



• **Introduction**

MELTRIC Overview pg 3

Product Features & Benefits pg 5

Product Summary & Selection Guide pg 9

Part Number & Ordering Guide pg 15

• **Switch-Rated Plugs & Receptacles**

The Main Differences pg 17

Selection Guide pg 21

DSN
Type 4X/IP69/IP69K rated, metal or poly casings. From 20 – 150 A (1/2 – 75 hp) pg 25

DS
Type 3R rated, metal or poly casings. From 20 – 200 A (3/4 – 100 hp) pg 39

• **Multipin Plugs & Receptacles**

Multipin
4 – 37 pin connectors in poly and metal. From 2 – 50 A pg 57

• **Standard Duty Plugs & Receptacles**

DR
Type 3R rated, poly or metal casings. From 30 – 400 A pg 83

PN
IP66/IP67 rated or IP55 rated, poly or metal. 20 A pg 103

High Temp
For environments up to 465°F (240°C) pg 111

• **Direct Current Plugs & Receptacles**

DSDC
DC current rated, poly or metal casings. From 20 - 200 A (up to 750 VDC) pg 115

• **High Ampacity Plugs & Receptacles**

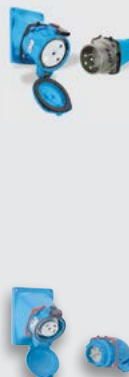


PF/PFQ
IP66/IP67 rated, metal construction. From 300 – 600 A pg 121

DR400
Type 3R rated, metal casings. 400 A pg 129

SP
Single pole, connectors up to 600 A pg 133

CS1000
Single pole, connectors up to 400 A pg 137

MELTRIC PRODUCT SUMMARY...

| | Model | Amp Rating | Maximum Voltage Rating | | Environmental Ratings | | Available Casing Materials | | | Maximum Number of Contacts | |
|---|---------------|------------|------------------------|------|-----------------------|--------------------|----------------------------|-------|--------|----------------------------|------|
| | | | VAC | VDC | Type | IP | Poly | Metal | SS | Main | Aux. |
| Standard  | DR30 | 30 | 600 | - | 3R ⁺ | - | Poly | - | - | 3P+N+G | 2 |
| | DR50 | 50 | 600 | - | 3R ⁺ | - | Poly | - | - | 3P+N+G | 4 |
| | DR100 | 100 | 600 | - | 3R ⁺ | - | Poly | Metal | - | 3P+N+G | 4 |
| | DR150 | 150 | 600 | - | 3R ⁺ | - | Poly | Metal | - | 3P+N+G | 6 |
| | DR250 | 250 | 600 | - | 3R ⁺ | - | - | Metal | - | 3P+N+G | 6 |
| | DR400 | 400 | 480** | - | - | 54/55 [±] | - | Metal | - | 3P+G | 2 |
| | PN20 | 20 | 480* | - | - | 55 [±] | Poly | Metal | SS | 3P+N+G | - |
| PNHT | 30 | 480 | 130 | - | 44 | - | Metal | - | 3P+N+G | - | |
| Direct Current  | DSDC1 | 20 | - | 250 | 3R ⁺ | - | Poly | - | - | 2P+G | - |
| | DSDC1 | 15 | - | 600 | 3R ⁺ | - | Poly | - | - | 2P+G | - |
| | DSDC1 | 10 | - | 750 | 3R ⁺ | - | Poly | - | - | 2P+G | - |
| | DSDC3 | 30 | - | 250 | 3R ⁺ | - | Poly | - | - | 2P+G | - |
| | DSDC3 | 30 | - | 600 | 3R ⁺ | - | Poly | - | - | 2P+G | - |
| | DSDC3 | 20 | - | 750 | 3R ⁺ | - | Poly | - | - | 2P+G | - |
| | DSDC6 | 60 | - | 250 | 3R ⁺ | - | Poly | Metal | - | 2P+G | - |
| | DSDC6 | 50 | - | 600 | 3R ⁺ | - | Poly | Metal | - | 2P+G | - |
| | DSDC6 | 30 | - | 750 | 3R ⁺ | - | Poly | Metal | - | 2P+G | - |
| | DSDC9 | 100 | - | 250 | 3R ⁺ | - | Poly | Metal | - | 2P+G | - |
| | DSDC9 | 60 | - | 600 | 4X | - | Poly | - | - | 2P+G | - |
| | DSDC2 | 200 | - | 250 | 3R | - | - | Metal | - | 2P+G | - |
| DSDC2 | 100 | - | 600 | 3R | - | - | Metal | - | 2P+G | - | |
| High Ampacity  | PFQ300 | 300 | 600 | 250 | - | 66/67 | - | Metal | - | 3P+N+G | 8 |
| | PF300 | 300 | 600 | 250 | - | 66/67 | - | Metal | - | 3P+N+G | 4 |
| | PF400 | 400 | 600 | 250 | - | 66/67 | - | Metal | - | 3P+N+G | 4 |
| | PF600 | 600 | 600 | 250 | - | 66/67 | - | Metal | - | 3P+N+G | 4 |
| | SP | 600 | 1000 | 1500 | - | 66/67 | Poly | - | - | 1P | 2++ |
| | CS1000 | 400 | 1000 | 1500 | - | 66/67 | Poly | - | - | 1P | - |

* 600 VAC available at 15 A and less

** 600 VAC available at 350 A and less

+ Type 4X optional

± IP66/IP67 optional

++ SP auxiliary contacts just provide a continuity loop thru the receptacle to indicate that a plug is connected.

...AND SELECTION GUIDE

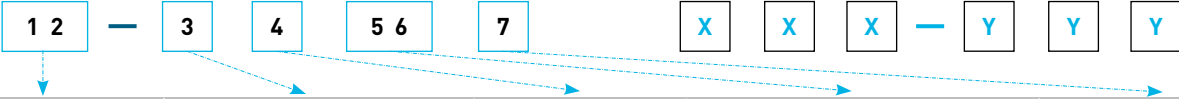
| Model | Current Interruption Rating* | Horsepower Ratings (see catalog section for other voltages) | | | Main Contacts Wire Size Capacity | | Terminal Type |
|---------------|------------------------------|--|-----------|-----------|----------------------------------|---------|---------------|
| | | 240V - 3Ø | 480V - 3Ø | 600V - 3Ø | Min | Max | |
| DR30 | Non-Current Interrupting | - | - | - | 14 AWG | 8 AWG | Screw |
| DR50 | Non-Current Interrupting | - | - | - | 12 AWG | 4 AWG | Screw |
| DR100 | Non-Current Interrupting | - | - | - | 10 AWG | 2 AWG | Screw |
| DR150 | Non-Current Interrupting | - | - | - | 4 AWG | 2/0 AWG | Screw |
| DR250 | Non-Current Interrupting | - | - | - | 4 AWG | 4/0 AWG | Screw |
| DR400 | Non-Current Interrupting | - | - | - | 2 AWG | 500 MCM | Screw |
| PN20 | Current Interrupting | - | - | - | 14 AWG | 8 AWG | Screw |
| PNHT | Non-Current Interrupting | - | - | - | 14 AWG | 8 AWG | Screw |
| DSDC1 | Non-Current Interrupting | - | - | - | 14 AWG | 8 AWG | Screw |
| DSDC1 | Non-Current Interrupting | - | - | - | 14 AWG | 8 AWG | Screw |
| DSDC1 | Non-Current Interrupting | - | - | - | 14 AWG | 8 AWG | Screw |
| DSDC3 | Non-Current Interrupting | - | - | - | 12 AWG | 4 AWG | Screw |
| DSDC3 | Non-Current Interrupting | - | - | - | 12 AWG | 4 AWG | Screw |
| DSDC3 | Non-Current Interrupting | - | - | - | 12 AWG | 4 AWG | Screw |
| DSDC6 | Non-Current Interrupting | - | - | - | 10 AWG | 2 AWG | Screw |
| DSDC6 | Non-Current Interrupting | - | - | - | 10 AWG | 2 AWG | Screw |
| DSDC6 | Non-Current Interrupting | - | - | - | 10 AWG | 2 AWG | Screw |
| DSDC9 | Non-Current Interrupting | - | - | - | 4 AWG | 2/0 AWG | Screw |
| DSDC9 | Non-Current Interrupting | - | - | - | 4 AWG | 2/0 AWG | Screw |
| DSDC2 | Non-Current Interrupting | - | - | - | 4 AWG | 4/0 AWG | Screw |
| DSDC2 | Non-Current Interrupting | - | - | - | 4 AWG | 4/0 AWG | Screw |
| PFQ | Non-Current Interrupting | - | - | - | 2 AWG | 600 MCM | Lug |
| PF300 | Non-Current Interrupting | - | - | - | 2 AWG | 600 MCM | Lug |
| PF400 | Non-Current Interrupting | - | - | - | 2 AWG | 600 MCM | Lug |
| PF600 | Non-Current Interrupting | - | - | - | 2 AWG | 600 MCM | Lug |
| SP | Non-Current Interrupting | - | 500 hp | 500 hp | 2/0 AWG | 777 MCM | Lug |
| CS1000 | Non-Current Interrupting | - | - | - | 1/0 AWG | 444 MCM | Lug |

MELTRIC PART NUMBERING...



First seven (7) digits for a basic inlet or receptacle part number

One (1) to six (6) suffixes for special features



| MELTRIC Product Line Type and Casing Material | AMP (A) Rating | | Form and Mounting | Voltage Polarization | | Phasing |
|---|---|--|---|--|------------------------|--|
| | Position | Voltage | | Hz | | |
| PN/PN7c 01 = Blue Poly 09 = Blue Metal | DSN 1 = 20 3 = 30 6 = 60 9 = 150 | DX 2 = 20* 3 = 30* 6 = 60* 9 = 100* | Female 4 = Receptacle | 01 = $\frac{220 - 250}{380 - 440}$ | 50 | AC 2 = 2P+G AC 3 = 3P+G AC 5 = 1P+N+G AC 6 = 2P+N+G AC 7 = 3P+N+G AC A+ = 2P AC B+ = 3P AC C+ = 3P+N AC D+ = 1P+N AC G+ = 2P+N AC |
| PN12c 03 = Blue Poly 07 = Blue Metal | DS 1 = 20 3 = 30 6 = 60/100C 9 = 100 | PF 3 = 300* 6 = 600* | Male 8 = Inlet | 02 = 20/24 03 = $\frac{110 - 130}{190 - 230}$ 04 = $\frac{255 - 277}{440 - 480}$ | 60 50 60 | DC 8** = 2P+G DC 9 = 2P+G DC Z+ = 2P DC P = 2P+2P+G DC |
| PXN12c 06 = Black Metal | DR 1 = 30 3 = 50 6 = 100 9 = 150 2 = 250* | PFQ 3 = 300* | DX, DXN37c, PXN12c, SPeX Only | 06 = 25/28 07 = $\frac{110 - 125}{220 - 250}$ 08 = 20/24 09 = 480/500 | 50 60 50 50 | |
| DN 19 = Blue Metal | DN 1 = 20*(DN9) 6 = 20*(DN20) | | Female 0 = Receptacle on box 3 = Connector 4 = Receptacle | 10 = 110/130 11 = $\frac{115 - 127}{200 - 220}$ 12 = $\frac{115 - 127}{200 - 220}$ 13 = 40/48 | DC 400 200 50 | |
| DXN 22 = Black Poly | PN20 N = 20 (IP66/ IP67) S = 20 (IP54/ IP55) | | Male 1 = Plug 6 = Inlet on Box | 14 = 347/600 16 = $\frac{120 - 127}{208 - 220}$ 17* = $\frac{110 - 125}{220 - 250}$ 18* = 347/600 | 60 60 60 60 | |
| DXA1 28 = Black Metal | PNHT 2 = 20 | | | 19 = $\frac{380 - 400}{660 - 690}$ 20 = 220/250 22 = 577/1000 | 50 DC 50 | |
| DX 26 = Black Metal | DXN 1 = 20 3 = 30 6 = 60 | | | 23* = $\frac{120 - 127}{208 - 220}$ 24* = $\frac{255 - 277}{440 - 480}$ | 60 60 | |
| DS 33 = Blue Poly 35 = Black Poly 36 = Black Metal (HazLoc) 37 = Blue Metal | DXA1 1 = 20 | | | | | |
| DXN25/37c 36 = Black Metal | | | | | | |
| DR 31 = Blue Poly 35 = Black Poly 36 = Black Metal (HazLoc) 39 = Blue Metal | | | | | | |
| SPeX 42 = Black Poly | | | | | | |
| CS1000/SP 45 = Black Poly | | | | | | |
| PFQ 47 = Gray Metal | | | | | | |
| PF 49 = Gray Metal | | | | | | |
| DSN 63 = Blue Poly 65 = Black Poly 66 = Black Metal (HazLoc) 69 = Blue Metal | | | | | | |

- Notes:**
- On metal devices, inlets are not painted, receptacles are painted.
 - This is the Keying Standard for MELTRIC products. Suffixes are available to accommodate non-interchangeable devices of the same size at the same voltage. Please ask for more details.

HIGH AMPACITY

Plugs & Receptacles



High Amperage plugs and receptacles from MELTRIC offer superior safety and performance in harsh environments. Each high amperage product line features MELTRIC's exclusive contact technology along with advanced safety features and relatively easy plug insertion and removal.



PF/PFQ P. 121

THREE PHASE, TWIST TO CONNECT

- 300 A to 600 A
- Silver pressure contacts
- Mechanical locking system



DR400 P. 129

THREE PHASE, EASY PLUG INSERTION

- 400 A, 480V or 350 A, 600V
- Silver nickel, Spring-loaded, butt-style contacts
- Easy closing mechanism



SP P. 133

SINGLE POLE, EXCLUSIVE SAFETY FEATURES

- 600 A (CSA), 700 A, (IEC)
- Silver, butt-style contacts
- Integral pilot circuit



CS1000 P. 137

SINGLE POLE, EASY TO OPERATE

- 400 A, 600V
- Silver nickel, Spring-loaded, butt-style contacts
- Locking pin prevents accidental disconnects

CS1000

High Amperage Plug and Receptacle



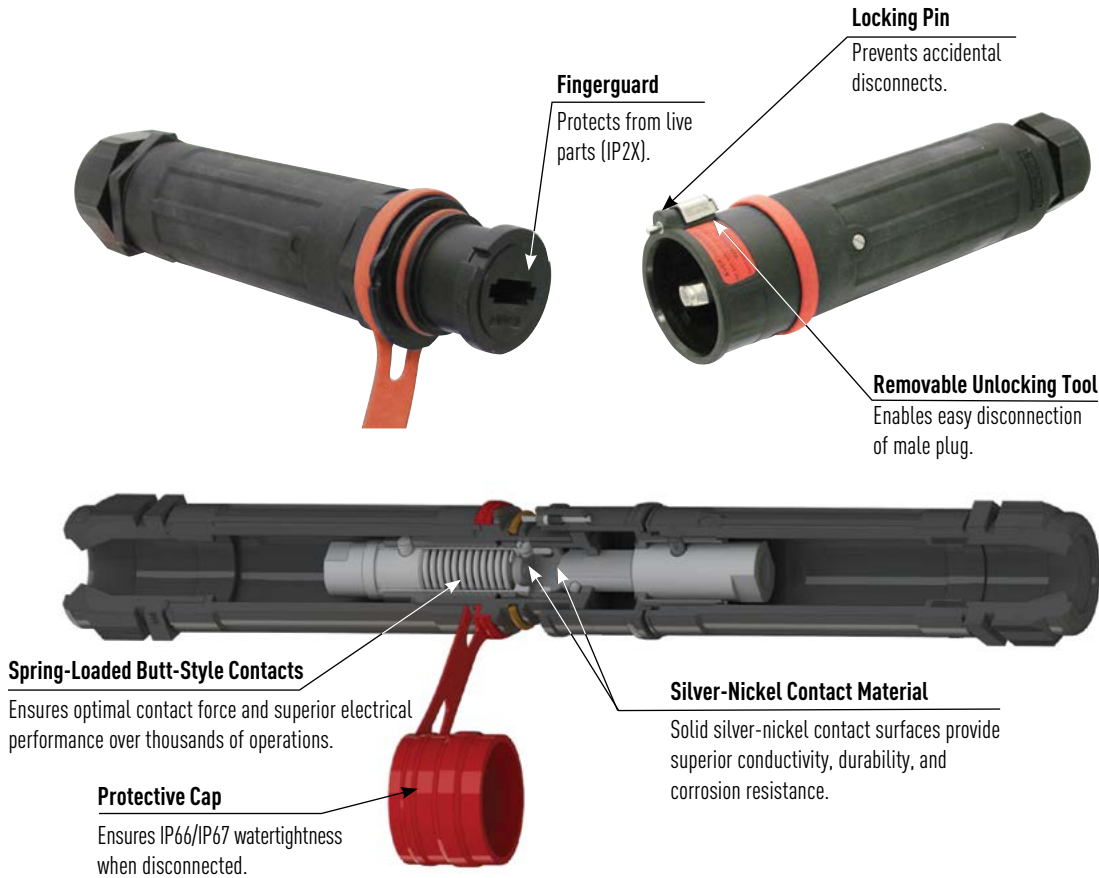
Main Advantages

- ▶ High Amperage Capacity up to 400 A at 600VAC, 600 VDC (in North America) or 1000VAC, 1500 VDC (in Europe - CE rated).
- ▶ Safety features protect users from live parts and prevent unwanted disconnection.
- ▶ Silver-nickel butt contacts provide superior performance and corrosion resistance.



- ▶ Features and Ratings p. 138
- ▶ CS1000 p. 139
- ▶ Dimensions p. 140

PRODUCT FEATURES



Operating Instructions

Connection



Disconnection



General Ratings

| | |
|----------------------|---------------------|
| Amperage | 400 A |
| Voltage | 1000 VAC, 1500 VDC |
| Frequency | 50-400 Hz |
| Environmental | IP66/IP67 |
| Temperature | min -40°F/max 140°F |

* CS1000 plugs and receptacles are UL listed in accordance with UL 1691. CS1000 devices are for use in non-load break applications up to 400 A at 600VAC, 600 VDC (in North America) or 1000VAC, 1500 VDC (in Europe - CE rated).

Listings

| Category | UL | CSA | IEC |
|----------------------------------|---------|-------------|---------|
| Single Pole Plugs and Receptacle | UL 1691 | CSA 1691-12 | 60309-1 |

Highlighted Feature

5 Mechanical Keying Postions (North America color codes shown.)



CS1000 Standard Duty Plugs & Receptacles

400 A-1000 VAC

Receptacle (female) without lug **Inlet** (male) without lug



! Don't forget to add installation accessories to your order

UL/CSA Ratings

- Amperage**
400 A
Not for Current Interrupting
- Voltage**
600 VAC, 600 VDC
- Short Circuit Rating**
10kA Withstand
Testing was performed with RK1 current limiting fuses sized at at least 100% of the devices ampacity rating.
- Environmental Ratings** IP66/
IP67
- Temperature Range**
Min -40°F / Max 140°F
See pg 258 for temps below -15°F.
- Wiring Capacity**
Min 1 / 0 AWG / Max 450 MCM
90°C rated wire must be used
- Applicable Standards**
UL 1691
CSA 1691-12

North American Configuration

| North American Color Code | Polarity | Part # without lug | Part # without lug |
|---------------------------|----------|--------------------|--------------------|
| | L1 | 45-34001-P80 | 45-38001-P80 |
| | L2 | 45-34002-P80 | 45-38002-P80 |
| | L3 | 45-34003-P80 | 45-38003-P80 |
| | NEUTRAL | 45-3400N-P80 | 45-3800N-P80 |
| | GROUND | 45-3400T-P80 | 45-3800T-P80 |
| | POSITIVE | 45-3400P-P80 | 45-3800P-P80 |
| | NEGATIVE | 45-3400M-P80 | 45-3800M-P80 |

IEC/CE Configuration

| European Color Code | Polarity | Part # Poly | Part # Poly |
|---------------------|----------|-------------|-------------|
| | L1 | 45-34001 | 45-38001 |
| | L2 | 45-34002 | 45-38002 |
| | L3 | 45-34003 | 45-38003 |
| | NEUTRAL | 45-3400N | 45-3800N |
| | GROUND | 45-3400T | 45-3800T |
| | POSITIVE | 45-3400P | 45-3800P |
| | NEGATIVE | 45-3400M | 45-3800M |

IEC/CE Ratings

- Amperage**
400 A
Not for Current Interrupting
- Voltage**
1000 VAC, 1500 VDC
- Environmental Ratings**
IP66/IP67
- Temperature Range**
Min -40°F / Max 140°F
See pg 258 for temps below -15°F.
- Wiring Capacity**
Min 1 / 0 AWG / Max 450 MCM
- Applicable Standards**
CE

INSTALLATION ACCESSORIES – SIZE M

| ANGLES | POLY ANGLE | | |
|--------|------------|----------|--------------------|
| | | 0° | 45-3A540 |
| | 30° | 45-3A027 | With Adapter Plate |

| ACCESSORIES | INLET CAP | |
|-----------------|----------------|--|
| | | 45-3A126 |
| | UNLOCKING TOOL | |
| | 45-3A396 | One unlocking tool on a "valet" style separable key ring is included with each male inlet. |
| PADLOCKING TOOL | | |
| | 45-3A843 | |

INSTALLATION ACCESSORIES – SIZE M

CRIMPING LUGS



WIRE CAPACITY

| Internal Diameter | | Straight w/terminal | Straight Threaded | Flexible Wiring* | | Course Wiring | |
|-------------------|------|---------------------|-------------------|------------------|------------------|-----------------|-----|
| in | mm | Part # | Part # | mm ² | AWG | mm ² | AWG |
| .43 | 11 | 45-4A50C | 45-4A50D | 50 | 1/0 ¹ | 70 | 2/0 |
| .51 | 13.1 | 45-4A70C | 45-4A70D | 70 | 2/0 | 95 | 3/0 |
| .57 | 14.5 | 45-4A95C | 45-4A95D | 95 | 3/0 | 120 | 4/0 |
| .64 | 16.2 | 45-4A12C | 45-4A12D | 120 | 250 | 150 | 300 |
| .71 | 18 | 45-4A15C | 45-4A15D | 150 | 300 | 185 | 400 |
| .81 | 20.6 | 45-4A18C | 45-4A18D | 185 | 350 | 240 | 450 |
| .91 | 23.1 | 45-4A24C | 45-4A24D | 240 | 450 | 300 | 500 |

Notes: * Class H & I
¹ The ground conductor for CS1000 series devices shall be limited to a maximum size of 1/0 AWG.

HANDLES

| HANDLE | Cable Outside Diameter | Part # | |
|--------|------------------------|----------|----------------------------|
| | .550 - 1.000" | 45-3A753 | Normal Duty 100 lb grip |
| | .700 - 1.260" | 45-3A783 | |

Not UL/CSA listed

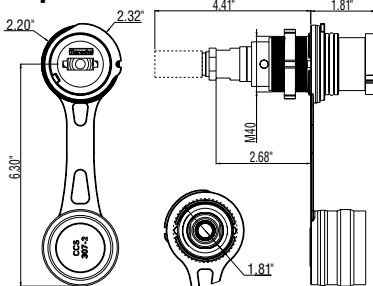
| HANDLE w/Cord Grip (Mesh) | Cable Outside Diameter | Part # | Cable Outside Diameter | Part # |
|---------------------------|------------------------|------------|------------------------|------------|
| | .500 - .625" | 45-3A753-A | .875 - 1.000" | 45-3A783-A |
| | .562 - .688" | 45-3A753-B | 1.000 - 1.125" | 45-3A783-B |
| | .625 - .750" | 45-3A753-C | 1.125 - 1.250" | 45-3A783-C |
| | .688 - .812" | 45-3A753-D | 1.250 - 1.375" | 45-3A783-D |
| | .750 - .875" | 45-3A753-E | | |

Heavy Duty
300 lb grip

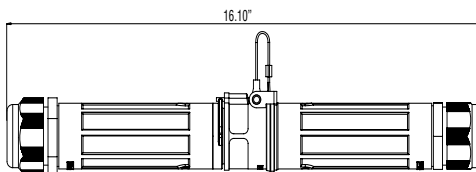
Dimensions Inlet/Receptacle – Provided in inches

Dimensions are for reference only and may change depending on accessories used. For precise dimensions contact MELTRIC Engineering.

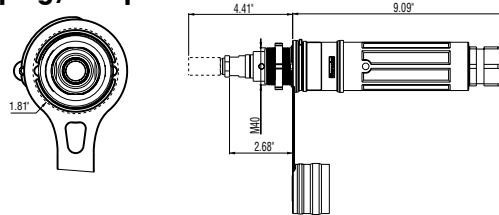
receptacle



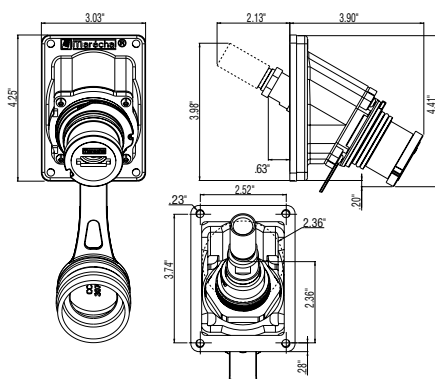
inline connector



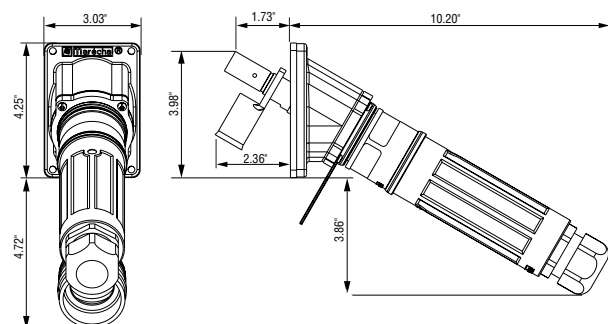
plug / receptacle



30° inclined receptacle / angle



30° receptacle / angle with plug



HIGH AMPACITY