

Product Features

- High Voltage Inter Lock
- IP67 & Shielding
- Automatic Secondary Lock
- 1-3Positions Available
- 90 D and 180 D plug
- 6Keys(1POS),2Keys(2POS & 3POS)

Applications

- New Energy Electric Vehicles
- Frequency Converter
- Inverter
- Battery Connection

Technical Data

|                    |                                   |
|--------------------|-----------------------------------|
| DC Current Rating  | 90-500A                           |
| DC Voltage Rating  | 1000V                             |
| Temperature Range  | -40°C to +125°C                   |
| Flammability       | UL94 V-0                          |
| Mating Cycle       | Min. 100                          |
| Mutil Polarization | 6Keys(1POS)<br>2Keys(2POS & 3POS) |

PowerLok Recommended Cable Size & Current Rating

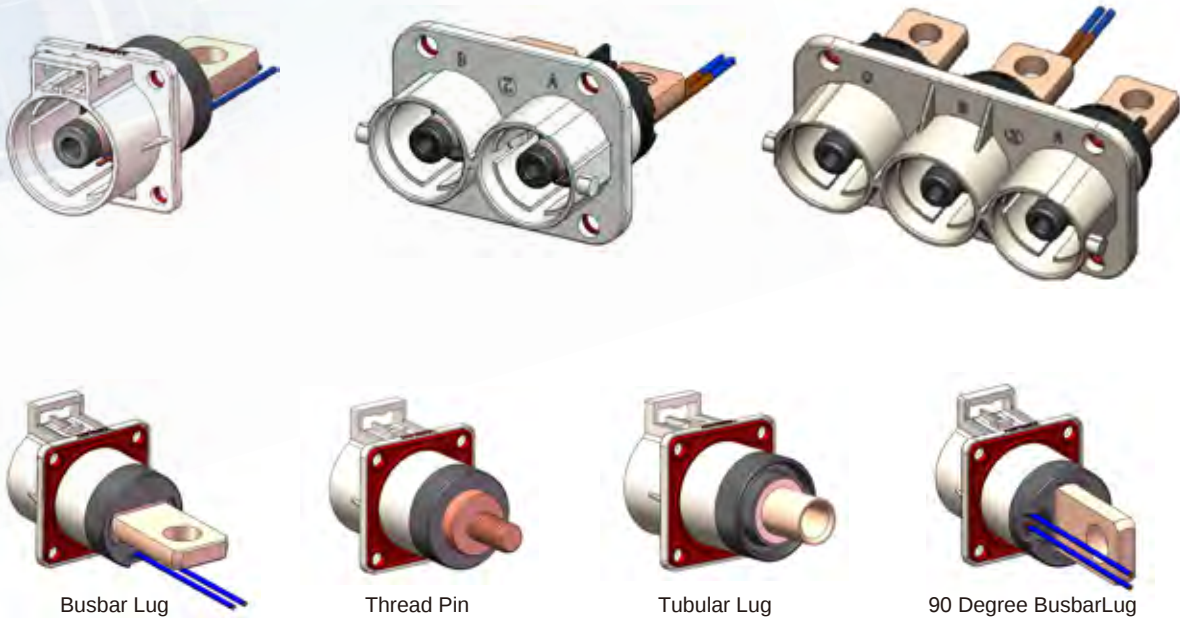
| Current Rating of Connector(A) | Accepted Cbl Size(mm ) <sup>2</sup> | Current Rating of Cable(A) |
|--------------------------------|-------------------------------------|----------------------------|
| 120 Series                     | 16                                  | 90                         |
|                                | 25                                  | 120                        |
| 200 Series                     | 25                                  | 120                        |
|                                | 35                                  | 150                        |
| 300 Series                     | 50                                  | 200                        |
|                                | 35                                  | 150                        |
|                                | 50                                  | 200                        |
|                                | 70                                  | 250                        |
| 400 Series                     | 95                                  | 300                        |
|                                | 70                                  | 250                        |
|                                | 95                                  | 300                        |
|                                | 120                                 | 400                        |
| 500 Series                     | 135                                 | 450                        |
|                                | 95                                  | 300                        |
|                                | 120                                 | 400                        |
|                                | 135                                 | 450                        |
|                                | 150                                 | 500                        |

PowerLok Connector Plug



PowerLok™ Plug Ordering Information

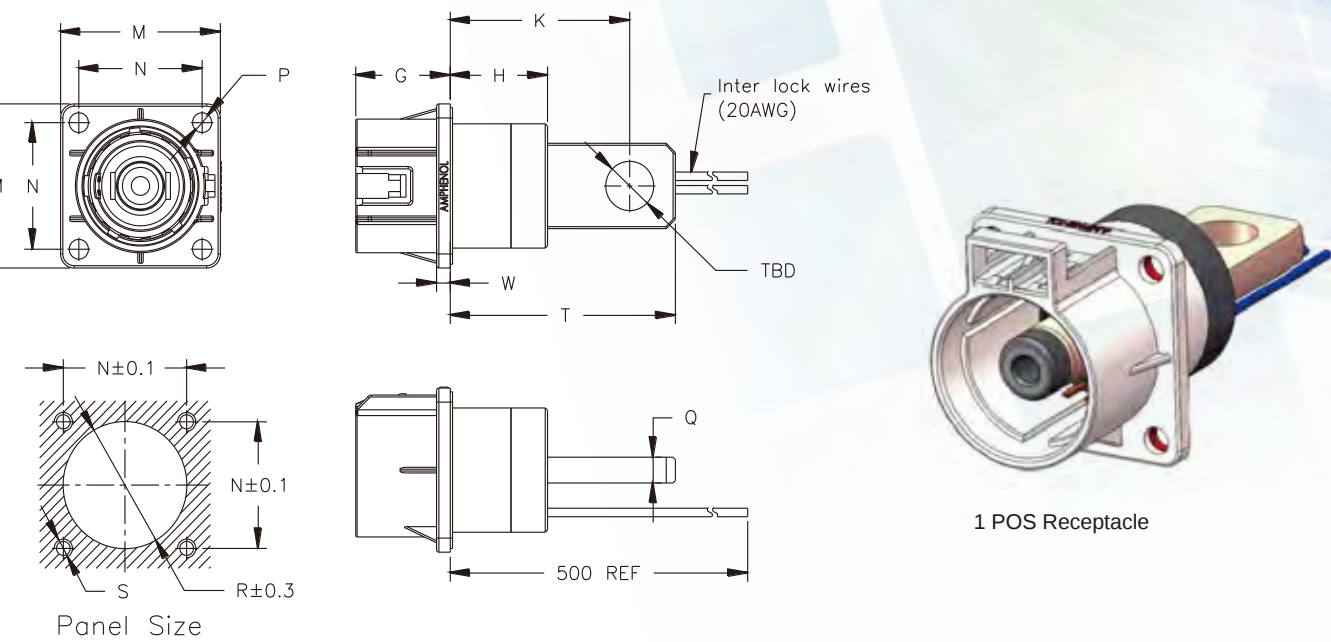
| PowerLok™ Plug Ordering Information |           |               |                                        |                  |                       |            |                      |                                                                    |              |
|-------------------------------------|-----------|---------------|----------------------------------------|------------------|-----------------------|------------|----------------------|--------------------------------------------------------------------|--------------|
| Product Type                        |           | (A) Plug Type |                                        | (B) Polarization |                       | (C) Series |                      | (D) Cable Size (mm <sup>2</sup> )                                  | (E) Versions |
| PL                                  | PowerLok™ | 10            | Overmolded Cable Assembly, Straight    | X                | 1 POS ,Key "X" Orange | 120        | 120 Series           | Refer to "PowerLok™ Recommended Cable Size & Current Rating" Chart | Blank:Rev 1  |
|                                     |           | 20            | Overmolded Cable Assembly, Right Angle | Y                | 1 POS ,Key "Y" Black  | 121        | 120 Series With HVIL |                                                                    | 2 Rev 2      |
|                                     |           | 18            | Plug Connector, Straight,Shield        | U                | 1 POS ,Key "U" Yellow | 200        | 200 Series           |                                                                    |              |
|                                     |           | 28            | Plug Connector, Right Angle,Shield     | V                | 1 POS ,Key "V" Green  | 201        | 201 Series With HVIL |                                                                    |              |
|                                     |           | 48            | Plug Connector, Straight,Un-Shield     | W                | 1 POS ,Key "W" Red    | 300        | 300 Series           |                                                                    |              |
|                                     |           | 58            | Plug Connector, Right Angle,Un-Shield  | T                | 1 POS ,Key "T" Blue   | 301        | 300 Series with HVIL |                                                                    |              |
|                                     |           |               |                                        | 2X               | 2 POS ,Key "X"        | 400        | 400 Series           |                                                                    |              |
|                                     |           |               |                                        | 2Y               | 2 POS ,Key "Y"        | 401        | 400 Series with HVIL |                                                                    |              |
|                                     |           |               |                                        | 3X               | 3 POS ,Key "X"        | 500        | 500 Series           |                                                                    |              |
|                                     |           |               |                                        | 3Y               | 3 POS ,Key "Y"        | 501        | 500 Series with HVIL |                                                                    |              |



PowerLok™ Receptacle Ordering Information

| <div>PL00X-301-10M10-2</div> |           |                    |                                              |            |                |                      |                      |    |              |               |             |             |
|------------------------------|-----------|--------------------|----------------------------------------------|------------|----------------|----------------------|----------------------|----|--------------|---------------|-------------|-------------|
| Product Type                 |           | (A) Connector Type | (B) Polarization & (Touch Proof Cover) Color | (C) Series |                | (D) Termination Type | (E) Termination Size |    | (F) Versions |               |             |             |
| PL                           | PowerLok™ | 00                 | 1 POS Receptacle                             | X          | Key "X" Orange | 120                  | 120 Series           | 10 | Lug          | M+Stud Size   | D+Stud Size | Blank:Rev 1 |
|                              |           | 08                 | 2 POS & 3 POS Receptacle                     | Y          | Key "Y" Black  | 121                  | 120 Series with HVIL | 20 | Thread Pin   | M+Thread Size |             | 2 Rev 2     |
|                              |           |                    |                                              | U          | Key "U" Yellw  | 200                  | 200 Series           | 30 | Crimping Lug | D+Cable Size  | D+Stud Size |             |
|                              |           |                    |                                              | V          | Key "V" Green  | 201                  | 200 Series with HVIL | 90 | 90D Lug      | M+Stud Size   |             |             |
|                              |           |                    |                                              | W          | Key "W" Blue   | 300                  | 300 Series           |    |              |               |             |             |
|                              |           |                    |                                              | T          | Key "T" Red    | 301                  | 300 Series with HVIL |    |              |               |             |             |
|                              |           |                    |                                              | 2X         | 2 POS ,Key "X" | 400                  | 400 Series           |    |              |               |             |             |
|                              |           |                    |                                              | 2Y         | 2 POS ,Key "Y" | 401                  | 400 Series with HVIL |    |              |               |             |             |
|                              |           |                    |                                              | 3X         | 3 POS ,Key "X" | 500                  | 500 Series           |    |              |               |             |             |
|                              |           |                    |                                              | 3Y         | 3 POS ,Key "Y" | 501                  | 500 Series with HVIL |    |              |               |             |             |

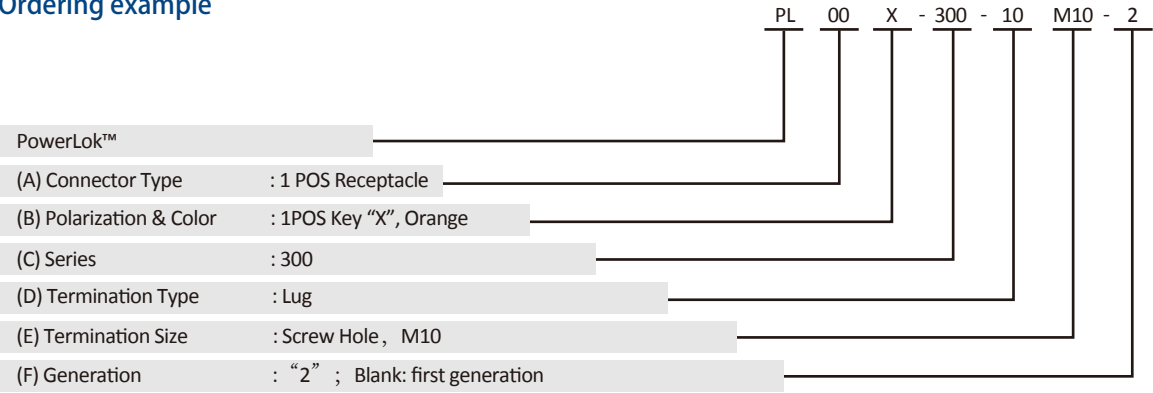
PowerLok™ 1POS Receptacle



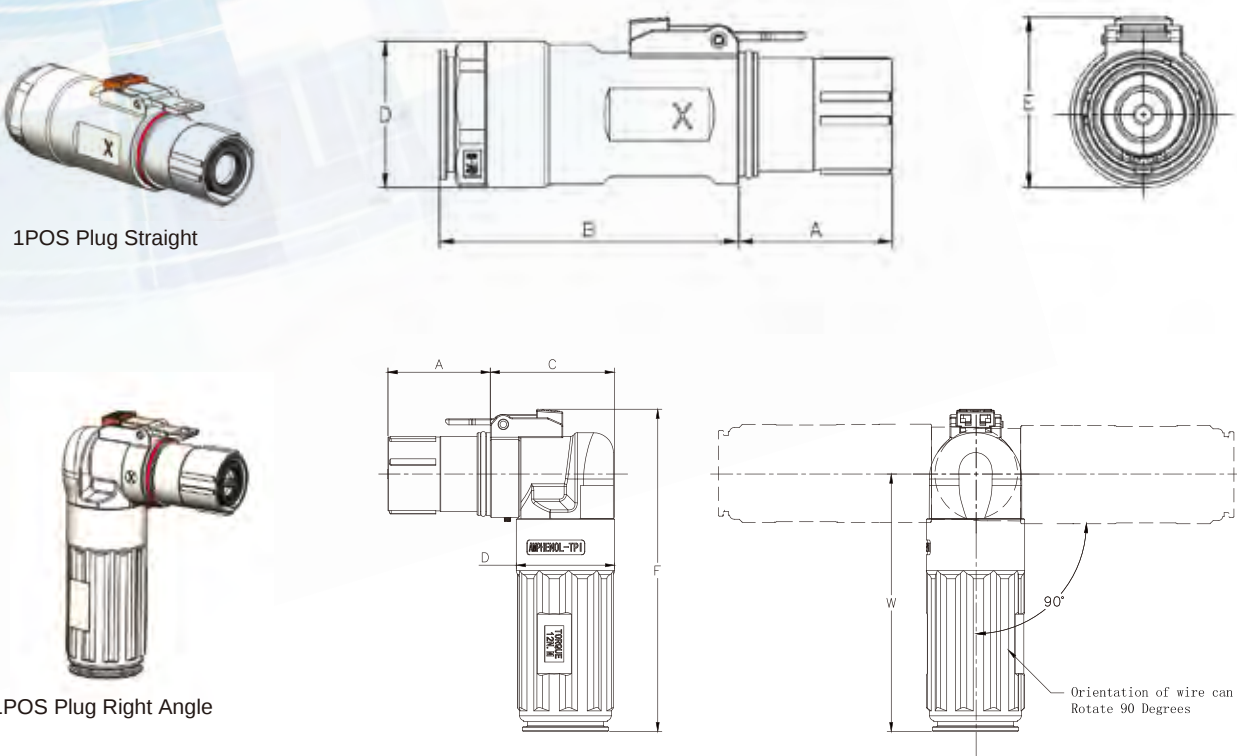
PowerLok™ 1POS Receptacle Parameter

| Series | PowerLok Receptacle Size |       |       |       |       |          |       |       |       |       |       |
|--------|--------------------------|-------|-------|-------|-------|----------|-------|-------|-------|-------|-------|
|        | G(mm)                    | H(mm) | K(mm) | M(mm) | N(mm) | P(mm)PEF | Q(mm) | R(mm) | S(mm) | T(mm) | W(mm) |
| 120    | 18.0                     | 13.0  | 25.5  | 28.0  | 20.0  | 3.6      | 2.8   | Φ20.5 | M3    | 31.5  | 3.0   |
| 200    | 20.7                     | 19.3  | 32.3  | 33.0  | 25.0  | 4.2      | 5.5   | Φ23.5 | M4    | 39.3  | 3.0   |
| 300    | 20.7                     | 21.3  | 39.3  | 35.0  | 27.0  | 4.2      | 5.5   | Φ27.5 | M4    | 49.3  | 3.0   |
| 400    | 27.2                     | 25.0  | 45.2  | 43.0  | 33.5  | 4.3      | 7.0   | Φ35.5 | M4    | 55.2  | 3.5   |
| 500    | 27.2                     | 25.0  | 46.0  | 43.0  | 33.5  | 4.3      | 7.0   | Φ35.5 | M4    | 56.0  | 3.5   |

Ordering example



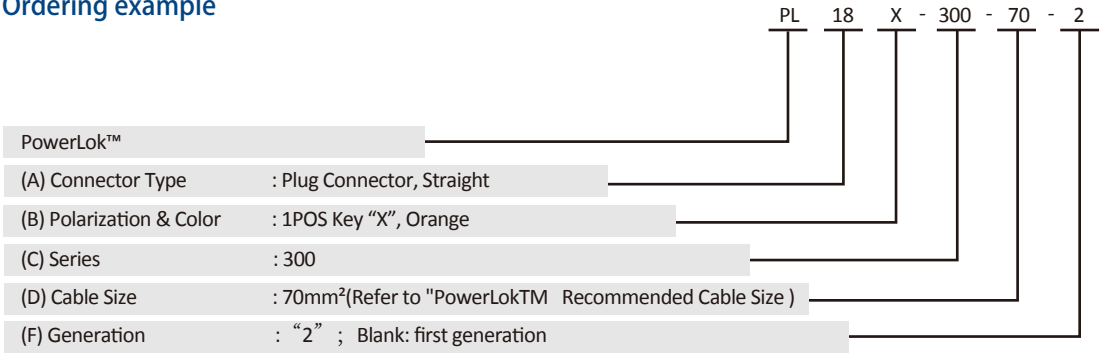
PowerLok™ 1POS Assembled Plug



PowerLok™ 1POS Assembly Plug Connector Parameter

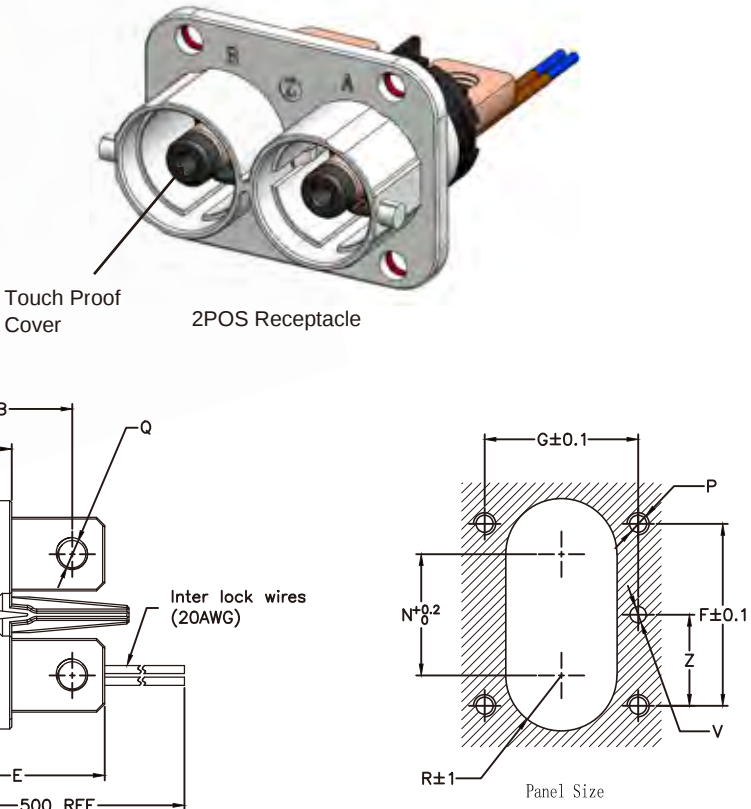
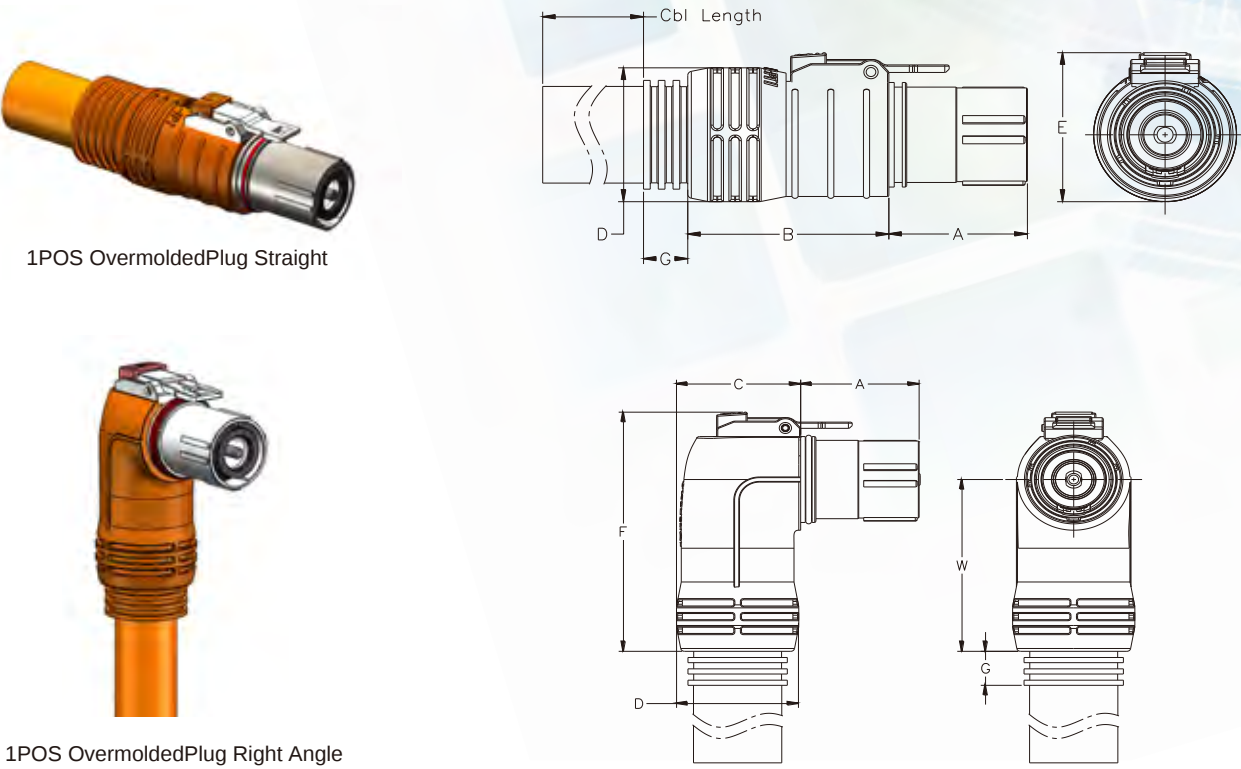
| Series | PowerLok™ 1POS Plug Connector Size |       |       |       |         |          |       |
|--------|------------------------------------|-------|-------|-------|---------|----------|-------|
|        | A(mm)                              | B(mm) | C(mm) | D(mm) | E(mm)   | F(mm)PEF | W(mm) |
| 200    | 29.8                               | 54.3  | 34.7  | Φ25.9 | 30.9REF | 86.7REF  | 68.8  |
| 300    | 31.0                               | 63.1  | 37.6  | Φ29.5 | 34.4REF | 97.7REF  | 78.1  |
| 400    | 33.6                               | 76.9  | 39.5  | Φ34.0 | 39.4REF | 115.3REF | 92.7  |
| 500    | 41.1                               | 77.0  | 47.8  | Φ38.0 | 43.0REF | 117.7REF | 93.7  |

Ordering example



PowerLok™ 1POS Overmolded Plug

PowerLok™ 2POS Receptacle



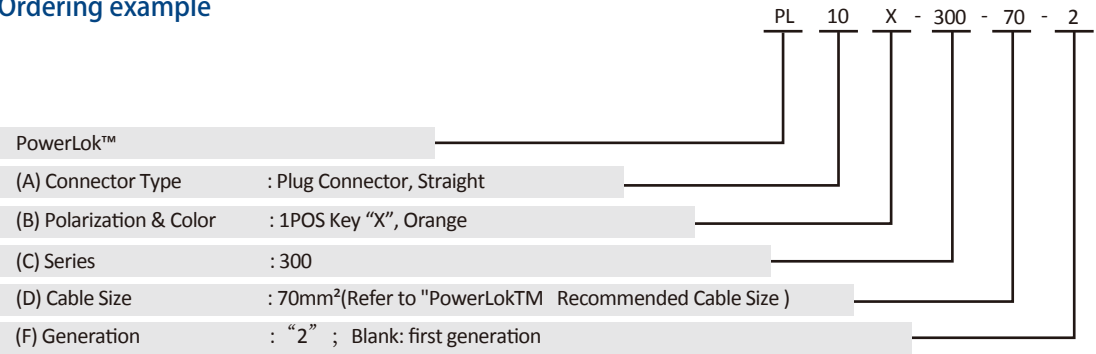
PowerLok™ 1POS Overmolded Plug Connector Parameter

| Series | PowerLok™ 1POS OvermoldedPlug Connector Size |       |       |       |       |          |       |       |              |
|--------|----------------------------------------------|-------|-------|-------|-------|----------|-------|-------|--------------|
|        | A(mm)                                        | B(mm) | C(mm) | D(mm) | E(mm) | F(mm)PEF | G(mm) | W(mm) | Cable Length |
| 120    | 22.5                                         | 39.0  | 25.3  | Φ24.6 | 28.5  | 55.8     | 9.9   | 40.0  | TBD          |
| 300    | 31.0                                         | 45.0  | 32.5  | Φ32.0 | 35.6  | 69.6     | 9.9   | 50.0  |              |
| 400    | 41.1                                         | 52.0  | 43.0  | Φ42.0 | 43.6  | 78.6     | 9.9   | 55.0  |              |
| 500    | 41.1                                         | 52.0  | 43.0  | Φ42.0 | 43.6  | 78.6     | 9.9   | 55.0  |              |

PowerLok™ 2POS Receptacle Parameter

| Series | PowerLok™ 2POS Receptacle Size |       |       |       |       |       |       |       |       |       |    |       |       |       |       |     |       |
|--------|--------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----|-------|-------|-------|-------|-----|-------|
|        | A(mm)                          | B(mm) | C(mm) | D(mm) | E(mm) | F(mm) | G(mm) | H(mm) | M(mm) | N(mm) | P  | S(mm) | V(mm) | W(mm) | R(mm) | Q   | Z(mm) |
| 120    | 18.5                           | 23.5  | 14.5  | 3.0   | 29.5  | 35.0  | 25.5  | 34.0  | Φ3.6  | 22.0  | M3 | 49.0  | 3.5   | 48.0  | 10.3  | TBD | 17.5  |
| 300    | 22.0                           | 35.0  | 21.2  | 3.0   | 43.0  | 45.0  | 38.0  | 48.0  | Φ6.2  | 30.0  | M6 | 65.4  | 4.0   | 65.0  | 13.8  | TBD | 22.5  |

Ordering example



Ordering example

