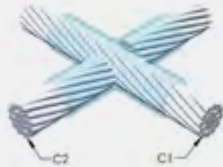




PPI

Power Protection
Industries

EARTHING BIBLE





PPI delivers
customised electrical
solutions to clients
throughout
Asia Pacific and
Australia

OVERVIEW

PPI delivers full, turn-key electrical solutions to a diverse range of industries, including energy, water, mining, commercial, manufacturing and renewable energy.

With a unique roster of capabilities spanning design and procurement through to supply and project management, PPI has built a reputation as the ultimate electrical service provider. Our business has grown exponentially while maintaining a solid grounding in family values.

Part of the Finn Pacific Group that was established in 1998, PPI was created in response to a growing demand from Finn Pacific Group clients for a specialised electrical solutions provider. Now with offices in Brisbane, Townsville and China, PPI specialises in providing products and technical solutions to clients in Australia and the Pacific Islands, including Micronesia, Melanesia, Polynesia, Timor Leste and Indonesia.

Embracing new technologies, PPI prioritises the development of a network of global – and often exclusive – manufacturer relationships, resulting in the consistent and reliable procurement of high-quality materials. Our China office leaves us well-positioned to easily source components and materials throughout Asia Pacific – meaning we can supply clients with the highest quality materials at the lowest possible price.



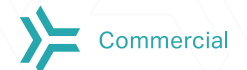
Energy
Utilities



Water
Utilities



Industrial
& Mining



Commercial



Manufacturing



Renewable
Energy

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Earth rods

In line with international standards, our earth rods have a 99.9% pure electrolytic copper coating that is molecularly bonded to a high strength, nickel-sealed steel core. They also have a high-carbon steel core and tip, as well as a copper coating that will not crack when bent or tear when driven. We guarantee a minimum 254µm plating thickness.

PRODUCTS

- > Domestic earth rods Pg 08

- > Copperbonded earth rods Pg 08

- > Stainless steel earth rods Pg 10

- > Ground rod driving accessories Pg 12



EARTH RODS

DOMESTIC EARTH RODS



| DOMESTIC EARTH RODS | | | |
|---------------------|--------------|-----------------|--------|
| PART # | NOMINAL DIA. | ACTUAL DIA. | LENGTH |
| PPI-DGR1415 | 9/16" | 12.7mm | 1.5m |
| PLATING THICKNESS | UNIT WEIGHT | COMPLIES WITH | |
| 254 µm | 1.910 kg | IEC® EN 62561-2 | |

COPPERBONDED EARTH RODS

POINTED SECTIONAL RODS

| PART # | NOMINAL DIA. | ACTUAL DIA. | LENGTH | PLATING THICKNESS | UNIT WEIGHT | COMPLIES WITH |
|-------------|--------------|-------------|--------|-------------------|-------------|-----------------|
| PPI-SGR1360 | 12.5mm | 11 mm | 1.8 m | 254 µm | 2.010 kg | IEC® EN 62561-2 |
| PPI-SGR1380 | 12.5mm | 11 mm | 2.4 m | 254 µm | 2.510 kg | IEC® EN 62561-2 |
| PPI-SGR1300 | 12.5mm | 11 mm | 3.0 m | 254 µm | 3.110 kg | IEC® EN 62561-2 |
| PPI-SGR5860 | 16 mm | 14.1 mm | 1.8 m | 254 µm | 2.300 kg | IEC® EN 62561-2 |
| PPI-SGR5880 | 16 mm | 14.1 mm | 2.4 m | 254 µm | 3.070 kg | IEC® EN 62561-2 |
| PPI-SGR5800 | 16 mm | 14.1 mm | 3.0 m | 254 µm | 3.850 kg | IEC® EN 62561-2 |
| PPI-SGR3460 | 19 mm | 17.2 mm | 1.8 m | 254 µm | 3.400 kg | IEC® EN 62561-2 |
| PPI-SGR3480 | 19 mm | 17.2 mm | 2.4 m | 254 µm | 4.560 kg | IEC® EN 62561-2 |

CONTINUED ON NEXT PAGE >

EARTH RODS

COPPERBONDED EARTH RODS (cont.)

POINTED SECTIONAL RODS

| PART # | NOMINAL DIA. | ACTUAL DIA. | LENGTH | PLATING THICKNESS | UNIT WEIGHT | COMPLIES WITH |
|-------------|--------------|-------------|--------|-------------------|-------------|-----------------|
| PPI-SGR3480 | 19 mm | 17.2 mm | 2.4 m | 254 µm | 4.560 kg | IEC® EN 62561-2 |
| PPI-SGR3400 | 19 mm | 17.2 mm | 3.0 m | 254 µm | 5.720 kg | IEC® EN 62561-2 |
| PPI-SGR4480 | 25 mm | 23.1 mm | 2.4 m | 254 µm | | IEC® EN 62561-2 |
| PPI-SGR4400 | 25 mm | 23.1 mm | 3.0 m | 254 µm | | IEC® EN 62561-2 |

THREADED SECTIONAL RODS

| PART # | NOMINAL DIA. | ACTUAL DIA. | LENGTH | PLATING THICKNESS | UNIT WEIGHT | COMPLIES WITH |
|-------------|--------------|-------------|--------|-------------------|-------------|-----------------|
| PPI-TGR5860 | 16 mm | 14.1 mm | 1.8 m | 254 µm | 2.300 kg | IEC® EN 62561-2 |
| PPI-TGR5880 | 16 mm | 14.1 mm | 2.4 m | 254 µm | 3.000 kg | IEC® EN 62561-2 |
| PPI-TGR5800 | 16 mm | 14.1 mm | 3.0 m | 254 µm | 3.800 kg | IEC® EN 62561-2 |
| PPI-TGR3460 | 19 mm | 17.2 mm | 1.8 m | 254 µm | 3.200 kg | IEC® EN 62561-2 |
| PPI-TGR3480 | 19 mm | 17.2 mm | 2.4 m | 254 µm | 4.400 kg | IEC® EN 62561-2 |
| PPI-TGR3400 | 19 mm | 17.2 mm | 3.0 m | 254 µm | 5.700 kg | IEC® EN 62561-2 |
| PPI-SGR4480 | 25 mm | 23.1 mm | 2.4 m | 254 µm | | IEC® EN 62561-2 |
| PPI-SGR4400 | 25 mm | 23.1 mm | 3.0 m | 254 µm | | IEC® EN 62561-2 |

EARTH RODS

STAINLESS STEEL EARTH RODS SOLID 304



POINTED SECTIONAL RODS

| PART # | NOMINAL DIA. | ACTUAL DIA. | LENGTH | UNIT WEIGHT |
|---------------|--------------|-------------|--------|-------------|
| PPI-SSGR12514 | 12.5mm | 12.5 mm | 1.4 m | 1.875 kg |
| PPI-SSGR1380 | 12.5mm | 12.5 mm | 2.4 m | 2.101 kg |
| PPI-SSGR1300 | 12.5mm | 12.5 mm | 3.0 m | 2.560 kg |
| PPI-SSGR1680 | 16mm | 16 mm | 2.4 m | - |
| PPI-SSGR1600 | 16mm | 16 mm | 3.0 m | - |
| PPI-SSGR1900 | 19mm | 19 mm | 3.0 m | - |

We manufacture solid stainless steel rods in our warehouse, many other sizes available with a short turnaround time.

EARTH RODS

GROUND ROD COUPLERS



THREADED

| PART # | NOMINAL DIA. | ACTUAL DIA. |
|----------|--------------|-------------|
| PPI CP12 | 1/2" | 12.1 mm |
| PPI CP58 | 5/8" | 14.2 mm |
| PPI PP34 | 3/4" | 17.1 mm |

COMPRESSION

| PART # | NOMINAL DIA. | ACTUAL DIA. |
|-----------|--------------|-------------|
| PPI CPS58 | 5/8" | 14.2 mm |
| PPI CPS34 | 3/4" | 17.3 mm |

STAINLESS STEEL COMPRESSION

| PART # | NOMINAL DIA. | ACTUAL DIA. |
|------------|--------------|-------------|
| PPI CPSS12 | 12.5 mm | 12.5 mm |

EARTH RODS

GROUND ROD DRIVING STUD



HIGH TENSILE

| PART # | TO SUIT GROUND ROD |
|----------|--------------------|
| PPI DS12 | 1/2" |
| PPI DS58 | 5/8" |
| PPI DS34 | 3/4" |

GROUND ROD DRIVING TIP



HIGH TENSILE

| PART # | TO SUIT GROUND ROD |
|----------|--------------------|
| PPI DT58 | 5/8" |
| PPI DT34 | 3/4" |

EARTH RODS

GROUND ROD DRIVER



SUITS ALL GROUND RODS IN OUR RANGE

| PART # | GROUND ROD DIA. | LENGTH | WEIGHT |
|-----------|-----------------|----------|---------|
| PPI GRD34 | 3/4" Max | 1,500 mm | 10.4 kg |
| PPI GRD58 | 5/8" Max | 1,500 mm | 10.4 kg |



Structural earthing

It can be highly effective to use the integral elements of a structure to add to the overall result. This means tying in structural footings, concrete reinforced columns, I-beams, fence posts and other solid structural elements.

PRODUCTS

- > Weldable earthing plates Pg 16

- > Rebar clamps Pg 18

- > Earth boss Pg 18

- > Beam bonding clamps Pg 18

- > Fence clamps – single conductor Pg 19

- > Fence clamps – double conductor Pg 19



Need something custom? We can design and manufacture to your specifications. Please contact us to discuss your requirements. Lead times are approximately 7-10 business days.

STRUCTURAL EARTHING

WELDABLE EARTHING PLATES



| SINGLE HOLE – 12MM THREAD | |
|---------------------------|--|
| PART # | DESCRIPTION |
| PPI-0.5X70DB12BL | DB12 PLATE to 0.5MTR 70MM2 EARTH CABLE |
| PPI-1X70DB12BL | DB12 PLATE to 1MTR 70MM2 EARTH CABLE |
| PPI-2X70DB12BL | DB12 PLATE to 2MTR 70MM2 EARTH CABLE |
| PPI-3X70DB12BL | DB12 PLATE to 3MTR 70MM2 EARTH CABLE |
| PPI-1X120DB12BL | DB12 PLATE to 1MTR 120MM2 EARTH CABLE |
| PPI-2X120DB12BL | DB12 PLATE to 2MTR 120MM2 EARTH CABLE |
| PPI-3X120DB12BL | DB12 PLATE to 3MTR 120MM2 EARTH CABLE |

STRUCTURAL EARTHING

WELDABLE EARTHING PLATES



| DOUBLE HOLE 1/2" THREAD | |
|-------------------------|---|
| PART # | DESCRIPTION |
| PPI-0.5X70B1622BL | B162-2Q PLATE to 0.5MTR 70MM2 EARTH CABLE |
| PPI-1X70B1622BL | B162-2Q PLATE to 1MTR 70MM2 EARTH CABLE |
| PPI-2X70B1622BL | B162-2Q PLATE to 2MTR 70MM2 EARTH CABLE |
| PPI-3X70B1622BL | B162-2Q PLATE to 3MTR 70MM2 EARTH CABLE |
| PPI-1X120B1622 | B162-2Q PLATE to 1MTR 120MM2 EARTH CABLE |
| PPI-2X120B1622BL | B162-2Q PLATE to 2MTR 120MM2 EARTH CABLE |
| PPI-3X120B1622 | B162-2Q PLATE to 3MTR 120MM2 EARTH CABLE |

STRUCTURAL EARTHING

REBAR CLAMPS



DIRECT BURIAL, HIGH STRENGTH BRONZE ALLOY

| PART # | REBAR SIZE | CONFIGURATION | MIN. COND SIZE | MAX. COND SIZE |
|-------------|------------|---------------|-------------------|--------------------|
| PPI RBK16 | 12 - 25 mm | Parallel | 6 mm ² | 25 mm ² |
| PPI RBK17 | 12 - 25 mm | Perpendicular | 6 mm ² | 25 mm ² |
| PPI RBC818 | 8-18 mm | Double Bolted | 10mm ² | 95 mm ² |
| PPI RBC1836 | 18-36 mm | Double Bolted | 10mm ² | 95mm ² |

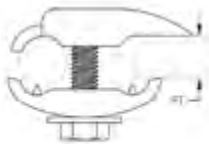
EARTH BOSS



WELDED BOND CONNECTION POINT - 50MM LONG

| PART # | MATERIAL | ∅ | TS |
|--------------|-----------------|-------|-----|
| PPI-EBOSS-MS | Mild Steel | 50 mm | M10 |
| PPI-EBOSS-SS | Stainless Steel | 50 mm | M10 |

BEAM BONDING CLAMPS



CLAMP CABLE TO FLAT METAL I-BEAM, ANGLE, CHANNEL

| PART # | FT | DEPTH | WIDTH | WEIGHT |
|-------------|------------|----------|---------|----------|
| PPI BBC559 | 6.4 mm Max | 57.15 mm | 40.6 mm | 0.175 kg |
| PPI BBC559L | 6.4 mm Max | 57.15 mm | 40.6 mm | 0.175 kg |

STRUCTURAL EARTHING

FENCE CLAMPS - SINGLE CONDUCTOR



TINNED CAST BRONZE, STAINLESS STEEL HARDWARE

| PART # | FENCE POST SIZE | CONDUCTOR RANGE | COMPLIES WITH | CERTIFICATIONS |
|--------|-----------------|--|--------------------------|----------------|
| FC073 | 1 1/2" (48 mm) | 16 mm ² - 70 mm ² | - | - |
| FC074 | 1 1/2" (48 mm) | 50 mm ² - 120 mm ² | - | - |
| FC075 | 2" (60 mm) | 16 mm ² - 70 mm ² | IEC [®] 62561-1 | cULus |
| FC076 | 2" (60 mm) | 50 mm ² - 120 mm ² | IEC [®] 62561-1 | - |
| FC078 | 2 1/2" (73 mm) | 16 mm ² - 120 mm ² | - | - |
| FC079 | 3" (89 mm) | 16 mm ² - 70 mm ² | - | - |
| FC080 | 3" (89 mm) | 50 mm ² - 120 mm ² | - | - |
| FC082 | 3 1/2" (102 mm) | 16 mm ² - 120 mm ² | - | - |

FENCE CLAMPS - DOUBLE CONDUCTOR



TINNED CAST BRONZE, STAINLESS STEEL HARDWARE

| PART # | FENCE POST SIZE | CONDUCTOR RANGE | COMPLIES WITH | CERTIFICATIONS |
|-------------|-----------------|--|---------------|----------------|
| PPI FC076DH | 2" (60 mm) | 50 mm ² - 120 mm ² | - | - |
| PPI FC078DH | 2 1/2" (73 mm) | 16 mm ² - 120 mm ² | - | - |
| PPI FC082DH | 3 1/2" (102 mm) | 16 mm ² - 120 mm ² | - | - |



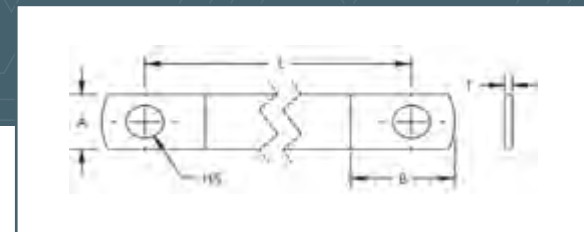
Earth braids

Grounding and bonding braids are a reliable and convenient grounding solution for applications that require flexibility and durability. The tinned copper ground braids with massivated palms come ready to install without any additional cutting, stripping, crimping or punching and do not require the addition of tin or crimped lugs. The proprietary manufacturing process optimises the electrical contact between each wire and helps eliminate moisture issues in the palms, preventing corrosion and lengthening the useful life of the braid.

PRODUCTS

- > MBJ grounding and bonding braid Pg 22

- > CPI grounding and bonding braid Pg 24



EARTH BRAIDS

MBJ GROUNDING AND BONDING BRAID

MATERIAL: COPPER, FINISH: TINNED

| PART # | AMPACITY | T | CSA | L | HS | A | B | WEIGHT |
|--------------|----------|--------|--------------------|--------|---------|-------|-------|----------|
| MBJ35-100-10 | 197 A | 2.1 mm | 35 mm ² | 100 mm | 10.5 mm | 22 mm | 28 mm | 0.037 kg |
| MBJ35-150-10 | 197 A | 2.1 mm | 35 mm ² | 150 mm | 10.5 mm | 22 mm | 28 mm | 0.054 kg |
| MBJ35-200-10 | 197 A | 2.1 mm | 35 mm ² | 200 mm | 10.5 mm | 22 mm | 28 mm | 0.072 kg |
| MBJ35-250-10 | 197 A | 2.1 mm | 35 mm ² | 250 mm | 10.5 mm | 22 mm | 28 mm | 0.089 kg |
| MBJ35-300-10 | 197 A | 2.1 mm | 35 mm ² | 300 mm | 10.5 mm | 22 mm | 28 mm | 0.110 kg |
| MBJ35-500-10 | 197 A | 2.1 mm | 35 mm ² | 500 mm | 10.5 mm | 22 mm | 28 mm | 0.180 kg |
| MBJ50-100-10 | 250 A | 2.5 mm | 50 mm ² | 100 mm | 10.5 mm | 28 mm | 33 mm | 0.052 kg |
| MBJ50-150-10 | 250 A | 2.5 mm | 50 mm ² | 150 mm | 10.5 mm | 28 mm | 33 mm | 0.077 kg |
| MBJ50-200-6 | 250 A | 2.5 mm | 50 mm ² | 200 mm | 6.5 mm | 28 mm | 33 mm | 0.120 kg |
| MBJ50-200-10 | 250 A | 2.5 mm | 50 mm ² | 200 mm | 10.5 mm | 28 mm | 33 mm | 0.120 kg |
| MBJ50-200-12 | 250 A | 2.5 mm | 50 mm ² | 200 mm | 12.5 mm | 28 mm | 33 mm | 0.120 kg |
| MBJ50-200-16 | 250 A | 2.5 mm | 50 mm ² | 200 mm | 16.5 mm | 28 mm | 33 mm | 0.110 kg |
| MBJ50-250-10 | 250 A | 2.5 mm | 50 mm ² | 250 mm | 10.5 mm | 28 mm | 33 mm | 0.127 kg |
| MBJ50-300-6 | 250 A | 2.5 mm | 50 mm ² | 300 mm | 6.5 mm | 28 mm | 33 mm | 0.150 kg |

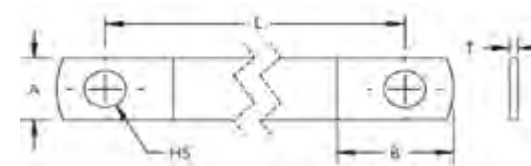
EARTH BRAIDS

MBJ GROUNDING AND BONDING BRAID (cont.)

MATERIAL: COPPER, FINISH: TINNED

| PART # | AMPACITY | T | CSA | L | HS | A | B | WEIGHT |
|--------------|----------|--------|--------------------|--------|---------|-----------------|----------|----------|
| MBJ50-300-10 | 250 A | 2.5 mm | 50 mm ² | 300 mm | 10.5 mm | 28 mm | 33 mm | 0.153 kg |
| MBJ50-300-16 | 250 A | 2.5 mm | 50 mm ² | 300 mm | 16.5 mm | 28 mm | 33 mm | 0.150 kg |
| MBJ50-500-10 | 250 A | 2.5 mm | 50 mm ² | 500 mm | 10.5 mm | 28 mm | 33 mm | 0.255 kg |
| MBJ50-500-12 | 250 A | 2.5 mm | 50 mm ² | 500 mm | 12.5 mm | 28 mm | 33 mm | 0.255 kg |
| MBJ70-300-6 | 290 A | 3.4 mm | 70 mm ² | 300 mm | 6.5 mm | 28 mm | 33 mm | 0.210 kg |
| MBJ70-300-10 | 290 A | 3.4 mm | 70 mm ² | 300 mm | 10.5 mm | 28 mm | 33 mm | 0.210 kg |
| MBJ70-300-12 | 290 A | 3.4 mm | 70 mm ² | 300 mm | 12.5 mm | 28 mm <td 33 mm | 0.210 kg | |
| MBJ70-300-16 | 290 A | 3.4 mm | 70 mm ² | 300 mm | 16.5 mm | 28 mm | 33 mm | 0.200 kg |
| MBJ70-500-10 | 290 A | 3.4 mm | 70 mm ² | 500 mm | 10.5 mm | 28 mm | 33 mm | 0.340 kg |

These are some of the more popular sizes for earthing. Many other sizes and lengths are available.



EARTH BRAIDS

CPI GROUNDING AND BONDING BRAID

MATERIAL: STAINLESS STEEL 316L

| PART # | AMPACITY | T | L | HS | A | B | WEIGHT |
|---------------|--------------------|--------|----------|---------|---------|-------|----------|
| CPI35-150-12 | 35 mm ² | 4.0 mm | 150 mm | 13.0 mm | 26.5 mm | 30 mm | 0.071 kg |
| CPI35-200-12 | 35 mm ² | 4.0 mm | 200 mm | 13.0 mm | 26.5 mm | 30 mm | 0.085 kg |
| CPI35-250-12 | 35 mm ² | 4.0 mm | 250 mm | 13.0 mm | 26.5 mm | 30 mm | 0.099 kg |
| CPI35-300-12 | 35 mm ² | 4.0 mm | 300 mm | 13.0 mm | 26.5 mm | 30 mm | 0.112 kg |
| CPI35-400-12 | 35 mm ² | 4.0 mm | 400 mm | 13.0 mm | 26.5 mm | 30 mm | 0.140 kg |
| CPI35-600-12 | 35 mm ² | 4.0 mm | 600 mm | 13.0 mm | 26.5 mm | 30 mm | 0.195 kg |
| CPI50-150-12 | 50 mm ² | 5.0 mm | 150 mm | 13.0 mm | 30.0 mm | 30 mm | 0.111 kg |
| CPI50-200-12 | 50 mm ² | 5.0 mm | 200 mm | 13.0 mm | 30.0 mm | 30 mm | 0.130 kg |
| CPI50-250-12 | 50 mm ² | 5.0 mm | 250 mm | 13.0 mm | 30.0 mm | 30 mm | 0.150 kg |
| CPI50-300-12 | 50 mm ² | 5.0 mm | 300 mm | 13.0 mm | 30.0 mm | 30 mm | 0.170 kg |
| CPI50-400-12 | 50 mm ² | 5.0 mm | 400 mm | 13.0 mm | 30.0 mm | 30 mm | 0.209 kg |
| CPI50-600-12 | 50 mm ² | 5.0 mm | 600 mm | 13.0 mm | 30.0 mm | 30 mm | 0.288 kg |
| CPI70-1100-12 | 70 mm ² | 5.8 mm | 1,100 mm | 13.0 mm | 30.0 mm | 30 mm | 0.664 kg |
| CPI70-150-12 | 70 mm ² | 5.8 mm | 150 mm | 13.0 mm | 30.0 mm | 30 mm | 0.139 kg |

EARTH BRAIDS

CPI GROUNDING AND BONDING BRAID (cont.)

MATERIAL: STAINLESS STEEL 316L

| PART # | AMPACITY | T | L | HS | A | B | WEIGHT |
|--------------|--------------------|--------|--------|---------|---------|-------|----------|
| CPI70-200-12 | 70 mm ² | 5.8 mm | 200 mm | 13.0 mm | 30.0 mm | 30 mm | 0.167 kg |
| CPI70-250-12 | 70 mm ² | 5.8 mm | 250 mm | 13.0 mm | 30.0 mm | 30 mm | 0.194 kg |
| CPI70-300-12 | 70 mm ² | 5.8 mm | 300 mm | 13.0 mm | 30.0 mm | 30 mm | 0.222 kg |
| CPI70-400-12 | 70 mm ² | 5.8 mm | 400 mm | 13.0 mm | 30.0 mm | 30 mm | 0.277 kg |
| CPI70-600-12 | 70 mm ² | 5.8 mm | 600 mm | 13.0 mm | 30.0 mm | 30 mm | 0.388 kg |
| CPI70-800-12 | 70 mm ² | 5.8 mm | 800 mm | 13.0 mm | 30.0 mm | 30 mm | 0.498 kg |



Earth bars

Our standard range of earth bars are a convenient way to provide a common earth connection point and an integral isolation point for testing purposes.

For special combinations or different-size bars, please contact us. We can generally have them manufactured locally with short lead times.

PRODUCTS

- > [Copper earth bars](#) Pg 28

- > [Tinned copper earth bars](#) Pg 30



Need something custom? We can design and manufacture to specification. Please contact us to discuss your requirements. Lead times may vary – approx. 7 - 10 business days.

EARTH BARS

COPPER EARTH BARS



| STANDARD EARTH BAR | | | | | |
|--------------------|------------------------|-------|--------|-----------|--|
| PART # | FINISH | HOLES | LENGTH | HARDWARE | |
| PPI-EB-004-M10 | ANNEALED COPPER 50X6.3 | 4 | 220 | M10 304SS | |
| PPI-EB-005-M10 | ANNEALED COPPER 50X6.3 | 5 | 250 | M10 304SS | |
| PPI-EB-006-M10 | ANNEALED COPPER 50X6.3 | 6 | 280 | M10 304SS | |
| PPI-EB-007-M10 | ANNEALED COPPER 50X6.3 | 7 | 310 | M10 304SS | |
| PPI-EB-008-M10 | ANNEALED COPPER 50X6.3 | 8 | 340 | M10 304SS | |
| PPI-EB-010-M10 | ANNEALED COPPER 50X6.3 | 10 | 400 | M10 304SS | |
| PPI-EB-015-M10 | ANNEALED COPPER 50X6.3 | 15 | 550 | M10 304SS | |
| PPI-EB-020-M10 | ANNEALED COPPER 50X6.3 | 20 | 700 | M10 304SS | |
| PPI-EB-004-M12 | ANNEALED COPPER 50X6.3 | 4 | 220 | M12 304SS | |
| PPI-EB-005-M12 | ANNEALED COPPER 50X6.3 | 5 | 250 | M12 304SS | |
| PPI-EB-006-M12 | ANNEALED COPPER 50X6.3 | 6 | 280 | M12 304SS | |
| PPI-EB-007-M12 | ANNEALED COPPER 50X6.3 | 7 | 310 | M12 304SS | |
| PPI-EB-008-M12 | ANNEALED COPPER 50X6.3 | 8 | 340 | M12 304SS | |
| PPI-EB-010-M12 | ANNEALED COPPER 50X6.3 | 10 | 400 | M12 304SS | |
| PPI-EB-015-M12 | ANNEALED COPPER 50X6.3 | 15 | 550 | M12 304SS | |
| PPI-EB-020-M12 | ANNEALED COPPER 50X6.3 | 20 | 700 | M12 304SS | |

EARTH BARS

COPPER EARTH BARS



| EARTH BAR WITH DISCONNECT LINK | | | | | |
|--------------------------------|------------------------|-------|--------|-----------|--|
| PART # | FINISH | HOLES | LENGTH | HARDWARE | |
| PPI-EB-104-M10 | ANNEALED COPPER 50X6.3 | 4 | 230 | M10 304SS | |
| PPI-EB-105-M10 | ANNEALED COPPER 50X6.3 | 5 | 260 | M10 304SS | |
| PPI-EB-106-M10 | ANNEALED COPPER 50X6.3 | 6 | 290 | M10 304SS | |
| PPI-EB-107-M10 | ANNEALED COPPER 50X6.3 | 7 | 320 | M10 304SS | |
| PPI-EB-108-M10 | ANNEALED COPPER 50X6.3 | 8 | 350 | M10 304SS | |
| PPI-EB-110-M10 | ANNEALED COPPER 50X6.3 | 10 | 410 | M10 304SS | |
| PPI-EB-104-M12 | ANNEALED COPPER 50X6.3 | 4 | 230 | M12 304SS | |
| PPI-EB-105-M12 | ANNEALED COPPER 50X6.3 | 5 | 260 | M12 304SS | |
| PPI-EB-106-M12 | ANNEALED COPPER 50X6.3 | 6 | 290 | M12 304SS | |
| PPI-EB-107-M12 | ANNEALED COPPER 50X6.3 | 7 | 320 | M12 304SS | |
| PPI-EB-108-M12 | ANNEALED COPPER 50X6.3 | 8 | 350 | M12 304SS | |
| PPI-EB-110-M12 | ANNEALED COPPER 50X6.3 | 10 | 410 | M12 304SS | |

EARTH BARS

TINNED COPPER EARTH BARS



| STANDARD EARTH BAR | | | | | |
|--------------------|----------------------|-------|--------|-----------|--|
| PART # | FINISH | HOLES | LENGTH | HARDWARE | |
| PPI-TEB-004-M10 | TINNED COPPER 50X6.3 | 4 | 220 | M10 304SS | |
| PPI-TEB-005-M10 | TINNED COPPER 50X6.3 | 5 | 250 | M10 304SS | |
| PPI-TEB-006-M10 | TINNED COPPER 50X6.3 | 6 | 280 | M10 304SS | |
| PPI-TEB-007-M10 | TINNED COPPER 50X6.3 | 7 | 310 | M10 304SS | |
| PPI-TEB-008-M10 | TINNED COPPER 50X6.3 | 8 | 340 | M10 304SS | |
| PPI-TEB-010-M10 | TINNED COPPER 50X6.3 | 10 | 400 | M10 304SS | |
| PPI-TEB-004-M12 | TINNED COPPER 50X6.3 | 4 | 220 | M12 304SS | |
| PPI-TEB-005-M12 | TINNED COPPER 50X6.3 | 5 | 250 | M12 304SS | |
| PPI-TEB-006-M12 | TINNED COPPER 50X6.3 | 6 | 280 | M12 304SS | |
| PPI-TEB-007-M12 | TINNED COPPER 50X6.3 | 7 | 310 | M12 304SS | |
| PPI-TEB-008-M12 | TINNED COPPER 50X6.3 | 8 | 340 | M12 304SS | |
| PPI-TEB-010-M12 | TINNED COPPER 50X6.3 | 10 | 400 | M12 304SS | |

EARTH BARS

TINNED COPPER EARTH BARS



| EARTH BAR WITH DISCONNECT LINK | | | | | |
|--------------------------------|----------------------|-------|--------|-----------|--|
| PART # | FINISH | HOLES | LENGTH | HARDWARE | |
| PPI-TEB-104-M10 | TINNED COPPER 50X6.3 | 4 | 230 | M10 304SS | |
| PPI-TEB-105-M10 | TINNED COPPER 50X6.3 | 5 | 260 | M10 304SS | |
| PPI-TEB-106-M10 | TINNED COPPER 50X6.3 | 6 | 290 | M10 304SS | |
| PPI-TEB-107-M10 | TINNED COPPER 50X6.3 | 7 | 320 | M10 304SS | |
| PPI-TEB-108-M10 | TINNED COPPER 50X6.3 | 8 | 350 | M10 304SS | |
| PPI-TEB-110-M10 | TINNED COPPER 50X6.3 | 10 | 410 | M10 304SS | |
| PPI-TEB-104-M12 | TINNED COPPER 50X6.3 | 4 | 230 | M12 304SS | |
| PPI-TEB-105-M12 | TINNED COPPER 50X6.3 | 5 | 260 | M12 304SS | |
| PPI-TEB-106-M12 | TINNED COPPER 50X6.3 | 6 | 290 | M12 304SS | |
| PPI-TEB-107-M12 | TINNED COPPER 50X6.3 | 7 | 320 | M12 304SS | |
| PPI-TEB-108-M12 | TINNED COPPER 50X6.3 | 8 | 350 | M12 304SS | |
| PPI-TEB-110-M12 | TINNED COPPER 50X6.3 | 10 | 410 | M12 304SS | |



Buried cable connections

Our various ERICO Cadweld exothermic connections and C-crimp connectors are designed to offer the two most common buried connection methods for the sizes we most often see in our markets. If there's a connection you don't see here, please contact us – there are over 45,000 different buried earthing connection solutions within our range.

PRODUCTS

- > Exothermic connections Pg 34

- > Weldmetals - Cadweld Plus Pg 39

- > Classic weldmetals Pg 40

- > C-crimp connectors Pg 41



BURIED CABLE CONNECTIONS

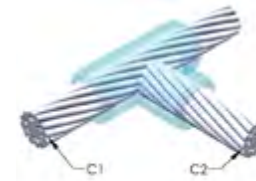
EXOTHERMIC CONNECTIONS



| PT TYPE CONNECTION | | | |
|--------------------|-----|---------|-----------|
| C1 | C2 | MOULD # | WELDMETAL |
| 25 | 25 | PTCY1Y1 | 45 |
| 35 | 25 | PTCY2Y1 | 65 |
| 35 | 35 | PTCY2Y2 | 65 |
| 50 | 35 | PTCY3Y2 | 65 |
| 50 | 50 | PTCY3Y3 | 90 |
| 70 | 50 | PTCY4Y3 | 115 |
| 70 | 70 | PTCY4Y4 | 115 |
| 95 | 50 | PTCY5Y3 | 150 |
| 95 | 70 | PTCY5Y4 | 150 |
| 95 | 95 | PTCY5Y5 | 200 |
| 120 | 70 | PTCY6Y4 | 150 |
| 120 | 95 | PTCY6Y5 | 200 |
| 120 | 120 | PTCY6Y6 | 250 |

BURIED CABLE CONNECTIONS

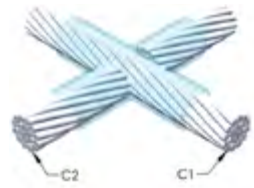
EXOTHERMIC CONNECTIONS



| TA TYPE CONNECTION | | | |
|--------------------|-----|---------|-----------|
| C1 | C2 | MOULD # | WELDMETAL |
| 25 | 25 | TACY1Y1 | 32 |
| 35 | 25 | TACY2Y1 | 45 |
| 35 | 35 | TACY2Y2 | 45 |
| 50 | 25 | TACY3Y1 | 45 |
| 50 | 35 | TACY3Y2 | 45 |
| 50 | 50 | TACY3Y3 | 90 |
| 70 | 25 | TACY4Y1 | 45 |
| 70 | 35 | TACY4Y2 | 45 |
| 70 | 50 | TACY4Y3 | 90 |
| 70 | 70 | TACY4Y4 | 90 |
| 95 | 50 | YACY5Y3 | 90 |
| 95 | 70 | TACY5Y4 | 90 |
| 95 | 95 | TACY5Y5 | 115 |
| 120 | 70 | TACY6Y4 | 90 |
| 120 | 95 | TACY6Y5 | 150 |
| 120 | 120 | TACY6Y6 | 150 |

BURIED CABLE CONNECTIONS

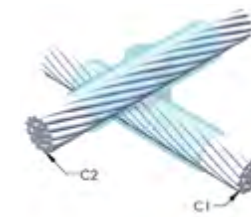
EXOTHERMIC CONNECTIONS



| XA TYPE CONNECTION | | | |
|--------------------|-----|---------|-----------|
| C1 | C2 | MOULD # | WELDMETAL |
| 25 | 25 | XACY1Y1 | 45 |
| 35 | 25 | XACY2Y1 | 65 |
| 35 | 35 | XACY2Y2 | 65 |
| 50 | 35 | XACY3Y2 | 90 |
| 50 | 50 | XACY3Y3 | 90 |
| 70 | 50 | XACY4Y3 | 115 |
| 70 | 70 | XACY4Y4 | 115 |
| 95 | 50 | YACY5Y3 | 150 |
| 95 | 70 | XACY5Y4 | 150 |
| 95 | 95 | XACY5Y5 | 200 |
| 120 | 70 | XACY6Y4 | 200 |
| 120 | 95 | XACY6Y5 | 200 |
| 120 | 120 | XACY6Y6 | 200 |

BURIED CABLE CONNECTIONS

EXOTHERMIC CONNECTIONS



| XB TYPE CONNECTION | | | |
|--------------------|-----|---------|-----------|
| C1 | C2 | MOULD # | WELDMETAL |
| 25 | 25 | XBCY1Y1 | 65 |
| 35 | 35 | XBCY2Y2 | 90 |
| 50 | 50 | XBQY3Y3 | 150 |
| 70 | 70 | XBQY4Y4 | 200 |
| 95 | 95 | XBQY5Y5 | 250 |
| 120 | 120 | XBQY6Y6 | 300 |

EXOTHERMIC CONNECTIONS



| SS TYPE CONNECTION | | | |
|--------------------|-----|---------|-----------|
| C1 | C2 | MOULD # | WELDMETAL |
| 25 | 25 | SSCY1 | 32 |
| 35 | 35 | SSCY2 | 32 |
| 50 | 50 | SSCY3 | 45 |
| 70 | 70 | SSCY4 | 65 |
| 95 | 95 | SSCY5 | 90 |
| 120 | 120 | SSCY6 | 115 |

BURIED CABLE CONNECTIONS

EXOTHERMIC CONNECTIONS



| GY TYPE CONNECTION | | | |
|--------------------|-----|-----------|-----------|
| ROD SIZE | C1 | MOULD # | WELDMETAL |
| 12.7MM | 25 | GYRP128Y1 | 90 |
| | 35 | GYRP128Y2 | 90 |
| | 50 | GYRP128Y3 | 115 |
| | 70 | GYRP128Y4 | 115 |
| | 95 | GYRP128Y5 | 150 |
| | 120 | GYRP128Y6 | 150 |
| 14.2MM | 25 | GYPR143Y1 | 90 |
| | 35 | GYPR143Y2 | 90 |
| | 50 | GYPR143Y3 | 115 |
| | 70 | GYPR143Y4 | 115 |
| | 95 | GYPR143Y5 | 150 |
| | 120 | GYPR143Y6 | 150 |
| 17.2MM | 25 | GYRP173Y1 | 90 |
| | 35 | GYRP173Y2 | 90 |
| | 50 | GYRP173Y3 | 115 |
| | 70 | GYRP173Y4 | 150 |
| | 95 | GYRP173Y5 | 150 |
| | 120 | GYRP173Y6 | 250 |

BURIED CABLE CONNECTIONS

WELDMETALS



| CADWELD PLUS | | | |
|--------------|------------------|----------------|-----------------------------|
| PART # | COLOUR CODE RING | CERTIFICATIONS | STANDARD PACKAGING QUANTITY |
| 115PLUSF20 | Orange | cULus | 10 pc |
| 1250PLUSF20 | None | - | 5 pc |
| 150PLUSF20 | Dark Blue | cULus | 10 pc |
| 15PLUSF20 | Black | cULus | 20 pc |
| 200PLUSF20 | Yellow | cULus | 10 pc |
| 250PLUSF20 | Purple | cULus | 10 pc |
| 25PLUSF20 | Red | cULus | 20 pc |
| 300PLUSF20 | Light Green | cULus | 10 pc |
| 32PLUSF20 | White | cULus | 20 pc |
| 400PLUSF20 | Brown | - | 10 pc |
| 45PLUSF20 | Light Blue | cULus | 20 pc |
| 500PLUSF20 | Light Brown | - | 10 pc |
| 600PLUSF20 | White | - | 10 pc |

CONTINUED ON NEXT PAGE >

BURIED CABLE CONNECTIONS

WELDMETALS



CADWELD PLUS (CONT.)

| PART # | COLOUR CODE RING | CERTIFICATIONS | STANDARD PACKAGING QUANTITY |
|------------|------------------|----------------|-----------------------------|
| 65PLUSF20 | Dark Green | cULus | 20 pc |
| 750PLUSF20 | White | - | 5 pc |
| 90PLUSF20 | Gray | cULus | 10 pc |

CLASSIC WELDMETALS



CLASSIC WELDMETALS

| PART # | STANDARD PACKAGING QTY |
|--------|------------------------|
| 15 | 20 pc |
| 25 | 20 pc |
| 32 | 20 pc |
| 45 | 20 pc |
| 65 | 20 pc |
| 90 | 10 pc |
| 115 | 10 pc |
| 150 | 10 pc |

CONTINUED ON NEXT PAGE >

BURIED CABLE CONNECTIONS

CLASSIC WELDMETALS



CLASSIC WELDMETALS (CONT.)

| PART # | STANDARD PACKAGING QTY |
|--------|------------------------|
| 200 | 10 pc |
| 250 | 10 pc |
| 500 | 10 pc |

C-CRIMP CONNECTORS



BARE COPPER

| PART # | WIRE SIZES (MM ²) | | DIMENSIONS (MM) | | | |
|-------------|-------------------------------|--------------|-----------------|------|------|-----|
| | CABLE SIZE 1 | CABLE SIZE 2 | H | W | D | T |
| PPI-HCC60C | 16-35 | 16-25 | 21 | 19 | 15 | 4.5 |
| PPI-HCC76C | 35 | 35 | 24.3 | 20 | 17.6 | 5 |
| | 50 | 16-25 | | | | |
| PPI-HCC98C | 50 | 35-50 | 27.8 | 23 | 18.8 | 5.2 |
| | 70 | 16-25 | | | | |
| PPI-HCC122C | 70 | 35-50 | 30 | 25 | 21.4 | 5.2 |
| PPI-HCC154C | 70 | 70 | 33.8 | 26.8 | 23.6 | 5.5 |
| PPI-HCC190C | 95 | 70-95 | 36.4 | 33.4 | 24.8 | 5.8 |
| | 120 | 35-70 | | | | |
| PPI-HCC240C | 120 | 95-120 | 39.7 | 38 | 27.9 | 6.3 |
| PPI-HCC288C | 150 | 120 | 44 | 44 | 31 | 7 |



Earthing clamps

Our earth rod clamps are cast in high copper-content alloy and fitted with stainless steel U-bolts, nuts and spring washers. We offer options for single or multiple conductors to the one earth rod, and flat tape earth conductors to earth rod.

PRODUCTS

- > Domestic earth rod clamp Pg 44

- > Earth rod to flat tape clamp Pg 44

- > U Bolt earth rod to cable and flat tape clamps Pg 44

- > Hammerlock Ground Rod Connection Pg 45



EARTHING CLAMPS

DOMESTIC EARTH ROD CLAMP



| PART # | Ø | TAPE SIZES |
|----------|---------|-------------|
| PPI ERD1 | 12.7 mm | 16 mm 2 max |

EARTH ROD TO FLAT TAPE CLAMP



| TO IEC 62561-1 | | |
|----------------|------------------|------------|
| PART # | Ø | TAPE SIZES |
| PPI RTC10 | 1/2", 5/8", 3/4" | 26 x 12 mm |
| PPI RTC30 | 5/8" | 40 x 12 mm |
| PPI RTC40 | 5/8" | 51 x 8 mm |
| PPI RTC50 | 3/4" | 51 x 12 mm |

U BOLT EARTH ROD TO CABLE AND FLAT TAPE CLAMPS



| TO IEC 62561-1 | | | | | |
|----------------|--------------|------------|--|------------|------------|
| PART # | Ø | # OF COND. | CONDUCTOR SIZES | # OF TAPES | TAPE SIZES |
| PPI-UBC1C1 | 5/8" to 3/4" | 1 | 50-120mm ² | | |
| PPI-UBC1C2 | 5/8" to 3/4" | 2 | 50-120mm ² | | |
| PPI-UBC1C3 | 5/8" to 3/4" | 3 | 1x35-70mm ² & 2x70-120mm | | |
| PPI-UBC1C5 | 5/8" to 3/4" | 5 | 50-70mm ² | | |
| PPI-UBC2C3 | 5/8" to 3/4" | 3 | 2x35-70mm ² & 1x70-120mm | | |

EARTH ROD CONNECTORS

U BOLT EARTH ROD TO CABLE AND FLAT TAPE CLAMPS (cont.)



| TO IEC 62561-1 | | | | | |
|----------------|--------------|------------|-----------------------|-------------------------------------|------------|
| PART # | Ø | # OF COND. | CONDUCTOR SIZES | # OF TAPES | TAPE SIZES |
| PPI-UBC2C2 | 5/8" to 3/4" | 2 | 70-120mm ² | | |
| PPI-UBC2C1 | 5/8" to 3/4" | 1 | 70-120mm ² | | 25 x 3mm |
| PPI-UBC2T2 | 5/8" to 3/4" | | | 1 or 2 | 25 x 3mm |
| PPI-UBC3T2 | 30mm | | | 1 or 2 | 50 x 6mm |
| PPI-UBC3T1 | 40mm | | | 1 | 25 x 3mm |
| PPI X170 | 5/8" to 1" | 1 | 16-70mm ² | Horizontal or Vertical to Earth Rod | |
| PPI X1185 | | | 70-185mm ² | | |

HAMMERLOCK GROUND ROD CONNECTION



| TO CULUS | | | |
|---------------|------|-----------------|-----------------------|
| PART # | Ø | # OF CONDUCTORS | CONDUCTOR SIZES |
| PPI HL3495107 | 3/4" | 1 | 95-107mm ² |
| PPI HL345070 | 3/4" | 1 | 50-70mm ² |
| PPI HL342535 | 3/4" | 1 | 25-35mm ² |
| PPI HL585070 | 5/8" | 1 | 50-70mm ² |
| PPI HL582535 | 5/8" | 1 | 25-35mm ² |
| PPI HL5895 | 5/8" | 1 | 95-107mm ² |



Earthing accessories

Earthing accessories let us enhance natural soil conditions, improve resistivity of poor conductive soils and backfill a drilled earth rod hole or trench. An earth rod pit is a necessary accessory to allow access for testing, maintenance and upgrades. If you require another style of earth rod pit or a pit with an earth bar installed inside, please contact us.

PRODUCTS

- > Ground enhancement material Pg 48

- > Earthtec Pg 52

- > Ground rod inspection pits Pg 53



GROUND ENHANCEMENT MATERIAL



GEM GROUND ENHANCEMENT

| PART # | PACKAGING | COMPLIES WITH |
|-----------|---------------------------------|---------------|
| GEM25A | Bag with handles | IEC® 62561-7 |
| GEM25ABKT | Plastic bucket with locking lid | IEC® 62561-7 |

SUGGESTED SPECIFICATIONS

| PARAMETER | RECOMMENDED VALUES | TEST METHOD |
|----------------------|---|--|
| Standards Compliance | | Full compliance to IEC 62561-7 EPA Toxicity Characteristic Leaching Procedure (TCLP), test method 1311 |
| Resistivity | < 2 Ω-cm for powder < 20 Ω-cm for mixed and cured material | Compressed powder according to ASTM G187-12 Mixed and cured per ASTM D991-89 |

GROUND ENHANCEMENT MATERIAL

ESTIMATED LINEAR MEASUREMENT OF GROUND CONDUCTOR COVERING WITH EACH BAG OF GEM

| TRENCH WIDTH | TOTAL THICKNESS OF GEM | | |
|--------------|------------------------|---------|---------|
| | 10.2 CM | 10.2 CM | 15.2 CM |
| 10 cm | 1.0 m | 0.8 m | 0.7 m |
| 15.2 cm | 0.7 m | 0.5 m | 0.4 m |
| 20.3 cm | 0.5 m | 0.4 m | 0.3 m |
| 25.4 cm | 0.4 m | 0.3 m | 0.3 m |
| 30.5 cm | 0.3 m | 0.3 m | 0.2 m |

ESTIMATED BAGS OF GEM FOR BACKFILLING AROUND GROUND RODS TO A DENSITY OF 63.5 LB/FT³ (1,017 KG/M³)

| DIAMETER OF HOLE | | FT | | M | | FT | | M | | FT | | M | |
|------------------|------|----|-----|----|-----|----|-----|----|---|----|-----|----|-----|
| | | 5 | 1.5 | 6 | 1.8 | 8 | 2.4 | 10 | 3 | 15 | 4.6 | 20 | 6.1 |
| INCHES | CM | | | | | | | | | | | | |
| 4 | 10.2 | 2 | | 2 | | 2 | | 3 | | 4 | | 5 | |
| 6 | 15.2 | 3 | | 3 | | 4 | | 5 | | 8 | | 10 | |
| 8 | 20.3 | 5 | | 6 | | 8 | | 9 | | 14 | | 18 | |
| 10 | 25.4 | 7 | | 9 | | 12 | | 14 | | 21 | | 28 | |
| 12 | 30.5 | 10 | | 12 | | 16 | | 20 | | 30 | | 40 | |

QUICKFILL NO-MIX GROUND ENHANCEMENT



GEM GROUND ENHANCEMENT

| PART # | PACKAGING | COMPLIES WITH |
|--------|------------|---------------|
| QF25 | 11.3kg Bag | IEC® 62561-7 |

SUGGESTED SPECIFICATIONS

| PARAMETER | VALUES | TEST METHOD |
|-------------|--|--|
| Resistivity | " < 25 Ω-cm for powder < 15 Ω-cm when mixed with 40% water by weight" | 4-Electrode Method as per ASTM G57-06 |
| Density | 993kg/m ³ | |

GROUND ENHANCEMENT MATERIAL

ESTIMATED BAGS OF QF25 FOR BACKFILLING AROUND GROUND RODS

| DIAMETER OF HOLE | TOTAL THICKNESS OF GEM | | | | | |
|------------------|------------------------|-------|-------|-------|-------|-------|
| | 1.5 M | 1.8 M | 2.4 M | 3.0 M | 4.6 M | 6.1 M |
| 10 cm | 1.1 | 1.3 | 1.8 | 2.2 | 3.3 | 4.4 |
| 15 cm | 2.5 | 3 | 3.9 | 4.9 | 7.4 | 9.8 |
| 20 cm | 4.4 | 5.2 | 7 | 8.7 | 13 | 17.4 |
| 25 cm | 6.8 | 8.2 | 10.9 | 13.6 | 20.3 | 27.1 |
| 30 cm | 9.8 | 11.7 | 15.6 | 19.5 | 29.3 | 39 |

ESTIMATED LINEAR MEASUREMENT OF GROUND CONDUCTOR COVERING WITH EACH BAG OF QF25

| TRENCH WIDTH | TOTAL THICKNESS OF GEM | | |
|--------------|------------------------|--------|--------|
| | 10 CM | 13 CM | 15 CM |
| 10 cm | 1.1 m | 0.88 m | 0.73 m |
| 15 cm | 0.73 m | 0.58 m | 0.49 m |
| 20 cm | 0.55 m | 0.43 m | 0.37 m |
| 25 cm | 0.43 m | 0.34 m | 0.27 m |
| 30 cm | 0.37 m | 0.27 m | 0.24 m |

EARTHING ACCESSORIES

EARTHTEC

BENTONITE EARTH ENHANCEMENT

| PART # | COLOUR | PACKAGING |
|----------|--------|-----------|
| EARTHTEC | Grey | 20kg |

DESCRIPTION

| FEATURES | ADVANTAGE |
|--------------------------|--|
| Non-toxic, non-corrosive | Stable, high conductivity providing long-term, low-grade ground-resistance |
| Dry mix yield | 0.0176m ³ 57 bags to the m ³ |
| Wet mix | 0.030m ³ 33 bags to the m ³ |

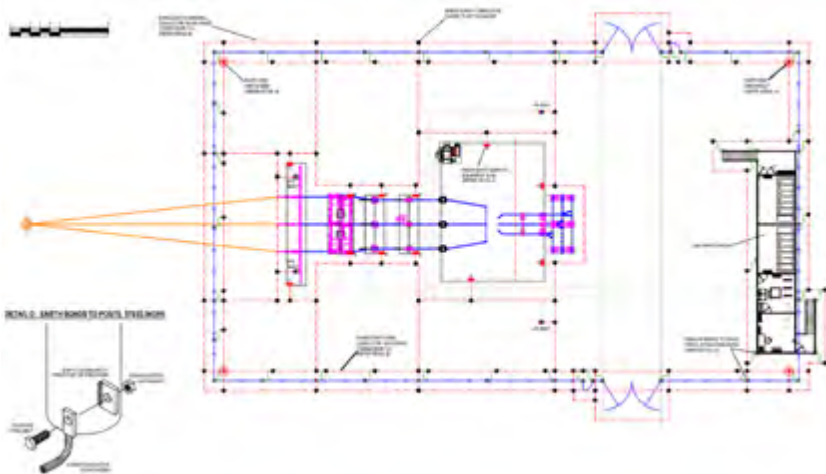
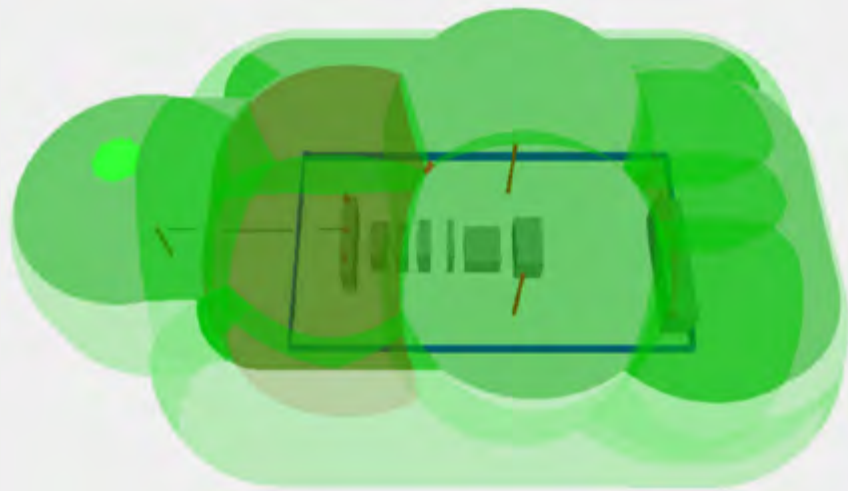
EARTHING ACCESSORIES

GROUND ROD INSPECTION PITS



GROUND ROD INSPECTION PITS

| PART # | MATERIAL | DIMENSIONS H X L X W | RATED LOAD |
|---------|---------------------------|-------------------------|--------------------------------------|
| PIT03 | High Impact Polypropylene | 216 x 241 x 207 mm | 1.3kg |
| IH1250D | Polyolefin | 305 x 305 x 305 mm | 6,804kg (10,206kg test load) 5.58kg |
| IH1250F | Polyolefin | 584 x 305 x 305 mm | 6,804kg (10,206kg test load) 17.28kg |
| IH2600E | Polyolefin | 457 x 305 x 305 mm | 6,804kg (10,206kg test load) 7.67kg |



Earthing system design

The team at PPI use the industry leading software package CDEGS (Current Distribution, Electromagnetic Fields, Grounding and Soil Structure Analysis) to model soil resistivity field test results and perform earth grid design calculations for high-voltage substations, switchyards and power generating plants. This allows us to effectively handle fault currents while limiting step-and-touch potentials to safe levels.

Recent trends in HV earthing design have shown that earth grid resistance is NOT a guarantee of safety (e.g. withdrawal of less than one Ohm requirement from the 2007 edition of AS3000 Wiring Rules).

Fault level increases, reduced substation sizes, higher density, voltage rises and more interaction between power systems and industrial installations mean there is now an increased reliance on HV earthing design to produce safe touch potentials in the event of an HV fault condition.

Increasing private ownership of HV assets, widespread use of conductive structures in earthing systems and a legacy of older non-compliant earthing mean it is crucial to engage an experienced, qualified earthing designer for your project.

RELEVANT EARTHING-RELATED STANDARDS AND CODES

- AS/NZS 3000 Electrical installations (Australian & New Zealand Wiring Rules: Section 5)
- ENA EG-0 Power System Earthing Guide, Part 1: Management Principles (including Argon)
- ENA EG-1 Substation Earthing Guide
- AS/NZS 2067 Substations and high voltage installations exceeding 1 kV a.c. (Section 8)
- AS/NZS 60479.1 Effects of current on human beings and livestock, Part 1: General aspects
- AS/NZS 4853 Electrical hazards on metallic pipelines
- AS/NZS 7000 Overhead line design – Detailed procedures (Section 10 & Appendices E & U)
- AS/NZS 3007 Electrical equipment in mines and quarries – Surface installations and associated processing plant (Appendix F)
- ENA C(b)1 Guidelines for design and maintenance of overhead distribution and transmission lines (Section 11 & Appendix H)
- AS/NZS 1768 Lightning protection (Section 4 & Appendix C)
- IEEE Std 80 IEEE Guide for Safety in AC Substation Grounding



Ground resistance testers

Any earthing system needs to be designed and maintained. Our ground resistance tester measures soil resistivity for design and ground rod and grid resistance to check its condition. Our clamp-on ground resistance testers can be used in multi-grounded systems without disconnecting or de-energizing the ground system under test.

PRODUCTS

- > Ground resistance testing kits

Pg 58



GROUND RESISTANCE TESTERS

GROUND RESISTANCE TESTER KIT



| 2-, 3- AND 4-POINT KIT* | | |
|-------------------------------|---|--|
| PART # | EST4620 | EST4630 |
| Soil Resistivity Test | | Yes |
| Measurement Range | 0 - 2,000 Ω | |
| Resolution | 10 m Ω - 1 Ω | |
| Open Voltage | 42 V Max | |
| Test Current | 10.0 - 0.1 mA | |
| Operating Frequency | 128 Hz square wave | |
| Accuracy | 2% of Reading +/- 1ct, 5% of Reading +/- 3ct | |
| Auxillary Electrode Influence | 3 - 50 k Ω | |
| Withstanding Voltage | 250 VAC, 100 VDC | |
| Power Source | Battery-powered, with eight C cell batteries included | AC-powered with rechargeable NiMH battery pack |
| Unit Weight | 15.9 kg | |

***Kit Includes:**

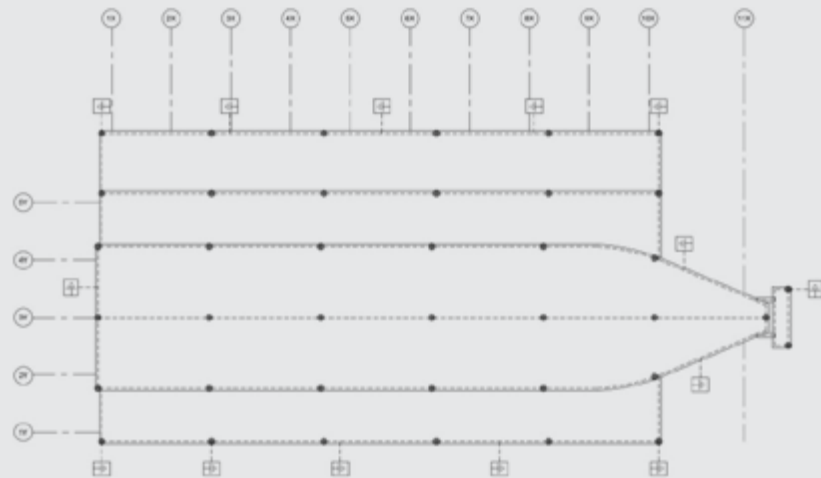
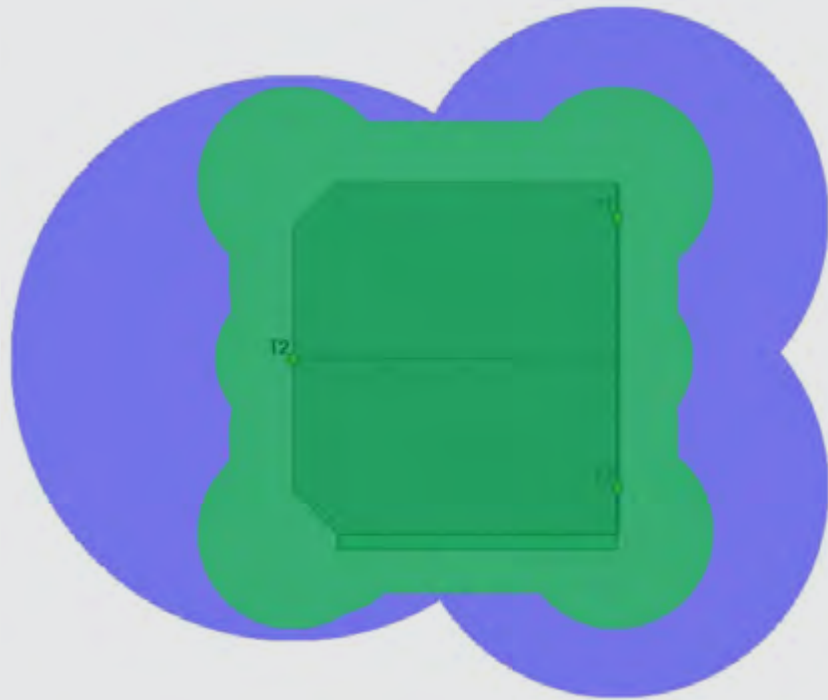
Two 300' (91.4 m) color-coded leads on spools (red and blue), two 5' (1.5 m) color-coded leads (red and blue), two 100' (30.5 m) color-coded leads (green and black), four 14.5" (368 mm) T-shaped auxiliary ground electrodes, one set of five-spaded lugs, one 100' (30.5 m) tape measure, and one carrying bag.

GROUND RESISTANCE TESTERS

GROUND RESISTANCE TESTER KIT



| HANDHELD CLAMP-ON KIT | |
|-------------------------------------|---------------------------------------|
| PART # | EST401 |
| Ground Resistance Measurement Range | 0.01 - 1,500.00 Ω |
| Ground Resistance Resolution | 0.001 - 50.000 Ω |
| Ground Resistance Accuracy | Approx. 1.5% - 25% |
| Current Measurement Range | 0.20 mA - 39.99 A |
| Current Measurement Resolution | 1 μ A - 10 mA |
| Current Measurement Accuracy | +/- 2% |
| Current Measurement Frequency | 47 - 800 Hz |
| Operating Frequency | 2,083 Hz |
| Loop Impedance Measurement | 10 to 100 μ H; 100 to 500 μ H |



Lightning protection system (LPS) design

There is no known method of preventing the occurrence of a lightning discharge. The purpose of a lightning protection system is to control the passage of a discharge in such a manner that prevents personal injury or property damage. The need to provide protection should be assessed in the early stages of the structure design. Although no strict rules can be given, it is possible to use broad guidelines to arrive at the degree of protection required.

CRITICAL FACTORS TO BE CONSIDERED:

1. What is the risk to personnel?
2. What is the risk of equipment or structural damage?
3. What are the consequential problems of such failure?
4. Is the equipment associated with an essential/public service?
5. Is there likely to be substantial revenue loss in the time taken to restore services?
6. Is the structure of historical importance?
7. What are the legal implications of providing inadequate protection?
8. Can the passage of a discharge in a structure or a building give rise to side flashing or simple sparks in an explosive or flammable environment? i.e: The extraction and storage of gas or oil, storage and manufacture of explosives, etc.
9. Can side flashing between metallic structures (as in a ship) cause damage to essential electronics?
10. Will the discharge give rise to corona phenomena causing disastrous surges on the phase wires of electric lines or breakdown in transformer stations?

All of these factors are considered when conducting a lightning protection risk assessment. One of our PPI lightning protection specialists can provide one of these at no cost, and give you a better understanding of the requirements and best practice to protect your particular application.



Conventional LPS

Our range of conventional air terminals, down-conductors and fittings includes a large number of air terminals, bases, conductors, connectors and fasteners. Air termination components and fittings are available in copper and aluminum, and lightning protection conductors are available as stranded or flat tape construction. We also offer computer-aided design to optimise the location of air terminals and provide the most effective lightning protection coverage.

PRODUCTS

- | | |
|---|-------|
| › Conventional air terminal (metric) | Pg 64 |
| › Conventional tape conductor | Pg 68 |
| › Conventional tape fasteners | Pg 69 |
| › Square tape clamps | Pg 70 |
| › Bi-metallic tape connector | Pg 71 |
| › Non-penetrating Klip-Lok roof stand-off | Pg 71 |
| › Conventional air terminal (imperial) | Pg 72 |
| › Conventional smoothweave conductor | Pg 74 |
| › Conventional smoothweave cable fastener | Pg 76 |
| › Stamped bolted parallel cable connector | Pg 77 |

CONVENTIONAL AIR TERMINAL METRIC THREAD



MATERIAL: ALUMINIUM

| PART # | THREAD SIZE | DIA. Ø | HEIGHT | UNIT WEIGHT | COMPLIES WITH |
|-------------|-------------|---------|--------|-------------|-----------------|
| PPI-AR0510A | M10 | 11.1 mm | 0.5 m | 0.190 kg | IEC® EN 62561-2 |
| PPI-AR0514A | 5/8" | 14 mm | 0.5 m | 0.250 kg | IEC® EN 62561-2 |
| PPI-AR0515A | M16 | 15.9 mm | 0.5 m | 0.265 kg | IEC® EN 62561-2 |
| PPI-AR1010A | M10 | 11.1 mm | 1.0 m | 0.385 kg | IEC® EN 62561-2 |
| PPI-AR1014A | 5/8" | 14 mm | 1.0m | 0.500 kg | IEC® EN 62561-2 |
| PPI-AR1015A | M16 | 15.9 mm | 1.0 m | 0.530 kg | IEC® EN 62561-2 |
| PPI-AR2014A | 5/8" | 14mm | 2.0 m | 1.010 kg | IEC® EN 62561-2 |

CONVENTIONAL AIR TERMINAL METRIC THREAD



MATERIAL: COPPER

| PART # | THREAD SIZE | DIA. Ø | HEIGHT | UNIT WEIGHT | COMPLIES WITH |
|-------------|-------------|---------|--------|-------------|-----------------|
| PPI-AR0510C | M10 | 11.1 mm | 0.5 m | 0.480 kg | IEC® EN 62561-2 |
| PPI-AR0514C | 5/8" | 14 mm | 0.5 m | 0.690 kg | IEC® EN 62561-2 |
| PPI-AR0515C | M16 | 15.9 mm | 0.5 m | 0.750 kg | IEC® EN 62561-2 |
| PPI-AR1010C | M10 | 11.1 mm | 1.0 m | 1.100 kg | IEC® EN 62561-2 |
| PPI-AR1014C | 5/8" | 14 mm | 1.0 m | 1.310 kg | IEC® EN 62561-2 |
| PPI-AR1015C | M16 | 15.9 mm | 1.0 m | 1.510 kg | IEC® EN 62561-2 |
| PPI-AR1514C | 5/8" | 14 mm | 1.5 m | 2.080 kg | IEC® EN 62561-2 |
| PPI-AR2014C | 5/8" | 14 mm | 2.0 m | 2.910 kg | IEC® EN 62561-2 |
| PPI-AR2015C | M16 | 15.9 mm | 2.0 m | 3.000 kg | IEC® EN 62561-2 |

CONVENTIONAL LPS

CONVENTIONAL AIR TERMINAL BASE METRIC THREAD TO IEC® EN 62561-1

MATERIAL: ALUMINIUM

| PART # | THREAD SIZE | TAPE SIZE | DEPTH | HEIGHT | WIDTH | UNIT WEIGHT |
|--------------|-------------|----------------------|---------|--------|--------|-------------|
| PPI-ARBS253A | M10 & M16 | 25 x 3 mm, 26 x 2 mm | 57.4 mm | 40 mm | 60 mm | 0.094 kg |
| PPI-ARB10A | M10 | 25 x 3 mm | 100 mm | 25 mm | 100 mm | 0.159 kg |
| PPI-ARB14A | 5/8" | 25 x 3 mm | 100 mm | 25 mm | 100 mm | 0.159 kg |
| PPI-ARB15A | M16 | 25 x 3 mm | 100 mm | 25 mm | 100 mm | 0.159 kg |

MATERIAL: COPPER

| PART # | THREAD SIZE | TAPE SIZE | DEPTH | HEIGHT | WIDTH | UNIT WEIGHT |
|--------------|-------------|----------------------|---------|--------|--------|-------------|
| PPI-ARBS253C | M10 & M16 | 25 x 3 mm, 26 x 2 mm | 57.4 mm | 40 mm | 60 mm | 0.134 kg |
| PPI-ARB14C | 5/8" | 25 x 3 mm | 100 mm | 25 mm | 100 mm | 0.499 kg |

MATERIAL: BRASS

| PART # | THREAD SIZE | TAPE SIZE | DEPTH | HEIGHT | WIDTH | UNIT WEIGHT |
|------------|-------------|-----------|--------|--------|--------|-------------|
| PPI-ARB10B | M10 | 25 x 3 mm | 100 mm | 25 mm | 100 mm | 0.499 kg |
| PPI-ARB15B | M16 | 25 x 3 mm | 100mm | 25mm | 100mm | 0.499kg |

CONVENTIONAL LPS

AIR TERMINAL CANTILEVER, METRIC THREAD



MATERIAL: ALUMINIUM

| PART # | THREAD SIZE | TAPE SIZE | DEPTH | HEIGHT | WIDTH | UNIT WEIGHT |
|-------------|-------------|-----------|-------|--------|-------|-------------|
| PPI-ARC14A | 5/8" | 25 x 3 mm | | 71 | 36 | |
| PPI-RTCC14A | 5/8" | 25 x 3 mm | | 71 | 36 | |

MATERIAL: COPPER

| PART # | THREAD SIZE | TAPE SIZE | DEPTH | HEIGHT | WIDTH | UNIT WEIGHT |
|-------------|-------------|----------------------|-------|--------|-------|-------------|
| PPI-ARC14C | M16 | 25 x 3 mm, 30 x 2 mm | | 71 | 36 | 0.231 kg |
| PPI-RTCC14C | | | 92.5 | 30 | 110 | 0.898 kg |

MATERIAL: BRASS

| PART # | THREAD SIZE | TAPE SIZE | DEPTH | HEIGHT | WIDTH | UNIT WEIGHT |
|-------------|-------------|----------------------|-------|--------|-------|-------------|
| PPI-ARC16B | M16 | 25 x 3 mm, 30 x 2 mm | | 71 | 36 | 0.231kg |
| PPI-RTCC16B | M16 | 25 x 3 mm, 30 x 2 mm | 92.5 | 30 | 110 | 0.898kg |

CONVENTIONAL LPS

CONVENTIONAL TAPE CONDUCTOR



MATERIAL: ALUMINIUM – FINISH: BARE

| PART # | WIDTH | THICKNESS | LENGTH | UNIT WEIGHT | COMPLIES WITH |
|-------------|---------|-----------|--------|-------------|---------------------------|
| PPI-CTC253A | 25.0 mm | 3.0 mm | 50.0 m | 0.210 kg | BS2898-1350 / IEC 62561-2 |

MATERIAL: COPPER – FINISH: BARE

| PART # | WIDTH | THICKNESS | LENGTH | UNIT WEIGHT | COMPLIES WITH |
|-------------|---------|-----------|--------|-------------|------------------------------|
| PPI-CTC253C | 25.0 mm | 3.0 mm | 25.0 m | 0.671 kg | BS EN 13601 / IEC® EN62561-2 |

MATERIAL: COPPER – FINISH: TINNED

| PART # | WIDTH | THICKNESS | LENGTH | UNIT WEIGHT | COMPLIES WITH |
|--------------|---------|-----------|--------|-------------|------------------------------|
| PPI-CTC253TC | 25.0 mm | 3.0 mm | 30.0 m | 0.670 kg | BS EN 13601 / IEC® EN62561-2 |

CONVENTIONAL LPS

CONVENTIONAL TAPE FASTENERS

MATERIAL: ALUMINIUM

| PART # | TAPE SIZE | DEPTH | WIDTH | HOLE SIZE | UNIT WEIGHT |
|-------------|-----------|-------|---------|-----------|-------------|
| PPI-DCS253A | 25 x 3 mm | 17 mm | 63.4 mm | 7 mm | 0.030 kg |

| | | | | | |
|-------------|-----------|-------|-------|------|----------|
| PPI-DSS253A | 25 x 3 mm | 15 mm | 65 mm | 7 mm | 0.010 kg |
|-------------|-----------|-------|-------|------|----------|

| | | | | | |
|------------|-----------|-------|-------|------|----------|
| PPI-DC253A | 25 x 3 mm | 20 mm | 52 mm | 7 mm | 0.041 kg |
|------------|-----------|-------|-------|------|----------|

MATERIAL: COPPER

| PART # | TAPE SIZE | DEPTH | WIDTH | HOLE SIZE | UNIT WEIGHT |
|-------------|-----------|-------|---------|-----------|-------------|
| PPI-DCS253C | 25 x 3 mm | 17 mm | 63.4 mm | 7 mm | 0.034 kg |

| | | | | | |
|-------------|-----------|-------|-------|------|----------|
| PPI-DSS253C | 25 x 3 mm | 15 mm | 65 mm | 7 mm | 0.049 kg |
|-------------|-----------|-------|-------|------|----------|

| | | | | | |
|------------|-----------|-------|-------|------|----------|
| PPI-DC253C | 25 x 3 mm | 20 mm | 50 mm | 7 mm | 0.068 kg |
|------------|-----------|-------|-------|------|----------|

MATERIAL: STAINLESS STEEL 316 (EN 1.4401)

| PART # | TAPE SIZE | DEPTH | WIDTH | HOLE SIZE | UNIT WEIGHT |
|-------------|-----------|-------|---------|-----------|-------------|
| PPI-DCS253S | 25 x 3 mm | 17 mm | 63.4 mm | 7 mm | 0.030 kg |

| | | | | | |
|-------------|-----------|----------|-------|---------|----------|
| PPI-TAPS302 | 30 x 2 mm | 12.25 mm | 42 mm | 4.25 mm | 0.002 kg |
|-------------|-----------|----------|-------|---------|----------|

MATERIAL: POLYCARBONATE – TEMPERATURE: -20 TO 120 °C

| PART # | CONDUCTOR SIZE | DEPTH | WIDTH | HOLE SIZE | UNIT WEIGHT |
|---------------|----------------|-------|-------|-----------|-------------|
| PPI-DC253N-GR | 25 x 3 mm | 18 mm | 38 mm | 6.5 mm | 0.008 kg |

| | | | | | |
|-----------|---|-------|---------|--------|----------|
| PPI-PDCUC | 25 x 3 mm, 26 x 2 mm, 8mm ² Solid, 8 mm ² Stranded. | 20 mm | 35.9 mm | 6.8 mm | 0.007 kg |
|-----------|---|-------|---------|--------|----------|

CONVENTIONAL LPS

SQUARE TAPE CLAMPS



MATERIAL: ALUMINIUM

| PART # | TAPE SIZE | DEPTH | WIDTH | UNIT WEIGHT |
|-------------|-------------------------|-------|-------|-------------|
| PPI-SCS253A | 25 x 3 mm, 26 x 2 mm | 60 mm | 64 mm | 0.058 kg |
| PPI-SC253A | 25 x 3 mm | 54 mm | 54 mm | 0.599 kg |

MATERIAL: COPPER

| PART # | TAPE SIZE | DEPTH | WIDTH | UNIT WEIGHT |
|-------------|-------------------------|-------|-------|-------------|
| PPI-SCS253C | 25 x 3 mm, 26 x 2 mm | 60 mm | 64 mm | 0.100 kg |
| PPI-SC253C | 25 x 3 mm | 54 mm | 54 mm | 0.200 kg |

MATERIAL: COPPER – FINISH: TINNED

| PART # | TAPE SIZE | DEPTH | WIDTH | UNIT WEIGHT |
|-------------|-----------|-------|-------|-------------|
| PPI-SC253TC | 25 x 3 mm | 54 mm | 54 mm | 0.201 kg |

MATERIAL: STAINLESS STEEL 304 (EN 1.4301)

| PART # | TAPE SIZE | DEPTH | WIDTH | UNIT WEIGHT |
|-------------|-------------------------|-------|-------|-------------|
| PPI-SCS253S | 25 x 3 mm, 26 x 2 mm | 60 mm | 64 mm | 0.092 kg |
| PPI-SC253S | 25 x 3 mm | 54 mm | 54 mm | 0.192 kg |

CONVENTIONAL LPS

BI-METALLIC TAPE CONNECTOR

MATERIAL: ALUMINIUM; COPPER

| PART # | TAPE SIZE | DEPTH | WIDTH | UNIT WEIGHT | COMPLIES WITH |
|------------|-----------|-------|-------|-------------|-----------------|
| PPI-BMC253 | 25 x 3 mm | 30 mm | 80 mm | 0.191 kg | IEC® EN 62561-1 |

NON-PENETRATING KLIP-LOK ROOF STAND OFF

MATERIAL: STAINLESS STEEL 18-8 (EN 1.4305)

| PART # | DEPTH | HEIGHT | WIDTH | A | THREAD SIZE | UNIT WEIGHT |
|--------|---------|---------|----------|-----------------|-------------|-------------|
| LPS815 | 38.1 mm | 50.8 mm | 46.23 mm | 3.18 – 38.10 mm | M6 | 0.109 kg |

CONVENTIONAL LPS

CONVENTIONAL AIR TERMINAL, IMPERIAL THREAD



MATERIAL: ALUMINIUM

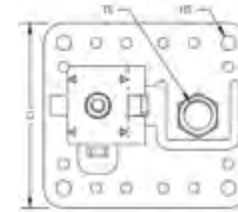
| PART # | Ø | TIP | H | TS | WEIGHT |
|--------------|---------|-------|-----------|---------|---------|
| PPI-LPA222ST | 12.7 mm | Blunt | 304.80 mm | 1/2 UNC | 0.10 kg |
| PPI-LPA225ST | 12.7 mm | Blunt | 609.60 mm | 1/2 UNC | 0.21 kg |
| PPI-LPA242ST | 15.9 mm | Blunt | 304.80 mm | 5/8 UNC | 0.16 kg |
| PPI-LPA245ST | 15.9 mm | Blunt | 609.60 mm | 5/8 UNC | 0.33 kg |

MATERIAL: COPPER – FINISH: BARE

| PART # | Ø | TIP | H | TS | WEIGHT |
|---------------|---------|-------|-----------|---------|---------|
| PPI-LPC202BST | 9.5 mm | Blunt | 304.80 mm | 3/8 UNC | 0.19 kg |
| PPI-LPC205BST | 9.5 mm | Blunt | 609.60 mm | 3/8 UNC | 0.37 kg |
| PPI-LPC222BST | 12.7 mm | Blunt | 304.80 mm | 1/2 UNC | 0.33 kg |
| PPI-LPC225BST | 12.7 mm | Blunt | 609.60 mm | 1/2 UNC | 0.66 kg |
| PPI-LPC242BST | 15.9 mm | Blunt | 304.80 mm | 5/8 UNC | 0.52 kg |
| PPI-LPC245BST | 15.9 mm | Blunt | 609.60 mm | 5/8 UNC | 0.78 kg |

CONVENTIONAL LPS

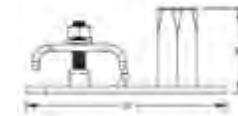
CONVENTIONAL AIR TERMINAL BASE, IMPERIAL THREAD



MATERIAL: ALUMINIUM

| PART # | THREAD SIZE | TYPE | HOLE SIZE | DEPTH | HEIGHT | WIDTH |
|--------------|-------------|------|-----------|---------|----------|----------|
| PPI-LPA30212 | 1/2 UNC | Flat | 7.15 mm | 88.9 mm | 34.93 mm | 101.6 mm |
| PPI-LPA30258 | 5/8 UNC | Flat | 7.15 mm | 88.9 mm | 34.93 mm | 101.6 mm |

MATERIAL: BRONZE; BRASS



| PART # | THREAD SIZE | TYPE | HOLE SIZE | DEPTH | HEIGHT | WIDTH |
|---------------|-------------|----------|-----------|---------|----------|----------|
| PPI-LPC30238 | 3/8 UNC | Flat | 7.15 mm | 88.9 mm | 34.93 mm | 101.6 mm |
| PPI-LPC30238V | 3/8 UNC | Vertical | 7.15 mm | 88.9 mm | 34.93 mm | 101.6 mm |
| PPI-LPC30212 | 1/2 UNC | Flat | 7.15 mm | 88.9 mm | 34.93 mm | 101.6 mm |
| PPI-LPC30212V | 1/2 UNC | Vertical | 7.15 mm | 88.9 mm | 34.93 mm | 101.6 mm |
| PPI-LPC30258 | 5/8 UNC | Flat | 7.15 mm | 88.9 mm | 34.93 mm | 101.6 mm |

CONVENTIONAL LPS

CONVENTIONAL SMOOTHWEAVE CONDUCTOR

MATERIAL: ALUMINIUM

| PART # | CONDUCTOR TYPE | Ø | LENGTH | CSA | UNIT WEIGHT | CERTIFICATIONS |
|---------------|----------------|---------|---------|--------------------|-------------|----------------|
| PPI-LPA100550 | Smooth Weave | 12.7 mm | 152.4 M | 50 mm ² | 0.046 kg | cULus |
| PPI-LPA102500 | Smooth Weave | 13.5 mm | 152.4 M | 68 mm ² | 0.052 kg | UL |

CONVENTIONAL LPS

CONVENTIONAL SMOOTHWEAVE CONDUCTOR

MATERIAL: COPPER

| PART # | CONDUCTOR TYPE | Ø | LENGTH | CSA | UNIT WEIGHT | CERTIFICATIONS |
|----------------|----------------|---------|--------|----------------------|-------------|-----------------|
| PPI-LPC122250 | Smooth Weave | 10.7 mm | 76.2 M | 33.2 mm ² | 0.087 kg | UL |
| PPI-LPC126R250 | Ropelay | 11.9 mm | 76.2 M | 58.3 mm ² | 0.172 kg | UL |
| PPI-RC-EC-8 | Solid | 8 mm | 100 M | 50.2 mm ³ | 0.449 kg | IEC® EN 62561-2 |

MATERIAL: COPPER – FINISH: TINNED

| PART # | CONDUCTOR TYPE | Ø | LENGTH | CSA | UNIT WEIGHT | CERTIFICATIONS |
|----------------|----------------|--------|--------|----------------------|-------------|----------------|
| PPI-LPC120L250 | Smooth Weave | 9.1 mm | 76.2 M | 30.1 mm ² | 0.087 kg | UL |

CONVENTIONAL LPS

CONVENTIONAL SMOOTHWEAVE CABLE FASTENERS



MATERIAL: ALUMINIUM

| PART # | DEPTH | WIDTH | HOLE SIZE | UNIT WEIGHT | CERTIFICATIONS |
|------------|---------|-----------|-----------|-------------|----------------|
| PPI-LPA803 | 12.7 mm | 25.003 mm | 4.76 mm | 0.009 kg | UL |

| | | | | | |
|------------|----------|-----------|---------|----------|--|
| PPI-LPA810 | 61.98 mm | 74.422 mm | 6.00 mm | 0.018 kg | |
|------------|----------|-----------|---------|----------|--|

MATERIAL: COPPER

| PART # | DEPTH | WIDTH | HOLE SIZE | UNIT WEIGHT | CERTIFICATIONS |
|------------|---------|-----------|-----------|-------------|----------------|
| PPI-LPC803 | 12.7 mm | 25.003 mm | 4.76 mm | 0.014 kg | UL |

| | | | | | |
|------------|----------|-----------|---------|----------|--|
| PPI-LPC810 | 61.98 mm | 74.422 mm | 6.00 mm | 0.032 kg | |
|------------|----------|-----------|---------|----------|--|

MATERIAL: COPPER – FINISH: TINNED

| PART # | DEPTH | WIDTH | HOLE SIZE | UNIT WEIGHT | CERTIFICATIONS |
|-------------|---------|-----------|-----------|-------------|----------------|
| PPI-LPC803L | 12.7 mm | 25.003 mm | 4.76 mm | 0.015 kg | UL |

| | | | | | |
|-------------|----------|-----------|---------|----------|--|
| PPI-LPC810L | 61.98 mm | 74.422 mm | 6.00 mm | 0.032 kg | |
|-------------|----------|-----------|---------|----------|--|

MATERIAL: NYLON SNAP CLOSE

| PART # | CONDUCTOR SIZE | HEIGHT | WIDTH | HOLE SIZE | UNIT WEIGHT |
|----------------|----------------|--------|-------|-----------|-------------|
| PPI-SRL23N8 | 8 mm Solid | 25 mm | 23 mm | 6.5 mm | 0.009 kg |
| PPI-SRL-23-N10 | 10 mm Solid | 25 mm | 23 mm | 6.5 mm | 0.009 kg |

CONVENTIONAL LPS

STAMPED BOLTED PARALLEL CABLE CONNECTOR



MATERIAL: ALUMINIUM

| PART # | DEPTH | HEIGHT | WIDTH | UNIT WEIGHT |
|--------|---------|---------|---------|-------------|
| LPA502 | 38.1 mm | 38.1 mm | 45.2 mm | 0.039 kg |

MATERIAL: COPPER

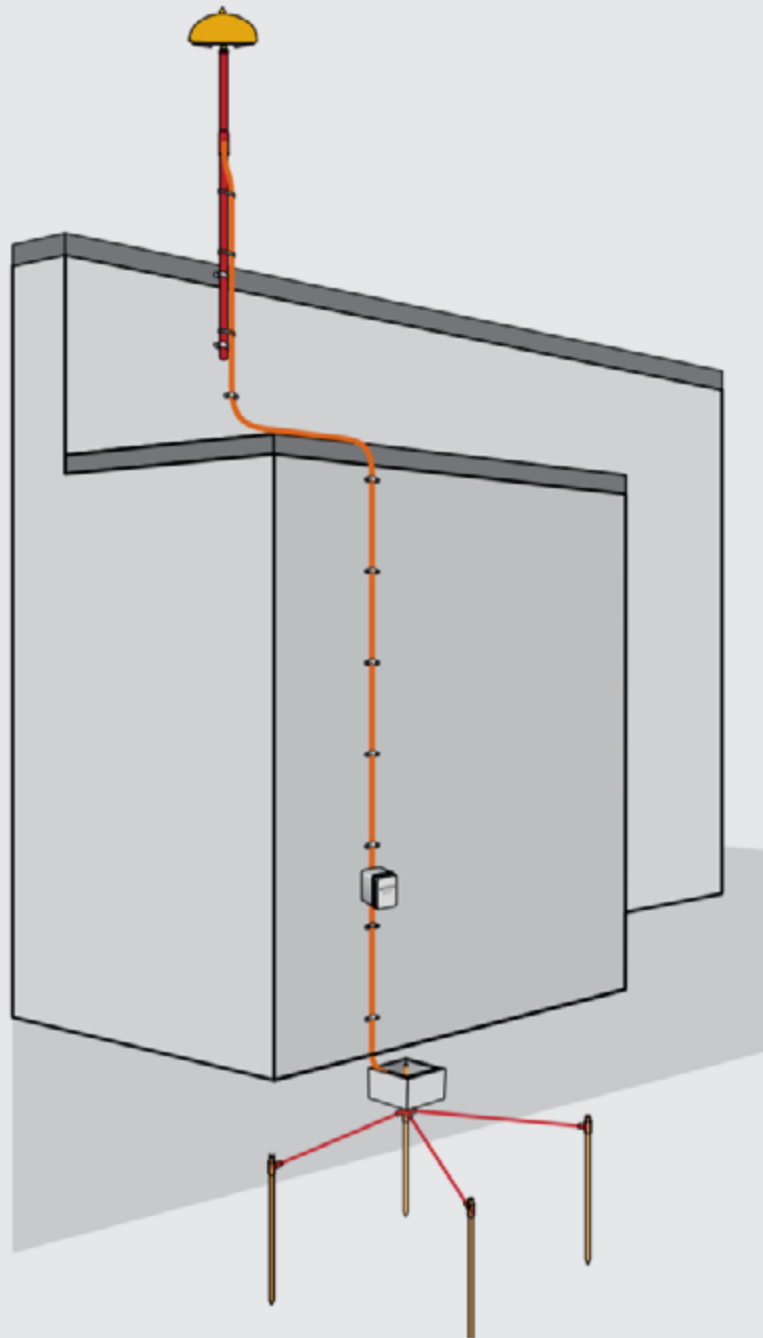
| PART # | DEPTH | HEIGHT | WIDTH | UNIT WEIGHT |
|--------|---------|---------|---------|-------------|
| LPC502 | 38.1 mm | 38.1 mm | 45.2 mm | 0.087 kg |

MATERIAL: COPPER – FINISH: TINNED

| PART # | DEPTH | HEIGHT | WIDTH | UNIT WEIGHT |
|---------|---------|---------|---------|-------------|
| LPC502L | 38.1 mm | 38.1 mm | 45.2 mm | 0.087 kg |

MATERIAL: COPPER; ALUMINIUM; STAINLESS STEEL 304 (EN 1.4301)

| PART # | DEPTH | HEIGHT | WIDTH | UNIT WEIGHT |
|---------|---------|---------|---------|-------------|
| LPC502A | 38.1 mm | 38.1 mm | 45.2 mm | 0.088 kg |



Enhanced LPS

The System 3000 comprises the proprietary nVent ERICO Dynasphere, which captures lightning, and the nVent ERICO Ericore Downconductor, which safely transmits a direct strike to the earthing system while protecting the structure and critical equipment. With its range of masts and mounting accessories, the System 3000 can be affixed to any building, tower or pole, or ground-mounted as a standalone system.

PRODUCTS

- | | |
|----------------------------|-------|
| > System 3000 | Pg 80 |
| > ERICORE termination | Pg 85 |
| > Lightning event counters | Pg 85 |



ENHANCED LPS

SYSTEM 3000



AIR TERMINALS

| PART # | WEIGHT |
|--------|--------|
|--------|--------|

| | |
|-----------|--------|
| D/SMKIVSS | 2.6 kg |
|-----------|--------|

AIR TERMINALS

| PART # | INSTALLATION HEIGHT | WEIGHT |
|--------|---------------------|--------|
|--------|---------------------|--------|

| | | |
|-----------|----------|----------|
| INTMKIVSS | 20 m Max | 2.058 kg |
|-----------|----------|----------|

SYSTEM 3000



FRP MASTS

| PART # | L | T | OD | COLOUR | WEIGHT |
|--------|---|---|----|--------|--------|
|--------|---|---|----|--------|--------|

| | | | | | |
|------------|-------|------|-------|-------|--------|
| FRP2MBLACK | 2.0 m | 4 mm | 68 mm | Black | 5.0 kg |
|------------|-------|------|-------|-------|--------|

| | | | | | |
|--------------|-------|------|-------|-------|---------|
| FRP4.6MBLACK | 4.6 m | 4 mm | 68 mm | Black | 11.5 kg |
|--------------|-------|------|-------|-------|---------|

ENHANCED LPS

SYSTEM 3000 ALUMINIUM MASTS



MATERIAL: ALUMINIUM

| PART # | L | T | OD | WEIGHT |
|--------|---|---|----|--------|
|--------|---|---|----|--------|

| | | | | |
|--------|-----|------|---------|---------|
| ALUM3M | 3 m | 4 mm | 69.9 mm | 8.25 kg |
|--------|-----|------|---------|---------|

| | | | | |
|--------|-----|------|---------|----------|
| ALUM4M | 4 m | 4 mm | 69.9 mm | 11.00 kg |
|--------|-----|------|---------|----------|

| | | | | |
|--------|-----|------|---------|----------|
| ALUM5M | 5 m | 4 mm | 69.9 mm | 13.00 kg |
|--------|-----|------|---------|----------|

| | | | | |
|--------|-----|------|---------|----------|
| ALUM6M | 6 m | 4 mm | 69.9 mm | 16.00 kg |
|--------|-----|------|---------|----------|

SYSTEM 3000 ALUMINIUM MAST WITH BASE



MATERIAL: ALUMINIUM

| PART # | H | PLATE SIZE | Ø | HS | A | WEIGHT |
|--------|---|------------|---|----|---|--------|
|--------|---|------------|---|----|---|--------|

| | | | | | | |
|----------|-----|-------------|---------|---------|--------|----------|
| MBMAST3M | 3 m | 229 x 229mm | 69.9 mm | 12.7 mm | 178 mm | 8.618 kg |
|----------|-----|-------------|---------|---------|--------|----------|

| | | | | | | |
|----------|-----|-------------|---------|---------|--------|-----------|
| MBMAST4M | 4 m | 229 x 229mm | 69.9 mm | 12.7 mm | 178 mm | 10.668 kg |
|----------|-----|-------------|---------|---------|--------|-----------|

| | | | | | | |
|----------|-----|-------------|---------|---------|--------|-----------|
| MBMAST5M | 5 m | 229 x 229mm | 69.9 mm | 12.7 mm | 178 mm | 13.609 kg |
|----------|-----|-------------|---------|---------|--------|-----------|

| | | | | | | |
|----------|-----|-------------|---------|---------|--------|-----------|
| MBMAST6M | 6 m | 229 x 229mm | 69.9 mm | 12.7 mm | 178 mm | 15.195 kg |
|----------|-----|-------------|---------|---------|--------|-----------|

ENHANCED LPS

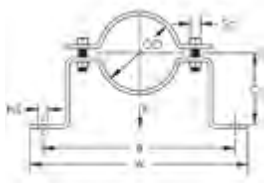
SYSTEM 3000 MAST COUPLING



MATERIAL: ALUMINUM

| PART # | H | L | W | HS | WEIGHT |
|---------|--------|--------|--------|-------|---------|
| ILCOUPL | 113 mm | 475 mm | 137 mm | 10 mm | 2.25 kg |

SYSTEM 3000 MAST BRACKET



ALUMINIUM, STAINLESS

| PART # | Ø | TL | W X H | D | WEIGHT |
|--------|--------|------|------------|--------|--------|
| UBOLT | 78.5mm | 89mm | 128 x 51mm | 195 mm | 0.81kg |

ALUMINIUM, STAINLESS

| PART # | OD | HS | A | B | C | STATIC LOAD F |
|------------|---------|-------|----------|----------|-------|---------------|
| 70000250S4 | 76.1 mm | 11 mm | 304.8 mm | 266.7 mm | 81 mm | 1,820 N |

ENHANCED LPS

SYSTEM 3000 GUY KITS



MATERIAL: FIBREGLASS, POLYVINYLCHLORIDE

| PART # | MAST HEIGHT | WEIGHT |
|----------------|-------------|--------|
| GUYKIT4M/GRIP | 4 m | 0.4kg |
| GUYKIT7M/GRIP | 7 m | 0.7kg |
| GUYKIT10M/GRIP | 10 m | 1.0kg |
| GUYKIT12M/GRIP | 12 m | 1.2kg |
| GUYKIT17M/GRIP | 17 m | 1.7kg |

GUY RING



MATERIAL: ALUMINIUM

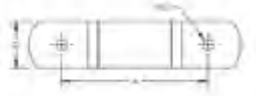
| PART # | WEIGHT |
|---------|---------|
| GUYRING | 0.118kg |

SYSTEM 3000 DOWNCONDUCTOR

ERICORE INSULATED CABLE

| PART # | L | SPECS | CSA | Ø |
|--------------------|-------------|---|--------------------|-------|
| ERICORE | 1 m | | | |
| ERICORE/CUT/SHORT | 1 - 25 m | | | |
| ERICORE/CUT/MEDIUM | 26 - 90 m | 0.75 nF, 37nH, 0.5mΩ/m (Rdc), 6mΩ/m (Rimp) | 50 mm ² | 36 mm |
| ERICORE/CUT/LONG | 91 - 200 m | | | |
| ERICORE/CUT/XLONG | 201 - 250 m | | | |

SYSTEM 3000 DOWNCONDUCTOR SADDLES



ERICORE CONDUCTOR SADDLE

| PART # | W | D | HS | Ø |
|-----------|---------|--------|-----|------|
| CONSADE25 | 114.5mm | 25.5mm | 6mm | 37mm |

ERICORE TERMINATION



UPPER TERMINATIONS (FACTORY FITTED)

| PART # | TERMINATION LOCATION |
|------------------------|----------------------|
| ERICORE/TERM/IN/SHORT | Inside Drum |
| ERICORE/TERM/OUT/SHORT | Outside Drum |

LOWER TERMINATION

| PART # |
|-----------------|
| ERICORE/LTKIT/A |

LIGHTNING EVENT COUNTERS

ELECTRONIC

| PART # | TRIP THRESHOLD | D | H | W | TEMP. | WEIGHT |
|--------|------------------------------------|-------|--------|-------|--------------|---------|
| LECV | 1 kA 8/20 µs - 100 kA 10/350 µs | 42 mm | 141 mm | 91 mm | -40 to 80 °C | 0.36 kg |

MECHANICAL

| PART # | TRIP THRESHOLD | D | H | W | TEMP. | WEIGHT |
|--------|----------------|-------|--------|-------|--------------|---------|
| LECIV | 2 kA 8/20 µs | 65 mm | 110 mm | 80 mm | -40 to 50 °C | 0.52 kg |

REMOTE MONITORED

| PART # | TRIP THRESHOLD | D | H | W | TEMP. | WEIGHT |
|--------|----------------|-------|--------|-------|--------------|---------|
| LECIVR | 2 kA 8/20 µs | 65 mm | 110 mm | 80 mm | -40 to 50 °C | 0.52 kg |

Comes with 25m Fibre Optic Lead to Din-rail Mounted Monitoring device, with relay closure output.



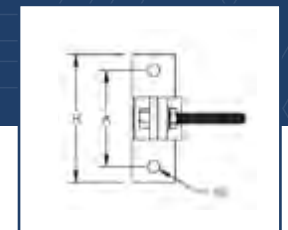
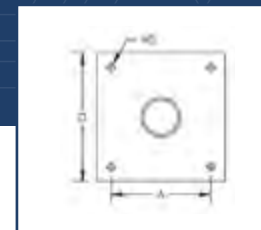
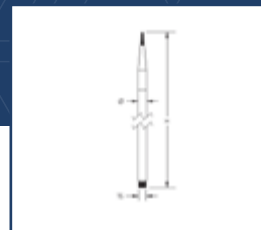
ESE LPS

For markets where NF C17-102 compliance is required, we offer the System 1000. More commonly known as an ESE system, it's manufactured and tested to meet this design guide, and is often advantageous for applications in low-lying, sprawling structures where conventional methods may be difficult.

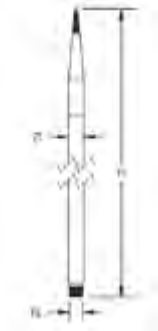
PRODUCTS

- > Early streamer emission terminal Pg 88

- > ESE masts Pg 89



EARLY STREAMER EMISSION TERMINAL



MATERIAL: STAINLESS STEEL 304L (EN 1.4306)

| PART # | ΔT | TEMP. | Ø | H | TS | WEIGHT |
|--------|-------|---------------|-------|----------|------|---------|
| SI25I | 25 μs | 120 °C Max | 28 mm | 684.6 mm | MF25 | 1.53 kg |
| SI40I | 40 μs | 120 °C Max | 28 mm | 684.6 mm | MF25 | 1.36 kg |
| SI60I | 60 μs | 120 °C Max | 28 mm | 684.6 mm | MF25 | 1.45 kg |

MATERIAL: STAINLESS STEEL 316L (EN 1.4404)

| PART # | ΔT | TEMP. | Ø | H | TS | WEIGHT |
|----------|-------|---------------|-------|----------|------|---------|
| SI60I316 | 60 μs | 120 °C Max | 28 mm | 684.6 mm | MF25 | 1.45 kg |

COMPLIES WITH: NF C17-102:2011; NP 4426:2013; UNE 21186:2011

ESE MASTS

MATERIAL: STAINLESS STEEL 304L (EN 1.4306)

| PART # | PRODUCT | TS | L | T | OD | HARDWARE | WEIGHT |
|---------|--------------------|-----|----------|---------|---------|----------|---------|
| SIM28A2 | Upper Mast Section | M25 | 2,000 mm | 2.00 mm | 28.0 mm | No | 2.30 kg |
| SIM33B2 | Mid Mast Section | M25 | 2,000 mm | 2.50 mm | 33.0 mm | Yes | 3.50 kg |
| SIM33B3 | Mid Mast Section | M25 | 3,000 mm | 2.50 mm | 33.0 mm | Yes | 5.30 kg |
| SIM40C2 | Lower Mast Section | M25 | 2,000 mm | 2.50 mm | 40.0 mm | Yes | 4.00 kg |
| SIM40C3 | Lower Mast Section | M25 | 3,000 mm | 2.50 mm | 40.0 mm | Yes | 6.05 kg |

MATERIAL: STAINLESS STEEL 316L (EN 1.4404)

| PART # | PRODUCT | TS | L | T | OD | HARDWARE | WEIGHT |
|------------|--------------------|-----|----------|---------|---------|----------|---------|
| SIM28A2316 | Upper Mast Section | M25 | 2,000 mm | 2.00 mm | 28.0 mm | No | 2.30 kg |
| SIM33B2316 | Mid Mast Section | M25 | 2,000 mm | 2.50 mm | 33.0 mm | Yes | 3.50 kg |
| SIM33B3316 | Mid Mast Section | M25 | 3,000 mm | 2.50 mm | 33.0 mm | Yes | 5.30 kg |
| SIM40C2316 | Lower Mast Section | M25 | 2,000 mm | 3.55 mm | 42.4 mm | Yes | 4.00 kg |
| SIM40C3316 | Lower Mast Section | M25 | 3,000 mm | 3.55 mm | 42.4 mm | Yes | 6.05 kg |

ESE LPS

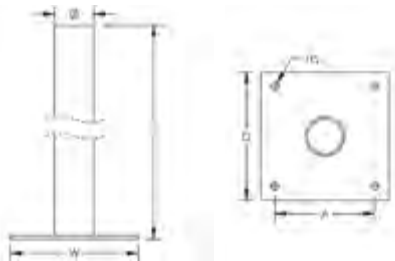
ESE MAST BASE

MATERIAL: STAINLESS STEEL 304L (EN 1.4306)

| PART # | H | W | D | Ø | HS | A | WEIGHT |
|-------------|--------|--------|--------|-------|-------|--------|----------|
| SIMBASE2840 | 153 mm | 200 mm | 200 mm | 33 mm | 11 mm | 170 mm | 1.232 kg |

MATERIAL: STAINLESS STEEL 316L (EN 1.4404)

| PART # | H | W | D | Ø | HS | A | WEIGHT |
|----------------|--------|--------|--------|-------|-------|--------|----------|
| SIMBASE2840316 | 153 mm | 200 mm | 200 mm | 33 mm | 11 mm | 170 mm | 1.232 kg |

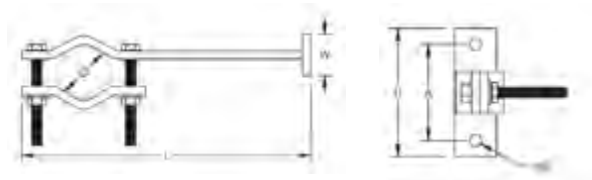


ESE LPS

ESE MAST BRACKET

MATERIAL: STEEL – FINISH: HOT-DIP GALVANIZED

| PART # | Ø | H | L | W | HS | A | WEIGHT |
|---------|----------------|--------|--------|-------|-------|-------|--------|
| ALOFIGS | 28.0 – 69.9 mm | 120 mm | 280 mm | 40 mm | 11 mm | 90 mm | 1.5 kg |



Contact us

To find out how PPI can help you with all your earthing needs, contact us today.



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