¹	240		19.5	12.9				14.500	1	50
111184	TDC/S-300/10	300	40.0	23.3	10.7	20.0	100.0	145.0	30.750	1	32
111185	TDC/S-300/12	300			12.9				30.600	1	32
111186	TDC/S-300/16 ¹	300			16.7				28.400	1	32
111189	TDC/S-400/10	400		26.0	10.7				28.250	1	32
111190	TDC/S-400/12	400			12.9				-	1	32
111191	TDC/S-400/16 ¹	400			16.7				-	1	32

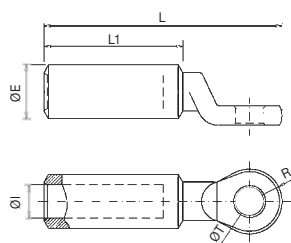
(*) Dimensions and tolerances according to UNE 211024.

(1) Dimensions according to DMA-C33-853/N.

Bimetallic Connectors

Connections

GENERAL CATALOGUE 24/25



10403 TDC/A

Bimetallic cable lug

TDC/A bimetallic cable lug manufactured from aluminium alloy bar of purity equal or higher than 99.5%. The complete cable lug surface is tinned by means of an electrolytic process.

Incorporates neutral grease to avoid aluminium oxidation. It is especially designed for overhead cable connections.

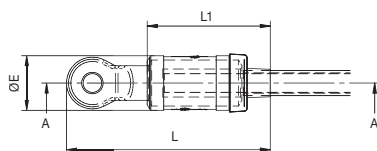
For overhead cable

Code	Ref.	Section (mm ²)	Dimensions (mm)						Kg x 100	Bag	Box
			ØE	ØI	ØT	R	L1	L			
111200	TDC/A-30/12	LA-30	20.0	7.6	12.9	13.0	47.1	75.0	5.400	1	125
111205	TDC/A-54.6/12	LA-54.6		10.0	9.0				4.800	1	125
111207	TDC/A-56/8	LA-56			12.9				-	1	-
111210	TDC/A-56/12	LA-56			12.9				4.800	1	125
111220	TDC/A-78/12	LA-78		12.0	12.9				4.520	1	125
111225	TDC/A-80/12	LA-80		12.5	12.9				4.480	1	125
111230	TDC/A-110/12	LA-110	25.0	14.5	12.9	15.0	48.0	75.0	9.300	1	80
111235	TDC/A-145/12	LA-145		16.5	12.9				-	1	-
111240	TDC/A-180/12	LA-180	32.0	18.3	12.9	18.0	70.7	109.0	15.900	1	50

Bimetallic Connectors

Connections

GENERAL CATALOGUE 24/25



10404 TDC/S KIT

Insulated bimetallic terminals

The kit consists of:

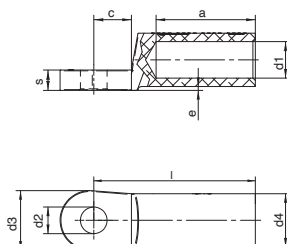
- TDC/S terminal manufactured from aluminium alloy bar with a purity of 99.5% or higher. Featuring an electrolytic tin-plating treatment. Complies with the UNE 211024-2 standard and  AENOR certified.
- Insulating cover in synthetic rubber.
- Phase or neutral identification rings.
- Connection washers.

Code	Ref.	Section (mm ²)	Strip length	Dimensions (mm)			 x 100	 Bag	 Box
				ØE	L	L1			
111118 K	TDC/S-50/8 K	50	45	26	100	51	8.000	1	40
111119 K	TDC/S-50/10 K						8.700	1	40
111120 K	TDC/S-50/12 K						8.300	1	40
111139 K	TDC/S-95/10 K	95	45				8.100	1	40
111140 K	TDC/S-95/12 K						7.800	1	40
111159 K	TDC/S-150/10 K	150	60	31	128	68	12.000	1	30
111160 K	TDC/S-150/12 K						12.700	1	30
111180 K	TDC/S-240/12 K	240	60	38	140	86	19.300	1	25

Bimetallic Connectors

Connections

GENERAL CATALOGUE 24/25



10412 TBE/D

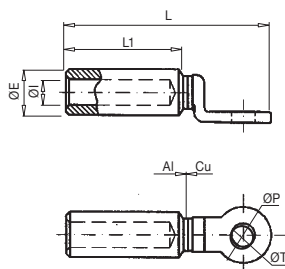
DIN 46329 tinned aluminium cable lug

TBE/D bimetallic cable lug manufactured from aluminium alloy bar of purity equal or higher than 99.5%. The complete cable lug surface is tinned by means of an electrolytic process. Incorporates neutral grease to avoid aluminium oxidation. It is designed for underground cable connections.

According to DIN 46329.

Code	Ref.	Section (mm²)	Dimensions (mm)										Kg x 100	Bag	Box
			Screw Ø	a	c	d1	d2	d3	d4	e	l	s			
115351	TBE/D-25/8	25	8	30	15.5	6.8	8.4	25	12	2	50	4	-	1	-
115352	TBE/D-25/10		10	30	15.5	6.8	10.5	25	12	2	50	4	-	1	-
115353	TBE/D-25/12		12	30	15.5	6.8	13	25	12	2	50	4	-	1	-
115354	TBE/D-35/8	35	8	42	15.5	8	8.4	25	14	2	62	4	-	1	-
115355	TBE/D-35/10		10	42	15.5	8	10.5	25	14	2	62	4	-	1	-
115356	TBE/D-35/12		12	42	15.5	8	13	25	14	2	62	4	-	1	-
115357	TBE/D-50/8	50	8	42	15.5	9.8	8.4	25	16	2	62	5.5	-	1	-
115358	TBE/D-50/10		10	42	15.5	9.8	10.5	25	16	2	62	5.5	-	1	-
115359	TBE/D-50/12		12	42	15.5	9.8	13	25	16	2	62	5.5	-	1	-
115360	TBE/D-70/8	70	8	52	15.5	11.2	8.4	25	18.5	2	72	5.5	-	1	-
115361	TBE/D-70/10		10	52	15.5	11.2	10.5	25	18.5	2	72	5.5	-	1	-
115319	TBE/D-70/12		12	52	15.5	11.2	13	25	18.5	2	72	5.5	-	1	-
115362	* TBE/D-95/8	95	8	56	15.5	13.2	8.4	25	22	2	75	6	-	1	-
115363	TBE/D-95/10		10	56	15.5	13.2	10.5	25	22	2	75	6	-	1	-
115364	TBE/D-95/12		12	56	15.5	13.2	13	25	22	2	75	6	-	1	-
115365	* TBE/D-95/16	120	16	56	15.5	13.2	17	25	22	2	75	6	-	1	-
115366	TBE/D-120/10		10	56	20	14.7	10.5	30	23	2	80	7.5	-	1	-
115367	TBE/D-120/12		12	56	20	14.7	13	30	23	2	80	7.5	-	1	-
115368	TBE/D-120/16	150	16	56	20	14.7	17	30	23	2	80	7.5	-	1	-
115369	TBE/D-150/10		10	60	20	16.3	10.5	30	25	2.5	90	8	-	1	-
115370	TBE/D-150/12		12	60	20	16.3	13	30	25	2.5	90	8	-	1	-
115371	TBE/D-150/16	180	16	60	20	16.3	17	30	25	2.5	90	8	-	1	-
115372	TBE/D-185/10		10	60	20	18.3	10.5	30	28.5	2.5	91	8	-	1	-
115339	TBE/D-185/12		12	60	20	18.3	13	30	28.5	2.5	91	8	-	1	-
115373	TBE/D-185/16	240	16	60	20	18.3	17	30	28.5	2.5	91	8	-	1	-
115374	TBE/D-240/12		12	70	24	21	13	38	32	2.5	103	11	-	1	-
115375	TBE/D-240/16		16	70	24	21	17	38	32	2.5	103	11	-	1	-
115376	TBE/D-240/20	300	20	70	24	21	21	38	32	2.5	103	11	-	1	-
115349	TBE/D-300/12		12	70	24	23.3	13	38	34	2.5	103	13	-	1	-
115377	TBE/D-300/16		16	70	24	23.3	17	38	34	2.5	103	13	-	1	-
115378	TBE/D-300/20	400	20	70	24	23.3	21	38	34	2.5	103	13	-	1	-
115379	TBE/D-400/12		12	73	24	26	13	38	38.5	4	116	14	-	1	-
115380	TBE/D-400/16		16	73	24	26	17	38	38.5	4	116	14	-	1	-
115381	TBE/D-400/20	500	20	73	24	26	21	38	38.5	4	116	14	-	1	-
115382	TBE/D-500/12		12	79	24	29	13	44	44	5	122	15	-	1	-
115383	TBE/D-500/16		16	79	24	29	17	44	44	5	122	15	-	1	-
115384	TBE/D-500/20		20	79	24	29	21	44	44	5	122	15	-	1	-

* Not according to DIN 46329



10405 TBF

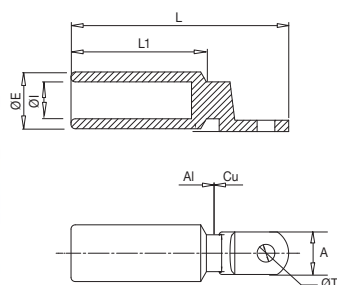
Bimetallic cable lug

TBF bimetallic cable lug manufactured from aluminium alloy of purity equal or higher than 99.5%. The palm is manufactured with forged copper. The two parts of the bimetallic cable lug are joined through a friction stir welding process. Incorporates neutral grease to avoid aluminium oxidation.

Comply with the NF C33-090-1 standard.

Electric and mechanical tests according to CEI 61238-1 standard.

Code	Ref.	Section (mm ²)	Dimensions (mm)						Kg x 100	Bag	Box
			ØE	ØI	L1	L	ØT	ØP			
110100	TBF-16	16	20.0	5.5	47.5	86.0	12.8	25.0	7.600	1	125
110110	TBF-25	25	20.0	6.5	47.5	86.0	12.8	25.0	7.200	1	125
110120	TBF-35	35	20.0	8.0	47.5	86.0	12.8	25.0	7.200	1	125
110130	TBF-50	50	20.0	9.0	47.5	86.0	12.8	25.0	7.000	1	125
110140	TBF-70	70	20.0	11.0	47.5	86.0	12.8	25.0	7.000	1	125
110150	TBF-95	95	20.0	12.5	47.5	86.0	12.8	25.0	6.300	1	125
110160	TBF-120	120	25.0	13.7	64.0	110.0	12.8	30.0	13.500	1	80
110170	TBF-150	150	25.0	15.5	64.0	110.0	12.8	30.0	12.200	1	80
110180	TBF-185	185	32.0	17.0	64.0	110.0	12.8	30.0	20.100	1	50
110190	TBF-240	240	32.0	19.5	64.0	110.0	12.8	30.0	22.600	1	50
110200	TBF-300	300	40.0	23.3	100.0	154.0	16.5	36.0	33.400	1	32
110210	TBF-400	400	40.0	26.0	100.0	154.0	16.5	36.0	30.200	1	32



10406 TBPE

Bimetallic cable lug

The TBPE tube is made of aluminium alloy of purity equal or higher than 99.5% and the blade is made of electrolytic copper with a purity greater than 99.9%. Through a friction welding process, both materials are joined to form the bimetallic connector.

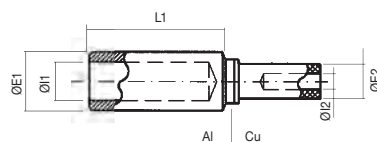
Incorporates neutral grease to avoid aluminium oxidation.

Code	Ref.	Section (mm ²)	Dimensions (mm)						Kg x 100	Bag	Box
			ØE	ØI	ØT	A	L1	L			
112190	TBPE-240	240	32	19.5	12.5	25	67	116	-	1	-
112200	TBPE-300	300	34	23.3	12.5	30	73	130	-	1	-
112210	TBPE-400	400	40	26	12.5	30	95.5	153.5	-	1	-

Bimetallic Connectors

Connections

GENERAL CATALOGUE 24/25



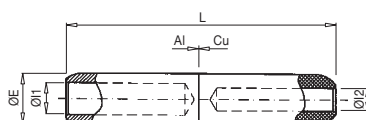
10407 MBI

Bimetallic joint

MBI bimetallic joint manufactured from aluminium alloy of purity equal or higher than 99.5% and electrolytic copper tube. The two parts of the bimetallic connector are joined through a friction stir welding process. Incorporates neutral grease in the aluminium part hole to avoid its oxidation.

Code	Ref.	Section (mm ²)		Dimensions (mm)					Kg x 100	Bag	Box
		Al	Cu	ØE1	ØI1	L1	ØE2	ØI2			
130100	MBI-50/25	50	25	20.0	9.0	48.0	12.2	7.0	6.700	1	30
130110	MBI-95/50	95	50	20.0	12.5	48.0	12.2	9.5	5.100	1	30
130120	MBI-150/50	150	50	25.0	15.5	65.0	12.2	9.5	8.500	1	20
130130	MBI-150/95	150	95	25.0	15.5	65.0	21.0	13.0	14.300	1	20
130135	MBI-240/50	240	50	32.0	19.5	65.0	12.2	9.5	12.900	1	10
130137	MBI-240/95	240	95	32.0	19.5	65.0	21.0	13.0	18.000	1	10
130140	MBI-240/150	240	150	32.0	19.5	65.0	21.0	16.0	16.500	1	10

Other sections under request.



10408 RJAU

Bimetallic joint

RJAU bimetallic joint manufactured from aluminium alloy of purity equal or higher than 99.5% and electrolytic copper tube. The two parts of the bimetallic connector are joined through a friction stir welding process. Incorporates neutral grease in the aluminium part hole to avoid its oxidation. Designed for electrical connections.

According to NF C33-090-1 standard.

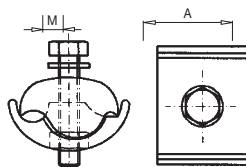
Code	Ref.	Section (mm ²)		Dimensions (mm)				Kg x 100	Bag	Box
		Al	Cu	ØE	ØI1	ØI2	L			
135100	RJ1AU50/25	50	25	20	9.0	7.0	106.5	18.402	1	25
135110	RJ1AU95/50	95	50	20	12.5	9.5	106.5	15.930	1	25
135120	RJ2AU150/50	150	50	25	15.5	9.5	133.0	28.130	1	15
135130	RJ2AU150/95	150	95	25	15.5	13.0	133.0	25.080	1	15
135134	RJ4AU240/50	240	50	32	19.5	9.5	143.5	49.590	1	8
135137	RJ4AU240/95	240	95	32	19.5	13.0	143.5	46.409	1	8
135140	RJ4AU240/150	240	150	32	19.5	16.0	143.5	43.009	1	8

Other sections under request.

Compression and Mechanical Clamps

Connections

GENERAL CATALOGUE 24/25

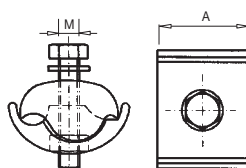


10501 LB

Bolt-fastened compression clamp

LB clamps are manufactured from aluminium smelting. Stainless steel screw.

Code	Ref.	Main		Tap		Dimensions (mm)		Kg x 100	Bag	Box
		Max.	Min.	Max.	Min.	A	M			
155100	LB-1	50	6	35	6	29	6	4.060	10	40
155110	LB-2	120	50	35	6	35	8	10.950	10	20
155120	LB-3	185	50	70	10	44	10	18.250	10	10
155130	LB-4	70	25	70	25	32	8	9.400	10	20
155140	LB-5	150	95	95	25	41	10	16.600	5	10
155150	LB-6	150	70	150	70	40	10	16.550	5	10
155160	LB-7	240	95	240	50	50	12	27.300	5	5

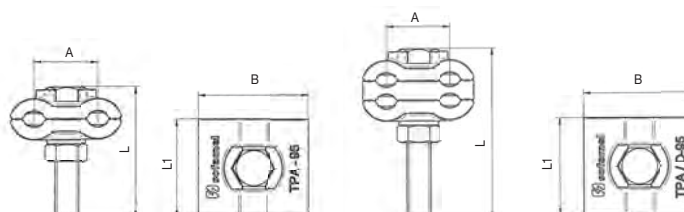


10502 LBE-ID

Bolt-fastened tinplated compression clamp

LBE-ID clamps are made from cast aluminium with a 20 µ tinplated finish. Stainless steel screw.

Code	Ref.	Main		Tap		Dimensions (mm)		Kg x 100	Bag	Box
		Max.	Min.	Max.	Min.	A	M			
155001	LBE-2-ID	120	50	35	6	29	8	10.950	1	25
155002	LBE-3-ID	185	50	70	10	35	10	18.250	1	10
155003	LBE-4-ID	70	25	70	25	44	8	9.400	1	25



10501 TPA and TPA/D

Bolt-fastened compression clamp

TPA and TPA/D clamps are made from aluminium alloy with a 20 µ tinplated finish, M12 stainless steel screw.

Code	Ref.	Section	Dimensions (mm)				Kg x 100	Bag	Box
			A	B	L	L1			
156100	TPA-95	2 x 95	33	57	68	50	18.48	1	10
156110	TPA/D-95	4 x 95	33	57	88	50	26.04	1	5

Compression and Mechanical Clamps

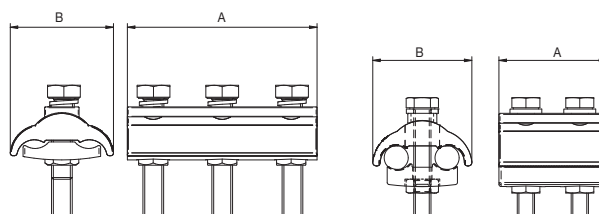
Connections

GENERAL CATALOGUE 24/25

10503 PGC/A

Bolt-fastened compression clamp

PGC/A mechanical clamps are manufactured in cast aluminium.
Fasteners in stainless steel.

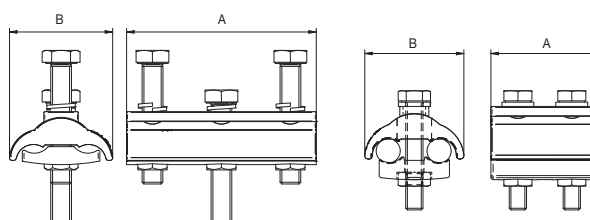


Code	Ref.	Main		Dimensions (mm)		Kg x 100	Bag	Box
		Min.	Max.	A	B			
155206	PGC/A2-8	16	150	80	50	13.5	1	0
155201	PGC/A3-10	35	300	110	60	54.8	1	0

10503 PGC/B

Bolt-fastened tinned compression clamp

PGC/B bimetallic clamps are manufactured in cast aluminium with 20 µm tinned finish. Fasteners in stainless steel.

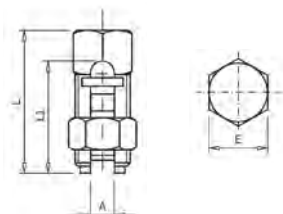


Code	Ref.	Main AL		Tap CU		Dimensions (mm)		Kg x 100	Bag	Box
		Min.	Max.	Min.	Max.	A	B			
155205	PGC/B2-8	25	150	10	95	80	50	14.00	1	0
155203	PGC/B3-10	35	300	25	240	110	60	55.40	1	0

Compression and Mechanical Clamps

Connections

GENERAL CATALOGUE 24/25

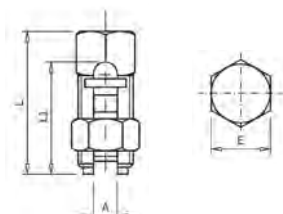


10504 APB

Bimetallic split-bolt connector

APB split-bolt connector manufactured from brass with tinplated finish to improve electrical contact. Incorporates a buffer stop to differentiate cable connections.

Code	Ref.	Main		Tap		Dimensions (mm)				Kg x 100	Bag	Box
		Max.	Min.	Max.	Min.	L	L1	E	A			
160100	APB-25/25	25	16	25	2.5	42.0	34.0	16.9	7.2	7.480	10	60
160110	APB-35/35	35	16	35	2.5	42.0	34.0	16.9	7.4	8.034	10	60
160120	APB-50/50	50	25	50	2.5	46.6	37.6	18.0	9.6	8.800	10	40
160130	APB-70/70	70	35	70	2.5	49.0	42.5	20.0	11.0	9.600	10	40
160140	APB-120/120	120	50	120	10	61.1	53.2	26.9	15.3	11.200	5	15



10505 APC

Copper split-bolt connector

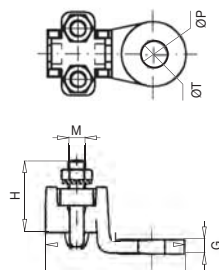
APC split-bolt connector manufactured from brass with a copperplated finish to improve electrical contact.

Code	Ref.	Main		Tap		Dimensions (mm)				Kg x 100	Bag	Box
		Max.	Min.	Max.	Min.	L	L1	E	A			
165010	APC-6/6	6	4	6	1.5	24.0	19.0	10.0	3.6	1.670	25	200
165020	APC-10/6	10	6	10	2.5	27.4	21.8	12.0	4.5	2.790	25	150
165030	APC-16/16	16	10	16	2.5	34.0	22.7	13.0	5.6	3.820	25	100
165040	APC-25/25	25	16	25	2.5	41.8	33.1	17.0	7.2	6.840	10	50
165090	APC-35/35	35	16	35	2.5	41.8	33.8	17.0	7.4	6.640	10	40
165100	APC-50/50	50	25	50	2.5	46.4	38.0	18.0	9.6	7.780	10	40
165110	APC-70/70	70	35	70	2.5	49.4	42.2	20.0	10.8	8.500	10	30
165115	APC-95/95	95	50	95	10	53.7	46.4	24.0	12.1	9.300	10	20
165120	APC-120/120	120	50	120	10	60.5	53.5	26.7	15.3	10.100	5	15
165130	APC-185/185	185	70	185	70	69.1	61.0	30.0	17.6	11.000	5	10
165140	APC-240/240	240	70	240	70	75.6	68.0	35.4	21.5	12.500	5	10

Setscrew Connectors

Connections

GENERAL CATALOGUE 24/25

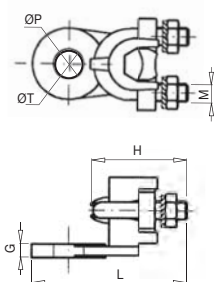


10601 TR

Setscrew joint straight entry

TR screw terminal manufactured from brass with galvanized steel yokes and screws.

Code	Ref.	Ø Bar (mm)		Cable (mm ²)		Dimensions (mm)						Kg x 100	Bag	Box
		Max.	Min.	Max.	Min.	H	L	M	ØP	ØT	G			
180100	TR-10/50	10	4	70	10	31	52	5	26.5	13	5	6.500	-	40
180110	TR-25/120	14	6	120	16	42	68	8	32.5	13	7	18.600	-	20
180120	TR-70/150	16	10	150	25	54	77	8	35.5	13	6	23.400	-	15
180130	TR-150/240	20	14	240	120	42	78	6	41.0	16	6	22.100	-	10
180140	TR-240/400	24	20	400	240	53	105	7	54.0	18	8	47.700	-	5



10602 TRE

Setscrew 90° joint entry

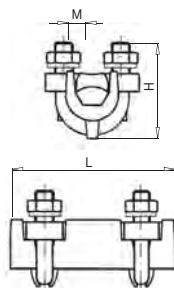
TRE screw terminal manufactured from brass with galvanized steel screws and cable ties. Its particular orientation makes it suitable for installations where.

Code	Ref.	Ø Bar (mm)		Cable (mm ²)		Dimensions (mm)						Kg x 100	Bag	Box
		Max.	Min.	Max.	Min.	H	L	M	ØP	ØT	G			
185100	TRE-10/50	10	4	70	10	31	57	5	26.5	12.5	5.5	6.700	-	40
185110	TRE-25/120	14	6	120	16	42	68	8	32.5	12.5	6.0	18.500	-	20

Setscrew Connectors

Connections

GENERAL CATALOGUE 24/25

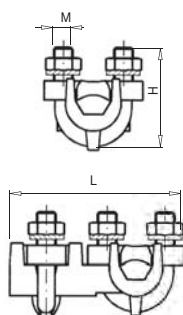


10603 TRM

Setscrew joint

TRM setscrew joint manufactured from brass with galvanized steel yokes and screws.

Code	Ref.	Ø Bar (mm)		Cable (mm²)		Dimensions (mm)			Kg x 100	Bag	Box
		Max.	Min.	Max.	Min.	H	L	M			
190100	TRM-10/50	10	4	50	10	31	47	5	8.600	-	35
190110	TRM-25/120	14	6	120	16	42	65	8	25.350	-	15
190120	TRM-70/150	16	10	150	25	55	70	8	33.800	-	10



10604 TRT

Tap setscrew joint

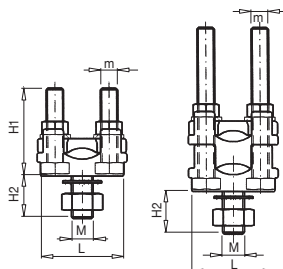
TRT setscrew joint manufactured from brass with galvanized steel yokes and screws.

Code	Ref.	Ø Bar (mm)		Cable (mm²)		Dimensions (mm)			Kg x 100	Bag	Box
		Max.	Min.	Max.	Min.	H	L	M			
195100	TRT-10/50	10	4	50	10	31	52.0	5	8.800	-	35
195110	TRT-25/120	14	6	120	16	42	73.0	8	26.700	-	15
195120	TRT-70/150	16	10	150	25	52	82.5	8	34.700	-	10

Setscrew Connectors

Connections

GENERAL CATALOGUE 24/25



10605 TRF

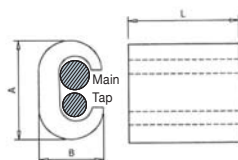
Turret bimetallic clamp

TRF and TRF/D bimetallic clamp manufactured from brass with tinplated finish to improve electrical contact. Suitable for electrical panel boards.

Code	Ref.	Ø Bar (mm)		Cable (mm²)		Dimensions (mm)					Kg x 100	Bag	Box
		Max.	Min.	Max.	Min.	H1	H2	L	M	m			
200100	TRF-25/50	10	3	50	4	29	15.5	29	6	5	5.840	-	50
200110	TRF-50/80	12	4	95	6	34	1.08	33	8	6	9.900	-	30
200120	TRF-80/150	16	7	150	25	41	18.5	42	10	8	17.500	-	20
200130	TRF-150/240	20	10	240	50	48	20.0	52	12	10	32.800	-	10
200140	TRF/D-25/50	10	3	50	4	34	15.5	29	6	5	7.400	-	40
200150	TRF/D-50/80	12	4	95	6	65	16.5	33	8	6	15.700	-	20
200160	TRF/D-80/150	16	7	150	25	76	18.5	42	10	8	27.000	-	15
200170	TRF/D-150/240	20	10	240	50	88	20.0	52	12	10	57.000	-	6

Crimps

Connections

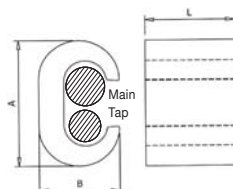


10701 CRA

Aluminium compression clamp

CRA compression clamp manufactured from aluminium alloy of purity equal or higher than 99.5%. High versatility in different applications.

Code	Ref.	Main		Tap		Dimensions (mm)			Kg x 100	Bag	Box
		Max.	Min.	Max.	Min.	A	B	L			
140100	CRA-1	35	25	35	25	25.0	16.4	38.5	2.525	1	150
140110	CRA-2	70	50	50	50	35.0	22.0	65.0	6.880	1	100
140120	CRA-3	120	95	35	10	41.0	25.5	65.0	11.350	1	75
140122	CRA-3A	120	95	120	95	-	-	-	11.650	1	75
140130	CRA-4	185	150	95	70	51.9	31.5	65.0	12.150	1	50



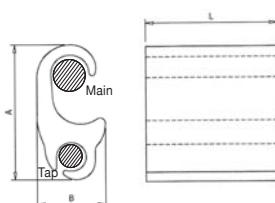
10702 CRC Copper compression clamp

CRC compression clamp manufactured from electrolytic copper. High versatility in different applications.

According to EN 62561-1 standard.

Code	Ref.	Main		Tap		Dimensions (mm)			Kg x 100	Bag	Box
		Max.	Min.	Max.	Min.	A	B	L			
145120	CRC-3	25	10	6	4	18.6	11.7	17.5	1.918	50	300
145130	CRC-4	25	16	10	4	19.5	11.8	17.6	1.774	50	300
145140	CRC-5	25	16	25	16	20.5	12.0	17.7	1.790	50	250
145150	CRC-6	35	35	25	4	25.2	15.5	21.1	3.848	25	125
145160	CRC-7	35	35	35	16	26.7	15.2	21.3	3.612	10	125
145170	CRC-8	70	50	35	4	33.3	20.4	27.2	9.315	10	60
145180	CRC-9	70	50	70	35	34.2	20.5	27.2	8.545	10	60
145190	CRC-10	95	70	35	16	41.9	23.8	29.1	14.795	10	40
145200	CRC-11	95	70	70	35	41.0	25.1	29.4	14.002	10	40
145210	CRC-12	95	95	95	95	39.8	25.0	29.1	12.039	10	40
145220	CRC-13	120	120	120	25	44.1	27.2	30.0	15.579	10	40
145230	CRC-14	185	150	95	50	44.5	27.2	27.5	13.105	10	50
145240	CRC-15	150	150	150	70	45.1	27.9	30.2	10.685	5	30
145250	CRC-16*	185	120	185	95	53.7	33.2	35.2	25.700	5	25

* With rigid copper cable, it can also be used with the 240 mm² section (in the maximum of the principal).



10703 CRS Bimetallic compression clamp

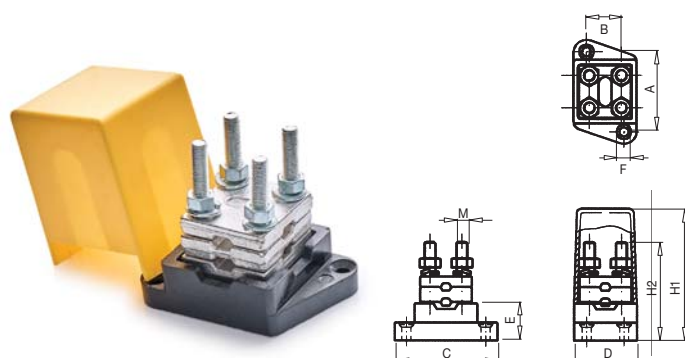
CRS compression clamp manufactured from aluminium alloy of purity equal or higher than 99.5%. High versatility in different applications.

Code	Ref.	Main		Tap		Dimensions (mm)			Kg x 100	Bag	Box
		Max.	Min.	Max.	Min.	A	B	L			
151090	CRS-0	35	10	35	10	42.5	19.5	46.0	1.500	1	100
151100	CRS-1	35	16	10	2.5	24.8	14.0	18.0	0.840	1	200
151120	CRS-3	120	50	70	10	53.0	25.9	50.0	0.874	1	75
151170	CRS-8	120	95	120	70	50.0	22.1	50.0	0.747	1	75
151180	CRS-9	185	120	70	10	57.0	29.0	50.0	1.028	1	65
151190	CRS-10	240	120	150	70	56.0	28.7	100.0	1.998	1	40
151200	CRS-11	240	95	240	95	56.0	31.3	100.0	1.772	1	35
151210	CRS-12	300	240	70	10	56.6	31.7	50.0	1.088	1	60

Studded Clamps

Connections

GENERAL CATALOGUE 24/25



10801 BEB

Bimetallic clamp

BEB bimetallic clamp manufactured from brass with tinplated finish. The base is made of bakelite which grants a high temperature resistance.

Code	Ref.	Section (mm ²)		Dimensions (mm)									Kg x 100	Bag	Box
		Max.	Min.	A	B	C	D	E	F	H1	H2	M			
220100	BEB-63	70	70	42	22	56	34	20	4.0	63	53	6	16.200	-	12
220110	BEB-95	95	95	54	30	72	44	22	5.5	76	72	7	30.800	-	6
220120	BEB-150	150	150	66	40	84	54	25	5.5	87	82	7	45.600	-	3
220130	BEB-240	240	240	82	45	101	64	26	6.5	102	96	8	72.200	-	2

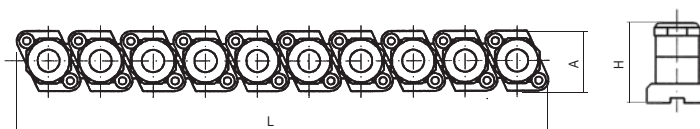


10802 ADRI

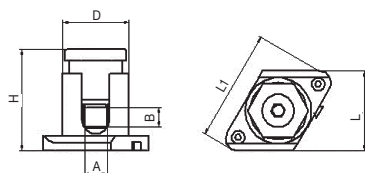
Polyamide strip block

ADRI strip block manufactured from 6.6 auto-extinguishing polyamide according to CE Directive. All terminals are supplied in ten-pole strips and are suitable for connections and panel boards applications.

CE



Code	Ref.	Section (mm ²)	Dimensions (mm)			Kg x 100	Bag	Box
			A	H	L1			
231100	ADRI-6	6	28.5	19.5	164	5.340	-	10
231110	ADRI-10	10	28.5	24.0	204	11.600	-	10
231120	ADRI-16	16	28.5	27.2	214	14.540	-	10
231130	ADRI-25	25	28.5	29.3	224	16.660	-	10
231140	ADRI-35	35	28.5	34.2	261	28.660	-	10



10803 BUS

Polyamide one-pole strip block

BUS strip block manufactured from 6.6 auto-extinguishing polyamide according to CE Directive. All terminals are linkable between them and are suitable for connections and panel boards applications.

Code	Ref.	Section (mm ²)	Dimensions (mm)						 x 100	 Bag	 Box
			A	B	D	H	L	L1			
233130	BUS-10/16	10/16	6.5	10.0	25.0	40.0	33.0	48.0	2.600	-	50
233150	BUS-25/35	25/35	8.5	12.0	25.0	43.0	33.0	48.0	3.400	-	40
233160	BUS-50	50	10.0	14.5	31.5	52.0	40.0	58.0	5.300	-	25
233170	BUS-70	70	12.0	26.0	38.0	68.0	47.0	69.0	8.000	-	20
233180	BUS-95	95	13.0	30.0	45.0	56.0	51.0	83.0	11.300	-	15
233190	BUS-120	120	14.0	34.0	48.0	61.0	54.0	83.0	75.700	-	15
233200	BUS-150	150	21.0	34.0	52.0	80.0	73.5	122.0	14.100	-	4

sofamel

Terminals strips

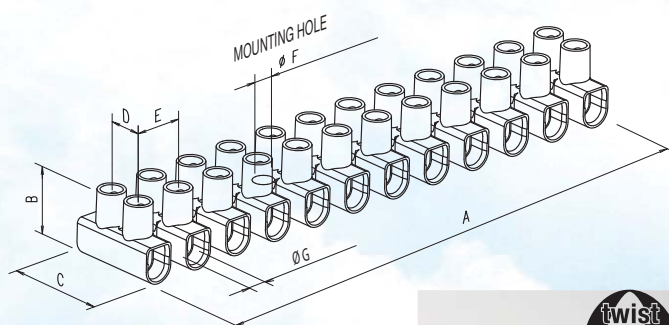
SKL

- New polypropylene terminal strip **CE**
- Easy to divide
- Have **N** AENOR certificate mark



10804 SKL Terminal strip

SKL terminal strip manufactured from polypropylene with additives.
In accordance to RoHs standard.



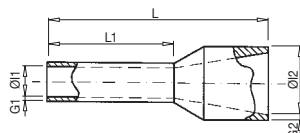
In accordance to 60998-1 standard and EN 60998-2-1 standard and all main european certificate.

Code	Ref.	Colour	Section (mm²)	Metrics	Dimensions (mm)							Kg x 100	Bag	Box
					A	B	C	ØG	E	D	ØF			
315350	SKL-4	◇	4	M2.6	94.9	13.0	16.6	3.2	8.1	6.4	2.6	19.0	10	500
315360	SKL-6	◇	6	M3.0	116.5	14.9	18.9	3.6	10.0	7.3	3.4	26.5	10	250
315370	SKL-10	◇	10	M3.5	133.8	17.3	23.4	4.3	11.5	10.0	3.7	43.6	10	250
315380	SKL-16	◇	16	M4.0	174.5	20.7	25.0	5.5	15.0	11.0	4.9	76.8	10	100
315390	SKL-25	◇	25	M5.0	187.3	28.0	30.0	7.0	16.0	11.5	4.5	116.0	10	50
315400	SKL-35	◇	35	M5.0	211.0	29.6	36.4	8.0	18.0	15.0	4.5	174.6	10	50
315410	SKL-4N	◆	4	M2.6	94.9	13.0	16.6	3.2	8.1	6.4	2.6	19.0	10	500
315420	SKL-6N	◆	6	M3.0	116.5	14.9	18.9	3.6	10.0	7.3	3.4	26.5	10	250
315430	SKL-10N	◆	10	M3.5	133.8	17.3	23.4	4.3	11.5	10.0	3.7	43.6	10	250
315440	SKL-16N	◆	16	M4.0	174.7	20.7	25.0	5.5	15.0	11.0	4.9	76.8	10	100
315450	SKL-25N	◆	25	M5.0	187.3	28.0	30.0	7.0	16.0	11.5	4.5	116.0	10	50
315460	SKL-35N	◆	35	M5.0	211.0	29.6	36.4	8.0	18.0	15.0	4.5	174.6	10	50

Cord End Terminals

Connections

GENERAL CATALOGUE 24/25



10901 APF

Cord end terminal

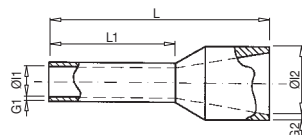
APF cord end terminal manufactured from electrolytic copper capillary tube with a tinplated finish to improve electrical contact. The insulating part is made of polypropylene (PP).

Sec. (mm ²)	L1	Code	Ref.	Colour	Dimensions (mm)						Kg x 1.000	Bag	Box
				F	L	L1	ØI1	G1	ØI2	G2			
0.50	8	245100	APF-0,50/8	WHITE	14.5	8	1.0	0.15	2.6	0.25	0.088	100	4000
	10	260100	APF-0,50/10		16.0	10	1.0	0.15	2.6	0.25	0.112	100	3500
0.75	8	245110	APF-0,75/8	BLUE	14.6	8	1.2	0.15	2.8	0.25	0.100	100	4000
	12	260110	APF-0,75/12		18.4	12	1.2	0.15	2.8	0.25	0.123	100	3500
1	8	245120	APF-1,00/8	RED	14.6	8	1.4	0.15	3.0	0.25	0.116	100	3500
	12	260120	APF-1,00/12		18.4	12	1.4	0.15	3.0	0.25	0.157	100	3000
1.5	8	245130	APF-1,50/8	BLACK	14.6	8	1.7	0.15	3.5	0.25	0.134	100	3000
	18	260130	APF-1,50/18		24.4	18	1.7	0.15	3.5	0.25	0.213	100	2500
2.5	8	245140	APF-2,50/8	GREY	15.2	8	2.2	0.15	4.0	0.25	0.165	100	2500
	18	260140	APF-2,50/18		25.0	18	2.2	0.15	4.0	0.25	0.258	100	2000
4	10	245150	APF-4,00/10	ORANGE	16.5	10	2.8	0.20	4.4	0.30	0.231	100	2000
	18	260150	APF-4,00/18		25.5	18	2.8	0.20	4.4	0.30	0.372	100	1600
6	12	245160	APF-6,00/12	GREEN	20.0	12	3.5	0.20	6.3	0.30	0.388	100	1000
	18	260160	APF-6,00/18		26.0	18	3.5	0.20	6.3	0.30	0.490	100	800
10	12	245170	APF-10,00/12	BROWN	21.5	12	4.5	0.20	7.6	0.40	0.556	100	800
	18	260170	APF-10,00/18		27.5	18	4.5	0.20	7.6	0.40	0.720	100	400
16	12	245180	APF-16,00/12	IVORY	22.2	12	5.8	0.20	8.8	0.40	0.762	100	500
	18	260180	APF-16,00/18		28.2	18	5.8	0.20	8.8	0.40	0.963	100	300
25	16	245190	APF-25,00/16	IVORY	29.0	16	7.3	0.20	11.2	0.40	1.134	50	350
	22	260190	APF-25,00/22		35.0	22	7.3	0.20	11.2	0.40	1.415	50	200
35	16	245200	APF-35,00/16	RED	30.0	16	8.3	0.20	12.5	0.50	1.308	50	250
	22	260200	APF-35,00/22		39.0	22	8.3	0.20	12.5	0.50	1.693	50	200
50	20	245210	APF-50,00/20	BLUE	36.0	20	10.3	0.30	15.0	0.60	2.300	50	150
	25	260210	APF-50,00/25		40.0	25	10.3	0.30	15.0	0.60	2.784	25	125

Cord End Terminals

Connections

GENERAL CATALOGUE 24/25



10902 APF

Cord end terminal

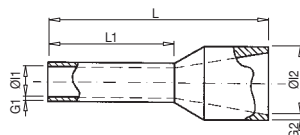
APF cord end terminal manufactured from electrolytic copper capillary tube with a tinplated finish to improve electrical contact. The insulating part is made of polypropylene (PP).

Sec. (mm ²)	L1	Code	Ref.	Colour	Dimensions (mm)						Kg x 1.000	Bag	Box
				W	L	L1	ØI1	G1	ØI2	G2			
0.50	8	246100	APF-0,50W/8	ORANGE	14.5	8	1.0	0.15	2.6	0.25	0.088	100	4000
	10	261100	APF-0,50W/10		16.0	10	1.0	0.15	2.6	0.25	0.112	100	3500
0.75	8	246110	APF-0,75W/8	WHITE	14.6	8	1.2	0.15	2.8	0.25	0.100	100	4000
	12	261110	APF-0,75W/12		18.4	12	1.2	0.15	2.8	0.25	0.123	100	3500
1	8	246120	APF-1,00W/8	YELLOW	14.6	8	1.4	0.15	3.0	0.25	0.116	100	3500
	12	261120	APF-1,00W/12		18.4	12	1.4	0.15	3.0	0.25	0.157	100	3000
1.5	8	246130	APF-1,50W/8	RED	14.6	8	1.7	0.15	3.5	0.25	0.134	100	3000
	18	261130	APF-1,50W/18		24.4	18	1.7	0.15	3.5	0.25	0.213	100	2500
2.5	8	246140	APF-2,50W/8	BLUE	15.2	8	2.2	0.15	4.0	0.25	0.165	100	2500
	18	261140	APF-2,50W/18		25.0	18	2.2	0.15	4.0	0.25	0.258	100	2000
4	10	246150	APF-4,00W/10	GREY	16.5	10	2.8	0.20	4.4	0.30	0.231	100	2000
	18	261150	APF-4,00W/18		25.5	18	2.8	0.20	4.4	0.30	0.372	100	1600
6	12	246160	APF-6,00W/12	BLACK	20.0	12	3.5	0.20	6.3	0.30	0.388	100	1000
	18	261160	APF-6,00W/18		26.0	18	3.5	0.20	6.3	0.30	0.490	100	800
10	12	246170	APF-10,00W/12	IVORY	21.5	12	4.5	0.20	7.6	0.40	0.556	100	800
	18	261170	APF-10,00W/18		27.5	18	4.5	0.20	7.6	0.40	0.720	100	400
16	12	246180	APF-16,00W/12	GREEN	22.2	12	5.8	0.20	8.8	0.40	0.762	100	500
	18	261180	APF-16,00W/18		28.2	18	5.8	0.20	8.8	0.40	0.963	100	300
25	16	246190	APF-25,00W/16	BROWN	29.0	16	7.3	0.20	11.2	0.40	1.134	50	350
	22	261190	APF-25,00W/22		35.0	22	7.3	0.20	11.2	0.40	1.415	50	200
35	16	246200	APF-35,00W/16	BEIGE	30.0	16	8.3	0.20	12.5	0.50	1.308	50	250
	22	261200	APF-35,00W/22		39.0	22	8.3	0.20	12.5	0.50	1.693	50	200
50	20	246210	APF-50,00W/20	OLIVE	36.0	20	10.3	0.30	15.0	0.60	2.300	50	150
	25	261210	APF-50,00W/25		40.0	25	10.3	0.30	15.0	0.60	2.784	25	125

Cord End Terminals

Connections

GENERAL CATALOGUE 24/25



10903 APF

Cord end terminal

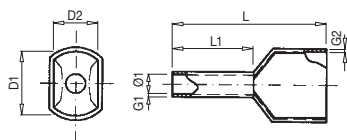
APF cord end terminal manufactured from electrolytic copper capillary tube with a tinplated finish to improve electrical contact. The insulating part is made of polypropylene (PP).

Sec. (mm ²)	L1	Code	Ref.	Colour	Dimensions (mm)						Kg x 1.000	Bag	Box
				D	L	L1	ØI1	G1	ØI2	G2			
0.50	8	245100	APF-0,50/8	WHITE	14.5	8	1.0	0.15	2.6	0.25	0.088	100	4000
	10	260100	APF-0,50/10		16.0	10	1.0	0.15	2.6	0.25	0.112	100	3500
0.75	8	250110	APF-0,75D/8	GREY	14.6	8	1.2	0.15	2.8	0.25	0.100	100	4000
	12	262110	APF-0,75D/12		18.4	12	1.2	0.15	2.8	0.25	0.123	100	3500
1	8	245120	APF-1,00/8	RED	14.6	8	1.4	0.15	3.0	0.25	0.116	100	3500
	12	260120	APF-1,00/12		18.4	12	1.4	0.15	3.0	0.25	0.157	100	3000
1.5	8	245130	APF-1,50/8	BLACK	14.6	8	1.7	0.15	3.5	0.25	0.134	100	3000
	18	260130	APF-1,50/18		24.4	18	1.7	0.15	3.5	0.25	0.213	100	2500
2.5	8	246140	APF-2,50W/8	BLUE	15.2	8	2.2	0.15	4.0	0.25	0.165	100	2500
	18	261140	APF-2,50W/18		25.0	18	2.2	0.15	4.0	0.25	0.258	100	2000
4	10	246150	APF-4,00W/10	GREY	16.5	10	2.8	0.20	4.4	0.30	0.231	100	2000
	18	261150	APF-4,00W/18		25.5	18	2.8	0.20	4.4	0.30	0.372	100	1600
6	12	250160	APF-6,00D/12	YELLOW	20.0	12	3.5	0.20	6.3	0.30	0.388	100	1000
	18	262160	APF-6,00D/18		26.0	18	3.5	0.20	6.3	0.30	0.490	100	800
10	12	250170	APF-10,00D/12	RED	21.5	12	4.5	0.20	7.6	0.40	0.556	100	800
	18	262170	APF-10,00D/18		27.5	18	4.5	0.20	7.6	0.40	0.720	100	400
16	12	250180	APF-16,00D/12	BLUE	22.2	12	5.8	0.20	8.8	0.40	0.762	100	500
	18	262180	APF-16,00D/18		28.2	18	5.8	0.20	8.8	0.40	0.963	100	300
25	16	250190	APF-25,00D/16	YELLOW	29.0	16	7.3	0.20	11.2	0.40	1.134	50	350
	22	262190	APF-25,00D/22		35.0	22	7.3	0.20	11.2	0.40	1.415	50	200
35	16	245200	APF-35,00/16	RED	30.0	16	8.3	0.20	12.5	0.50	1.308	50	250
	22	260200	APF-35,00/22		39.0	22	8.3	0.20	12.5	0.50	1.693	50	200
50	20	245210	APF-50,00/20	BLUE	36.0	20	10.3	0.30	15.0	0.60	2.300	50	150
	25	260210	APF-50,00/25		40.0	25	10.3	0.30	15.0	0.60	2.784	25	125

Cord End Terminals

Connections

GENERAL CATALOGUE 24/25



10904 APF/D

Twin cord end terminal

APF/D cord end terminal manufactured from electrolytic copper capillary tube with a tinplated finish to improve electrical contact. The insulating part is made of polypropylene (PP). It is designed for electrical panel boards.

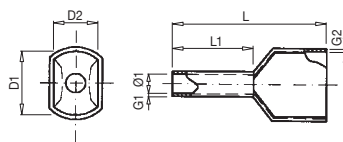
Sec. (mm ²)	L1	Code	Ref.	Colour	Dimensions (mm)							Kg x 1.000	Bag	Box
				F	ØI	D2	D1	L	L1	G1	G2			
0.50	8	255100	APF/D-0,50D	 WHITE	1.5	2.5	4.7	15.0	8.0	0.15	0.25	0.110	100	3500
0.75	8	258110	APF/D-0,75	 BLUE	1.8	2.8	5.0	15.0	8.0	0.15	0.25	0.140	100	3000
1	8	255120	APF/D-1,00D	 RED	2.3	3.4	5.4	15.0	8.0	0.15	0.30	0.160	100	2500
1.5	8	255130	APF/D-1,50D	 BLACK	2.3	3.6	6.6	16.0	8.0	0.15	0.30	0.200	100	2000
2.5	10	258140	APF/D-2,50	 GREY	2.9	4.2	7.8	18.5	10.0	0.20	0.30	0.300	100	1000
4	12	258150	APF/D-4,00	 ORANGE	3.8	4.9	8.8	23.0	12.0	0.20	0.30	0.460	100	800
6	14	258160	APF/D-6,00	 GREEN	4.9	6.9	10.0	26.0	14.0	0.20	0.40	0.640	100	500
10	14	258170	APF/D-10,00	 BROWN	6.5	7.2	13.0	26.0	14.0	0.20	0.40	0.990	100	400
16	14	258180	APF/D-16,00	 IVORY	8.3	9.6	18.4	30.0	14.0	0.30	0.40	1.450	100	200

Sec. (mm ²)	L1	Code	Ref.	Colour	Dimensions (mm)							Kg x 1.000	Bag	Box
				W	ØI	D2	D1	L	L1	G1	G2			
0.50	8	256100	APF/D-0,50W	 ORANGE	1.5	2.5	4.7	15.0	8.0	0.15	0.25	0.110	100	3500
0.75	8	256110	APF/D-0,75W	 WHITE	1.8	2.8	5.0	15.0	8.0	0.15	0.25	0.140	100	3000
1	8	256120	APF/D-1,00W	 YELLOW	2.3	3.4	5.4	15.0	8.0	0.15	0.30	0.160	100	2500
1.5	8	256130	APF/D-1,50W	 RED	2.3	3.6	6.6	16.0	8.0	0.15	0.30	0.200	100	2000
2.5	10	255140	APF/D-2,50D	 BLUE	2.9	4.2	7.8	18.5	10.0	0.20	0.30	0.300	100	1000
4	12	255150	APF/D-4,00D	 GREY	3.8	4.9	8.8	23.0	12.0	0.20	0.30	0.460	100	800
6	14	256160	APF/D-6,00W	 BLACK	4.9	6.9	10.0	26.0	14.0	0.20	0.40	0.640	100	500
10	14	256170	APF/D-10,00W	 IVORY	6.5	7.2	13.0	26.0	14.0	0.20	0.40	0.990	100	400
16	14	256180	APF/D-16,00W	 GREEN	8.3	9.6	18.4	30.0	14.0	0.30	0.40	1.450	100	200

Cord End Terminals

Connections

GENERAL CATALOGUE 24/25

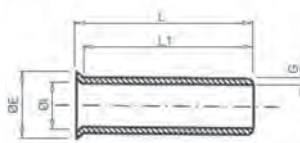


10904 APF/D

Twin cord end terminal

APF/D cord end terminal manufactured from electrolytic copper capillary tube with a tinplated finish to improve electrical contact. The insulating part is made of polypropylene (PP). It is designed for electrical panel boards.

Sec. (mm ²)	L1	Code	Ref.	Colour	Dimensions (mm)							Kg x 1.000	Bag	Box
				D	ØI	D2	D1	L	L1	G1	G2			
0.50	8	255100	APF/D-0,50D	WHITE	1.5	2.5	4.7	15.0	8.0	0.15	0.25	0.110	100	3500
0.75	8	255110	APF/D-0,75D	GREY	1.8	2.8	5.0	15.0	8.0	0.15	0.25	0.140	100	3000
1	8	255120	APF/D-1,00D	RED	2.3	3.4	5.4	15.0	8.0	0.15	0.30	0.160	100	2500
1.5	8	255130	APF/D-1,50D	BLACK	2.3	3.6	6.6	16.0	8.0	0.15	0.30	0.200	100	2000
2.5	10	255140	APF/D-2,50D	BLUE	2.9	4.2	7.8	18.5	10.0	0.20	0.30	0.300	100	1000
4	12	255150	APF/D-4,00D	GREY	3.8	4.9	8.8	23.0	12.0	0.20	0.30	0.460	100	800
6	14	255160	APF/D-6,00D	YELLOW	4.9	6.9	10.0	26.0	14.0	0.20	0.40	0.640	100	500
10	14	255170	APF/D-10,00D	RED	6.5	7.2	13.0	26.0	14.0	0.20	0.40	0.990	100	400
16	14	255180	APF/D-16,00D	BLUE	8.3	9.6	18.4	30.0	14.0	0.30	0.40	1.450	100	200



10905 PF

Non-insulated cord end terminal

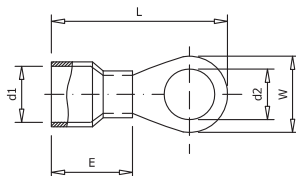
PF cord end terminal manufactured from electrolytic copper capillary tube with a tinplated finish to improve electrical contact.

Code	Ref.	Section (mm ²)	Dimensions (mm)					Kg x 1.000	Bag	Box
			L	L1	ØI	ØE	G			
265100	PF-0,50/6	0.50	6.1	5.3	1.3	2.1	0.15	0.020	100	6000
265110	PF-0,75/6	0.75	6.1	5.3	1.7	2.5	0.15	0.050	100	6000
265120	PF-1,00/10	1.00	10.0	9.3	1.4	2.5	0.15	0.070	100	6000
265140	PF-1,50/10	1.50	10.0	9.0	1.7	2.8	0.15	0.080	100	6000
265160	PF-2,50/10	2.50	10.0	9.0	2.2	3.4	0.15	0.090	100	5000
265190	PF-4,00/12	4.00	12.0	11.0	2.8	4.0	0.20	0.180	100	4000
265200	PF-6,00/12	6.00	12.0	11.0	3.5	4.7	0.20	0.230	100	3300
265220	PF-10,00/18	10.00	18.0	17.0	4.5	5.8	0.20	0.460	100	2500
265240	PF-16,00/18	16.00	18.0	17.0	5.8	7.5	0.20	0.650	100	1000
265255	PF-25,00/22	25.00	22.5	21.0	7.7	9.5	0.20	0.810	100	800
265258	PF-35,00/25	35.00	25.5	24.0	8.7	11.0	0.20	1.170	100	500
265265	PF-50,00/25	50.00	25.5	24.0	10.9	13.5	0.20	1.720	50	250

Insulated Terminals

Connections

GENERAL CATALOGUE 24/25

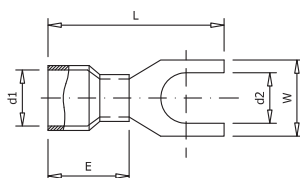


11001 AT

Insulated ring terminal

AT terminal manufactured from electrolytic copper strap with PVC insulation.

Code	Ref.	Section (mm ²)	Metric	Dimensions (mm)					Kg x 1.000	Bag	Box
				d2	W	E	d1	L			
270100	AT-1,5/3	1.5	3	3.2	5.5	10.0	1.7	17.5	0.580	100	1600
270110	AT-1,5/4		4	4.3	6.6			19.4	0.620	100	1600
270120	AT-1,5/5		5	5.3	8.0			20.8	0.680	100	1600
270130	AT-1,5/6		6	6.4	10.0			23.0	0.850	100	1000
270140	AT-1,5/8		8	8.4	11.6			26.8	0.930	100	1000
270160	AT-2,5/3	2.5	3	3.2	6.6	10.0	2.3	17.8	0.708	100	1400
270170	AT-2,5/4		4	4.3	6.6			19.4	0.710	100	1400
270180	AT-2,5/5		5	5.3	8.5			21.8	0.829	100	1200
270190	AT-2,5/6		6	6.4	11.0			26.8	1.172	100	1000
270200	AT-2,5/8		8	8.4	11.8			26.8	1.000	100	1000
270220	AT-6/4	6.0	4	4.3	7.2	13.0	3.4	22.7	1.341	100	800
270230	AT-6/5		5	5.3	9.5			26.0	1.623	100	700
270240	AT-6/6		6	6.4	12.0			29.5	1.927	100	600
270250	AT-6/8		8	8.4	15.0			34.0	2.374	100	500



11002 AU

Insulated fork terminal

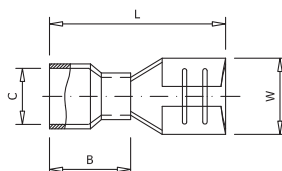
AU terminal manufactured from electrolytic copper strap with PVC insulation.

Code	Ref.	Section (mm ²)	Metric	Dimensions (mm)					Kg x 1.000	Bag	Box
				d2	W	E	d1	L			
275100	AU-1,5/3	1.5	3	3.2	5.7	10.0	1.7	21.0	0.660	100	1600
275110	AU-1,5/4		4	4.3	6.4			21.0	0.650	100	1600
275120	AU-1,5/5		5	5.3	8.1			21.0	0.680	100	1400
275130	AU-1,5/6		6	6.4	9.5			21.0	0.680	100	1400
275140	AU-1,5/8		8	-	-			-	1.000	100	1000
275160	AU-2,5/3	2.5	3	3.2	5.7	10.0	2.3	21.0	0.771	100	1400
275170	AU-2,5/4		4	4.3	6.4			21.0	0.748	100	1400
275180	AU-2,5/5		5	5.3	7.9			21.0	0.786	100	1200
275190	AU-2,5/6		6	6.4	9.3			21.0	0.781	100	1200
275200	AU-2,5/8		8	-	-			-	0.946	100	800
275220	AU-6/4	6.0	4	4.3	8.3	13.0	3.4	25.5	1.542	100	800
275230	AU-6/5		5	5.3	9.0			25.5	1.523	100	800
275240	AU-6/6		6	6.4	9.0			25.5	1.417	100	700
275250	AU-6/8		8	8.4	14.0			30.5	2.116	100	600

Insulated Terminals

Connections

GENERAL CATALOGUE 24/25

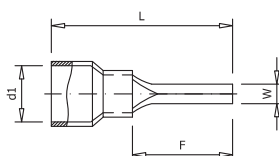


11003 AFH

Insulated female connector

AFH connector manufactured from electrolytic copper strap with PVC insulation. Incorporates an inside fitting which provides a better security to stand possible mechanical vibrations.

Code	Ref.	Section (mm ²)	Dimensions (mm)				Kg x 1.000	Bag	Box
			W	L	B	C			
280100	AFH-1,5/2,8	1.5	3.2	19.0	10.5	1.7	0.604	100	1600
280120	AFH-1,5/4,8		5.0	19.4	10.5	1.7	0.754	100	1400
280130	AFH-1,5/6,3		6.6	20.8	10.5	1.7	0.874	100	1200
280140	AFH-2,5/4,8	2.5	5.0	19.4	10.5	2.3	0.942	100	1400
280150	AFH-2,5/6,3		6.6	20.8	10.5	2.3	1.022	100	1000
280160	AFH-6/6,3	6.0	6.6	23.3	13.0	3.4	1.534	100	700
280170	AFH-6/9,5		10.0	28.6	13.0	3.4	2.534	100	500

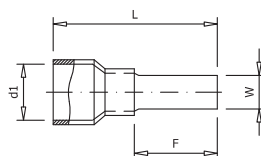


11004 AP

Insulated pin terminal

AP terminal manufactured from electrolytic copper strap with PVC insulation.

Code	Ref.	Section (mm ²)	Dimensions (mm)				Kg x 1.000	Bag	Box
			W	F	L	d1			
285100	AP-1,5	1.5	1.9	10.0	20.0	1.7	0.670	100	2000
285130	APL-1,5		1.9	12.0	21.8	1.7	0.720	100	2000
285110	AP-2,5	2.5	1.9	10.0	20.0	2.3	0.752	100	1800
285140	APL-2,5		1.9	12.0	21.8	2.3	0.806	100	1800
285120	AP-6	6.0	2.8	13.0	27.0	3.4	1.639	100	800

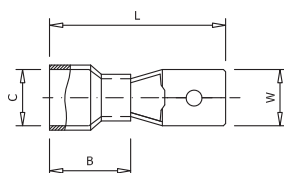


11004 APP

Insulated blade terminal

APP terminal manufactured from electrolytic copper strap with PVC insulation.

Code	Ref.	Section (mm ²)	Dimensions (mm)				Kg x 1.000	Bag	Box
			W	F	L	d1			
290100	APP-1,5	1.5	2.8	9.0	18.8	1.7	0.580	100	1600
290130	APPL-1,5		2.2	18.0	27.8	1.7	0.660	100	1400
290110	APP-2,5	2.5	2.8	9.0	18.8	2.3	0.670	100	1600
290140	APPL-2,5		2.2	18.0	27.8	2.3	0.766	100	1400
290120	APP-6	6.0	2.8	10.0	23.0	3.4	1.221	100	900
290150	APPL-6		4.5	18.0	31.0	3.4	1.693	100	700

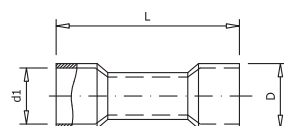


11003 AFM

Insulated male connector

AFM connector manufactured from electrolytic copper strap with PVC insulation. Incorporates an inside fitting which provides a better security to stand possible mechanical vibrations.

Code	Ref.	Section (mm ²)	Dimensions (mm)				Kg x 1.000	Bag	Box
			W	L	B	C			
295100	AFM-1,5	1.5	6.35	21.8	10.5	1.7	0.794	100	1600
295110	AFM-2,5	2.5	6.35	21.8	10.5	2.3	0.882	100	1400
295120	AFM-6,0	6.0	6.35	24.0	13.0	3.4	1.494	100	800

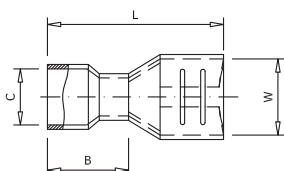


11005 AML

Insulated butt-connector

AML butt-connector manufactured from electrolytic copper strap with PVC insulation. Incorporates an inside fitting which provides a better security to stand possible mechanical vibrations.

Code	Ref.	Section (mm ²)	Dimensions (mm)			Kg x 1.000	Bag	Box
			L	D	L			
300100	AML-1,5	1.5	24.2	4.0	1.7	0.840	100	1000
300110	AML-2,5	2.5	24.2	4.5	2.3	1.010	100	800
300120	AML-6	6.0	26.0	6.3	3.4	2.130	100	500

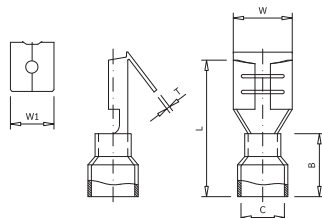


11003 AFH/A

Fully insulated female connector

AFH/A connector manufactured from electrolytic copper strap with PVC insulation. Incorporates an inside fitting which provides a better security to stand possible mechanical vibrations.

Code	Ref.	Section (mm ²)	Dimensions (mm)				Kg x 1.000	Bag	Box
			W	L	B	C			
305100	AFH/A-1,5	1.5	6.6	21.8	10.5	1.7	1.094	100	800
305110	AFH/A-2,5	2.5		22.2	10.5	2.3	1.282	100	800
305120	AFH/A-6	6.0		24.2	12.5	3.4	1.764	100	500

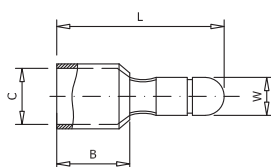


11003 AFH/M

Insulated piggyback terminal

AFH/M terminal manufactured from electrolytic copper strap with PVC insulation. Incorporates an inside fitting which provides a better security to stand possible mechanical vibrations.

Code	Ref.	Section (mm ²)	Dimensions (mm)							Kg x 1.000	Bag	Box
			W	W1	L	B	C	T	Espesor			
305130	AFH/M-1,5	1.5	6.6	6.35	22.5	10.5	1.7	3.5	0.8	1.294	100	700
305140	AFH/M-2,5	2.5	6.6	6.35	22.5	10.5	2.3	4.3		1.442	100	700

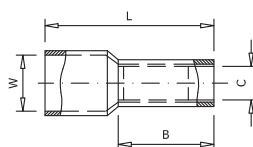


11003 ACM

Insulated male bullet terminal

ACM terminal manufactured from electrolytic copper strap with PVC insulation. Incorporates an inside fitting which provides a better security to stand possible mechanical vibrations.

Code	Ref.	Section (mm ²)	Dimensions (mm)				Kg x 1.000	Bag	Box
			W	L	B	C			
305150	ACM-1,5	1.5	4.0	21.0	10.0	1.7	0.620	100	1600
305160	ACM-2,5	2.5				2.3	0.680	100	1600



11003 ACH

Insulated socket connector

ACH connector manufactured from electrolytic copper strap with PVC insulation. Incorporates an inside fitting which provides a better security to stand possible mechanical vibrations.

Code	Ref.	Section (mm ²)	Dimensions (mm)				Kg x 1.000	Bag	Box
			W	L	B	C			
305170	ACH-1,5	1.5	3.9	23.8	10.0	2.7	1.010	100	1000
305180	ACH-2,5	2.5				3.2	0.980	100	1000

11101 ABT

Insulating piercing connector

ABT piercing connectors are made from 6.6 polyamide with fiberglass. Saw-shaped tabs are made from brass with a tinplated finish to improve electrical contact. Connection by piercing the main and tap cables.



Code	Ref.	Section (mm²)				 x 100	 Bag	 Box
		Main		Tap				
136090	ABT/CT-35/6	10	35	1.5	6	6.150	1	-
136091	ABT/CT-95/10	10	95	1.5	10	6.180	1	-
136120	ABT/CT-95/35	16	95	2.5	35	14.840	1	-
136130	ABT/CT-150/35	35	150	6	35	15.810	1	-
136140	ABT/CT-95/95	25	95	25	95	15.890	1	-
136142	ABT/CT-150/150	35	150	35	150	34.630	1	-
136150	ABT/CT-185/185-2	35	185	35	185	54.460	1	-
136151	ABT/CT-240/120	120	240	25	120	26.500	1	-
136152	ABT/CT-240/240-2	95	240	95	240	59.330	1	-

11104 Pigtail hooks and eyebolts

The hooks and support eyelets are made from high-resistance cold-rolled steel, protected against corrosion.



Code	Ref.	Dimensions (mm)	Pillar	Protection	Bag	Box
362100	GDPA-32R	M 10x320	200	Zn+plasticized	1	-
362110	GDPA-40R	M 10x400	280	Zn+plasticized	1	-
362120	GGA-18R	M 12x180	160	Galvanized	1	-
362130	GGA-24R	M 12x240	220	Galvanized	1	-
362140	GDPL-32R	M 16x320	190	Zn+plasticized	1	-
362150	GDPL-40R	M 16x400	270	Zn+plasticized	1	-
362160	GGL-18R	M 16x180	160	Galvanized	1	-
362170	GGL-24R	M 16x240	220	Galvanized	1	-
362180	GGL-30R	M 16x300	280	Galvanized	1	-
362190	ORL-18R	M 16x180	160	Galvanized	1	-
362200	ORL-20R	M 16x200	180	Galvanized	1	-
362210	ORL-24R	M 16x240	220	Galvanized	1	-
362220	ORL-28R	M 16x280	260	Galvanized	1	-

11102 PA-1000 and PA-1500

Line connection anchor

PA-1000 and PA-1500 line connection anchors are made from thermoplastic material with fibreglass and UV protection, both body and wedge. The fixing ring is made of stainless steel with protection thimble in plastic material.



Code	Ref.	Section (mm²)		Load daN	 x 100	 Bag	 Box
		Min.	Max.				
137099	PA-1000	29.5	35	1000	44.000	1	-
137100	PA-1500	54.6	80	1500	46.450	1	15

11102 PA-2000

Line connection anchor

PA-2000 line connection anchors are made from body in aluminium alloy, a thermoplastic material wedge, and with fibreglass and UV protection. The fixing ring is made of stainless steel with protection thimble in plastic material.



Code	Ref.	Section (mm²)		Load daN	 x 100	 Bag	 Box
		Min.	Max.				
137105	PA-2000	54.6	80	2000	73.420	1	15

11102 PA-25

Line connection anchor

PA-25 anchors are made from thermoplastic material with fibreglass. both body and wedge. The fixing ring is made of stainless steel.



Code	Ref.	Section (mm²)		Load daN	 x 100	 Bag	 Box
		Min.	Max.				
137120	PA-25	2x16	4x25	200	10.820	1	20

11103 ES-1500

Suspension unit

The ES-1500 suspension unit is made up of an aluminium console and a plastic suspension clamp.



Code	Ref.	Section (mm²)		Load daN	 x 100	 Bag	 Box
		Min.	Max.				
361100	ES-1500	54.6	80	1500	27.080	1	-



11103 PS-1500

Console

The PS-1500 suspension clamp is manufactured in thermoplastic material and is fitted with a sliding coupling to the console.

Code	Ref.	Section (mm ²)		Load daN	 x 100	 Bag	 Box
		Min.	Max.				
361110	PS-1500	54.6	80	1500	21,450	1	-



11103 CS-1500

Console

CS-1500 consoles are manufactured in aluminium alloy with great mechanical strength with two holes for fastening.

Code	Ref.	Load daN	 x 100	 Bag	 Box
361120	CS-1500	1500	25,180	1	-



11103 CA-1500

Console

CA-1500 consoles are manufactured in aluminium alloy with great mechanical strength with two holes for fastening.

Code	Ref.	Load daN	 x 100	 Bag	 Box
361130	CA-1500	1500	47,160	1	-



11103 RA-25

Console

The RA-25 return cradle is made of weather-resistant thermoplastic material with a stainless steel anchor. It is designed for the suspension and change of direction of service lines.

Code	Ref.	Section (mm ²)		Load daN	 x 100	 Bag	 Box
		Min.	Max.				
361140	RA-25	2x16	4x25	250	8,000	1	-

11106 BRPF

Synthetic wall-mount support for nail fixing

BRPF clamps are designed for the installation of braided cables on facades. They are made of thermoplastic material, and their anchoring system is via an expansion pin.



Code	Ref.	Capacity Ø mm	Wall separation (mm)	 x 100	 Bag	 Box
363100	BRPF-1	25 to 55	10	8.300	-	50
363110	BRPF-6	25 to 55	60	8.600	-	50

11106 BRPV

Synthetic wall-mount support for screw fixing

BRPV clamps are designed for the installation of braided cables on facades. They are made of thermoplastic material, and their anchoring system is via a screw and plastic expansion plug.



Code	Ref.	Capacity Ø mm	Wall separation (mm)	 x 100	 Bag	 Box
364100	BRPV-1	25 to 55	10	6.800	-	50
364110	BRPV-6	25 to 55	60	8.300	-	50
364120	BRPV-10	25 to 55	100	8.300	-	50

11110 CSL

Synthetic clamp

CSL synthetic clamps are made of thermoplastic. These clamps can be reused.



Code	Ref.	Capacity Ø mm	Wall separation (mm)	 x 100	 Bag	 Box
365100	CSL-180	10 to 41	195	0.600	100	-
365110	CSL-260	10 to 62	285	0.750	100	-
365120	CSL-350	27 to 92	350	0.950	100	-

11105 ARC

Plasticized support for lines

ARC supports are manufactured from plasticized stainless steel. No tool required for tightening. They are reusable.
Especially designed for lines.



Code	Ref.	Nail plug	Capacity Ø mm	Wall separation (mm)	 x 100	 Bag	 Box
366100	ARC-1	CD-12	45	10	4.400	-	100
366110	ARC-2	CD-12	45	60	5.900	-	100
366120	ARC-3	CD-14	45	100	12.600	-	75
366130	ARC-25	CD-12	52	10	4.900	-	100
366140	ARC-225	CD-12	52	60	6.000	-	75
366150	ARC-2250	CD-14	52	100	13.500	-	75
366160	ARC-35	CD-12	68	10	5.400	-	150
366170	ARC-335	CD-12	68	60	6.400	-	50
366180	ARC-3350	CD-14	68	100	14.400	-	50

11105 BIP

Plasticized support for line connections

BIP supports are manufactured from plasticized stainless steel. No tool required for tightening. They are reusable.
Especially designed for line connections.



BIP-120 CF
BIP-180 CF



BIP-120 CV
BIP-180 CV

For concrete poles

Code	Ref.	Capacity Ø mm	Wall separation (mm)	 x 100	 Bag	 Box
367100	BIP-120 CF	10 to 22	10	10	-	100
367110	BIP-180 CF	10 to 42	10	10	-	100

For concrete or wooden poles

367120	BIP-120 CV	10 to 22	10	10	-	100
367130	BIP-180 CV	10 to 42	10	10	-	100

Nail plug included.

11107 MULTI

Plasticized tie

MULTI supports are manufactured from plasticized steel.
No tool required for tightening. They are reusable.



Code	Ref.	Capacity Ø mm	Length x Width (mm)	 x 100	 Bag	 Box
368100	MULTI-50	8 to 17	110x10	0.800	100	-
368110	MULTI-100	18 to 25	125x10	0.900	100	-
368120	MULTI-150	26 to 35	150x20	1.800	50	-
368130	MULTI-200	36 to 42	175x20	2.000	50	-
368140	MULTI-300	43 to 52	225x20	1.380	50	-
368150	MULTI-400	53 to 62	250x20	1.520	50	-

11108 ES

Flexible PVC end cap

ES flexible end caps are manufactured from PVC with UV protection. They are suitable for cable end protection avoiding deterioration and humidity.



Code	Ref.	Ø mm	Length (mm)	 x 100	 Bag	 Box
369100	ES-7	7	50	0.250	-	100
369110	ES-9	9	50	0.400	-	100
369120	ES-10	10	60	0.800	-	100
369130	ES-11	11	60	0.800	-	100
369140	ES-12	12	60	0.800	-	100
369150	ES-13	13	60	0.800	-	100
369160	ES-14	14	60	0.800	-	100
369170	ES-17	17	65	1.200	-	100
369180	ES-20	20	70	1.800	-	100
369190	ES-25	25	70	1.800	-	100
369200	ES-30	30	80	3.500	-	100
369210	ES-36	36	80	3.500	-	100
369220	ES-40	40	100	5.600	-	100
369230	ES-52	52	120	9.500	-	100

11108 CCS

Flexible Santoprene end cap

CCS flexible end caps are manufactured from Santoprene with UV protection. They are suitable for cable end protection avoiding deterioration and humidity.



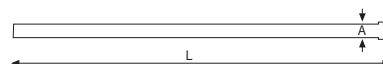
Code	Ref.	Section cable (mm)	Length (mm)	 x 100	 Bag	 Box
370100	CCS-6/35	6 to 35	30	0.200	-	100
370110	CCS-25/185	25 to 185	80	0.840	-	100



11111 BR

Polyamide 6 cable tie

BR cable ties are manufactured from 6.6 polyamide. Available in black or natural.



Code	Ref.	Dimensions (mm)		Colour		
		L	A		Bag	Box
335100	BRB-80.24	80	2.4	Natural	100	-
335110	BRB-100.25	100	2.5		100	-
335120	BRB-140.25	140			100	-
335130	BRB-160.25	160			100	-
335140	BRB-200.25	200			100	-
335150	BRB-150.36	150			100	-
335160	BRB-200.36	200	3.6		100	-
335170	BRB-250.36	250			100	-
335180	BRB-300.36	300			100	-
335190	BRB-370.36	370			100	-
335200	BRB-190.48	190			100	-
335210	BRB-250.48	250	4.8		100	-
335220	BRB-280.48	280			100	-
335230	BRB-370.48	370			100	-
335240	BRB-390.48	390			100	-
335250	BRB-200.76	200			100	-
335260	BRB-250.76	250	7.6		100	-
335270	BRB-300.76	300			100	-
335280	BRB-380.76	380			100	-
335290	BRN-80.24	80		100	-	
335300	BRN-100.25	100	2.5	100	-	
335310	BRN-140.25	140		100	-	
335320	BRN-160.25	160		100	-	
335330	BRN-200.25	200		100	-	
335340	BRN-150.36	150		100	-	
335350	BRN-200.36	200	3.6	100	-	
335360	BRN-250.36	250		100	-	
335370	BRN-300.36	300		100	-	
335380	BRN-370.36	370		100	-	
335390	BRN-200.48	200		100	-	
335400	BRN-250.48	250	4.8	100	-	
335410	BRN-280.45	280		100	-	
335420	BRN-370.48	370		100	-	
335430	BRN-390.48	390		100	-	
335440	BRN-200.76	200		100	-	
335450	BRN-250.76	250	7.6	100	-	
335460	BRN-300.76	300		100	-	
335470	BRN-380.76	380		100	-	

11112 SAP

Self-adhesive mount

SAP mounts are manufactured from polyamide. Ideal to fix to a surface, no tool required for installation.



Code	Ref.	Length x Width (mm)	Colour	 Bag	 Box
340100	SAP-101	21x21	Natural	100	-
340110	SAP-101-N	21x21	Black	100	-
340120	SAP-102	28x28	Natural	100	-
340130	SAP-102-N	28x28	Black	100	-
340140	SAP-103	28x28	Natural	100	-
340150	SAP-103-N	28x28	Black	100	-

11112 ST

Screw type mount

ST mounts are manufactured from polyamide. Ideal to fix material to a surface which needs more resistance.



Code	Ref.	Length x Width (mm)	Colour	 Bag	 Box
345100	ST-0	19x9.5	Natural	100	-
345110	ST-0-N	19x9.5	Black	100	-
345120	ST-1	15x10	Natural	100	-
345130	ST-1-N	15x10	Black	100	-
345140	ST-2	23x16	Natural	100	-
345150	ST-2-N	23x16	Black	100	-



11111 PST

Mounts by pressure

PST mounts are manufactured from polyamide and are perfect to fix to a surface, no tool required for installation.

Code	Ref.	Width (mm)	Colour	Bag	Box
350100	PST-0	4	Natural	100	-
350110	PST-1	8	Natural	100	-

* Bracket not included.



11113 EC

Nail plugs

EC nail plugs are manufactured from polyamide and designed for cable tie fixing. Easy surface fixing by percussion.

Code	Ref.	Width (mm)	Colour	Bag	Box
355100	EC-8	9	Black	100	-

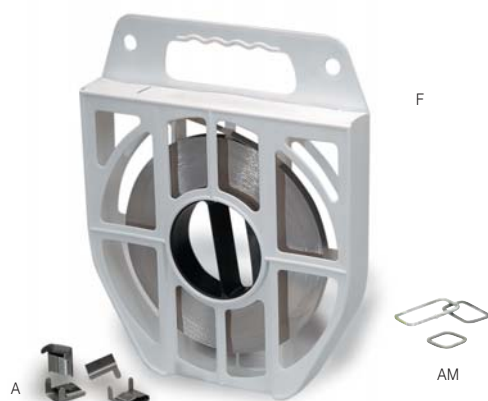
11113 CD

Nail plugs

CD nail plugs are manufactured from polyamide for wall fixing.



Code	Ref.	Ø mm	Length (mm)	Bag	Box
355110	CD-8	8	40	100	-
355120	CD-10	10	50	100	-
355130	CD-12	12	60	100	-
355140	CD-14	14	70	100	-
355150	CD-16	16	75	100	-



11109 F / A / AM

Band and fittings

The Z12 CN 1707 stainless steel band and its accessories are primarily used to secure and fasten elements in various industrial and construction applications. It can be cut to the desired length and is used in combination with accessories such as closures and tensioning tools to secure loads or structures. It includes a dispenser that facilitates transport and handling.

Code	Ref.	Width x Thickness (mm)	Length (m)	 x 1	 Bag	 Box
371100	F-104	10 x 0.4	50	1.600	-	1
371110	F-107	10 x 0.7	50	2.700	-	1
371120	F-204	20 x 0.4	50	3.400	-	1
371130	F-207	20 x 0.7	50	5.800	-	1

Code	Ref.	Width (mm)	 x 1	 Bag	 Box
371140	A-100	10	0.500	100	-
371150	A-200	20	0.900	100	-

Code	Ref.	Dimensions (mm)	 x 1	 Bag	 Box
371160	AM-25	25 x 25	1.400	100	-
371170	AM-40	25 x 40	1.900	100	-
371180	AM-60	25 x 60	2.450	100	-



20106 OPL

Strapping tool

Easy-to-use tool for stainless steel cable strapping.

Code	Ref.	 x 100	 Bag	 Box
406100	OPL	145	-	1



20106 OPC

Strap cutter

Cutter tool for stainless steel band.

Code	Ref.	 x 100	 Bag	 Box
406110	OPC	70	-	1



11201 TPF

Thin-walled universal heat shrink tube

Sofamel's thin-walled heat shrink tubing is a versatile solution for electrical applications requiring insulation and protection. Its shrinkage capability allows for precise fitting to different cable sizes and connections, ensuring a secure and long-lasting seal. Available in various colors, this tubing facilitates the identification and organization of cables.

Code	Ref.	Contraction Ø mm	Colour	Length (m)	Thickness (mm)	 Bag	 Box
376100	TPF-2,4/1,2 N	2.4 to 1.2	Black	10	0.50	-	1
376110	TPF-2,4/1,2 A		Blue	10	0.50	-	1
376120	TPF-2,4/1,2 G		Grey	10	0.50	-	1
376130	TPF-2,4/1,2 M		Brown	10	0.50	-	1
376140	TPF-3,2/1,6 N	3.2 to 1.6	Black	10	0.50	-	1
376150	TPF-3,2/1,6 A		Blue	10	0.50	-	1
376160	TPF-3,2/1,6 G		Grey	10	0.50	-	1
376170	TPF-3,2/1,6 M		Brown	10	0.50	-	1
376180	TPF-4,8/2,4 N	4.8 to 2.4	Black	8	0.50	-	1
376190	TPF-4,8/2,4 A		Blue	8	0.50	-	1
376200	TPF-4,8/2,4 G		Grey	8	0.50	-	1
376210	TPF-4,8/2,4 M		Brown	8	0.50	-	1
376220	TPF-6,4/3,2 N	6.4 to 3.2	Black	6	0.60	-	1
376230	TPF-6,4/3,2 A		Blue	6	0.60	-	1
376240	TPF-6,4/3,2 G		Grey	6	0.60	-	1
376250	TPF-6,4/3,2 M		Brown	6	0.60	-	1
376260	TPF-9,5/4,8 N	9.5 to 4.8	Black	5	0.60	-	1
376270	TPF-9,5/4,8 A		Blue	5	0.60	-	1
376280	TPF-9,5/4,8 G		Grey	5	0.60	-	1
376290	TPF-9,5/4,8 M		Brown	5	0.60	-	1
376300	TPF-12,7/6,4 N	12.7 to 6.4	Black	5	0.60	-	1
376310	TPF-12,7/6,4 A		Blue	5	0.60	-	1
376320	TPF-12,7/6,4 G		Grey	5	0.64	-	1
376330	TPF-12,7/6,4 M		Brown	5	0.64	-	1
376340	TPF-19,1/9,5 N	19.1 to 9.5	Black	4	0.80	-	1
376350	TPF-19,1/9,5 A		Blue	4	0.80	-	1
376360	TPF-19,1/9,5 G		Grey	4	0.80	-	1
376370	TPF-19,1/9,5 M		Brown	4	0.80	-	1
376380	TPF-25.4/12,7 N	25.4 to 12.7	Black	3	0.90	-	1

Other colours under request.



11201 Heat shrink tubing kit

Kit of heat-shrink tubes identification of terminals in 4 colors.

Code	Ref.	Contraction Ø mm	Length (mm)	Thickness (mm)
376500	TPF-38/100	38.0 to 19.0	100	1.00



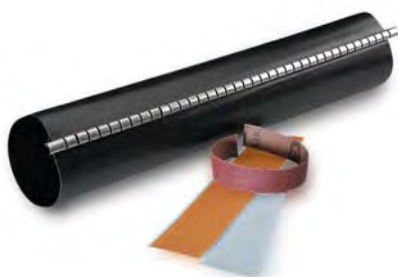
11202 TPMA

Medium-walled heat shrink tube with adhesive

TPMA tubes possess an excellent isolation, watertight seal, and abrasion and impact resistance. They are used in low voltage electrical applications and provide an excellent mechanical protection.

Non-flame retardant type. Not self-extinguishing.

Code	Ref.	Contraction Ø mm	Colour	Length (m)	Thickness (mm)	 Bag	 Box
377100	TPMA-12/3	12 to 3	Black	1	2	1	75
377110	TPMA-22/6	22 to 6			2.5	1	75
377120	TPMA-34/7	34 to 7			2.5	1	60
377130	TPMA-40/12	40 to 12			2.5	1	40
377140	TPMA-55/16	55 to 16			2.7	1	25
377150	TPMA-75/22	75 to 22			2.7	1	15
377160	TPMA-95/25	95 to 25			3	1	10
377170	TPMA-115/34	115 to 34			3	1	5
377180	TPMA-140/42	140 to 42			3	1	5



11203 MRA

Heat shrink blanket derivation with adhesive

Heat shrink blanket with adhesive and stainless steel chain. MRA sleeve is used for low voltage cable shunt.

Non-flame retardant type. Not self-extinguishing.

Code	Ref.	Contraction Ø mm	Main	Tap	Length (m)	Thickness (mm)	 Bag	 Box
378100	MRA-4312/250	43 to 8	150	50	250	2.30	1	-
			150	25				
			95	95				
378110	MRA-7218/250	75 to 15	240	95	250	2.30	1	-
			240	50				
			150	150				
			150	95				
378120	MRA-7218/300	75 to 15	240	240	300	2.30	1	-
378200	MRA-7218/500-E	75 to 15	240	240	500	2.30	1	-
			240	150				



CE

11301 Earthing rods

100 or 300 microns

Designed for fixed installations, these earthing rods are used to create a safe and stable earthing connection in electrical systems. They are manufactured from calibrated steel with an electrolytic copper plating treatment of 100 or 300 microns. The 100 μ rods with a diameter of 14.2 comply with UNE 202006 standards and have  AENOR certified.



Earthing rod 100 μ - Ø 14.2 mm

Code	Ref.	Dimensions		 Bag	 Box	 Pallet
		L	D			
T101415	Earthing rod 100 μ - Ø 14.2 Length 1.5 m	1.5 m	14.2 mm	10	100	400
T101420	Earthing rod 100 μ - Ø 14.2 Length 2.0 m	2.0 m	14.2 mm	10	100	400

Earthing rod 100 μ - Ø 18.2 mm

Code	Ref.	Dimensions		 Bag	 Box	 Pallet
		L	D			
T101820	Earthing rod 100 μ - Ø 18.2 Length 2.0 m	2.0 m	18.2 mm	5	100	400

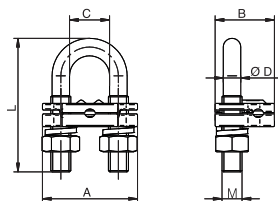
Earthing rod 300 μ - Ø 14.6 mm

Code	Ref.	Dimensions		 Bag	 Box	 Pallet
		L	D			
T301420	Earthing rod 300 μ - Ø 14.6 Length 2.0 m	2.0 m	14.6 mm	10	100	400

Earthing Rods and Accessories

Connections

GENERAL CATALOGUE 24/25



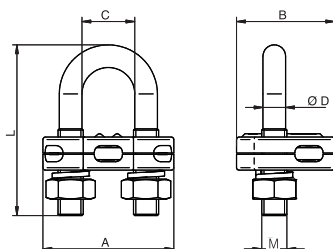
11302 TGT142

Earthing rod clamp

Earthing rod clamp manufactured from brass with galvanized steel ring.
For Ø 14.2 mm and 14.6 mm earthing rods.

Tested according to UNE 202006 standard.

Code	Ref.	Cable Section		Dimensions (mm)						Kg x 100	Bag	Box
		Min.	Max.	A	B	C	ØD	L	M			
TGT142	Earthing rod clamp TGT142	16	50	38	23.7	16	7	53	M8	8.300	10	40

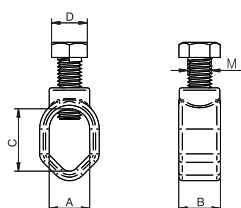


11302 TGT142 RF

Reinforced earthing rod clamp

Earthing rod clamp manufactured from brass from galvanized steel ring.
The cable tie walls thickness improves the safety and durability of the cable connection. For Ø 18.6 mm max. earthing rods.

Code	Ref.	Cable Section		Dimensions (mm)						Kg x 100	Bag	Box
		Min.	Max.	A	B	C	ØD	L	M			
TGT142 RF	Reinforced earthing rod clamp TGT142 RF	35	150	52	39	21	9	65	M10	19.200	5	15

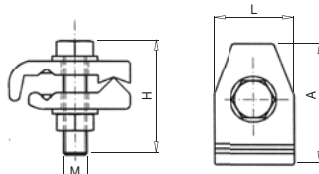


11302 TGT142C

Closed earthing rod

Ground-wire staples manufactured in brass with zinc steel screw.
They are ideal for grounding cable connections to ground rods.

Code	Ref.	M	H	Dimensions (mm)					Kg x 100	Bag	Package
				A	B	C	D	M			
TGT142C	Closed earthing rod TGT142C	M-10	15	17	17.5	26	15	M10	7.200	10	50



11302 GTR

Earthing rod clamp

GTR earthing clamp manufactured from brass with stainless steel screws. With high robustness, they are designed for earthing connections.

Code	Ref.	Main		Tap		Dimensions (mm)				Kg x 100	Bag	Box
		Max.	Min.	Max.	Min.	A	L	H	M			
170100	GTR-50/150	150	50	16	10	61	40	67	12	33.000	-	15

Earthing Rods and Accessories

Connections

GENERAL CATALOGUE 24/25



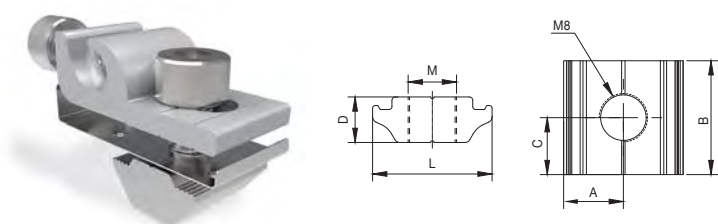
11302 TRP

Copper parallel earthing clamp

TRP clamp manufactured from brass with stainless steel screws.

They are available with one or two screws and in two different lengths depending on the required application. With high robustness, they are designed for overhead line cables.

Code	Ref.	Main		Tap		Dimensions (mm)			Kg x 100	Bag	Box
		Max.	Min.	Max.	Min.	E	L	M			
175100	TRP-1-25/150	150	25	150	25	68	30	12	29.000	-	15
175110	TRP-2-25/150	150	25	150	25	68	62	12	58.000	-	6
175120	TRP-2-25/150-R	150	25	150	25	68	90	12	81.000	-	5



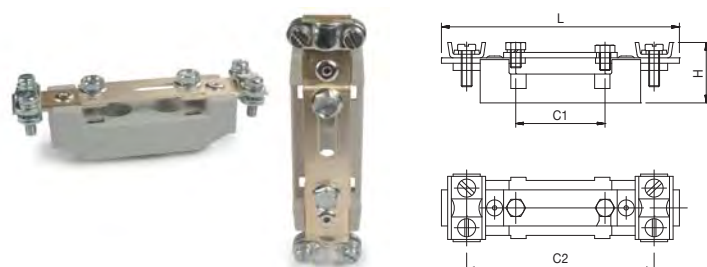
11404 SCF/GC

Earthing clip

Earthing clamp for photovoltaic structure, Al+stainless steel.

It is valid for solar structures type G1. For the rest of the structures, the profile must be drilled and M8 must be used.

Code	Ref.	Dimensions (mm)						Kg x 100	Bag	Box
		A	B	C	D	L	M			
501070	SCF/GC	10.5	20	10	8	21	M8	-	10	500



11302 PTR

Neutral earthing switch

The PTR earth bridge is ideal for ensuring safe grounding connections in electrical installations, providing high durability and mechanical strength. It is manufactured from polyester.

It admits a maximum cable capacity of 70 mm².

Code	Ref.	Dimensions (mm)				Kg x 100	Box	Pallet
		L	H	C1	C2			
240100	PTR	117.5	23	25	103	-	1	10

Earthing Rods and Accessories

Connections

GENERAL CATALOGUE 24/25



11304 TMV-8

Multiple terminal for copper rod 8 mm Ø

Equipped with M8x35 stainless steel screw, nut and pressure washer.
Made of tinned copper, tin thickness 15 µ.
Ideal for earthing equipment inside transformer substations.

Code	Ref.	Description	 x 100	 Bag	 Box
171100	TMV-8	Multiple terminal for copper rod 8 mm Ø	-	1	-



11304 CDCC-50

Tap-off connectors for 50 mm² cable crossovers

Made of tinned copper, 15 µ tin thickness.
Ideal for grounding inside transformer substations.

Code	Ref.	Description	 x 100	 Bag	 Box
171110	CDCC-50	Tap-off connectors for 50 mm² cable crossovers	-	1	-



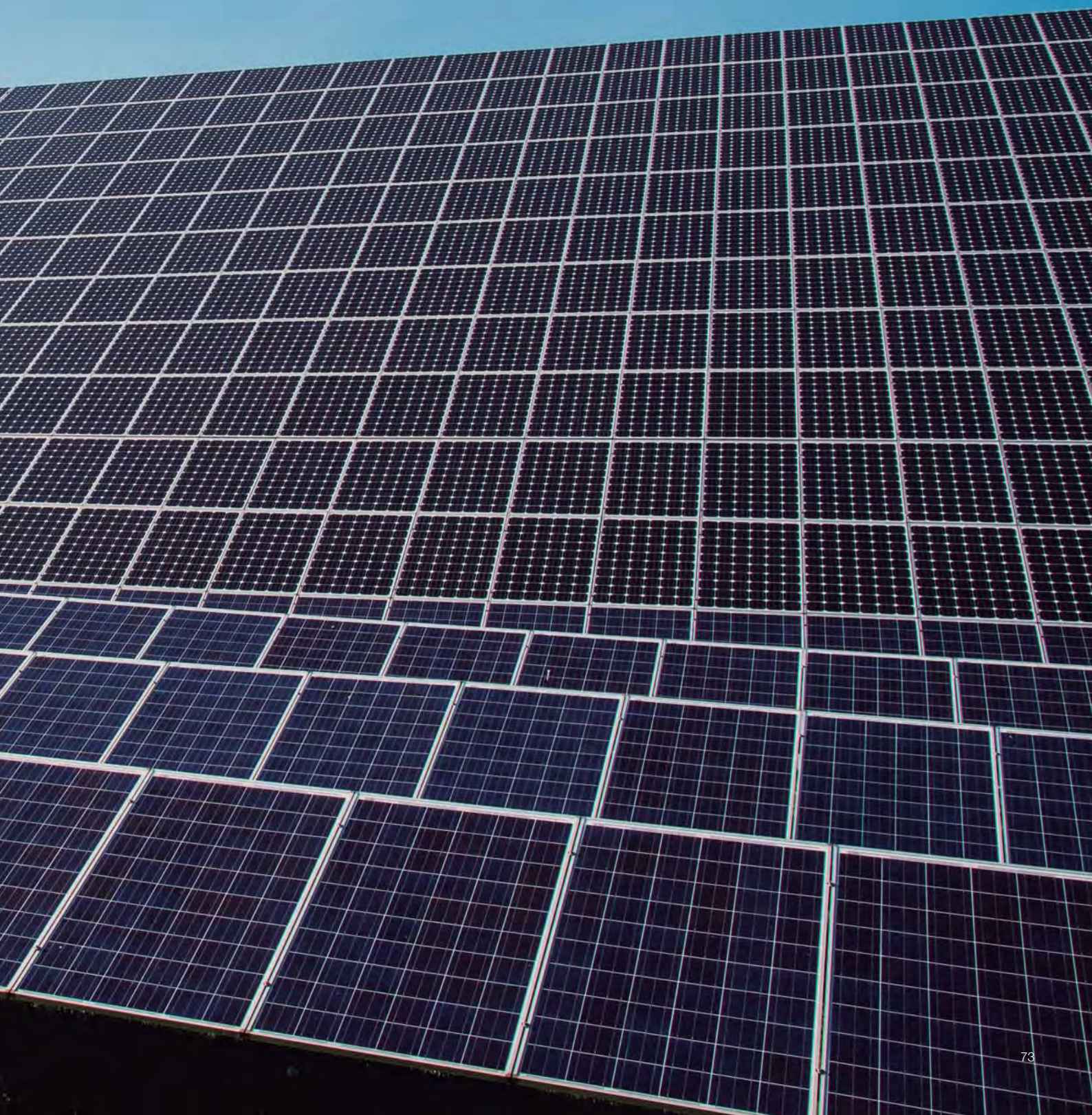
11304 GDC

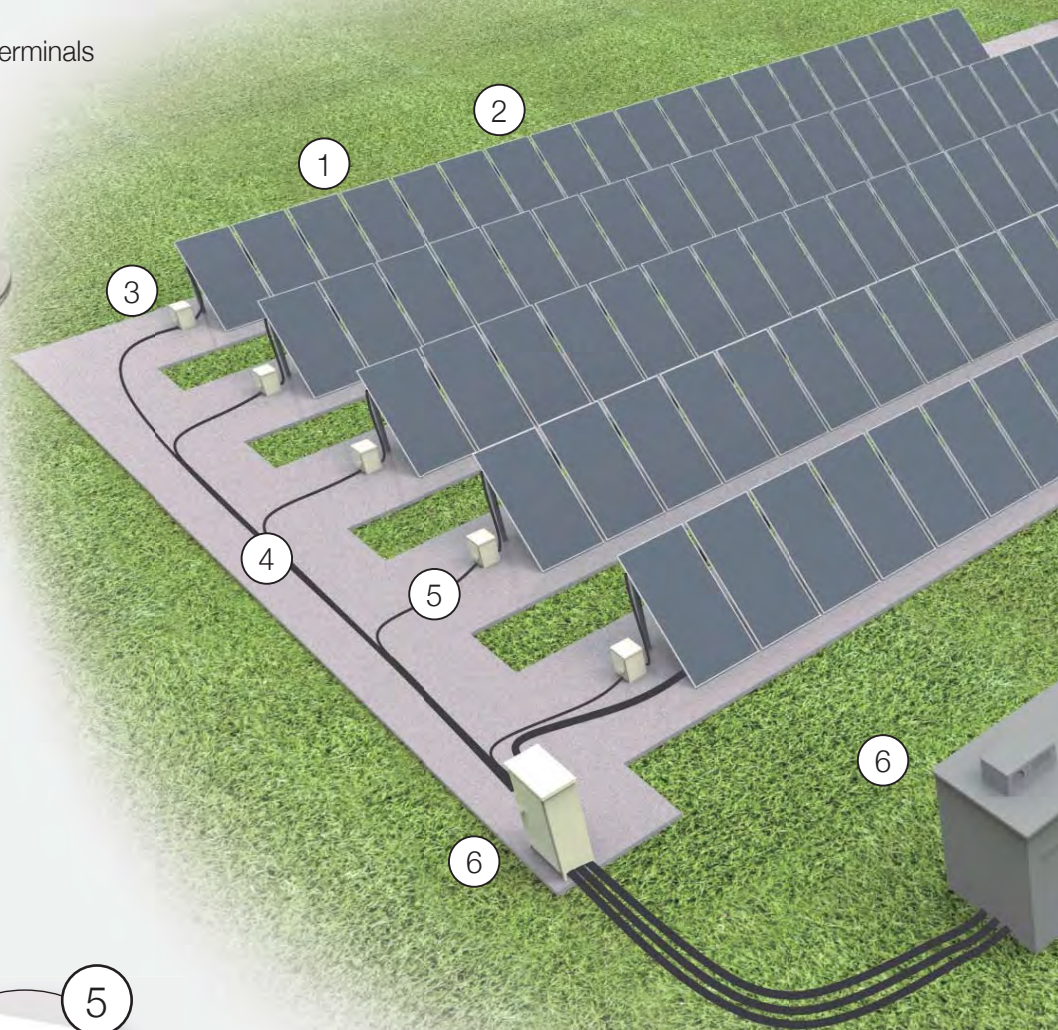
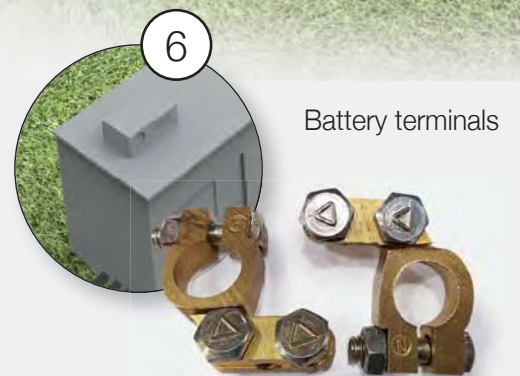
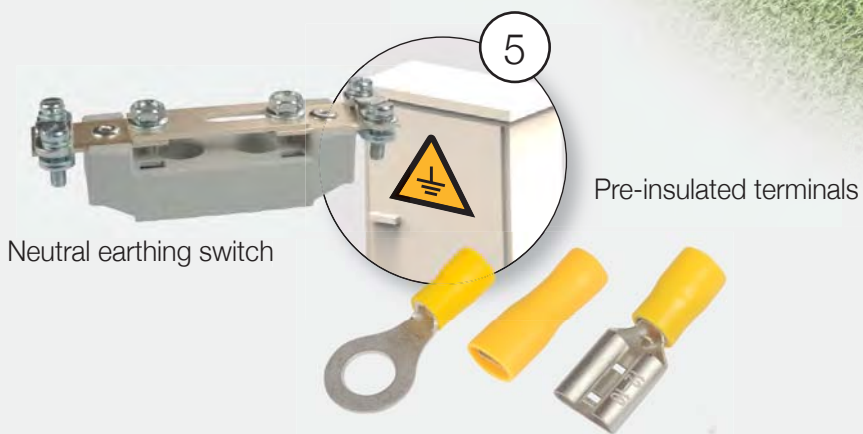
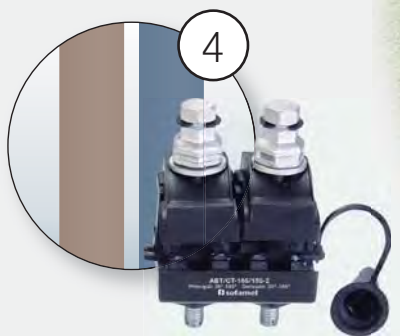
Earthing clamp

Simple fastening to fix the cable to the wall or to the metal structure.
Made of tinned copper, tin thickness 15 µ.
Includes plug and screw.

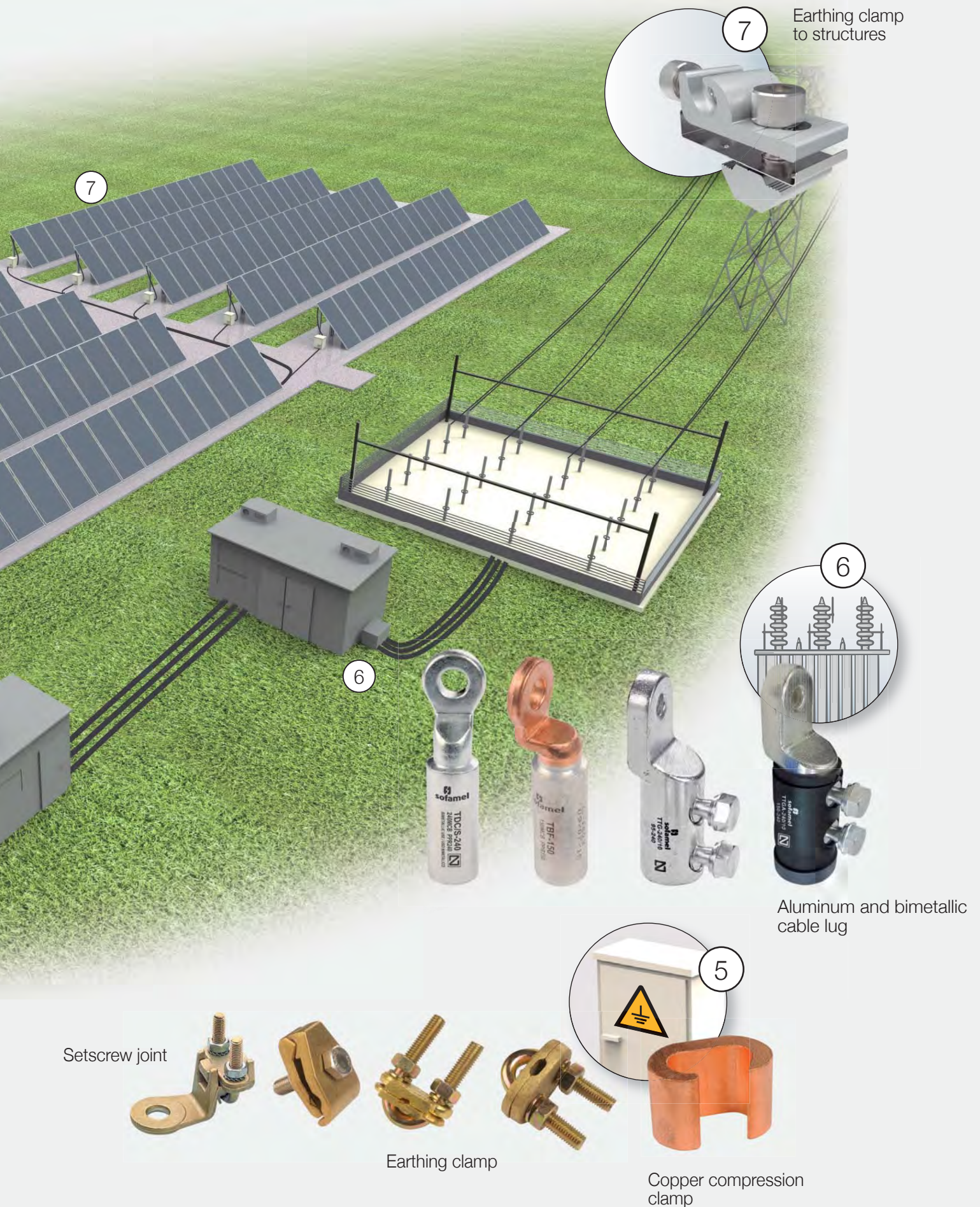
Code	Ref.	Description	 x 100	 Bag	 Box
171120	GDC-25	Earthing clamp Cu. 16-25 mm² 15 µ	-	1	-
171121	GDC-50	Earthing clamp Cu. 35-50 mm² 15 µ	-	1	-
171122	GDC-95	Earthing clamp Cu. 75-95 mm² 15 µ	-	1	-

Connections for photovoltaic installations





Photovoltaic power plants



Connectors for the wiring



Fusible holder with integrated fuse

Tap-off connectors



Copper terminals



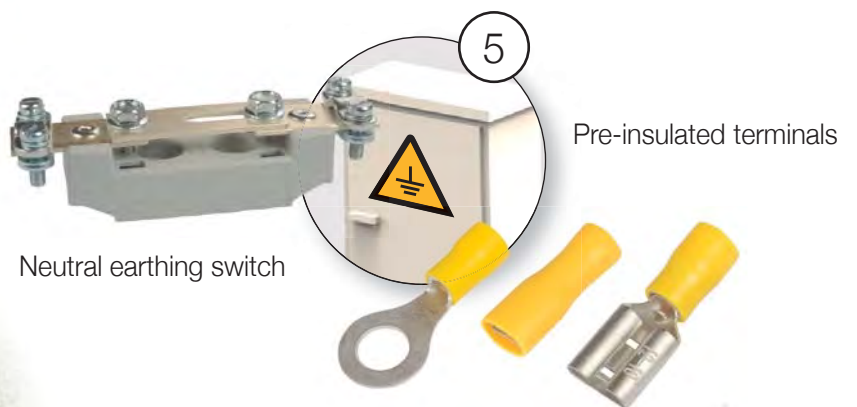


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7

Earthing clamp to structures



5

Neutral earthing switch

Pre-insulated terminals



6



Setscrew joint



Earthing clamp



Copper compression clamp





11401 SCF/C

MC4 type connectors for 1000 V and 1500 V

MC4 type connectors, male and female: ensure a good connection and water tightness between the wiring terminations and the various elements that make up a photovoltaic installation.

SCF/C-1000V for cross-sections of between 2.5 and 6 mm²

SCF/C-1500V-A for cross-sections of between 2.5 and 6 mm²

SCF/C-1500V-B for 10 mm² cross-sections

A cable crimper is required for correct installation.

Code	Ref.	Cable Section (mm ²)	 x 100	 Bag	 Box
501010	SCF/C-1000V	2.5-6	-	-	-
501020	SCF/C-1500V-A	2.5-6	-	-	-
501030	SCF/C-1500V-B	10	-	-	-



11401 SCF/D-TL

Tap-off connectors with flexible hose

MC4 type flexible connectors for connecting strings in parallel.

SCF/D-2TL-1500V for connecting 2 to 1 and 1500 V isolation

Code	Ref.	Unions	 x 100	 Bag	 Box
505030	SCF/D-2TL-1500V	2 to 1	-	-	-



11402 SCF/FUSE

MC4 Type fuse holder for 1000 V and 1500 V

Integrated, watertight 20 A fuse in MC4 connector.

Possibility of changing fuse (from 15/20/30 A).

SCF/FUSE-1000V female-male

SCF/FUSE-1500V female-male

Code	Ref.	Amps (A)	 x 100	 Bag	 Box
501043	SCF/FUSE-1000V 15A	15	-	-	-
501044	SCF/FUSE-1000V 20A	20	-	-	-
501046	SCF/FUSE/L-1500V 15A	15	-	-	-
501047	SCF/FUSE/L-1500V 20A	20	-	-	-

11401 SCF/CT-1000V

MC4 type connectors behind the scenes

The MC4 connectors, male and female, are designed for the photovoltaic solar system between the solar panel and the inverter or the connection box.

They are a simple and safe way to connect two solar cables with sections between 2.5 mm², 4 mm² and 6 mm².

They are dustproof, waterproof, anti-aging, UV resistant.

Code	Ref.	Unions	 x 100	 Bag	 Box
501000	SCF/CT-1000V	2 to 1	-	-	-



11401 SCF/D-T

Tap-off connectors

MC4 type rigid connectors for connecting strings in parallel.

SCF/D-2T-1500V for connecting 2 to 1 and 1500 V isolation

SCF/D-3T-1500V for connecting 3 to 1 and 1500 V isolation

Code	Ref.	Unions	 x 100	 Bag	 Box
502070	SCF/D-2T-1500V	2 to 1	-	-	-
502080	SCF/D-3T-1500V	3 to 1	-	-	-



20103 L-MC4

Installation key

Tool specially designed to facilitate the connection/disconnection process of MC4 connectors.

Code	Ref.	 x 100	 Bag	 Box
385000	L-MC4	-	-	-



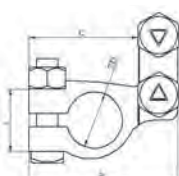
20103 LX-MC4

Cross wrench for installing MC4 fuse holders

Pair of wrenches for the installation of 1500V MC4 fuse holder connectors, MC4 type.

Specific tool for assembling and disassembling male/female photovoltaic connectors and fuse holders, as well as for their adjustment.

Code	Ref.	 x 100	 Bag	 Box
385010	LX-MC4	-	-	-



11404 SCF/BB

Battery terminals

Set of 2 brass terminals for connecting the cable to the battery: includes one positive and one negative terminal. Possibility of using cable from other sections, with lugs.



Code	Ref.	Section de cable		Dimensions (mm)							 x 100 (The pair)	 Bag	 Box
		Min.	Max.	A	B	C	ØD -	ØD +	L	M			
501060	SCF/BB	16	50	45	10	33	17	18	19	7.5	156	-	-

Mechanical Tools

Multifunctional electrician scissors

Cable cutters

Crimping tools for non insulated terminals

Crimping tools for insulated and non-insulated ferrules

Crimping tools for insulated terminals

Crimping tool for solar connectors

Multipurpose tools

Stripping tools

Other tools

Stripping tools for MV cables

Hydraulic Tools

Hydraulic hand-tools

Electrohydraulic tools

Mini battery powered crimping tools

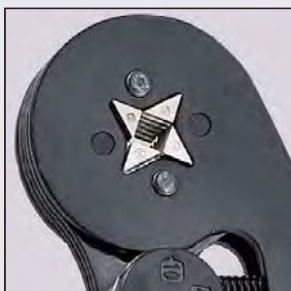
Battery wire ratchet cutter

Hydraulic heads and pumps

Accessories



Tools



Scissors with triple function, crimping, stripping and cutting



30112 TS-50

Premium professional scissors 3 in 1: crafted with stainless steel for super high resistance and durability. Featuring high-hardness blades and an anti-slip serrated edge for precise cutting. The handles are lightweight, robust, and made from impact-resistant plastic material, with embedded anti-slip ridges for a secure grip.

- 1 crimping function.
- 2 stripping functions.
- Cutting wire function.
- Anti-slip serrated blade.
- Special whole steel frame.
- Blades are whole frame.
- Scissor carrying case included. (belt-adjustable)



Code	Ref.	Max. cutting range	Crimping range	Stripping capacity between handles	Length	Weight
316000	TS-50	50 mm ²	2.5-6 mm ²	1.5/2.5 mm ²	160 mm	0.15 kg

Scissors with multi-holding way



30112 TS-70

Premium professional scissors 3 in 1: crafted with the stainless steel for super high resistance and durability. Featuring high-hardness blades and an anti-slip serrated edge for precise cutting. Ergonomically-designed for comfortable, precise, and durable use. Extended capacity for stripping, crimping and cutting.

- 2 crimping functions.
- 3 stripping functions.
- Cutting wire function.
- Blades are whole frame.
- Handles crafted from impact-resistant plastic.
- Anti-slip ridges made of TPR.
- Ergonomic design.
- Scissor carrying case included. (belt-adjustable)



Code	Ref.	Max. cutting range	Crimping range	Stripping capacity between handles	Length	Weight
316001	TS-70	70 mm ²	2.5-6 mm ²	1.5/2.5/4 mm ²	170 mm	0.18 kg

Multi-function heavy duty electrician scissors, crimping, stripping and cutting

30112 TS-95

New Generation Professional Scissors: capable of cutting cables up to 95 mm². These scissors are equipped with a convenient wire stripping function compatible with cable sizes ranging from 0.34 mm² to 6 mm² (AWG 22-10). Crafted from high-quality, durable stainless steel, they are built to withstand the rigors of daily use.

- 2 crimping functions.
- 7 stripping functions.
- 3 cutting wire functions.
- Blades are whole frame.
- High Hardness Blades.
- Enhanced Grip and ergonomic design.
- Scissor carrying case included. (belt-adjustable)



DESIGN PATENT

4 in 1

crimping
stripping
cutting



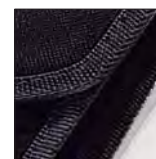
Code	Ref.	Max. cutting range	Crimping range	Stripping capacity between handles	Length	Weight
316002	TS-95	95 mm ²	2.5-6 mm ²	0.34-6 mm ² (AWG 22-10)	204 mm	0.26 kg



30701 BP-7/18

Universal belt pouch

- Superior quality, strong and durable
- Sold separately



Code	Ref.	Dimensions
600165	BP-7/18	180 x 74 x 37 mm

*For copper
and aluminium cables*



20101 SF-21

For copper and aluminium cables up to 16 mm².
Not for cutting steel or steel wire.

Code	Ref.	Length	Weight
380120	SF-21	160 mm	0.19 kg



20101 SF-30

For copper and aluminium cables up to 35 mm².
Not for cutting steel or steel wire.

Code	Ref.	Length	Weight
380130	SF-30	210 mm	0.36 kg



20101 SF-31

For copper and aluminium cables up to 50 mm².
Not for cutting steel or steel wire.

Code	Ref.	Length	Weight
380140	SF-31	235 mm	0.50 kg



Mechanical Tools

Tools

Cable cutters

GENERAL CATALOGUE 24/25

For copper and aluminium cables



20101 SF-36A

- Light weight, compact structure, easy operation.
- Suitable for narrow space work.
- Clean and smooth cut without crushing and deformation.
- Innovative two-stage ratchet drive and high torque transmission, one hand or two hands easy operation.

Code	Ref.	Max. cutting range	Length	Weight
380010	SF-36A	≤ Ø 36 mm 300 mm²	250 mm	0.61 kg



Single conductor cable, solid



Single conductor cable, fine and multiple strands



20101 SF-60A

- Light weight, compact structure, easy operation.
- Suitable for narrow space work.
- Clean and smooth cut without crushing and deformation.
- Innovative two-stage ratchet drive and high torque transmission, one hand or two hands easy operation.

Code	Ref.	Max. cutting range	Length	Weight
380020	SF-60A	≤ Ø 60 mm 500 mm²	310 mm	0.84 kg



Multiple conductor cable, multiple strands and solid

For copper and aluminium conductor and communication cable



20101 SF-240

- For cutting copper and aluminium conductors as well as multiple stranded cables.
- Favourable transmission ratio due to double lever.
- Blade: high-grade chrome vanadium electric steel, forged, hardened, replaceable blades.
- Handles material: steel.

Code	Ref.	Max. cutting range	Length	Weight
380028	SF-240	≤Ø 35 mm 240 mm²	565 mm	2.15 kg



Single conductor cable, solid



Single conductor cable, fine and multiple strands



20101 SF-500

- For cutting copper and aluminium conductors as well as multiple stranded cables.
- Favourable transmission ratio due to double lever.
- Blade: high-grade chrome vanadium electric steel, forged, hardened, replaceable blades.
- Handles material: steel.

Code	Ref.	Max. cutting range	Length	Weight
380029	SF-500	≤Ø 55 mm 500 mm²	745 mm	4.48 kg



Multiple conductor cable, multiple strands and solid



Manual crimping tools by punching



20102 SF-P70

- For copper and aluminum tubular terminals (type T, TL, TBE) from 6 to 70 mm².
- Adjustment by section screw.
- Steel alloy handles.
- Not suitable for solid bimetallic terminals.

Code	Ref.	Crimping range	Length	Weight
385015	SF-P70	6-70 mm ²	462 mm	2.08 kg



20102 SF-P150

- For copper and aluminum tubular terminals (type T, TL, TBE) from 10 to 150 mm².
- Adjustment by section screw.
- Steel alloy handles.
- Not suitable for solid bimetallic terminals.

Code	Ref.	Crimping range	Length	Weight
385020	SF-P150	10-150 mm ²	706 mm	3.34 kg



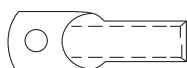
New generation manual crimping tool, engineered for robust performance and unparalleled comfort. This tool features an ergonomic design that minimizes strain and maximizes efficiency, making it the ideal choice for professionals seeking superior crimping capabilities.

Ergonomic Handle: the tool's ergonomic handle provides a comfortable grip, reducing hand fatigue during extended use.

Robust Construction: built to withstand rigorous use, this crimping tool is crafted from high-quality materials, ensuring long-lasting durability.

Precision Punch Crimping: with advanced punch mechanism, specifically designed for tubular terminals made of copper and aluminum.

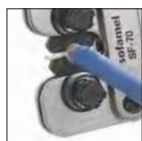
Copper tubular lugs



New generation hexagonal crimping tools

The crimping tools SF-70 and SF-120 are used for standard electrical connections.

The crimping dies are made from the most durable steel and feature a long service life, precise crimping diameter, and exceptional crimping effectiveness. Specially designed for our tubular terminals, series T, TL, TBE, among others.



20102 SF-70

- For tubular copper terminals from 6 to 70 mm².
- Section adjustment by revolver system.
- Hexagonal compression.
- Not suitable for solid bimetallic terminals.

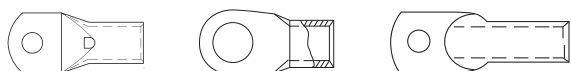
Code	Ref.	Crimping range	AWG	Length	Weight
380024	SF-70	6-70 mm ²	10-2/0	430 mm	1.75 kg

20102 SF-120

- For tubular copper terminals from 10 to 120 mm².
- Section adjustment by revolver system.
- Hexagonal compression.
- Not suitable for solid bimetallic terminals.

Code	Ref.	Crimping range	AWG	Length	Weight
380025	SF-120	10-120 mm ²	7-4/0	625 mm	3.2 kg

Copper and aluminium tubular lugs



Ratchet terminal crimping tools

The enhanced ratchet system requires less force.
All crucial components of our new crimping tools have undergone special hardening, ensuring high efficiency and prolonged lifespan.

20102 SF-6D

- For cable lugs from 0.5 to 6 mm².
- Punching compression.
- Not suitable for solid bimetallic terminals.



Code	Ref.	Crimping range	AWG	Length	Weight
380021	SF-6D	0.5-6 mm ²	20-10	180 mm	0.25 kg

20102 SF-16D

- For cable lugs from 2.5 to 16 mm².
- Punching compression.
- Not suitable for solid bimetallic terminals.



Code	Ref.	Crimping range	AWG	Length	Weight
380022	SF-16D	2.5-16 mm ²	13-5	275 mm	0.44 kg

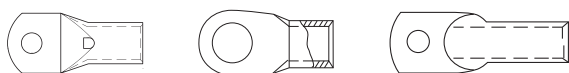
20102 SF-35D

- For cable lugs from 10 to 35 mm².
- Punching compression.
- Not suitable for solid bimetallic terminals.



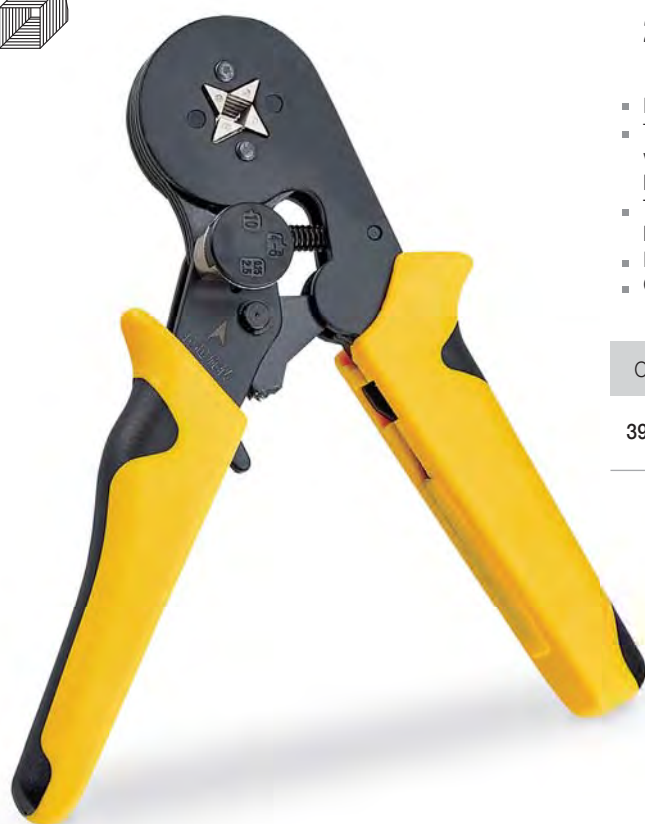
Code	Ref.	Crimping range	AWG	Length	Weight
380023	SF-35D	10-35 mm ²	8-1/0	335 mm	0.65 kg

Copper and aluminium tubular lugs



Mini-Type self-adjustable crimping plier

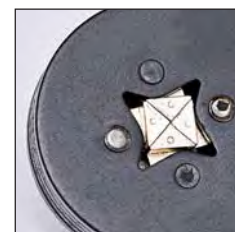
Insulated and non-insulated ferrules



20104 SF-42

- Lugs are effortlessly inserted into the crimping pliers from the side.
- The adaptive crimping pliers accommodate lug specifications within the crimp range, eliminating the need to differentiate between terminal sizes.
- They are compatible with all single-line bushings and two-wire bushing lugs within the specified application range.
- For cord end terminals from 0,5 to 6 mm².
- Compression system by squared diaphragm.

Code	Ref.	Crimping range	AWG	Length	Weight
390125	SF-42	0.25-10 mm ²	26-7	175 mm	0.4 kg



We've made significant improvements to our SF-42 tool.

The new SF-42 has a quick pressure adjustment knob. The pressure adjustment knob is divided into three pressure output files: 0.25-2.5 mm², 4-6 mm², 10 mm².

The number of times the crimping pliers has been used has been increased from 30,000 to 60,000 times after the adjustment knob is improved.



For the used of crimping of insulated and non-insulated bushing terminals. It is automatically adjusted according to the cross-sectional area of the terminals during crimping to facilitate the crimping operation of terminals of different sizes. After the bushings are crimped into a square shape It ensures the best contact surface and is DIN compliant.



When the crimping is not the same size, simply pull the adjustment knob to the corresponding specification and then reset.

Mechanical Tools

Tools

Crimping tools for insulated and non-insulated ferrules

GENERAL CATALOGUE 24/25

These crimping tools for ferrules, featuring punch compression, combine simplicity and convenience. Their durable and ergonomic design ensures reliable performance and a long lifespan, making them ideal for applications that require precision and efficiency.



20104 SF-55

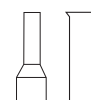
- For insulated and non-insulated ferrules of 10, 16, 25, 35 and 50 mm².
- With ratchet device.
- Punching compression.



Code	Ref.	Crimping range	AWG	Length	Weight
390180	SF-55	10-50 mm ²	8-1/0	320 mm	0.72 kg

20104 SF-6

- For insulated and non-insulated ferrules of 0.50 to 16 mm².



Code	Ref.	Crimping range	AWG	Length	Weight
390100	SF-6	0.5-16 mm ²	22-6	220 mm	0.29 kg

Compression using ratchet mechanism

Improvements have been implemented in the tool, including the dies, the vertex of the angular press, and the handle design, all aligned with human-centered engineering principles. These advanced improvements result in a more efficient user experience, simplifying operation and enhancing comfort.

20104 SF-10W

- For insulated and non-insulated ferrules from 0.25 to 10 mm².
- Compression using ratchet mechanism.



Code	Ref.	Crimping range	AWG	Length	Weight
380031	SF-10W	0.25-10 mm ²	23-7	205 mm	0.48 kg



20104 SF-35W

- Insulated and non-insulated ferrules from 10 to 35 mm².
- Compression using ratchet mechanism.



Code	Ref.	Crimping range	AWG	Length	Weight
380032	SF-35W	10-35 mm ²	5-2	205 mm	0.55 kg



The precise dies and the integral locking mechanism with self-release ensure high-quality crimping performance, even after multiple uses. The ergonomic design, with optimal center of gravity balance, the superior angular press, and the handle designed according to human engineering principles, make operation easier and more comfortable.

20104 SF-6J

- For insulated terminals from 0.5 to 6 mm².
- Compression using ratchet mechanism.



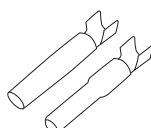
Code	Ref.	Crimping range	AWG	Length	Weight
380034	SF-6J	0.5-6 mm ²	20-10	205 mm	0.48 kg



Crimping tool for solar connectors

20103 SF-MC4

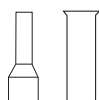
- Crimping tool for solar connectors to 2.5-6 mm² cables for photovoltaic installations.



Code	Ref.	Crimping range	Length	Weight
380033	SF-MC4	2.5-6 mm ²	205 mm	0.49 kg



Multipurpose tool 5 in 1



20104 SF-5

The 5-in-1 multipurpose tool offers versatility by combining several functions and optimizes space in the toolbox. Increases efficiency by reducing changeover times between tools and improves productivity. Its ergonomic design provides comfort, reducing fatigue and improving work precision. Its compact design makes it easy to transport for professionals on the go. Made with high quality materials, it guarantees durability and long-lasting, reliable performance.

Multipurpose tool 5 in1:

- Wire cutter.
- Crimping insulated terminals from 1,5 to 6,0 mm².
- Crimping non insulated terminals from 1,5 to 6,0 mm².
- Wire stripper from 0,75 to 6,0 mm².
- Iron screw cutter from M2.6 to M5.

Code	Ref.	Crimping range	Length	Weight
395100	SF-5	1.5-6 mm ²	220 mm	0.48 kg

Multipurpose tool that includes 5 sets of dies



20104 SF-C

The SF-C includes five sets of interchangeable dies. This versatility makes it an all-in-one solution for various crimping tasks, offering efficiency and convenience in a single device.

Multipurpose tool that includes 5 sets of dies:

- Insulated terminals from 0.5-6 mm².
- Cord end terminals from 0.25-10 mm².
- Cord end terminals from 10-35 mm².
- Twin cord end terminals from 2X(0.5-6 mm²).
- Non-insulated terminals from 0.5-10 mm².

Supplied with a carrying bag and screwdriver to facilitate changing dies.



Code	Ref.	Crimping range	Length	Weight
380035	SF-C	According to the die	243 mm	0.75 kg



For stripping the plastic or rubber insulation



20105 SF-D10

- For stripping the plastic or rubber insulation of the single, multiple cables and wires of 0.02-6 mm².
- With wire cutter for copper and aluminum wires, multiple strand up to 6 mm².
- No damaging of the conductor core, long lifetime.



Code	Ref.	Stripping range	Length	Weight
380026	SF-D10	0.02-6 mm ²	190 mm	0.15 kg

For stripping the plastic or rubber insulation



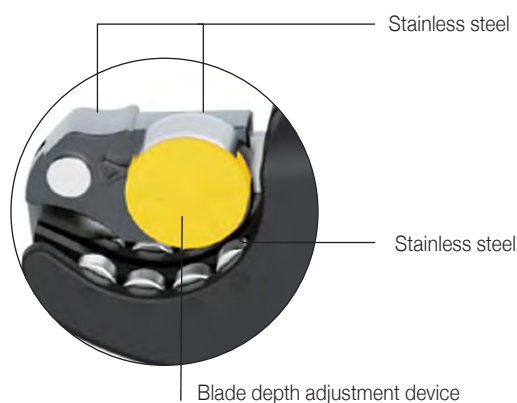
20105 PL-6

- Stripping diameter can be adjusted automatically for different wire cross sections.
- Precise blade design without damaging the conductor cores.
- During stripping, the wire is held firm by clamping jaws.
- With adjustable length stop, with a spring returns the stripper to the starting position, long lifetime.

Code	Ref.	Stripping range	Length	Weight
380030	PL-6	0.25-2.5 mm ²	170 mm	0.25 kg



For stripping the plastic or rubber insulation



Wire stripper



20105 SF-D30

- Minimizes the risk of injury while stripping cables, ensuring a secure operation every time.
- The straightforward design allows for quick and easy use.
- Designed with ergonomics in mind, the handle provides a comfortable and firm grip, reducing hand strain during prolonged use.
- For stripping the plastic or rubber insulation of the single, multiple cables and wires of 10-300 mm².
- No damaging of the conductor core, long lifetime.

Code	Ref.	Stripping range	Length	Weight
380027	SF-D30	Ø 8-30 mm / 10-300 mm ²	176 mm	0.13 kg

Code	Model
380037	Spare blade for SF-D30



20105 SF-38

- Designed for fast, safe and accurate stripping of PE, PVC, rubber and other materials. Ideal for fibre optic cables, providing accurate stripping on multi-fibre cables.
- Suitable for cable diameters from 4 to 25 mm.
- Allows rotary or longitudinal cuts along the length of the cable for end stripping.
- Spiral cut facilitates removal of tougher jackets.
- Spring-loaded bracket secures the cable firmly to the blade for a controlled cut.
- Ergonomic design for ease of use and storage.
- Long lasting blade for easy depth adjustment.

Code	Ref.	Stripping range	Length	Weight
400110	SF-38	4-25 mm	136 mm	0.13 kg

Cable ties



20106 SF-39

- The SF-39 tensioning tool is designed to efficiently tension and cut plastic or metal ties. It offers consistent use over many cycles and is equipped with padded non-slip handles for increased comfort and control.

Code	Ref.	Tie width	Length	Weight
405100	SF-39	2.4-9.0 mm	195 mm	0.3 kg

Multifunctional cross wrench



20106 SF-LC

- Versatile industrial tool, ideal for opening electrical panels, gas boxes, cabinet doors, toolboxes, and other locking systems. Also suitable for screwing and unscrewing (Phillips PH2 and flat PL6.5). Perfect for electricians, building maintenance personnel, utility workers, among others.
- Material: High-quality zinc alloy.
- Robust structure for prolonged use.
- Compact and easy-to-carry design.

Code	Ref.										Length	Weight
		A	B	A	B	A	B	A	B	C		
20106001	SF-LC	14 mm	8 mm	12 mm	6 mm	14 mm	9 mm	14 mm	9 mm	5.5 mm	72 mm	0.1 kg

20105 UCS-25-LV/MV

- Universal wire stripper for external BT/MT insulation.
- Include replaceable blade.
- Include tool holder case to attach to the belt.

Not suitable for working under tension.



Applicable for:



Communication cable



LV cable (PLV insulation)



MV cable (PVC constructed)



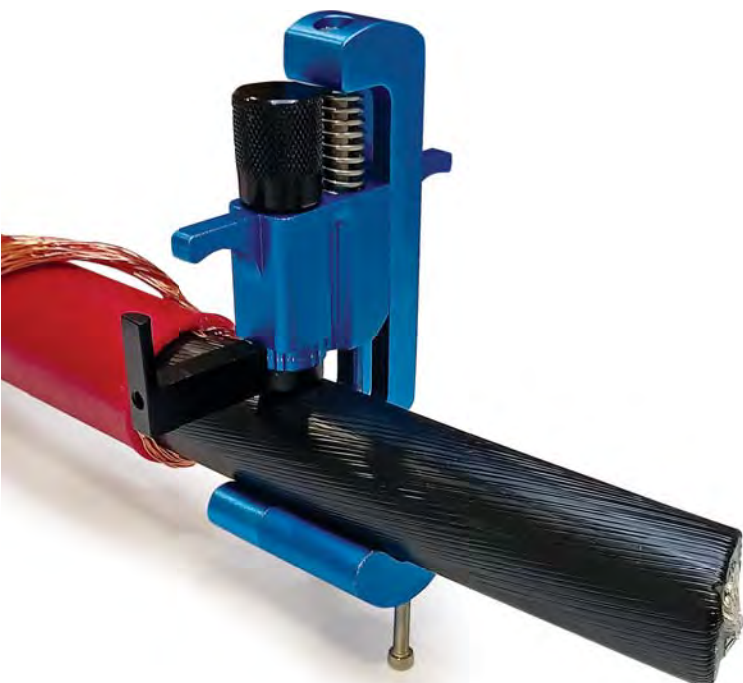
MV cable (PLV insulation)



Code	Ref.	Cable Ø	Cutting thickness	Length	Weight
400006	UCS-25-LV/MV	≥25 mm	0-5 mm	160 mm	0.2 kg

Code	Ref.	Description
400007	SB UCS-25	Replacement blade

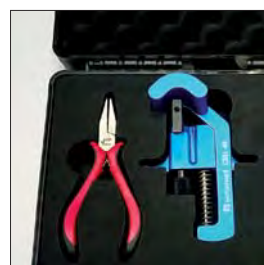
Includes a tool belt pouch designed to keep the UCS-25 always within reach, making work easier and improving efficiency. Superior quality, sturdy, and durable.



Cable stripper for strippable semi-conductor layer

20105 CSSL-40

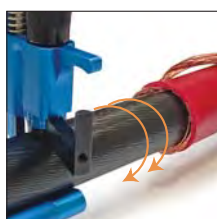
- Application: To strip 10/11 kV or 20/22 kV Strippable Semiconductor.
- Adjustable cutting depth, max. 2 mm, adjustable range of rotary knob is 0-0.9 mm, each adjustable depth is 0.1 mm.
- Applicable cable Ø: 16-41 mm.
- Blade min. hardness: 52 HRC.
- Include a pliers and tool holder briefcase.



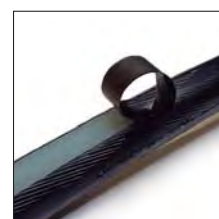
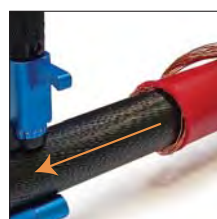
Peeling process

There are two methods for stripping the semiconducting layer:

1. Spiral cutting



2. Longitudinal cutting



Code	Ref.	Layer Ø	Cutting thickness	Tool dimensions	Briefcase dimensions	Tool Weight	Briefcase Weight
400008	CSSL-40	16-41 mm	5 mm	120x60x50 mm	240x210x70 mm	0.21 kg	0.43 kg

Code	Ref.	Model	Hardness
400009	CSSL-40	Spare blade for CSSL-40	52 HRC

Cable stripping tool for non-removable semiconductor layer



20105 CSNL-54

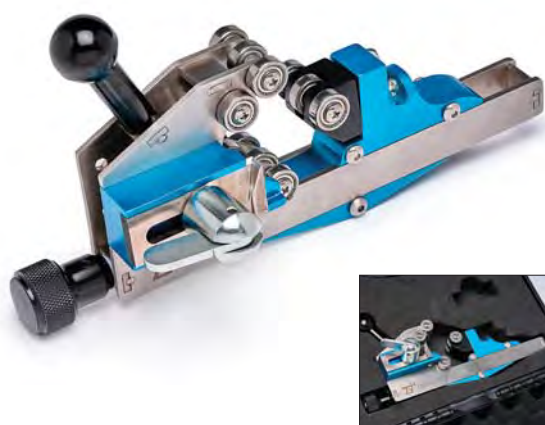
Tool for stripping non-removable semiconductor layers of 10, 20 and 35 kV power cables (Ø of the cable: 16-51 mm). It has a small radius of rotation (maximum only 90 mm). It can be operated in narrow space and operated on a cable with more than three cores. The bearing are flexible and easy to rotate, making it easy for the operator to strip the cable.

- Applied to 35 kV non-strippable semi-conductor.
- With chamfer on blade, leaving chamfer on semi-conductor.
- One-way stripping.
- Can be fixed tightly on cable.
- Offers stripping depths ranging from 0 to 1.5 mm.
- Compatible with cable diameters ranging from 30 mm to 54 mm.
- Ensures a secure fixation.
- Lightweight design.
- Include tool holder briefcase.

Code	Ref.	Cable Ø	Stripping depth	Weight	Dimensions (mm)
400010	CSNL-54	30-54 mm	0-1.5 mm	0.6 kg	180x95x47

Code	Ref.	Model
400011	SB CSNL-54	Spare blade for CSNL-54

Cable stripper for primary insulation



20105 CSML-54

Suitable for stripping main insulation of 10 kV, 20 kV and 35 kV cables. Features both slice and rotary cutting functions, with adjustable blade angles for versatility.

- Equipped with a replaceable blade for extended usage.
- Adjustable stripping depth ranging from 0 to 15 mm.
- Compatible with cable diameters ranging from 15 mm to 54 mm.
- Lightweight design.
- Include tool holder briefcase.

Code	Ref.	Cable Ø	Stripping depth	Weight	Dimensions (mm)
400024	CSML-54	15-54 mm	0-15 mm	0.7 kg	180x95x47

Code	Ref.	Model
400025	SB CSML-54	Spare blade for CSML-54

Cable stripper for primary insulation



20105 CSML-25/240

The tool is designed to remove the insulation of ethylene propylene rubber (G7) or cross-linked polypropylene (XLPE) from 10/11 kV or 20/22 kV cables with the following cross-sectional areas: 25, 35, 50, 70, 95, 120, 150, 185, and 240 mm².

- Include tool holder briefcase.



Code	Ref.	Working range	Tool dimensions	Briefcase dimensions	Tool weight	Briefcase weight
400023	CSML-25/240	20 kV	234x122x46 mm	440x360x125 mm	0.35 kg (handle + a peeling head)	0.6 kg





20105 CSML-H

Cable stripper for main layer (Handle only)

The tool is designed to remove the insulation of ethylene propylene rubber (G7) or cross-linked polypropylene (XLPE) from 10/11 kV or 20/22 kV cables with the following cross-sectional areas: 25, 35, 50, 70, 95, 120, 150, 185, and 240 mm².

Code	Ref.	Working range	Tool dimensions	Briefcase dimensions	Tool weight	Briefcase weight
400013	CSML-H	20 kV	234x122x46 mm	440x360x125 mm	0.35 kg (handle + a peeling head)	0.6 kg

Code	Ref.	Working range	Use with CSML	Tool dimensions	Briefcase dimensions	Tool weight	Briefcase weight
400014	CSML-I 25	20 kV	25 mm²	234x122x46 mm	440x360x125 mm	0.35 kg (handle + a peeling head)	0.6 kg
400015	CSML-I 35		35 mm²				
400016	CSML-I 50		50 mm²				
400017	CSML-I 70		70 mm²				
400018	CSML-I 95		95 mm²				
400019	CSML-I 120		120 mm²				
400020	CSML-I 150		150 mm²				
400021	CSML-I 185		185 mm²				
400022	CSML-I 240		240 mm²				

Tool for chamfering primary insulation



20105 TCML-60

The TCML-60 tool is vital to ensure cable safety, efficiency and durability, as well as to comply with electrical safety regulations. Application range: Ø 15 - 60 mm.

Recommended Use: Suitable for all types of primary insulation. Designed for precise chamfered cuts (3 x 45°) on medium voltage (MV) cables.

Secure positioning on the cable with a clamp system.

Equipped with PTFE plates for smooth sliding on the cable, eliminating the need for silicone paste.

Replaceable blade for prolonged use.

Maximum rotation diameter: 200 mm.

Note: Not intended for pencilling.

Included in the Set:

- TCML-60: Tool for chamfered cuts of primary insulation.
- Tool holder briefcase.

Code	Ref.	Cable Ø	Weight	Dimensions (mm)
400027	TCML-60	15-54 mm	0.39 kg	180x95x47



20105 TCA-76

Universal chain cutter for cable armor of Ø 20-76 mm

Chain cutter, made of steel. For stripping the armor of cables Ø 20-76 mm. Cuts very effectively, with just a quarter turn for a complete cut.

Code	Ref.	Weight	Dimensions (mm)
400005	TCA-76	0.58 kg	250x80x22

KIT 1 MV-SP. Stripping tools MV cable with strippable semiconductor layer



20105 KIT 1 MV-SP

This kit of tools is designed for stripping medium voltage (MV) cables with a strippable semiconducting layer. Its operation is straightforward and efficient, ensuring proper cable preparation for electrical installation.

The standard kit includes:

- 400006 universal cable stripper for external insulation LV/MV.
- 400013 cable stripper for main layer.
- 400008 cable stripper for strippable semiconductor layer.
- 316000 scissors TS-50.
- 400016 insert CSML 50 mm².
- 400018 insert CSML 95 mm².
- 400020 insert CSML 150 mm².
- 400022 insert CSML 240 mm².
- 400029 grease tube.
- 410115 insulated knife 190 mm.
- 570140 hydroalcoholic towelette.
- High quality case with foam.

The case can accommodate up to eight inserts, with a selectable cross-section ranging from 25 mm² to 240 mm².

Code	Ref.	Weight	Dimensions (mm)
400030	KIT 1 MV-SP	3.5 kg	465x355x145



KIT 2 MV-SN. Stripping tools MV Cable with non-strippable semiconductor layer



20105 KIT 2 MV-SN

This kit of tools is designed for stripping medium voltage (MV) cables with a non-strippable semiconducting layer. Its operation is straightforward and efficient, ensuring proper cable preparation for electrical installation.

The standard kit includes:

- 400006 universal cable stripper for external insulation LV/MV.
- 400010 cable stripper for non-strippable semiconductor layer.
- 400024 cable stripper for main layer Ø 54 mm.
- 570140 hydroalcoholic towelette.
- 400029 grease tube.
- High quality case with foam.

Code	Ref.	Weight	Dimensions (mm)
400031	KIT 2 MV-SN	3.5 kg	465x355x145



KIT 3 MV-A-SP. Stripping tools MV armoured cables with strippable semiconductor layer



20105 KIT 3 MV-A-SP

This toolkit ensures high-quality work, facilitating the process of preparing cables for subsequent connection and use.

The standard kit includes:

- 400006 universal cable stripper for external BT/MT insulation.
- 400008 wire stripper for peelable semiconducting layer Ø 16-41 mm.
- 400024 wire stripper for main layer Ø 54 mm.
- 400027 tool for chamfering the main layer Ø 15-60 mm.
- 570140 hydroalcoholic wipe.
- 400029 grease tube.
- 400005 universal chain cutter armed cable Ø 20-76 mm.
- High quality suitcase with foam.

Code	Ref.	Weight	Dimensions (mm)
400032	KIT 3 MV-A-SP	4.0 kg	465x355x145



HYDRAULIC TOOLS





Hydraulic crimping

20201 EC-5

- The buckle-type design offers a blend of lightness and strength for quick installation and disassembly. Its rotating crimping head adapts to different angles effortlessly.
- A dual-speed hydraulic system with a built-in safety valve ensures fast, precise crimping. Automatic pressure release upon reaching preset levels ensures quality, speed, and operator safety.
- An external manual pressure relief valve allows for easy pressure release.
- The hydraulic valve, made from special steel, guarantees durability and longevity.
- Small size allows working in reduced spaces.
- Include tool holder briefcase.



Code	Ref.	Crimping force	Nominal Pressure	Tool dimensions	Briefcase dimensions	Tool weight	Briefcase weight
411000	EC-5	50 kN	60 MPa	380x130x65 mm	530x420x130 mm	2.7 kg	3.0 kg

Crimping range

Copper lugs	10-240 mm ²
Thin-walled Al lugs	16-150 mm ²
Crimpis (CRC, CRS, CRA)	up to 70 mm ²

Available dies



HD5 copper and aluminium cable lugs/butt-connectors and pin terminals by hexagonal compression
Copper: up to 240 mm²
Aluminium: up to 150 mm²



CDC5 copper and aluminium compression clamps by elliptical/circular compression
Up to 70 mm²



Hydraulic crimping

20201 EC-13C

- The C-shaped opening design enables swift crimping, making it easy to handle and position.
- 180° rotary head with quick opening.
- Incorporates audible safety valve that limit the maximum working force to 130 kN.
- Two speeds: one fast to approach and one slow to crimp.
- The handle is designed with self-locking, to ensure that the tool is in a completely unpressurized state after use, which improves the service life.
- The hydraulic valve is made of special steel, sturdy and durable.
- Include tool holder briefcase.



Code	Ref.	Crimping force	Nominal Pressure	Tool dimensions	Briefcase dimensions	Tool weight	Briefcase weight
411001	EC-13C	130 kN	70 MPa	630x135x71 mm	875x340x130 mm	6.9 kg	3.5 kg

Crimping range

Copper lugs and splices	up to 400 mm ²
Aluminium lugs and splices	up to 300 mm ²
H type, C type clamps and bimetallic lugs (hexagonal crimp only)	up to 240 mm ²

Available dies



HD13 copper and aluminium cable lugs and butt-connectors by hexagonal compression
Copper: up to 400 mm²
Aluminium: up to 300 mm²



CD13 copper and aluminium Compression clamps by circular compression
Copper: Main and tap up to 185 mm²
Aluminium: Main up to 300 mm² and tap up to 70 mm²



Hydraulic crimping

20201 EC-13U

- Universal head for all types of crimping, including deep stepped crimping.
- 180° rotary head with quick opening.
- Incorporates audible safety valve that limits the maximum working force to 130 kN.
- Two speeds: one fast to approach and one slow to crimp.
- Include tool holder briefcase.

The EC-13U tool comes with the "C" adapter for hexagonal crimping. The rest of the adapters and dies are available separately.

Includes adapter to convert "H" head to "C" head.



Code	Ref.	Crimping force	Nominal Pressure	Tool dimensions	Briefcase dimensions	Tool weight	Briefcase weight
411002	EC-13U	130 kN	70 MPa	587x72x144 mm	875x340x130 mm	5.84 kg	3.5 kg

Crimping range

Copper lugs and splices	up to 400 mm ²	Bimetallic lugs (Stepped deep punching)	up to 240 mm ²
Aluminium lugs and splices	up to 300 mm ²	H type, C type clamps	up to 240 mm ²

Available dies



HD13 copper and aluminium cable lugs and butt-connectors by hexagonal compression
Copper: up to 400 mm²
Aluminium: up to 300 mm²



CD13 copper and aluminium compression clamps by circular compression
Copper: up to 185 mm²
Aluminium: main up to 300 mm² and tap up to 70 mm²



MP-L/PP bimetallic cable lugs by deep punching compression
Up to 240 mm²



MP-S/PP aluminium multi voltage joints by deep punching compression
Up to 240 mm²

Note: choose the adapter according to section, to be used together with the corresponding punch and die.



Hydraulic cutting

Suitable for cutting ACSR cable, copper, aluminum, steel wire, and steel rope up to Ø 45 mm

20201 ET-45

- Latch head with two blades design.
- Two stage pumping action.
- Automatic retraction when the maximum pressure is reached.
- Heated treated special steel for the blades.
- Light and compact structure.
- Cutting head with snap closure and blade guide, rotates 270°.
- Quick feed with double hydraulic cylinder.
- Automatic pressure safety valve.
- Manual return in any position.
- Include tool holder briefcase.

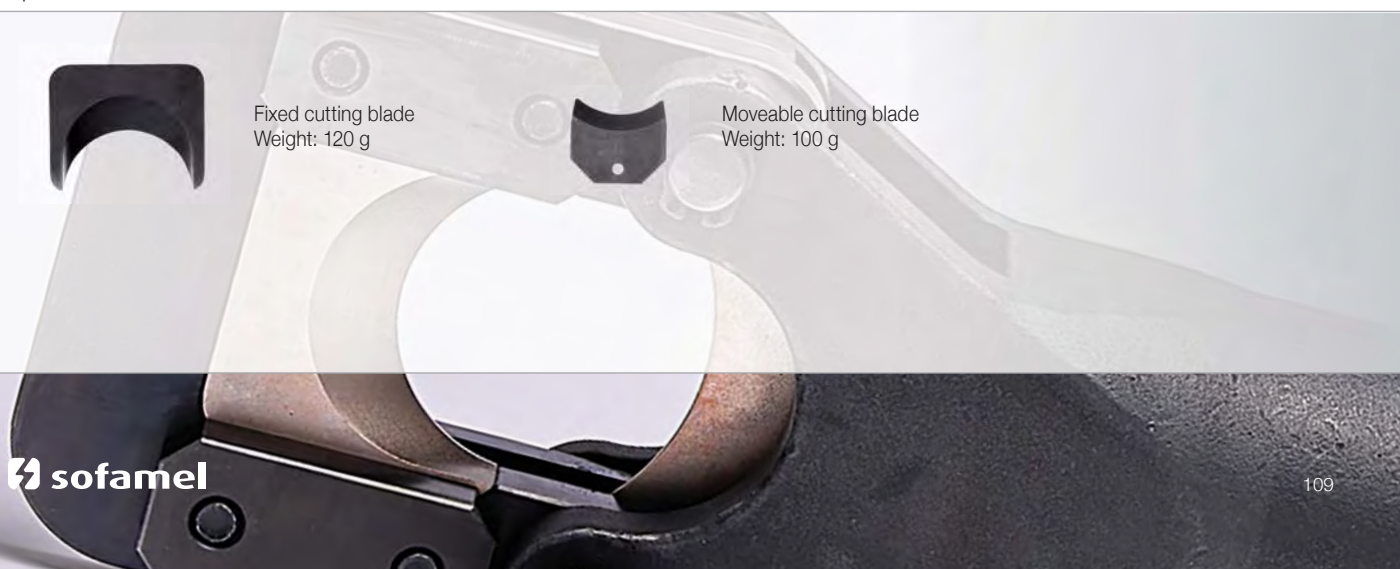


Code	Ref.	Nominal Pressure	Maximum cutting force	Tool dimensions	Briefcase dimensions	Tool weight	Briefcase weight
411004	ET-45	70 MPa	90 kN	646x152x75 mm	875x340x130 mm	6.25 kg	3.5 kg

Cutting range

ACSR, copper and aluminium	With a diameter less than 45 mm ($\leq 1000 \text{ mm}^2$)	Steel strand	150 mm ² Ø 20 mm
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Spare blades



Fixed cutting blade
Weight: 120 g

Moveable cutting blade
Weight: 100 g



Battery-powered hydraulic crimping tool

20202 EBC-5



- 180 degree swivel head.
- 2-speed hydraulic system.
- Independently designed oil return system can safety retract without electricity.
- The trigger switch and return button are separately and activated by only one hand.
- Built-in chip, with memory function, can stop automatically when crimping is completed, realize intelligent crimping.
- The crimping cycle data is automatically stored on a memory card for transfer to PC via USB cable interface (Bluetooth available separately).
- OLED display provides battery capacity, operational and service crimping cycled, bluetooth information, etc.
- Automatic retraction when the maximum pressure is reached.
- LED lightning for work in dark environments.
- Rubber grip to have low noise and vibration.
- Include tool holder briefcase.



Battery type	Battery changer
18 V 4.0 Ah, Li-ion	ASC 55

Code	Ref.	Nominal Pressure	Maximum crimping force	Tool dimensions	Briefcase dimensions	Tool weight	Briefcase weight
412000	EBC-5	60 MPa	50 kN	325x313x94 mm	670x470x135 mm	4.6 kg (incl. battery)	4.5 kg

Crimping range

Copper lugs	10-240 mm ²
Thin-walled Al lugs	16-150 mm ²
Crimpis (CRC, CRS, CRA)	up to 70 mm ²

Available dies



HD5 copper and aluminium cable lugs/butt-connectors and pin terminals by hexagonal compression
Copper: up to 240 mm²
Aluminium: up to 150 mm²



CDC5 copper and aluminium compression clamps by elliptical/circular compression
Up to 70 mm²



Battery-powered hydraulic crimping tool

20202 EBC-13C



- C-shaped head that rotates 180 degrees.
- 2-speed hydraulic system.
- Independently designed oil return system can safety react without electricity.
- The trigger switch and return button are separately and activated by only one hand.
- Built-in chip, with memory function, can stop automatically when crimping is completed, realize intelligent crimping.
- Crimping cycle data is automatically stored on a memory card for transfer to PC by USB interface.
- OLED display provides information on battery capacity, crimping cycles, and service cycles.
- Automatic retraction when the maximum pressure is reached.
- LED lightning for work in dark environments.
- Rubber grip to have low noise and minimal vibration.
- Include tool holder briefcase.



Battery type	Battery changer
18 V 4.0 Ah, Li-ion	ASC 55

Code	Ref.	Nominal Pressure	Maximum crimping force	Tool dimensions	Briefcase dimensions	Tool weight	Briefcase weight
412001	EBC-13C	70 MPa	130 kN	385x325x95 mm	670x470x135 mm	7.7 kg (incl. battery)	4.5 kg

Crimping range

Copper terminals and sleeves	up to 400 mm ²
Aluminium terminals and sleeves	up to 300 mm ²

Available dies



HD13 copper and aluminium cable lugs and butt-connectors by hexagonal compression
 Copper: up to 400 mm²
 Aluminium: up to 300 mm²
 Bimetallic: up to 240 mm²



CD13 copper and aluminium compression clamps by circular compression
 Copper: main up to 185 mm² and tap up to 185 mm²
 Aluminium: main up to 300 mm² and tap up to 70 mm²



Battery operated insulated hydraulic crimping tool 22 kV

20202 EBC-13LW



- Ideal for operations in proximity to power sources, including substations, medium voltage lines, catenary systems, and other similar environments.
- The C-type head allows for crimping at various angles, adapting to diverse crimping needs.
- Equipped with both automatic and mechanical oil return systems (oil return without electricity), ensuring the safety of the equipment during power failures without affecting subsequent use.
- Enables data transmission between the tool and a host computer via Bluetooth or USB data cable connection.
- OLED screen, combined with touch buttons, provides real-time display of various tool states, enhancing operational intelligence.
- The housing contains rubber in its composition to minimize noise and vibrations.
- High-intensity LED lamp beads cover the entire crimping area, ensuring visibility for night work.
- Include tool holder briefcase.



Battery type	Battery changer
18 V 4.0 Ah, Li-ion	ASC 55

Code	Ref.	Nominal Pressure	Maximum crimping force	Tool dimensions	Briefcase dimensions	Tool weight	Briefcase weight
412002	EBC-13LW	70 MPa	130 kN	390x325x94 mm	670x470x135 mm	7.8 kg (incl. battery)	4.5 kg

Crimping range

Copper cable terminals and splicing sleeves	400 mm ²
Aluminium cable terminals and splicing sleeves	300 mm ²

Available dies



HD13 copper and aluminium cable lugs and butt-connectors by hexagonal compression
 Copper: up to 400 mm²
 Aluminium: up to 300 mm²
 Bimetallic: up to 240 mm²



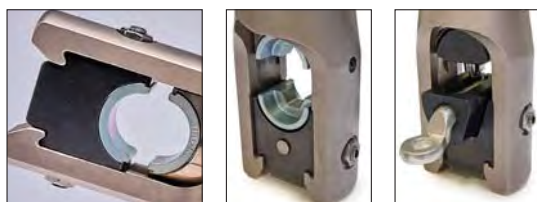
CD13 copper and aluminium compression clamps by circular compression
 Copper: main up to 185 mm² and tap up to 185 mm²
 Aluminium: main up to 300 mm² and tap up to 70 mm²



New generation battery operated hydraulic crimping tool

20202 EBC-13U

- Universal crimping head for all types of crimping, including deep staggered punch crimping.
- 180 degree swivel head.
- 2-speed hydraulic system.
- Independently designed oil return system can safety retract without electricity.
- The trigger switch and return button are separately and activated by only one hand.
- Built-in chip, with memory function, can stop automatically when crimping is completed, realize intelligent crimping.
- Crimping cycle data is automatically stored on a memory card for transfer to PC by USB interface or bluetooth.
- OLED display provides battery capacity, operational and service crimping cycled, bluetooth information, etc.
- Automatic retraction when the maximum pressure is reached.
- LED lightning for work in dark environments.
- Rubber grip to have low noise and minimal vibration.
- Include tool holder briefcase.



Battery type	Battery changer
18 V 4.0 Ah, Li-ion	ASC 55



Includes AD-13U/13C adapter to convert "H" head to "C" head.

Code	Ref.	Nominal Pressure	Maximum crimping force	Tool dimensions	Briefcase dimensions	Tool weight	Briefcase weight
412003	EBC-13U	70 MPa	130 kN	363x334x95 mm	670x470x135 mm	6.7 kg (incl. battery)	4.5 kg

Crimping range

Copper lugs and splices	400 mm ²	Bimetallic lugs (Stepped deep punching)	240 mm ²
Aluminium lugs and splices	300 mm ²	H type, C type clamps	240 mm ²

Available dies



HD13 copper and aluminium cable lugs and butt-connectors by hexagonal compression
 Copper: up to 400 mm²
 Aluminium: up to 300 mm²
 Bimetallic: up to 240 mm²



CD13 copper and aluminium compression clamps by circular compression
 Copper: Up to 185 mm²
 Aluminium: Main up to 300 mm² and tap up to 70 mm²



MP-L/PP bimetallic cable lugs by deep punching compression
 Up to 240 mm²



MP-S/PP aluminium multi voltage joints by deep punching compression
 Up to 240 mm²

Note: choose the adapter according to section, to be used together with the corresponding punch and die.



Battery-powered hydraulic cutting tool

20202 EBT-45

- The head is adjustable to facilitate cutting at various angles.
- The independently designed oil return system ensures safe retraction without reliance on electricity.
- A two-speed hydraulic system guarantees swift and high-quality cutting.
- Post-cutting, the section surface remains perfect without loose strands.
- Equipped with a built-in high-pressure safety valve, which automatically releases pressure when it reaches maximum levels, safeguarding both tools and operators.
- LED lighting enhances convenience and safety during cutting operations.
- Extra comfortable handling.
- Rubber grip to have low noise and minimal vibration.
- Include tool holder briefcase.



Battery type	Battery charger
18 V 4.0 Ah, Li-ion	ASC 55

Code	Ref.	Nominal Pressure	Maximum cutting force	Tool dimensions	Briefcase dimensions	Tool weight	Briefcase weight
412030	EBT-45	70 MPa	130 kN	460x325x95 mm	670x470x135 mm	8 kg (incl. battery)	4.5 kg

Cutting range

ACSR, copper and aluminium	With a diameter less than 45 mm ($\leq 1000\text{mm}^2$)
Steel strand	150 mm ² Ø 20 mm

Spare blades



Fixed cutting blade
Weight: 120 g



Moveable cutting blade
Weight: 100 g



Battery-powered hydraulic crimping tool, mini series

20202 EBC-6M

- Suitable for crimping operations in confined spaces, such as electrical cabinets, narrow boxes, and similar environments.
- Very lightweight and easy to handle, this tool ensures maximum efficiency and comfort.
- Flip top style for easy access to the fittings.
- Head rotates 360-degree.
- Automatic pressure relief.
- External LED display, easy to read and record usage information.
- High performance, high capacity 18 V lithium battery with power display, equipped with fast charger.
- Two LED working lights help work easier in dark area.
- PP plastic housing and carrying case, sturdy and durable.
- Include tool holder briefcase.



Battery type	Battery changer
18 V 4.0 Ah, Li-ion	ASC 55

Code	Ref.	Nominal Pressure	Maximum crimping force	Tool dimensions	Briefcase dimensions	Tool weight	Briefcase weight
412004	EBC-6M	55 MPa	62 kN	415x125x90 mm	530x420x130 mm	2.99 kg (incl. battery)	4.5 kg

Crimping range

Copper tubular terminals and sleeves	up to 300 mm ²
Aluminum tubular terminals and sleeves	up to 185 mm ²



Battery-powered hydraulic crimping tool, mini series, without dies

20202 EBC-6SM

- No need to change dies; Crimping is carried out with the self-adjusting punch, which automatically adapts to the section of the cable used.
- Suitable for pressing operations in narrow spaces.
- Lightweight, fast pressing speed, easy to operate. All data can be easily read through the smart display. Connection to the computer via USB for convenient management of various parameters.
- The closed head is fully rotatable.
- High-performance, high-capacity 18 V lithium battery with power display, equipped with Metabo brand fast charger.
- Two LED work lights help you work easier in dark areas.
- PP plastic shell, durable.
- Includes tool case.



Battery type	Battery changer
18 V 4.0 Ah, Li-ion	ASC 55

Code	Ref.	Nominal Pressure	Maximum crimping force	Tool dimensions	Briefcase dimensions	Tool weight	Briefcase weight
412007	EBC-6SM	55 MPa	60 kN	418x121x90 mm	530x420x130 mm	2.8 kg	4.5 kg

Crimping range

Copper terminal	10-300 mm ²
Aluminum terminal	16-240 mm ²



Battery wire ratchet cutter

20202 EBT-54

- It cuts the cable in seconds, without any effort, which optimizes time and significantly reduces the operator's working hours.
- Ensures a precise and clean cut that preserves the internal conductors, ensuring the integrity and functionality of the cable.
- Designed for class 1, 2 and 5 copper and aluminum cables; armored cable and ACSR cable.
- The blade, made of forged steel alloy and with a Specialized heat treatment, withstands prolonged and demanding use.
- With a rational, lightweight and portable design, it offers efficient functionality and effortless operation.
- Includes two Makita batteries of 3.0 Ah each and a fast charger of the same brand.
- Includes tool case.



Battery type	Charger power supply
DC 18 V 3.0 Ah 54 Wh Lition-ion	AC 220 V 50-60 Hz

Code	Ref.	Nominal Pressure	Maximum cutting force	Tool dimensions	Briefcase dimensions	Tool weight	Briefcase weight
412006	EBT-54	54 MPa	62 kN	340x190x110 mm	450x400x150 mm	2.6 kg	1.8 kg

Cutting range

Copper cables, aluminum cables, armored cables, and ACSR cables	Up to 54 mm, $\leq 560 \text{ mm}^2$
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Hydraulic head 13T

20203 CH-13C

- Hydraulic C type head with quick connection to a hydraulic drive with a maximum pressure of 700 bar.
- Made of specially treated sealed steel.
- Interchangeable dies.
- Include tool holder briefcase.

Available dies



HD13 Copper and aluminium cable lugs and butt-connectors by hexagonal compression
Up to 400 mm² copper
Up to 300 mm² aluminium
Up to 240 mm² bimetallic



CD13 Copper and aluminium Compression clamps by circular compression
Copper: Main up to 185 mm² and tap up to 185 mm²
Aluminium: Main up to 300 mm² and tap up to 70 mm²



Code	Ref.	Crimping force	Rated pressure	Pump dimensions	Briefcase dimensions	Pump weight	Briefcase weight
413001	CH-13C	130 kN	700 bar	289x119x72 mm	450x370x120 mm	5.5 kg	2.5 kg



Hydraulic head 13T

20203 CH-13U

- Universal crimping head for all types of crimping, including deep stepped crimping.
- Made of specially treated steel.
- Flip-top head: Simplifies the positioning and insertion of the dies.
- Quick connection with lock.
- Comes with adapter for hexagonal crimping.
- Include tool holder briefcase.

Available dies



HD13 Copper and aluminium cable lugs and butt-connectors by hexagonal compression
Up to 400 mm² copper, up to 300 mm² aluminium
Up to 240 mm² aluminium



CD13 Copper and aluminium Compression clamps by circular compression
Copper: Up to 185 mm²
Aluminium: Main up to 300 mm² and tap up to 70 mm²



MP-L/PP Bimetallic cable lugs by deep punching compression
Up to 240 mm²



MP-S/PP Aluminium multi voltage joints by deep punching compression
Up to 240 mm²



Code	Ref.	Crimping force	Rated pressure	Pump dimensions	Briefcase dimensions	Pump weight	Briefcase weight
413000	CH-13U	130 kN	700 bar	248x93x76 mm	450x370x120 mm	3.5 kg	2.5 kg



Universal hydraulic head 20T

20203 CH-20P

- This 20-ton universal hydraulic head is designed for all types of crimping applications, including hexagonal, deep indent, and circular crimping.
- It accommodates all sections up to 630 mm² with the use of different adapters, ensuring versatile compatibility.
- Despite its powerful capabilities, the head is lightweight, easy to handle, and of exceptional quality.
- It comes with a convenient carrying case for easy transport and storage.

Available dies

Hexagonal compression on copper or aluminum conductors, under various regulations or specifications from 10 mm² to 630 mm².

Circular compression in copper and aluminum clamps, like CRC, CRA and CRS, all ranges.
Placed in round, to obtain a compact round shape.

Deep stepped punching, in bimetallic terminals and sleeves up to 630 mm².

Code	Ref.	Crimping force	Rated pressure	Pump dimensions	Briefcase dimensions	Pump weight	Briefcase weight
413003	CH-20P	200 kN	700 bar	305x116x95 mm	450x370x120 mm	6 kg	2.5 kg



Hydraulic head 25T

20203 CH-25

- U-type crimping head, sturdy and durable.
- Pin-type for easy access to the fitting.
- Quick coupler for easy disassembly.
- Powered by a single-acting hydraulic pump.
- Light weight, suitable for overhead line work.
- Includes tool case.

Available dies

Adapter for transitioning to small sections 13T



HD25 Hexagonal dies
Up to 630 mm² Cu.



Code	Ref.	Crimping force	Rated pressure	Pump dimensions	Pump weight
413002	CH-25	250 kN	700 bar	360x130x130 mm	5 kg



Hydraulic head 45T

20203 CH-45

- U-type crimping head, sturdy and durable.
- Pin-type crimping head for easy access to the fitting.
- Quick coupler for easy disassembly.
- Powered by single acting hydraulic.
- Flat base, keep vertical level.
- Includes tool case.

Available dies



HD45 Hexagonal dies
Up to 800 mm² Cu.

Code	Ref.	Crimping force	Rated pressure	Pump dimensions	Pump weight
413004	CH-45	450 kN	700 bar	265x140x115 mm	11 kg

* Available upon request



Hydraulic head 60T

20203 CH-60

- Ideal for ACSR overhead lines, splice sleeves, and clamps for power transmission lines from 110 kV to 220 kV.
- The head features a fixed upper die seat that can be quickly rotated and opened, facilitating crimping operations on mid-span and end fittings.
- Equipped with a quick coupler for easy disassembly.
- Operates on a single-acting hydraulic system.
- Includes a steel carrying case.

Available dies



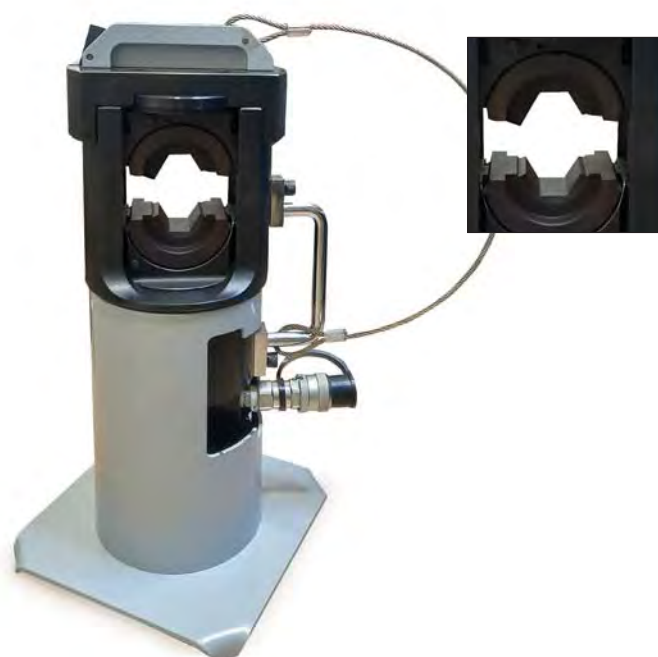
HD60 Hexagonal dies
Cu/Al up to Ø 60 mm
Stell up to Ø 26 mm

Crimping range

Copper and aluminium terminals	Ø 60 mm
Steel terminals	Ø 26 mm

Code	Ref.	Crimping force	Rated pressure	Pump dimensions	Briefcase dimensions	Pump weight	Briefcase weight
413005	CH-60	600 kN	700 bar	270x160x320 mm	295x220x350 mm	25 kg	4 kg

* Available upon request



Hydraulic head 60T

20203 CH-60A

- Ideal for ACSR overhead lines, splicing sleeves, and strain clamps for 110 kV to 220 kV power transmission lines.
- The head features a fixed upper die seat that can be rotated and quickly opened, facilitating mid-span and end crimping operations.
- Equipped with a quick coupler for easy and swift disassembly.
- Operated by a single-acting hydraulic system.
- Include steel case.

Available dies



HD60 Hexagonal dies
Cu/Al up to Ø 60 mm
Stell up to Ø 26 mm

Crimping range

Copper and aluminium terminals				Ø 60 mm			
Steel terminals				Ø 26 mm			
Code	Ref.	Crimping force	Rated pressure	Pump dimensions	Briefcase dimensions	Pump weight	Briefcase weight
413008	CH-60A	600 kN	700 bar	240x220x450 mm	490x240x300 mm	20 kg	4 kg

* Available upon request



Hydraulic head 100T

20203 CH-100

- Double acting hydraulic head, reducing piston reset time.
- Quick connector for easy disassembly.
- Ideal for ACSR overhead lines, tensile clamps for 110 kV and 200 kV underground cable sleeves.
- Includes steel case.

Available dies

HD100
Cu/Al up to Ø 76 mm
Stell up to Ø 36 mm

Crimping range

Copper and aluminium terminals				Ø 76 mm			
Steel terminals				Ø 36 mm			
Code	Ref.	Crimping force	Rated pressure	Pump dimensions	Pump weight		
413006	CH-100	1000 kN	700 bar	280x180x365 mm	31 kg		

* Available upon request

Battery-operated hydraulic tool

20202 EB-7

The EB-7 is a hydraulic pump designed for crimping terminals and sleeves, standing out for its superior handling and time savings. This tool provides efficiency and ease of use for all crimping needs. Ideal for 13T heads. Head not included.



Code	Ref.	Rated pressure	Pump dimensions	Briefcase dimensions	Pump weight	Briefcase weight
412015	EB-7	700 bar	240x334x95 mm (hose not included)	670x470x135 mm	4.4 kg	4.5 kg

20204 BH-700

Hydraulic pedal pump designed to operate hydraulic heads for both cutting and crimping.

- Includes a 3-meter high-pressure flexible hose with automatic lock.
- Automatic double-acting device.
- Operates with hydraulic heads at 700 bar pressure.
- Robust and aesthetic design.
- Includes a tool holder briefcase for easy transport and storage.

20204 BH-700M

- Same configuration as BH-700.
- Includes a pressure gauge.
- Robust and aesthetic design.
- Includes a tool holder briefcase for easy transport and storage.



Code	Ref.	Rated pressure	Pump dimensions	Briefcase dimensions	Pump weight	Briefcase weight
415000	BH-700	700 bar	560x180x205 mm (hose not included)	705x200x215 mm	8.8 kg	5 kg
415001	BH-700M					

Portable hydraulic pump operated by battery



20204 BHM-7

Portable next-generation electro-hydraulic pump, powered by a 24 V 5.0 Ah Li-Ion battery for extended operation.

A full charge allows approximately 150 crimps of 120 mm² copper terminals.

Technical features:

- 1h fast charging
- Remaining battery power displayed after each crimp.
- Pressure release button to release pressure at any time.
- Automatic shut-off and pressure retention when reaching the maximum level.
- For heads up to 100T.

Including:

- 24 V 5.0 Ah Battery
- Charger
- Wired controller
- 2 m hose with quick couplers
- Carrying backpack

Code	Ref.	Rated pressure	Voltage	Li-ion battery protection	Dimensions	Weight
415004	BHM-7	70 MPa / 700 bar	24 V	24 V / 5.0 Ah	391x335x162 mm	9.2 kg

* Available upon request



20204 BHM-7A

Enhanced Intelligent Functions:

- It includes an advanced crimping management system, configurable to monitor, transmit data, and track the work process in detail.
- An integrated pressure sensor monitors the process in real time, ensuring accuracy and efficiency. Data storage capacity supports up to 200,000 crimping records.
- The wireless remote control module allows operation at long distances, up to 50 meters without obstacles, providing flexibility and convenience.
- The integrated GPS positioning module offers real-time location tracking and information transmission via a 4G network, enhancing management and security. The temperature detection and alarm system monitors on the LCD panel and alerts the user with a specific pattern in case of failure, ensuring operational safety.

Including:

- 24 V, 5.0 Ah Battery
- Charger
- Wired controller
- 2 m hose with quick couplers
- Carrying backpack
- Remote controller

Code	Ref.	Rated pressure	Voltage	Li-ion battery protection	Dimensions	Weight
415002	BHM-7A	70 MPa / 700 bar	24 V	24 V / 5.0 Ah	391x335x162 mm	9.2 kg

* Available upon request

Remote cutting unit

20203 KH-120LV

The KH-120LV Insulated Kit is suitable for cutting low, medium, and high voltage cables that may be accidentally energized (up to 220 kV), in order to prevent accidents during repair and maintenance work. It is equipped with a 10-meter long high-capacity dielectric flexible hose. The 24 V / 5.0 Ah lithium battery ensures extended operating time.



Including:

- Insulated hydraulic pump
- Hydraulic cutting head
- Insulated hose of 10 meters
- Tool bag
- Remote controller

Safety

An integrated safety valve automatically releases pressure when it reaches the maximum level, protecting both tools and operators.

Features:

- a. Automatic shutdown after cutting.
- b. Cutting operation reminder.
- c. Pump body includes an oil return button for manual control without electricity.

The hydraulic oil used is insulating hydraulic oil.

Code	Ref.	Cutting range	Rated pressure	Reservoir capacity	Oil circuit	Flow rate	Dielectric strenght	Oil hose lenght
430000	KH-120LV	Ø 120 mm	70 MPa / 700 bar	1.0 L	Single action	0,6 L / min	220 kV	10 m

Dimension of pump	Power supply	Control mode	Carrying method
390x163x323 mm	24 V 5,0 Ah	The remote control range reaches 50 meters without obstacles.	a. One handed b. On the shoulder c. Backpack

* Available upon request

Cutting head with insulated hose of 10 meters

20203 CT-120M

The CT-120M head is suitable for cutting live cables (up to 220 kV) to prevent accidents during repair and maintenance work. It is equipped with a 10-meter long high-capacity dielectric flexible hose.



Including:

- Hydraulic cutting head
- Special insulating hose
- Tool bag



Code	Ref.	Cutting range	Operating voltage	Insulation hose length	Cutting head size	Weight
430001	CT-120M	Ø 120 mm	220 kV	10 m	556x185 mm	9.6 kg

* Available upon request

Double-acting Electrohydraulic pump



20204 BGD-8

Equipped with a pressure gauge to monitor working pressure at all times.
Automatically switches between high and low pressure as per job requirements to enhance efficiency.
Compatible with a wide range of hydraulic heads.

Including:

- Multifunctional operation handle
- 2 m hose with quick couplers

Bluetooth transmission
4G module transmit data through the network

Code	Ref.	Rated pressure	High pressure flow	Low pressure flow	Reservoir capacity	Dimension of Hydraulic pump	Hydraulic pump Weight
415003	BGD-8	80 MPa	1.2 L/min.	5-8 L/min.	≥2.3 L	582x372x395 mm	44 kg

* Available upon request

Accessories



20205 Insulated hoses

Insulated hoses are used to connect hydraulic cutting or crimping heads to the hydraulic pump, ensuring safe distances and keeping the operator out of harm's way. These hoses provide essential protection and reliability for various hydraulic applications.

Code	Ref.	Length
413050	Insulated hoses	5 m
413100	Insulated hoses	10 m
413150	Insulated hoses	15 m

* Available upon request

30901 Earthing lead

Earthing lead featuring a lathe at one end and a reinforced terminal at the other. Specifically designed for grounding the cutting or crimping head, this essential component ensures a secure connection. Is connected to an earthing rod. With copper cable 25 mm² and 6 meters long.

Code	Ref.	Section	Length
667060	P-TR12-02506	25 mm ²	6 m

30911 Hexagonal grounding rod



The ER-1Z hexagonal earthing rod is designed to be easily driven into the ground, with a pointed end that facilitates effortless insertion. Made of galvanized F-111 material, it ensures durability and reliable grounding performance.

Code	Ref.	Length
667150	ER-1Z	1 m



30911 Suitcase with wheels

Ideal for transporting hydraulic kits used in low, medium, and high voltage work. Ensures easy and convenient mobility, providing a reliable solution for safely moving equipment to various work locations.

Code	Ref.	Dimensions
620061	SOFABOX	855x577x400 mm



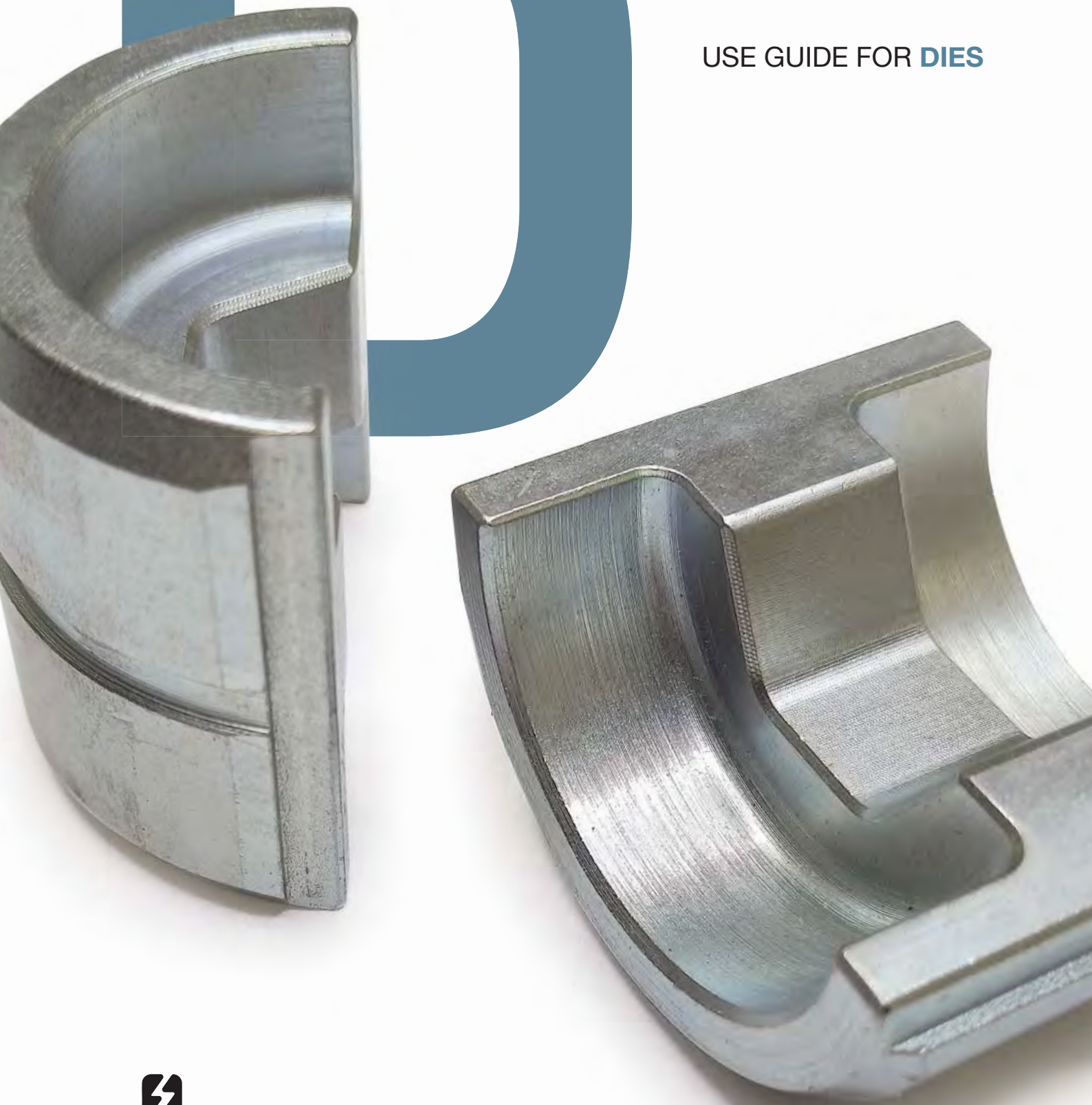
Folding steel leg
Allow horizontal storage of the suitcase.



Folding handles
The suitcase has handles on the top and side to facilitate transportation at all times.



Robust wheels
The robust design of the wheels allows comfortable movement even on difficult-to-access terrain.



USE GUIDE FOR **DIES**



MANUFACTURER OF SAFETY AND CONNECTION MATERIAL

USE GUIDE FOR **DIES**

CRIMPING DIES - **SERIES 50**



CABLE LUGS AND TUBULAR CONNECTORS

DIE	COPPER									ALUMINIUM					
 HD5															
	T	TL	T45°	T90°	TT	TPE	CP	M	MAL	TBE	TBES				
Cross-section (mm²)	Ref. dies			Footprint width (mm)					Ref. dies	Footprint width (mm)					
10	HD5-07			7					-	-					
16	HD5-08								HD5-10		7				
25	HD5-10								HD5-11						
35	HD5-11								HD5-13						
50	HD5-13			5					HD5-14	5					
70	HD5-14								HD5-17						
95	HD5-17			5					HD5-18	7					
120	HD5-18								HD5-21		5				
150	HD5-20								HD5-25						
185	HD5-22								-					-	
240	HD5-25														

TDT CABLE LUGS

DIE	COPPER		
 HD5	 TDT		
Cross-section (mm²)	Ref. dies	Footprint width (mm)	
50	HD5-14	5	
70	HD5-14		
95	HD5-18		
120	HD5-20		
150	HD5-22		
185	HD5-22		

USE GUIDE FOR **DIES**

CRIMPING DIES - **SERIES 50**



RJU, BT, RBT, RJA, TBF, AND TBEM CONNECTORS AND CABLE LUGS

DIE	COPPER		ALUMINIUM / BIMETALLICS	
  HD5	 RJU		 BT RBT RJA TBF TBEM	
Cross-section (mm ²)	Ref. dies	Footprint width (mm)	Ref. dies	Footprint width (mm)
25	HD5-20	5	HD5-20	5
35				
50				
70				
95				
120	HD5-25		HD5-25	-
150				
185			-	
30	-	-	HD5-20	5
56				
78				
110			HD5-25	

BIMETALLIC CABLE LUGS TDC/S AND TDC/A

DIE			
  HD5	 TDC/S		
Cross-section (mm²)	Ref. dies	Footprint width (mm)	
16	-	-	
25			
35			
50			
70	HD5-20	5	
95	HD5-25		
120			
150			
30	HD5-20		
54.6			
56			
78			
80	HD5-25		
110			
145			

COMPRESSION CLAMPS

DIE				
 CDC5	 CRC CRA CRS			
Reference	Ref. dies	Footprint width (mm)		
CRC-3	CDC5-25	9		
CRC-4				
CRC-5				
CRC-6	CDC5-35			
CRC-7				
CRA-1				
CRS-1				
CRC-8	CDC5-70			
CRC-9				
CRA-2				
CRS-0				

USE GUIDE FOR **DIES**

CRIMPING DIES - **SERIES 60**



CABLE LUGS AND TUBULAR CONNECTORS

DIE	COPPER								ALUMINIUM		
  HD6	 T	 TL	 T45°	 T90°	 TT	 TPE	 CP	 M	 MAL	 TBE	 TBES
Cross-section (mm²)	Ref. dies			Footprint width (mm)				Ref. dies		Footprint width (mm)	
10	HD6-07			7				-	-	-	
16	HD6-08							HD6-10			
25	HD6-10							HD6-11		12	
35	HD6-11			12				HD6-13			
50	HD6-13							HD6-14		10	
70	HD6-14			10				HD6-17		9	
95	HD6-17			9				HD6-18		8	
120	HD6-18			8				HD6-21		12	
150	HD6-20							HD6-25			
185	HD6-22			6				HD6-28		5	
240	HD6-25							-	-		
300	HD6-28			5				-	-		

TDT CABLE LUGS

DIE	COPPER		
  HD6	 TDT		
Cross-section (mm²)	Ref. dies	Footprint width (mm)	
50	HD6-14	10	
70			
95	HD6-18	8	
120	HD6-20	6	
150	HD6-22		
185			
240	HD6-28	5	

USE GUIDE FOR **DIES**

CRIMPING DIES - **SERIES 60**



RJU, BT, RBT, RJA, TBF, AND TBEM CONNECTORS AND CABLE LUGS

DIE	COPPER		ALUMINIUM / BIMETALLICS	
  HD6	 RJU		 BT RBT RJA TBF TBEM	
Cross-section (mm ²)	Ref. dies	Footprint width (mm)	Ref. dies	Footprint width (mm)
25	HD6-20	6	HD6-20	6
35			HD6-20	
50			HD6-20	
70			HD6-20	
95			HD6-20	
120	HD6-25	5	HD6-25	5
150			HD6-25	
185			-	-
30	-	-	HD6-20	6
56			HD6-20	
78			HD6-20	
110			HD6-25	5

BIMETALLIC CABLE LUGS TDC/S AND TDC/A

DIE		
  HD6	 TDC/S	
Cross-section (mm ²)	Ref. dies	Footprint width (mm)
16	-	-
25		
35		
50		
70	HD6-20	6
95	HD6-25	5
120		
150		
30	HD6-20	6
54.6		
56		
78		
80	HD6-25	5
110		
145		

COMPRESSION CLAMPS

DIE				
  CD13	 CRC CRA CRS			
Reference	Ref. dies	Footprint width (mm)		
CRC-3	CDC6-25	5		
CRC-4				
CRC-5				
CRC-6	CDC6-35			
CRC-10	CDC6-95			
CRC-11				
CRC-12				
CRC-7	CDC6-35			
CRA-1				
CRS-1				
CRC-8	CDC6-70			
CRC-9				
CRA-2				
CRS-0				

USE GUIDE FOR **DIES**

CRIMPING DIES - **SERIES 130**



DIN STANDARD				
DIE	COPPER		ALUMINIUM	
 MK-C	 TCD (DIN 46235)		 TBE/D (DIN 46329)	
Cross-section (mm ²)	Ref. dies	Footprint width (mm)	Ref. dies	Footprint width (mm)
10	MK6-C	7	-	-
16	MK8-C		-	-
25	MK10-C	12	MK12-C	12
35	MK12-C		MK14-C	
50	MK14-C	12	MK16-C	
70	MK16-C		MK18-C	
95	MK18-C		MK22-C	
120	MK20-C		MK25-C	10
150	MK22-C		MK28-C	
185	MK25-C		MK32-C	
240	MK28-C	10	MK34-C	7
300	MK32-C	7		

CABLE LUGS AND TUBULAR CONNECTORS				
DIE	COPPER		ALUMINIUM	
 HD13	 T TL T45° T90° TT TPE CP M		 MAL TBE TBES	
Cross-section (mm ²)	Ref. dies	Footprint width (mm)	Ref. dies	Footprint width (mm)
10	HD13-07	7	-	-
16	HD13-08		HD13-10	12
25	HD13-10	12	HD13-11	
35	HD13-11		HD13-13	
50	HD13-13		HD13-14	
70	HD13-14	12	HD13-17	10
95	HD13-17		HD13-18	
120	HD13-18		HD13-21	
150	HD13-20		HD13-25	
185	HD13-22	10	HD13-28	7
240	HD13-25		HD13-32	
300	HD13-28	10	HD13-34	
400	HD13-32	7	-	-

USE GUIDE FOR **DIES**

CRIMPING DIES - **SERIES 130**



TDT CABLE LUGS

DIE	COPPER	
  HD13	 TDT	
Cross-section (mm ²)	Ref. dies	Footprint width (mm)
50	HD13-14	12
70		
95		
120		
150	HD13-22	10
185		
240	HD13-28	7
300	HD13-32	
400	HD13-34	

COPPER AND ALUMINIUM CONNECTORS AND CABLE LUGS RJU, BT, RBT, RJA, TBF, AND TBEM

DIE	COPPER		ALUMINIUM / BIMETALLICS				
  HD13	 RJU		 BT RBT RJA TBF TBEM				
Cross-section (mm²)	Ref. dies	Footprint width (mm)	Ref. dies		Footprint width (mm)		
25	HD13-20	12	HD13-20		12		
35							
50							
70							
95	HD13-25	7	HD13-25		7		
120			HD13-32				
150	HD13-32	-	HD13-20		-		
185			HD13-25				
240	-	-	HD13-32		7		
30							
56							
78							
110							
180							

USE GUIDE FOR **DIES**

CRIMPING DIES - **SERIES 130**



BIMETALLIC CABLE LUGS TDC/S AND TDC/A HEXAGONAL CRIMPING

DIE			
  HD13	 TDC/S		
Cross-section (mm²)	Ref. dies	Footprint width (mm)	
50	HD13-20	12	
70			
95			
120			
150	HD13-25		
185			
240	HD13-32		
30			
54.6	HD13-20		
56			
78			
80			
110	HD13-25		
145			
180	HD13-32	7	

COMPRESSION CLAMPS

DIE							
 HD13	 CRC			  CRA CRS			
	Reference COPPER	Ref. dies	Footprint width (mm)	Reference ALUMINIUM	Ref. dies	Footprint width (mm)	
	CRC-3	CD13-25	35	CRS-0	CD13-70	35	
	CRC-4				CRA-2		
	CRC-5				CRS-1		
	CRC-6	CD13-35			CRA-1		CD13-35
	CRC-7				CRS-3		
	CRC-8				CRA-3		CD13-120 AL
	CRC-9	CD13-70		CRS-8			
	CRC-10	CD13-95		CRA-3A			
	CRC-11				CRS-9		CD13-300
	CRC-12				CRA-4		
	CRC-13			CRS-10			
	CRC-14	CD13-150			CRS-11		
	CRC-15				CRS-12		
	CRC-16	CD13-300					

USE GUIDE FOR **DIES**

DEEP PUNCHING CRIMPING DIES

ACCORDING TO UNE 211024-2 AND NF C33-090-1 STANDARDS - **SERIES 130**



TDC/S CABLE LUGS

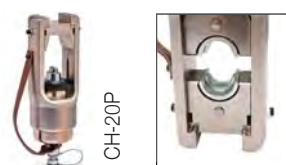
ADAPTER	DIE	PUNCH				
						
						
AD	MP-L	PP	TDC/S			
Cross-section (mm ²)			Ref. adapters	Ref. dies	Ref. punches	Ref. mark
16			AD150	MP35L	PP35	0E
25						
35						
50				MP95L	PP95	1E
70						
95						
120			AD240	MP150L	PP150	2E
150						
185				MP240L	PP240	4E
240						

ALUMINIUM AND BIMETALLIC CONNECTORS AND CABLE LUGS

ADAPTER	DIES	PUNCH	ALUMINIUM				ALUMINIUM			
										
	 									
AD	MP-L MP-S	PP	BT	RBT	TBF	TBEM	RJA			
Cross-section (mm ²)			Ref. adapt.	Ref. dies	Ref. punches	Ref. mark	Ref. adapt.	Ref. dies	Ref. punches	Ref. mark
16			AD150	MP95L	PP95	1E	AD150	MP95S	PP95	1E
25										
35										
50										
70				MP150L	PP150	2E		MP150S	PP150	2E
95										
120			AD240	MP240L	PP240	4E	AD240	MP240S	PP240	4E
150										
185										
240										

USE GUIDE FOR **DIES**

HEXAGONAL CRIMPING DIES - **SERIES 200**

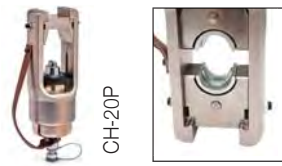


CABLE LUGS AND TUBULAR CONNECTORS			
DIES	ADAPTER	COPPER	
 HD13	 HD20	 AD-20T-13T HEX	 T TL T45° T90° TT TPE CP M
Cross-section (mm²)	Ref. adapters	Ref. dies	Footprint width (mm)
10	AD-20T-13T HEX	HD13-07	7
16		HD13-08	12
25		HD13-10	
35		HD13-11	
50		HD13-13	
70		HD13-14	
95		HD13-17	
120		HD13-18	
150		HD13-20	
185		HD13-22	
240		HD13-25	
300		HD13-28	10
400		HD13-32	7
500		HD20-38	17
630	-	HD20-44	

CABLE LUGS AND TUBULAR CONNECTORS			
DIE	ADAPTER	ALUMINIUM	
 HD13	 AD-20T-13T HEX	 MAL TBE TBES	
Cross-section (mm²)	Ref. adapters	Ref. dies	Footprint width (mm)
10	-	-	-
16	AD-20T-13T HEX	HD13-10	12
25		HD13-11	
35		HD13-13	
50		HD13-14	
70		HD13-17	
95		HD13-18	
120		HD13-21	
150		HD13-25	
185		HD13-28	10
240		HD13-32	7
300		HD13-34	

USE GUIDE FOR **DIES**

HEXAGONAL CRIMPING DIES - **SERIES 200**



DIN STANDARD				
DIES		ADAPTER	COPPER	
				
HD13	HD20	AD-20T-13T HEX	TCD (DIN 46235)	MCD (DIN 46267)
Cross-section (mm²)		Ref. adapters	Ref. dies	Footprint width (mm)
10		AD-20T-13T HEX	MK6-C	7
16			MK8-C	12
25			MK10-C	14
35			MK12-C	12
50			MK14-C	
70			MK16-C	
95			MK18-C	
120			MK20-C	
150			MK22-C	
185			MK25-C	
240		MK28-C	10	
300		MK32-C	7	
400		-	MK38-200	17
500			MK42-200	

DIN STANDARD				
DIES		ADAPTER	ALUMINIUM	
				
HD13	HD20	AD-20T-13T HEX	TBE/D (DIN 46329)	
Cross-section (mm ²)		Ref. adapters	Ref. dies	Footprint width (mm)
25		AD-20T-13T HEX	MK12-C	14
35			MK14-C	12
50			MK16-C	
70			MK18-C	
95			MK22-C	
120				
150			MK25-C	
185			MK28-C	10
240			MK32-C	7
300			MK34-C	
400		-	MK38-200	17
500			MK44-200	

USE GUIDE FOR **DIES**

HEXAGONAL CRIMPING DIES - **SERIES 200**



RJU CONNECTOR

DIE	ADAPTER	COPPER		
  HD13	 AD-20T-13T HEX	 RJU		
Cross-section (mm²)	Ref. adapters	Ref. dies	Footprint width (mm)	
25	AD-20T-13T HEX	HD13-20	12	
35				
50				
70				
95				
120				
150		HD13-25	7	
185		HD13-32		
240				

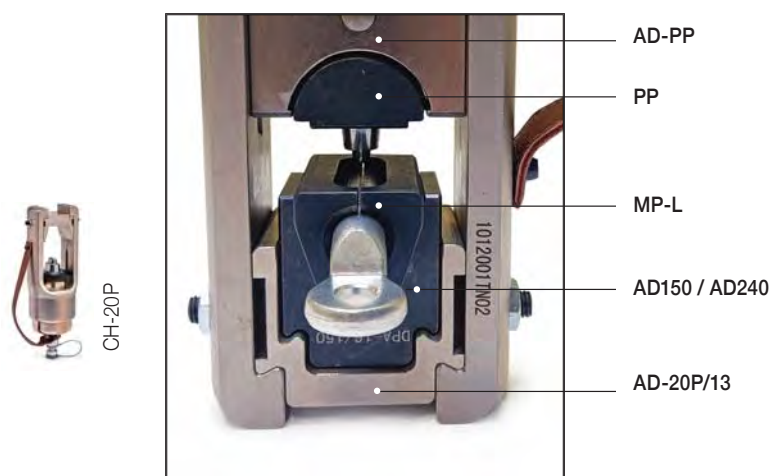
BT, RBT, RJA, TBF, TBEM, AND TDC CONNECTORS AND CABLE LUGS

DIES		ADAPTER										
												
HD13	HD20	AD-20T-13T HEX	BT	RBT	RJA	TBF	TBEM	TDC/S	TDC/A			
Cross-section (mm²)			Ref. adapters	Ref. dies	Footprint width (mm)	Cross-section (mm²)	Ref. adapt.	Ref. hexagonal die	Footprint width (mm)			
25		AD-20T-13T HEX		HD13-20	12	25	AD-20T-13T HEX	-	-			
35												
50												
70												
95												
120		AD-20T-13T HEX		HD13-25	7	120		HD13-25				
150												
185												
240				HD13-32	17	240		HD13-32	7			
300												
400												
500		AD-20T-13T HEX		HD20-46	12	500	AD-20T-13T HEX	HD20-46				
30												
56												
78												
110												
180				HD13-32	7	80		HD13-20	12			
						110		HD13-25				
						145		HD13-32	7			

USE GUIDE FOR **DIES**

DEEP PUNCHING CRIMPING DIES

ACCORDING TO UNE 211024-2 AND NF C33-090-1 STANDARDS - **SERIES 200**



TDC/S AND TDC/A CABLE LUGS

ADAPTERS			DIE	PUNCH
   				
AD-20P/13	AD	AD-PP	MP-L	PP

BIMETALLICS

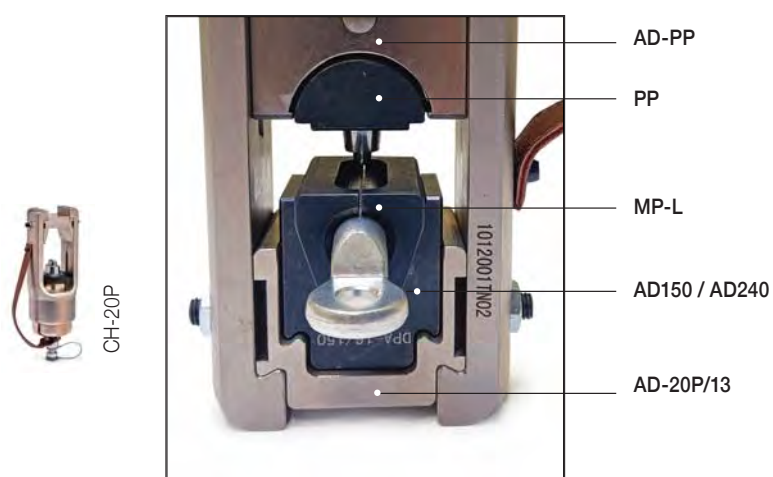


Cross-section (mm²)	Ref. adapters	Ref. adapters	Ref. deep punching dies	Ref. adapters	Ref. punches	Ref. mark			
16	AD-20P/13	AD150	MP35L	AD-PP	PP35	0E			
25			MP95L		PP95	1E			
35									
50		AD240	MP150L	AD-PP	PP150	2E			
70							MP240L	PP240	4E
95									
120		-	DPA-300/630	DPD-300/400L	-	PP300/400	5E		
150									
185									
240									
300	-	-	-	-	-	-			
400									
500									

USE GUIDE FOR **DIES**

DEEP PUNCHING CRIMPING DIES

ACCORDING TO UNE 211024-2 AND NF C33-090-1 STANDARDS - **SERIES 200**



BT, RBT, BF AND TBEM CONNECTORS AND TERMINALS

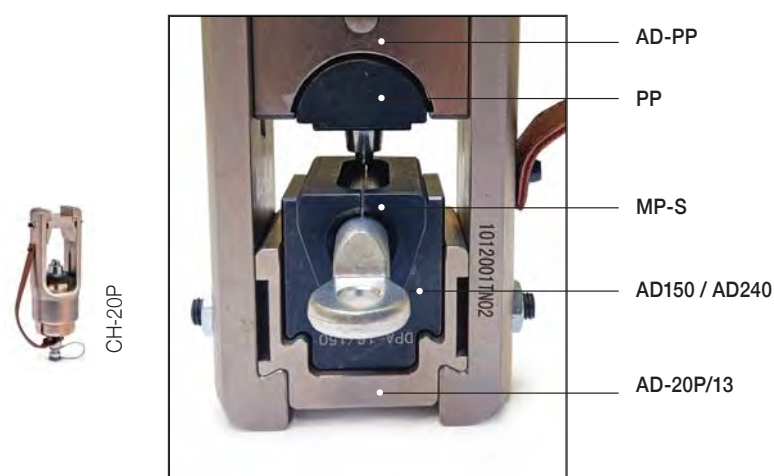
ADAPTERS			DIE	PUNCH
 AD-20P/13	 AD	 AD-PP	 MP-L	 PP
ALUMINIUM				



Cross-section (mm²)	Ref. adapters	Ref. adapters	Ref. deep punching dies	Ref. adapters	Ref. punches	Ref. mark	
16	AD-20P/13	AD150	MP95L	AD-PP	PP95	1E	
25							
35							
50		AD240	MP240L		PP240	4E	
70							
95			DPD-300/400L		PP300/400	5E	
120							
150	-	DPA-300/630	-	-	-		
185							
240							
300	-	-	-	-	-	-	
400							
500							

USE GUIDE FOR **DIES**

DEEP PUNCHING CRIMPING DIES ACCORDING TO UNE 211024-2 AND NF C33-090-1 STANDARDS - **SERIES 200**



RJA CONNECTORS

ADAPTERS			DIE	PUNCH
   				
AD-20P/13	AD	AD-PP	MP-S	PP

ALUMINIUM



RJA

Cross-section (mm²)	Ref. adapters	Ref. adapters	Ref. deep punching dies	Ref. adapters	Ref. punches	Ref. mark
16	AD-20P/13	AD150	MP95S	AD-PP	PP95	1E
25						
35						
50		AD240	MP150S	AD-PP	PP150	2E
70						
95						
120						
150	-	DPA-300/630	MP240S	-	PP240	4E
185						
240						
300						
400	-	DPA-300/630	DPD-300/400S	-	PP300/400	5E
500						

USE GUIDE FOR **DIES**

CIRCULAR DIES - **SERIES 200**



COMPRESSION CLAMPS								
DIE	ADAPTER							
 CD13	 AD-20T-13T HEX	 CRC			 CRA CRS			
Footprint width (mm)		Reference COPPER	Ref. adapters	Ref. dies	Reference ALUMINIUM	Ref. adapters	Ref. dies	
35		CRC-3	AD-20T-13T HEX	CD13-25	CRS-0	AD-20T-13T HEX	CD13-70	
		CRC-4			CRA-2		CD13-35	
		CRC-5			CRS-1			
		CRC-6			CRA-1			
		CRC-7		CD13-35	CRS-3		CD13-120 AL	
		CRC-8		CD13-70	CRA-3			
		CRC-9			CRS-8			
		CRC-10		CD13-95	CRA-3A			
		CRC-11			CRS-9		CD13-300	
		CRC-12			CRA-4			
		CRC-13		CD13-150	CRS-10			
		CRC-14			CRS-11			
		CRC-15			CRS-12			
		CRC-16		CD13-300				

USE GUIDE FOR **DIES**

HEXAGONAL AND CIRCULAR CRIMPING DIES - **SERIES 250**



CABLE LUGS AND TUBULAR CONNECTORS										
DIES		ADAPTER	COPPER							
										
HD13	HD25	AD-25H-13H	T	TL	T45°	T90°	TT	TPE	CP	M
Cross-section (mm²)			Ref. adapters	Ref. dies			Footprint width (mm)			
10			AD-25H/13H	HD13-07			7			
16				HD13-08			12			
25				HD13-10						
35				HD13-11						
50				HD13-13						
70				HD13-14						
95				HD13-17						
120				HD13-18						
150				HD13-20						
185				HD13-22						
240				HD13-25						
300				HD13-28			10			
400				HD13-32			7			
500			-	HD25-38			17			
630				HD25-44						

CABLE LUGS AND TUBULAR CONNECTORS				
DIE		ADAPTER		
				
HD13	MK	AD-25H-13H	MAL	TBE
Cross-section (mm²)		Ref. adapters	Ref. dies	Footprint width (mm)
16		AD-25H/13H	HD13-10	12
25			HD13-11	
35			HD13-13	
50			HD13-14	
70			HD13-17	
95			HD13-18	
120			HD13-21	
150			HD13-25	
185			HD13-28	10
240			HD13-32	7
300				MK34-230

USE GUIDE FOR **DIES**

HEXAGONAL AND CIRCULAR CRIMPING DIES - **SERIES 250**



DIN STANDARD				
DIE	ADAPTER	COPPER		
 MK	 AD-25H-13H	 TCD (DIN 46235)	 MCD (DIN 46267)	
Cross-section (mm ²)	Ref. adapters	Ref. dies	Footprint width (mm)	
10	AD-25H/13H	MK6-C	7	
16		MK8-C		
25		MK10-C	12	
35		MK12-C	14	
50		MK14-C	12	
70		MK16-C		
95		MK18-C		
120		MK20-C		
150		MK22-C		
185		MK25-C		
240	-	MK28-C	10	
300		MK32-C	7	
400		MK38-250	17	
500		MK42-250		

DIN STANDARD				
DIES	ADAPTER	ALUMINIUM		
 MK	 AD-25H-13H	 TBE/D (DIN 46329)		
Cross-section (mm ²)	Ref. adapters	Ref. dies	Footprint width (mm)	
25	AD-25H/13H	MK12-C	14	
35		MK14-C	12	
50		MK16-C		
70		MK18-C		
95		MK22-C		
120		MK22-C		
150		MK25-C		
185		MK28-C	10	
240		MK32-C	7	
300	-	MK34-230	17	
400		MK38-250		
500		MK44-250		

USE GUIDE FOR **DIES**

HEXAGONAL AND CIRCULAR CRIMPING DIES - **SERIES 250**



COPPER RJU CONNECTORS					
DIE	ADAPTER	COPPER			
 HD13	 AD-25H-13H	 RJU			
Cross-section (mm²)		Ref. adapters	Ref. dies	Footprint width (mm)	
25		AD-25H/13H	HD13-20	12	
35					
50					
70					
95					
120					
150			HD13-25	7	
185			HD13-32		
240					

BT, RBT, RJA, TBF AND TBEM ALUMINIUM AND BIMETALLIC CONNECTORS AND CABLE LUGS							
DIES		ADAPTER	ALUMINIUM				
 HD13	 HD25	 AD-25H-13H	 BT	 RBT	 RJA	 TBF	 TBEM
Cross-section (mm²)			Ref. adapters	Ref. dies	Footprint width (mm)		
25			AD-25H/13H	HD13-20	12		
35							
50							
70							
95							
120			-	HD13-25	7		
150							
185							
240							
300				HD25-40	17		
400							
500							
30			AD-25H/13H	HD13-20	12		
56							
78							
110				HD13-25	7		
180				HD13-32			

USE GUIDE FOR **DIES**

HEXAGONAL AND CIRCULAR CRIMPING DIES - **SERIES 250**



BIMETALLIC CABLE LUGS TDC/S AND TDC/A				
DIES	ADAPTER	BIMETALLIC		
 HD13	 HD25	 AD-25H-13H	 TDC/S	 TDC/A
Cross-section (mm²)	Ref. adapters	Ref. dies	Footprint width (mm)	
50	AD-25H/13H	HD13-20	12	
70		HD13-25		
95		HD13-32		
120		HD25-40	26	
150		HD25-46		
185	AD-25H/13H	HD13-20	12	
240		HD13-25		
300		HD13-32		
400				
500			7	
30				
54.6				
56				
78			7	
80				
110				
145				
180				

COMPRESSION CLAMPS							
DIES	ADAPTER	CRC		CRA		CRS	
 HD13	 HD25	 AD-25H-13H	 CRC	 CRA	 CRS		
Compr. width (mm)	Ref. COPPER	Ref. adapters	Ref. dies	Ref. ALUMINIUM	Ref. adapters	Ref. dies	
35	CRC-3	AD-25H/13H	CD13-25	CRS-0	AD-25H/13H	CD13-70	
	CRC-4			CRA-2		CD13-35	
	CRC-5		CD13-35	CRS-1		CD13-120 AL	
	CRC-6			CRA-1			
	CRC-7		CD13-70	CRS-3			
	CRC-8			CRA-3			
	CRC-9		CD13-95	CRS-8			
	CRC-10			CRA-3A			
	CRC-11		CD13-150	CRS-9			
	CRC-12			CRA-4			
	CRC-13		CD13-300	CRS-10			
	CRC-14			CRS-11			
	CRC-15			CRS-12			
	CRC-16						

USE GUIDE FOR **DIES**

INDEX BY CODES

Code	Ref.	Code	Ref.	Code	Ref.
DIES					
401012	CDC5-25 25-25CU/35-1	402005	HD13-14 70CU/50AL	402026	MK32-C
401013	CDC5-35 35-35CU/AL	402006	HD13-17 95CU/70AL	447159	MK34-230
401014	CDC5-70 70-70CU/70-5	402007	HD13-18 120CU/95AL	20306001	MK42-250
407013	CDC6-25	402008	HD13-20 150CU	406001	MP-35L
407014	CDC6-35	402009	HD13-21 120AL	406003	MP-95L
407015	CDC6-70	402010	HD13-22 185CU/120AL	406004	MP-95S
407016	CDC6-95	402011	HD13-25 240CU/150AL	406006	MP-150L
402015	CD13-25	402012	HD13-28 300CU/185AL	406007	MP-150S
402016	CD13-35	402013	HD13-32 400CU/240AL	406010	MP-240L
402017	CD13-70	402014	HD13-34 300AL	406011	MP-240S
402018	CD13-95 CU	403005	HD20-40		
402019	CD13-150 CU	403006	HD20-46	ADAPTERS	
402020	CD13-120 AL	403001	HD25-38		
402021	CD13-300	447180	HD25-40	375000	AD-13U-13C
406014	DPD-300/400L	403002	HD25-42	406000	AD-150
401000	HD5-07 10CU	403003	HD25-44	406009	AD-240
401001	HD5-08 16CU	403004	HD25-46	406016	AD-20P/13
401002	HD5-10 25CU/16AL	407000	HD6-07	375001	AD-20T-13T HEX
401003	HD5-11 35CU/25AL	407001	HD6-08	403000	AD-25H/13H
401004	HD5-13 50CU/35AL	407002	HD6-10	375002	AD-PP
401005	HD5-14 70CU/50AL	407003	HD6-11	406013	DPA-300/630
401006	HD5-17 95CU/70AL	407004	HD6-13		
401007	HD5-18 120CU/95AL	407005	HD6-14	PUNCHES	
401008	HD5-20 150CU	407006	HD6-17		
401009	HD5-21 120AL	407007	HD6-18	406002	PP-35 0E
401010	HD5-22 185CU/120AL	407008	HD6-20	406005	PP-95 1E
401011	HD5-25 240CU/150AL	407009	HD6-21	406008	PP-150 2E
402000	HD13-07 10CU	407010	HD6-22	406012	PP-240 4E
402001	HD13-08 16CU	407011	HD6-25	406015	PP-400 5E
402002	HD13-10 25CU/16AL	407012	HD6-28		
402003	HD13-11 35CU/25AL	402022	MK12-C		
402004	HD13-13 50CU/35AL	402023	MK22-C		
		402024	MK25-C		
		402025	MK28-C		

sofamel

Gloves
Personal protection equipment
Insulation
Insulating poles
Earthing and short circuit equipment
Voltage detectors
Rescue and first aid
Shears
Padlocks
Signalization and beaconing
1000V insulated tools
Polyester-fiber ladders



[illegible]

30201 SG



The natural latex base has excellent dielectric properties.
The thicker the glove, the greater the electrical resistance.
The ergonomic design provides comfort and a smoother feel, and allows the glove to be put on and taken off very easily.

Insulated gloves are one of the most important pieces of PPE for working in the electrical sector. They are the first line of defence for contact with any live component or cable.

USE:

Electrical production, transport, transformation and distribution, railways, telecommunications, construction, maintenance in industry, solar panels, hybrid car batteries, etc.

RECOMMENDATIONS:

Latex insulated gloves are recommended, together with a suitable leather overglove, to provide mechanical protection against abrasions, cuts, tears and perforations.

The natural latex glove is available in beige.



CE IEC 60903
EN 60903

Available in sizes: 7, 8, 9, 10, 11 and 12

Code	Ref.	Class	Thickness (mm) max.	Size	Length (mm)	Categories	Working Voltage (V) max.	Proof test Voltage (V) max.	Withstand Voltage (V) max.
530110	SG-25 T9	00	0,7	7*	360	AZC	500 V AC	2.500 V AC	5.000 V AC
530120	SG-25 T10								
530150	SG-50 T9	0	1,0	8*	280-360	AZC	1.000 V AC	5.000 V AC	10.000 V AC
530160	SG-50 T10				410 - 460				
530190	SG-10 T9	1	1,6	9	360	RC	7.500 V AC	10.000 V AC	20.000 V AC
530200	SG-10 T10								
530230	SG-20 T9	2	2,3	10		RC	17.000 V AC	20.000 V AC	30.000 V AC
530240	SG-20 T10								
530270	SG-30 T9	3	2,9	11	410	RC	26.500 V AC	30.000 V AC	40.000 V AC
530280	SG-30 T10								
530290	SG-30 T11			12*					
530320	SG-40 T10	4	3,8			RC	36.000 V AC	40.000 V AC	50.000 V AC
530330	SG-40 T11								

Meaning of letters in 'Categories': A: Acid / Z: Ozone / H: Oil / C: Very low temperature / R: A+Z+H resistance.

*For sizes 7, 8 and 12 consult.

MECHANICAL AND THERMAL REQUIREMENTS

- Average tensile strength: ≥ 16 MPa
- Average elongation at break: $\geq 600\%$
- Puncture resistance: ≥ 18 N/mm
- Tension set: $\leq 15\%$
- Resistance to very low temperatures: Conditioning of the gloves for 24 hours at -40 °C. ± 3 °C.
- Flame-retardant test: Application of a flame for 10 seconds at a finger tip.



RECOMMENDED SIZE	9	10	11
Contour cm (measured with closed hand)	21	24	26

30202 SGM



Composite insulated gloves provide electrical, mechanical and arc-flash protection, and as such do not need to be combined with any other kind of glove with mechanical protection.

The Composite glove range is made using a natural latex base covered by an outer layer of polychloroprene, combining mechanical resistance and comfort with a high level of protection.

Arc flash protection: the glove material has excellent properties in the event of a short circuit in the electric arc.



Outside in red
and beige inside.

CE IEC 60903
IEC 61482-1-2

Available in sizes: 7, 8, 9, 10, 11 and 12

Code	Ref.	Class	Thickness (mm) max.	Working Voltage (V) max.	Proof test Voltage (V) max.	Size	Length (mm)	Category
531110	SGM-25 T9	00	< 2.4	500 V AC	2.500 V AC	7*	360	RC
531120	SGM-25 T10						410	
531150	SGM-50 T9	0	< 2.9	1.000 V AC	5.000 V AC	8*		
531160	SGM-50 T10							
531190	SGM-10 T9	1	< 3.4	7.500 V AC	10.000 V AC	9	410	
531200	SGM-10 T10							
531230	SGM-20 T9	2	< 3.9	17.000 V AC	20.000 V AC	10	410	
531240	SGM-20 T10							
531270	SGM-30 T9	3	< 4.2	26.500 V AC	30.000 V AC	11	410	
531280	SGM-30 T10							
531310	SGM-40 T10	4	< 4.8	36.000 V AC	40.000 V AC	12*	410	
531320	SGM-40 T11							

Meaning of letters in 'Categories': A: Acid / Z: Ozone / H: Oil / C: Very low temperature / R: A+Z+H resistance.

*For sizes 7, 8 and 12 consult.

MECHANICAL AND THERMAL REQUIREMENTS

- Average tensile strength: ≥ 16 MPa
- Average elongation at break: $\geq 600\%$
- Tension set: $\leq 15\%$
- **Complementary test and performance levels to be achieved are as follows:**
 - Resistance to cutting: > 20 mm and 5N, according to ISO13997 (equivalent to level 2 according to EN 388)
 - Resistance to abrasion: $\geq 0,05$ mg/t
 - Tearing resistance to: > 25 N (equivalent to level 2 according to EN 388)

- Resistance to penetration: > 60 N (equivalent to level 2 according to EN 388)
- Resistance to very low temperatures: Conditioning of the gloves for 24 hours at -40°C . $\pm 3^\circ\text{C}$.
- Flame-retardant test: Application of a flame for 10 seconds at a finger tip.



RECOMMENDED SIZE	9	10	11
Contour cm (measured with closed hand)	21	24	26



MANUFACTURING AND RETESTING OF INSULATING GLOVES

At Sofamel, we have a fully dedicated production line for the manufacturing of latex insulating gloves.

Our processes are certified under the ISO9001:2015 quality standard and comply with the requirements established by the EN 60903:2003 and IEC 60903:2014 standards.

We also have a specially designed glove retesting booth for conducting electrical tests, allowing us to offer all our customers the best after-sales service for dielectric gloves.



YOUR SAFETY IS VITAL

THEREFORE, IT IS VERY IMPORTANT TO PERFORM REGULAR CHECKS
OF INSULATING GLOVES

RECOMMENDATIONS FOR THE MAINTENANCE AND VERIFICATION OF INSULATING GLOVES

Insulating gloves for live working are personal protective equipment (PPE) that prevent electrical risks and are classified as category III (fatal risk) under Directive EU 2016/425.

The reference standards (EN 60903 and IEC 60903) define the RECOMMENDATIONS for usage and verification.

CLASS 0 and 00 GLOVES	Air leakage test and visual inspection	RECOMMENDED BEFORE EACH USE
	Dielectric properties test	UPON CUSTOMER REQUEST
CLASS 1 and 4 GLOVES	Air leakage test and visual inspection	RECOMMENDED BEFORE EACH USE
	Dielectric properties test	MANDATORY ■ Every 6 months from the start of service. ■ Maximum of 12 months from the date of manufacture if not used.

THE DEFINITION OF A GLOVE'S LIFESPAN IN NO WAY EXCLUDES
THE RECOMMENDATIONS REGARDING PERIODIC CHECKS.

Storage conditions

According to the EN 60903 and IEC 60903 standards for class C, the gloves can be used at ambient temperatures between -40°C and +55°C.

The gloves are delivered in a UV-resistant plastic bag suitable for transportation and storage. Store the gloves in a dry, dark place at a temperature between 10°C and 21°C; do not compress, fold, or store them near sources of heat, light, or ozone.



30301 SG

Leather overgloves must be worn over dielectric gloves to protect against mechanical risks as well as against possible electric arc risks. These leather cowhide gloves with webbed thumbs have a 10 cm cuff with a retightening velcro strap on the back of the hand.

The cowhide leather is treated with silicone to increase its waterproof characteristics.

According to EN 388, EN 420 and EN 407 standard.

Code	Ref.	CROSS-REFERENCE UTILIZATION WITH DIELECTRIC GLOVES							EN 388	EN 420	EN 407
		DIELECTRIC GLOVES SIZE AND CLASS									
		Size	00	0	1	2	3	4			
540113	SG-B	7	●	●	●	●			 Levels of mechanical resistance: Abrasion: 2 Blade cut: 0 Tear: 2 Puncture: 2 Cut by sharp object: B	Levels of safety, comfort and skill: LEVEL 5	Technical resistance levels: Molten metal mass: X Molten metal splash: 4 Radiant heat: 1 Convective heat: 2 Contact heat: 1 Flame: 2
		8	●	●							
		9	●	●							
540114	SG-C	8			●	●					
		9			●	●					
		10	●	●							
540115	SG-D	10			●						
		11	●	●							
540116	SG-E	8					●	●			
		9					●	●			
		10				●					
		11			●						
540117	SG-F	12	●	●							
		10					●	●			
		11				●					
540118	SG-G	12									
		11					●	●			
		12				●	●	●			

CE EN 388 EN 420 EN 407



30302 SG-37

Gloves made of NOMEX fiber with fire-resistant properties. They are used under dielectric gloves with the aim of protecting against a possible electric arc.

According to EN 407 standard.

Code	Ref.
535100	SG-37

CE EN 407



SG-38



SG-39

CE EN 388-2122
EN 420

30303 SG-38/39

Working gloves to protect hands from mechanical risks.
Suitable for any kind of job where hands must be protected.
Gloves made of grey or yellow cowhide leather.

According to EN 388-2122 and EN 420 standards.

Code	Ref.	Size
540100	SG-38 T-10	10
540101	SG-38 T-9	9
540102	SG-38 T-8	8
540103	SG-38 T-11	11
540110	SG-39 T-10	10
540111	SG-39 T-9	9



SH-265 T8
SH-265 T9



SH-370 T8
SH-370 T9

EN 388-1131X
EN 420

EN 388-4120B
EN 420

30303 SH

Gloves made of nylon. Palm covered with blue nitrile. According to EN 388-1131X and EN 420 standards.

Code	Ref.
540120	SH-265 T8
540130	SH-265 T9

Gloves made of nylon. Palm covered with grey nitrile. According to EN 388-4120B and EN 420 standards.

Code	Ref.
540140	SH-370 T8
540150	SH-370 T9

Nylon/spandex gloves covered with blue micro-foam nitrile dots. Very soft glove: excellent for handling small, delicate objects. According to EN 388-4131X and EN 420 standards.

Code	Ref.
540160	SH-350R T9
540170	SH-350R T10



SH-350R T9
SH-350R T10



SH-GPKV T9
SH-GPKV T10

EN 388-4131X
EN 420

EN 388-3X43E
EN 420

Gloves made of nylon and fiberglass with black nitrile. Foam sheathing. According to EN 388-3X43E and EN 420 standards.

Code	Ref.
540180	SH-GPKV T9
540190	SH-GPKV T10

CE CAT. II

Polyethylene glove case resistant to impacts and UV rays



30304 CGS

Plastic glove case

Protect dielectric gloves from damage and contamination, ensuring they are in optimal condition for use when needed.

Code	Ref.	Dimensions
545115	CGS	43 x 23 x 7.6 cm

Bags, plastic and metal cases to transport, store and keep dielectric gloves



30304 SG-36

Waterproof nylon bag

Waterproof nylon bag to carry dielectric gloves.
A strap on the back makes it easy to hang the bag on the belt

Code	Ref.	Dimensions
545100	SG-36	42.5 x 22 cm



30304 SG-35

Metallic glove case

Metallic case with a methacrylate window. Ideal for carrying, storing and preserving dielectric gloves.
It can be fixed on the wall thanks to a ring placed on the back.

Code	Ref.	Dimensions
545110	SG-35	45.3 x 19.1 x 7.2 cm



30304 SGP

Plastic glove case

Plastic case to store and carry dielectric gloves.

Code	Ref.	Dimensions
545111	SGP	47,5 x 17 x 5 cm



30304 SG-117

Pneumatic gauge tester

Sofamel's pneumatic dielectric glove tester is an essential tool for verifying the integrity and safety of gloves used in electrical work. This device is designed to perform air pressure tests to ensure the absence of punctures or defects in the gloves, thus guaranteeing the user's protection.

Code	Ref.
545120	SG-117



30304 ME-60S

Fuse extractor handle

The ME-60S fuse extractor handle is designed for the safe installation and removal of low-voltage fuses. This device features an insulated handle and a synthetic leather handguard, providing the operator with additional protection against potential accidents.

Code	Ref.
545131	ME-60S



30304 ME-60S-SM

Fuse extractor handle

The ME-60S-SM fuse extractor handle is designed for the safe installation and removal of low-voltage fuses. This device features an insulated handle. To ensure maximum safety, it is essential to use this model of fuse puller in combination with a Class 0 dielectric glove.

Code	Ref.
545132	ME-60S-SM

30304 TALCO

Talcum powder

50 gr talcum powder pot designed to adapt to the boxes and bags used for gloves storage.



Code	Ref.	Capacity
545140	TALCUM	50 g



30401 SO-71

Fall-arrest harness with belt

Full body fall-arrest harness compliant with standard EN 361. Includes two attachment points (to climb up and down) one on the back and the other one on the abdominal area. Includes adjustable shoulder and leg straps as well as work support belt compliant with standard EN 358 with two side attachment points at the end for coupling an anchorage element. It is supplied with mod. SO-07 adjustable rope and mod. SO-74 karabiner.

Code	Ref.
550110	SO-71

CE EN 361
EN 358



30401 S/ATC

Safety harness with belt

Full body safety harness designed for use in all work environments involving heights equipped with foam back support and fast positioning buckles on the leg straps with four equipment loops.

Includes four attachment points:

- Chest attachment point
- Stomach attachment point, for suspension or positioning
- Back attachment point
- Two adjustable lateral positioning rings

Code	Ref.
550111	S/ATC

CE EN 361
EN 358



CE EN 358

30401 SO-06

Support belt with rope

Support belt compliant with standard EN 358 with padded strap. Includes a ring at each end for coupling an anchorage element. Supplied with one SO-07 adjustable rope and one SO-74 karabiner.

Code	Ref.
550100	SO-06



CE

30401 SO-45

Antilumbago and antivibratory belt

The antilumbago and antivibratory belt has been studied and designed to protect the back-lumbar area against all kind of efforts. It is made of red canvas material support with the inner side lined with 100% cotton.

Quick adjustment with Velcro band and high security lock Waist perimeter 100 cm.

Code	Ref.	Size / Waist
550120	SO-45 T6	6 (90 cm)
550121	SO-45 T9	9 (105 cm)

30401 SO-07

Adjustable rope

Anchorage element with adjustable length from 0.85 m to 1.35 m manufactured with 14 mm diameter polyamide rope. Supplied without karabiners.



CE UNE-EN 354

Code	Ref.
550170	SO-07

30401 S/ELAR-354

Adjustable rope

Anchorage element with adjustable length from 0.85 m to 1.35 m manufactured with 11 mm diameter polyamide rope. Supplied with one integrated karabiner.



CE UNE-EN 354

Code	Ref.
550174	S/ELAR-354

30401 S/ABE-355

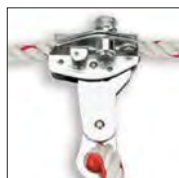
Energy absorber

Energy absorber with integrated Y-type anchorage element designed for permanent connection even when passing anchor points thanks to its two straps. Total length 1.75 m.



CE UNE-EN 355

Code	Ref.
550175	S/ABE-355



30401 SO-28

Sliding fall arrest device

Fall arrest device for flexible anchorage line with 14 mm rope. Includes safety lock and system which avoids the equipment from being misplaced. Allows the user to move vertically without having to change position. Blocks automatically in the event of falling.

CE EN 353-2

Code	Ref.
550140	SO-28



CE EN 353-2

30401 SO-75

Lifeline cord

Roll of 20 m rope with 14 mm diameter with thimbles at each end. To be used with sliding fall arrest device model SO-28.

Code	Ref.
550150	SO-75



30401 S/ADM-353

Sliding fall arrest device

Fall arrest device for flexible anchorage line with 11 mm rope that allows user to move vertically without having to change position. Blocks automatically in the event of falling.

CE EN 353-2

Code	Ref.
550176	S/ADM-353



CE EN 353-2

30401 S/CSE-353

Sliding fall arrest device

Roll of 20 m of semi-static "Rock-climbing" rope of 11 mm diameter. To be used as a source of progression with the sliding fall arrest device model S/ADM-353.

Code	Ref.
550177	S/CSE-353



CE EN 362

30401 SO-74

Steel symmetrical karabiner

Steel symmetrical karabiner with safety lock.

Code	Ref.
550160	SO-74



CE EN 362

30401 S/MOAL

Aluminium asymmetrical karabiner

Aluminium asymmetrical karabiner with safety lock.

Code	Ref.
550161	S/MOAL



30402 BLVC-30E

Lifeline set - small

Lifeline set that consists of hook with rope operation, 20 m rope with 14 mm² section, snap hook, fallarrester and connectable pole of 2 sections and 3 m total length.

Code	Ref.
550300	BLVC-30E

30402 BLVC-40E

Lifeline set - medium

Lifeline set that consists of hook with rope operation, 20 m rope with 14 mm² section, snap hook, fallarrester and connectable pole of 2 sections and 4 m total length.

Code	Ref.
550310	BLVC-40E

30402 BLVC-60E

Lifeline set - large

Lifeline set that consists of hook with rope operation, 20 m rope with 14 mm² section, snap hook, fallarrester and connectable pole of 3 sections and 6 m total length.

Code	Ref.
550320	BLVC-60E



30402 GLV

Lifeline hook

Device composed of a snap hook to fix safely the rope to which the worker will be connected when climbing up to the workplace.

Code	Ref.	Overture
630136	GLV	110 mm



*For poles with diameter
between 85 and 265 mm*



30403 AIRCLIMB

Climbing irons

The set of climbing irons for circular poles has been manufactured taking into account the health and safety demands specified in the provisions of the 89/686/CEE directive from 21st of December 1989.

It allows climbing up and down easily on circular fiberglass, steel and cement poles (in the case of cement poles, it is necessary to control the rubber level of wear and replace if necessary) with electrical infrastructure and telephone facilities. It also can be used in poles made of other materials as long as the user checks whether the adherence is correct and safe.

Specially designed to climb poles with obstacles like telecoms cables and others.



Code	Ref.
555125	AIRCLIMB



30403 SO-26

Climbing irons

Set of climbing irons specially designed for electrical and telecommunication wooden poles.

They are circular and have eight welded spikes with a special curved shape that enables climbing up and down.

They are fixed on with 1.15 m polyester straps of 30 mm wide and zinc steel buckles.

Code	Ref.	Ø
555100	SO-26	260 mm



30403 SO-27

Small climbing devices

With only one welded spike, they are made of carbon steel curved plate. They have four 65 cm long support polyester straps and leather cushioned pads with metallic buckles and eyelets.

For wooden poles.

Code	Ref.
555110	SO-27



*Class 1 – BOX TEST 4 kA/0,5 s.
EN 166; GS-ET-29*

565 ARMOUR-1

Safety helmet

Electrically Insulating Safety Helmet with Integrated Face Shield.
Basic Protection Against Arc Flash, class 1 according to BOX TEST,
4 kA/0,5 s.
EN166, GS-ET-29.

HELMET

- Improved visibility with reflective stickers.
- Manufacturing Date and Utilization Date permanently marked.
- Smooth Head Circumference Adjustment, range 53-63 cm.
- Electrical Class E (**20 kV AC**) according to ANSI Z89.1.
- Electrical Class 0 (1000 V AC/1500 V DC) according to EN 50365.
- Compliance with ANSI Z89.1; EN 397; EN 50365 standards.

FACE SHIELD

- Full face, chin and neck protection against thermal hazards caused by electric arc flash.
- Premium class anti-fog and anti-scratch protection.
- Easy to wear with eyeglasses.
- Protection against electric arc flash (**class 1 - BOX test 4 kA/0,5 s.**).
- Compliance with **EN 166; GS-ET-29 standards.**

CHIN STRAP

- 4-point strap recommended for working at height.
- Quick clasp - easy operation with protective gloves.



Code	Ref.
565090	ARMOUR-1



EN 397:2012+A1:2012
EN 50365:2002
EN 166:2001
GS-ET-29:2010
ANSI/ISEA Z89.1:2014



*Class 2 – BOX TEST 7 kA/0,5 s.
EN 166; GS-ET-29*

565 ARMOUR-2

Safety helmet

Electrically Insulating Helmet with Integrated Face Shield.
Extended protection against arc flash, class 2 according to BOX TEST,
7 kA/0,5 s.
EN166, GS-ET-29.

HELMET

- Improved visibility with reflective stickers.
- Manufacturing Date and Utilization Date permanently marked.
- Smooth Head Circumference Adjustment, range 53-63 cm.
- Electrical Class E (**20 kV AC**) according to ANSI Z89.1.
- Electrical Class 0 (1000 V AC/1500 V DC) according to EN 50365.
- Compliance with ANSI Z89.1; EN 397; EN 50365 standards.

FACE SHIELD

- Full face, chin and neck protection against thermal hazards caused by electric arc flash.
- Premium class anti-fog and anti-scratch protection.
- Easy to wear with eyeglasses.
- Protection against electric arc (**class 2 - BOX test 7 kA/0,5 s.**).
- Compliance with standards: **EN 166; GS-ET-29.**

CHIN STRAP

- 4-point strap recommended for working at height.
- Quick clasp - easy operation with protective gloves.



Code	Ref.
565091	ARMOUR-2

EN 397:2012+A1:2012
EN 50365:2002
EN 166:2001
GS-ET-29:2010
ANSI/ISEA Z89.1.2014
ASTM-F2178 (ARMOUR-2
CE ATPV36)



Class 2 – according to standard GS-ET-29, BOX TEST, 7 kA / 0.5 s.

Category 3 - according to ASTFM F2178, ATPV 36 cal / cm²

EN 166; GS-ET-29; ASTM-F2178

565 ARMOUR-2 ATPV 36

Safety helmet

Electrically Insulating Helmet with Integrated Face Shield.
Highest protection against arc flash, class 2 – according to standard GS-ET-29, BOX TEST, 7 kA / 0.5 s. and category 3 – according to ASTFM F2178, ATPV 36 cal / cm²
EN166, GS-ET-29, ASTM F2178.

HELMET

- Improved visibility with reflective stickers.
- Manufacturing Date and Utilization Date permanently marked.
- Smooth Head Circumference Adjustment, range 53-63 cm.
- Electrical Class E (**20 kV AC**) according to ANSI Z89.1.
- Electrical Class 0 (1000 V AC/1500 V DC) according to EN 50365.
- Compliance with ANSI Z89.1; EN 397; EN 50365 standards.

FACE SHIELD

- Full face, chin and neck protection against thermal hazards caused by electric arc flash.
- Premium class anti-fog and anti-scratch protection.
- Easy to wear with eyeglasses.
- Protection against electric arc (**Class 2 – According to standard GS-ET-29, BOX TEST, 7kA / 0.5 s.**
Category 3 - According to ASTFM F2178, ATPV 36 cal / cm².
- Compliance with standards: **EN 166; GS-ET-29; ASTM-F2178.**

CHIN STRAP

- 4-point strap recommended for working at height.
- Quick clasp - easy operation with protective gloves.

Code	Ref.
565093	ARMOUR-2 ATPV36

EN 397:2012+A1:2012
EN 50365:2002
EN 166:2001
GS-ET-29:2010
ANSI/ISEA Z89.1:2014
ASTM-F2178 (ARMOUR-2 ATPV36)





CE EN 397
UNE-EN 50365:2003

Electrical insulation up to 1,000 V

30404 SP-181

Safety helmet

Safety helmet manufactured from polyethylene to protect the head from mechanical and electrical risks.

Includes plastic harness with six anchoring points and manual adjustment.

Electric insulation up to 1.000 V

Working temperature: -10°C / +50°C

Supplied in white colour without chin strap.

According to EN 397 standard and UNE-EN 50365:2003 and the health and safety requirements of Royal Decree 1407/1992.

Other colours under request.

Code	Ref.
565099	SP-181



CE EN 397
UNE-EN 50365:2003

Electrical insulation up to 1,000 V

30404 SPE

Safety helmet

Safety helmet manufactured from polyethylene to protect the head from mechanical and electrical risks.

Includes plastic harness adjustable using sprocket.

Electric insulation up to 1.000 V

Workig temperature: -10°C / +50°C

Supplied in white colour without chin strap.

According to EN 397 standard and UNE-EN 50365:2003 and the health and safety requirements of Royal Decree 1407/1992.

Other colours under request.



Code	Ref.
565102	SPE



CE EN 1249 2

30404 S/CABS-397

Safety helmet

Safety helmet for works involving heights manufactured from ABS with high-quality ultraviolet stabilization.

Includes harness comprised of one interior PPE piece and one head band adjustable using sprocket.

The stuffing in contact with the head includes pads to increase comfort.

Working temperature: -10°C / +50°C

Supplied in white colour with textile chin strap with 4 attachment points.

According to EN 12492 standard.

Other colours under request.

Code	Ref.
565106	S/CABS-397



S/BQ

S/BQM

30404 S/BQ & S/BQM

Chin strap

Chin strap for helmets model SP-181 and SPE.

Code	Ref.
565130	S/BQ
565131	S/BQM



CE EN 166

30405 SP-182

Face shield for short circuit arc

Face shield that can be adjusted to mostly all kind of safety helmets without needing to modify its characteristics, but mod. S / CABS-397.

It is composed of a nylon adapter and a reclining visor. It repels molten metals, impacts at its highest level, liquid splashes, and the electric arc risk. It filters I.R. solar radiation. ATPV of serious viewer 6 cal/cm².

Code	Ref.
570120	SP-182



CE EN 166
EN 169
EN 170

30405 SP-183

Protective glasses

Glasses comply with standards EN 166, EN 169, and EN 170.

Made with a front in propionate and temples in polycarbonate.

Lateral and upper protection.

Lenses made of green polycarbonate with anti-abrasion IR / UV5.

Code	Ref.
570100	SP-183



30405 SP-183F

Glasses case

Code	Ref.
570110	SP-183F



CE EN 352-1

30405 MP-4

Cushioned auditory protector

Cushioned auditory protector with adjustable headband height.

It isolates the worker from external noises.

Code	Ref.
575100	MP-4



CE EN 149

30405 MP-1

Self-filtering mask

Self-filtering mask with nose brace for better adaptation.

Code	Ref.
570130	MP-1



HEAD CAN BE TURNED 45° UP OR DOWN

Adjust the head to easily control the angle of light irradiation

30406 LTE-CP400

Headlamp

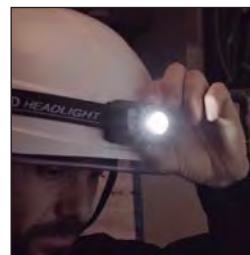
Multifunctional headlamp; turned on and off with a simple gesture with the palm of the hand. Gesture recognition saves the operator from removing insulating gloves, making it easier to perform any task.

- Use: Indoor / Outdoor
- Range: 100 m
- Waterproof, shockproof, anti-fog
- Illumination time: 3-8 h
- Material: Aluminium / ABS

350 LM
IP64



USB charging



Code	Ref.
555010	LTE-CP400



RED LED LIGHT



POWER DISPLAY



GESTURE SENSING



IMPACT RESISTANT



MULTI-LEVEL ADJUSTMENT



WATERPROOF



LONG-LASTING BATTERY

Multifunction torch with magnet



30406 LTE-FM400

Multifunction torch with magnet

Multifunction LED torch with rechargeable battery and magnetic support for use in any work environment.

- Mobile and portable
- Rechargeable 3 W LED lamp
- Compact size adapts to different environments.
- **Adjustable support**
180° adjustable support, easy to set up in different locations.

400 LM
IP66



USB charging

Code	Ref.
555000	LTE-FM400



Magnetic support



Support rotates 180°





CLASE 2

17.5_{kV}

Maximum working voltage

20_{kV}

Test voltage

30601 DB2

Dielectric boots

- Every boot tested to 20 kV (AC testing as standard, DC testing available on request).
- Leakage current less than 5 mA at 5 kV and less than 18 mA at 20 kV.
- Meets the requirements of ASTM 1117 (20 kV) and ASTM 2413.
- Blue vulcanized rubber sole for maximum grip - 30% better than a conventional safety boot sole.
- Slip resistance performance twice that required by SATRA TM144 standard.
- Two to three times the wear resistance of conventional soles.

Code	Ref.	Sizes
715155	DB2 T42	42
715160	DB2 T43	43
715165	DB2 T44	44
715170	DB2 T45	45



CLASE 3

26.5_{kV}

Maximum working voltage

30_{kV}

Test voltage

30601 DB3

Dielectric HV3 boots

- Lightweight design for increased wearer comfort.
- Low temperature flexibility down to -40°C.
- Durable, slip resistant vulcanised rubber sole for maximum grip.
- Energy absorbing tunnel system in heel and ergonomic cushioning insole (removable and machine washable) for greater wearer comfort.
- Cold insulation to EN ISO 20345.
- Meets the requirements of ASTM 1117 (20 kV) and ASTM 2413.
- Also available in a special sole version with resistance to fuel, oil, and hot contact. (on request)

Code	Ref.	Sizes
715270	DB3 T42	42
715275	DB3 T43	43
715280	DB3 T44	44
715285	DB3 T45	45





30602 OB1

Maxi dielectric overboots

- Class 1 electrically insulated dielectric overboots with vulcanised rubber soles for increased slip resistance.
- They are designed to be worn over safety boots and are ideal for workers who have to continually enter and exit hazardous areas.
- One-piece injection moulded construction with integral moulded handle ensures no leakage at seams or assembly/handle holes.
- Vulcanised rubber sole for superior slip resistance in wet and oily conditions (SRC); durable and cut resistant for significantly longer life, even in rough terrain; heat resistant EN 20347:2011 HRO, 60 seconds at 300°C and resistant to fuel and oil.
- Complies with ASTM 1117 requirements (20 kV).

Code	Ref.	Sizes
715290	OB1 T-L	L

CLASE 1

7.5 kV

Maximum
working voltage

20 kV

Test voltage



30602 OB2

Dielectric compact overboots

- Single piece injection moulded construction with integral moulded fastener ensures there are no seams or mounting/fastener holes to leak.
- No metal fasteners or components used in the construction.
- Slip resistant sole in blue dielectric compound.
- Fuel and oil resistant sole.
- Meets the requirements of ASTM 1117 (20 kV).

Code	Ref.	Sizes
715300	OB2 T-L	L

CLASE 2

17.5 kV

Maximum
working voltage

20 kV

Test voltage



30602 OB3

Dielectric HV3 maxi overboots

- Ingenious rear entry design ensures the boot is quick and easy to fit and remove.
- Ideal for personnel who have to continually enter and exit high voltage areas.
- Light weight.
- Fluorescent green colour.
- Seamless construction.
- Kick off lug.
- REACH Compliant.

Code	Ref.	Sizes
715340	OB3 T-L	L

CLASE 3

26.5 kV

Maximum
working voltage

30 kV

Test voltage



*Monobloc and stackable insulating stool
for indoor use*



*High stability
High impact resistance
High slip resistance*



30501 STM

Insulating stool
for indoor use

Made of high impact polypropylene.

The platform surface is rough and non-slip.

Rubber tips are placed under the legs to give it greater adherence to the floor and protection from wear.

Platform: 640 x 640 mm

Surface: 528 x 528 mm

According to UNE 204001 standard.

Code	Ref.	Height (mm)	Class	Working voltage
580150	STM-36	204	4	36 kV
580155	STM-45	304	5	45 kV
580160	STM-66	304	6	66 kV

 UNE 204001

indoor



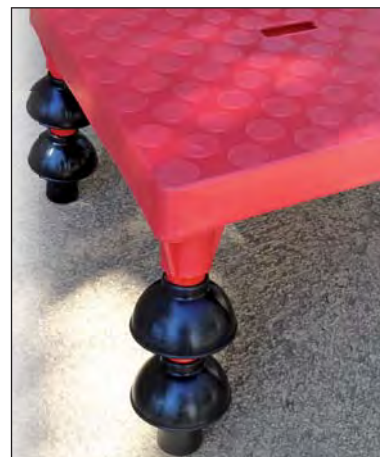
Monobloc structure

The monobloc design ensures a stable and secure structure, reducing the risk of breakage or misalignment over time.

Stackable

Facilitate storage and transport when not in use.

*Insulating stool
for outdoor use*



*High stability
High impact resistance
High slip resistance*

30501 STE

Insulating stool
for outdoor use

Made of high impact copolymer polypropylene.
The platform surface is rough, non-slip and the legs have deflecting hoods.
Rubber tips are placed under the legs to give it greater adherence to the floor and protection from wear.
Platform: 525 x 525 mm

According to UNE 204001 standard.
Legs made of IEC 60855 foam filled tube.



Code	Ref.	Height (mm)	Class	Working voltage
580096	STE-26	257	3	26 kV
580111	STE-45	399	5	45 kV
580116	STE-66	449	6	66 kV

 UNE 204001

30501 ST-79

Insulating slab

Made of high impact polyethylene and 500x500 mm modules that can be joined together, makes any surface easier to be covered.
This material can be easily cut as to be adapted to any space.



Code	Ref.
580130	ST-79

30502 AD

Insulating mat

Specific Rubber Base: natural rubber SBR

Specific weight: 1.51 g/cm³ (specific gravity)

Hardness: 71 Shore A

Tensile Strength: 75.5 Kg/cm²

Elongation at break: 362%

Resistance to tearing: 20 Kg/cm²

Resistance to abrasión: 182 mm³

Temperature Field: -40°C / +70 °C

Chemical resistance:

Acids and Bases diluted - Moderate

Acids and Bases Concentrates - Not recommended

Hydrocarbon - Not recommended

Organic solvents - Not recommended

According to IEC 61111.

We can customize the length of the mats as per our clients' requests (max 10 m).

IEC 61111

Code	Ref.	Dimensions (m)	Class	Thickness (mm)	Weight (kg)	Work voltage (V)	Test voltage (V)	Supported voltage (V)
585180	AD0-0606	0.6 x 0.6	0	2.20 ±0.30	1.18	1.000	5.000	10.000
585181	AD0-0610	0.6 x 1.0			1.98			
585182	AD0-06100	0.6 x 10			19.80			
585183	AD0-1010	1.0 x 1.0			3.30			
585184	AD0-10100	1.0 x 10			33.00			
585185	AD0-1210	1.2 x 1.0			3.96			
585186	AD0-12100	1.2 x 10			39.60			
585200	AD2-0606	0.6 x 0.6	2	2.60 ±0.30	1.404	17.000	20.000	30.000
585210	AD2-0610	0.6 x 1.0			2.34			
585220	AD2-06100	0.6 x 10			23.4			
585230	AD2-1010	1.0 x 1.0			3.90			
585240	AD2-10100	1.0 x 10			39.00			
585250	AD2-1210	1.2 x 1.0			4.68			
585260	AD2-12100	1.2 x 10			46.80			
585300	AD3-0606	0.6 x 0.6	3	3.20 ±0.30	1.72	26.500	30.000	40.000
585310	AD3-0610	0.6 x 1.0			2.88			
585320	AD3-06100	0.6 x 10			28.8			
585330	AD3-1010	1.0 x 1.0			4.80			
585340	AD3-10100	1.0 x 10			48			
585350	AD3-1210	1.2 x 1.0			5.76			
585360	AD3-12100	1.2 x 10			57.60			
585400	AD4-0606	0.6 x 0.6	4	5.20 ±0.30	2.80	36.000	40.000	50.000
585410	AD4-0610	0.6 x 1.0			4.68			
585420	AD4-06100	0.6 x 10			46.80			
585430	AD4-1010	1.0 x 1.0			7.80			
585440	AD4-10100	1.0 x 10			78.00			
585450	AD4-1210	1.2 x 1.0			9.36			
585460	AD4-12100	1.2 x 10			93.6			



IEC 61111

30503 MA

Insulating blanket

Insulating blanket made of high quality resistant rubber. Used to protect workers from low voltage electrical hazards. The blanket is a bright colour so it can be easily identified and seen by the operator in the work area. These blankets are category AZ, which means they are certified to be resistant to acids (Category A), ozone present in electrical equipment (Category Z).

Base: Vulcanized elastomer

Minimum tensile strength: 12 MPa

Elongation at break: 300 %.

Hardness: 60 Sh A

Mechanical resistance to perforation

Flame retardant

Aging tests

Low temperature bending test

The length of the blankets can be customised according to the customers' requests (maximum 20 m).

Conforms to IEC 61112:2009: Live working - Electrical insulating mats.

Code	Ref.	Width (m)	Length (m)	Class	Thickness (mm)	Weight (kg/m ²)	Working tension
585001	MA0-1010	1	1	0	1.5 (+/-0.2)	1.6	1 kV CA / 1.5 kV CC
585010	MA0-10100	1	10				



30504 SP-22

Cowl

It is made of rubber and it is used for the provisional insulation of bare conductors as they pass through low voltage insulators. It is bell-shaped and incorporates grooves for the conductors to pass through. According to IEC 60243-1 standard.

Code	Ref.	Ø
595100	SP-22	90 mm

CE  IEC 60243-1



30505 SP-39

Fixing peg

120 mm long wooden peg used to fix the vinyl cloth sheets on the conductors.

Code	Ref.
595112	SP-39



30505 S/PA

Insulated fixing peg 1000V

Manufactured in insulated material. It is used to fix the protective covers during the insulation of a workplace in switches, cables and overhead lines up to 1 kV.

Code	Ref.
595113	S/PA



30505 PACE-1,5

1000 V Insulated Clamp

Made with insulating material. Suitable for clamping blankets up to 1 kV AC / 1.5 kV DC.

Code	Ref.	Length
595114	PACE-1,5	50 mm



30505 SP-321

Profil

It is made of rubber and it is used as provisional insulation for bare conductors in low voltage or with insufficient protection in small spaces.

Code	Ref.	Ø	Length
595101	SP-321	19 mm	1 m
595103	SP-321	19 mm	1.5 m



30505 SP-35

Vinyl cloth

Manufactured from 0.3 mm thick vinyl. It is used to insulate various elements in low-voltage installations.

Rolls of 50 m x 1.40 m.

According to UNE 61112:2010 and IEC 61112:2009 standards.

Code	Ref.	Rolls
595102	SP-35	50 m x 1.40 m

 UNE 61112:2010
IEC 61112:2009



30705 SP-52

Cowl bag

Nylon bag with reinforcements to facilitate the carriage of the insulating cowl.

Code	Ref.
600100	SP-52

* Depending on availability, the colour of the bags may vary.



30705 SP-50

Profil bag

Nylon bag with reinforcements to facilitate the carriage of the insulating profil.

Code	Ref.	Ø	Length
600110	SP-50	20 cm	115 cm

* Depending on availability, the colour of the bags may vary.



30701 SO-31

Flat tool-holder bag

250 x 290 mm flat tool bag made of canvas with synthetic reinforcement at the bottom. Incorporates nylon straps with buckles to attach it to a belt.

Code	Ref.
600120	SO-31

* Depending on availability, the colour of the bags may vary.



30701 SO-32

Circular tool-holder bag

230 x 320 mm circular tool bag made of canvas with synthetic reinforcement at the bottom. Incorporates a nylon handle for carrying and lifting.

Code	Ref.
600130	SO-32

* Depending on availability, the colour of the bags may vary.



30702 BA

Insulating mat bag

Nylon bag with reinforcements to facilitate the transport of the insulating mat.

Code	Ref.	Ø	Length
600150	BA-1,0x10	15 cm	110 cm
600151	BA-0,6x10	15 cm	70 cm

* Depending on availability, the colour of the bag may vary.



30703 FP

Bag for pole

Nylon bag for the transport and storage of poles.

Code	Ref.	Dimensions (mm) width x length
899000	FP-20/140	200 x 1400
899005	FP-20/210	200 x 2100
899010	FP-25/125	250 x 1250
899015	FP-25/175	250 x 1750
899020	FP-25/225	250 x 2250
899025	FP-25/275	250 x 2750
899030	FP-25/325	250 x 3250

* Depending on availability, the colour of the bag for pole may vary.



30703 FE

Cover for earthing equipment poles

Nylon cover used to store and transport poles.

Code	Ref.	Dimensions (mm) width x length
899050	FE-20/120	200 x 1200

* Depending on availability, the colour of the cover for earthing poles may vary.



FE-40/30



FE-20/110

30704 FE

Bag for earthing equipments

Nylon bags used to store and transport earthing equipments

Code	Ref.	Dimensions (mm) width x length
899055	FE-20/110	200 x 1100
899060	FE-40/30	400 x 300

* Depending on availability, the colour of the bag and the cover for earthing poles may vary.



U
Universal Head



INDOOR and OUTDOOR Use in dry environment

Maneuvering pole with only one section made of polyester and fibreglass tube Ø 32 mm with humidity-proof seals on each end, hand protector, grip, tip, Universal head and maneuvering hook.

30801 BM-45

- Length of the insulating element: 1.60 meters
- Total length without hook: 1.50 meters
- Working voltage: 45 kV
- For INDOOR and OUTDOOR use in dry environment

Code	Ref.
605100	BM-45

30801 BM-66

- Length of the insulating element: 2.10 meters
- Total length without hook: 2.00 meters
- Working voltage: 66 kV
- For INDOOR and OUTDOOR use in dry environment

Code	Ref.
605110	BM-66

30801 BM-90

- Length of the insulating element: 2.60 meters
- Total length without hook: 2.50 meters
- Working voltage: 90 kV
- For INDOOR and OUTDOOR use in dry environment

Code	Ref.
605115	BM-90

30801 BM-132

- Length of the insulating element: 3.10 meters
- Total length without hook: 3.00 meters
- Working voltage: 132 kV
- For INDOOR and OUTDOOR use in dry environment

Code	Ref.
605120	BM-132



U
Universal Head



INDOOR and OUTDOOR *Use in dry and humid environment*

Maneuvering pole with only one section made of polyester and fibreglass tube Ø 32 mm with humidity-proof seals on each end, 3 deflecting hoods, hand protector, grip, tip, Universal head and maneuvering hook.

30801 BME-45

- Total length: 1.60 meters
- Working voltage: 45 kV
- Number of bells: 3
- For INDOOR and OUTDOOR use

Code	Ref.
605130	BME-45

30801 BME-66

- Total length: 2.10 meters
- Working voltage: 66 kV
- Number of bells: 3
- For INDOOR and OUTDOOR use

Code	Ref.
605140	BME-66

30801 BME-132

- Total length: 3.10 meters
- Working voltage: 132 kV
- Number of bells: 3
- For INDOOR and OUTDOOR use

Code	Ref.
605150	BME-132

Insulating Poles

Safety

Rescue pole

GENERAL CATALOGUE 24/25



Rescue pole with only one section made of polyester and fibreglass tube Ø 32 mm with humidity-proof seals on each end, hand protector, grip, tip, M-10 metric head and rescue hook.

30802 BS-3

- Length of insulating element: 0.50 meters
- Total length (without hook): 1.00 meter
- Working voltage: 3 kV

Code	Ref.
610090	BS-3

30802 BS-25

- Length of insulating element: 0.82 meters
- Total length (without hook): 1.32 meters
- Working voltage: 25 kV

Code	Ref.
610095	BS-25

30802 BS-45

- Length of insulating element: 1.00 meter
- Total length (without hook): 1.50 meters
- Working voltage: 45 kV

Code	Ref.
610100	BS-45

30802 BS-66

- Length of insulating element: 1.20 meters
- Total length (without hook): 2.00 meters
- Working voltage: 66 kV

Code	Ref.
610110	BS-66

30802 BS-90

- Length of insulating element: 1.70 meters
- Total length (without hook): 2.50 meters
- Working voltage: 90 kV

Code	Ref.
610115	BS-90



INDOOR and OUTDOOR Use in dry environment

Telescopic pole with two sections made of reinforced fibreglass tube Ø 37 and 30 mm with humidity-proof seals on each end, hand protector, grip, tip and M (Metric-10), U (Universal), B (Bayonet) or P (Hexagonal + Metric-10) head. The length of each section can be adjusted as needed by means of an adjustment system with locking handles.



M
Metric-10 Head



U
Universal Head



B
Bayonet Head



P
Multipurpose Head
(Hexagonal + Metric head-10)



Easy
adjustment

30803 BMTS-15/45

- Length folded: 0.85 meters
- Length extended: 1.486 meters
- Working voltage: 45 kV (fully extended)
- For INDOOR and OUTDOOR use in dry environment
- Weight: 0.75 Kg

Code	Ref.
615300	BMTS-15/45M
615301	BMTS-15/45U
615302	BMTS-15/45B
615303	BMTS-15/45P

30803 BMTS-20/66

- Length folded: 1.10 meters
- Length extended: 1.986 meters
- Working voltage: 66 kV (fully extended)
- For INDOOR and OUTDOOR use in dry environment
- Weight: 0.95 Kg

Code	Ref.
615310	BMTS-20/66M
615311	BMTS-20/66U
615312	BMTS-20/66B
615313	BMTS-20/66P

30803 BMTS-30/132

- Length folded: 1.65 meters
- Length extended: 3 meters
- Working voltage: 132 kV (fully extended)
- For INDOOR and OUTDOOR use in dry environment
- Weight: 1.35 Kg

Code	Ref.
615320	BMTS-30/132M
615321	BMTS-30/132U
615322	BMTS-30/132B
615323	BMTS-30/132P

Stable adjusters

INDOOR and OUTDOOR Use in dry environment

Telescopic multiple section pole made of reinforced fibreglass tube with variable circular shape that allows to wedge automatically each section. The upper section is filled in with foam according to IEC 60855. The length of each section can be adjusted as needed by means of an adjustment system with locking handles. All models are supplied with Universal head and maneuvering hook. The A section must be always unfolded to be used.



Easy adjustment

*Stable adjusters.
Adjust the extended length
of each section as per your needs.
Last section foam filled for poles
over 6 m according to IEC 60855.
Reinforced fibreglass tube.
Up to 12 m.*

30803 BMTS-4/6

- Length folded: 1.75 meters
- Length extended: 5.97 meters (4 sections)
- Working voltage: 380 kV (fully extended)
- For INDOOR and OUTDOOR use in dry environment
- Weight: 3.40 kg

Code	Sections	Voltage	Ref.
615325	C+A	132 kV	BMTS-4/6
	C+B+A	380 kV	

30803 BMTS-5/9

- Length folded: 2.00 meters
- Length extended: 8.75 meters (5 sections)
- Working voltage: 420 kV (fully extended)
- For INDOOR and OUTDOOR use in dry environment
- Weight: 5.20 kg

Code	Sections	Voltage	Ref.
615330	D+A	132 kV	BMTS-5/9
	D+B+A	380 kV	
	D+C+B+A	420 kV	

30803 BMTS-6/12

- Length folded: 2.30 meters
- Length extended: 11.80 meters (6 sections)
- Working voltage: 420 kV (fully extended)
- For INDOOR and OUTDOOR use in dry environment
- Weight: 7.25 kg

Code	Sections	Voltage	Ref.
615335	E+A	132 kV	BMTS-6/12
	E+B+A	380 kV	
	E+C+B+A	420 kV	
	E+D+C+B+A	420 kV	

INDOOR and OUTDOOR Use in dry environment

Telescopic multiple section pole made of reinforced fibreglass tube with variable circular shape that allows to wedge automatically each section. The upper section is filled in with foam according to IEC 60855.

The length of each section can be adjusted as needed by means of an adjustment system with locking handles.

All models are supplied with Universal head and maneuvering hook.

The A section must be always unfolded to be used.



Easy adjustment

*Stable adjusters.
Adjust the extended length
of each section as per your needs.
Last section foam filled for poles
over 6 m according to IEC 60855.
Reinforced fibreglass tube.
Up to 12 m.*



30803 BMTS-7/10,3

- Length folded: 1.80 meters
- Length extended: 10.30 meters (7 sections)
- Working voltage: 420 kV (fully extended)
- For INDOOR and OUTDOOR use in dry environment
- Weight: 6.50 kg

Code	Sections	Voltage	Ref.
615355	F+A	132 kV	BMTS-7/10,3
	F+B+A	220 kV	
	F+C+B+A	380 kV	
	F+D+C+B+A	380 kV	
	F+E+D+C+B+A	420 kV	

30803 BMTS-7/11,6

- Length folded: 2.00 meters
- Length extended: 11.67 meters (7 sections)
- Working voltage: 420 kV (fully extended)
- For INDOOR and OUTDOOR use in dry environment
- Weight: 7.30 kg

Code	Sections	Voltage	Ref.
615350	F+A	132 kV	BMTS-7/11,6
	F+B+A	380 kV	
	F+C+B+A	380 kV	
	F+D+C+B+A	380 kV	
	F+E+D+C+B+A	420 kV	



M
Metric-10 Head



U
Universal Head



B
Bayonet Head



P
Multipurpose Head
(Hexagonal + Metric head-10)



INDOOR and OUTDOOR Use in dry environment

Connectable poles with two sections, made of polyester and fibreglass tube Ø 32 mm with humidity-proof seals on each end, hand protector, grip, tip and M (Metric-10), U (Universal), B (Bayonet) or P (Hexagonal + Metric-10) head.

30804 BMAI-2

- Total length: 2 meters
- Composed of 2 sections of 1 m each
- Working voltage: 66 kV
- For INDOOR and OUTDOOR use in dry environment

Code	Ref.
616100	BMAI-2/66M
616101	BMAI-2/66U
616102	BMAI-2/66B
616103	BMAI-2/66P

30804 BMAI-2,5

- Total length: 2.5 meters
- Composed of 1 section of 1 m + 1 section of 1.5 m
- Working voltage: 110 kV
- For INDOOR and OUTDOOR use in dry environment

Code	Ref.
616110	BMAI-2,5/110M
616111	BMAI-2,5/110U
616112	BMAI-2,5/110B
616113	BMAI-2,5/110P

30804 BMAI-3

- Total length: 3 meters
- Composed of 2 sections of 1.5 m each
- Working voltage: 132 kV
- For INDOOR and OUTDOOR use in dry environment

Code	Ref.
616120	BMAI-3/132M
616121	BMAI-3/132U
616122	BMAI-3/132B
616123	BMAI-3/132P

INDOOR and OUTDOOR Use in dry and humid environment

Connectable pole with two sections made of polyester and fibreglass tube Ø 32 mm with humidity-proof seals on each end, hand protector, grip, tip, 3 deflecting hoods and M (Metric-10), U (Universal), B (Bayonet) or P (Hexagonal + Metric-10) head.



M
Metric-10 Head



U
Universal Head



B
Bayonet Head



P
Multipurpose Head
(Hexagonal + Metric head-10)



30805 BMAE-2

- Total length: 2 meters
- Composed of 2 sections of 1 m each
- Working voltage: 30 kV
- For INDOOR and OUTDOOR use

Code	Ref.
616200	BMAE-2/30M
616201	BMAE-2/30U
616202	BMAE-2/30B
616203	BMAE-2/30P

30805 BMAE-2,5

- Total length: 2.5 meters
- Composed of 1 section of 1 m + 1 section of 1.5 m
- Working voltage: 66 kV
- For INDOOR and OUTDOOR use

Code	Ref.
616210	BMAE-2,5/66M
616211	BMAE-2,5/66U
616212	BMAE-2,5/66B
616213	BMAE-2,5/66P

30805 BMAE-3

- Total length: 3 meters
- Composed of 2 sections of 1.5 m each
- Working voltage: 110 kV
- For INDOOR and OUTDOOR use

Code	Ref.
616220	BMAE-3/110M
616221	BMAE-3/110U
616222	BMAE-3/110B
616223	BMAE-3/110P

INDOOR and OUTDOOR Use in dry environment

Connectable pole with two or three sections made of polyester and fibre-glass tube Ø 38.4 mm with hand protector, grip, tip and M (Metric-10), U (Universal), B (Bayonet) or P (Hexagonal + Metric-10) head.



M
Metric-10 Head



U
Universal Head



B
Bayonet Head



P
Multipurpose Head
(Hexagonal + Metric head-10)



30804 BMAI-3V

- Total length: 3 meters
- Composed of 2 sections of 1.5 m each
- Working voltage: 132 kV
- For INDOOR and OUTDOOR use in dry environment

Code	Ref.
616500	BMAI-3V/132M
616501	BMAI-3V/132U
616502	BMAI-3V/132B
616503	BMAI-3V/132P

30804 BMAI-4V

- Total length: 4 meters
- Composed of 2 sections of 2 m each
- Working voltage: 220 kV
- For INDOOR and OUTDOOR use in dry environment

Code	Ref.
616510	BMAI-4V/220M
616511	BMAI-4V/220U
616512	BMAI-4V/220B
616513	BMAI-4V/220P

30804 BMAI-5V

- Total length: 5 meters
- Composed of 2 sections of 2 m + 1 section of 1 m
- Working voltage: 380 kV
- For INDOOR and OUTDOOR use in dry environment

Code	Ref.
616520	BMAI-5V/380M
616521	BMAI-5V/380U
616522	BMAI-5V/380B
616523	BMAI-5V/380P

30804 BMAI-6V

- Total length: 6 meters
- Composed of 3 sections of 2 m each
- Working voltage: 380 kV
- For INDOOR and OUTDOOR use in dry environment

Code	Ref.
616530	BMAI-6V/380M
616531	BMAI-6V/380U
616532	BMAI-6V/380B
616533	BMAI-6V/380P

INDOOR and OUTDOOR Use in dry and humid environment

Connectable pole with two or three sections made with polyester and fibreglass tube Ø 38.4 mm with hand protector, grip, tip, 3 deflecting hoods and M (Metric-10), U (Universal), B (Bayonet) or P (Hexagonal + Metric-10) head.



M
Metric-10 Head



U
Universal Head



B
Bayonet Head



P
Multipurpose Head
(Hexagonal + Metric head-10)



30805 BMAE-3V

- Total linked length: 3 meters
- Composed of 2 sections of 1.5 m each
- Working voltage: 110 kV
- For INDOOR and OUTDOOR use

Code	Ref.
616600	BMAE-3V/110M
616601	BMAE-3V/110U
616602	BMAE-3V/110B
616603	BMAE-3V/110P

30805 BMAE-4V

- Total linked length: 4 meters
- Composed of 2 sections of 2 m each
- Working voltage: 220 kV
- For INDOOR and OUTDOOR use

Code	Ref.
616610	BMAE-4V/220M
616611	BMAE-4V/220U
616612	BMAE-4V/220B
616613	BMAE-4V/220P

30805 BMAE-5V

- Total linked length: 5 meters
- Composed of 2 sections of 2 m + 1 section of 1 m
- Working voltage: 380 kV
- For INDOOR and OUTDOOR use

Code	Ref.
616620	BMAE-5V/380M
616621	BMAE-5V/380U
616622	BMAE-5V/380B
616623	BMAE-5V/380P

30805 BMAE-6V

- Total linked length: 6 meters
- Composed of 3 sections of 2 m each
- Working voltage: 380 kV
- For INDOOR and OUTDOOR use

Code	Ref.
616630	BMAE-6V/380M
616631	BMAE-6V/380U
616632	BMAE-6V/380B
616633	BMAE-6V/380P



M
Metric-10 Head



B
Bayonet Head



H
Hexagonal Head

IEC 60855
UNE-EN-50508



INDOOR and OUTDOOR Use in humid environment

Multise poles according to EN-50508 standard of 1 single-section. Manufactured with a Ø 32 mm polyester and fiberglass tube and filled with polyurethane foam that complies with the IEC 60855 standard. Head: U (Universal), B (Bayonet), H (Hexagonal) Includes carrying bag.

30806 BSC-M3

- Total length: 1.5 meters
- Working voltage: 30 kV
- For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616700	BSC-M3U
616701	BSC-M3B
616702	BSC-M3H

30806 BSC-M4

- Total length: 2 meters
- Working voltage: 45 kV
- For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616703	BSC-M4U
616704	BSC-M4B
616705	BSC-M4H

30806 BSC-M5

- Total length: 2.5 meters
- Working voltage: 66 kV
- For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616706	BSC-M5U
616707	BSC-M5B
616708	BSC-M5H

30806 BSC-M6

- Total length: 3 meters
- Working voltage: 132 kV
- For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616709	BSC-M6U
616710	BSC-M6B
616711	BSC-M6H

Insulating Poles

Safety

Connectable pole UNE 50508

GENERAL CATALOGUE 24/25



U
Universal Head



B
Bayonet Head



H
Hexagonal Head

IEC 60855
UNE-EN-50508



INDOOR and OUTDOOR Use in humid environment

Multiuse poles according to EN-50508 standard of two or three-section. Manufactured with a Ø 32 mm polyester and fiberglass tube and filled with polyurethane foam that complies with the IEC 60855 standard.

Head: U (Universal), B (Bayonet), H (Hexagonal)

Includes carrying bag.

30807 BSC-M22

- Total linked length: 2 meters
- Composed of 2 sections of 1 m each
- Working voltage: 45 kV
- For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616712	BSC-M22U
616713	BSC-M22B
616714	BSC-M22H

30807 BSC-M32

- Total linked length: 2.5 meters
- Composed of 1 section of 1 m + 1 section of 1.5 m
- Working voltage: 66 kV
- For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616715	BSC-M32U
616716	BSC-M32B
616717	BSC-M32H

30807 BSC-M33

- Total linked length: 3 meters
- Composed of 2 sections of 1.5 m each
- Working voltage: 132 kV
- For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616718	BSC-M33U
616719	BSC-M33B
616720	BSC-M33H

30807 BSC-M222

- Total linked length: 3 meters
- Composed of 3 sections of 1 m each
- Working voltage: 132 kV
- For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616721	BSC-M222U
616722	BSC-M222B
616723	BSC-M222H

Insulating Poles

Safety

Connectable pole UNE 50508

GENERAL CATALOGUE 24/25

INDOOR and OUTDOOR Use in humid environment

Multiuse poles according to EN-50508 standard of two or three-section. Manufactured with a Ø 38,4 mm polyester and fiberglass tube and filled with polyurethane foam that complies with the IEC 60855 standard.

Head: U (Universal), B (Bayonet).
Includes carrying bag.



U

Universal Head



B

Bayonet Head

IEC 60855
UNE-EN-50508

30807 BSC-A43

- Total linked length: 3.5 meters
- Composed of 1 section of 2 m and 1 section of 1.5 m
- Working voltage: 132 kV
- For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616724	BSC-A43U
616725	BSC-A43B

30807 BSC-A44

- Total linked length: 4 meters
- Composed of 2 sections of 2 m each
- Working voltage: 220 kV
- For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616726	BSC-A44U
616727	BSC-A44B

30807 BSC-A54

- Total linked length: 4.5 meters
- Composed of 1 section of 2 m + 1 section of 2.5 m
- Working voltage: 220 kV
- For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616728	BSC-A54U
616729	BSC-A54B

30807 BSC-A55

- Total linked length: 5 meters
- Composed of 2 sections of 2.5 m each
- Working voltage: 380 kV
- For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616730	BSC-A55U
616731	BSC-A55B

30807 BSC-A66

- Total linked length: 6 meters
- Composed of 2 sections of 3 m each
- Working voltage: 380 kV
- For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616732	BSC-A66U
616733	BSC-A66B

30807 BSC-A444

- Total linked length: 6 meters
- Composed of 3 sections of 2 m each
- Working voltage: 380 kV
- For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
616734	BSC-A444U
616735	BSC-A444B



H
Hexagonal Head of 22



Hexagonal of 22

IEC 60855
UNE-EN-50508

INDOOR and OUTDOOR
Use in humid environment

Multiuse poles according to EN-50508 standard of 1 single-section. Manufactured with a Ø 38.4 mm polyester and fiberglass tube and filled with polyurethane foam that complies with the IEC 60855 standard.
Head: H (Hexagonal of 22)
Includes carrying bag.
To operate with potential lowering equipment mod. PATC-BP (page 235).

30909 BSC-132/BP
Pole downside potential

- Total length: 3 meters
- Working voltage: 132 kV
- For INDOOR and OUTDOOR use (humid environment)

Code	Ref.
672210	BSC-132/BP

INDOOR and OUTDOOR Use in dry environment

30809 BEF-9000

Fuse disconnecting pole

One-section fuse disconnecting pole made of polyester and fiberglass with a diameter of 40 mm, featuring a handguard and grip for operating the sliding mechanism. The head has two opening positions to accommodate different diameters.

- For fuses with diameter from 30 to 90 mm.
- For INDOOR and OUTDOOR use in dry environment

Code	Ref.	Working voltage	Length
625105	BEF-9000/24	24 kV	1.07 m
625107	BEF-9000/36	36 kV	1.72 m

30809 BDC

Insulating condenser discharging pole

Insulating condenser discharging pole with earthing system. It is also suitable for devices with static electricity. Pole with only one section made of polyester and fiberglass tube Ø 32 mm, with hand protector, grip and tip.

- For INDOOR and OUTDOOR use in dry environment

Code	Ref.	Working voltage	Length
625110	BDC	45 kV	1.6 m
625200	BDC-H 0,6/1-2	1 kV	0.6 m
625250	BDC-H 0,6/1-3	1 kV	0.6 m
625260	BDC-H 0,6/1-5	1 kV	0.6 m
625270	BDC-H 0,6/1-7	1 kV	0.6 m
625220	BDC-H 1/25-4	25 kV	1 m
625210	BDC-H 1,6/45-5	45 kV	1.6 m
625230	BDC-H 1,6/45-4	45 kV	1.6 m
625240	BDC-H 2/66-6	66 kV	2 m
625280	BDC-H 2,5/66-5,5	66 kV	2.5 m





BCC



BGT



BCC

BGT

30809 BCC

Cable cutting pole

Made from a fibreglass tube filled with polyurethane foam.

It allows for the cutting of aluminium cables from 16 to 95 mm² and steel cables up to 3 mm in diameter.

- Length: 2100 mm
- Diameter: 36 mm
- Weight: 3500 g

Code	Ref.
625111	BCC-21

* Under request.

30808 BGT

Trigger pole

Made from a fibreglass tube filled with polyurethane foam.

The mechanism of the pole, commonly known as "trigger or shotgun," features a sliding handle that opens and closes the hook, facilitating operations in electrical work.

- Length: 2100 mm
- Diameter: 32 mm
- Weight: 2000 g

Code	Ref.
625112	BGT

* Under request.

30810 SC33

Curved Insulated Pruning Saw 1000 V

The SC33 pruning saw is used for trimming tree branches near overhead lines with a voltage of up to 1 kV. It can be attached to any pole with a universal head.

- Metal saw with a serrated tip
- Bidirectional cutting teeth
- Complies with EN 60832-2:2010
- Length of the saw: 330 mm
- Blade thickness: 1.2 mm
- Weight: 140 g

Code	Ref.
625113	SC-33

* Under request.





30810 CPS

Pole tester

The pole tester is effective for verifying the safety and condition of insulating poles before carrying out electrical work.

Its main features include:

Voltage Testing: Verifies the ability to withstand different voltages.

Resistance Measurement: Measures the electrical resistance of the insulator.

Condition Indicators: Shows whether the pole is suitable for use.

Portability: Lightweight and easy to transport design.

Durability: Resistant to adverse conditions.

Ease of Use: Simple controls.

Data Storage: Saves test results.

Certification: Complies with safety regulations.

Code	Ref.
635410	CPS

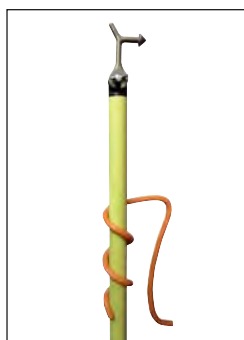


30812 AVPM

Detector adapter to maneuvering pole

Adapter for Medium Voltage detectors that allows their fixing to the maneuvering poles with Universal head. It permits the maneuvering operations without damaging the detector. Immediately afterward you can check if the power is off.

Code	Ref.
630175	AVPM



30810 GSP

Hook for pole suspension

PVC device that fits to the maneuvering poles allowing their suspension while doing the job.

Code	Ref.	Ø
630170	GSP-32	32 mm



30812 GPB

Coil holder hook

Insulating band coil holder hook, Universal-K connection.

Code	Ref.
630177	GPB



30810 JSP-40

Wall support for poles

Product supplied with screws and nail plugs.

Code	Ref.	Ø
615206	JSP-40	40

30903 JSF-2

Fuse holder

Product supplied with screws and nail plugs.

Code	Ref.
545135	JSF-2

30811 SM-02R

Metric-10 maneuvering hook

Maneuvering hook with M-10 thread.

Code	Ref.
630100	SM-02R



30811 SM-02C

Hexagonal-12 maneuvering hook

Maneuvering hook with Hexagonal-12 head.

Code	Ref.
630110	SM-02C



30811 SM-02K

Universal-K maneuvering hook

Maneuvering hook with Universal-K head.

Code	Ref.
630120	SM-02K





30811 SM-03K

Straight Universal-K maneuvering hook

Maneuvering hook with straight Universal-K connection.

Code	Ref.
630122	SM-03K



30811 SM-90K

Universal-K 90° maneuvering hook

Maneuvering hook with Universal-K 90° connection.

Code	Ref.
630123	SM-90K



30812 ADAP. B-UK

Bayonet to Universal-K adapter

Adapter from Bayonet to Universal-K head.

Code	Ref.
630107	ADAP. B-UK



30812 ADAP. B-M10

Bayonet to M-10 adapter

Adapter from Bayonet head to M-10 thread.

Code	Ref.
630108	ADAP. B-M10



30812 ADAP. B-P

Bayonet to Polivalent adapter

Adapter from Bayonet head to Polivalent.

Code	Ref.
630167	ADAP. B-P



30812 ADAP. H12-M10

Hexagonal-12 to M-10 adapter

Adapter from Hexagonal-12 head to M-10 thread.

Code	Ref.
630101	ADAP. H12-M10



30811 GA-TML

Operating hook

Operating hook for the high voltage overhead lines earthing equipments model PATL-TML.

Code	Ref.
630116	GA-TML



30812 ADAP. UK-B

Universal-K to Bayonet adapter

Adapter from Universal-K to Bayonet head.

Code	Ref.
630162	ADAP. UK-B



30812 ADAP. UK-P

Universal-K to Polivalent adapter

Adapter from Universal-K to Polivalent head.

Code	Ref.
630163	ADAP. UK-P



30812 ADAP. H12-UK

Hexagonal-12 to Universal-K adapter

Adapter from Hexagonal-12 to Universal-K head.

Code	Ref.
630109	ADAP. H12-UK



30812 ADAP. M10-UK

M-10 to Universal-K adapter

Adapter from M-10 thread to Universal-K head.

Code	Ref.
630106	ADAP. M10-UK



30812 ADAP. UK-M10

Universal-K to M-10 adapter

Adapter from Universal-K head to M-10 head.

Code	Ref.
630102	ADAP. UK-M10



308102 ADAP. H12-B

Hexagonal-12 to Bayonet adapter

Adapter from Hexagonal-12 to Bayonet head.

Code	Ref.
630166	ADAP. H12-B



30811 GS-49

Rescue hook

Rescue hook with M-10 thread.

Code	Ref.
630130	GS-49

30902 ECBT-NH

Earthing and short-circuit kit for low-voltage distribution boards.
The main reason for their installation is to protect the worker from accidental power-on or return of voltage during repair work.
With insulated pole for extracting blades using M-10 screw.
According to IEC 61230 standard.



Low voltage

Composed of:

- 3 disconnecting and earthing NH1-3 blades.
- 3 copper PVC-insulated cables 25 mm² section and 0.2 - 0.4 - 0.6 m for short circuit of phases.
- 1 copper PVC-insulated cables 25 mm² section and 0.5 m long for earthing.
- 1 branch-joint connector (4 cables).
- 1 insulated pole for placing blades.
- 1 TT-38A earthing lathe.
- 1 plastic case for storage and transport.



NH1-3
Disconnecting and
earthing blade



TT-38A
Earthing lathe

Code	Ref.	Short circuit current Max. ICC
659130	ECBT-NH	6.9 kA/1s

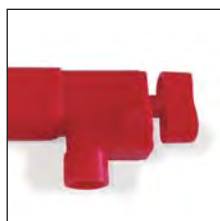
30902 ECBT-PTA3

3 clamps

Earthing and short-circuit kit for low-voltage distribution boards.
The main reason for their installation is to protect the worker from accidental power-on or return of voltage during repair work.
According to IEC 61230 standard.



Low voltage



PTA
Insulated earth clamp



TT-38A
Earthing lathe

Composed of:

- 3 insulated PTA earth clamps.
- 3 copper PVC-insulated cables 25 mm² section and 0.4 m long for short circuit of phases.
- 1 copper PVC-insulated cables 25 mm² section and 1 m or 2 m long (depending on model) for earthing.
- 1 branch-joint connector (4 cables).
- 1 TT-38A earthing lathe.
- 1 plastic case for storage and transport.

Code	Ref.	Length	Short circuit current Max. ICC
659140	ECBT-PTA3-1	1 m	6.9 kA/1s
659141	ECBT-PTA3-2	2 m	

30902 ECBT-PTA4

4 clamps

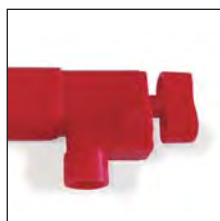
Earthing and short-circuit kit for low-voltage distribution boards.
The main reason for their installation is to protect the worker from accidental power-on or return of voltage during repair work.
According to IEC 61230 standard.



Low voltage

Composed of:

- 4 insulated PTA earth clamps and the neutral.
- 3 copper PVC-insulated cables 25 mm² section and 1.2 m long for short circuit of phases.
- 1 copper cables 25 mm² section and 1.5 m long for the neutral's earthing.
- 1 PVC-insulated cable 25 mm² section and 2 m long for earthing.
- 1 branch-joint connector (5 cables).
- 1 TT-38A earthing lathe.
- 1 plastic case for storage and transport.



PTA
Insulated earth clamp



TT-38A
Earthing lathe

Code	Ref.	Short circuit current Max. ICC
659150	ECBT-PTA4	6.9 kA/1s

30902 ECBT-SHUNT3

3 clamps

Earthing and short-circuit kit for low-voltage distribution boards.
The main reason for their installation is to protect the worker from accidental power-on or return of voltage during repair work.
According to IEC 61230 standard.



**SHUNT SHCD
and SHUNT SHPL**
Insulated earth clamps



TT-38A
Earthing lathe

Composed of:

- 3 insulated SHUNT clamps for short circuit of the phases.
- 3 copper PVC-insulated cables 25 mm² section and 0.4 m long for short circuit of phases.
- 1 copper PVC-insulated cables 25 mm² section and 1 m long for earthing.
- 1 branch-joint connector (4 cables).
- 1 TT-38A earthing lathe.
- 1 plastic case for storage and transport.

Code	Ref.			Maximum current of work
659040	ECBT-SHCD3	Bare wire	•	200 A
659045	ECBT-SHPL3	Platen	•	

30902 ECBT-SHUNT4

4 clamps

Earthing and short-circuit kit for low-voltage distribution boards.
The main reason for their installation is to protect the worker from accidental power-on or return of voltage during repair work.
According to IEC 61230 standard.



Low voltage



**SHUNT SHCD
and SHUNT SHPL**
Insulated earth clamps



TT-38A
Earthing lathe

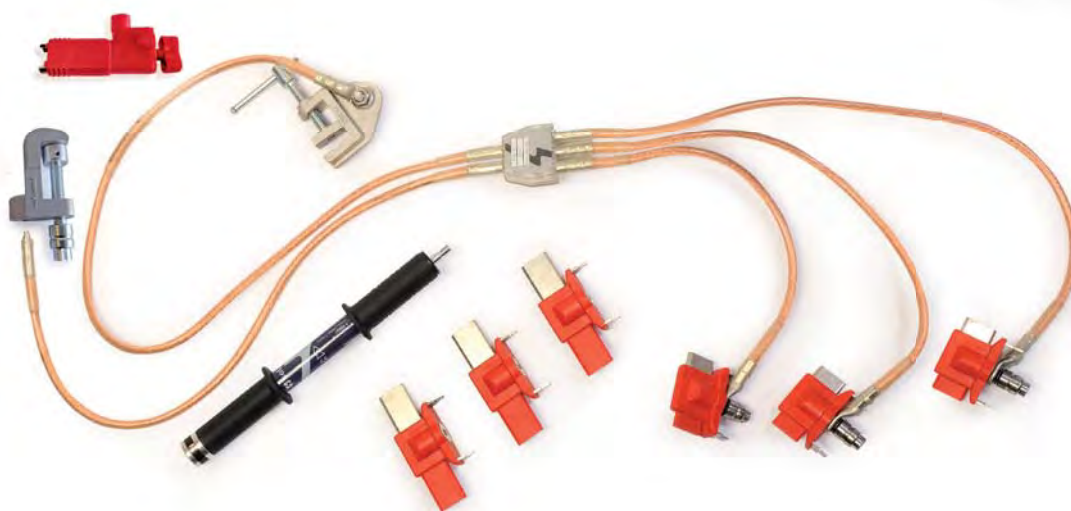
Composed of:

- 4 insulated SHUNT earth clamps and the neutral.
- 3 copper PVC-insulated cables 25 mm² section and 1.2 m long for short circuit of phases.
- 1 copper cables 25 mm² section and 1.5 m long for the neutral's earthing.
- 1 PVC-insulated cable 25 mm² section and 2 m long for earthing.
- 1 branch-joint connector (5 cables).
- 1 TT-38A earthing lathe.
- 1 plastic case for storage and transport.

Code	Ref.				Maximum current of work
659050	ECBT-SHCD4	Bare wire	•		200 A
659055	ECBT-SHPL4	Platen		•	

30902 ECBT-ID

Earthing and short-circuit kit for low-voltage distribution boards.
The main reason for their installation is to protect the worker from accidental power-on or return of voltage during repair work.
With insulated pole for extracting blades using M-10 screw.
According to IEC 61230 standard.



Composed of:

- 3 disconnecting and earthing NH00 blades.
- 3 disconnecting and earthing NH1-3 blades.
- 3 copper PVC-insulated cables 25 mm² section and 0.45 - 0.60 - 0.85 m long for short circuit of phases.
- 1 m copper PVC-insulated cables 25 mm² section and 0.75 m long for neutral.
- 1 m copper PVC-insulated cables 25 mm² section and 1 m long for earthing.
- 1 insulated PTA neutral clamp.
- 1 MPUCN neutral clamp.
- 1 insulated pole for placing blades.
- 1 TT-38A earthing lathe.
- 1 plastic case for storage and transport.
- 1 branch-joint connector (5 ends).



Code	Ref.	Short circuit current Max. ICC
659160	ECBT-ID	6.9 kA/1s



MPUCN
Neutral clamp



PTA
Insulated
neutral clamp



TT-38A
Earthing lathe



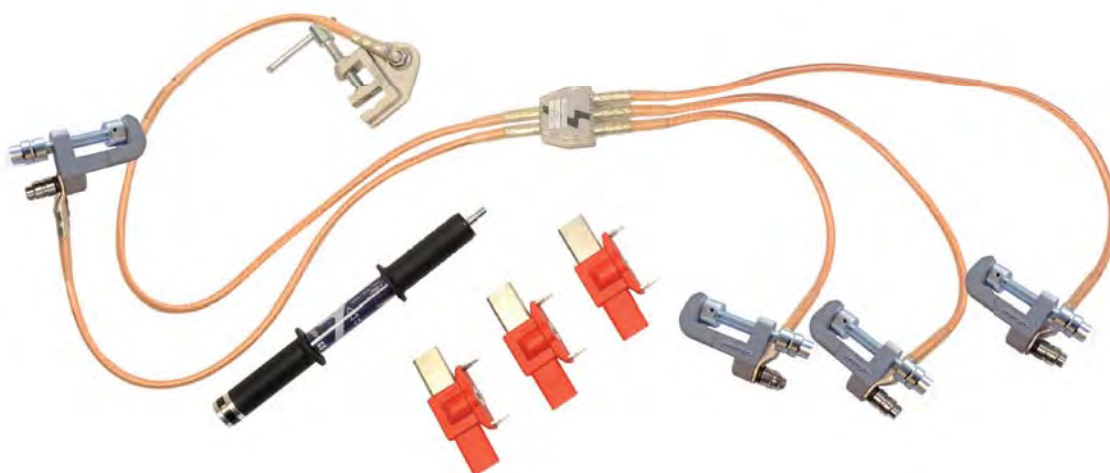
NH1-3
Disconnecting and
earthing blade



NH00
Disconnecting and
earthing blade

30902 ECBT-GNF

Earthing and short-circuit kit for low-voltage distribution boards.
The main reason for their installation is to protect the worker from accidental power-on or return of voltage during repair work.
With insulated pole for extracting blades using M-10 screw.
According to IEC 61230 standard.



Composed of:

- 3 disconnecting and earthing NH1-3 blades.
- 4 disconnecting and earthing MPUC clamp.
- 3 copper PVC-insulated cables 35/50 mm² section and 0.45 - 0.60 - 0.85 m long for short circuit of phases.
- 1 copper PVC-insulated cables 35/50 mm² section and 0.75 m long for neutral.
- 1 copper PVC-insulated cables 35/50 mm² section and 1 m long for earthing.
- 1 branch-joint connector (5 cables).
- 1 insulated pole for placing blades.
- 1 TT-38A earthing lathe.
- 1 nylon bag to store and transport the equipment.



Code	Ref.	Section	Short circuit current Max. ICC
659170	ECBT-GNF/35	35 mm ²	9 kA/1s
659180	ECBT-GNF/50	50 mm ²	12 kA/1s



MPUC
Earthing clamp



TT-38A
Earthing lathe

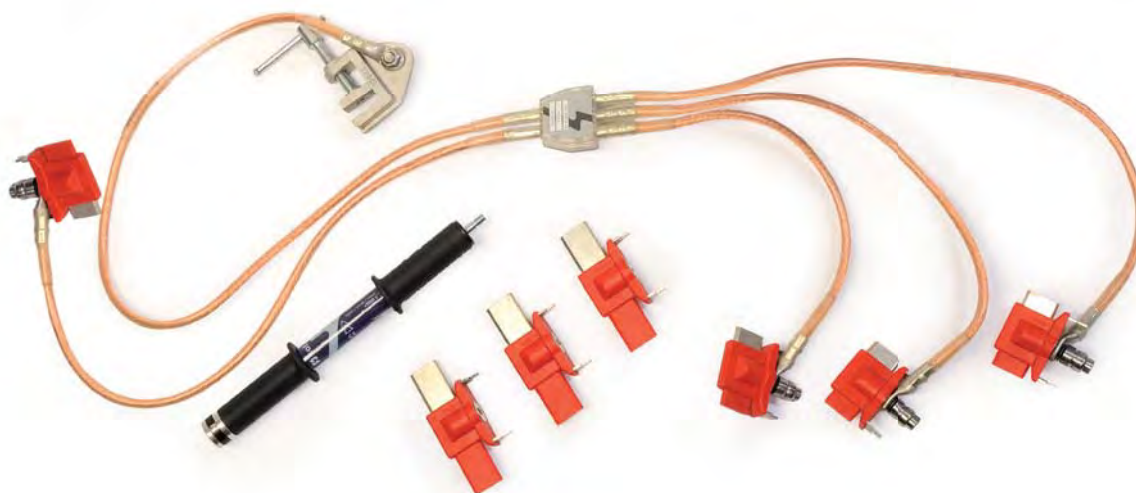


NH1-3
Disconnecting and
earthing blade

30902 ECBT-ID-NH

Earthing and short-circuit kit for low-voltage distribution boards.
The main reason for their installation is to protect the worker from accidental power-on or return of voltage during repair work.
With insulated pole for extracting blades using M-10 screw.
According to IEC 61230 standard.

Low voltage



Composed of:

- 4 disconnecting and earthing NH00 blades.
- 4 disconnecting and earthing NH1-3 blades.
- 3 copper PVC-insulated cables 16 mm² section and 0.50 m long for short circuit of phases.
- 1 copper PVC-insulated cables 16 mm² section and 0.50 m long for neutral.
- 1 copper PVC-insulated cables 16 mm² section and 1 m long for earthing.
- 1 branch-joint connector (5 cables).
- 1 insulated pole for placing blades.
- 1 TT-38A earthing lathe.
- 1 nylon bag to store and transport the equipment.



Code	Ref.	Short circuit current Max. ICC
659217	ECBT-ID-NH	6.9 kA/1s



TT-38A
Earthing lathe



NH1-3
Disconnecting and
earthing blade



NH00
Disconnecting and
earthing blade

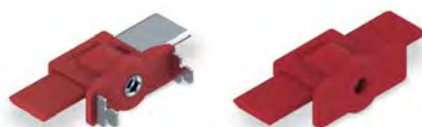
30903 BLADES

Disconnecting and earthing blades



30903 NH00 / NH000

Code	Ref.	Description	Short circuit current Max ICC
659185	NH000	Earthing	12 kA/1s
659126	NH000/A	Fully isolated	



30903 NH0

Code	Ref.	Description	Short circuit current Max ICC
659186	NH0	Earthing	12 kA/1s
659127	NH0/A	Fully isolated	



30903 NH1-3

Code	Ref.	Description	Short circuit current Max ICC
659187	NH1-3	Earthing	12 kA/1s
659128	NH1-3/A	Fully isolated	



30903 NH4

Code	Ref.	Description	Short circuit current Max ICC
659188	NH4	Earthing	12 kA/1s
659129	NH4/A	Fully isolated	

30903 POLE

Insulated pole for placing blades



30903 PC

Code	Ref.
659131	PC

30903 EARTHING CLAMPS



MPUC

SHUNT
(SHPC, SHCD
and SHPL)

PIA

30903 MPUC

Code	Ref.	Dimensions	Capacity	Short circuit current Max. ICC	Weight
659133	MPUCN	148 x 55 x 33 mm	35 mm	12 kA/1s	250 g
659139	MPUCF	148 x 55 x 33 mm	20 mm		

30903 PTA

Code	Ref.	Hex / Ø max.	Short circuit current Max. ICC	Weight
659132	PTA	8 - 22 mm	6,9 kA/1s	325 g

30903 SHUNT

Code	Ref.	Dimensions	Capacity	Point proof	Splice			Max. working current	Voltage Max.	Weight
659020	SHPC	143 x 54 x 26 mm	Ø 35-240 mm ²			•		200 A	1000 V	250 g
659021	SHCD	143 x 54 x 26 mm	Ø 35-240 mm ²	Taking 4 mm	Connector M8		•			
659022	SHPL	143 x 54 x 26 mm	2-25 mm				•			

30903 SHPC2-035015

Kit by-pass



Cable type H07RMF 35 mm²
2 clamps SHUNT SHPC

Code	Ref.	Length cable	Capacity	Point test		Max. working current	Voltage Max.	Weight
659030	SHPC2-035015	1.5 m	Ø 35-240 mm ²	Taking 4 mm	•	200 A	1000 V	-

30903 FLEXIBLE SHUNT CABLE M8 / M8

By-pass cable



Cable type H07RMF 35 mm²

Code	Ref.	Length cable	Capacity	Max. working current	Voltage Max.	Weight
659035	SH035015	1.5 m	Ø 35-240 mm ²	200 A	1000 V	-

* Consult for other lengths.

30902 ECBT-MPUE

Earthing and short-circuit equipment for low voltage electric panels. The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The MPUE clamps can be fixed on bare cylindrical conductors, flat bars, bending bus-bars or fixing points. Each one has its own fixed handle.

According to IEC 61230 standard.



Low voltage



MPUE
Clamp



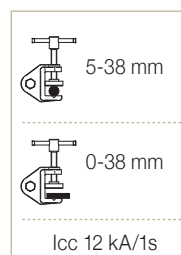
Composed of:

- 4 MPUE aluminium alloy clamps with screw tighten and handle insulated grip.
- 3 copper cables with PVC insulation of 35 mm² section and 0,6 m long.
- 1 copper cable with PVC insulation of 25 mm² section and 2 m long.
- 1 TT-38A milling earthing lathe.
- 1 plastic case to store and transport the equipment.

Code	Ref.	Short circuit current Max. ICC
659000	ECBT-MPUE/35	9 kA/1s



TT-38A
Earthing lathe



IEC 61230

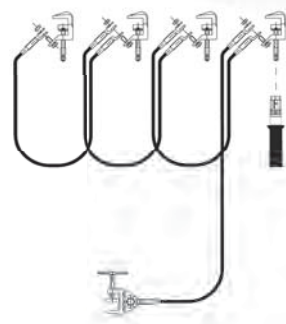
30902 ECBT-MPUBTH

Earthing and short-circuit equipment for low voltage electric panels. The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The MPUBT/H clamps for low voltage are perfect to be fixed on flat bars.

According to IEC 61230 standard.

Low voltage



MPUBT/H
Clamp



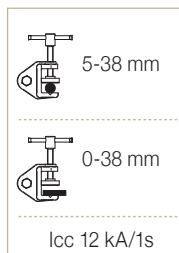
Composed of:

- 4 MPUBT/H aluminium alloy clamps with screw tighten.
- 1 insulated grip with polivalent head.
- 3 copper cables with PVC insulation of 35 mm² section and 0.6 m long.
- 1 copper cable with PVC insulation of 25 mm² section and 2 m long.
- 1 TT-38A milling earthing lathe.
- 1 plastic case to store and transport the equipment.

Code	Ref.	Short circuit current Max. ICC
659001	ECBT-MPUBTH/35	9 kA/1s



TT-38A
Earthing lathe



IEC 61230

30902 ECBT-4MPUL

Earthing and short-circuit equipment for low voltage electric panels. The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The MPUL clamps can be fixed on bare cylindrical conductors, flat bars, bending bus-bars or fixing points.

According to IEC 61230 standard.



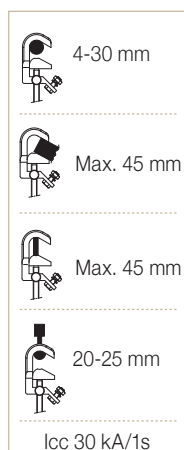
Low voltage

Composed of:

- 4 MPUL aluminium alloy clamps with screw tighten and handle insulated grip.
- 3 copper cables with PVC insulation of 70/95/120 mm² section and 0,6 m long.
- 1 copper cable with PVC insulation of 70/95/120 mm² section and 2 m long.
- 1 TT-50 earthing lathe.
- 1 plastic case to store and transport the equipment.



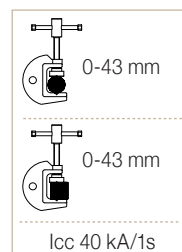
MPUL
Clamp



Code	Ref.	Short circuit current Max. ICC
659201	ECBT-4MPUL-7070	19 kA/1s
659209	ECBT-4MPUL-9595	25.5 kA/1s
659210	ECBT-4MPUL-120120	30 kA/1s



TT-50
Earthing lathe



IEC 61230

30902 ECBT-4MPUHL

Earthing and short-circuit equipment for low voltage electric panels. The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The MPUBT/H clamps for low voltage are perfect to be fixed on flat bars.

According to IEC 61230 standard.

Low voltage



Composed of:

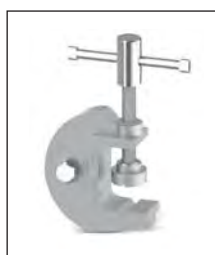
- 4 MPUH-L aluminium alloy clamps with screw tighten.
- 1 insulated grip with polyvalent head.
- 3 copper cables with PVC insulation of 120 mm² section and 0.6 m long.
- 1 copper cable with PVC insulation of 120 mm² section and 2 m long.
- 1 TT-50 milling earthing lathe.
- 1 plastic case to store and transport the equipment.



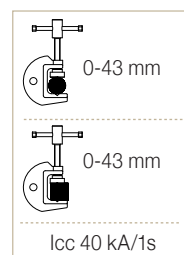
MPUH-L
Clamp



Code	Ref.	Short circuit current Max. ICC
659200	ECBT-4MPUHL-120120	30 kA/1s



TT-50
Earthing lathe



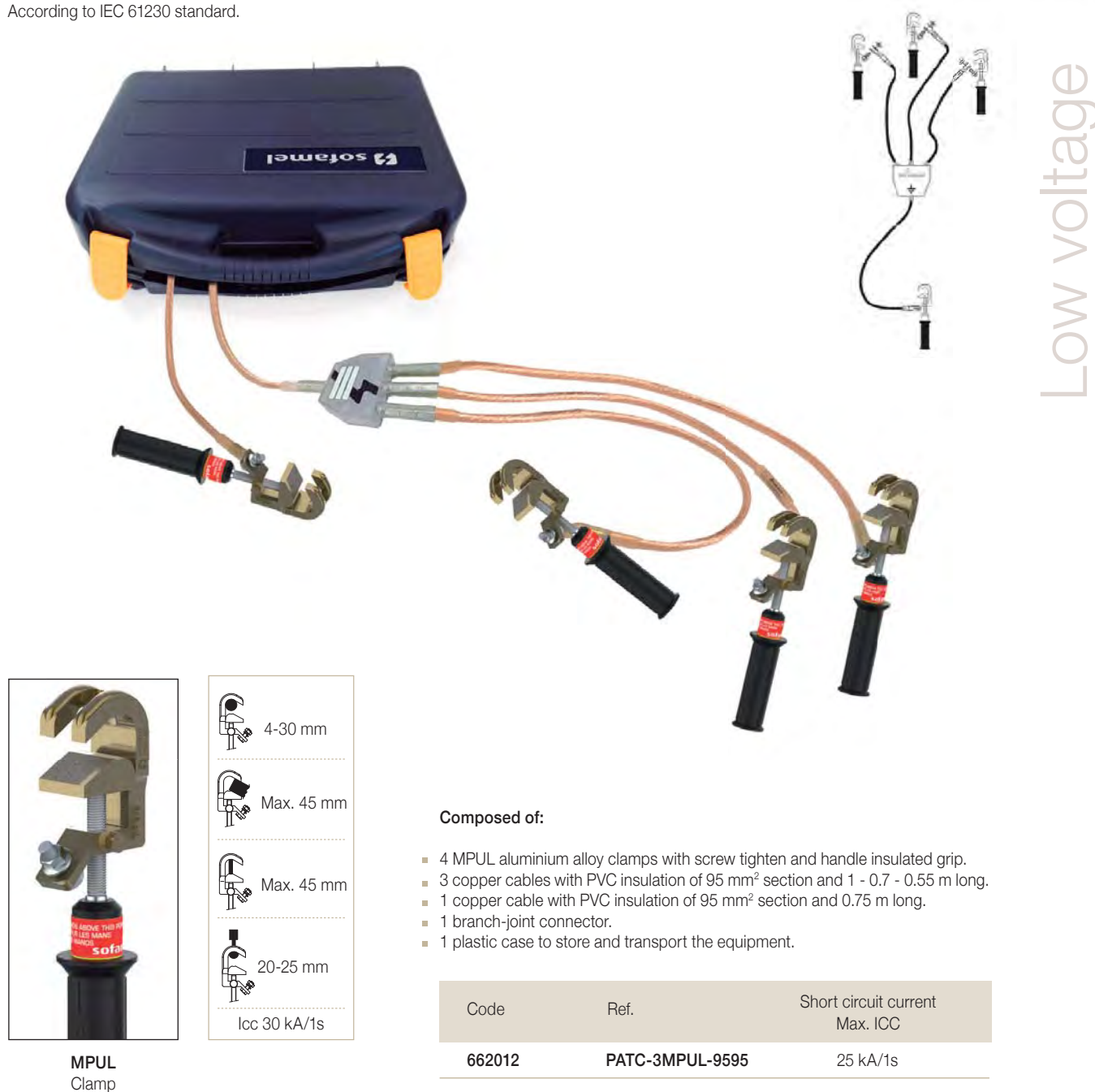
IEC 61230

30906 PATC-3MPUL

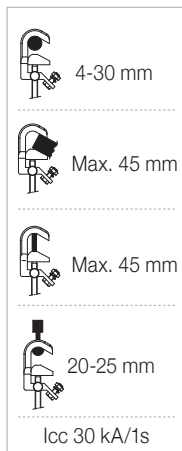
Earthing and short-circuit equipment for low/medium voltage electric panels. The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The MPU clamps can be fixed on bare cylindrical conductors, flat bars, bending bus-bars or fixing points.

According to IEC 61230 standard.



MPUL
Clamp



Composed of:

- 4 MPUL aluminium alloy clamps with screw tighten and handle insulated grip.
- 3 copper cables with PVC insulation of 95 mm² section and 1 - 0.7 - 0.55 m long.
- 1 copper cable with PVC insulation of 95 mm² section and 0.75 m long.
- 1 branch-joint connector.
- 1 plastic case to store and transport the equipment.

Code	Ref.	Short circuit current Max. ICC
662012	PATC-3MPUL-9595	25 kA/1s

IEC 61230

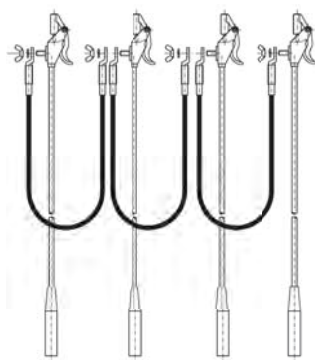
Low voltage

30904 ELBT-CC

Short-circuit equipment for low voltage overhead lines. The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The PEBT clamp is installed on the bare conductor by leaning it on this one and pressing downwards.
The clamp mechanism guarantees a permanent and steady contact.

According to IEC 61230 standard.



Composed of:

- 4 PEBT spring clamps with 70 cm poles for cylindrical conductors with diameter between 3 and 18 mm.
- 3 copper cables with PVC insulation of 16 mm² section and 0.6 m long.
- 1 nylon bag to store and transport the equipment.

Code	Ref.	Short circuit current Max. ICC
658110	ELBT-CC	4 kA/1s



* Depending on availability, the colour of the cover may vary.



PEBT
Clamp

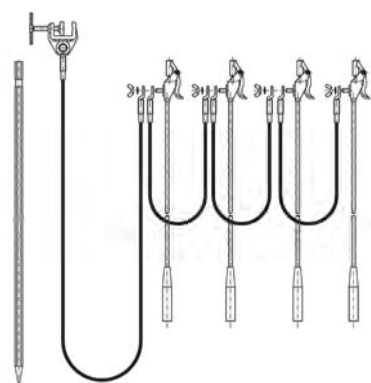
IEC 61230

30904 ELBT-PAT/CC

Earthing and short-circuit equipment for low voltage overhead lines. The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The PEBT clamp is installed on the bare conductor by leaning it on this one and pressing downwards. The clamp mechanism guarantees a permanent and steady contact.

According to IEC 61230 standard.



* Depending on availability, the colour of the cover may vary.



Composed of:

- 4 PEBT spring clamps with 70 cm poles for cylindrical conductors with diameter between 3 and 18 mm.
- 3 copper cables with PVC insulation of 16 mm² section and 0.6 m long.
- 1 copper cable with PVC insulation of 16 mm² section and 15 m long.
- 1 TT-38A milling earthing lathe.
- 1 earthing rod.
- 2 nylon bags to store and transport the equipment.

Code	Ref.	Short circuit current Max. ICC
658120	ELBT-PAT/CC	4 kA/1s



PEBT
Clamp



TT-38A
Earthing lathe

IEC 61230

Low voltage

30905 PATL-MPUB

Earthing and short-circuit equipment for overhead lines.

The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The MPUB clamp is fixed on bare conductors by screw-tightening. This equipment has got a MPUP clamp (carrier) which facilitates the lifting and placing of the three clamps at the same time reducing installation time considerably.

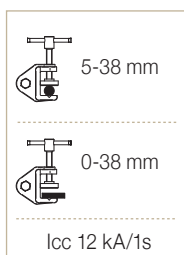
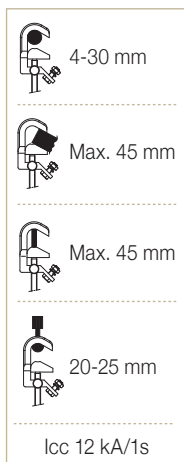
According to IEC 61230 standard.



MPUB
Clamp



TT-38A
Earthing lathe



Composed of:

- 2 MPUB aluminium alloy clamps with screw tighten for cylindrical conductors with diameter between 4 and 30 mm.
- 1 MPUP aluminium alloy clamp (carrier) with screw tighten for cylindrical conductors with diameter between 4 and 30 mm.
- 2 copper cables with PVC insulation of 16/25/35 mm² section depending on model and 2.5 m long.
- 1 copper cable with PVC insulation of 16/16/25 mm² section depending on model and 15 m long.
- 1 TT-38A milling earthing lathe.
- 1 earthing rod.
- 1 telescopic pole (1.10 m folded and 2 m extended).
- 1 plastic case to store and transport the equipment.
- 1 bag to store and transport the pole and the earthing rod.

Code	Ref.	Short circuit current Max. ICC between phases
660290	PATL-MPUB/1616	4.0 kA/1s
660300	PATL-MPUB/2516	6.9 kA/1s
660310	PATL-MPUB/3525	9.0 kA/1s

IEC 61230

* Depending on availability, the colour of the cover may vary.

30905 PATL-MPLB

Earthing and short-circuit equipment for overhead lines.

The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The MPL clamp is fixed on bare conductors by screw-tightening. This equipment has got a MPLP clamp (carrier) which facilitates the lifting and placing of the three clamps at the same time reducing installation time considerably.

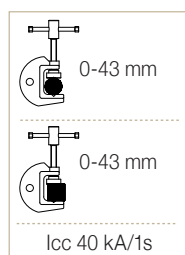
According to IEC 61230 standard.



MPL
Clamp



TT-50
Earthing lathe



Composed of:

- 2 MPL aluminium alloy clamps with screw tighten for cylindrical conductors with diameter between 5 and 45 mm.
- 1 MPLP aluminium alloy clamp (carrier) with screw tighten for cylindrical conductors with diameter between 5 and 45 mm.
- 2 copper cables with PVC insulation of 70 mm² section and 2.5 m long.
- 1 copper cable with PVC insulation of 70 mm² section and 15 m long.
- 1 TT-50 milling earthing lathe.
- 1 earthing rod.
- 1 telescopic pole (1.10 m folded and 2 m extended).
- 1 bag to store and transport the equipment.
- 1 bag to store and transport the pole and the earthing rod.

Code	Ref.	Short circuit current Max. ICC
665285	PATL-MPLB/7070	19 kA/1s

IEC 61230

* Depending on availability, the colour of the cover may vary.

30905 PATL-MC-3

3 clamps

Earthing and short-circuit equipment for overhead lines.

The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The MC clamp is fixed on bare conductors by pressure and can be removed by an operating hook. The three clamps can be placed at the same time thanks to the dispenser head facilitating operator's work.

According to IEC 61230 standard.

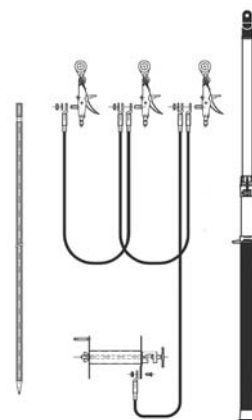


MC
Clamp



PP-3U
Clamp dispenser

* Depending on availability, the colour of the cover may vary.



Composed of:

- 3 MC aluminium alloy clamps with automatic activation fastening for cylindrical conductors with diameter between 3 and 20 mm.
- 1 clamp dispenser head with recovery hook.
- 2 copper cables with PVC insulation of 16/25/35 mm² section depending on model and 2.5 m long.
- 1 copper cable with PVC insulation of 16/25 mm² section depending on model and 15 m long.
- 1 metallic spool to store the 15 m of earthing cable.
- 1 telescopic pole (1.10 m folded and 2 m extended).
- 1 earthing rod.
- 1 plastic case to store and transport the equipment.
- 1 bag to store and transport the pole and the earthing rod.

Code	Ref.	Short circuit current Max. ICC between phases
660225	PATL-MC-3/1616	4.0 kA/1s
660230	PATL-MC-3/2516	6.9 kA/1s
660240	PATL-MC-3/3525	9.0 kA/1s

IEC 61230

30905 PATL-MC-4

4 clamps

Earthing and short-circuit equipment for voltage overhead lines.

The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The MC clamp is fixed on bare conductors by pressure and can be removed by an operating hook. The three clamps can be placed at the same time thanks to the dispenser head facilitating operator's work.

According to IEC 61230 standard.



MC
Clamp



PP-4U
Clamp dispenser

* Depending on availability, the colour of the cover may vary.



Composed of:

- 4 MC aluminium alloy clamps with automatic activation fastening for cylindrical conductors with diameter between 3 and 20 mm.
- 1 clamp dispenser head with recovery hook.
- 3 copper cables with PVC insulation of 16/25/35 mm² section depending on model and 2.5 m long.
- 1 copper cable with PVC insulation of 16/25 mm² section depending on model and 15 m long.
- 1 metallic spool to store the 15 m of earthing cable.
- 1 telescopic pole (1.10 m folded and 2 m extended).
- 1 earthing rod.
- 1 plastic case to store and transport the equipment.
- 1 bag to store and transport the pole and the earthing rod.

Code	Ref.	Short circuit current Max. ICC between phases
660245	PATL-MC-4/1616	4.0 kA/1s
660246	PATL-MC-4/2516	6.9 kA/1s
660247	PATL-MC-4/3525	9.0 kA/1s

IEC 61230

30905 PATL-MCL-3

3 clamps

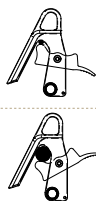
Earthing and short-circuit equipment for overhead lines.

The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

MCL clamps are installed on the conductor by pressure and removed using a recovery hook. The three clamps can be placed at the same time, thanks to the clamp-holder plate, so facilitating the operator's work.

According to IEC 61230 standard.

8-30 mm



Icc <20 KA/1s



MCL
Clamp



PP-3U MCL
Clamp dispenser



Composed of:

- 3 aluminium alloy clamps closing by automatic spring activation for cylindrical conductors with diameter between 8 and 30 mm.
- 1 clamp dispenser head with recovery hook.
- 2 copper cables with PVC insulation of (16, 25, 35, 50, 70 mm²) section depending on model and 2.5 m long.
- 1 copper cable with PVC insulation of (16, 16, 25, 35, 50 mm²) section depending on model and 15 m long.
- 1 metallic spool to store the 15 m of earthing cable.
- 1 telescopic pole (1.10 m folded and 2 m extended).
- 1 earthing rod.
- 1 plastic case to store and transport the equipment.
- 1 bag to store and transport the pole and the earthing rod.

Code	Ref.	Short circuit current Max. ICC between phases
660330	PATL-MCL-3/1616	4.0 kA/1s
660335	PATL-MCL-3/2516	6.9 kA/1s
660340	PATL-MCL-3/3525	9.0 kA/1s
660345	PATL-MCL-3/5035	12.0 kA/1s
660350	PATL-MCL-3/7050	19.0 kA/1s

IEC 61230

* Depending on availability, the colour of the cover may vary.

30905 PATL-MCL-4

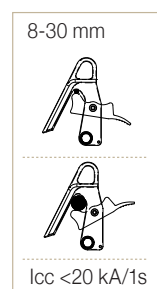
4 clamps

Earthing and short-circuit equipment for overhead lines.

The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

MCL clamps are installed on the conductor by pressure and removed using a recovery hook. The three clamps can be placed at the same time, thanks to the clamp-holder plate, so facilitating the operator's work.

According to IEC 61230 standard.



MCL
Clamp



PP-4U MCL
Clamp dispenser



Composed of:

- 4 aluminium alloy clamps closing by automatic spring activation for cylindrical conductors with diameter between 8 and 30 mm.
- 1 clamp dispenser head with recovery hook.
- 3 copper cables with PVC insulation of (16, 25, 35, 50, 70 mm²) section depending on model and 2.5 m long.
- 1 copper cable with PVC insulation of (16, 16, 25, 35, 50 mm²) section depending on model and 15 m long.
- 1 metallic spool to store the 15 m of earthing cable.
- 1 telescopic pole (1.10 m folded and 2 m extended).
- 1 earthing rod.
- 1 plastic case to store and transport the equipment.
- 1 bag to store and transport the pole and the earthing rod.

Code	Ref.	Short circuit current Max. ICC between phases
660355	PATL-MCL-4/1616	4.0 kA/1s
660360	PATL-MCL-4/2516	6.9 kA/1s
660365	PATL-MCL-4/3525	9.0 kA/1s
660370	PATL-MCL-4/5035	12.0 kA/1s
660375	PATL-MCL-4/7050	19.0 kA/1s

IEC 61230

* Depending on availability, the colour of the cover may vary.

30905 PATL-PCA25-3

3 clamps

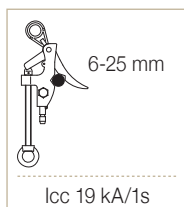
Earthing and short-circuit equipment for overhead lines.

The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The PCA-25 clamp is fixed on bare conductors by pressure and can be removed by an operation hook. The three clamps can be placed at the same time thanks to the dispenser head facilitating operator's work.

The new PCA-25 clamp grants an easy and secure installation.

According to IEC 61230 standard.



PCA-25
Clamp



PP-3U
Clamp dispenser



Composed of:

- 3 PCA-25 aluminium alloy clamps with automatic activation fastening and final mechanical fixing for cylindrical conductors with diameter between 6 and 25 mm.
- 1 clamp dispenser head with recovery hook.
- 2 copper cables with PVC insulation of 16/25/35 mm² section (depending on model) and 2.5 m long.
- 1 copper cable with PVC insulation of 16/16/25 mm² section (depending on model) and 15 m long.
- 1 metallic spool to store the 15 m of earthing cable.
- 1 telescopic pole (1.10 m folded and 2 m extended).
- 1 earthing rod.
- 1 plastic case to store and transport the equipment.
- 1 bag to store and transport the pole and the earthing rod.

Code	Ref.	Short circuit current Max. ICC between phases
660250	PATL-PCA25-3/1616	4.0 kA/1s
660260	PATL-PCA25-3/2516	6.9 kA/1s
660270	PATL-PCA25-3/3525	9.0 kA/1s

* Depending on availability, the colour of the cover may vary.

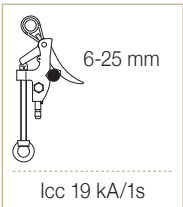
IEC 61230

30905 PATL-PCA25-4
4 clamps

Earthing and short-circuit equipment for overhead lines.
The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The PCA-25 clamp is fixed on bare conductors by pressure and can be removed by an operation hook. The three clamps can be placed at the same time thanks to the dispenser head facilitating operator's work.
The new PCA-25 clamp grants an easy and secure installation.

According to IEC 61230 standard.



PCA-25
Clamp



PP-4U
Clamp dispenser



Composed of:

- 4 PCA-25 aluminium alloy clamps with automatic activation fastening and final mechanical fixing for cylindrical conductors with diameter between 6 and 25 mm.
- 1 clamp dispenser head with recovery hook.
- 3 copper cables with PVC insulation of 16/25/35 mm² section (depending on model) and 2.5 m long.
- 1 copper cable with PVC insulation of 16/16/25 mm² section (depending on model) and 15 m long.
- 1 metallic spool to store the 15 m of earthing cable.
- 1 telescopic pole (1.10 m folded and 2 m extended).
- 1 earthing rod.
- 1 plastic case to store and transport the equipment.
- 1 bag to store and transport the pole and the earthing rod.

Code	Ref.	Short circuit current Max. ICC between phases
660280	PATL-PCA25-4/1616	4.0 kA/1s
660281	PATL-PCA25-4/2516	6.9 kA/1s
660282	PATL-PCA25-4/3525	9.0 kA/1s

* Depending on availability, the colour of the cover may vary.

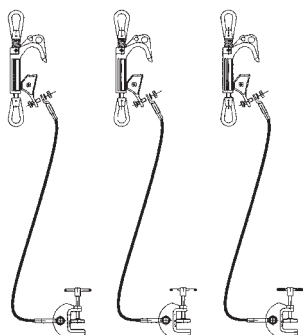
IEC 61230

30905 PATL-TML

Phase earthing and short-circuit equipment for overhead lines.

The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

According to IEC 61230 standard.



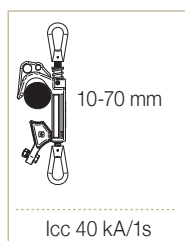
Cod. 630116
Operating hook.
Not included in the equipment.

Composed of:

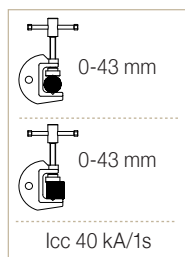
- 3 TML aluminium alloy clamps with screw tighten for cylindrical conductors with diameter between 10 and 70 mm.
- 3 copper cables with PVC insulation. Section and length depending on model.
- 3 TT-50 milling earthing lathe.
- 3 nylon bags to store and transport the equipment.



TML
Clamp



TT-50
Earthing lathe



Code	Ref.	Cable section (mm ²)	Length (m)	Short circuit current Max. ICC
670176	PATL-TML/05006	50	6	12 kA/1s
670177	PATL-TML/05007		7	
670178	PATL-TML/05008		8	
670179	PATL-TML/05009		9	
670180	PATL-TML/05010		10	
670181	PATL-TML/05011		11	
670186	PATL-TML/07006	70	6	19 kA/1s
670187	PATL-TML/07007		7	
670188	PATL-TML/07008		8	
670189	PATL-TML/07009		9	
670190	PATL-TML/07010		10	
670191	PATL-TML/07011		11	
670196	PATL-TML/09506	95	6	25 kA/1s
670197	PATL-TML/09507		7	
670198	PATL-TML/09508		8	
670199	PATL-TML/09509		9	
670200	PATL-TML/09510		10	
670206	PATL-TML/12006	120	6	30 kA/1s
670207	PATL-TML/12007		7	
670208	PATL-TML/12008		8	
670209	PATL-TML/12009		9	
670210	PATL-TML/12010		10	
670216	PATL-TML/15006	150	6	40 kA/1s
670217	PATL-TML/15007		7	
670218	PATL-TML/15008		8	
670219	PATL-TML/15009		9	
670220	PATL-TML/15010		10	

* Depending on availability, the colour of the bag may vary.

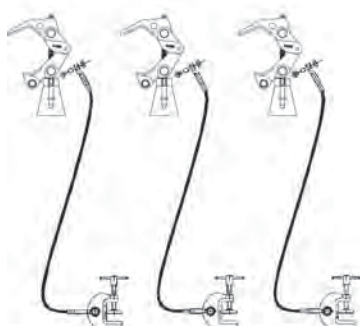
IEC 61230

30905 PATL-PA40

Phase earthing and short-circuit equipment for overhead lines.

The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

According to IEC 61230 standard.

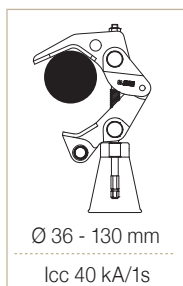
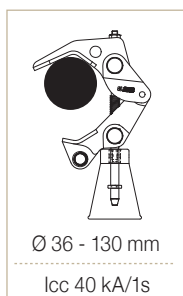


Composed of:

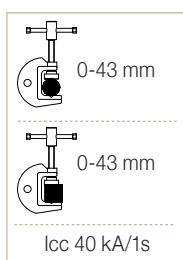
- 3 PA40-B (bayonet) aluminium alloy clamps with screw tighten for cylindrical conductors with diameter between 36 and 130 mm.
- 3 copper cables with PVC insulation. Section and length depending on model.
- 3 TT-50 milling earthing lathe.
- 3 nylon bags to store and transport the equipment.



PA40
Clamp
with bayonet or
hexagonal shaft option



TT-50
Earthing lathe



Code	Ref.	Cable section (mm ²)	Length (m)	Short circuit current Max. ICC
674176	PATL-PA40/05006	50	6	12 kA/1s
674177	PATL-PA40/05007		7	
674178	PATL-PA40/05008		8	
674179	PATL-PA40/05009		9	
674180	PATL-PA40/05010		10	
674186	PATL-PA40/07006	70	6	19 kA/1s
674187	PATL-PA40/07007		7	
674188	PATL-PA40/07008		8	
674189	PATL-PA40/07009		9	
674190	PATL-PA40/07010		10	
674196	PATL-PA40/09506	95	6	25 kA/1s
674197	PATL-PA40/09507		7	
674198	PATL-PA40/09508		8	
674199	PATL-PA40/09509		9	
674200	PATL-PA40/09510		10	
674206	PATL-PA40/12006	120	6	30 kA/1s
674207	PATL-PA40/12007		7	
674208	PATL-PA40/12008		8	
674209	PATL-PA40/12009		9	
674210	PATL-PA40/12010		10	
674216	PATL-PA40/15006	150	6	40 kA/1s
674217	PATL-PA40/15007		7	
674218	PATL-PA40/15008		8	
674219	PATL-PA40/15009		9	
674220	PATL-PA40/15010		10	

IEC 61230

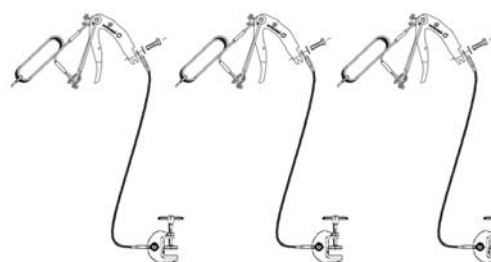
* Depending on availability, the colour of the bag may vary.

30905 PATL-PAV

Phase earthing and short-circuit equipment for overhead lines.

The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

According to IEC 61230 standard.



Composed of:

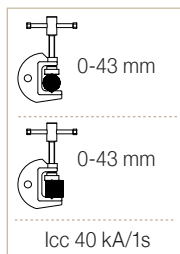
- 3 PAV aluminium alloy clamps with screw tighten for cylindrical conductors with diameter between 12 and 40 mm.
- 3 copper cables with PVC insulation. Section and length depending on model.
- 3 TT-50 milling earthing lathe.
- 3 nylon bags to store and transport the equipment.



PAV
Clamp



TT-50
Earthing lathe



Code	Ref.	Cable section (mm ²)	Length (m)	Short circuit current Max. ICC
673101	PATL-PAV/05006	50	6	12 kA/1s
673102	PATL-PAV/05007		7	
673103	PATL-PAV/05008		8	
673104	PATL-PAV/05009		9	
673105	PATL-PAV/05010		10	
673106	PATL-PAV/07006	70	6	19 kA/1s
673107	PATL-PAV/07007		7	
673108	PATL-PAV/07008		8	
673109	PATL-PAV/07009		9	
673110	PATL-PAV/07010		10	
673111	PATL-PAV/09506	95	6	25 kA/1s
673112	PATL-PAV/09507		7	
673113	PATL-PAV/09508		8	
673114	PATL-PAV/09509		9	
673115	PATL-PAV/09510		10	
673116	PATL-PAV/12006	120	6	30 kA/1s
673117	PATL-PAV/12007		7	
673118	PATL-PAV/12008		8	
673119	PATL-PAV/12009		9	
673120	PATL-PAV/12010		10	

IEC 61230

* Depending on availability, the colour of the bag may vary.

30906 PATC-5014H

Earthing and short-circuit equipment for voltage substations.

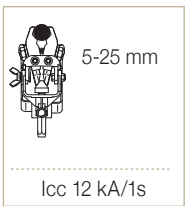
The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The 5014H clamp is perfect for difficult access areas. The clamp can be adjusted depending on the required inclination thanks to its multi-directional head system.

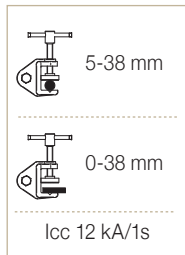
According to IEC 61230 standard.



5014H
Clamp



TT-38A
Earthing lathe



Composed of:

- 3 5014H brass steerable clamps with screw tighten and Hexagonal-12 fixing for cylindrical conductors with diameter between 5 and 25 mm.
- 3 copper cables with PVC insulation of 25/35/50 mm² section (depending on model) and 0.75 m long.
- 1 copper cable with PVC insulation of 25/35/50 mm² section (depending on model) and 2 m long.
- 1 insulated trifurcating connector.
- 1 TT-38A milling earthing lathe.
- 1 1.5 m telescopic pole with three sections.
- 1 plastic case to store and transport the equipment.

Code	Ref.	Short circuit current Max. ICC
665250	PATC-5014H/2525	6.9 kA/1s
665255	PATC-5014H/3535	9.0 kA/1s
665260	PATC-5014H/5050	12.0 kA/1s

IEC 61230

30906 PATC-PP15

Earthing and short-circuit equipment for substations.

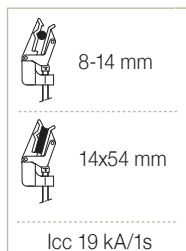
The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The PP-15 clamp is suitable for installations with flat bars in horizontal or vertical position.

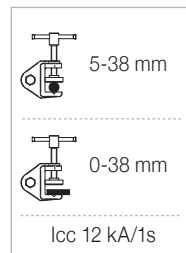
According to IEC 61230 standard.



PP-15
Clamp



TT-38A
Earthing lathe



Composed of:

- 3 PP15 aluminium alloy clamps with bayonet fixing for cylindrical conductors with diameter between 6 and 15 mm and flat bars up to 15 x 55 mm.
- 3 copper cables with PVC insulation of 25/35/50 mm² section (depending on model) and 0.75 m long.
- 1 copper cable with PVC insulation of 25/35/50 mm² section (depending on model) and 2 m long.
- 1 insulated trifurcating connector.
- 1 TT-38A milling earthing lathe.
- 1 1.5 m telescopic pole with three sections.
- 1 plastic case to store and transport the equipment.

Code	Ref.	Short circuit current Max. ICC
665270	PATC-PP15/2525	6.9 kA/1s
665275	PATC-PP15/3535	9.0 kA/1s
665280	PATC-PP15/5050	12.0 kA/1s

IEC 61230

Earthing Devices

Safety

Medium and high voltage substations - Screw clamps

GENERAL CATALOGUE 24/25

30906 PATC-MPU

Earthing and short-circuit equipment for substations.

The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The MPU clamp is fixed on bare cylindrical conductors, flat bars, bending bus-bars or fixing points by screw tightening.

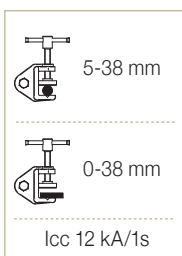
According to IEC 61230 standard.



MPU
Clamp



TT-38A
Earthing lathe



Composed of:

- 3 MPU aluminium alloy clamps with screw tighten and Bayonet (MPUB) or Hexagonal-12 (MPUH) fixing for cylindrical conductors with diameter between 4 and 30 mm, flat bars max. 45 mm, bending bus-bars max. 45 mm and fixing points between 20 and 25 mm.
- 3 copper cables with PVC insulation of 25/35/50 mm² section (depending on model) and 0.75 m long.
- 1 copper cable with PVC insulation of 25/35/50 mm² section (depending on model) and 2 m long.
- 1 insulated trifurcating connector.
- 1 TT-38A milling earthing lathe.
- 1 1.5 m telescopic pole with three sections.
- 1 plastic case to store and transport the equipment.

Code	Ref.	Short circuit current Max. ICC
665220	PATC-MPUB/2525	6.9 kA/1s
665225	PATC-MPUB/3535	9.0 kA/1s
665230	PATC-MPUB/5050	12.0 kA/1s
665235	PATC-MPUH/2525	6.9 kA/1s
665240	PATC-MPUH/3535	9.0 kA/1s
665245	PATC-MPUH/5050	12.0 kA/1s

IEC 61230

Medium & high voltage

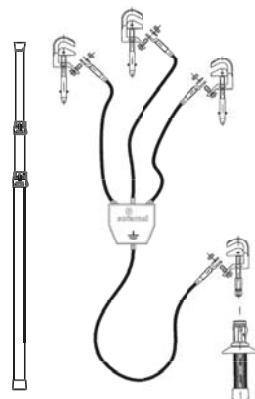
30906 PATCPF-MPU

Earthing and short-circuit equipment for substations.

The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

The MPU clamp is fixed on bare cylindrical conductors, flat bars, bending bus-bars or fixing points by screw tightening.

According to IEC 61230 standard.



Composed of:

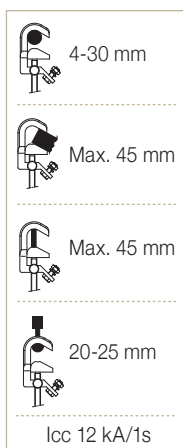
- 3 MPU aluminium alloy clamps with screw tighten and Bayonet (MPU / B).
For cylindrical conductors with a diameter between 4 and 30 mm; plate up to 45 mm and fixed points from 20 to 25 mm.
- 1 clamp MPU/H.
- 3 copper cables with PVC insulation of 25/35/50 mm² section (depending on model) and 0.75 m long.
- 1 copper cable with PVC insulation of 25/35/50 mm² section (depending on model) and 2 m long.
- 1 insulated trifurcating connector.
- 1 1.5 m telescopic pole with three sections.
- 1 insulating grip for the earthing clamp.
- 1 plastic case to store and transport the equipment.



MPU
Clamp



EMP
Insulating grip



Code	Ref.	Short circuit current Max. ICC
665310	PATCPF-MPU/2525	6.9 kA/1s
665315	PATCPF-MPU/3535	9.0 kA/1s
665320	PATCPF-MPU/5050	12.0 kA/1s

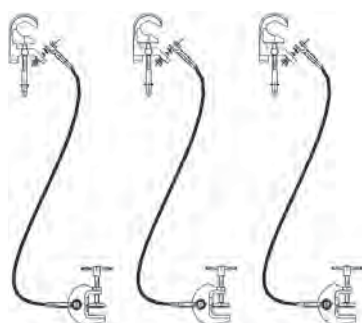
IEC 61230

30906 PAT-MPL

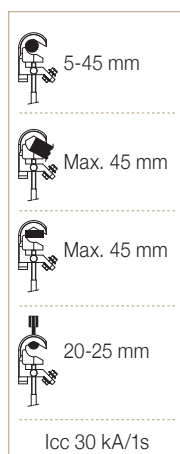
Phase earthing and short-circuit equipment for substations.

The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

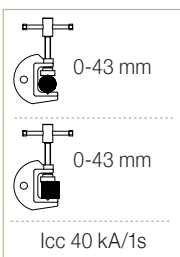
According to IEC 61230 standard



MPL
Clamp



TT-50
Earthing lathe



Composed of:

- 3 MPL aluminium alloy clamps with screw tighten for cylindrical conductors with diameter between 5 and 45 mm and flat bars.
- 3 copper cables with PVC insulation. Section and length depending on model.
- 3 TT-50 milling earthing lathe.
- 3 nylon bags to store and transport the equipment.

Code	Ref.	Cable section (mm ²)	Length (m)	Short circuit current Max. ICC
680176	PAT-MPL/05006	50	6	12 kA/1s
680177	PAT-MPL/05007		7	
680178	PAT-MPL/05008		8	
680179	PAT-MPL/05009		9	
680180	PAT-MPL/05010		10	
680186	PAT-MPL/07006	70	6	19 kA/1s
680187	PAT-MPL/07007		7	
680188	PAT-MPL/07008		8	
680189	PAT-MPL/07009		9	
680190	PAT-MPL/07010		10	
680196	PAT-MPL/09506	95	6	25 kA/1s
680197	PAT-MPL/09507		7	
680198	PAT-MPL/09508		8	
680199	PAT-MPL/09509		9	
680200	PAT-MPL/09510		10	
680206	PAT-MPL/12006	120	6	30 kA/1s
680207	PAT-MPL/12007		7	
680208	PAT-MPL/12008		8	
680209	PAT-MPL/12009		9	
680210	PAT-MPL/12010		10	

IEC 61230

* Depending on availability, the colour of the bag may vary.

Earthing Devices

Safety

Medium and high voltage substations

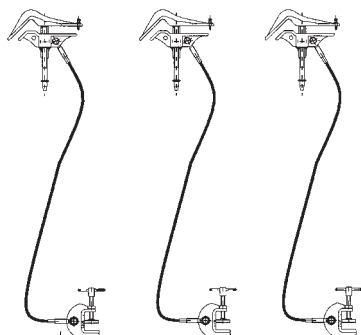
GENERAL CATALOGUE 24/25

30906 PATC-TMC

Phase earthing and short-circuit equipment for substations.

The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

According to IEC 61230 standard.

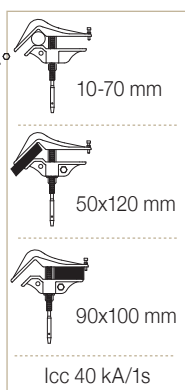


Composed of:

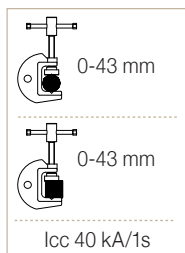
- 3 TMC aluminium alloy clamps with screw tighten for cylindrical conductors with diameter between 10 and 70 mm, flat bars max. 90 x 100 mm and bending bus-bars max. 50 x 120 mm.
- 3 copper cables with PVC insulation. Section and length depending on model.
- 3 TT-50 milling earthing lathe.
- 3 nylon bags to store and transport the equipment.



TMC
Clamp



TT-50
Earthing lathe



Code	Ref.	Cable section (mm ²)	Length (m)	Short circuit current Max. ICC
675176	PATC-TMC/05006	50	6	12 kA/1s
675177	PATC-TMC/05007		7	
675178	PATC-TMC/05008		8	
675179	PATC-TMC/05009		9	
675180	PATC-TMC/05010		10	
675186	PATC-TMC/07006	70	6	19 kA/1s
675187	PATC-TMC/07007		7	
675188	PATC-TMC/07008		8	
675189	PATC-TMC/07009		9	
675190	PATC-TMC/07010		10	
675196	PATC-TMC/09506	95	6	25 kA/1s
675197	PATC-TMC/09507		7	
675198	PATC-TMC/09508		8	
675199	PATC-TMC/09509		9	
675200	PATC-TMC/09510		10	
675206	PATC-TMC/12006	120	6	30 kA/1s
675207	PATC-TMC/12007		7	
675208	PATC-TMC/12008		8	
675209	PATC-TMC/12009		9	
675210	PATC-TMC/12010		10	

IEC 61230

* Depending on availability, the colour of the bag may vary.

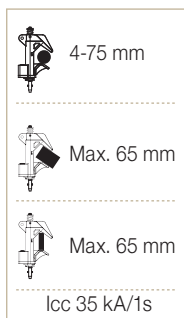
30906 PATL-MPS/9510

Earthing and short-circuiting equipment for overhead lines and transformer stations.

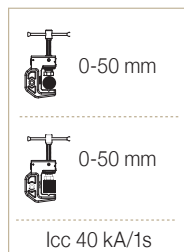
The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations with the control of the manipulation of all the components of the equipment through independent keys, thus preventing third parties from manipulating safety.



MPS
Clamp



TTS
Earthing lathe



The clamps can be fixed to cylindrical conductors, flat bars, or flexible distribution bars or fixing points by means of screw tightening. Short-circuit current 31.5 kA (Cable 120mm²).

Sequence:

- Tamper-proof clamp locking.
- Tamper-proof screw locking.
- Repeat until all three phases are secured and locked.

Composed of:

- 3 MPS aluminum alloy clamps with screw tighten for cylindrical conductors with a diameter between 4 and 75 mm; flat bars of max. 80 mm and bars flexible distribution of max. 80 mm
- 3 copper cables with PVC insulation of 95 mm² section and 10 m length.
- 3 earthing lathes with key lock.
- 3 independently coded keys.
- 3 bags to store and transport the equipment.

Code	Ref.	Short circuit current Max. ICC
676010	PATL-MPS/9510	25 kA/1s

IEC 61230

* Depending on availability, the colour of the bag may vary.

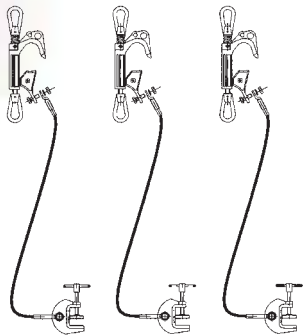
30907 PATL-AL-3/TML

Phase earthing and short-circuit equipment for high voltage overhead lines.
The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

According to IEC 61138 standard.



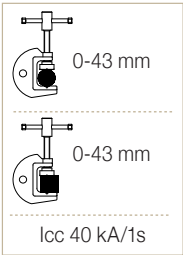
Cod. 630116
Operating hook.
Not included in the equipment.



TML
Clamp



TT-50
Earthing lathe



Composed of:

- 3 TML aluminium alloy clamps with screw tighten for cylindrical conductors with diameter between 10 and 70 mm.
- 3 **aluminium** cables with PVC insulation. Section and length depending on model.
- 3 TT-50 milling earthing lathe.
- 3 nylon bags to store and transport the equipment.

Code	Ref.	Cable section (mm²)	Length (m)	Short circuit current Max. ICC
680120	PATL-AL-3/TML/12007	120	7	17.5 kA/1s* – 24 kA/0.5s*
680130	PATL-AL-3/TML/12008		8	
680140	PATL-AL-3/TML/12010		10	

* Theoretical rated current.

IEC 61138

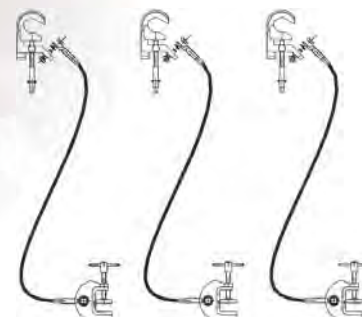
* Depending on availability, the colour of the bag may vary.

30908 PAT-AL-3/MPL

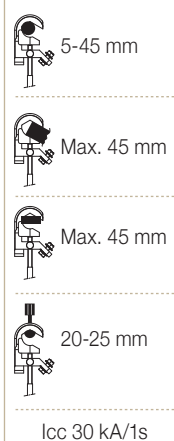
Earthing and short-circuiting equipment for overhead lines and high-voltage substations.

The main aim for its installation is operator's protection against an accidental commissioning or possible voltage return during repair operations.

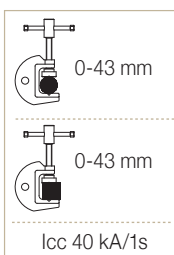
According to IEC 61138 standard.



MPL
Clamp



TT-50
Earthing lathe



Composed of:

- 3 MPL aluminium alloy clamps with screw tighten for cylindrical conductors with diameter between 6 and 45 mm.
- 3 **aluminium** cables with PVC insulation. Section and length depending on model.
- 3 TT-50 milling earthing lathe.
- 3 nylon bags to store and transport the equipment.

Code	Ref.	Cable section (mm ²)	Length (m)	Short circuit current Max. ICC
680150	PAT-AL-3/MPL/12007	120	7	17.5 kA/1s* – 24 kA/0.5s*
680160	PAT-AL-3/MPL/12008		8	
680170	PAT-AL-3/MPL/12010		10	

* Theoretical rated current.

IEC 61138

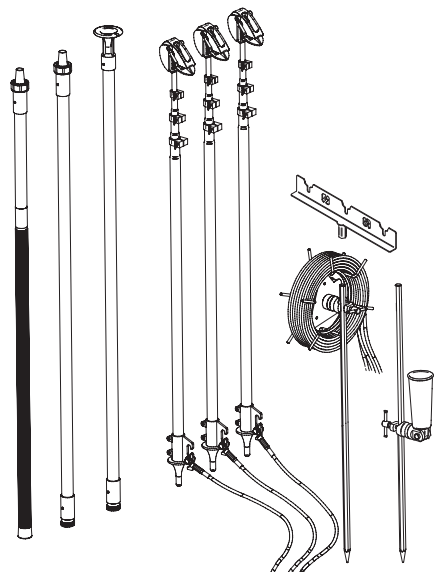
* Depending on availability, the colour of the bag may vary.

30909 ERLAIN

Earthing equipment for overhead lines, easy to use for only one operator that besides facilitates the verification of absence of tension with a voltage detector (not included).

Thanks to the operation sections of the metal pole, it has multiple length adjustments.

According to IEC 61230 standard.

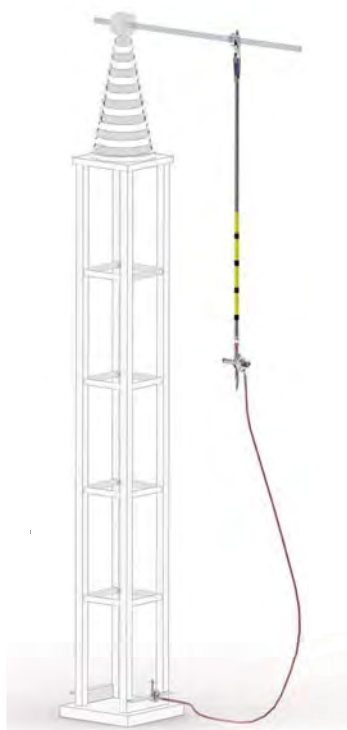
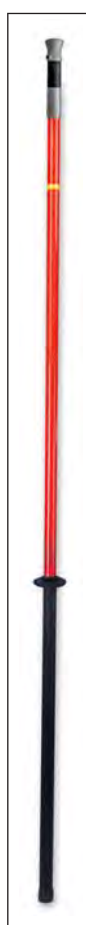


Composed of:

- 3 telescopic metal poles composed of 3 parts with self-locking fixed contact clamp for conductors with diameter between 3 and 22 mm.
- 1 insulating fiberglass pole + Epoxy resin and polyurethane foam filled with 3 sections of 1.72 + 1.65 + 1.63 m; certified by the IEC 60855 standard. Total length: 5 m (has the option of using it without the middle section with a remaining total length of 3.4 m).
- 1 poles holder.
- 1 coil with 3 copper cables of 35 mm² section and 10 m length.
- 2 galvanized steel earthing rod with hexagonal section of 1 m.
- 1 insulating pole support.
- 1 carrying bag.

Note: the maximum tightening torque for the reel is 15Nm.

Code	Ref.	Extended length metal pole	Extended length metal pole	Folded length metal pole	Short circuit current Max. ICC
660400	ERLAIN-3/11	6.00 m	2.20 m	3	8 kA/1s
660405	ERLAIN-4/10	5.10 m	1.50 m	4	8 kA/1s



◀ **Optional**
3 m potential drop pole
model BSC-132/BP (code 672210)

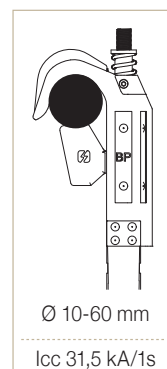
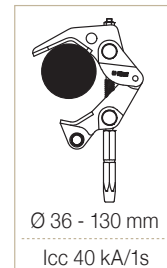


Potential drop equipment for high-altitude connections

30909 PATC-BP

Equipment with intermediate BPGA potential drop clamp, with 3 m aluminium tube, allowing the earthing point to be transferred to facilitate manoeuvring.

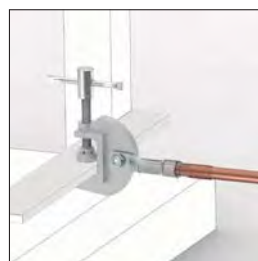
According to IEC 61230 standard.



BPGA
Connection pole



PA40ABP
High voltage clamp



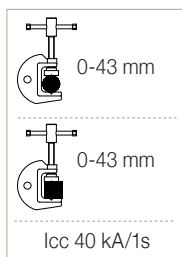
TT-50
Earthing lathe

Composed of:

- 1 BPGA potential drop clamp.
- 1 PA40/BP aluminium alloy clamp, screw tightening.
For cylindrical conductors with diameters of between 10 and 60 mm.
- 1 copper cable with PVC insulation of 120 mm² section and length of 6 m.
- 1 TT-50 milling earthing lathe.
- 1 nylon bag to store and transport the equipment.



TT-50
Earth lathe



Code	Ref.	Cable section (mm ²)	Length (m)	Short circuit current ICC Max.	Capacity Closing
672200	PATC-BP	120	6	31,5 kA/1s	Ø 10-60 mm

IEC 61230

* Depending on availability, the colour of the bag may vary.

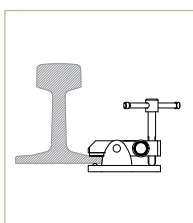
30910 PATF-PC

Integrated earthing equipment for railway system catenaries and double catenaries. With one PC clamp to enable earthing of lines for repair work.

According to IEC 61230 standard.



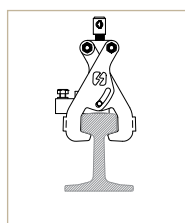
TTR
Earth lathe



lcc 19 kA/1s



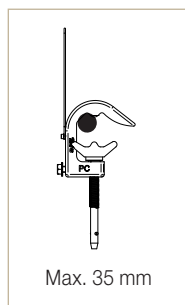
TTSR
Earth lathe



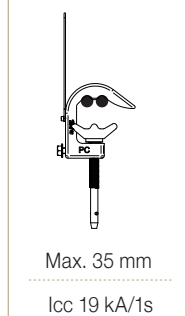
lcc 19 kA/1s



PC
Clamp



Max. 35 mm



Max. 35 mm

lcc 19 kA/1s

Composed of:

- 1 PC aluminium alloy clamps with screw tighten for cylindrical conductors with diameter 35 max.
- 1 copper cables with PVC insulation of 50 mm² section and 7 m of length.
- 1 TTR or TTSR milling earthing lathe.
- 1 nylon bags to store and transport the equipment.

Code	Ref.	Short circuit current ICC Max.
666120	PATF-PC/05007-TTR	
666130	PATF-PC/05007-TTSR	12 kA/1s

* Depending on availability, the colour of the bag may vary.

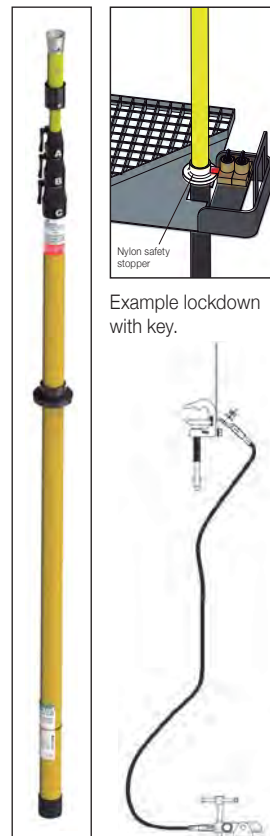
30910 PATF-PDC

Integrated earthing equipment for railway system catenaries, double catenaries and rigid catenary. With one PDC clamp to enable earthing of lines for repair work.

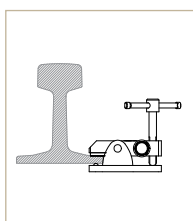
According to IEC 61230 standard.



Optional ▶
Catenary pole with handle to be used next to the rail.
(cod. 615019)



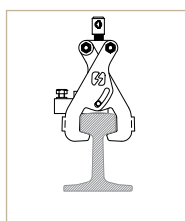
TTR
Earth lathe



Icc 19 kA/1s



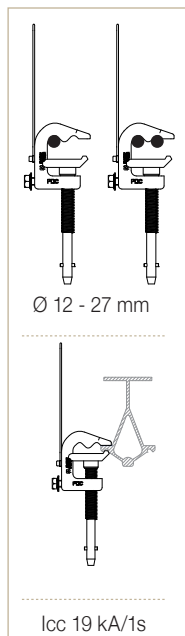
TTSR
Earth lathe



Icc 19 kA/1s



PDC
Clamp



Ø 12 - 27 mm

Icc 19 kA/1s

Composed of:

- 1 PDC aluminium alloy clamps with screw tighten and bayonet for cylindrical conductors with diameter between 12 and 27 mm.
- 1 copper cables with PVC insulation of 50 mm² section and 7 m of length.
- 1 TTR or TTSR milling earthing lathe.
- 1 nylon bags to store and transport the equipment

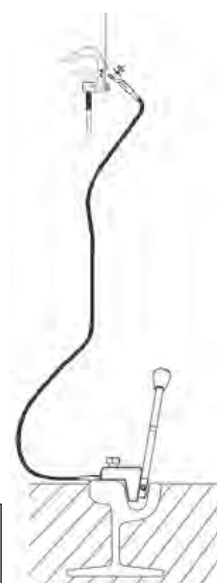
Code	Ref.	Short circuit current ICC Max.
666140	PATF-PDC/05007-TTR	
666150	PATF-PDC/05007-TTSR	12 kA/1s

* Depending on availability, the colour of the bag may vary.

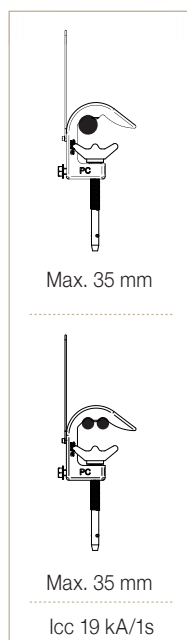
30910 PATF-PC-TTIR

Integrated earthing equipment for underground tramway rails. With one PC clamp to enable earthing of lines for repair work.

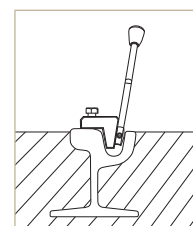
According to IEC 61230 standard.



PC
Clamp



TTIR
Earth lathe



lcc 19 kA/1s

Composed of:

- 1 PC aluminium alloy clamps with screw tighten for cylindrical conductors with diameter 35 max.
- 1 copper cables with PVC insulation of 50 mm² section and 7 m of length.
- 1 TTIR milling earthing lathe.
- 1 nylon bags to store and transport the equipment.

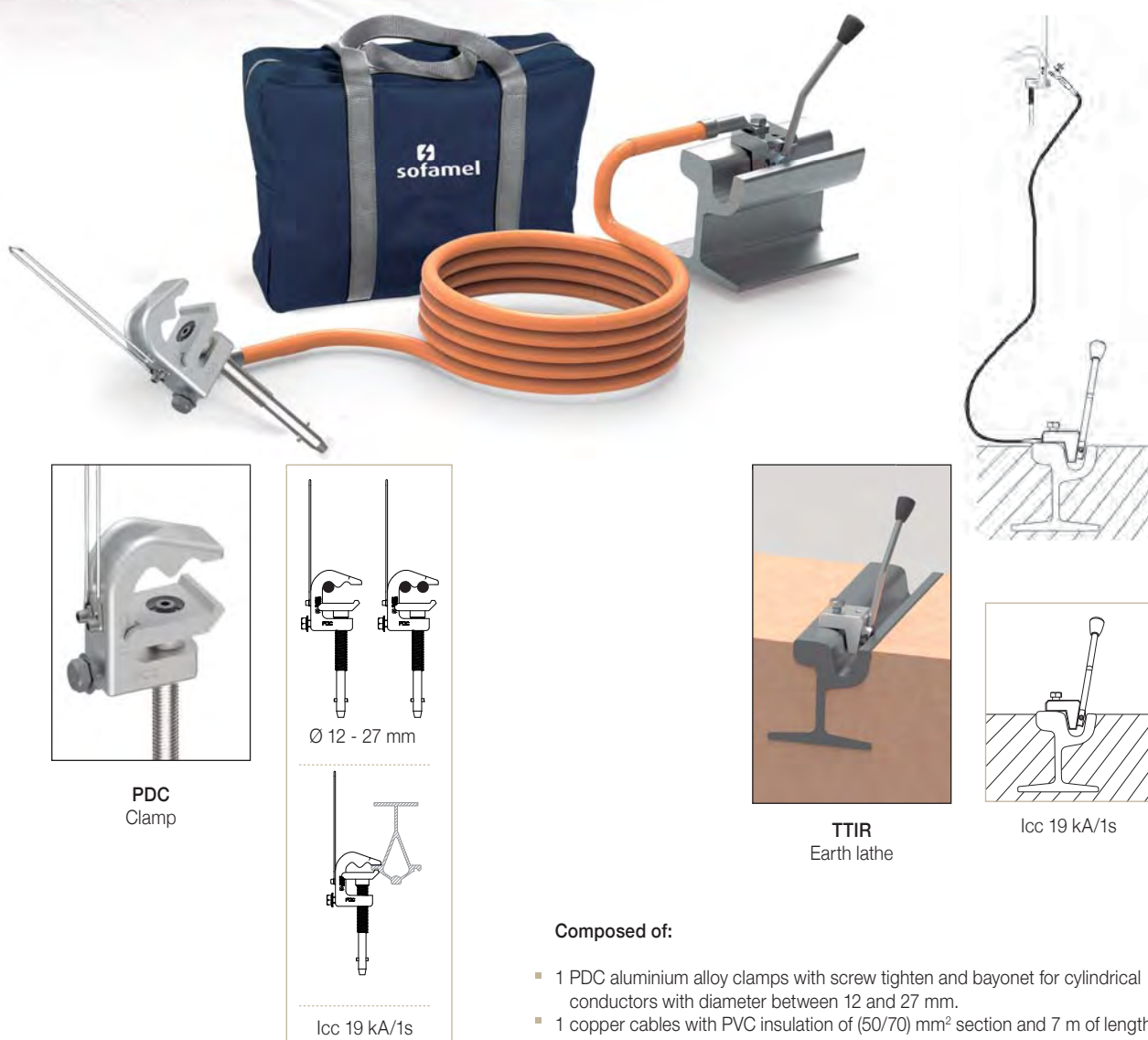
Code	Ref.	Short circuit current ICC Max.
666110	PATF-PC/05007-TTIR	12 kA/1s

* Depending on availability, the colour of the bag may vary.

30910 PATF-PDC-TTIR

Integrated earthing equipment for underground tramway rails. With one PDC clamp to enable earthing of lines for repair work.

According to IEC 61230 standard.



Composed of:

- 1 PDC aluminium alloy clamps with screw tighten and bayonet for cylindrical conductors with diameter between 12 and 27 mm.
- 1 copper cables with PVC insulation of (50/70) mm² section and 7 m of length.
- 1 TTIR milling earthing lathe.
- 1 nylon bags to store and transport the equipment

Code	Ref.	Short circuit current ICC Max.
666160	PATF-PDC/05007-TTIR	12 kA/1s
666161	PATF-PDC/07007-TTIR	19 kA/1s

* Depending on availability, the colour of the bag may vary.



F-600
Insulating clamp

30901 PAT-2/F-600

Earthing and short-circuit equipment for car.
The main aim of installing this item is to protect workers from induced voltage and/or static electricity during maintenance and repair work on electric and hybrid cars.

Composed of:

- 2 F-600 insulated clamps
- 1 16 mm² copper cable with PVC insulating sheath (length depending on model)
- 1 bag for transporting and storing the equipment

Code	Ref.	Length	Maximum working current
657010	PAT-2/F-600/L/01606	6 m	600 A
657020	PAT-2/F-600/L/01607	7 m	
657030	PAT-2/F-600/L/01608	8 m	

* Depending on availability, the colour of the bag may vary.

Earthing and short circuit equipment for trucks



TT-38L
Earth lathe

30901 PAT-TT38L/03515

Earthing and short-circuit equipment for trucks.
The main aim of installing this item is to protect workers from induced voltage and/or static electricity during maintenance and repair work on electric and hybrid cars.

Consists of:

- 2 T-38L milling earthing lathe.
- 1 15 m copper cable with PVC insulating sheath.
- 1 bag for transporting and storing the equipment

Code	Ref.	Length	Short circuit current Max. ICC
657040	PAT-TT38L/03515	15 m	9 kA/1s

* Depending on availability, the colour of the bag may vary.

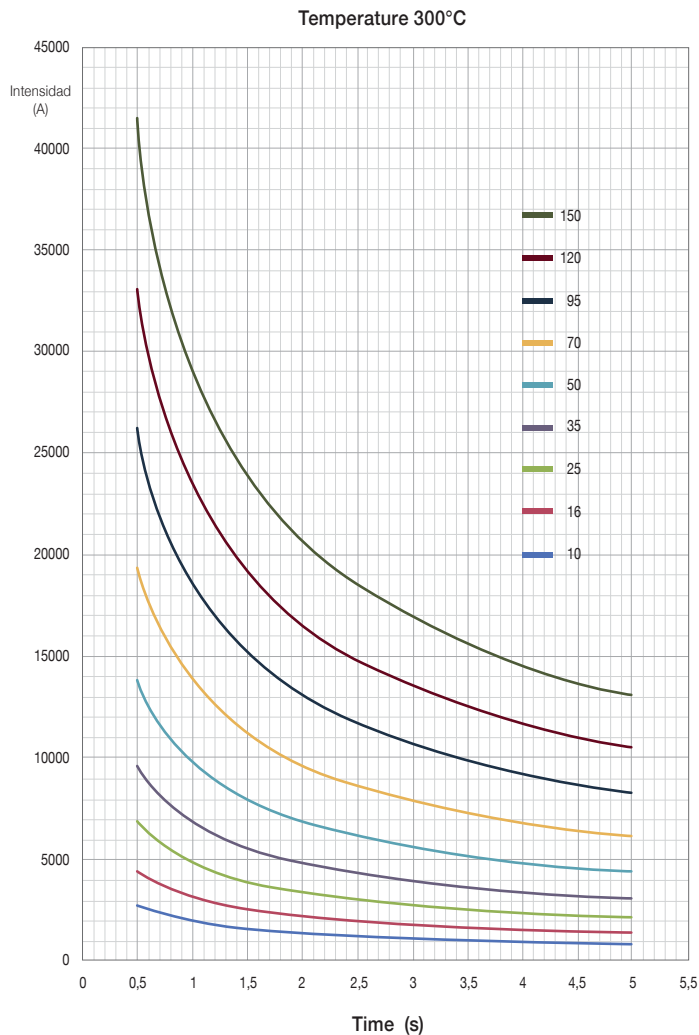


Fig. 1 - Melting point curve for copper cable.

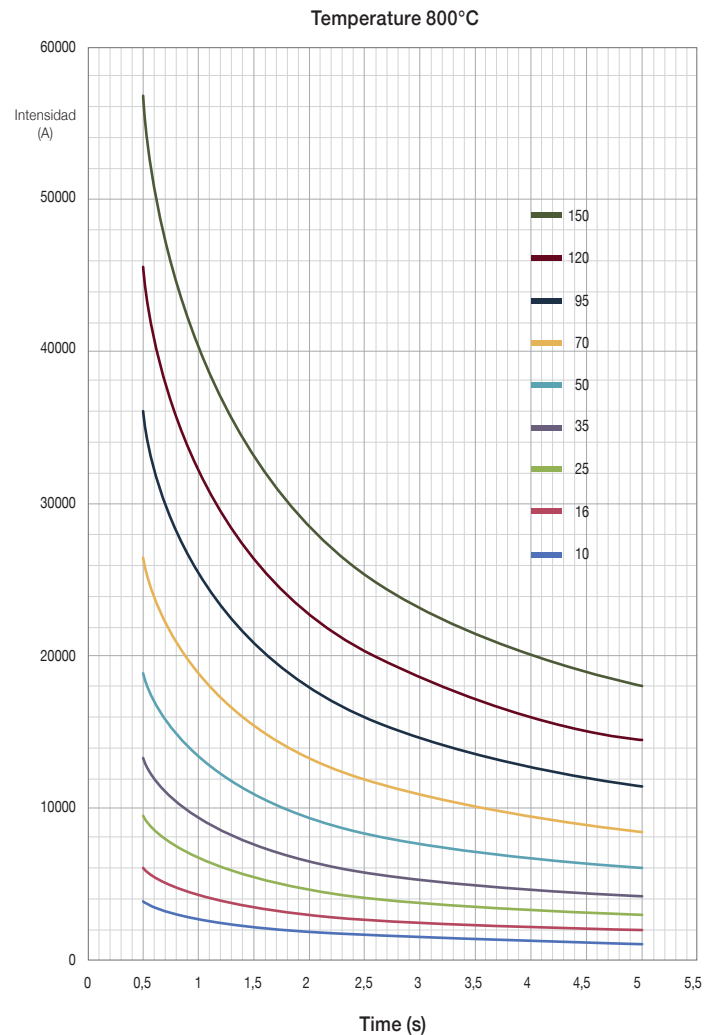


Fig. 2 - Heating curve (at 300°C) for copper cable.

Example: Choosing cable for a short circuit rating of 15 kA/1 sec.
Beginning with the curve in fig. 1, if a 50 mm² cable is used for more than 1 sec, cable burn-out will occur. If this is not permissible, a 70 mm² cable must be selected.

Fig. 2 shows if a 70 mm² cable conducts 15 kA for 1 sec, its temperature will rise to more than 300°C. Any cable which heats to 300°C will not be entirely destroyed, but should never be reused.

Safer manoeuvres and lifting with less effort



30810 SERPAT

Lifting accessory

The SERPAT lifting equipment simplifies the installation of any earthing equipment by significantly reducing the effort required for each manoeuvre, while ensuring greater safety.

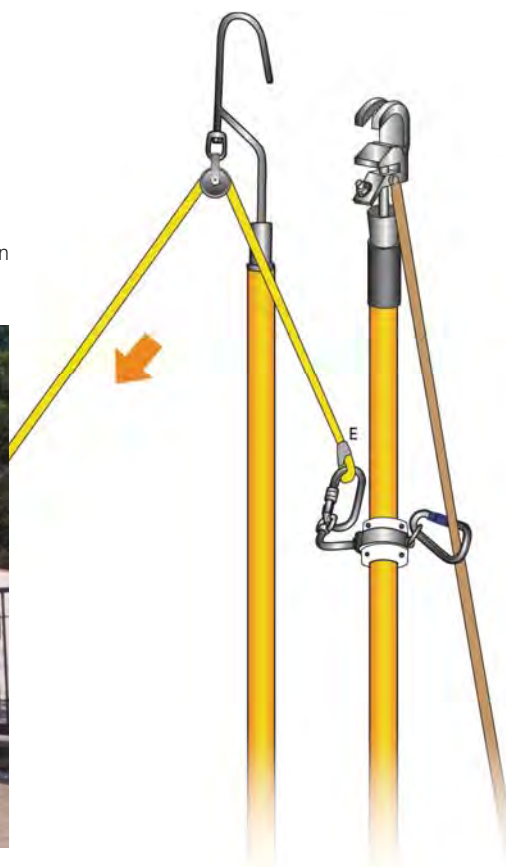
Includes:

- 1 Ring
- 2 Rings
- 1 Steel carabiner (ring)
- 1 Aluminium carabiner (ring 2)
- Clamps
- 1 Hook
- 1 Pulley
- 1 Rope
- 1 Clamp
- 1 Pulley carabiner

Code	Ref.
630305	SERPAT



It is supplied in a plastic box for easy transportation and storage of the equipment.





Earthing and short circuit cable information

Extra flexible stranded copper cable coated with transparent PVC manufactured according to IEC-61138 standard (cables for portable earthing and short circuit complying with IEC 61230 standard).

Test voltage: 1000V for 1 hour A.C.

Temperature: -30°C to +70°C

Extra flexible aluminium cable, class 6, coated with transparent PVC (EN 50363-4-2 standard). Manufactured according to IEC 60228, EN 61138, and IEC 61230 standards.

Copper

Code	Nominal cross section (mm ²)	Icc (kA)	Weight (kg/m)	Ø Ext. (mm)	
				Min.	Max.
M-03.016.00	16	6 kA/0,5s - 4.3 kA/1s	0.18	7.10	8.60
M-03.025.00	25	9.4 kA/0,5s - 6.9 kA/1s	0.26	8.40	10.60
M-03.035.00	35	13.2 kA/0.5s - 9.4 kA/1s	0.36	9.70	11.70
M-03.050.00	50	18.9 kA/0.5s - 13.4 kA/1s	0.52	11.70	14.20
M-03.070.00	70	26.4 kA/0.5s - 19 kA/1s	0.71	13.40	16.20
M-03.095.00	95	35.9 kA/0.5s - 25.5 kA/1s	0.95	15.50	18.70
M-03.120.00	120	45.4 kA/0.5s - 32.1 kA/1s	1.17	17.10	20.60
M-03.150.00	150	56.7 kA/0.5s - 40.2 kA/1s	1.45	18.60	22.50

Aluminium

Code	Nominal cross section (mm ²)	Icc (kA)	Weight (kg/m)	Ø Ext. (mm)	
				Min.	Max.
M-04.035.00	35	7 kA/0.5s - 5 kA/1s	0.154	9.70	11.70
M-04.050.00	50	10 kA/0.5s - 7 kA/1s	0.228	11.70	14.20
M-04.070.00	70	14 kA/0.5s - 10 kA/1s	0.307	13.40	16.20
M-04.095.00	95	19 kA/0.5s - 13.5 kA/1s	0.412	15.50	18.70
M-04.120.00	120	24 kA/0.5s - 17.5 kA/1s	0.502	17.10	20.60
M-04.150.00	150	30 kA/0.5s - 21.4 kA/1s	0.623	18.60	25.50

Equipment accessories



30911 SP-PAT

Wall earthing equipment holder

Metal holder and lacquered finish.

Code	Ref.
671179	SP-PAT

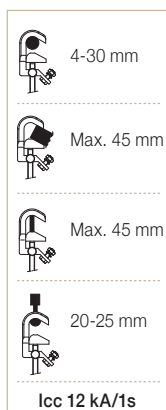
30911 Low voltage clamps

MPUE

Code 671112

Dimensions: 335 x 81 x 52 mm

Weight: 0.6 kg

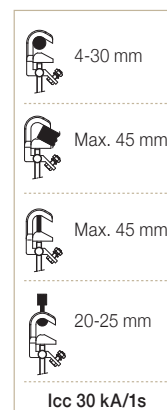


MPUL

Code 671113

Dimensions: 335 x 81 x 52 mm

Weight: 1.2 kg

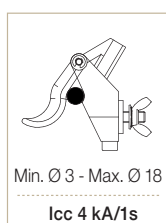


PEBT

Code 658115

Dimensions: 815 x 58 x 40 mm

Weight: 0.35 kg



MPUBT

Code 659001P

Dimensions: 160 x 82 x 40 mm

Weight: 0.36 kg



30911 Medium voltage clamps

MPUH

Code 671110

Dimensions: 202 x 81 x 40 mm
Weight: 0.48 kg



MPUH-L

Code 671117

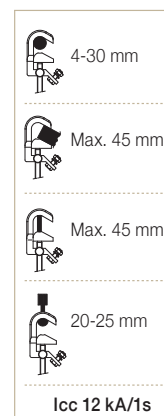
Dimensions: 202 x 81 x 40 mm
Weight: 1.16 kg



MPUB

Code 671115

Dimensions: 240 x 81 x 40 mm
Weight: 0.53 kg



MPUB-L

Code 671118

Dimensions: 240 x 81 x 40 mm
Weight: 1.65 kg



PC

Code 666005

Dimensions: 440 x 157 x 54 mm
Weight: 1.3 kg



MPUP

Code 671116

Dimensions: 240 x 81 x 156 mm
Weight: 0.7 kg



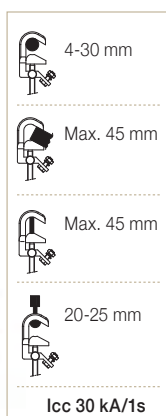
30911 Medium voltage clamps

MPUP-L

Code 671119

Dimensions: 240 x 81 x 156 mm

Weight: 1.34 kg

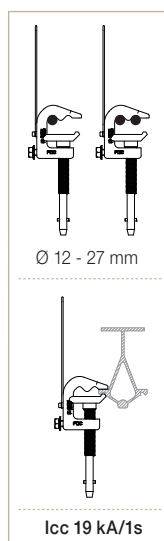


PDC

Code 666010

Dimensions: 413 x 105 x 52 mm

Weight: 0.85 kg

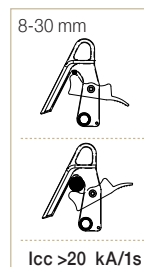


MCL

Code 671121

Dimensions: 182 x 128 x 68 mm

Weight: 0.67 kg

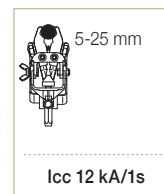


5014H

Code 671100

Dimensions: 167 x 91 x 83 mm

Weight: 0.8 kg



MC

Code 671120

Dimensions: 226 x 102 x 62 mm

Weight: 0.4 kg

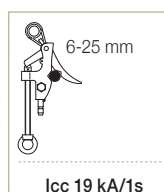


PCA-25

Code 671171

Dimensions: 276 x 123 x 74 mm

Weight: 0.81 kg

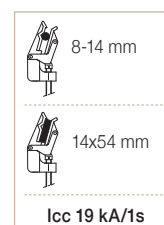


PP15

Code 671166

Dimensions: 241 x 95 x 47 mm

Weight: 0.68 kg

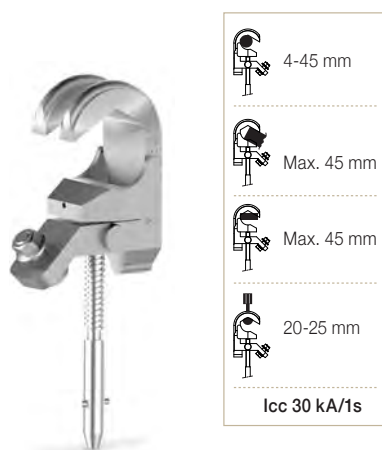


30911 High voltage clamps

MPL

Code 671172

Dimensions: 263 x 105 x 62 mm
Weight: 0.97 kg



MPL

Code 671178

Dimensions: 263 x 110 x 62 mm
Weight: 1 kg



MPLP

Code 671173

Dimensions: 263 x 105 x 204 mm
Weight: 1.1 kg



PAV-48

Code 673100

Dimensions: 380 x 170 x 120 mm
Weight: 1.6 kg



TML

Code 670100P

Dimensions: 428 x 133 x 53 mm
Weight: 1.56 kg



TMC

Code 675100P

Dimensions: 273 x 248 x 45 mm
Weight: 1.18 kg



30911 High voltage clamps

PA40A

Code 674100 - Bayonet
Code 674102 - Hexagonal

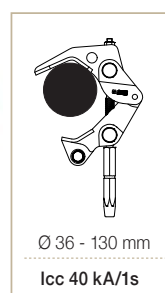
Dimensions: 331 x 206 x 80 mm
Weight: 1.7 kg



PA40ABP

Code 674105 - Hexagonal H22

Dimensions: 341 x 206 x 80 mm
Weight: 1.6 kg



30911 Handles

EMB

Code 671106

Dimensions: 198 x Ø 52 mm
Weight: 0.3 kg



EMP

Code 659001E

Dimensions: 218 x Ø 52 mm
Weight: 0.25 kg

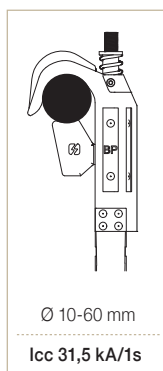


30911 Potential drop clamp

BPGA

Code 672205

Dimensions: 3262 x 141 x 298 mm
Weight: 7.8 kg

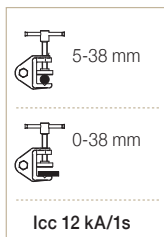


30911 Earthing lathe

TT-38A

Code 671141

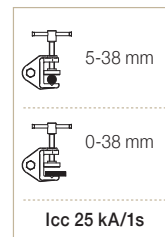
Dimensions: 158 x 92 x 35 mm
Weight: 0.48 kg



TT-38L

Code 671145

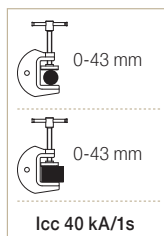
Dimensions: 158 x 92 x 35 mm
Weight: 0.93 kg



TT-50

Code 671152

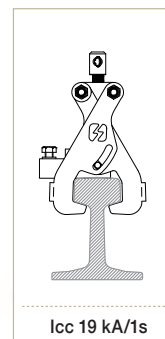
Dimensions: 250 x 147 x 40 mm
Weight: 0.95 kg



TTSR

Code 666015

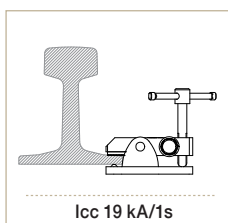
Dimensions: 280 x 214 x 55 mm
Weight: 3.45 kg



TTR

Code 671153

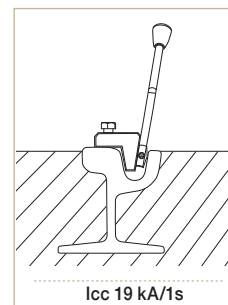
Dimensions: 115 x 117 x 60 mm
Weight: 1.1 kg



TTIR

Code 671154

Dimensions: 54 x 65 x 50 mm
Weight: 0.95 kg



30911 Earthing lathe

PEP

EQUIPOTENTIAL CLAMP FOR POST

Code P-671180

Dimensions: 420 x 202 x 70 mm

Weight: 4.5 kg



Max. Ø 400 mm



Min. Ø 90 mm



PEP-ECO

EQUIPOTENTIAL CLAMP FOR POST

Code P-671185

Dimensions: 325 x 200 x 60 mm

Weight: 3.7 kg



Max. Ø 400 mm



Min. Ø 90 mm



30911 Dispenser heads

PP-3

Code 671126



PP-4

Code 671127



PP-3U

Code 671128



PP-4U

Code 671129



PP-3 MCL

Code 671131



PP-4 MCL

Code 671132



PP-3U MCL

Code 671122



PP-4U MCL

Code 671123



PP-1U MCL

Code 630168



30911 Wheeled suitcase

SOFABOX

Code 620061

Dimensions: 855 x 577 x 400 mm



Ideal for transporting hydraulic kits used in low, medium, and high voltage tasks. It ensures easy and convenient mobility, providing a reliable solution for safely moving equipment to various job sites.



Foldable steel leg

Allows for horizontal storage of the suitcase.



Foldable handles

The suitcase has handles on the top and side to facilitate transport at all times.



Durable wheels

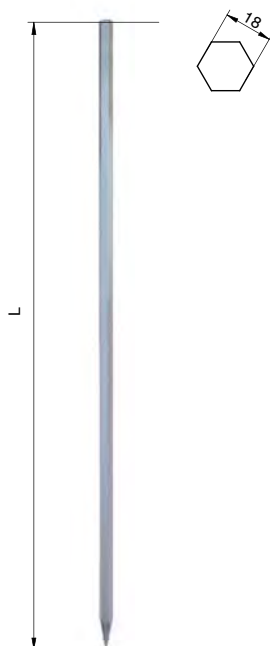
The robust design of the wheels allows for comfortable movement even on difficult terrain.

30911 Earthing rod

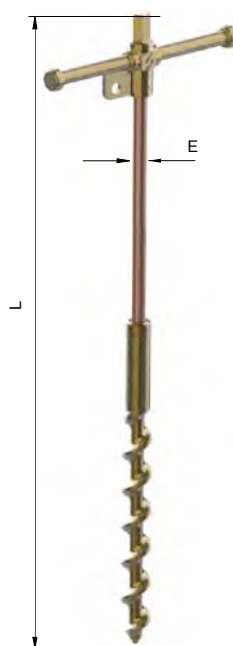
Hexagonal earthing rod

Code 667150

Dimensions: 1 m
Weight: 2.150 kg



Helical earthing rod



Code	Ref.	L	ØE	kg
P-671190	PTB14-1000	1000		2.7
P-671191	PTB14-1300	1300	14.6	2.85
P-671192	PTB14-1500	1500		3
P-671193	PTB18-1000	1000		3.2
P-671194	PTB18-1300	1300	18.2	3.55
P-671195	PTB18-1500	1500		3.86

Fixed ball point

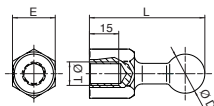
Used in electrical installations to connect and securely fasten the clamps of PAT equipment.

According to DIN 48088 part 1.

Material: 20 micron tinned brass and stainless hardware.

30912 Straigh fixed ball point - Female

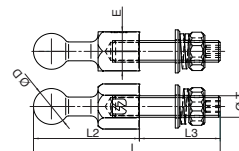
INTERNAL THREAD



Code	Ref	ØD	ICC Max. kA/1s	E	L	ØT
P-665020	PFRH-20M12	20	12	SW22	59	M12
P-665022	PFRH-20M16					M16
P-665024	PFRH-20M12	25	25	SW27	69	M12
P-665026	PFRH-20M16					M16

30912 Straigh fixed ball point - Male

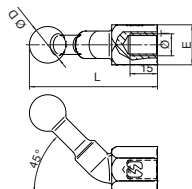
EXTERNAL THREAD



Code	Ref	ØD	ICC Max. kA/1s	E	L	L2	L3	ØT
P-665030	PFRM-20M12x35	20	12	SW22	94		35	M12
P-665032	PFRM-20M12x45				104	59	45	M12
P-665034	PFRM-20M16x35				94		35	M16
P-665036	PFRM-20M16x45				104		45	M16
P-665038	PFRM-25M12x35	25	25	SW27	104		35	M12
P-665040	PFRM-25M12x45				114		45	M12
P-665042	PFRM-25M16x35				104	69	35	M16
P-665044	PFRM-25M16x45				114		45	M16

30912 Fix ball point 45° - Female

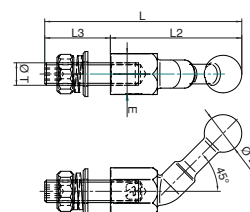
INTERNAL THREAD



Code	Ref	ØD	ICC Max. kA/1s	E	L	ØT
P-665050	PF45H-20M12	20	12	SW22	70	M12
P-665052	PF45H-20M16					M16
P-665054	PF45H-25M12	25	25	SW27	82	M12
P-665056	PF45H-25M16					M16

30913 Fix ball point 45° - Male

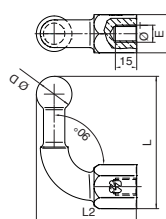
EXTERNAL THREAD



Code	Ref	ØD	ICC Max. kA/1s	E	L	L2	L3	ØT
P-665060	PF45M-20M12x35	20	12	SW22	105		35	M12
P-665062	PF45M-20M16x45				115	70	45	M16
P-665064	PF45M-25M12x45	25	25	SW27	127	82	45	M12
P-665066	PF45M-25M16x45							M16

30912 Fix ball point 90° - Female

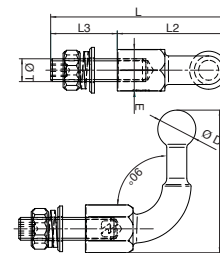
INTERNAL THREAD



Code	Ref	ØD	ICC Max. kA/1s	E	L	L2	ØT
P-665070	PF90H-20M12	20	12	SW22	75	58	M12
P-665072	PF90H-20M16				75	58	M16
P-665074	PF90H-25M12	25	25	SW27	93	70	M12
P-665076	PF90H-25M16				93	70	M16

30913 Fix ball point 90° - Male

EXTERNAL THREAD



Code	Ref	ØD	ICC Max. kA/1s	E	L	L2	L3	ØT
P-665080	PF90M-20M12x35	20	12	SW22	93		35	M12
P-665082	PF90M-20M16x45				103	58	45	M16
P-665084	PF90M-25M12x45	25	25	SW27	115	70	45	M12
P-665086	PF90M-25M16x45							M16

Voltage Detectors

Safety

Medium voltage detector - Indoor

GENERAL CATALOGUE 24/25



Optical

Analogic voltage detector Medium Voltage - Optical

Voltage presence is indicated by LED lights.
Self-checking system by means of an incorporated piezoelectric generator.
It works with no battery.
Indoor use by insulating pole according to the rated voltage of the detector.
Connection to the pole by Universal head.
Supplied with a metallic box to store and transport the voltage detector.

Code	Ref.	Voltage ranges	Frequency
640200	VTO-5/36-U	from 5 to 36 kV	50 / 60 Hz
640205	VTO-5/66-U	from 5 to 66 kV	



Optical

Analogic voltage detector with pole Medium Voltage - Optical

Voltage presence is indicated by LED lights.
Self-checking system by means of an incorporated piezoelectric generator.
It works with no battery.
Indoor use by insulating pole according to the rated voltage of the detector.
(included).
Connection to the pole by Universal head.
Supplied with a metallic box to store and transport the voltage detector.

Code	Ref.	Voltage ranges	Insulating pole length	Frequency
640210	VTO-5/36-P	from 5 to 36 kV	1.25 m	50 / 60 Hz
640215	VTO-5/66-P	from 5 to 66 kV	2 m	



Voltage Detectors

Safety

Medium voltage detector - Indoor

GENERAL CATALOGUE 24/25

Optical



PEKE

*Compact voltage detector with pole
Medium Voltage - Optical*

Voltage presence is indicated by three red LED lights.
Self-checking system by means of an incorporated piezoelectric generator.
It works with no battery.
Indoor use through integrated insulating telescopic pole. (included)
Insulated pole according to RD 614/2001 standard.
Outdoor use in dry condition only.
Supplied with bag to transport the voltage detector that can be attached to the belt.

VOLTAGE RANGES
from 5 to 36 kV



31001 PEKE

Code	Ref.	Voltage ranges	Frequency	Length extended pole	Length folded pole
640104	PEKE-5/36	from 5 to 36 kV	50 / 60 Hz	125.5 cm (detector included)	44.3 cm (detector included)



SPECTRA

Standard compact voltage detector with pole
Medium Voltage - Optical & Acoustic

Self-verification device by push button.
Operation with two AAA batteries.
Indoor use through integrated insulating telescopic pole.
Insulated pole according to RD 614/2001 standard. (included)
Outdoor use in dry condition only.
Work temperature range: -25°C to 55°C
Voltage presence indicator: By 2 led diode lamps and acoustic signal intermittent buzzer.
Supplied with a bag for the transportation of all set.

VOLTAGE RANGES
from 200 V to 5 kV
or from 50 V to 1 kV



Detector with the extended pole retracted.

31001 SPECTRA

Code	Ref.	Voltage ranges	Frequency	Length extended pole	Length folded pole
640175	SPECTRA-200/5000	from 200 V to 5 kV	50 / 60 Hz	125.5 cm (detector included)	44.3 cm (detector included)
640177	SPECTRA-50/1000	from 50 V to 1 kV			



ACCESSORIES (INCLUDED)

- Universal pole adapter.
- Bag to transport the voltage detector with pole.

Optical / Acoustic

VTE

High resolution voltage detector with pole Medium Voltage - Optical & Acoustic

Electronic voltage detector with micro controller and direct contact detection. New advanced technology acquisition that guarantees a perfect and safe indication even in conflicting electric field environments.

Voltage presence is indicated by high luminosity red LED and high acoustic pressure buzzer.

Voltage absence is indicated by high luminosity green LED.

Low battery is indicated by orange LED.

Self-checking system for its complete circuit by pressing test button.

Stops working when low battery.

Work temperature range: from -25°C to +55°C.

Self-ignition when voltage presence.

Auto turn-off into sleep mode after two minutes of voltage absence.

In this mode consumption is less than 1 µA.

Power supply: 9 V alkaline battery, type 6LR61 (included).

Indoor and outdoor use by appropriate insulating pole to the detector voltage range.

Connection to the pole by Universal head.

Supplied with carrying bag for pole and metallic box to store and transport the voltage detector with battery included.

Manufactured according to IEC 61243:2003+A1:2009 and UNE-EN 61243-1:2006+A1:2011 standards (except voltage range).



VOLTAGE RANGES

from 5 to 35 or 5 to 66 kV

31002 VTE-U

Code	Ref.	Voltage ranges	Frequency
641113	VTE-5/36-U	from 5 to 36 kV	50 / 60 Hz
641115	VTE-5/66-U	from 5 to 66 kV	

31002 VTE-P

Code	Ref.	Voltage ranges	Frequency	Insulating pole length
641103	VTE-5/36-P	from 5 to 36 kV	50 / 60 Hz	1.30 m
641105	VTE-5/66-P	from 5 to 66 kV		2 m

* Insulating pole included.

Optical / Acoustic





VTE-U

AC voltage detector for fast speed train networks

Optical & Acoustic

Electronic voltage detector with micro controller and direct contact detection. New advanced technology acquisition that guarantees a perfect and safe indication even in conflicting electric field environments.

Voltage presence is indicated by high luminosity red LED and high acoustic pressure buzzer.

Voltage absence is indicated by high luminosity green LED.

Low battery is indicated by orange LED.

Self-checking system for its complete circuit by pressing test button.

Stops working when low battery.

Work temperature range: from -25°C to +55°C.

Self-ignition when voltage presence.

Auto turn-off into sleep mode after two minutes of voltage absence.

In this mode consumption in less than 1 μ A.

Power supply: 9 V alkaline battery, type 6LR61 (included).

Indoor and outdoor use by appropriate insulating pole to the detector voltage range.

Connection to the pole by Universal head.

Supplied with carrying bag for pole and metallic box to store and transport the voltage detector with battery included.

Manufactured according to IEC 61243:2003+A1:2009 and UNE-EN 61243-1:2006+A1:2011 standards (except voltage range).



VOLTAGE RANGES

from 25 kV

31002 VTE-25-U

Code	Ref.	Voltage ranges	Frequency
641120	VTE-25-U	25 kV	50 / 60 Hz



VTM

IEC High resolution voltage detector Medium Voltage - Optical & Acoustic

Electronic voltage detector with micro controller and direct contact detection. New advanced technology acquisition that guarantees a perfect and safe indication even in conflicting electric field environments.

Voltage presence is indicated by high luminosity red LED and high acoustic pressure buzzer.

Voltage absence is indicated by high luminosity green LED.

Low battery is indicated by orange LED.

Self-checking system for its complete circuit by pressing test button.

Stops working when low battery.

Work temperature range: from -25°C to +55°C.

Self-ignition when voltage presence.

Auto turn-off into sleep mode after two minutes of voltage absence.

In this mode consumption is less than 1 µA.

Power supply: 9 V alkaline battery, type 6LR61 (included).

Indoor and outdoor use by appropriate insulating pole to the detector voltage range.

Connection to the pole by Universal head.

Supplied with metallic box with battery included.

According to IEC 61243:2003+A1:2009 and
UNE-EN 61243-1:2006+A1:2011 standards

VOLTAGE RANGES

from 3 to 10 kV up to 22 to 66 kV
depending on the model

31002 VTM

Code	Ref.	Voltage ranges	Frequency
645220	VTM-3/10-U	from 3 to 10 kV	50 / 60 Hz
645225	VTM-4/12-U	from 4 to 12 kV	
645230	VTM-10/30-U	from 10 to 30 kV	
645235	VTM-11/33-U	from 11 to 33 kV	
645240	VTM-15/45-U	from 15 to 45 kV	
645245	VTM-22/66-U	from 22 to 66 kV	



CE  IEC 61243:2003+A1:2009
UNE-EN 61243-1:2006+A1:2011



POWER LIGHT

IEC electronic voltage detector
Medium Voltage - Optical & Acoustic

VOLTAGE RANGES

from 1 to 3.3 kV up to 22 to 79 kV
depending on the model

31003 POWER LIGHT

Lamp in the top part with high-brightness, low-consumption LEDs, for use in dark places. Lamp use is independent of the detection system.

Voltage present indicator using multiple high-brightness red LEDs over 360° and buzzer-type intermittent acoustic signal.

Absence of voltage indicator with multiple high-brightness green LEDs over 360°.

Low battery indication by orange LED.

Self-checking system for the full circuit by pressing the test button.

Stops operating when the battery is low.

Working temperature range: -25°C to +55°C.

Auto-start-up with voltage presence.

Auto-power-down to standby after two minutes with absence of voltage. Power consumption is less than 1 µA in this mode.

Indoor and outdoor use by means of insulating pole appropriate to the detector voltage range. Coupling to pole using Universal head.

2xAA high-capacity and high-durability batteries included.

Supplied with metallic box with batteries included.

According with standards IEC 61243:2003+A1:2009 and UNE-EN 61243-1:2006+A1:2011.

Code	Ref.	Voltage ranges	Frequency
645266	POWER-1/3,3	from 1 to 3.3 kV	50 / 60 Hz
645260	POWER-3/10	from 3 to 10 kV	
645261	POWER-4/12	from 4 to 12 kV	
645262	POWER-10/30	from 10 to 30 kV	
645263	POWER-11/33	from 10 to 33 kV	
645267	POWER-10/36	from 10 to 36 kV	
645268	POWER-13/45	from 13 to 45 kV	
645264	POWER-15/45	from 15 to 45 kV	
645265	POWER-22/66	from 22 to 66 kV	
645269	POWER-22/79	from 22 to 79 kV	

CE  IEC 61243:2003+A1:2009
UNE-EN 61243-1:2006+A1:2011

Voltage Detectors

Safety

Medium voltage detector - Power Light

GENERAL CATALOGUE 24/25



POWER LIGHT

IEC electronic voltage detector
+ Accessories
Medium Voltage - Optical & Acoustic

VOLTAGE RANGES from 10 to 20 kV

Lamp in the top part with high-brightness, low-consumption LEDs, for use in dark places. Lamp use is independent of the detection system.

Voltage present indicator using multiple high-brightness red LEDs over 360° and buzzer-type intermittent acoustic signal. Absence of voltage indicator with multiple high-brightness green LEDs over 360°.

Low battery indication by orange LED.

Self-checking system for the full circuit by pressing the test button.

Stops operating when the battery is low.

Working temperature range: -25°C to +55°C.

Auto-start-up with voltage presence.

Auto-power-down to standby after two minutes with absence of voltage. Power consumption is less than 1 µA in this mode.

Indoor and outdoor use by means of insulating pole appropriate to the detector voltage range. Coupling to pole using Universal head.

2xAA high-capacity and high-durability batteries included.

Supplied with metallic box with batteries included.

According with standards IEC 61243:2003+A1:2009 and UNE-EN 61243-1:2006+A1:2011.



Detector with free or configurable NFC (Near Field Communication).

NFC is a set of communication protocols for communication between two electronic that allows the exchange of data between devices.

31003 POWER-10/20

Code	Ref.	Voltage ranges	Frequency
T645049	POWER-10/20	from 10 to 20 kV	50 / 60 Hz



IEC 61243:2003+A1:2009
UNE-EN 61243-1:2006+A1:2011



Kit items:

- 1 Rated voltage – 10/20
- 1 Adapter electrode Nevers
- 1 Electrode Powerlight closed
- 1 Electrode Powerlight hook
- 1 Adapter from hexagonal-12 to Universal head

Optical / Acoustic



POWER LIGHT

*Electronic voltage detector
Medium Voltage - Optical & Acoustic*

VOLTAGE RANGES

from 1 to 5 kV or from 5 to 79 kV

Lamp in the top part with high-brightness, low-consumption LEDs, for use in dark places. Lamp use is independent of the detection system.
Voltage present indicator using multiple high-brightness red LEDs over 360° and buzzer-type intermittent acoustic signal.
Absence of voltage indicator with multiple high-brightness green LEDs over 360°.
Low battery indication by orange LED.
Self-checking system for the full circuit by pressing the test button.
Stops operating when the battery is low.
Working temperature range: -25°C to +55°C.
Auto-start-up with voltage presence.
Auto-power-down to standby after two minutes with absence of voltage.
Power consumption is less than 1 µA in this mode.
Indoor and outdoor use by means of insulating pole appropriate to the detector voltage range. Coupling to pole using Universal head.
2xAA high-capacity and high-durability batteries included.
Supplied with metallic box with batteries included.

Manufactured according to IEC 61243:2003+A1:2009 and UNE-EN 61243-1:2006+A1:2011 standards (except voltage range).

31003 POWER LIGHT

Code	Ref.	Voltage ranges	Frequency
645280	POWER-1/5	from 1 to 5 kV	50 / 60 Hz
645285	POWER-5/79	from 5 to 79 kV	

HIGH

VOLTAGE DETECTOR

Optical & Acoustic

Probably **the most reliable** voltage detector in the world for **high voltage works**

- New advanced technology acquisition
- Direct contact detector
- 100% isolated from interferences from electromagnetic field
- Freedom of movement
- Perfect detection at any angle
- Long life battery
- Manufactured according to IEC 61243:2003+A1:2009 and UNE-EN 61243-1:2006+A1:2011 standards

VTA

IEC high tech voltage detector High Voltage - Optical & Acoustic

Electronic voltage detector by micro controller and direct contact detection. New advanced technology acquisition by pulse of light that guarantees a perfect and safe indication even in conflicting electric field environments.

Work temperature range: from -25°C to +55°C.

Self-checking system for its complete circuit by pressing test button. Self-ignition when voltage presence.

Auto turn-off into sleep mode after two minutes of voltage absence. In this mode consumption is less than 1 µA.

Voltage presence is indicated by high luminosity red LED and high acoustic pressure buzzer. Voltage absence is indicated by high luminosity green LED.

Power supply 9 V alkaline battery, type 6LR61 (included).

Indoor and outdoor use by appropriate insulating pole to the detector voltage range.

Connection to the pole by Universal head.

Supplied with metallic box.

According to IEC 61243:2003+A1:2009 and
UNE-EN 61243-1:2006+A1:2011 standards

CE  IEC 61243:2003+A1:2009
UNE-EN 61243-1:2006+A1:2011



VOLTAGE RANGES

from 63 to 150 kV up to 225 to 420 kV
depending on the model

31004 VTA

Code	Ref.	Voltage ranges	Frequency
645162	VTA-63/150-U	from 63 to 150 kV	50 / 60 Hz
645164	VTA-66/220-U	from 66 to 220 kV	50 Hz
645165	VTA-66/220-U	from 66 to 220 kV	60 Hz
645172	VTA-90/225-U	from 90 to 225 kV	50 / 60 Hz
645184	VTA-45/420-U*	from 45 to 420 kV	50 / 60 Hz
645182	VTA-150/420-U	from 150 to 420 kV	50 / 60 Hz
645186	VTA-225/420-U*	from 225 to 420 kV	50 / 60 Hz

* In accordance to IEC 61243:2003+A1:2009 and
UNE-EN 61243-1:2006+A1:2011 standards (except the voltage range).

Voltage Detectors

Safety

DC voltage detector

GENERAL CATALOGUE 24/25

DC voltage detector
with AC induced voltage indication
Optical & Acoustic



* Magnet applicable to the detector VTC-OAD I *

Optical / Acoustic



Code	Ref.
645215	VTC-OAD
645216	VTC-OAD I *



647 VTC-OAD

- **Field of application:** To be used in DC voltage electrical systems of up to 5000 DC, where there are adjacent AC systems of up to 25 kVA, not to be used in installations with only alternating current service voltage.
- **Working voltage range:** Direct current: $500\text{ V} < V_{\text{tDC}} < 5000\text{ V}$
AC induced voltage: $500\text{ V} < V_{\text{tAC}} < 5000\text{ V}$
- **Usage frequency:** DIRECT current
ALTERNATING current 50-60 Hz
- **Operating Temperature:** -25°C to 55°C
- **Humidity range:** 20 to 96 %. Not apt for use in rainfall.
- **Indication of alert status:** By means of high luminosity green LED light. There is no voltage or it is below the detection thresholds.
- **Voltage presence indication:** Optical: fixed orange LED light when DC voltage presence.
Flashing red LED light when AC induced voltage presence.
Acoustic: Fixed buzzer when DC voltage presence. Alternated buzzer when AC voltage presence.
- **Battery:** 9 V, type 6LR61.
Low battery indication by flashing green LED light and off when battery level is critical.
- **Ground cable:** Extra flexible cable with silicon sheath and 6 m length (possibility of other lengths at customer's request).
- **Insulation pole:** With universal head
- **Self-checking:** Full self-checking system with automatic disconnection after 2 minutes. WITHOUT DETECTION.
- **Automatic start-up:** Automatic start-up system using detection of voltage (approx. 400 Vdc).
- **Electrode:** Non-exchangeable. L type (without contact electrode extension).
- **Threshold voltage:** Between 350 to 490 V

Voltage Detectors

Safety

DC voltage detector

GENERAL CATALOGUE 24/25

DC voltage detector Optical & Acoustic



* Magnet applicable to the detector VTC-OA I

Code	Ref.
645210	VTC-OA
645211	VTC-OA I *



647 VTC-OA

- **Voltage range:** 500 V < Vt < 5000 V
- **Usage frequency:** DIRECT current
- **Operating temperature:** -25°C to 55°C
- **Humidity Range:** 20 to 96 %
- **Indication of alert status:** Through high luminosity green LED.
There is no voltage or it is below the established detection threshold.
- **Indication of voltage presence:** Optical/Acoustic indication through high luminosity red LED and high pressure acoustic buzzer*.
- **Battery:** 9 V battery, type 6LR61
Low battery indication by flashing green LED, when battery level is critical green led is off.
- **Earthing cable:** Extra flexible cable with silicon sheath and 6 m long
(possibility of other lengths at customer's request).
- **Insulating pole:** With universal head
- **Self-checking:** Full self-checking system with automatic disconnection after two minutes WITHOUT DETECTION.
- **Automatic start-up:** Automatic start-up system using detection of voltage (approx. 400V dc).
- **Electrode:** Possibility of exchanging electrode
- **Threshold voltage:** Threshold 1 - From 350 to 490 V: Red led
Threshold 2 - From 900 to 1100 V: Red and orange led

D-TUERI

A new era of Personal Voltage Detectors

MAXIMUM SAFETY



Voltage Detectors

Safety

Personal voltage detector

GENERAL CATALOGUE 24/25

Omni-directional personal electric field detector Medium Voltage - Optical & Acoustic



31006 D-TUERI PRO 7.9/69 kV

Additional individual safety device designed for personnel working in areas with electrical voltage, such as inspection tasks, cleaning operations, maintenance, and generally any work performed near live elements.

When the user is close to an electric field between 7.9 kV – 69 kV and exceeds a distance of approximately 2 metres for 7.9 kV and 5 metres for 69 kV, the detector emits a signal. The signal's frequency increases as the user gets closer to the live point. The alarm does not stop sounding until you move away from the dangerous zone.



Omnidirectional
Detection



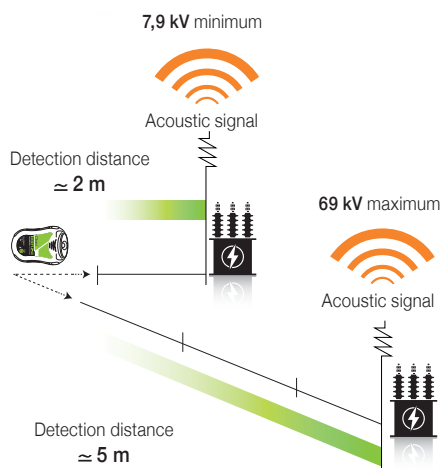
USB-C
connection



Medium voltage



Acoustic Signal



- Use in Distribution / Transformation centers and AC Airlines
- Utilization range: Between 7.9-69 kV
- Operating frequency: 50 and 60 Hz
- Degree of protection: IP 65
- Luminous power: 2 W
- Power supply: Li ion battery 3.7 V 1050m Ah
- Supplied in an insulated box that includes the detector, a nylon carrying case, charger and USB cable.

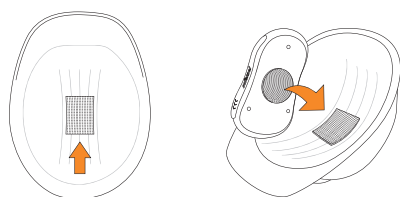
Code	Ref.
645257	D-TUERI PRO



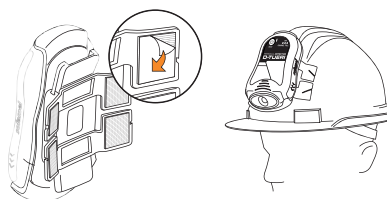
Placement

The detector can be placed both **INSIDE** and **OUTSIDE**, depending on the characteristics and requirements of the helmet.

INSIDE



OUTSIDE



Voltage Detectors

Safety

Personal voltage detector

GENERAL CATALOGUE 24/25

Omni-directional personal electric field detector Medium Voltage - Optical & Acoustic



31006 D-TUERI EXPERT 10/66 kV

Additional safety element for individual use suitable for power line operators carrying out maintenance and in general all works close to an electric field.

When the user is close to an electric field between 10 kV – 66 kV and exceeds a distance of approximately 1 metres for 10 kV and 3 metres for 66 kV, the detector emits a signal. The alarm does not stop sounding until you move away from the dangerous zone.



Omnidirectional
Detection



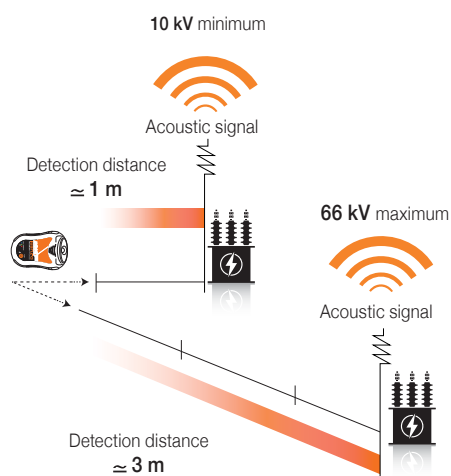
USB-C
connection



Medium voltage



Acoustic Signal



- Use in Distribution / Transformation centers and AC Airlines
- Utilization range: Between 10-66 kV
- Operating frequency: 50 and 60 Hz
- Degree of protection: IP65
- Luminous power: 2 W
- Power supply: Li ion battery 3.7 V 1050 mAh
- Supplied in an insulated box that includes the detector, a nylon carrying case, charger and USB cable.

Code

645255

Ref.

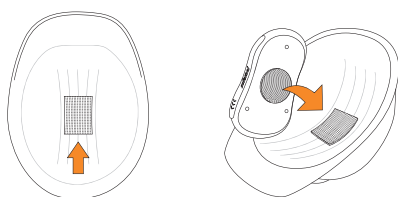
D-TUERI EXPERT



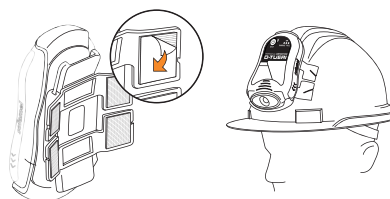
Placement

The detector can be placed both **INSIDE** and **OUTSIDE**, depending on the characteristics and requirements of the helmet.

INSIDE



OUTSIDE



Voltage Detectors

Safety

Personal voltage detector

GENERAL CATALOGUE 24/25

Omni-directional personal electric field detector Medium Voltage - Optical & Acoustic



31006 D-TUERI PRO 66/138 kV

Additional safety device for individual use, specifically designed for transformer stations where the operator works in areas with very limited distance to the danger zone.

When the user is close to an electric field between 66 kV – 138 kV and exceeds a distance of approximately 1.4 meters for 66 kV and 4 meters for 138 kV, the detector emits a signal. The signal's frequency increases as we get closer to the live point. The alarm does not stop sounding until you move away from the dangerous zone.



Omnidirectional
Detection



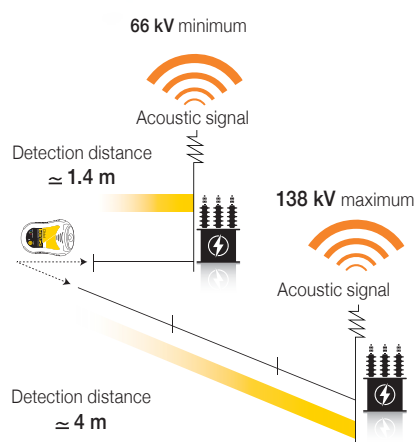
USB-C
connection



Medium voltage



Acoustic Signal



- Use in Distribution / Transformation centers and AC Airlines
- Utilization range: Between 66-138 kV
- Operating frequency: 50 and 60 Hz
- Degree of protection: IP 65
- Luminous power: 2 W
- Power supply: Li ion battery 3.7 V 1050 mAh
- Supplied in an insulated box that includes the detector, a nylon carrying case, charger and USB cable.

Code

Ref.

645258

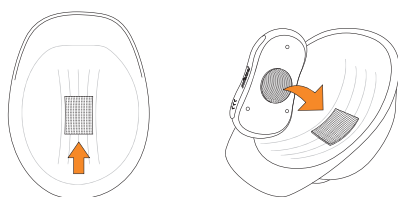
D-TUERI PRO 66/138 kV



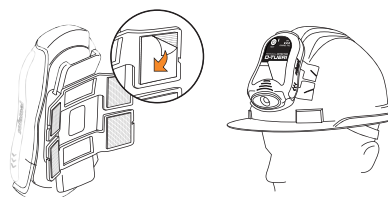
Placement

The detector can be placed both **INSIDE** and **OUTSIDE**, depending on the characteristics and requirements of the helmet.

INSIDE



OUTSIDE



Voltage Detectors

Safety

Personal voltage detector

GENERAL CATALOGUE 24/25

Optical / Acoustic

Omni-directional personal electric field detector Medium Voltage - Optical & Acoustic



31006 D-TUERI DUAL 7.9/69 kV - 66 kV

Additional safety element for individual use indicated for power line operators who carry out maintenance, repairs and other work close to live lines with the possibility of switching to a less sensitive operating mode and getting closer to the points in electrical tension.

Mode 7.9/69 kV

When the user is close to an electric field between 7.9 kV – 69 kV and exceeds a distance of approximately 2 meters for 7.9 kV and 5 meters for 69 kV, the detector sounds a signal. The alarm does not stop sounding until you move away from the dangerous zone.

Mode 66 kV

When the user is close to an electric field of 66 kV and exceeds a distance of approximately 1.4 meters the detector sounds a signal. The alarm does not stop sounding until you move away from the dangerous zone.



Omnidirectional
Detection



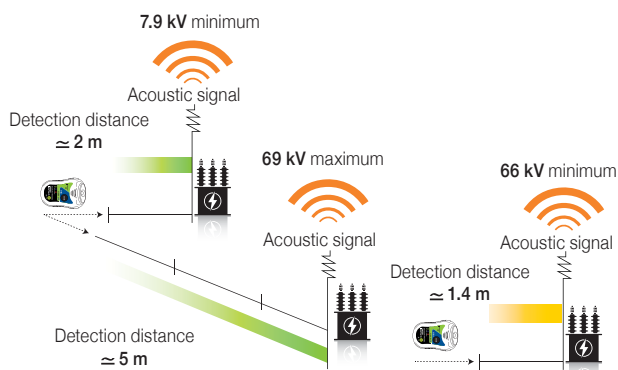
USB-C
connection



Medium voltage



Acoustic Signal



- Use in Distribution / Transformation centers, Substations and AC Airlines
- Utilization range: Between 7.9-69 kV
- Operating frequency: 50 and 60 Hz
- Degree of protection: IP 65
- Luminous power: 2 W
- Power supply: Li ion battery 3.7 V 1050 mAh
- Supplied in an insulated box that includes the detector, a nylon carrying case, charger and USB cable.

Code

Ref.

648300

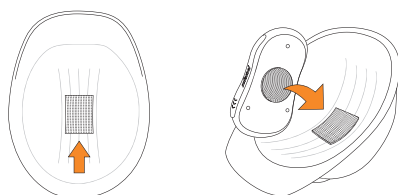
D-TUERI DUAL 7.9/69 kV - 66 kV



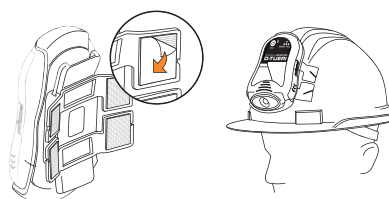
Placement

The detector can be placed both **INSIDE** and **OUTSIDE**, depending on the characteristics and requirements of the helmet.

INSIDE



OUTSIDE



Voltage Detectors

Safety

Personal voltage detector

GENERAL CATALOGUE 24/25

Omni-directional personal electric field detector Medium Voltage - Optical & Acoustic



31006 D-TUERI DUAL 7.9/69 kV - 110 kV

Additional safety element for individual use indicated for power line operators who carry out maintenance, repairs and other work close to live lines with the possibility of switching to a less sensitive operating mode and getting closer to the points in electrical tension.

Mode 7.9/69 kV

When the user is close to an electric field between 7.9 kV – 69 kV and exceeds a distance of approximately 2 meters for 7.9 kV and 5 meters for 69 kV, the detector sounds a signal. The alarm does not stop sounding until you move away from the dangerous zone.

Mode 110 kV

When the user is close to an electric field of 110 kV and exceeds a distance of approximately 3 meters the detector sounds a signal. The alarm does not stop sounding until you move away from the dangerous zone.



Omnidirectional
Detection



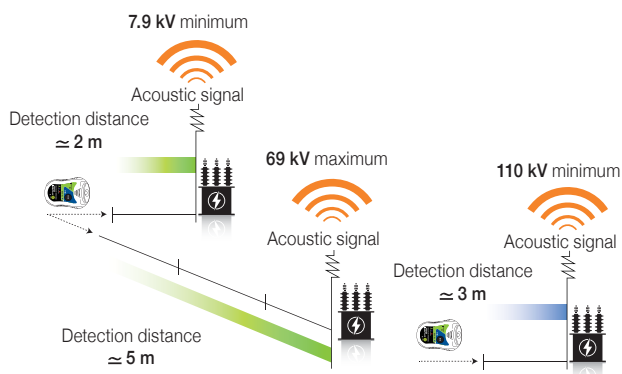
USB-C
connection



Medium voltage



Acoustic Signal



- Use in Distribution / Transformation centers, Substations and AC Airlines
- Utilization range: Between 7.9-110 kV
- Operating frequency: 50 and 60 Hz
- Degree of protection: IP 65
- Luminous power: 2 W
- Power supply: Li ion battery 3.7 V 1050 mAh
- Supplied in an insulated box that includes the detector, a nylon carrying case, charger and USB cable.

Code

Ref.

648310

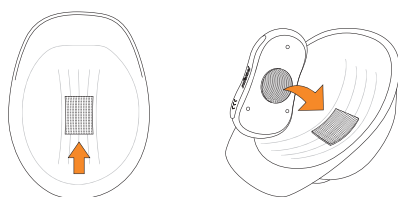
D-TUERI DUAL 7.9/69 kV - 110 kV



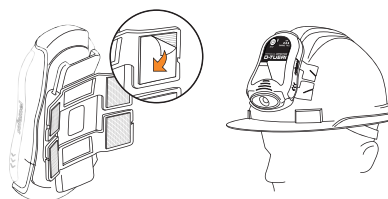
Placement

The detector can be placed both **INSIDE** and **OUTSIDE**, depending on the characteristics and requirements of the helmet.

INSIDE



OUTSIDE



Voltage Detectors

Safety

Personal voltage detector

GENERAL CATALOGUE 24/25

Optical / Acoustic

Omni-directional personal electric field detector Medium Voltage - Optical & Acoustic



31006 D-TUERI DUAL 7.9/69 kV - 220 kV

Additional safety element for individual use indicated for power line operators who carry out maintenance, repairs and other work close to live lines with the possibility of switching to a less sensitive operating mode and getting closer to the points in electrical tension.

Mode 7.9/69 kV

When the user is close to an electric field between 7.9 kV – 69 kV and exceeds a distance of approximately 2 meters for 7.9 kV and 5 meters for 69 kV, the detector sounds a signal. The alarm does not stop sounding until you move away from the dangerous zone.

Mode 220 kV

When the user is close to an electric field of 220 kV and exceeds a distance of approximately 4 meters the detector sounds a signal. The alarm does not stop sounding until you move away from the dangerous zone.



Omnidirectional
Detection



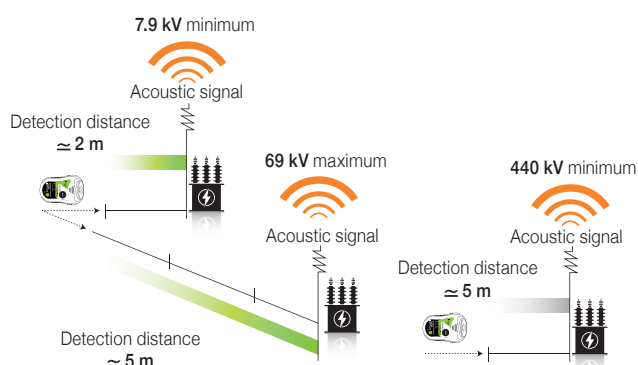
USB-C
connection



Medium voltage



Acoustic Signal



- Use in Distribution / Transformation centers, Substations and AC Airlines
- Utilization range: Between 7.9-220 kV
- Operating frequency: 50 and 60 Hz
- Degree of protection: IP 65
- Luminous power: 2 W
- Power supply: Li ion battery 3.7 V 1050 mAh
- Supplied in an insulated box that includes the detector, a nylon carrying case, charger and USB cable.

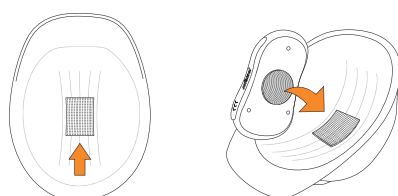
Code	Ref.
648320	D-TUERI DUAL 7.9/69 kV - 220 kV



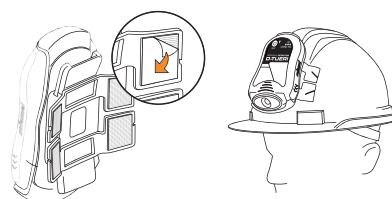
Placement

The detector can be placed both **INSIDE** and **OUTSIDE**, depending on the characteristics and requirements of the helmet.

INSIDE



OUTSIDE



Voltage Detectors

Safety

Personal voltage detector

GENERAL CATALOGUE 24/25

Omni-directional personal electric field detector Medium Voltage - Optical & Acoustic



31006 D-TUERI DUAL 7.9/69 kV - 400 kV

Additional safety element for individual use indicated for power line operators who carry out maintenance, repairs and other work close to live lines with the possibility of switching to a less sensitive operating mode and getting closer to the points in electrical tension.

Mode 7.9/69 kV

When the user is close to an electric field between 7.9 kV – 69 kV and exceeds a distance of approximately 2 meters for 7.9 kV and 5 meters for 69 kV, the detector sounds a signal. The alarm does not stop sounding until you move away from the dangerous zone.

Mode 400 kV

When the user is close to an electric field of 220 kV and exceeds a distance of approximately 5 meters the detector sounds a signal. The alarm does not stop sounding until you move away from the dangerous zone.



Omnidirectional
Detection



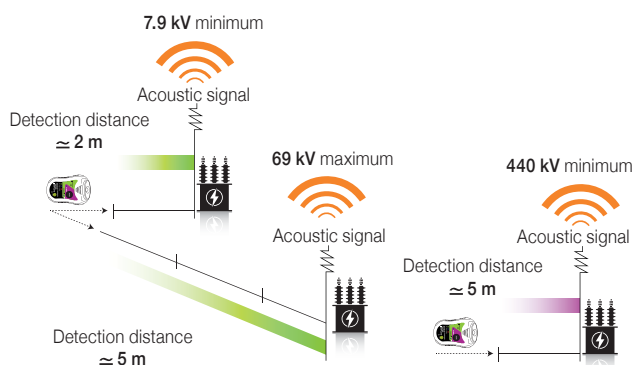
USB-C
connection



Medium voltage



Acoustic Signal



- Use in Distribution / Transformation centers, Substations and AC Airlines
- Utilization range: Between 7.9-400 kV
- Operating frequency: 50 and 60 Hz
- Degree of protection: IP 65
- Luminous power: 2 W
- Power supply: Li ion battery 3.7 V 1050 mAh
- Supplied in an insulated box that includes the detector, a nylon carrying case, charger and USB cable.

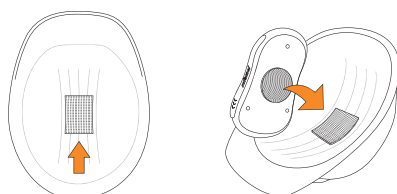
Code	Ref.
648330	D-TUERI DUAL 7.9/69 kV - 400 kV



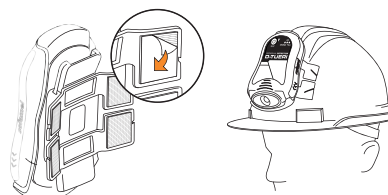
Placement

The detector can be placed both **INSIDE** and **OUTSIDE**, depending on the characteristics and requirements of the helmet.

INSIDE



OUTSIDE



Voltage Detectors

Safety

Personal voltage detector

GENERAL CATALOGUE 24/25

Omni-directional personal electric field detector Medium Voltage - Optical & Acoustic



31006 D-TUERI PRO 25 kV

An additional individual safety element. This personal detector functions to alert the operator when approaching an electric field, thereby helping to prevent accidents. It is designed to be used in repair and maintenance work on high-speed railway installations operating with 25 kV alternating current.

When the user is close to an electric field of 25 kV and exceeds a distance of approximately 2.7 meters the detector sounds a signal. The beeping frequency increases as the user gets closer to the live point. The alarm does not stop sounding until you move away from the dangerous zone.



Omnidirectional
Detection



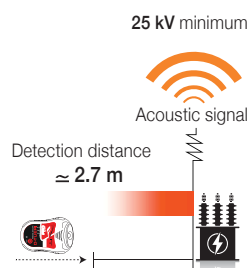
USB-C
connection



Medium voltage



Acoustic Signal



- Use in high-speed railway installations.
- Utilization range: 25 kV
- Operating frequency: 50 and 60 Hz
- Degree of protection: IP 65
- Luminous power: 2 W
- Power supply: Li ion battery 3.7 V 1050 mAh
- Supplied in an insulated box that includes the detector, a nylon carrying case, charger and USB cable.

Code

Ref.

654256

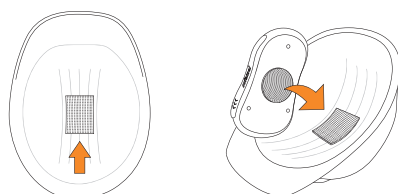
D-TUERI PRO 25 kV



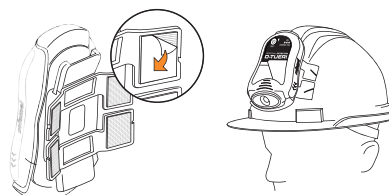
Placement

The detector can be placed both **INSIDE** and **OUTSIDE**, depending on the characteristics and requirements of the helmet.

INSIDE



OUTSIDE



D-WATCH

*For use in distribution centers and places
with reduced mobility
Medium voltage - Acoustic*

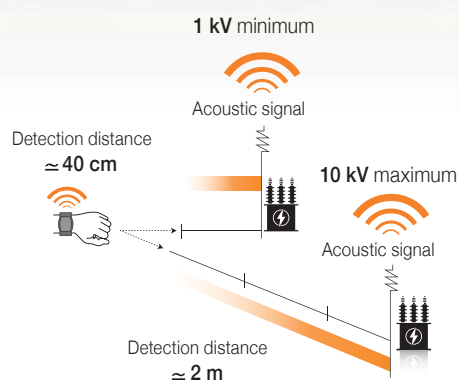


1-10 kV

Acoustic

Additional security element for individual use.

When the operator approaches an electric field between 1 kV - 10 kV and exceeds a distance of approximately 40 cm for 1 kV and 2 metres for 10 kV, the detector emits a sound to warn the operator that he is in a dangerous area. The alarm will not stop until the operator moves away from the voltage source. The device is always alert.



31006 D-WATCH

- Use in Distribution/Transformer substations and cells.
- Utilization range: between 1-10 kV
- Operating frequency: 50 and 60 Hz
- Power supply: 1 CR2032 type battery.
- Supplied in an insulated box that includes the detector, a nylon carrying case for transport.

Code	Ref.
645680	D-WATCH



COMBO PRO

D-TUERI PRO + D-WATCH

**D-TUERI
PRO**
7.9/69 kV



D-WATCH
1/10 kV



The kit is sold in one special metallic box.

Elements of the kit:

- 1 D-Tueri PRO personal detector
- Helmet attachment accessories
- Charger and USB cable
- 1 nylon carrying case for transport the D-Tueri
- 1 D-Watch personal detector
- 1 nylon carrying case for transport the D-Watch

31006 COMBO PRO

Code	Ref.
648250	COMBO PRO

COMBO EXPERT

D-TUERI EXPERT + D-WATCH

**D-TUERI
EXPERT**
10/66 kV



D-WATCH
1/10 kV



The kit is sold in one special metallic box.

Elements of the kit:

- 1 D-Tueri EXPERT personal detector
- Helmet attachment accessories
- Charger and USB cable
- 1 nylon carrying case for transport the D-Tueri
- 1 D-Watch personal detector
- 1 nylon carrying case for transport the D-Watch

31006 COMBO EXPERT

Code	Ref.
648260	COMBO EXPERT

COMBO PRO 66/138 kV

D-TUERI PRO 66/138 kV + D-WATCH

D-TUERI
PRO 66/138 kV
66/138 kV



D-WATCH
1/10 kV



The kit is sold in one special metallic box.

Elements of the kit:

- 1 D-Tueri PRO 66/138 kV personal detector
- Helmet attachment accessories
- Charger and USB cable
- 1 nylon carrying case for transport the D-Tueri
- 1 D-Watch personal detector
- 1 nylon carrying case for transport the D-Watch

31006 COMBO PRO 66/138 kV

Code	Ref.
648270	COMBO PRO 66/138 kV

COMBO DUAL

D-TUERI DUAL + D-WATCH

**D-TUERI
DUAL**

7.9/69 kV
66 kV



D-WATCH

1/10 kV



The kit is sold in one special metallic box.

Elements of the kit:

- 1 D-Tueri DUAL 7.9/69 kV - 66 kV personal detector
- Helmet attachment accessories
- Charger and USB cable
- 1 nylon carrying case for transport the D-Tueri
- 1 D-Watch personal detector
- 1 nylon carrying case for transport the D-Watch

31006 COMBO DUAL 7.9/69 kV - 66 kV

Code	Ref.
648290	COMBO DUAL 7.9/69 kV - 66 kV

COMBO DUAL

D-TUERI DUAL + D-WATCH

**D-TUERI
DUAL**

7.9/69 kV
110 kV



D-WATCH

1/10 kV



The kit is sold in one special metallic box.

Elements of the kit:

- 1 D-Tueri DUAL 7.9/69 kV - 110 kV personal detector
- Helmet attachment accessories
- Charger and USB cable
- 1 nylon carrying case for transport the D-Tueri
- 1 D-Watch personal detector
- 1 nylon carrying case for transport the D-Watch

31006 COMBO DUAL 7.9/69 kV - 110 kV

Code	Ref.
648220	COMBO DUAL 7.9/69 kV - 110 kV

COMBO DUAL

D-TUERI DUAL + D-WATCH

**D-TUERI
DUAL**

7.9/69 kV
220 kV



D-WATCH

1/10 kV



The kit is sold in one special metallic box.

Elements of the kit:

- 1 D-Tueri DUAL 7.9/69 kV - 220 kV personal detector
- Helmet attachment accessories
- Charger and USB cable
- 1 nylon carrying case for transport the D-Tueri
- 1 D-Watch personal detector
- 1 nylon carrying case for transport the D-Watch

**31006 COMBO DUAL
7.9/69 kV - 220 kV**

Code	Ref.
648230	COMBO DUAL 7.9/69 kV - 220 kV

COMBO DUAL

D-TUERI DUAL + D-WATCH

**D-TUERI
DUAL**

7.9/69 kV
400 kV



D-WATCH

1/10 kV



The kit is sold in one special metallic box.

Elements of the kit:

- 1 D-Tueri DUAL 7.9/69 kV - 400 kV personal detector
- Helmet attachment accessories
- Charger and USB cable
- 1 nylon carrying case for transport the D-Tueri
- 1 D-Watch personal detector
- 1 nylon carrying case for transport the D-Watch

**31006 COMBO DUAL
7.9/69 kV - 400 kV**

Code	Ref.
648240	COMBO DUAL 7.9/69 kV - 400 kV

COMBO PRO 25 kV

D-TUERI DUAL + D-WATCH

**D-TUERI
PRO**
25 kV



D-WATCH
1/10 kV



The kit is sold in one special metallic box.

Elements of the kit:

- 1 D-Tueri PRO 25 kV personal detector
- Helmet attachment accessories
- Charger and USB cable
- 1 nylon carrying case for transport the D-Tueri
- 1 D-Watch personal detector
- 1 nylon carrying case for transport the D-Watch

31006 COMBO PRO 25kV

Code	Ref.
648275	COMBO PRO 25 kV

SYNCRO

VOLTAGE DETECTOR FOR PHASES CONCORDANCE

MAXIMUM CONTROL IN THREE-PHASE NETWORKS
from 1 to 79 kV

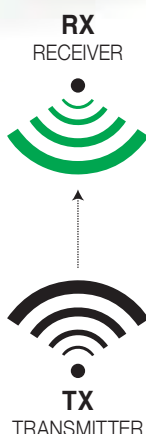
Optical & Acoustic

- Wide range of working voltages (from 1 kV to 79 kV)
- Clear 360° indication thanks to illumination in the housing
- Long detection distance (up to 50m)
- Light weight and small dimensions
- Easy to use
- Indication of voltage on the emitter
- 16-bit microcontroller
- 2.4 GHz wireless communication
- Response time < 500ms
- Phase comparison based on zero crossing algorithm


sofamel
safety & connection

SYNCRO

Wireless voltage detector for phase concordance
Medium Voltage - Optical & Acoustic



Wireless detector for phase concordance verification of a network, it allows to control all types of three-phase networks from 1 to 79 kV.

Maximum functional reliability offering the possibility of measurement even through obstacles, such as walls, doors, etc.

Guaranteed detection distance up to 50 m.

According to UNE-EN 61481-1:2015 standard.

645 SYNCRO

- Voltage range: from 1 to 79 kV
- Frequency: 50 - 60 Hz
- Use: Indoor/Outdoor use with the insulating pole according to model/range of voltage of the testers used.
- Signaling: Optical and acoustic by LED diodes and buzzer.
- Class A: $\pm 10^\circ < \phi p \leq \pm 30^\circ$
- Climatic category: N, climatic conditions of use and storage, temperature from -25°C to +55°C, humidity from 20 to 96 %.
- Power supply: AA LR06 type battery, automatic disconnection system sleep mode (battery saving).
- Self-verification: Integrated device for self-verification of operation.

Code	Ref.
645287	SYNCRO

Voltage Detectors

Safety

Bipolar voltage detector

GENERAL CATALOGUE 24/25

Optical / Acoustic



Voltimetric pole

Low and Medium - Optical & Acoustic

Bipolar voltage detector with digital display OLED to be used in MV networks. Internal and external use in dry environment.

Voltage range: from 0 kV to 6 kV AC.

AAuto turn-off to standby mode after two minutes WITHOUT VOLTAGE DETECTION. In this mode consumption is less than 1 μ A.

Double indication of concordance-discordance by LED lights, reading on digital display.

Removable antenna.

Power supply: 9 V alkaline battery, type 6LR61.

Functionalities:

Phase comparator.

Voltage meter (True RMS)

31007 PV0/6

- Rated voltage: from 0 to 6 kV AC
- LED optical indication
- Frequency: 50 Hz AC
- Type: resistive
- S class with extension of the contact electrode.
- Climatic category N, climatic conditions for use and storage, temperature from -25°C to +55°C, and humidity from 20 to 96%.
- Indoor and outdoor use in dry environment.
- Supplied with metallic box.

Code	Ref.	Length of wire	Hz	kV
650450	PV0/6	2 m	50	0 to 6

Consult for other frequencies.

CUSTODIAN PERMANENT

*For use in distribution centers
Medium and High voltage - Optical*



Custodian is permanently positioned to indicate presence of tension by a light.

For use indoors, in the rooms of medium and high voltage in the transformation centers.

It is placed on bars or cables with voltage from 5 to 138 kV.
Possibility of exchange of the contact electrode by the user.

Optical

31001 CUSTODIAN

- Phase-Earth voltage of use: 2.9 - 79.6 kV
- Phase-phase voltage of use: 5 - 138 kV
- Clamp opening: 22 - 53 mm
- Connection interface: M8 female
- Rotating orientation 30° in any direction
- Indoor use
- Protection degree IP65 (test pending)
- Supplied in a carton box

Code	Ref.
640250	CUSTODIAN

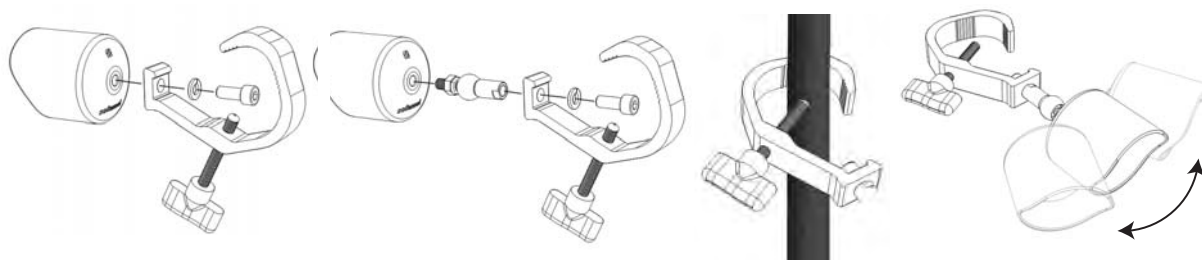


Assembly

Anchored to busbars or cables with voltages from 5 to 138 kV

Option 1 - Fixed

Option 2 - Adjustable



Voltage Detectors

Safety

Measuring instruments of low voltage

GENERAL CATALOGUE 24/25

Optical / Acoustic

31009 PTL-1000

Tester - Optical & Acoustic

Non-contact voltage tester that is easy to handle and use. Adjustable voltage detection range. Automatically distinguishes neutral and phase wires. Distinct alarm sounds and different coloured LEDs to indicate high, medium and low voltage intensity. Suitable for a wide range of applications.



Code	Ref.	Box
635330	Tester PTL-1000	1

Technical information

- **Alarm mode:** Acoustic and light
 - **Measuring range:** 12 V_{AC} - 1000 V_{AC} / 48 V_{AC} - 1000 V_{AC}
 - **Power supply:** 2 x 1.5 V AAA batteries
 - **Frequency:** 50 Hz / 60 Hz
 - **Overload category:** CAT III 1000 V / CAT IV 600 V
 - **Certificates:** CE, RoHS
 - **Torch:** White light LED lamp
 - **Colour:** Yellow
 - **Dimensions:** 156 x 20 x 20 mm
 - **Weight:** 45 g
- Supplied with a nylon case for transport and storage.
According with standards EN 61010-1, IEC 62321 and EN 61326-1.

31009 BTL-600

True RMS tester - Optical & Acoustic

Compact and convenient, highly accurate digital multimeter. Manual and automatic range adjustment. Pen type design that is easy to hold and use. Very safe, non-contact voltage detector function gives the user more confidence. Illuminated screen and torch allow use in all working environments, including in the dark. Diode test and continuity test functions.



Code	Ref.	Box
635300	Tester BTL-600	1

Technical information

- **PScreen:** 2000 digits
- **Measuring range:** Automatic and manual
- **Voltage range:** DC 200 mV / 2 V / 20 V / 200 V / 600 V
AC 200 mV / 2 V / 20 V / 200 V / 600 V
- **Current range:** DC 20 mA / 200 mA
AC 20 mA / 200 mA
- **Resistance range:** 200 Ω / 2 kΩ / 20 kΩ / 200 kΩ / 2 MΩ / 20 MΩ
- **Other functions:** Diode test and Continuity test.
Data storage function
- **VCN mode:** Non-contact voltage detection
- **Category:** CAT III 600 V
- **Certificates:** CE, RoHS
- **Power supply:** 2 x 1.5 V AAA batteries
- **Colour:** Yellow
- **Dimensions:** 248 x 42 x 34 mm
- **Weight:** 110 g

Supplied with a nylon case for transport and storage.
According with standards EN61010-1, EN61010-2-033, EN61326 and IEC 62321.

31009 Phase Tester Screwdriver

Voltage detector up to 500 V



Code	Ref.	mm	mm	Voltage
635500	BF-65	140	65	100 to 500 V
635510	BF-100	190	105	



31009 CTL-1000

Professional multimeter CTL-1000 with True RMS - Optical & Acoustic

Digital AC/DC, T-RMS clamp meter with automatic and manual ranges and a VFD frequency converter.

The CTL-1000 has a large 13 mm HD display with 6000 digits and a backlight for easy reading.

It has functions for measuring AC and DC voltage, AC and DC current, resistance, capacitance, temperature, low impedance voltage, continuity and NCV (non-contact voltage detection).

Code	Ref.	Box
635360	Multimeter CTL-1000	1

Technical information

- Measurement of actual/real values
- Non-contact voltage detection (NCV)
- DC voltage: 6 V / 60 V / 600 V / 1000 V
- AC voltage: 6 V / 60 V / 600 V / 1000 V
- Alternating Current: 60 A / 600 A / 1000 A
- Direct Current: 60 A / 600 A / 1000 A
- Resistance: 600 Ω / 6 K Ω / 60 K Ω / 600 K Ω / 6 M Ω / 60 M Ω
- Capacitance: 60 nF / 600 nF / 6 μ F / 60 μ F / 600 μ F / 6 mF / 60 mF
- Frequency: 100 Hz / 1000 Hz / 10 KHz
- Temperature measurements °C/°F: -20 ~ 1000°C / -4 ~ 1832°F
- Continuity Test
- LowZ DC: 1000 V / AC1000 V
- DC μ A: 200 μ A / VFD
- Clamp $\emptyset$: 40 mm
- LED lamp
- Memory Min. / Max. and peak values
- Low battery indicator
- Stores relative measurement data
- Backlight
- Weight: 314.5 g
- Size: 246 x 85 x 40 mm
- Power supply: 3 x 1.5 V AAA batteries

Supplied with a nylon case for transport and storage.

According with standards EN61010-1, EN61010-2-033, EN61326, CAT III 600 V / CAT IV 1000 V



Accessories included.



31007 BVD-1000

Tester - Optical & Acoustic

This tester including test of AC/DC voltage (including three-phase AC), phase sequence indication of three-phase AC, RCD test, continuity test, simple voltage detection without battery power supply, overvoltage indication and low voltage indication, etc. The attached flashlight provides convenience for using the tester in dark environments.

Code	Ref.	Box
635430	Tester BVD-1000	1

Technical information

- **Operating voltage:** ≤1000 VAC/CC
- **Screen:** LED
- **Frequency range:** 40 Hz ~ 1 kHz
- **Voltage polarity indication:** automatic LED light indication.
- **Range selection:** automatic
- **RCD test:** voltage 230 V (40-500 Hz), current: 30mA ~ 40 mA, testing time <10 s, recovery time: 60 s.
- **Continuity test:** ≤100 kΩ buzzer.
- **Phase sequence test:** three-phase AC voltage range: 57 V ~ 400 V, frequency 50 Hz ~ 60 Hz.
- **Power supply:** 1.5 V x 2 AAA batteries
- **Battery undervoltage indication:** about less than 2.5 V. Short circuit the L1 and L2 probes in the power-on state, and check the status of the "-" LED indicator. If the indicator is lit, it indicates undervoltage.
- **Working temperature:** -5°C ~ +40°C
- **Storage temperature:** -20°C ~ +60°C
- **Working humidity:** ≤85% RH
- **Overvoltage protection level:** CAT IV 600 V, CAT III 1000 V
- **Pollution level:** Level 2
- **Waterproof and dustproof level:** IP65
- **Automatic shutdown:** Shut down automatically for about 30 seconds.

Supplied with a nylon case for transport and storage.

According with standards IEC 61010-1, IEC 61243-3:2014, EN 60529, and EN 61326-1 for electronic testing instruments, and belongs to Class II pollution. The overvoltage standards are CAT IV 600 V and CAT III 1000 V.



31007 BVD-1500

Tester - Optical & Acoustic

The capacity of this tester extends up to 1200 AC/1500 DC, covering voltage testing in both alternating current (AC) and direct current (DC), including three-phase AC voltage. It also provides phase sequence indication in three-phase AC systems, residual current device (RCD) testing, electrical continuity, voltage detection without the need for battery power, as well as overvoltage and low voltage alerts, among other functions. The integrated flashlight provides convenient lighting for using the tester in dark environments.

Code	Ref.	 Box
635440	Tester BVD-1500	1

Technical information

- **Operating voltage:** 1200 VAC/1500 VDC
- **Screen:** LCD
- **Frequency range:** 40 Hz ~ 1kHz, resolution 1 Hz, error $\pm$ (3% + 5d).
- **Buzzer:** Supports two modes (buzzer and mute).
- **Voltage polarity indication:** automatic
- **Range selection:** automatic
- **RCD test:** voltage 230 V (40-500 Hz); current: 30 mA ~ 40 mA, testing time <10 s, recovery time: 60 s;
- **Continuity test:** <10k Ω buzzer
- **Phase sequence test:** three-phase AC voltage range: 57 V ~ 400 V, frequency 50 Hz ~ 60 Hz.
- **Power supply:** 1.5 V x 2 AAA battery
- **Battery undervoltage indication:** about less than 2.5 V
- **Working temperature:** -5 °C ~ +40°C
- **Storage temperature:** -20°C ~ +60°C $\leq$ 85% RH
- **Working humidity:** CAT IV 600 V, CAT III 1000 V
- **Overvoltage protection level:** Level 2
- **Pollution level:**
- **Waterproof and dustproof level:** IP65
- **Automatic shutdown:** Shut down automatically for about 30 seconds in no testing status.

Supplied with a nylon case for transport and storage.

According with standards IEC 61010-1, IEC 61243-3:2014, EN 60529, and EN 61326-1 for electronic testing instruments, and belongs to Class II pollution. The overvoltage standards are CAT IV 600 V and CAT III 1000 V.

Voltage Detectors

Safety

Measuring instruments of low voltage

GENERAL CATALOGUE 24/25

Optical

31009 DM-600

Digital multimeter - Optical

Portable digital multimeter with backlit LCD display which allows values to be read even in dark locations.

The whole system is based on integrated circuits, equipped with overload protection.

It can be used to measure AC and DC voltage, AC and DC current, resistance, capacitance, frequency, diodes and perform continuity and NCV (non-contact voltage detection) tests.



Code	Ref.	Box
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635380	Digital multimeter DM-600	1
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Technical information

- Automatic range
 - Operating voltage: 600 VDC/AC
 - Resistance ranges: 20 MΩ
 - Diode test
 - Capacitance: 2 mF
 - Current: 10 A
 - NCV function
 - Frequency: 20 kHz
 - Display: 3 1/2 LCD
 - Overload protection: PTC protection circuit is used to measure resistance and frequency
 - Data storage
 - Maximum measurement
 - Out of range indicator: OL
 - Low battery indicator:
 - Auto power off: 15 minutes. Press "HOLD/BL" to activate.
 - Operating conditions: 0 ~ 40°C (32 ~ 104°F); <80% HR
 - Storage conditions: -10 ~ 50°C (14 ~ 122°F); <70% HR
 - Power supply: 1 No. 9 V battery (type 6F22, 1604A)
 - Safety requirements: IEC61010-1 600 V CAT III
 - Dimensions: 147.5 x 74 x 42.5 mm, approx.
 - Weight: 174 g approx.
- Supplied with a nylon case for transport and storage.
According with standards EN61010-1, EN61010-2-032, EN61326, IEC 62321.

31009 IPR-400

Phase/rotation indicator - Optical

Used to check the direction of the rotating magnetic field in the three-phase system, the phase rotation and the direction of motor rotation.

The direction of motor rotation (direction of rotation) is detected by placing the IPR-400 on the motor and aligning it with the drive shaft with no need to connect any probes or cables.

A durable, lightweight and reliable device, ideal for electrical work with three-phase motors and systems. Includes different types of probes for any possible application.



Code	Ref.	Box
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635320	IPR-400 Phase/Rotation Indicator	1
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Technical information

- Operating voltage: 120 V ~ 400 VAC
- Current consumption: ≤20 mA
- Frequency range: 2 Hz ~ 400 Hz
- Non-contact rotating field indication function
- Operating temperature: 0°C a +40°C
- Operating altitude: 2000 m
- Category: CAT III 600 V
- Certificates: CE, RoHS
- Power supply: 3 x 1.5 V AA batteries
- Dimensions: 128 x 70 x 30 mm
- Weight: 168 g

Supplied with a nylon case for transport and storage.
According with standards EN61010-1, EN61010-2-032, EN61326 and IEC 62321.



Accessories included.

31009 IER-4000

Ground Resistance tester - Digital

The high-performance IER-4000 earth meter is a professional device that measures grounding resistance using the 2 or 3-pole methods. Additionally, it allows for pre-testing of ground voltage, protecting the user from dangerous voltages.

It is designed and manufactured in compliance with the safety requirements set by the IEC61010-1 standards for electronic testing instruments.



Code	Ref.	Caja
635340	Ground resistance tester IER-4000	1

Technical information

- **Screen:** Digital LCD
- **Data storage:** 100 groups
- **Resistance ranges:** 0 Ω ~ 29.99 Ω / 30 Ω ~ 99.9 Ω / 100 Ω ~ 999 Ω / 1 k Ω ~ 4 k Ω
- **Voltage ranges:** 0 V ~ 200 V (50/60 HZ)
- **Continuity check**
- **Values:** MAX/MIN/PRO, relative measurements
- **Results recorded in memory**
- **Auto power off, display backlight and low battery indicator**
- **Category:** CAT III 600 V
- **Certificates:** CE, RoHS
- **Power supply:** 6 x 1.5 V AA batteries
- **Dimensions:** 180 x 140 x 65 mm
- **Weight:** 950 g

Supplied with a case for transport and storage.

According with standards EN61010-1, EN61010-2-032, EN61326 and IEC 62321.



Accessories included.

31009 CIT-10

Digital insulation tester - Digital

It is used to measure the quality of electrical insulation in cables, motors, transformers, etc., both in new installations and during maintenance, for basic and specialized categories.

It also detects direct voltage, alternating voltage, and performs continuity checks.

Designed and manufactured in compliance with the safety requirements set by IEC61010-1 standards for electronic testing instruments.



Code	Ref.	Box
635390	Digital insulation tester CIT-10	1

Technical information

- **Display:** LCD with backlight
- **Resistance Range:** 0.01 M Ω ~ 10.00 G Ω
- **Insulation Tests:** 50 V, 100 V, 250 V, 500 V and 1000 V
- **Automatic power off to save energy**
- **Data storage**
- **Timer function for insulation test**
- **Lock function for insulation test**
- **Power supply:** 6 x 1.5 V AA batteries
- **Dimensions:** 190 x 145 x 70 mm
- **Weight:** 855 g (without batteries)

Supplied with a case for transport and storage.

According with standards EN61010-1, EN61557-1, EN61326-1 CAT. III 1000 V CAT. IV 600 V



Accessories included.



31009 CRT-1200

Clamp earth resistance tester - Optical & Acoustic

The clamp can test grounding in hard-to-reach spaces, including indoor or fully paved areas where auxiliary test rods cannot be used. The meter can identify the resistance with no need to disconnect and reconnect the grounding installation.

It is widely used in the field of electrical power distribution, telecommunications, construction and industrial electronic equipment.

Code	Ref.	 Box
635370	Clamp CRT-1200	1

Technical information

- Resistance ranges: 1200 MΩ
- Test voltage: 3700 V
- Electric clearance: 6.5 mm (meet IEC1010 double insulation CATII 600 V)
- Limiting overload: 40 A RMS current
- Mean consumption: 50 mA
- Range: automatic
- Display type: 4 digits, 9999 counting, liquid crystal display display symbol 
- Power shortage: 9 V 6F22
- Power supply: 1s
- Single measurement time: -10°C to 50°C (14°F to 122°F)
- Working temperature: -20°C to 60°C (-4°F to 140°F)
- Storage temperature: Ø 32mm
- Conductor size: 54 x 104 x 32 mm
- Dimensions: approximate 1050 g
- Weight: (include the batteries)

Supplied with a nylon case for transport and storage.
According with standards EN61010-1, EN61010-2-033, EN61326, CAT III 600 V / CAT IV 1000 V

sofamel

Rescue and First Aid

Safety

Rescue panoplies

GENERAL CATALOGUE 24/25

*In the event of an electrical accident, fast intervention is essential.
The panel contains all the rescue tools in a single place making it accessible
to all users when an intervention is necessary.*



POSSIBILITY
OF CONFIGURATION
TO MEASURE

31101 SZ-51S

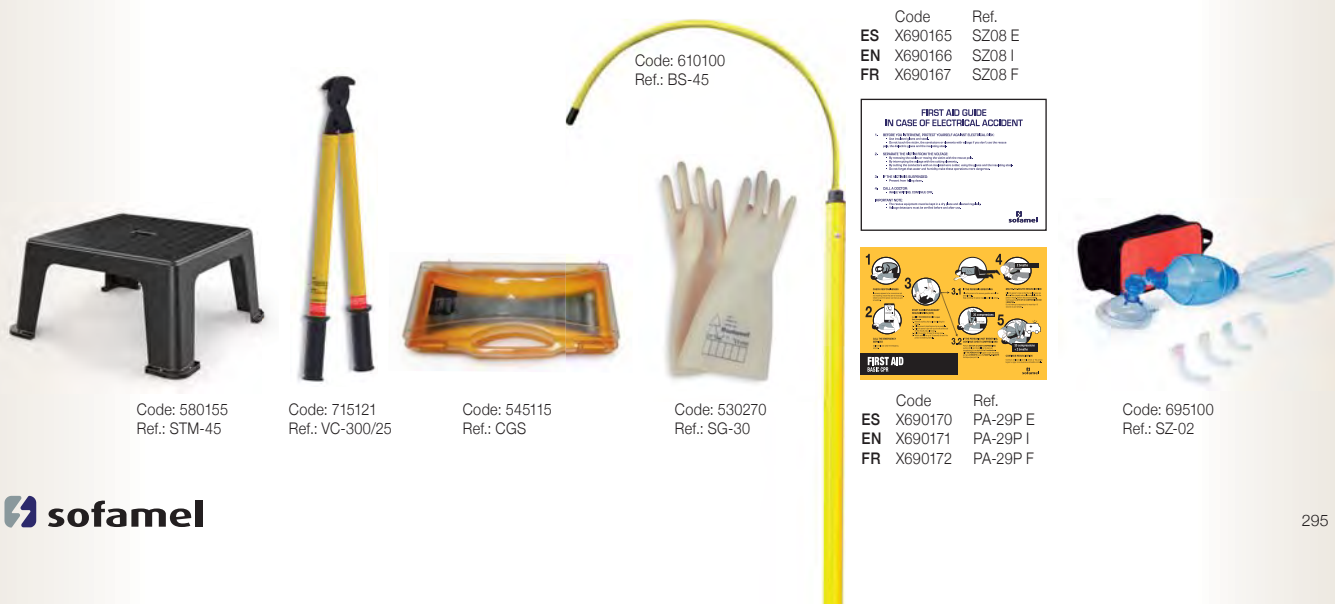
Composed of a 1 x 1.6 m board that contains the following elements:

- 1 BS-45 rescue pole
- 1 plastic case for gloves
- 1 pair of dielectric gloves (class 3)
- 1 VC-300/25 insulated wire cutter
- 1 resuscitator
- 1 45 kV insulating stool
- 1 first aid plate
- 1 instruction plate

Product supplied with screws and nail plug (to hang).

Code	Description	Ref.
690100	Spanish	SZ-51S
690100 I	English	SZ-51S
690100 F	French	SZ-51S

* For other configurations, please inquire.



Code: 580155
Ref.: STM-45

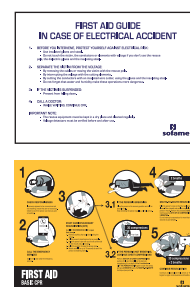
Code: 715121
Ref.: VC-300/25

Code: 545115
Ref.: CGS

Code: 530270
Ref.: SG-30

Code: 610100
Ref.: BS-45

Code Ref.
ES X690165 SZ08 E
EN X690166 SZ08 I
FR X690167 SZ08 F



Code Ref.
ES X690170 PA-29P E
EN X690171 PA-29P I
FR X690172 PA-29P F

Code: 695100
Ref.: SZ-02

Rescue and First Aid

Safety

Rescue panoplies

GENERAL CATALOGUE 24/25

*In the event of an electrical accident, fast intervention is essential.
The panel contains all the rescue tools in a single place making it accessible
to all users when an intervention is necessary.*

POSSIBILITY
OF CONFIGURATION
TO MEASURE



31101 SZ-51B

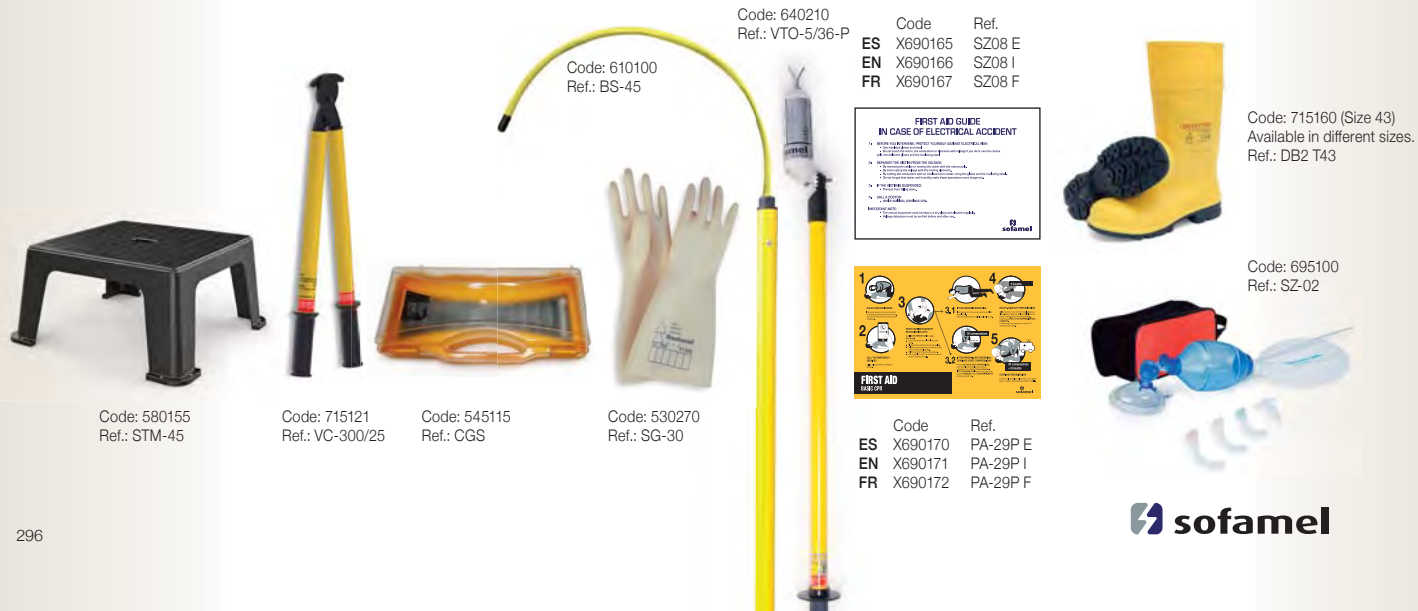
Composed of a 1 x 1.6 m board that contains the following elements:

- 1 BS-45 rescue pole
- 1 5-36 kV voltage detector with pole
- 1 plastic case for gloves
- 1 pair of dielectric gloves (class 3)
- 1 VC-300/25 insulated wire cutter
- 1 resuscitator
- 1 45 kV insulating stool
- 1 pair of insulating boots (class 2)
- 1 first aid plate
- 1 instruction plate

Product supplied with screws and nail plug (to hang).

Code	Description	Ref.
690130	Spanish	SZ-51B
690130 I	English	SZ-51B
690130 F	French	SZ-51B

* For other configurations, please inquire.



Rescue and First Aid

Safety

Rescue panoplies

GENERAL CATALOGUE 24/25

*In the event of an electrical accident, fast intervention is essential.
The panel contains all the rescue tools in a single place making it accessible
to all users when an intervention is necessary.*

POSSIBILITY
OF CONFIGURATION
TO MEASURE



31101 SZ-51M

Composed of a 1 x 1.6 m board that contains the following elements:

- 1 BS-45 rescue pole
- 1 5-36 kV voltage detector with pole
- 1 plastic case for gloves
- 1 pair of dielectric gloves (class 3)
- 1 VC-300/25 insulated wire cutter
- 1 resuscitator
- 1 45 kV insulating stool
- 1 pair of insulating shoes
- 1 first aid plate
- 1 instruction plate

Product supplied with screws and nail plug (to hang).

Code	Description	Ref.
690110	Spanish	SZ-51M
690110 I	English	SZ-51M
690110 F	French	SZ-51M

* For other configurations, please inquire.

Code: 580155
Ref.: STM-45

Code: 715121
Ref.: VC-300/25

Code: 545115
Ref.: CGS

Code: 610100
Ref.: BS-45

Code: 640210
Ref.: VTO-5/36-P

Code: 690165
Ref.: SZ08 E
Code: 690166
Ref.: SZ08 I
Code: 690167
Ref.: SZ08 F

Code: 715110
Ref.: SZ-56

Code: 695100
Ref.: SZ-02

Code: 690170
Ref.: PA-29P E
Code: 690171
Ref.: PA-29P I
Code: 690172
Ref.: PA-29P F

Rescue and First Aid

Safety

Rescue panoplies

GENERAL CATALOGUE 24/25

*In the event of an electrical accident, fast intervention is essential.
The panel contains all the rescue tools in a single place making it accessible
to all users when an intervention is necessary.*

POSSIBILITY
OF CONFIGURATION
TO MEASURE



31101 SZ-51AC

Consists of a 1 x 1.6 m board with the following items:

- 1 36 kV insulating stool
- 1 rescue pole BS-45
- 1 plastic box for gloves
- 1 pair of class 0 gloves
- 1 60 cm x 1 m insulating mat with working voltage 1 kV
- 1 pneumatic glove tester SG-117
- 1 first-aid kit SZ-06
- 1 1.2 x 1.8 m fireproof blanket
- 1 resuscitator
- 1 first aid diagram
- 1 diagram with the five golden rules for automotive

Product supplied with screws and nails (for hanging).

Code	Description	Ref.
690230	Spanish	SZ-51AC
690230 I	English	SZ-51AC
690230 F	French	SZ-51AC

* For other configurations, please inquire.



Code: 580155
Ref.: STM-45



Code: 585181
Ref.: ADO-0610



Code: 545120
Ref.: SG-117



Code: 545115
Ref.: CGS



Code: 710120
Ref.: SZ-180

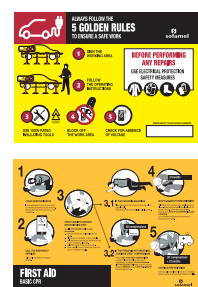


Code: 530160
Ref.: SG-50 T-10



Code: 610100
Ref.: BS-45

Code Ref.
ES X725000 CRO-29P
EN X725001 CRO-29P I
FR X725002 CRO-29P F



Code Ref.
ES X690170 PA-29P E
EN X690171 PA-29P I
FR X690172 PA-29P F



Code: 695100
Ref.: SZ-02

Code: 700110
Ref.: SZ-06

Rescue and First Aid

Safety

Rescue panoplies

GENERAL CATALOGUE 24/25

*In the event of an electrical accident, fast intervention is essential.
The panel contains all the rescue tools in a single place making it accessible
to all users when an intervention is necessary.*

POSSIBILITY
OF CONFIGURATION
TO MEASURE



31101 SZ-51AB

Consists of a 1 x 1.6 m board with the following items:

- 1 36 kV insulating stool
- 1 rescue pole BS-25
- 1 CTL-1000 professional multimeter with True RMS
- 1 plastic box for gloves
- 1 pair of class 0 gloves
- 1 60 cm x 1 m insulating mat with working voltage 1 kV
- 1 resuscitator
- 1 first aid diagram
- 1 diagram with the five golden rules for automotive

Product supplied with screws and nails (for hanging).

Code	Description	Ref.
690209	Spanish	SZ-51AB
690209 I	English	SZ-51AB
690209 F	French	SZ-51AB

* For other configurations, please inquire.

Code: 580155
Ref.: STM-45

Code: 585181
Ref.: AD0-0610

Code: 635360
Ref.: CTL-10000

Code: 610095
Ref.: BS-25

Code: 530160
Ref.: SG-50 T-10

Code: 695100
Ref.: SZ-02

Code: 690170
Ref.: PA-29P E
EN X690171
FR X690172

Code: 690170
Ref.: CRO-29P E
EN X725001
FR X725002



The essential and handy safety kit



31102 KRM-4001

The kit is sold in one special black plastic box.

Code	Ref.
690114	KRM-4001

* For other compositions, please consult.

Elements of the kit:

- 1 1.5 m telescopic pole of three sections
- 1 optical and acoustical detector from 5 to 36 kV with bag
- 1 rescue hook with universal head
- 1 pair of dielectric gloves SG-40 T10 stored in a nylon bag
- 1 insulating mat AD4-0610/40C of 60 cm x 1 m, working voltage 36 kV
- 1 resuscitator
- 1 neck immobilizer
- 1 fire resistant blanket SZ-180 of 1.2 x 1.8 m
- 1 stretcher



Fire resistant blanket
SZ-180

Optical & Acoustical
Detector VTE-5/36U

Dielectric gloves
SG-40 T10

Rescue hook,
resuscitator and neck
immobilizer

Insulating mat
AD4-0610/40C

Telescopic pole

Stretcher



CE

31103 SZ-02

Standard resuscitator

Portable resuscitator designed to be used in emergency situations. It provides pulmonary ventilation for those people whose respiratory function is deteriorated. Includes transparent mask with pneumatic edge and connection for oxygen. It is supplied with a carrying bag.

Code	Ref.
695100	SZ-02



30603 SZ-56

Insulating shoes

A pair of overshoes made of insulating material to move around the accident area with insulation from the floor. Up to 1000 V.

Code	Ref.
715110	SZ-56



31103 SZ-05

First aid kit

Material included.
Box which contains the necessary items for first aid.

Code	Ref.	Wraparound	Dimensions
700100	SZ-05	Metallic	37 x 30 x 13 cm



31103 SZ-06

First aid kit

Material included.
Box which contains the necessary items for first aid.

Code	Ref.	Wraparound	Dimensions
700110	SZ-06	Plastic	38 x 26 x 13 cm



31103 SZ-07

Stretcher

180x55 cm canvas stretcher with metal bars that can be taken apart into three parts. Folded 70 x 10 x 10 cm. Supplied with carrying bag.

Code	Ref.
705100	SZ-07

CEE 93/42 Sanitary products



30503 SZ

Fire-resistant blankets

Fire-resistant blankets made of flameproof fabric based on fiberglass which is coated both sides with special high temperature resistant silicone. Immediate use device. It stands up to temperatures of 1100°C for more than 15 min.

Especially efficient where fire extinguishers use is inadvisable. Supplied in a rigid red color plastic case. According to UNE-EN-1869:97

Code	Ref.	Dimensions
710100	SZ-100	100 x 100 cm
710110	SZ-120	120 x 120 cm
710120	SZ-180	120 x 180 cm

UNE - EN - 1869:97

Wires



31104 SZ-57

Wire cutter

Insulated wire cutter indicated for cutting cables up to Ø 25 mm. Incorporates metallic blades and two handles made of polyester reinforced with fibreglass of 32 mm diameter.

Code	Ref.	Length (mm)	Insolation	Weight
715120	SZ-57/25	670	25 kV	2700 kg
715125	SZ-57/36	830	36 kV	2900 kg

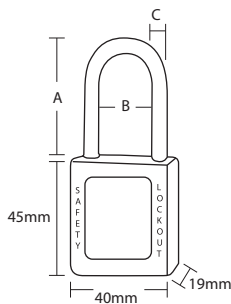
31104 VC-300

Wire cutter

Insulated wire cutter indicated for cutting cables up to Ø 25 mm. Incorporates metallic blades and two handles made of polyester reinforced with fibreglass of 32 mm diameter.

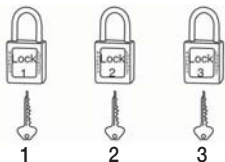
Code	Ref.	Length (mm)	Insolation	Weight
715121	VC-300/25	620	25 kV	1180 kg
715126	VC-300/36	720	36 kV	1300 kg





Metal shank padlocks

Padlocks for blocking off a single work area and/or area in discharge.
 Available in three different colours depending on their use.



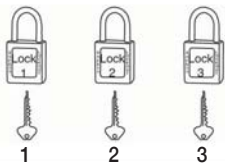
DIFFERENT KEYS

31201 C/ABS-25

ABS security padlock

Body made of ABS with high impact resistance, UV protection, low and high temperature resistance.
 Includes “danger” and “property of” markings.
 Blue, red and yellow colours.
 Dimensions: 40 x 45 x 19 mm
 With a different key for each padlock

Code	Ref.	Colours	A	B	C
761100	C/ABS-25 AZ		25	20	6
761103	C/ABS-25 RJ		25	20	6
761106	C/ABS-25 AM		25	20	6



DIFFERENT KEYS

31201 C/ABS-38

ABS security padlock

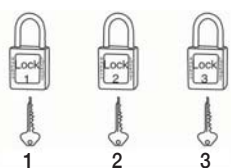
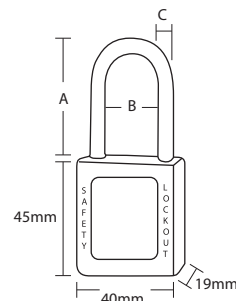
Body made of ABS with high impact resistance, UV protection, low and high temperature resistance.
 Includes “danger” and “property of” markings.
 Blue, red and yellow colours.
 Dimensions: 40 x 45 x 19 mm
 With a different key for each padlock.

Code	Ref.	Colours	A	B	C
761101	C/ABS-38 AZ		38	20	6
761108	C/ABS-38 RJ		38	20	6
761110	C/ABS-38 AM		38	20	6

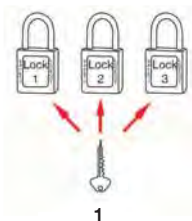
Nylon shank padlocks

Padlocks for blocking off a single work area and/or area in discharge.

Available in three different colours depending on their use.



DIFFERENT KEYS



SINGLE KEYS

31201 C/COM-38-DK

Composite security padlock

Body made of composite.

Non-conductive. Does not produce sparks. Dielectric test.

Appropriate for use in environments which entail inflammable or explosive risk.

Blue, red and yellow colours.

Dimensions: 40 x 45 x 19 mm

With a different key for each padlock.

Code	Ref.	Colours	A	B	C
761102	C/COM-38-DK AZ		38	20	6
761107	C/COM-38-DK RJ		38	20	6
761109	C/COM-38-DK AM		38	20	6

31201 C/COM-38-SK

Composite security padlock

Body made of composite.

Non-conductive. Does not produce sparks. Dielectric test.

Appropriate for use in environments which entail inflammable or explosive risk.

Blue, red and yellow colours.

Dimensions: 40 x 45 x 19 mm

With same key for each padlock.

Code	Ref.	Colours	A	B	C
761113	C/COM-38-SK AZ		38	20	6
761112	C/COM-38-SK RJ		38	20	6
761114	C/COM-38-SK AM		38	20	6

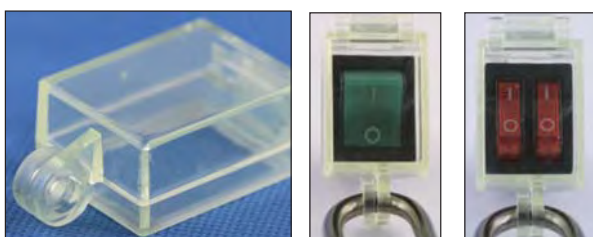


31202 P/PU-29

Protective cover for pushbutton

Made of transparent resin.
Used for preventing an unwanted operation being carried out by mistake.
Used for pushbuttons up to Ø 22 mm.

Code	Ref.
762100	P/PU-29



31202 P/IN-28

Protective cover for switch

Made of transparent resin.
Used for preventing an unwanted operation being carried out by mistake.
Used for switches of 28 mm long x 22.5 mm wide.

Code	Ref.
762101	P/IN-28



31202 P/EM

Cover for pushbutton

Made of transparent resin.
Used for preventing an unwanted operation being carried out by mistake.

Code	Ref.	Installation hole Ø
762102	P/EM-22	22 mm
762103	P/EM-30,5	30.5 mm

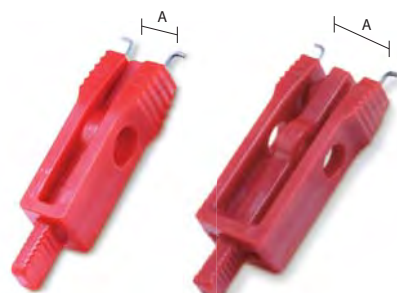


31202 P/DMT

Lockout for switches

Made of nylon.
Automatic lockout for switches using stainless steel sawtooth mechanism.
Adjustable to cover a wider range.

Code	Ref.	Dimensions
762110	P/DMT	47 x 32 x 15 mm



P/DM-11

P/DM-20

31202 P/DM

Lockout for switches

Made of nylon.
Lockout for switches, circuit breakers, differentials and power control switches.



Code	Ref.	Dimensions	A
762104	P/DM-11	57.4 x 14.5 x 14 mm	11 mm
762105	P/DM-20	68.3 x 23.3 x 31.4 mm	20 mm



31202 P/DIG-41

Lockout for switches

Made of nylon.
Lockout for automatic switches using a stainless steel saw-tooth system. Thanks to its full adjustability, it allows encompassing a wider range.



Code	Ref.	Dimensions	Description
762106	P/DIG-41	68.3 x 48.3 x 27.6 mm	For circuit breakers with maximum dimensions of 41 x 15.8 mm



31202 P/DIP-9

Lockout for switches

The shell is made of ABS resin material and the main body is made of durable material.
Its design allows an easy and fast installation.



Code	Ref.	Dimensions	Description
762107	P/DIP-9	68.5 x 23.5 x 14 mm	For circuit breaker ≤10mm, no width limit.



31202 P/DIPA-9

Lockout for switches

Made of nylon.
Lockout for automatic switches using a stainless steel saw-tooth system. Thanks to its full adjustability, it allows encompassing a wider range.



Code	Ref.	Dimensions
762108	P/DIPA-9	93 x 34.3 x 28 mm

31102 P/BOL-450

Pouch for storing plugs

Made of break-resistant nylon.
Ideal for safe-keeping of any size electrical connectors.



Code	Ref.	Dimensions
762109	P/BOL-450	450 x 250 mm



31203 P/VAL

Protective for valves

Made of ABS, anti-blow with high wear resistance.
Efficient operation in extreme conditions.
Temperature range from -20°C to 100°C.
Protects from accidental opening of the valve.
Label for identifying the person responsible.



Code	Ref.	Dimensions
763100	P/VAL-63R	25 mm - 63 mm
763101	P/VAL-127	63 mm - 127 mm
763102	P/VAL-165	127 mm - 165 mm
763103	P/VAL-254	165 mm - 254 mm

31203 EV-52

Lockout hasps

Used for blocking different sized gate valves as well as multiple valves.
Lighter than chains, the device is easy to transport and use.
Cable made of Ø 5 mm plasticised steel and 2.0 m long.
Holds six padlocks.

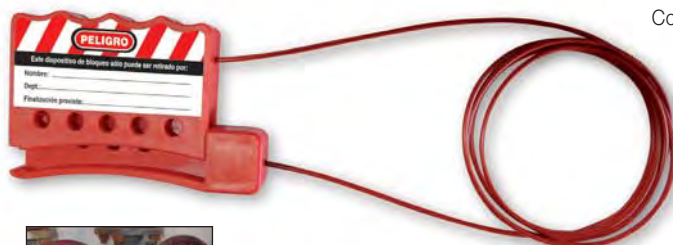


Code	Ref.
763104	EV-52

31203 EV-318

Lock-and-tag device with adjustable tie cable

Consists of safety clamp and 4 mm multi-filament strong and flexible steel cable insulated with a clear plastic coating (PVC-free).
Adhesive safety label to identify the person responsible for installation of device.
Used to block gate valves of different sizes, and to block multiple valves at once.
Lighter than chains, the device is easy to carry and use.
Cable made from laminated steel Ø 3 mm and 1.8 m. long.
Can fit five locks.



Code	Ref.
763105	EV-318



EN-6/38

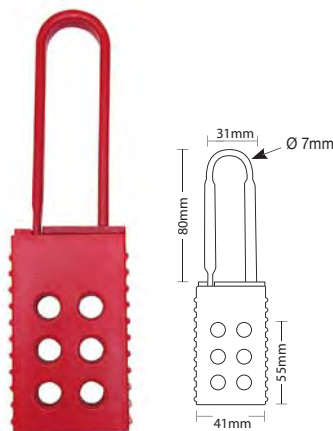
EN-6/25

31204 EN-6

Lockout hasps

Protects the equipment from being opened accidentally.
Holds six padlocks.
Shackle made of steel with polypropylene-covered handle

Code	Ref.	Dimensions	Ø Ring
764100	EN-6/25	115 x 45 mm	26 mm
764101	EN-6/38	130 x 60 mm	39 mm



31204 EA-7818

Lockout hasps

Protects the equipment from being opened accidentally. Holds six padlocks.
Fully insulated lockout. Made of polyamide.
Dielectric protection.
Non-conductive. Anti-spark.

Code	Ref.	Medidas	Dimensions ring
764102	EA-7818	157 x 45 mm	78 x 78 mm



31204 EAL-3628

Lockout hasps

Made of anodized aluminium with high anti-corrosion protection.
Identification by name, department and comments label.
Holds six padlocks.

Code	Ref.	Dimensions	Dimensions ring
764103	EAL-3628	188 x 76 mm	36 x 28 mm

Containers



31205 SB-12

Lock box

After machine or process is locked out, the keys can be kept in the lock box.
Each authorised person can place a personal padlock in the box as to prevent it from being opened.
Ensures that no single employee has access to the box unless all the employees have removed their padlocks.
Holds 12 padlocks + master padlock.
Supplied without products.

Code	Ref.	Dimensions
765100	SB-12	260 x 103 x 152 mm

Lockout station

Panel made of ABS.
Door made of high-resistance polycarbonate.
Used for organising daily use of padlocks and labels.



31205 LS-4

Code	Ref.	Dimensions	Capacity
765101	LS-4	300 x 210 x 60 mm	Supplied without products
765111	LS-4-D	300 x 210 x 60 mm	Supplied with: 4 padlocks (cod. 761108) 2 lockout hasps (cod. 764101) 25 labels (cod. 765103)



31205 LS-10

Code	Ref.	Dimensions	Capacity
765102	LS-10	486 x 300 x 60 mm	Supplied without products
765112	LS-10-D	486 x 300 x 60 mm	Supplied with: 10 padlocks (cod. 761108) 3 lockout hasps (cod. 764101) 25 labels (cod. 765103)

Triangle with lightning screen-printing, black border and yellow background.

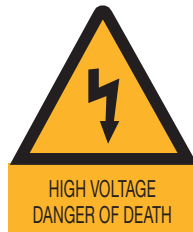


31301 Electrical hazard

Code	Ref.	Dimensions
720100	AE-10S	105 mm
720110	AE-14S	148 mm
720120	AE-21S	210 mm
720130	AE-29S	297 mm

UNE-EN ISO 7010

Triangle with lightning screen-printing, black border and yellow background.
Text: "HIGH VOLTAGE DANGER OF DEATH".



31301 High voltage

Code	Ref.	Dimensions
720140	CE-10S	105 mm
720150	CE-14S	148 mm
720160	CE-21S	210 mm
720170	CE-29S	297 mm

UNE-EN ISO 7010

Available in other languages on request.

Triangle with lightning screen-printing, black border and yellow background.
Text: "RETURN VOLTAGE DANGER OF DEATH".



31301 Return voltage

Code	Ref.	Dimensions
720180	CR-10S	105 mm
720190	CR-14S	148 mm
720200	CR-21S	210 mm
720210	CR-29S	297 mm

UNE-EN ISO 7010

Available in other languages on request.

Circular sign of manoeuvre prohibition.



31301 Manoeuvring forbidden

Code	Ref.	Dimensions
720220	PM-10S	105 mm
720230	PM-21S	210 mm

UNE-EN ISO 7010

Triangle with lightning screen-printing, black border and yellow background.



31302 Electrical hazard

Code	Ref.	Dimensions
725100	AE05ADH	52 mm
725110	AE10ADH	105 mm
725115	AE21ADH	210 mm

UNE-EN ISO 7010

Triangle with lightning and 230 V screen-printing, black border and yellow background.



31302 Electrical hazard 230V

Code	Ref.	Dimensions
725120	VT230V55	52 mm
725130	VT230V10	105 mm

UNE-EN ISO 7010

Triangle with lightning and 400 V screen-printing, black border and yellow background.



31302 Electrical hazard 400V

Code	Ref.	Dimensions
725140	VT400V55	52 mm
725150	VT400V10	105 mm

UNE-EN ISO 7010

Triangle with Earthing symbol screen-printing, black border and yellow background.

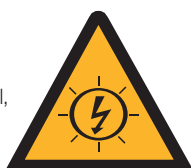


31302 Earthing

Code	Ref.	Dimensions
725155	TT05ADH	52 mm
725160	TT10ADH	105 mm

UNE-EN ISO 7010

Screen printed triangle with the photovoltaic identification symbol, black outline and yellow background.



31302 Photovoltaic installation

Code	Ref.	Dimensions
725170	IF10ADH	105 mm

UNE-EN ISO 7010

31302 Risk electric / hybrid car

Self-adhesive label to place on windows and windshields of damaged electric and hybrid vehicles.

Code	Ref.	Dimensions
725010	SA-HEV	280 x 210 mm

UNE-EN ISO 7010





OUTAGE REF.:
NAME:
PHONE NUMBER:
DATE:

Prohibition of operation

31302 Type A signs

Rectangular adhesive signs printed on one side.
Dimensions: 85 x 120 mm.

31302 Type B signs

Rectangular PVC signs printed on one side.
Dimensions: 150 x 200 mm and 1 mm thickness.

Code	Ref.	Type	Dimensions
725180	PC120A	A	85 x 120 mm
730180	PC200B	B	150 x 200 mm

UNE-EN ISO 7010 Available in other languages on request.

31302 Neutral identification label

Rectangular adhesive signs printed on one side.
Dimensions: 120 x 50 mm.

Code	Ref.	Dimensions
725185	EN50A	120 x 50 mm

UNE-EN ISO 7010 Available in other languages on request.

Warning signals

Rectangular warning signs can be Type A or Type B, depending on the installation to be signaled and its location.



31302 Type A Signs

Rectangular adhesive signs printed on one side, measuring 85 x 120 mm.

31303 Type B Signs

Rectangular PVC signs printed on one side, measuring 150 x 200 mm and 1 mm thick.

TYPE A: 85 x 120 mm		
Code	Ref.	Description
725181	ZD120A	Discharge area
725182	ZT120A	Work area
725183	PTR120A	Return voltage hazard
725184	RE120A	Electrical risk

UNE-EN ISO 7010

Available in other languages on request.

TYPE B: 150 x 200 mm		
Code	Ref.	Description
730181	ZD200B	Discharge area
730182	ZT200B	Work area
730183	PTR200B	Return voltage hazard
730184	RE200B	Electrical risk

UNE-EN ISO 7010



31303 First aid

Sofamel

Code	Ref.	Language	Dimensions
730100	PA-42P	Spanish	297 x 420 mm
730101	PA-42P	English	297 x 420 mm
730102	PA-42P	French	297 x 420 mm
730110	PA-29P	Spanish	210 x 297 mm
730111	PA-29P	English	210 x 297 mm
730112	PA-29P	French	210 x 297 mm

UNE-EN ISO 7010

Available in other languages on request.



31303 First aid

Endesa

Code	Ref.	Language	Dimensions
730103	PA-EN	Spanish	420 x 297 mm

UNE-EN ISO 7010



31303 First aid

Iberdrola

Code	Ref.	Language	Dimensions
730104	PA-ID	Spanish	420 x 297 mm

UNE-EN ISO 7010

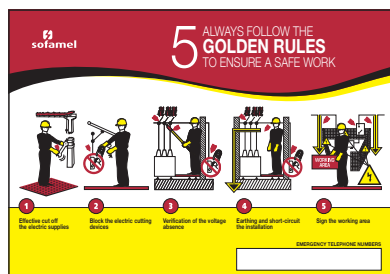
31303 Prerequisites

Code	Ref.	Language	Dimensions
730120	RTE-42P	Spanish	297 x 420 mm
730121	RTE-42P	English	297 x 420 mm
730122	RTE-42P	French	297 x 420 mm
730130	RTE-29P	Spanish	210 x 297 mm
730131	RTE-29P	English	210 x 297 mm
730132	RTE-29P	French	210 x 297 mm

UNE-EN ISO 7010

Available in other languages on request.





31303 Five golden rules

Sofamel

Code	Ref.	Language	Dimensions
730140	CRO-42P	Spanish	420 x 297 mm
730144	CRO-42P	English	420 x 297 mm
730146	CRO-42P	French	420 x 297 mm

UNE-EN ISO 7010

Available in other languages on request.

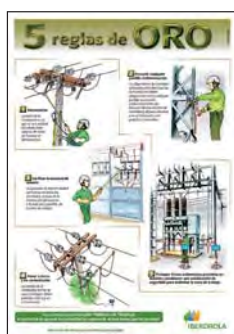


31303 Five golden rules

Endesa

Code	Ref.	Language	Dimensions
730143	CRO-EN	Spanish	420 x 297 mm

UNE-EN ISO 7010



31303 Five golden rules

Iberdrola

Code	Ref.	Language	Dimensions
730141	CRO-IB	Spanish	420 x 297 mm

UNE-EN ISO 7010

Printed on cardstock.

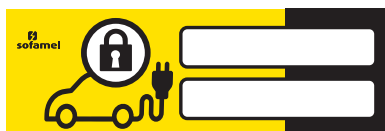


31303 Five golden rules for electric / hybrid vehicles

Code	Ref.	Language	Dimensions
730003	CRO-HEV	Spanish	297 x 420 mm
730003I	CRO-HEV	English	297 x 420 mm
730003F	CRO-HEV	French	297 x 420 mm

UNE-EN ISO 7010

Available in other languages on request.



31303 For electric / hybrid vehicles

Code	Ref.	Dimensions
730001	CP-HEV	450 x 150 mm

UNE-EN ISO 7010



31303 Signal for electric / hybrid car risk post

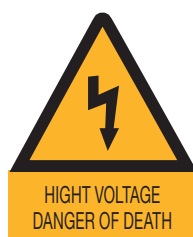
Code	Ref.	Dimensions
730002	SS-HEV	450 x 150 mm

UNE-EN ISO 7010



Polycarbonate signs

Triangle with lightning screen-printing, black border and yellow background. Text: "HIGH VOLTAGE DANGER OF DEATH".



31304 High voltage

Code	Ref.	Dimensions
735100	CE-14PCI	148 mm
735110	CE-21PCI	210 mm

UNE-EN ISO 7010

Available in other languages on request.

sofamel



For underground cables signalling. Made of 150 mm yellow color PVC. 500 m rolls. Text: "WARNING! ELECTRIC CABLES UNDERGROUND".



31305 Sign tape

Code	Ref.	Marking	Dimensions
740100	CCS-01AM	Neutral	150 mm x 500 m
740110	CCS-01AM/IB	Iberdrola	150 mm x 500 m
740140	CCS-01AM/UF	Fenosa	150 mm x 500 m
740153	CCS-01AM/END	Endesa	150 mm x 500 m

UNE-EN ISO 7010

Available in other languages on request.

31305 ST-62A

Work area delimiting

25 m work area delimiting tape reel. Please consult for other dimensions.

Code	Ref.
740180	ST-62A

UNE-EN ISO 7010



Beacon tapes

Tapes for other uses in work areas. Ideal for areas where access cannot be prevented and there is a specific work area to tape off. These tapes are not a substitute for work area cordons. Made from polyethylene laminate 80 mm wide and printed on both sides in yellow/black and white/red colour strips.



UNE-EN ISO 7010



UNE-EN ISO 7010

31305 ST-63

Beacon tapes

Red and white polyethylene beacon tape. 250 m rolls and 8 cm wide.

Code	Ref.	Colour
740160	ST-63	Red and white

31305 ST-64

Beacon tapes

Black and yellow polyethylene beacon tape. 250 m rolls and 8 cm wide.

Code	Ref.	Colour
740170	ST-64	Black and yellow





31306 Polyethylene chain

High resistant red and white sign chain. 25 m rolls.

Code	Ref.	Dimensions
745110	SP-52A	29 x 52 x 7.5 mm
745100	SP-35A	20 x 35 x 5 mm

31306 SP-01A

Chain support

Code	Ref.	Model	Height	Ø	Weight
745140	SP-01A	With base	1 m	60 mm	10 kg



31306 ST-70

Signs flags

Red flag with lightning.

Code	Ref.	Dimensions
750100	ST-70	60 x 35 cm

UNE-EN ISO 7010



31306 ST-71

Banner

Red banner with lightning.

Code	Ref.	Dimensions
750110	ST-71	60 x 35 cm

UNE-EN ISO 7010



31306 ST-72

Hangings signs

Code	Ref.	Length
750120	ST-72	1.20 m

UNE-EN ISO 7010 English, French, Italian, and Portuguese editions available upon request.



31306 ST-73

Hangings signs

Code	Ref.	Length
750130	ST-73	1.20 m

UNE-EN ISO 7010 English, French, Italian, and Portuguese editions available upon request.



31306 ST-74

Hangings signs

Code	Ref.	Length
750140	ST-74	1.20 m

UNE-EN ISO 7010 English, French, Italian, and Portuguese editions available upon request.



31306 ST-75

Hangings signs

Code	Ref.	Length
750150	ST-75	1.20 m

UNE-EN ISO 7010 English, French, Italian, and Portuguese editions available upon request.

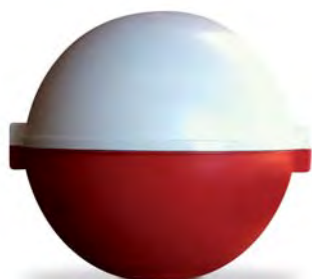


31306 VS-80

Extending barriers

Iron extending barrier with 3.5 m reflective band.

Code	Ref.
755100	VS-80



31307 SAE-400

Beacon for cable

External dimensions: 400 mm in diameter.
For cables with a diameter of 9 to 30 mm.
Available colors: RED-WHITE / RED-RED.

Code	Ref.	Ø	Weight
590100	SAE-400	400 mm	2.5 kg



31307 SAE-600

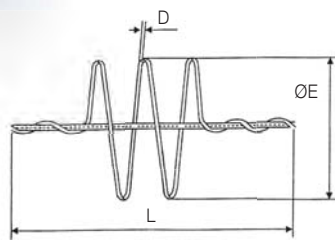
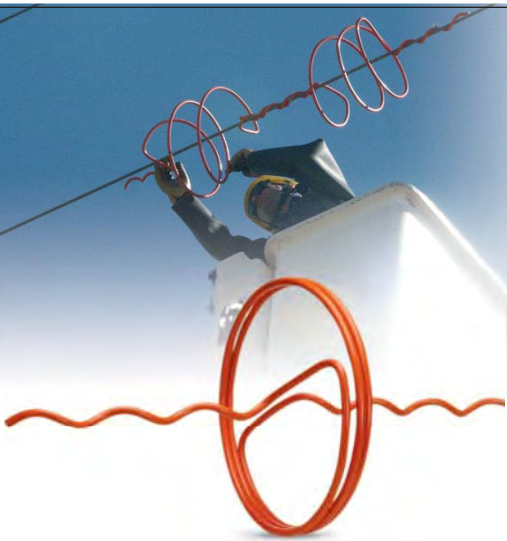
Beacon for cable

External dimensions: 600 mm in diameter.
For cables with a diameter of 9 to 30 mm.
Available colors: ORANGE.

Code	Ref.	Ø	Weight
590104	SAE-600	600 mm	2.7 kg

* Available upon request.





31401 SPD

Bird anticollision devices

Double fixing spiral of orange color PVC, to signalize the overhead lines in passing areas of migratory birds.
Resistance UV rays.

Code	Ref.	UNE type	Cable diameter		ØE (mm)	L (mm)	D (mm)
			Min. (mm)	Max. (mm)			
591120	SPD-7,00/9,50	LA-30	7.00	9.50	350	1000	12
		LA-40					
		LA-56					
591125	SPD-9,51/13,40	LA-78	9.51	13.40			
		LA-80					
591130	SPD-13,41/17,50	LA-110	13.41	17.50			
		LA-145					
591135	SPD-17,51/21,80	LA-180	17.51	21.80			
		LA-240					
		LA-280					
591140	SPD-42-7/9,5	LA-30	7.00	9.50	420		
		LA-40					
		LA-56					
591145	SPD-42-9,51/13,40	LA-78	9.51	13.40			
		LA-80					
591150	SPD-42-13,41/17,50	LA-110	13.41	17.50			
		LA-145					
591155	SPD-42-17,51/21,80	LA-180	17.51	21.80			
		LA-240					
		LA-280					





ELECTRICIAN KITS

1000V INSULATED TOOLS

Electrician Kits

1000V insulated tools

Bag and tool kit

GENERAL CATALOGUE 24/25



30701 BEC

Compact tool bag

Content:

Code	Description:
410005	Insulated universal plier 180 mm
410046	Insulated flathead screwdriver 3 x 100 mm
410047	Insulated flathead screwdriver 4 x 100 mm
410051	Insulated "Phillips" screwdriver 1 x 80 mm
316000	TS-50 Scissors

Insulated tools 1000 V

(according to EN 60900, IEC 900 VDE 0682-201)

Code	Version	Dimensions
600171	BEC-5 tool bag with equipment	180 x 270 x 50 mm
600170	BEC-V tool bag without equipment	



30121 KBT-1000/19

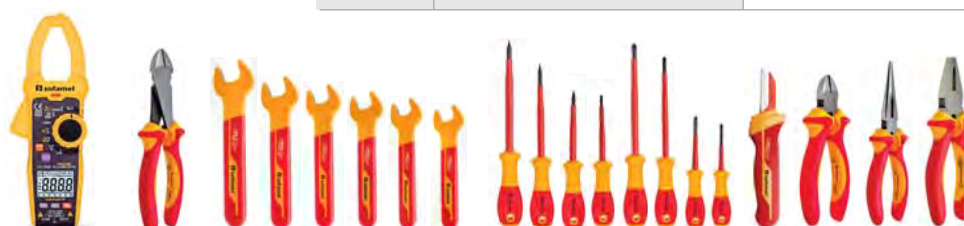
Content:

Code	Description:
410005	Insulated universal plier 180 mm
410015	Insulated needle nose plier 200 mm
410025	Insulated wire-cutting plier 180 mm
410035	Insulated knife 180 mm
410046	Insulated flathead screwdriver 3 x 100 mm
410047	Insulated flathead screwdriver 4 x 100 mm
410048	Insulated flathead screwdriver 5.5 x 125 mm
410050	Insulated "Phillips" screwdriver 0 x 60 mm
410051	Insulated "Phillips" screwdriver 1 x 80 mm
410052	Insulated "Phillips" screwdriver 2 x 175 mm
410096	Insulated open-ended spanner 10 mm
410203	Insulated open-ended spanner 12 mm
410097	Insulated open-ended spanner 13 mm
410098	Insulated open-ended spanner 14 mm
410100	Insulated open-ended spanner 17 mm
410101	Insulated open-ended spanner 19 mm
410105	Insulated wire-cutting plier 230 mm
635360	Multimeter CTL-1000
600162	Protective case with pouches for organising tools OHB-350

1000 V insulated tools and voltage meters

(according to EN 60900, IEC 900 VDE 0682-201)

Code	Version	Dimensions
410200	KBT-1000/19	200 x 350 x 50 mm
600162	OHB-350 Briefcase without tools	



Electrician Kits

1000V insulated tools

Tool kit

GENERAL CATALOGUE 24/25



Code	Version	Dimensions
410220	KT-1000/37	300 x 430 x 200 mm
600161	MAF-430 case without tools	

30121 KT-1000/37

■ Content:

Code	Description:
410005	Insulated universal plier 180 mm
410015	Insulated needle nose plier 200 mm
410025	Insulated wire-cutting plier 180 mm
410115	Insulated knife 190 mm
410046	Insulated flathead screwdriver 3 x 100 mm
410047	Insulated flathead screwdriver 4 x 100 mm
410048	Insulated flathead screwdriver 5.5 x 125 mm
410049	Insulated flathead screwdriver 8 x 175 mm
410050	Insulated "Phillips" screwdriver 0 x 60 mm
410051	Insulated "Phillips" screwdriver 1 x 80 mm
410052	Insulated "Phillips" screwdriver 2 x 175 mm
410053	Insulated "Phillips" screwdriver 3 x 200 mm
410056	Insulated 4 mm hex key
410057	Insulated 5 mm hex key
410058	Insulated 6 mm hex key
410059	Insulated 8 mm hex key
410060	Insulated 9 mm hex key
410061	Insulated 10 mm hex key
410065	Ratchet wrench 3/8"
410075	Insulated long extension 3/8" 300 mm
410086	Insulated 8 mm socket spanner 3/8"
410088	Insulated 10 mm socket spanner 3/8"
410083	Insulated 11 mm socket spanner 3/8"
410001	Insulated 12 mm socket spanner 3/8"
410089	Insulated 13 mm socket spanner 3/8"
410090	Insulated 14 mm socket spanner 3/8"
410093	Insulated 19 mm socket spanner 3/8"
410094	Insulated 17 mm socket spanner 3/8"
410096	Insulated open-ended spanner 10 mm
410203	Insulated open-ended spanner 12 mm
410097	Insulated open-ended spanner 13 mm
410098	Insulated open-ended spanner 14 mm
410100	Insulated open-ended spanner 17 mm
410101	Insulated open-ended spanner 19 mm
410105	Insulated wire-cutting plier 230 mm
600161	Small front-opening tool case MAF-430

1000 V insulated tools
(according to EN 60900, IEC 900 VDE 0682-201)





Electrician Kits

1000V insulated tools

Tool kit

GENERAL CATALOGUE 24/25



30121 KTS-1000/56

Code	Version	Dimensions
410210	KTS-1000/56	280 x 430 x 250 mm
600160	BKE-1680D M bag without tools	



■ Content:

Code Description:

410005 Insulated universal plier 180 mm
 410015 Insulated needle nose plier 200 mm
 410025 Insulated wire-cutting plier 180 mm
 410035 Insulated knife 180 mm
 410046 Insulated flathead screwdriver 3 x 100 mm
 410047 Insulated flathead screwdriver 4 x 100 mm
 410048 Insulated flathead screwdriver 5.5 x 125 mm
 410049 Insulated flathead screwdriver 8 x 175 mm
 410051 Insulated "Phillips" screwdriver 1 x 80 mm
 410052 Insulated "Phillips" screwdriver 2 x 175 mm
 410053 Insulated "Phillips" screwdriver 3 x 200 mm
 410105 Insulated wire-cutting plier 230 mm
 410072 Insulated 3 mm Allen key
 410073 Insulated 4 mm Allen key
 410074 Insulated 6 mm Allen key
 410081 Insulated adjustable spanner 250 mm
 410082 Insulated pliers wrench 250 mm
 410065 Ratchet wrench 3/8"
 410075 Insulated long extension 3/8" 300 mm
 410086 Insulated 8 mm socket spanner 3/8"
 410088 Insulated 10 mm socket spanner 3/8"
 410001 Insulated 12 mm socket spanner 3/8"
 410089 Insulated 13 mm socket spanner 3/8"
 410090 Insulated 14 mm socket spanner 3/8"
 410093 Insulated 19 mm socket spanner 3/8"
 410094 Insulated 17 mm socket spanner 3/8"

410201 Insulated open-ended spanner 8 mm
 410096 Insulated open-ended spanner 10 mm
 410202 Insulated open-ended spanner 11 mm
 410203 Insulated open-ended spanner 12 mm
 410097 Insulated open-ended spanner 13 mm
 410098 Insulated open-ended spanner 14 mm
 410100 Insulated open-ended spanner 17 mm
 410101 Insulated open-ended spanner 19 mm
 565099 White helmet SP-181
 570120 Face shield SP-182
 600151 Holdall bag BA-0.6 x 10
 585001 Insulating blanket class 0 MA0-1010 1x1 m
 595114 6 Insulated clamps for blankets 50 mm 1 kV AC / 1.5 kV DC
 595200 5 Insulating cable caps class 0 6-16 mm²
 530160 Dielectric glove SG-50 T10
 540114 Leather over glove SG-C
 635360 Multimeter CTL-1000
 595010 Black insulating tape 10 m 0.15 mm PVC
 595030 Yellow/green insulating tape 20 m 0.15 mm PVC
 595040 Blue insulating tape 10 m 0.15 mm PVC
 595060 Grey insulating tape 10 m 0.15 mm PVC
 595070 Brown insulating tape 10 m 0.15 mm PVC
 595080 Red insulating tape 10 m 0.15 mm PVC
 600160 Bag for insulated tools and electrical kits BKE-1680D M

1000 V insulated tools

(according to EN 60900, IEC 900 VDE 0682-201)



Insulated Tools Kit

1000V insulated tools

Screwdrivers

GENERAL CATALOGUE 24/25



1000V / 22
IEC 60900

30102 PH

Insulated "Phillips" screwdriver

Code	Ref.	mm	mm
410050	PH0x60	3	60
410051	PH1x80	4.5	80
410052	PH2x100	6	100
410053	PH3x150	8	150



1000V / 22
IEC 60900

30104 PL

Insulated flathead screwdriver

Code	Ref.	mm	mm	mm
410041	PL2.5x75	2.5	0.4	75
410046	PL3x100	3	0.6	100
410042	PL3.5x100	3	0.5	100
410047	PL4x100	4	0.8	100
410048	PL5.5x125	5.5	1	125
410043	PL6.5x150	6.5	1.2	150
410049	PL8x175	8	1.6	175



1000V / 22
IEC 60900

30103 POZ

Insulated "Pozidriv" screwdriver

Code	Ref.	mm	mm
410110	POZ-0X60	3	60
410111	POZ-1X75	4.5	75
410112	POZ-2X100	6	100
410113	POZ-3X150	8	150



1000V / 22
IEC 60900

30107 TX

Insulated "TORX" screwdriver

Code	Ref.	mm	mm
410130	TX-10X60	3	60
410131	TX-15X75	4.5	75
410132	TX-20X75	4.5	75
410133	TX-25X75	4.5	75
410134	TX-30X100	8	100

Insulated Tools Kit

1000V insulated tools

Screwdrivers

GENERAL CATALOGUE 24/25



1000V / 22
IEC 60900

30111 Screwdriver set

Insulated flathead and "Phillips" screwdrivers

Content:

Flathead Screwdrivers:

- 410046 Insulated flathead screwdriver PL3x100 mm
- 410047 Insulated flathead screwdriver PL4x100 mm
- 410048 Insulated flathead screwdriver PL5.5x125 mm
- 410049 Insulated flathead screwdriver PL8x175 mm

"Phillips" Screwdrivers:

- 410050 Insulated "Phillips" screwdriver PH0x3x60 mm
- 410051 Insulated "Phillips" screwdriver PH1x4.5x80 mm
- 410052 Insulated "Phillips" screwdriver PH2x6x175 mm
- 410053 Insulated "Phillips" screwdriver PH3x8x200 mm

Code	Ref.
410045	Set of insulated flathead and "Phillips" screwdrivers

Pliers



1000V / 22
IEC 60900

30110 PFC-200

Insulated bent needle nose plier - 200 mm

Code	Ref.	Length
410021	Plier PFC-200	200 mm

- For gripping, bending, cutting, and manipulating wires or cables in confined or hard-to-reach spaces.
- Its curved tip design allows for access to difficult angles and provides greater precision when working with small or delicate components.



1000V / 22
IEC 60900

30110 AU

Insulated universal plier

Code	Ref.	Length
410005	Plier AU-180	180 mm
410010	Plier AU-200	200 mm

- With gripping zones for flat and round materials, very versatile.
- For cutting soft and hard wire.
- Head with extra flat shape and laterally rounded.
- Made of tempered steel and chrome finish.

Insulated Tools Kit

1000V insulated tools

Pliers

GENERAL CATALOGUE 24/25



1000V / 22
IEC 60900

30110 AC-160

Insulated wire-cutting plier - 160 mm

Code	Ref.	Capacity	Length
410026	Plier AC-160	Ø 1.6 mm	160 mm

- To cut cable, nails, metal mesh and plates.
- Suitable for cutting copper and aluminum cables.
- Its compact design allows for use in tight spaces.



1000V / 22
IEC 60900

30110 AC-200

Insulated wire-cutting plier - 200 mm

Code	Ref.	Capacity	Length
410025	Plier AC-200	Ø 1.6 mm	200 mm

- To cut cable, nails, metal mesh and plates.
- Suitable for cutting copper and aluminum cables.
- Its compact design allows for use in tight spaces.



1000V / 22
IEC 60900

30110 PF

Insulated needle nose plier - 200 mm

Code	Ref.	Length
410015	Plier PF-200	200 mm

- Stretched gripping surface.
- For holding cables, thin parts or small components size.
- To access narrow places that are difficult to access.



1000V / 22
IEC 60900

30110 AC-230

Insulated wire-cutting plier - 230 mm

Code	Ref.	Length
410105	Plier AC-230	230 mm

- Suitable for cutting copper and aluminum cables.
- Ergonomic bi-material handles for a comfortable grip.
- It allows repetitive operations to be carried out, without causing fatigue.

Adjustable spanner



1000V / 22
IEC 60900

30117 LAJ

Adjustable spanner - 250 mm

Code	Ref.	Length
410081	LAJ-250	250 mm

- Excellent performance and long service life.
- It has a manual adjustment screw for a fast and precise adjustment of the width of the mouth.
- For fixing elements of all sizes, thanks to its mobile jaw.

Insulated Tools Kit

1000V insulated tools

Pliers wrench

GENERAL CATALOGUE 24/25



30110 APL

Pliers wrench - 250 mm

Code	Ref.	Length
410082	APL-250	250 mm

- Large opening capacity, to hold rods/tubes.
- Easy access to nuts and connections.
- High resistance to torsion and bending.

Knives



30113 CA-180

Insulated flat-blade knife - 180 mm

Code	Ref.	Length
410035	Knife CA-180	180 mm

- Blade specially adapted to cut the outer sheath of cables without damaging the inner conductors.
- With hook blade.
- Double edged blade.
- Comfortable dual component handle.



30113 CA-190

Insulated knife - 190 mm

Code	Ref.	Length
410115	Knife CA-190	190 mm

- Suitable for cutting cables of various sizes and types without damaging the internal wires.
- Ideal for use in electrical panels and other installations where active circuits are handled.
- The handle is ergonomically designed for a comfortable grip, reducing fatigue during prolonged use.
- The knife blade is durable and sharp, allowing for precise and long-lasting cuts. It is partially coated and the handle is insulated, which prevents the risk of accidental short circuits and enhances safety while working with electrical components.

Insulated Tools Kit

1000V insulated tools

Spanners

GENERAL CATALOGUE 24/25



1000V / 22
IEC 60900



1000V / 22
IEC 60900

30117 LF

Insulated open-ended spanner

Code	Ref.	Spanner	Length
410201	Spanner LF-8	8	80 mm
410096	Spanner LF-10	10	100 mm
410202	Spanner LF-11	11	110 mm
410203	Spanner LF-12	12	120 mm
410097	Spanner LF-13	13	130 mm
410098	Spanner LF-14	14	140 mm
410099	Spanner LF-16	16	160 mm
410100	Spanner LF-17	17	170 mm
410101	Spanner LF-19	19	190 mm

- The LF insulated open-end wrenches are essential tools for professionals working in the electrical sector, offering safety and efficiency in various applications related to the installation and maintenance of electrical systems.
- Angled head to facilitate tightening.
- Material: hardened steel.
- Insulation material: PP/TPR.

30117 Set of insulated open-ended spanners

Insulated fixed wrench set

Code	Ref.
410095	Set of insulated open-ended spanners

- **Contents:**
 - 8 mm open-ended spanner - 80 mm long.
 - 10 mm open-ended spanner - 100 mm long.
 - 11 mm open-ended spanner - 110 mm long.
 - 12 mm open-ended spanner - 120 mm long.
 - 13 mm open-ended spanner - 130 mm long.
 - 14 mm open-ended spanner - 140 mm long.
 - 15 mm open-ended spanner - 150 mm long.
 - 16 mm open-ended spanner - 160 mm long.
 - 17 mm open-ended spanner - 170 mm long.
 - 19 mm open-ended spanner - 190 mm long.

Insulated Tools Kit

1000V insulated tools

Keys

GENERAL CATALOGUE 24/25



30115 T HEX

Insulated T shaped hex key

Code	Ref.	 Key	Dimensions
410056	Key T HEX - 4	4	90 x 200 mm
410057	Key T HEX - 5	5	
410058	Key T HEX - 6	6	
410059	Key T HEX - 8	8	
410060	Key T HEX - 9	9	
410061	Key T HEX - 10	10	

- T-handle HEX wrenches are designed for tasks that require efficient and comfortable force application, making them ideal for jobs that need precise torque application.
- Material: hardened steel.
- Insulation material: PP/TPR.

30115 LVT-210

Insulated T-handle wrench 3/8"

Code	Ref.	Dimensions
410102	LVT-210	158 x 210 mm

- Ergonomic T-shaped design for better grip and force application.
- Quick-release function.
- Suitable for electrical work and use on live cables or installations.
- Material: Chrome vanadium steel.
- Finish: Matte chrome.

30111 Kit LHT

Set of insulated T shaped hex keys

Code	Ref.
410055	Set of insulated T shaped hex keys

- **Contents:**
 - 410056 4 mm T shaped hex key - 90 x 200 mm
 - 410057 5 mm T shaped hex key - 90 x 200 mm
 - 410058 6 mm T shaped hex key - 90 x 200 mm
 - 410059 8 mm T shaped hex key - 90 x 200 mm
 - 410060 9 mm T shaped hex key - 90 x 200 mm
 - 410061 10 mm T shaped hex key - 90 x 200 mm

Insulated Tools Kit

1000V insulated tools

Keys

GENERAL CATALOGUE 24/25



1000V / 22
IEC 60900

30119 LA90

L-shaped hex key

Code	Ref.	Length
410072	Insulated key LA90-3	3 mm
410073	Insulated key LA90-4	4 mm
410074	Insulated key LA90-6	6 mm

- Allen wrenches LA90 are used in various applications, especially where direct access to hexagonal screws is limited or uncomfortable. The 90° design allows access to screws located in tight or hard-to-reach spaces where a straight wrench would not be practical.
- Material: hardened steel.
- Insulation material: PP/TPR.



1000V / 22
IEC 60900

30116 EL

Insulated extension for 3/8" ratchet

Code	Ref.	Length
410240	Extension EL-3/8	125 mm
410075	Extension EL-3/8	300 mm

- Used to access nuts and bolts located in hard-to-reach places.
- Particularly useful in electrical panels and distribution boxes where access may be limited.
- Material: hardened steel.
- Insulation material: PP/TPR.



1000V / 22
IEC 60900

30116 LC-3/8

Insulated ratchet wrench for 3/8" ratchet

Code	Ref.	Dimensions
410065	Insulated key LC-3/8	3/8"

- Facilitates work in confined spaces where continuous back-and-forth movement is required.
- The ratchet mechanism allows for fast and efficient work by eliminating the need to constantly reposition the tool.
- The handle design provides a comfortable and secure grip, reducing fatigue during extended use.
- Material: hardened steel.
- Insulation material: PP/TPR.

Insulated Tools Kit

1000V insulated tools

Sockets

GENERAL CATALOGUE 24/25



1000V / 22
IEC 60900

30116 Set of insulated 3/8" sockets

Hexagon/female sockets

Code	Ref.
410085	Set of insulated 3/8" sockets Hexagon/female sockets

■ Contents:

8 mm insulated socket 3/8"	13 mm insulated socket 3/8"
10 mm insulated socket 3/8"	14 mm insulated socket 3/8"
11 mm insulated socket 3/8"	17 mm insulated socket 3/8"
12 mm insulated socket 3/8"	19 mm insulated socket 3/8"

Insulated collar on each socket to prevent arcing.

30116 LVA

Insulated Allen sockets 3/8"



1000V / 22
IEC 60900

Code	Ref.	mm	mm
410106	LVA-4	4	22,8
410107	LVA-5	5	
410108	LVA-6	6	
410109	LVA-8	8	

These tools are designed to work with electrical systems of up to 1000 V, offering additional protection against electric shocks.

- Standards: DIN 7422, DIN 3120.
- Material: Chrome vanadium steel.
- Finish: Matte chrome.

sofamel

Ladders



Polyester-fiberglass Ladders

Safety

GENERAL CATALOGUE 24/25

Ladders



505 COMPACT

Step ladder with platform and wide aluminium steps

- Cone-shaped manufacture to increase support at base.
- Polyester side rails with fibreglass reinforcement and aluminium steps with 80mm tread.
- Aluminium support section.
- Reinforced non-slip polypropylene platform.
- Tool tidy top tray.
- Locking spreader bars and anti-bend reinforcements on the steps.

Code	Ref.	Height (mm)		Steps	Weight
		Total	Platform		
					
505100	COMPACT 1,45/0,69	1450	690	3	7
505110	COMPACT 1,70/0,92	1700	920	4	8
505120	COMPACT 1,95/1,15	1950	1150	5	9
505130	COMPACT 2,20/1,38	2200	1380	6	10
505140	COMPACT 2,45/1,61	2450	1610	7	12

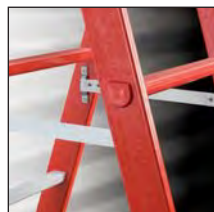


EN 131
UNE-EN 50528
 UNE-EN 61478, electrical insulation tested between rungs - 30 kV

Polyester-fiberglass Ladders

Safety

GENERAL CATALOGUE 24/25



510 EF/T

Two-sided step ladder

- Rails and rungs entirely in fibreglass.
- Includes two spreader locks between the two sections of the ladder to prevent it opening up.
- 72° opening of each section in relation to ground.
- Rung marked in red as per EN-131 standard to indicate highest rung limit.

Code	Ref.	Height (mm)	Width (mm)		Steps	Weight
			Ladder	Base		
						
510000	EF/T-1505	1490	400	580	2x5	9
510010	EF/T-2007	2050	400	620	2x7	12
510020	EF/T-2709	2660	400	680	2x9	15
510035	EF/T-3512	3500	400	770	2x12	19
510055	EF/T-4516	4620	400	890	2x16	29



EN 131
UNE-EN 50528
UNE-EN 61478, electrical insulation tested between rungs - 30 kV

Ladders

Polyester-fiberglass Ladders

Safety

GENERAL CATALOGUE 24/25

Ladders



515 EF/S

Single-section ladder

- Rails and rungs entirely in fibreglass.
- Swivel feet as added safety element.
- Rung marked in red as per EN-131 standard to indicate highest rung limit and not for use.

Code	Ref.	Height (mm)	Width (mm)	Steps	Weight
					
515000	EF/S-1505	1545	400	5	5.5
515015	EF/S-2408	2385	400	8	7
515025	EF/S-3010	2990	400	10	8.5
515035	EF/S-3512	3550	400	12	10.5
515045	EF/S-4114	4110	400	14	12
515060	EF/S-4917	4950	400	17	15
515080	EF/S-6021	6070	400	21	19



EN 131
UNE-EN 50528
 UNE-EN 61478, electrical insulation tested between rungs - 30 kV

Polyester-fiberglass Ladders

Safety

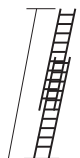
GENERAL CATALOGUE 24/25

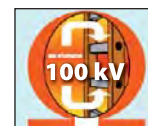


520 EF/E

Manually extendable two-section ladder

- Rails and rungs entirely in fiberglass.
- With top wheels for ease of movement.
- The two sections can be used separately.
- Swivel feet as added safety element.
- Solid rungs for those most susceptible to wear and tear, increasing ladder's durability (first section of base part and last section of extendable part).
- Rung marked in red as per EN-131 standard to indicate highest rung limit and not for use.

Code	Ref.	Height (mm)		Width (mm)	Steps	Weight
		Folded	Extended			
						
520000	EF/E-3006	1880	3000	450	2x6	14
520010	EF/E-4108	2440	4120	450	2x8	17
520020	EF/E-5010	3000	4960	450	2x10	21
520030	EF/E-6012	3560	6080	450	2x12	24
520040	EF/E-7014	4120	7200	450	2x14	27



EN 131
UNE-EN 50528
UNE-EN 61478, electrical insulation tested between rungs - 30 kV

Ladders

Polyester-fiberglass Ladders

Safety

GENERAL CATALOGUE 24/25

Ladders



525 EF/C

Two-section extension ladder using a cord

- Rope-extendable two-section fibreglass ladder
- Rails and rungs entirely in fibreglass.
- System actuated by rope and pulley to deploy the second section, for ease of use by operator.
- With top wheels for ease of movement.
- Swivel feet as added safety element.
- Solid rungs for those most susceptible to wear and tear, increasing ladder's durability (first section of base part and last section of extendable part).
- Rung marked in red as per EN-131 standard to indicate highest rung limit and not for use.

Code	Ref.	Height (mm)		Width (mm)	Steps	Weight
		Folded	Extended			
525000	EF/C-5010	3000	4960	450	2x10	24
525010	EF/C-6012	3560	6080	450	2x12	27
525020	EF/C-7014	4120	7200	450	2x14	30
525030	EF/C-8016	4680	8320	500	2x16	40
525035	EF/C-9017	4960	8880	500	2x17	42
525045	EF/C-1019	5520	10000	500	2x19	46



EN 131
UNE-EN 50528
UNE-EN 61478, electrical insulation tested between rungs - 30 kV

Polyester-fiberglass Ladders

Safety

GENERAL CATALOGUE 24/25



526 EF/M

Combined fibreglass ladder

- Rails and rungs entirely in fibreglass.
- Ladder with different possible applications, such as scissor, extendable in two separate sections.
- Features two locking spreader tapes between the two sections of the ladder to prevent it opening up when used in scissor format.
- With top wheels for ease of movement.
- Solid rungs for those most susceptible to wear and tear, increasing ladder's durability (first section of base part and last section of extendable part).
- Rung marked in red as per EN-131 standard to indicate highest rung limit and not for use.

Code	Ref.	Height (mm)		Width (mm)		Steps	Weight
		Scissor format	Extended	Ladder	Base		
							
526000	EF/M-3006	1780	3000	450	645	2x6	15
526010	EF/M-4008	2340	4120	450	735	2x8	18
526020	EF/M-5010	2940	4960	450	825	2x10	21
526030	EF/M-6012	3500	6080	450	915	2x12	24



EN 131
UNE-EN 50528
UNE-EN 61478, electrical insulation tested between rungs - 30 kV

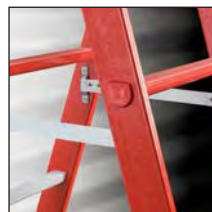
Ladders

Polyester-fiberglass Ladders

Safety

GENERAL CATALOGUE 24/25

Ladders



527 EF/3

Step ladder with extendable section

- Rails and rungs entirely in fibreglass.
- Two-sided step ladder with third extendable section.
- The extra section can be used separately, and is fitted with a blocking system.
- Rung marked in red as per EN-131 standard to indicate highest rung limit and not for use.

Code	Ref.	Height (mm)		Width (mm)		Steps	Weight
		Scissor format	Extended	Ladder	Base		
							
527000	EF/3-2505	1490	2395	400	650	(2x5)+5	14
527015	EF/3-3808	2330	3795	400	740	(2x8)+8	20
527025	EF/3-5010	2940	4960	400	800	(2x10)+10	24



EN 131
UNE-EN 50528
UNE-EN 61478, electrical insulation tested between rungs - 30 kV



1,000V AC / 1,500V DC
INSULATION TESTED TO:
AS PER UNE-EN 61478 STANDARD

100 kV





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			005950	TCD-400/16	020	008590	T90-70/12	012	010340	T-16/10	008	015210	M-95	017
001100	T-185/4H	014	005980	TCD-500/16	020	008660	T90-95/14	012	010350	T-16/12	008	015220	M-120	017
001110	T-240/4H	014	006270	TL-10/6	010	008670	T90-95/16	012	010360	T-25/6	008	015230	M-150	017
001120	T-300/4H	014	006280	TL-10/8	010	008720	T90-120/14	012	010370	T-25/8	008	015240	M-185	017
001130	T-400/4H	014	006320	TL-16/6	010	008730	T90-120/16	012	010380	T-25/10	008	015250	M-240	017
001140	T-500/4H	014	006330	TL-16/8	010	008770	T90-150/14	012	010390	T-25/12	008	015260	M-300	017
001150	T-630/4H	014	006370	TL-25/8	010	008780	T90-150/16	012	010410	T-35/6	008	015270	M-400	017
001160	T-800/4H	014	006380	TL-25/10	010	008830	T90-185/16	012	010420	T-35/8	008	015280	M-500	017
002530	TDT-50/12	014	006420	TL-35/8	010	008880	T90-240/16	012	010430	T-35/10	008	015290	M-630	017
002590	TDT-70/12	014	006430	TL-35/10	010	009220	TT-6/5	013	010440	T-35/12	008	017160	RJU0-25	017
002650	TDT-95/12	014	006520	TL-50/10	010	009230	TT-6/6	013	010450	T-35/14	008	017170	RJU0-35	017
002710	TDT-120/12	014	006530	TL-50/12	010	009270	TT-10/6	013	010500	T-50/6	008	017180	RJU1-50	017
002760	TDT-150/12	014	006580	TL-70/10	010	009280	TT-10/8	013	010510	T-50/8	008	017190	RJU1-70	017
002810	TDT-185/12	014	006590	TL-70/12	010	009320	TT-16/6	013	010520	T-50/10	008	017200	RJU1-95	017
002860	TDT-240/16	014	006650	TL-95/12	010	009330	TT-16/8	013	010530	T-50/12	008	017210	RJU2-120	017
002900	TDT-300/16	014	006660	TL-95/14	010	009360	TT-25/6	013	010540	T-50/14	008	017220	RJU2-150	017
002940	TDT-400/16	014	006670	TL-95/16	010	009370	TT-25/8	013	010550	T-50/16	008	017230	RJU4-185	017
002980	TDT-500/16	014	006710	TL-120/12	010	009380	TT-25/10	013	010570	T-70/8	009	017240	RJU4-240	017
004130	MCD-6	021	006720	TL-120/14	010	009420	TT-35/8	013	010580	T-70/10	009	020100	TD-1,5/3	018
004140	MCD-10	021	006730	TL-120/16	010	009430	TT-35/10	013	010590	T-70/12	009	020110	TD-1,5/4	018
004150	MCD-16	021	006760	TL-150/12	010	009510	TT-50/8	013	010600	T-70/14	009	020120	TD-1,5/5	018
004160	MCD-25	021	006770	TL-150/14	010	009520	TT-50/10	013	010610	T-70/16	009	020130	TD-2,5/3	018
004170	MCD-35	021	006780	TL-150/16	010	009530	TT-50/12	013	010630	T-95/8	009	020140	TD-2,5/4	018
004190	MCD-50	021	006810	TL-185/12	010	009570	TT-70/8	013	010640	T-95/10	009	020150	TD-2,5/5	018
004200	MCD-70	021	006820	TL-185/14	010	009580	TT-70/10	013	010650	T-95/12	009	020160	TD-2,5/6	018
004210	MCD-95	021	006830	TL-185/16	010	009590	TT-70/12	013	010660	T-95/14	009	020170	TD-2,5/8	018
004220	MCD-120	021	006860	TL-240/12	010	009640	TT-95/10	013	010670	T-95/16	009	020180	TD-6/4	018
004230	MCD-150	021	006870	TL-240/14	010	009650	TT-95/12	013	010690	T-120/8	009	020190	TD-6/5	018
004240	MCD-185	021	006880	TL-240/16	010	009660	TT-95/14	013	010700	T-120/10	009	020200	TD-6/6	018
004250	MCD-240	021	006920	TL-300/16	010	009670	TT-95/16	013	010710	T-120/12	009	020210	TD-6/8	018
004260	MCD-300	021	006950	TL-400/16	010	009710	TT-120/12	013	010720	T-120/14	009	020220	TD-6/10	018
004270	MCD-400	021	006980	TL-500/16	010	009720	TT-120/14	013	010730	T-120/16	009	020230	TD-10/5	018
004280	MCD-500	021	006985	TL-630/16	010	009730	TT-120/16	013	010750	T-150/10	009	020240	TD-10/6	018
004290	MCD-625	021	007270	T45-10/6	011	009760	TT-150/12	013	010760	T-150/12	009	020250	TD-10/8	018
004300	MCD-800	021	007280	T45-10/8	011	009770	TT-150/14	013	010770	T-150/14	009	020260	TD-10/10	018
004310	MCD-1000	021	007320	T45-16/6	011	009780	TT-150/16	013	010780	T-150/16	009	020270	TD-10/12	018
005270	TCD-10/6	020	007330	T45-16/8	011	009810	TT-185/12	013	010800	T-185/10	009	020280	TD-16/5	018
005280	TCD-10/8	020	007370	T45-25/8	011	009830	TT-185/16	013	010810	T-185/12	009	020290	TD-16/6	018
005320	TCD-16/6	020	007380	T45-25/10	011	009860	TT-240/12	013	010820	T-185/14	009	020300	TD-16/8	018
005330	TCD-16/8	020	007420	T45-35/8	011	009880	TT-240/16	013	010830	T-185/16	009	020310	TD-16/10	018
005370	TCD-25/8	020	007430	T45-35/10	011	009920	TT-300/16	013	010850	T-240/10	009	020320	TD-16/12	018
005380	TCD-25/10	020	007520	T45-50/10	011	009950	TT-400/16	013	010860	T-240/12	009	020330	TD-25/6	018
005420	TCD-35/8	020	007530	T45-50/12	011	010100	T-1,5/4	008	010870	T-240/14	009	020340	TD-25/8	018
005430	TCD-35/10	020	007580	T45-70/10	011	010110	T-1,5/5	008	010880	T-240/16	009	020350	TD-25/10	018
005520	TCD-50/10	020	007590	T45-70/12	011	010120	T-1,5/6	008	010900	T-300/12	009	020360	TD-25/12	018
005530	TCD-50/12	020	007660	T45-95/14	011	010130	T-2,5/4	008	010910	T-300/14	009	020370	TD-25/16	018
005580	TCD-70/10	020	007670	T45-95/16	011	010140	T-2,5/5	008	010920	T-300/16	009	020380	TD-35/6	018
005590	TCD-70/12	020	007720	T45-120/14	011	010150	T-2,5/6	008	010940	T-400/12	009	020390	TD-35/8	018
005650	TCD-95/12	020	007730	T45-120/16	011	010160	T-2,5/8	008	010950	T-400/16	009	020400	TD-35/10	018
005660	TCD-95/14	020	007770	T45-150/14	011	010170	T-4/4	008	010960	T-400/20	009	020410	TD-35/12	018
005670	TCD-95/16	020	007780	T45-150/16	011	010180	T-4/5	008	010980	T-500/16	009	020420	TD-35/16	018
005710	TCD-120/12	020	007830	T45-185/16	011	010190	T-4/6	008	010985	T-500/20	009	020430	TD-50/6	019
005720	TCD-120/14	020	007880	T45-240/16	011	010200	T-4/8	008	010988	T-630/16	009	020440	TD-50/8	019
005730	TCD-120/16	020	008270	T90-10/6	012	010210	T-6/4	008	010990	T-630/20	009	020450	TD-50/10	019
005760	TCD-150/12	020	008280	T90-10/8	012	010220	T-6/5	008	015100	M-1,5	017	020460	TD-50/12	019
005770	TCD-150/14	020	008320	T90-16/6	012	010230	T-6/6	008	015110	M-2,5	017	020470	TD-50/16	019
005780	TCD-150/16	020	008330	T90-16/8	012	010240	T-6/8	008	015120	M-4	017	020480	TD-70/6	019
005810	TCD-185/12	020	008370	T90-25/8	012	010260	T-10/5	008	015130	M-6	017	020490	TD-70/8	019
005820	TCD-185/14	020	008380	T90-25/10	012	010270	T-10/6	008	015140	M-10	017	020500	TD-70/10	019
005830	TCD-185/16	020	008420	T90-35/8	012	010280	T-10/8	008	015150	M-16	017	020510	TD-70/12	019
005860	TCD-240/12	020	008430	T90-35/10	012	010290	T-10/10	008	015160	M-25	017	020520	TD-70/16	019
005870	TCD-240/14	020	008520	T90-50/10	012	010310	T-16/5	008	015170	M-35	017	020530	TD-95/8	019
005880	TCD-240/16	020	008530	T90-50/12	012	010320	T-16/6	008	015190	M-50	017	020540	TD-95/10	019

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020560	TD-95/16	019	085200	BT-400	028	101415	TTGA-95/8	024	115130	TBE-70	030	135120	RJ2AU150/50	037
020570	TD-120/8	019	090100	RBT-50/25	028	101420	TTGA-95/10	024	115140	TBE-95	030	135130	RJ2AU150/95	037
020580	TD-120/10	019	090110	RBT-95/50	028	101425	TTGA-95/12	024	115150	TBE-120	030	135134	RJ4AU240/50	037
020590	TD-120/12	019	090120	RBT-150/50	028	101438	TTGA-150/10	024	115160	TBE-150	030	135137	RJ4AU240/95	037
020600	TD-120/16	019	090130	RBT-150/95	028	101439	TTGA-150/12	024	115170	TBE-185	030	135140	RJ4AU240/150	037
020610	TD-150/10	019	090140	RBT-240/95	028	101450	TTGA-240/10	024	115180	TBE-240	030	136090	ABT/CT-35/6	057
020620	TD-150/12	019	090150	RBT-240/150	028	101455	TTGA-240/12	024	115190	TBE-300	030	136091	ABT/CT-95/10	057
020630	TD-150/16	019	095100	RJ1A-25	029	110100	TBF-16	036	115351	TBE/D-25/8	035	136120	ABT/CT-95/35	057
020640	TD-185/10	019	095110	RJ1A-35	029	110110	TBF-25	036	115352	TBE/D-25/10	035	136130	ABT/CT-150/35	057
020650	TD-185/12	019	095120	RJ1A-50	029	110120	TBF-35	036	115353	TBE/D-25/12	035	136140	ABT/CT-95/95	057
020660	TD-185/16	019	095130	RJ1A-70	029	110130	TBF-50	036	115354	TBE/D-35/8	035	136142	ABT/CT-150/150	057
020670	TD-240/10	019	095140	RJ1A-95	029	110140	TBF-70	036	115355	TBE/D-35/10	035	136150	ABT/CT-185/185-2	057
020680	TD-240/12	019	095150	RJ2A-120	029	110150	TBF-95	036	115356	TBE/D-35/12	035	136151	ABT/CT-240/120	057
020690	TD-240/16	019	095160	RJ2A-150	029	110160	TBF-120	036	115357	TBE/D-50/8	035	136152	ABT/CT-240/240-2	057
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025120	CP-6	016	095190	RJ5A-300	029	110190	TBF-240	036	115360	TBE/D-70/8	035	137105	PA-2000	058
025130	CP-10	016	095200	RJ5A-400	029	110200	TBF-300	036	115361	TBE/D-70/10	035	137120	PA-25	058
025140	CP-16	016	100100	RJ1A-50/25	029	110210	TBF-400	036	115319	TBE/D-70/12	035	140100	CRA-1	043
025150	CP-25	016	100140	RJ1A-95/50	029	111085	TDC/S-16/10	032	115362	TBE/D-95/8	035	140110	CRA-2	043
025160	CP-35	016	100150	RJ2A-150/50	029	111090	TDC/S-16/12	032	115363	TBE/D-95/10	035	140120	CRA-3	043
025170	CP-50	016	100160	RJ2A-150/95	029	111099	TDC/S-25/10	032	115364	TBE/D-95/12	035	140122	CRA-3A	043
025180	CPP-10	016	100165	RJ4A-240/50	029	111100	TDC/S-25/10	032	115365	TBE/D-95/16	035	140130	CRA-4	043
025190	CPP-16	016	100170	RJ4A-240/95	029	111110	TDC/S-35/12	032	115366	TBE/D-120/10	035	145120	CRC-3	044
025200	CPP-25	016	100180	RJ4A-240/150	029	111118	TDC/S-50/8	032	115367	TBE/D-120/12	035	145130	CRC-4	044
025210	CPP-35	016	101099	TTG-240/10	022	111118 K	TDC/S-50/8 K	034	115368	TBE/D-120/16	035	145140	CRC-5	044
025220	CPP-50	016	101100	TTG-240/12	022	111119	TDC/S-50/10	032	115369	TBE/D-150/10	035	145150	CRC-6	044
025230	CPP-70	016	101102	TTG-16/50/8	022	111119 K	TDC/S-50/10 K	034	115370	TBE/D-150/12	035	145160	CRC-7	044
025240	CPP-95	016	101103	TTG-16/50/10	022	111120	TDC/S-50/12	032	115371	TBE/D-150/16	035	145170	CRC-8	044
032125	TPE-50/8	015	101104	TTG-16/50/12	022	111120 K	TDC/S-50/12 K	034	115372	TBE/D-185/10	035	145180	CRC-9	044
032126	TPE-50/10	015	101105	TTG-50/8	022	111130	TDC/S-70/12	032	115339	TBE/D-185/12	035	145190	CRC-10	044
032131	TPE-70/8	015	101106	TTG-50/10	022	111139	TDC/S-95/10	032	115373	TBE/D-185/16	035	145200	CRC-11	044
032132	TPE-70/10	015	101107	TTG-50/12	022	111139 K	TDC/S-95/10 K	034	115374	TBE/D-240/12	035	145210	CRC-12	044
032140	TPE-95/8	015	101113	TTG-95/8	022	111140	TDC/S-95/12	032	115375	TBE/D-240/16	035	145220	CRC-13	044
032145	TPE-95/10	015	101114	TTG-95/10	022	111140 K	TDC/S-95/12 K	034	115376	TBE/D-240/20	035	145230	CRC-14	044
032149	TPE-120/8	015	101115	TTG-95/12	022	111150	TDC/S-120/12	032	115349	TBE/D-300/12	035	145240	CRC-15	044
032150	TPE-120/10	015	101119	TTG-400/12	022	111159	TDC/S-150/10	032	115377	TBE/D-300/16	035	145250	CRC-16	044
032155	TPE-150/8	015	101120	TTG-400/16	022	111159 K	TDC/S-150/10 K	034	115378	TBE/D-300/20	035	151090	CRS-0	044
032160	TPE-150/10	015	101124	TTG-630/12/T3	022	111160	TDC/S-150/12	032	115379	TBE/D-400/12	035	151100	CRS-1	044
032161	TPE-150/12	015	101125	TTG-630/16/T3	022	111160 K	TDC/S-150/12 K	034	115380	TBE/D-400/16	035	151120	CRS-3	044
032170	TPE-185/10	015	101126	TTG-630/20/T3	022	111170	TDC/S-185/12	032	115381	TBE/D-400/20	035	151170	CRS-8	044
032171	TPE-185/12	015	101127	TTG-1000/20/T4	022	111179	TDC/S-240/10	032	115382	TBE/D-500/12	035	151180	CRS-9	044
032180	TPE-240/10	015	101135	TTG-150/10	022	111180	TDC/S-240/12	032	115383	TBE/D-500/16	035	151190	CRS-10	044
032181	TPE-240/12	015	101136	TTG-150/12	022	111180 K	TDC/S-240/12 K	034	115384	TBE/D-500/20	035	151200	CRS-11	044
080100	MAL-25	027	101180	TTG2-240/10	023	111184	TDC/S-300/10	032	125120	TBEM/S-50	030	151210	CRS-12	044
080110	MAL-35	027	101185	TTG2-240/12	023	111185	TDC/S-300/12	032	125140	TBEM/S-95	030	155001	LBE-2-ID	038
080120	MAL-50	027	101200	MTG-95/240	025	111189	TDC/S-400/10	032	125160	TBEM/S-150	030	155002	LBE-3-ID	038
080130	MAL-70	027	101201	MTG-240/400	025	111190	TDC/S-400/12	032	125180	TBEM/S-240	030	155003	LBE-4-ID	038
080140	MAL-95	027	101202	MTG-500/630	025	111200	TDC/A-30/12	033	125190	TBEM/A-30	031	155100	LB-1	038
080150	MAL-120	027	101203	MTG-800/1000	025	111205	TDC/A-54,6/12	033	125200	TBEM/A-56	031	155110	LB-2	038
080160	MAL-150	027	101204	MTG-25/95	025	111207	TDC/A-56/8	033	125210	TBEM/A-78	031	155120	LB-3	038
080170	MAL-185	027	101210	MBPT-95/50	025	111210	TDC/A-56/12	033	125230	TBEM/A-110	031	155130	LB-4	038
080180	MAL-240	027	101230	MTG/R	025	111220	TDC/A-78/12	033	125250	TBEM/A-180	031	155140	LB-5	038
080190	MAL-300	027	101250	MTSA-50	026	111225	TDC/A-80/12	033	125500	SCREW KIT M-12x40	031	155150	LB-6	038
085100	BT-25	028	101255	MTSA-95	026	111230	TDC/A-110/12	033	125600	SCREW KIT M-12x50	031	155160	LB-7	038
085110	BT-35	028	101270	MTSA-25/95	026	111235	TDC/A-145/12	033	130100	MBI-50/25	037	155206	PGC/A2-8	039
085120	BT-50	028	101260	MTSA-150	026	111240	TDC/A-180/12	033	130110	MBI-95/50	037	155201	PGC/A3-10	039
085130	BT-70	028	101265	MTSA-240	026	112190	TBPE-240	036	130120	MBI-150/50	037	155203	PGC/B3-10	039
085140	BT-95	028	101175	MTSA-95/240	026	112200	TBPE-300	036	130130	MBI-150/95	037	155205	PGC/B2-8	039
085150	BT-120	028	101380	BTF-400/630	023	112210	TBPE-400	036	130135	MBI-240/50	037	156100	TPA-95	038
085160	BT-150	028	101385	BTF-800/1000	023	115090	TBE-16	030	130137	MBI-240/95	037	156110	TPA/D-95	038
085170	BT-185	028	101400	TTGA-50/8	024	115100	TBE-25	030	130140	MBI-240/150	037	160100	APB-25/25	040
085180	BT-240	028	101405	TTGA-50/10	024	115110	TBE-35	030	135100	RJ1AU50/25	037	160110	APB-35/35	040

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160130	APB-70/70	040	245140	APF-2,50/8	048	261140	APF-2,50W/18	049	285140	APL-2,5	054	335400	BRN-250.48	063
160140	APB-120/120	040	245150	APF-4,00/10	048	261150	APF-4,00W/18	049	290100	APP-1,5	054	335410	BRN-280.48	063
165010	APC-6/6	040	245160	APF-6,00/12	048	261160	APF-6,00W/18	049	290110	APP-2,5	054	335420	BRN-370.48	063
165020	APC-10/6	040	245170	APF-10,00/12	048	261170	APF-10,00W/18	049	290120	APP-6	054	335430	BRN-390.48	063
165030	APC-16/16	040	245180	APF-16,00/12	048	261180	APF-16,00W/18	049	290130	APPL-1,5	054	335440	BRN-200.76	063
165040	APC-25/25	040	245190	APF-25,00/16	048	261190	APF-25,00W/22	049	290140	APPL-2,5	054	335450	BRN-250.76	063
165090	APC-35/35	040	245200	APF-35,00/16	048	261200	APF-35,00W/22	049	290150	APPL-6	054	335460	BRN-300.76	063
165100	APC-50/50	040	245210	APF-50,00/20	048	261210	APF-50,00W/25	049	295100	AFM-1,5	055	335470	BRN-380.76	063
165110	APC-70/70	040	246100	APF-0,50W/8	049	262110	APF-0,75D/12	050	295110	AFM-2,5	055	340100	SAP-101	064
165115	APC-95/95	040	246110	APF-0,75W/8	049	262160	APF-6,00D/18	050	295120	AFM-6,0	055	340110	SAP-101-N	064
165120	APC-120/120	040	246120	APF-1,00W/8	049	262170	APF-10,00D/18	050	300100	AML-1,5	055	340120	SAP-102	064
165130	APC-185/185	040	246130	APF-1,50W/8	049	262180	APF-16,00D/18	050	300110	AML-2,5	055	340130	SAP-102-N	064
165140	APC-240/240	040	246140	APF-2,50W/8	049	262190	APF-25,00D/22	050	300120	AML-6	055	340140	SAP-103	064
170100	GTR-50/150	070	246150	APF-4,00W/10	049	265100	PF-0,50/6	052	305100	AFH/A-1,5	055	340150	SAP-103-N	064
171100	TMV-8	072	246160	APF-6,00W/12	049	265110	PF-0,75/6	052	305110	AFH/A-2,5	055	345100	ST-0	064
171110	GDCC-50	072	246170	APF-10,00W/12	049	265120	PF-1,00/10	052	305120	AFH/A-6	055	345110	ST-0-N	064
171120	GDS-25	072	246180	APF-16,00W/12	049	265140	PF-1,50/10	0532	305130	AFH/M-1,5	056	345120	ST-1	064
171121	GDC-50	072	246190	APF-25,00W/16	049	265160	PF-2,50/10	052	305140	AFH/M-2,5	056	345130	ST-1-N	064
171122	GDC-95	072	246200	APF-35,00W/16	049	265190	PF-4,00/12	052	305150	ACM-1,5	056	345140	ST-2	064
175100	TRP-1-25/150	071	246210	APF-50,00W/20	049	265200	PF-6,00/12	052	305160	ACM-2,5	056	345150	ST-2-N	064
175110	TRP-2-25/150	071	250110	APF-0,75D/8	050	265220	PF-10,00/18	052	305170	ACH-1,5	056	350100	PST-0	065
175120	TRP-2-25/150-R	071	250160	APF-6,00D/12	050	265240	PF-16,00/18	052	305180	ACH-2,5	056	350110	PST-1	065
180100	TR-10/50	041	250170	APF-10,00D/12	050	265255	PF-25,00/22	052	315350	SKL-4	047	355100	EC-8	065
180110	TR-25/120	041	250180	APF-16,00D/12	050	265258	PF-35,00/25	052	315360	SKL-6	047	355110	CD-8	065
180120	TR-70/150	041	250190	APF-25,00D/16	050	265265	PF-50,00/25	052	315370	SKL-10	047	355120	CD-10	065
180130	TR-150/240	041	255100	APF/D-0,50D	051	270100	AT-1,5/3	053	315380	SKL-16	047	355130	CD-12	065
180140	TR-240/400	041	255110	APF/D-0,75D	051	270110	AT-1,5/4	053	315390	SKL-25	047	355140	CD-14	065
185100	TRE-10/50	041	255120	APF/D-1,00D	051	270120	AT-1,5/5	053	315400	SKL-35	047	355150	CD-16	065
185110	TRE-25/120	041	255120	APF/D-1,00D	051	270130	AT-1,5/6	053	315410	SKL-4N	047	361100	ES-1500	058
190100	TRM-10/50	042	255130	APF/D-1,50D	051	270140	AT-1,5/8	053	315420	SKL-6N	047	361110	PS-1500	059
190110	TRM-25/120	042	255140	APF/D-2,50D	051	270160	AT-2,5/3	053	315430	SKL-10N	047	361120	CS-1500	059
190120	TRM-70/150	042	255150	APF/D-4,00D	051	270170	AT-2,5/4	053	315440	SKL-16N	047	361130	CA-1500	059
195100	TRT-10/50	042	255160	APF/D-6,00D	051	270180	AT-2,5/5	053	315450	SKL-25N	047	361140	RA-25	059
195110	TRT-25/120	042	255170	APF/D-10,00D	051	270190	AT-2,5/6	053	315460	SKL-35N	047	362100	GDPA-32R	057
195120	TRT-70/150	042	255180	APF/D-16,00D	051	270200	AT-2,5/8	053	335100	BRB-80.24	063	362110	GDPA-40R	057
200100	TRF-25/50	043	256100	APF/D-0,50W	051	270220	AT-6/4	053	335110	BRB-100.25	063	362120	GGA-18R	057
200110	TRF-50/80	043	256110	APF/D-0,75W	051	270230	AT-6/5	053	335120	BRB-140.25	063	362130	GGA-24R	057
200120	TRF-80/150	043	256120	APF/D-1,00W	051	270240	AT-6/6	053	335130	BRB-160.25	063	362140	GDPL-32R	057
200130	TRF-150/240	043	256130	APF/D-1,50W	051	270250	AT-6/8	053	335140	BRB-200.25	063	362150	GDPL-40R	057
200140	TRF/D-25/50	043	256160	APF/D-6,00W	051	275100	AU-1,5/3	053	335150	BRB-150.36	063	362160	GGL-18R	057
200150	TRF/D-50/80	043	256170	APF/D-10,00W	051	275110	AU-1,5/4	053	335160	BRB-200.36	063	362170	GGL-24R	057
200160	TRF/D-80/150	043	256180	APF/D-16,00W	051	275120	AU-1,5/5	053	335170	BRB-250.36	063	362180	GGL-30R	057
200170	TRF/D-150/240	043	258110	APF/D-0,75	051	275130	AU-1,5/6	053	335180	BRB-300.36	063	362190	ORL-18R	057
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220110	BEB-95	045	258150	APF/D-4,00	051	275160	AU-2,5/3	053	335200	BRB-190.48	063	362210	ORL-24R	057
220120	BEB-150	045	258160	APF/D-6,00	051	275170	AU-2,5/4	053	335210	BRB-250.48	063	362220	ORL-28R	057
220130	BEB-240	045	258170	APF/D-10,00	051	275180	AU-2,5/5	053	335220	BRB-280.48	063	363100	BRPF-1	060
231100	ADRI-6	045	258180	APF/D-16,00	051	275190	AU-2,5/6	053	335230	BRB-370.48	063	363110	BRPF-6	060
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231140	ADRI-35	045	260130	APF-1,50/18	048	275240	AU-6/6	053	335270	BRB-300.76	063	365100	CSL-180	060
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233150	BUS-25/35	046	260150	APF-4,00/18	048	280100	AFH-1,5/2,8	054	335290	BRN-80.24	063	365120	CSL-350	060
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600151	BA-0,6x10	176	616521	BMAI-5V/380U	185	625113	SC-33	192	645182	VTA-150/420-U	263	659127	NH0/A	205
605100	BM-45	177	616522	BMAI-5V/380B	185	625200	BDC-H 0,6/1-2	191	645184	VTA-45/420-U	263	659128	NH1-3/A	205
605110	BM-66	177	616523	BMAI-5V/380P	185	625210	BDC-H 1,6/45-5	191	645186	VTA-225/420-U	263	659129	NH4/A	205
605115	BM-90	177	616530	BMAI-6V/380M	185	625220	BDC-H 1/25-4	191	645210	VTC-OA	265	659130	ECBT-NH	197
605120	BM-132	177	616531	BMAI-6V/380U	185	625230	BDC-H 1,6/45-4	191	645211	VTC-OA I	265	659131	PC	205
605130	BME-45	178	616532	BMAI-6V/380B	185	625240	BDC-H 2/66-6	191	645215	VTC-OAD	264	659132	PTA	206
605140	BME-66	178	616533	BMAI-6V/380P	185	625250	BDC-H 0,6/1-3	191	645216	VTC-OAD I	264	659133	MPUCN	206
605150	BME-132	178	616600	BMAE-3V/110M	186	625260	BDC-H 0,6/1-5	191	645220	VTM-3/10-U	258	659139	MPUCF	206
610090	BS-3	179	616601	BMAE-3V/110U	186	625270	BDC-H 0,6/1-7	191	645225	VTM-4/12-U	258	659140	ECBT-PTA3-1	198
610095	BS-25	179	616602	BMAE-3V/110B	186	625280	BDC-H 2,5/66-5,5	191	645230	VTM-10/30-U	258	659141	ECBT-PTA3-2	198
610100	BS-45	179	616603	BMAE-3V/110P	186	630100	SM-02R	194	645235	VTM-11/33-U	258	659150	ECBT-PTA4	199
610110	BS-66	179	616610	BMAE-4V/220M	186	630101	ADAP. H12-M10	195	645240	VTM-15/45-U	258	659160	ECBT-ID	202
610115	BS-90	179	616611	BMAE-4V/220U	186	630102	ADAP. UK-M10	196	645245	VTM-22/66-U	258	659170	ECBT-GNF/35	203
615206	JSP-40	194	616612	BMAE-4V/220B	186	630106	ADAP. M10-UK	196	645255	D-TUERI EXPERT	268	659180	ECBT-GNF/50	203
615300	BMTS-15/45M	180	616613	BMAE-4V/220P	186	630107	ADAP. B-UK	195	645257	D-TUERI PRO	267	659185	NH000	205
615301	BMTS-15/45U	180	616620	BMAE-5V/380M	186	630108	ADAP. B-M10	195	645258	D-TUERI PRO 66/138	269	659186	NH0	205
615302	BMTS-15/45B	180	616621	BMAE-5V/380U	186	630109	ADAP. H12-UK	196	645260	POWER-3/10	259	659187	NH1-3	205
615303	BMTS-15/45P	180	616622	BMAE-5V/380B	186	630110	SM-02C	194	645261	POWER-4/12	259	659188	NH4	205
615310	BMTS-20/66M	180	616623	BMAE-5V/380P	186	630116	GA-TML	195	645262	POWER-10/30	259	659200	ECBT-4MPUHL120120	210
615311	BMTS-20/66U	180	616630	BMAE-6V/380M	186	630120	SM-02K	194	645263	POWER-11/33	259	659201	ECBT-4MPUL-7070	209
615312	BMTS-20/66B	180	616631	BMAE-6V/380U	186	630122	SM-03K	195	645264	POWER-15/45	259	659209	ECBT-4MPUL-9595	209
615313	BMTS-20/66P	180	616632	BMAE-6V/380B	186	630123	SM-90K	195	645265	POWER-22/66	259	659210	ECBT-4MPUL120120	209
615320	BMTS-30/132M	180	616633	BMAE-6V/380P	186	630130	GS-49	196	645266	POWER-1/3,3	259	659217	ECBT-ID-NH	204
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615322	BMTS-30/132B	180	616701	BSC-M3B	187	630162	ADAP. UK-B	196	645268	POWER-13/45	259	660230	PATL-MC-3/2516	216
615323	BMTS-30/132P	180	616702	BSC-M3H	187	630163	ADAP. UK-P	196	645269	POWER-22/79	259	660240	PATL-MC-3/3525	216
615325	BMTS-4/6	181	616703	BSC-M4U	187	630166	ADAP. H12-B	196	645280	POWER-1/5	261	660245	PATL-MC-4/1616	217
615330	BMTS-5/9	181	616704	BSC-M4B	187	630167	ADAP. B-P	195	645285	POWER-5/79	261	660246	PATL-MC-4/2516	217
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670177	PATL-TML/05007	222	673104	PATL-PAV/05009	224	675209	PATC-TMC/12009	230	720160	CE-21S	310	750100	ST-70	317
670178	PATL-TML/05008	222	673105	PATL-PAV/05010	224	675210	PATC-TMC/12010	230	720170	CE-29S	310	750110	ST-71	317
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670180	PATL-TML/05010	222	673107	PATL-PAV/07007	224	680120	PATL-AL-3/TML/12007	232	720190	CR-14S	310	750130	ST-73	318
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670186	PATL-TML/07006	222	673109	PATL-PAV/07009	224	680140	PATL-AL-3/TML/12010	232	720210	CR-29S	310	750150	ST-75	318
670187	PATL-TML/07007	222	673110	PATL-PAV/07010	224	680150	PAT-AL-3/MPL/12007	233	720220	PM-10S	310	755100	VS-80	318
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765102	LS-10	309	P-671180	PEP	250	410073	LA90-4	332						
765111	LS-4-D	309	P-671185	PEP-ECO	250	410074	LA90-6	322						
765112	LS-10-D	309	P-671190	PTB14-1000	250	410075	EL-3/8	332						
899000	FP-20/140	176	P-671191	PTB14-1300	250	410081	LAJ-250	328	LADDERS					
899005	FP-20/210	176	P-671192	PTB14-1500	250	410082	APL-250	328						
899010	FP-25/125	176	P-671193	PTB18-1000	250	410085	3/8" Socket set	333	505100	COMPACT 1,45/0,69	335			
899015	FP-25/175	176	P-671194	PTB18-1300	250	410095	Spanners set	330	505110	COMPACT 1,70/0,92	335			
899020	FP-25/225	176	P-671195	PTB18-1500	250	410096	LF-10	330	505120	COMPACT 1,95/1,15	335			
899025	FP-25/275	176	T645049	POWER-10/20	260	410097	F-13	330	505130	COMPACT 2,20/1,38	335			
899030	FP-25/325	176				410098	F-14	330	505140	COMPACT 2,45/1,61	335			
899050	FE-20/120	176				410099	F-16	330	510000	EF/T-1505	336			
899055	FE-20/110	176	1000 V TOOLS			410100	F-17	330	510010	EF/T-2007	336			
899060	FE-40/30	176				410101	F-19	330	510020	EF/T-2709	336			
P-665020	PFRH-20M12	252	410005	AU-180	327	410102	LVT-210	331	510035	EF/T-3512	336			
P-665022	PFRH-20M16	252	410010	AU-200	327	410105	AC-230	328	510055	EF/T-4516	336			

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