

# SPPC

## SINGLE POLE POWER CONNECTORS

**SPPC-PWL**

Power Connectors, 400A / 750A

**SPPC-HK**

Compact Power Connectors, 250A / 400A

**SPPC-LJP**

Lug Joint Protector



Radiall 

 VanSystem

## Introduction

### SPPC-PWL – Single Pole Power Connectors



PWL Connectors have become widely adopted in a diverse range of applications and industries.

- Up to 750A, 1.000V
- IP67 when mated (according EN 60529)
- IP2x finger protected contacts
- Intermatable with any Powerlock and Powerline compliant connectors
- KSPC: keyed single pole connector, individual keyways to prevent connection errors

### SPPC-HK – Compact Single Pole Power Connectors



HOOK Connectors have been developed as a PWL compact series.

- Up to 400A, 1.250V
- Reduced flange option
- IP67 when mated (according EN 60529)
- IP2x finger protected contacts
- Intermatable with any Vanten compliant connectors
- KSPC: keyed single pole connector, individual keyways to prevent connection errors

### SPPC-LJP – Lug Joint Protector



LJP is a safe and efficient means to make temporary connection/extensions of single core power cables that are pre-terminated with copper lug terminals.

- Up to 780A, 1.000V
- IP67 when mated (according EN 60529)
- Accepts 120mm<sup>2</sup>, 185mm<sup>2</sup>, 240mm<sup>2</sup> and 30mm<sup>2</sup> lugs with holes size 12mm.
- Different lug sizes can be assembled in the same unit using the special accessories.

## Characteristics

### SPPC – Single Pole Power Connectors

Single Pole Power Connectors have become widely adopted in a diverse range of applications and industries.



#### APPLICATIONS

- Power distribution
- Utilities
- Electric Vehicles
- Railway Equipment
- Military Field Power
- Mobile Generators
- Loadbanks
- Back-up Power Systems

#### Key characteristics

- 500 Mating Cycles minimum.
- Intermateable with other versions.
- IP2X Finger Protected contacts.
- IP67 sealed when mated.
- Remote tool required to release the secondary locking of the mated connectors
- For use with Electrical Power Cables.
- Heavy Duty Hand Grips.
- Clip retained contacts.
- Cotter pin required for panel mount connectors.
- Cable sizes from 35mm<sup>2</sup> to 300mm<sup>2</sup>
- Facilitate cables up to 37mm Ø.
- High Impact Insulators.
- Harmonised Colour Coding.
- CE Compliant.
- EN/ESI compliant Creepage and Clearance distances.
- Multi-louver contact system.
- Mechanically keyed to prevent connection errors.
- Permanent Phase Marking
- Set Screw and Crimp contact versions.
- UL94 VO Flame Retardant.
- Field Assembly & Repair.
- Extraction tool required.
- Daisy Chain hook up system.



File N. E483437

#### Features and Benefits

- Connectors coding key to prevent possible wrong connections.
- mechanical key associated to harmonized colour system i.e. A Phase Line cannot be connected into Earth Line etc. i.e. in Europe Phase 1 is always brown
- secondary locking system

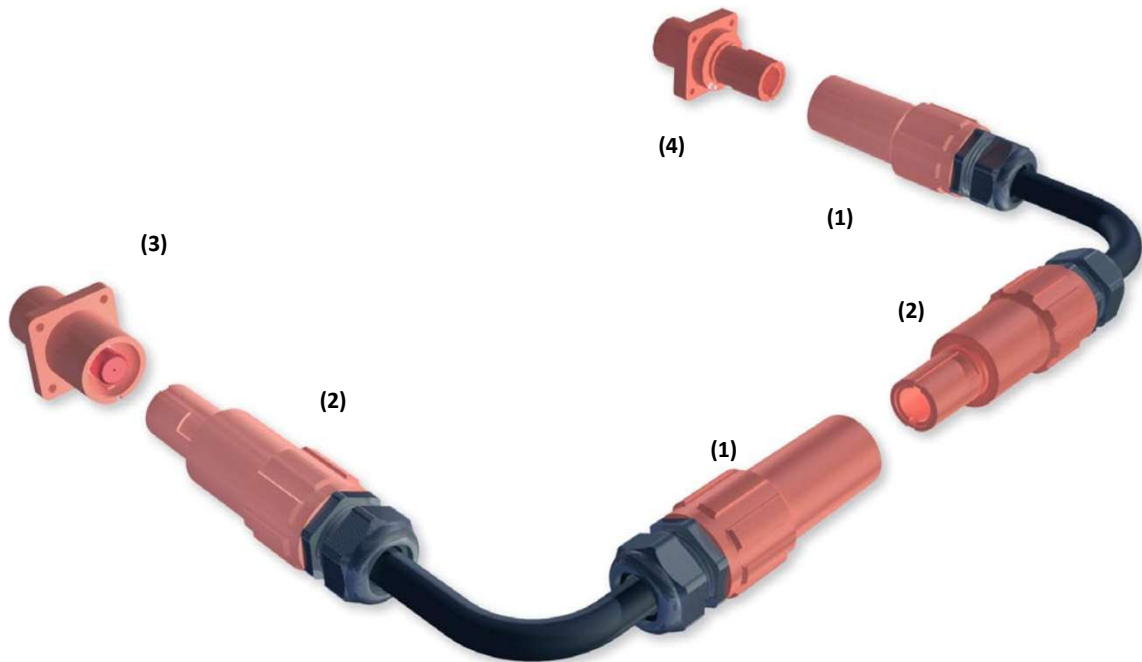
## Introduction

### SPPC – Single Pole Power Connectors

Power connectors types:

- **Source: female** connector is the source of the power, it receives and holds the male connector.
- **Drain: male** connectors receives and holds the female connector. The Drain connectors have a pin for the secondary locking (locks into the source connectors) The release key is required to unlock the secondary locking pin.
- **Inline: source (1) or drain (2)** is a moveable connectors fitted to a cable. The contacts are available in crimp or screw terminal.
- **Panel: source (3) or drain (4)** receptacle connectors to be fixed to a panel.

Power connectors cannot be mated/unmated under voltage or underloaded.



### COLOR CODING

| Standard          | Phase L1                                                                                       | Phase L2                                                                                        | Phase L3                                                                                      | Earth                                                                                            | Neutral                                                                                          |
|-------------------|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| Europe            | Brown (BR)  | Black (BK)   | Grey (GY)  | Green (GN)  | Blue (BU)   |
| UK (*)            | Red (RD)    | Yellow (YL)  | Blue (BU)  | Green (GN)  | Black (BK)  |
| USA (*)           | Black (BK)  | Red (RD)     | Blue (BU)  | Green (GN)  | White (WH)  |
| Australia (*)     | Red (RD)    | White (WH)   | Blue (BU)  | Green (GN)  | Black (BK)  |
| Direct current DC | -                                                                                              | Red (RD)     | -                                                                                             | Green (GN)  | Black (BK)  |

\* Color set on request

## Characteristics

## SPPC - PWL

| Series   | Connector Type | Key Position | Insulator Color | Contact Termination | Cable external diameter | Modification Number* |
|----------|----------------|--------------|-----------------|---------------------|-------------------------|----------------------|
| SPPC-PWL | LS             | L1           | BR              | C-240               | M                       |                      |

|                   |    |
|-------------------|----|
| Cable/Line Source | LS |
| Cable/Line Drain  | LD |
| Panel Source      | PS |
| Panel Drain       | PD |

|         |    |
|---------|----|
| Earth   | E  |
| Neutral | N  |
| Phase 1 | L1 |
| Phase 2 | L2 |
| Phase 3 | L3 |

|        |    |                                                                                     |
|--------|----|-------------------------------------------------------------------------------------|
| Brown  | BR |  |
| Black  | BK |  |
| Grey   | GY |  |
| Blue   | BU |  |
| Green  | GR |  |
| Red    | RD |  |
| Yellow | YL |  |
| White  | WH |  |

|             |        |
|-------------|--------|
| 7mm – 15mm  | ES     |
| 15mm – 23mm | S      |
| 19mm – 28mm | M      |
| 22mm – 32mm | OS     |
| 33mm - 37mm | OS-M50 |

|                                                     |        |
|-----------------------------------------------------|--------|
| M12 post – 750A<br>up to 300mm <sup>2</sup>         | M12-T7 |
| M12 post – 400A<br>up to 120mm <sup>2</sup>         | M12-T4 |
| Screw terminal – 400A<br>up to 120mm <sup>2</sup> * | S-120  |
| Crimp contacts – 750A<br>180mm <sup>2</sup>         | C-185  |
| Crimp contacts – 750A<br>240mm <sup>2</sup>         | C-240  |
| Crimp contacts – 750A<br>300mm <sup>2</sup>         | C-300  |
| Threaded hole – 750A<br>up to 300mm <sup>2</sup>    | TH7    |
| Threaded hole – 400A<br>up to 120mm <sup>2</sup>    | TH4    |

## Product Range

### PANEL DRAIN CONNECTORS - 750A

M12 post for conductor up to 300mm<sup>2</sup>



| Color*                                                                                             | Designation              | Order Number |
|----------------------------------------------------------------------------------------------------|--------------------------|--------------|
| Brown – Phase L1  | SPPC-PWL-PD-L1-BR-M12-T7 | 390110       |
| Black – Phase L2  | SPPC-PWL-PD-L2-BK-M12-T7 | 390111       |
| Grey – Phase L3   | SPPC-PWL-PD-L3-GY-M12-T7 | 390112       |
| Blue – Neutral    | SPPC-PWL-PD-N-BU-M12-T7  | 390113       |
| Green – Earth     | SPPC-PWL-PD-E-GN-M12-T7  | 390109       |

### PANEL DRAIN CONNECTORS – 400A

M12 post for conductor up to 120mm<sup>2</sup>



| Color*                                                                                              | Designation              | Order Number |
|-----------------------------------------------------------------------------------------------------|--------------------------|--------------|
| Brown – Phase L1   | SPPC-PWL-PD-L1-BR-M12-T4 | 390070       |
| Black – Phase L2   | SPPC-PWL-PD-L2-BK-M12-T4 | 390071       |
| Grey – Phase L3  | SPPC-PWL-PD-L3-GY-M12-T4 | 390072       |
| Blue – Neutral   | SPPC-PWL-PD-N-BU-M12-T4  | 390068       |
| Green – Earth    | SPPC-PWL-PD-E-GN-M12-T4  | 390263       |

### PANEL DRAIN CONNECTORS - 750A

Threaded Hole



| Color*                                                                                               | Designation           | Order Number |
|------------------------------------------------------------------------------------------------------|-----------------------|--------------|
| Brown – Phase L1  | SPPC-PWL-PD-L1-BR-TH7 | 390280       |
| Black – Phase L2  | SPPC-PWL-PD-L2-BK-TH7 | 390281       |
| Grey – Phase L3   | SPPC-PWL-PD-L3-GY-TH7 | 390282       |
| Blue – Neutral    | SPPC-PWL-PD-N-BU-TH7  | 390283       |
| Green – Earth     | SPPC-PWL-PD-E-GN-TH7  | 390284       |

### PANEL DRAIN CONNECTORS – 400A

Threaded Hole



| Color*                                                                                               | Designation           | Order Number |
|------------------------------------------------------------------------------------------------------|-----------------------|--------------|
| Brown – Phase L1  | SPPC-PWL-PD-L1-BR-TH4 | 390285       |
| Black – Phase L2  | SPPC-PWL-PD-L2-BK-TH4 | 390286       |
| Grey – Phase L3   | SPPC-PWL-PD-L3-GY-TH4 | 390287       |
| Blue – Neutral    | SPPC-PWL-PD-N-BU-TH4  | 390288       |
| Green – Earth     | SPPC-PWL-PD-E-GN-TH4  | 390289       |

## Characteristics

### PANEL SOURCE CONNECTORS - 750A M12 post for conductor up to 300mm<sup>2</sup>



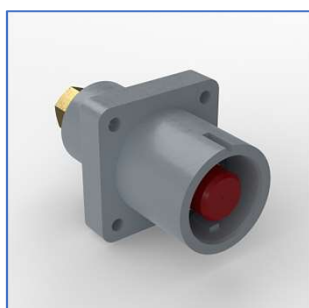
| Color*                                                                                             | Designation              | Order Number |
|----------------------------------------------------------------------------------------------------|--------------------------|--------------|
| Brown – Phase L1  | SPPC-PWL-PS-L1-BR-M12-T7 | 390100       |
| Black – Phase L2  | SPPC-PWL-PS-L2-BK-M12-T7 | 390101       |
| Grey – Phase L3   | SPPC-PWL-PS-L3-GY-M12-T7 | 390102       |
| Blue – Neutral    | SPPC-PWL-PS-N-BU-M12-T7  | 399000       |
| Green – Earth     | SPPC-PWL-PS-E-GN-M12-T7  | 399004       |

### PANEL SOURCE CONNECTORS – 400A M12 post for conductor up to 120mm<sup>2</sup>



| Color*                                                                                              | Designation              | Order Number |
|-----------------------------------------------------------------------------------------------------|--------------------------|--------------|
| Brown – Phase L1   | SPPC-PWL-PS-L1-BR-M12-T4 | 390065       |
| Black – Phase L2  | SPPC-PWL-PS-L2-BK-M12-T4 | 390132       |
| Grey – Phase L3  | SPPC-PWL-PS-L3-GY-M12-T4 | 390067       |
| Blue – Neutral   | SPPC-PWL-PS-N-BU-M12-T4  | 390063       |
| Green – Earth    | SPPC-PWL-PS-E-GN-M12-T4  | 390064       |

### PANEL SOURCE CONNECTORS - 750A Threaded Hole



| Color*                                                                                               | Designation           | Order Number |
|------------------------------------------------------------------------------------------------------|-----------------------|--------------|
| Brown – Phase L1  | SPPC-PWL-PS-L1-BR-TH7 | 390290       |
| Black – Phase L2  | SPPC-PWL-PS-L2-BK-TH7 | 390291       |
| Grey – Phase L3   | SPPC-PWL-PS-L3-GY-TH7 | 390292       |
| Blue – Neutral    | SPPC-PWL-PS-N-BU-TH7  | 390293       |
| Green – Earth     | SPPC-PWL-PS-E-GN-TH7  | 390294       |

### PANEL SOURCE CONNECTORS – 400A Threaded Hole



| Color*                                                                                               | Designation           | Order Number |
|------------------------------------------------------------------------------------------------------|-----------------------|--------------|
| Brown – Phase L1  | SPPC-PWL-PS-L1-BR-TH4 | 390295       |
| Black – Phase L2  | SPPC-PWL-PS-L2-BK-TH4 | 390296       |
| Grey – Phase L3   | SPPC-PWL-PS-L3-GY-TH4 | 390297       |
| Blue – Neutral    | SPPC-PWL-PS-N-BU-TH4  | 390298       |
| Green – Earth     | SPPC-PWL-PS-E-GN-TH4  | 390299       |

## Product Range

### CABLE/LINE DRAIN CONNECTORS - 400A

Screws terminal for conductor up to 120mm<sup>2</sup>



| Color*                                                                                             | Designation               | Order Number |
|----------------------------------------------------------------------------------------------------|---------------------------|--------------|
| Brown – Phase L1  | SPPC-PWL-LD-L1-BR-S-120-M | 390091       |
| Black – Phase L2  | SPPC-PWL-LD-L2-BK-S-120-M | 390092       |
| Grey – Phase L3   | SPPC-PWL-LD-L3-GY-S-120-M | 390093       |
| Blue – Neutral    | SPPC-PWL-LD-N-BU-S-120-M  | 390090       |
| Green – Earth     | SPPC-PWL-LD-E-GN-S-120-M  | 390089       |

Sleeves included, for cable conductor size 35 mm<sup>2</sup> - 50 mm<sup>2</sup> - 70 mm<sup>2</sup> - 95 mm<sup>2</sup> - 120 mm<sup>2</sup>

### CABLE/LINE DRAIN CONNECTORS – 750A

Crimp contacts 300mm<sup>2</sup>



| Color*                                                                                              | Designation                | Order Number |
|-----------------------------------------------------------------------------------------------------|----------------------------|--------------|
| Brown – Phase L1   | SPPC-PWL-LD-L1-BR-C-300-OS | 390275       |
| Black – Phase L2   | SPPC-PWL-LD-L2-BK-C-300-OS | 390276       |
| Grey – Phase L3  | SPPC-PWL-LD-L3-GY-C-300-OS | 390277       |
| Blue – Neutral   | SPPC-PWL-LD-N-BU-C-300-OS  | 390278       |
| Green – Earth    | SPPC-PWL-LD-E-GN-C-300-OS  | 390279       |

### CABLE/LINE DRAIN CONNECTORS – 750A

Crimp contacts 240mm<sup>2</sup>



| Color*                                                                                               | Designation                | Order Number |
|------------------------------------------------------------------------------------------------------|----------------------------|--------------|
| Brown – Phase L1  | SPPC-PWL-LD-L1-BR-C-240-OS | 390105       |
| Black – Phase L2  | SPPC-PWL-LD-L2-BK-C-240-OS | 390106       |
| Grey – Phase L3   | SPPC-PWL-LD-L3-GY-C-240-OS | 390107       |
| Blue – Neutral    | SPPC-PWL-LD-N-BU-C-240-OS  | 390274       |
| Green – Earth     | SPPC-PWL-LD-E-GN-C-240-OS  | 390104       |

### CABLE/LINE DRAIN CONNECTORS – 750A

Crimp contacts 185mm<sup>2</sup>



| Color*                                                                                               | Designation                | Order Number |
|------------------------------------------------------------------------------------------------------|----------------------------|--------------|
| Brown – Phase L1  | SPPC-PWL-LD-L1-BR-C-185-OS | 390126       |
| Black – Phase L2  | SPPC-PWL-LD-L2-BK-C-185-OS | 390127       |
| Grey – Phase L3   | SPPC-PWL-LD-L3-GY-C-185-OS | 390128       |
| Blue – Neutral    | SPPC-PWL-LD-N-BU-C-185-OS  | 390130       |
| Green – Earth     | SPPC-PWL-LD-E-GN-C-185-OS  | 390129       |

## Characteristics

### CABLE/LINE SOURCE CONNECTORS - 400A

Screws terminal for conductor up to 120mm<sup>2</sup>



| Color*           | Designation               | Order Number |
|------------------|---------------------------|--------------|
| Brown – Phase L1 | SPPC-PWL-LS-L1-BR-S-120-M | 390086       |
| Black – Phase L2 | SPPC-PWL-LS-L2-BK-S-120-M | 390087       |
| Grey – Phase L3  | SPPC-PWL-LS-L3-GY-S-120-M | 390088       |
| Blue – Neutral   | SPPC-PWL-LS-N-BU-S-120-M  | 390085       |
| Green – Earth    | SPPC-PWL-LS-E-GN-S-120-M  | 390084       |

Sleeves included, for cable conductor size 35 mm<sup>2</sup> - 50 mm<sup>2</sup> - 70 mm<sup>2</sup> - 95 mm<sup>2</sup> - 120 mm<sup>2</sup>

### CABLE/LINE SOURCE CONNECTORS – 750A

Crimp contacts 300mm<sup>2</sup>



| Color*           | Designation                | Order Number |
|------------------|----------------------------|--------------|
| Brown – Phase L1 | SPPC-PWL-LS-L1-BR-C-300-OS | 390197       |
| Black – Phase L2 | SPPC-PWL-LS-L2-BK-C-300-OS | 390198       |
| Grey – Phase L3  | SPPC-PWL-LS-L3-GY-C-300-OS | 390199       |
| Blue – Neutral   | SPPC-PWL-LS-N-BU-C-300-OS  | 390300       |
| Green – Earth    | SPPC-PWL-LS-E-GN-C-300-OS  | 390196       |

### CABLE/LINE SOURCE CONNECTORS – 750A

Crimp contacts 240mm<sup>2</sup>



| Color*           | Designation                | Order Number |
|------------------|----------------------------|--------------|
| Brown – Phase L1 | SPPC-PWL-LS-L1-BR-C-240-OS | 390115       |
| Black – Phase L2 | SPPC-PWL-LS-L2-BK-C-240-OS | 390116       |
| Grey – Phase L3  | SPPC-PWL-LS-L3-GY-C-240-OS | 390117       |
| Blue – Neutral   | SPPC-PWL-LS-N-BU-C-240-OS  | 390118       |
| Green – Earth    | SPPC-PWL-LS-E-GN-C-240-OS  | 390114       |

### CABLE/LINE SOURCE CONNECTORS – 750A

Crimp contacts 185mm<sup>2</sup>



| Color*           | Designation                | Order Number |
|------------------|----------------------------|--------------|
| Brown – Phase L1 | SPPC-PWL-LS-L1-BR-C-185-OS | 390235       |
| Black – Phase L2 | SPPC-PWL-LS-L2-BK-C-185-OS | 390154       |
| Grey – Phase L3  | SPPC-PWL-LS-L3-GY-C-185-OS | 390155       |
| Blue – Neutral   | SPPC-PWL-LS-N-BU-C-185-OS  | 390225       |
| Green – Earth    | SPPC-PWL-LS-E-GN-C-185-OS  | 390226       |

## Product Range

### REMOVAL TOOL



| Type                  | Designation         | Order Number |
|-----------------------|---------------------|--------------|
| Screw set termination | SPPC-PWL-RT-25-120  | 390038       |
| Crimp contacts        | SPPC-PWL-RT-185-300 | 390039       |



1



2

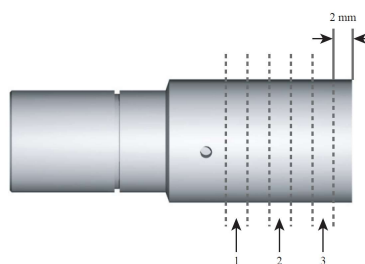
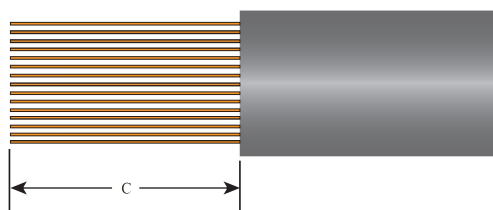


3

### CRIMPING TOOL

Due to the numerous cable types available, it is recommended to contact us to confirm cable and crimp suitability.

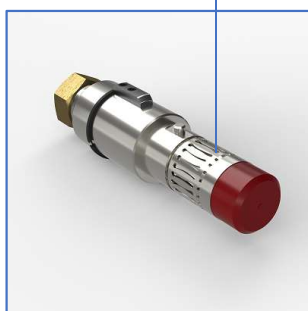
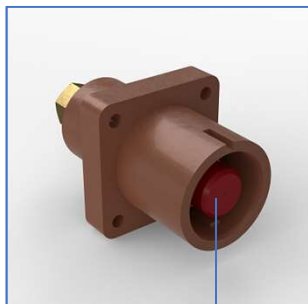
| Cable Size                    | Up to 120mm <sup>2</sup> | 185mm <sup>2</sup> Class 2 | 240mm <sup>2</sup> Class 2 | 300mm <sup>2</sup> Class 2 | 185mm <sup>2</sup> Class 5 | 240mm <sup>2</sup> Class 5 | 300mm <sup>2</sup> Class 5 |
|-------------------------------|--------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| Insulation Strip (dim C)      | 33mm                     | 40mm                       | 40mm                       | 40mm                       | 40mm                       | 40mm                       | 40mm                       |
| Recommended Number of Crimps  | N/A (set screw)          | 2                          | 3                          | 3                          | 2                          | 3                          | 3                          |
| Hand Operated Crimp Tool      | N/A                      | HT131-C                    | HT131-C                    | HT131-C                    | HT131-C                    | HT131-C                    | HT131-C                    |
| Cordless Hydraulic Crimp Tool | N/A                      | B131-C                     | B131-C                     | B131-C                     | B131-C                     | B131-C                     | B131-C                     |
| Crimp Die Set                 | N/A                      | T185-C                     | T240-C                     | T300-C                     | T185-CF                    | T240-CF                    | T300-CF                    |
| Contact Removal Tool          | 390038                   | 390039                     | 390039                     | 390039                     | 390039                     | 390039                     | 390039                     |



## Characteristics

## SPPC - PWL

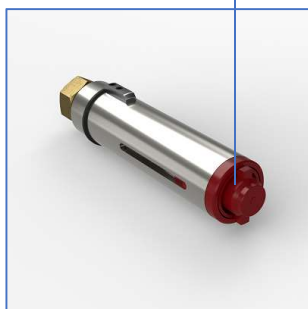
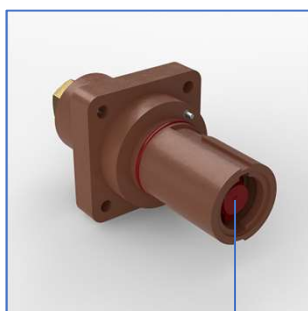
### PANEL SOURCE CONNECTORS (contacts and panel gasket to be order separately)



| Color*                                                                                             | Designation            | Order Number |
|----------------------------------------------------------------------------------------------------|------------------------|--------------|
| Brown – Phase L1  | SPPC-PWL-PS-ISOL-L1-BR | 392101       |
| Black – Phase L2  | SPPC-PWL-PS-ISOL-L2-BK | 392102       |
| Grey – Phase L3   | SPPC-PWL-PS-ISOL-L3-GY | 392103       |
| Blue – Neutral    | SPPC-PWL-PS-ISOL-N-BU  | 392104       |
| Green – Earth     | SPPC-PWL-PS-ISOL-E-GN  | 392105       |

| Type                          | Designation               | Order Number |
|-------------------------------|---------------------------|--------------|
| Source - M12 post – 750A      | SPPC-PWL-PS-CONT-M12-750A | 392201       |
| Source - M12 post – 400A      | SPPC-PWL-PS-CONT-M12-400A | 392203       |
| Source – Threaded Hole – 750A | SPPC-PWL-PS-CONT-TH-750A  | 392205       |
| Source - Threaded Hole – 400A | SPPC-PWL-PS-CONT-TH-400A  | 392207       |

### PANEL DRAIN CONNECTORS (contacts and panel gasket to be order separately)



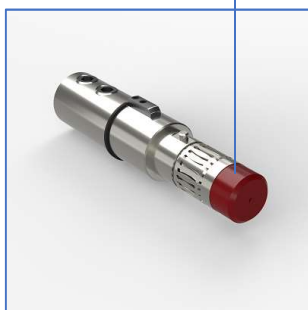
| Color*                                                                                               | Designation            | Order Number |
|------------------------------------------------------------------------------------------------------|------------------------|--------------|
| Brown – Phase L1  | SPPC-PWL-PD-ISOL-L1-BR | 392106       |
| Black – Phase L2  | SPPC-PWL-PD-ISOL-L2-BK | 392107       |
| Grey – Phase L3   | SPPC-PWL-PD-ISOL-L3-GY | 392108       |
| Blue – Neutral    | SPPC-PWL-PD-ISOL-N-BU  | 392109       |
| Green – Earth     | SPPC-PWL-PD-ISOL-E-GN  | 392110       |

| Type                         | Designation               | Order Number |
|------------------------------|---------------------------|--------------|
| Drain - M12 post – 750A      | SPPC-PWL-PD-CONT-M12-750A | 392202       |
| Drain - M12 post – 400A      | SPPC-PWL-PD-CONT-M12-400A | 392204       |
| Drain - Threaded Hole – 750A | SPPC-PWL-PD-CONT-TH-750A  | 392206       |
| Drain - Threaded Hole – 400A | SPPC-PWL-PD-CONT-TH-400A  | 392208       |

\*European Harmonized Color Set,  
others colors set on request

## Product Range

### INLINE SOURCE CONNECTORS (contacts to be order separately)



| Color**                                                                                            | Designation            | Order Number |
|----------------------------------------------------------------------------------------------------|------------------------|--------------|
| Brown – Phase L1  | SPPC-PWL-LS-ISOL-L1-BR | 392111       |
| Black – Phase L2  | SPPC-PWL-LS-ISOL-L2-BK | 392112       |
| Grey – Phase L3   | SPPC-PWL-LS-ISOL-L3-GY | 392113       |
| Blue – Neutral    | SPPC-PWL-LS-ISOL-N-BU  | 392114       |
| Green – Earth     | SPPC-PWL-LS-ISOL-E-GN  | 392115       |

| Type                                                              | Designation                     | Order Number |
|-------------------------------------------------------------------|---------------------------------|--------------|
| Source – Screw up to 35mm <sup>2</sup> -120mm <sup>2</sup> *-400A | SPPC-PWL-LS-CONT-S-400A         | 392209       |
| Source – Crimp contacts 185 mm <sup>2</sup> – 750A                | SPPC-PWL-LS-CONT-CRIMP.185-750A | 392211       |
| Source – Crimp contacts 240 mm <sup>2</sup> – 750A                | SPPC-PWL-LS-CONT-CRIMP.240-750A | 392213       |
| Source – Crimp contacts 300 mm <sup>2</sup> – 750A                | SPPC-PWL-LS-CONT-CRIMP.300-750A | 392215       |

### INLINE DRAIN CONNECTORS (contacts to be order separately)



| Color**                                                                                              | Designation            | Order Number |
|------------------------------------------------------------------------------------------------------|------------------------|--------------|
| Brown – Phase L1  | SPPC-PWL-LD-ISOL-L1-BR | 392116       |
| Black – Phase L2  | SPPC-PWL-LD-ISOL-L2-BK | 392117       |
| Grey – Phase L3   | SPPC-PWL-LD-ISOL-L3-GY | 392118       |
| Blue – Neutral    | SPPC-PWL-LD-ISOL-N-BU  | 392119       |
| Green – Earth     | SPPC-PWL-LD-ISOL-E-GN  | 392120       |

| Type                                                             | Designation                     | Order Number |
|------------------------------------------------------------------|---------------------------------|--------------|
| Drain – Screw up to 35mm <sup>2</sup> -120mm <sup>2</sup> *-400A | SPPC-PWL-LD-CONT-S-400A         | 392210       |
| Drain – Crimp contacts 185 mm <sup>2</sup> – 750A                | SPPC-PWL-LD-CONT-CRIMP.185-750A | 392212       |
| Drain – Crimp contacts 240 mm <sup>2</sup> – 750A                | SPPC-PWL-LD-CONT-CRIMP.240-750A | 392214       |
| Drain – Crimp contacts 300 mm <sup>2</sup> – 750A                | SPPC-PWL-LD-CONT-CRIMP.300-750A | 392216       |

\* Sleeves included, for cable conductor size 35 mm<sup>2</sup> - 50 mm<sup>2</sup> - 70 mm<sup>2</sup> - 95 mm<sup>2</sup> - 120 mm<sup>2</sup>

## Characteristics

### BIMETALLIC CONNECTORS FOR ALUMINIUM CABLES



For crimping tool and crimping die, please consult our commercial office.

### CABLE/LINE SOURCE CONNECTORS

Crimp contacts 300mm<sup>2</sup>, cable external diameter 33mm – 37mm



| Color*           | Designation                       | Order Number |
|------------------|-----------------------------------|--------------|
| Brown – Phase L1 | SPPC-PWL-LS-L1-BR-C-300-OS-M50-BM | 390437       |
| Black – Phase L2 | SPPC-PWL-LS-L2-BK-C-300-OS-M50-BM | 390438       |
| Grey – Phase L3  | SPPC-PWL-LS-L3-GY-C-300-OS-M50-BM | 390439       |
| Blue – Neutral   | SPPC-PWL-LS-N-BU-C-300-OS-M50-BM  | 390436       |
| Green – Earth    | SPPC-PWL-LS-E-GN-C-300-OS-M50-BM  | 390435       |

### CABLE/LINE SOURCE CONNECTORS

Crimp contacts 240mm<sup>2</sup>, cable external diameter 33mm – 37mm\*\*



| Color*           | Designation                       | Order Number |
|------------------|-----------------------------------|--------------|
| Brown – Phase L1 | SPPC-PWL-LS-L1-BR-C-240-OS-M50-BM | 390427       |
| Black – Phase L2 | SPPC-PWL-LS-L2-BK-C-240-OS-M50-BM | 390428       |
| Grey – Phase L3  | SPPC-PWL-LS-L3-GY-C-240-OS-M50-BM | 390429       |
| Blue – Neutral   | SPPC-PWL-LS-N-BU-C-240-OS-M50-BM  | 390426       |
| Green – Earth    | SPPC-PWL-LS-E-GN-C-240-OS-M50-BM  | 390425       |

\*\* on request version OS-BM with cable external diameter 22mm – 32mm

### CABLE/LINE SOURCE CONNECTORS

Crimp contacts 185mm<sup>2</sup>, cable external diameter 22mm – 32mm



| Color*           | Designation                   | Order Number |
|------------------|-------------------------------|--------------|
| Brown – Phase L1 | SPPC-PWL-LS-L1-BR-C-185-OS-BM | 390407       |
| Black – Phase L2 | SPPC-PWL-LS-L2-BK-C-185-OS-BM | 390408       |
| Grey – Phase L3  | SPPC-PWL-LS-L3-GY-C-185-OS-BM | 390409       |
| Blue – Neutral   | SPPC-PWL-LS-N-BU-C-185-OS-BM  | 390406       |
| Green – Earth    | SPPC-PWL-LS-E-GN-C-185-OS-BM  | 390405       |

## Product Range

### BIMETALLIC CONNECTORS FOR ALUMINIUM CABLES



For crimping tool and crimping die, please consult our commercial office.

### CABLE/LINE DRAIN CONNECTORS

Crimp contacts 300mm<sup>2</sup>, cable external diameter 33mm – 37mm



| Color*                                                                                             | Designation                       | Order Number |
|----------------------------------------------------------------------------------------------------|-----------------------------------|--------------|
| Brown – Phase L1  | SPPC-PWL-LD-L1-BR-C-300-OS-M50-BM | 390432       |
| Black – Phase L2  | SPPC-PWL-LD-L2-BK-C-300-OS-M50-BM | 390433       |
| Grey – Phase L3  | SPPC-PWL-LD-L3-GY-C-300-OS-M50-BM | 390434       |
| Blue – Neutral  | SPPC-PWL-LD-N-BU-C-300-OS-M50-BM  | 390431       |
| Green – Earth   | SPPC-PWL-LD-E-GN-C-300-OS-M50-BM  | 390430       |

### CABLE/LINE DRAIN CONNECTORS

Crimp contacts 240mm<sup>2</sup>, cable external diameter 33mm – 37mm\*\*



| Color*                                                                                               | Designation                       | Order Number |
|------------------------------------------------------------------------------------------------------|-----------------------------------|--------------|
| Brown – Phase L1  | SPPC-PWL-LD-L1-BR-C-240-OS-M50-BM | 390422       |
| Black – Phase L2  | SPPC-PWL-LD-L2-BK-C-240-OS-M50-BM | 390423       |
| Grey – Phase L3   | SPPC-PWL-LD-L3-GY-C-240-OS-M50-BM | 390424       |
| Blue – Neutral    | SPPC-PWL-LD-N-BU-C-240-OS-M50-BM  | 390421       |
| Green – Earth     | SPPC-PWL-LD-E-GN-C-240-OS-M50-BM  | 390420       |

\*\* on request version OS-BM with cable external diameter 22mm – 32mm

### CABLE/LINE DRAIN CONNECTORS

Crimp contacts 185mm<sup>2</sup>, cable external diameter 22mm – 32mm



| Color*                                                                                               | Designation                   | Order Number |
|------------------------------------------------------------------------------------------------------|-------------------------------|--------------|
| Brown – Phase L1  | SPPC-PWL-LD-L1-BR-C-185-OS-BM | 390402       |
| Black – Phase L2  | SPPC-PWL-LD-L2-BK-C-185-OS-BM | 390403       |
| Grey – Phase L3   | SPPC-PWL-LD-L3-GY-C-185-OS-BM | 390404       |
| Blue – Neutral    | SPPC-PWL-LD-N-BU-C-185-OS-BM  | 390401       |
| Green – Earth     | SPPC-PWL-LD-E-GN-C-185-OS-BM  | 390400       |

\*European Harmonized Color Set, others colors set on request

## Characteristics

## SPPC - PWL

### CABLE GLAND FOR INLINE CONNECTORS



| Type                         | Designation     | Order Number |
|------------------------------|-----------------|--------------|
| M40 threaded<br>(19mm-28mm)  | SPPC-PWL-M40    | 392301       |
| M40 threaded<br>(22mm-32mm)  | SPPC-PWL-M40-A  | 392302       |
| M50 threaded*<br>(33mm-37mm) | SPPC-PWL-LS-M50 | *            |

\* To be ordered with inline connectors only

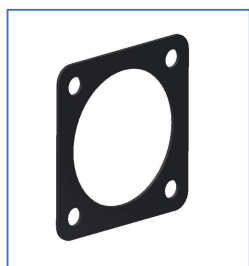
### ENVIRONMENTAL LOCKING CAPS



| Type          | Designation     | Order Number |
|---------------|-----------------|--------------|
| Panel SOURCE  | SPPC-PWL-PS-CAP | 392304       |
| Panel DRAIN   | SPPC-PWL-PD-CAP | 392305       |
| Inline SOURCE | SPPC-PWL-LS-CAP | 392306       |
| Inline DRAIN  | SPPC-PWL-LD-CAP | 392307       |

Dust caps 392313 (SPPC-PWL-PS-LS DUST CAP source) and 392314 (SPPC-PWL-PD-LD DUST CAP drain) on request

### PANEL GASKET



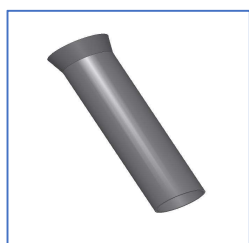
| Type             | Designation | Order Number |
|------------------|-------------|--------------|
| Neoprene Gaskets | SPPC-PWL-PG | 392308       |

### RELEASE KEY



| Type        | Designation  | Order Number |
|-------------|--------------|--------------|
| Release Key | SPPC-PWL-KEY | 392309       |

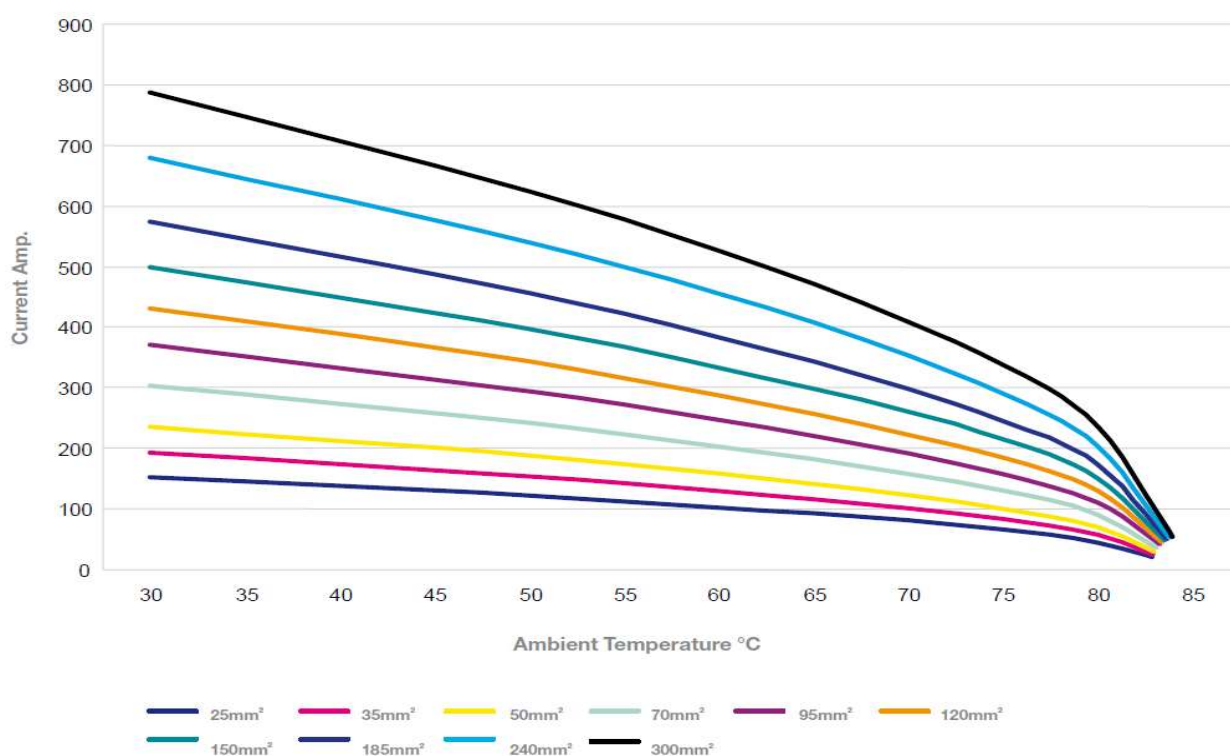
### SLEEVE FOR SCREW CONTACTS



| Type     | Designation     | Order Number |
|----------|-----------------|--------------|
| Sleeve** | SPPC-PWL-SLEEVE | 392312       |

\*\* Sleeves for cable conductor size 35 mm<sup>2</sup> - 50 mm<sup>2</sup> - 70 mm<sup>2</sup> - 95 mm<sup>2</sup> - 120 mm<sup>2</sup>

Derating data for 85°C rubber insulated cables.



## CHARACTERISTICS

|                                               |                       |
|-----------------------------------------------|-----------------------|
| Screws Tightening Torque (in-line connectors) | 12Nm                  |
| Panel Contact Tightening Torque               | 30Nm max              |
| Cable Gland Tightening Torque                 | 13Nm                  |
| Minimum Mating Cycles                         | 500                   |
| Contact Retention in Insulator                | 2.5kN Axial Load      |
| Flammability                                  | UL94 V0               |
| Environmental Sealing (when mated)            | IP68                  |
| Rated Voltage to Earth                        | 2000V AC              |
| Minimum Flashover (EN60309-1)                 | 6.8kV AC – 1 minute   |
| Minimum Insulation Resistance                 | 5Gohms @ 500v         |
| Operating Voltage                             | 1000V AC or DC        |
| Test Voltage (Mated Condition)                | 5 kV– 1 minute @ 50Hz |
| Contact Resistance                            | <5mohms               |
| Short Circuit Current – 1 second              | 16kA                  |
| Short Circuit Current – 3 seconds             | 12kA                  |
| Surge Current (DIN VDE 0102/1.90)             | 62kA – 10mseconds     |
| Creepage Distance                             | >25mm                 |
| Clearance Distance                            | >25mm                 |
| Temperature Range                             | -30°C / +125°C        |

## Characteristics

### SPPC – Single Pole Power Connectors – up to 400A



Hlock series offers new opportunities of using the electrical connection even in applications where in the past this was not possible due to low cost requirements and without renouncing to a complete range of features concerning robustness, reliability and safety.

#### APPLICATIONS

- Power distribution
- Utilities
- Electric Vehicles
- Railway Equipment
- Military Field Power
- Mobile Generators
- Loadbanks
- Back-up Power Systems

#### Key characteristics

- brass contacts for current up to 250A and cable section from 16 to 70sq.mm or from 4 to 2/0AWG
- copper contacts for current up to 400A and cable section from 95 to 120sq.mm or for 4/0AWG
- 500 mating cycles minimum
- IP67 sealed when mated
- EN/ESI compliant creepage and clearance distances
- UL 94V0 flame retardant insulating material
- EN/CE compliant metric cable glands
- Cable sizes from 16 to 120 sq.mm or from 4 to 4/0 AWG
- Set screw and crimp contact versions
- Multi-louver contact version
- CE compliant

Male cable connectors are typically used as the live or supply side of the circuit. They are finger protected in the un-mated condition to meet the requirements IP2X. They protect the user from accidental contact with any live elements.

Female cable connectors are typically used as the load side of the circuit.

The cable connectors are either available:

- With set screw termination (with or without crimping sleeves) for cable section from 16 to 70sq.mm or from 4 to 2/0AWG
- With crimp termination for cable sections up to 120sq.mm or for 4/0AWG

A plastic water tight strain relief is supplied to provide IP67 sealing.

Male panel connectors are typically used as the live or supply side of the circuit. They are finger protected in the un-mated condition to meet the requirements IP2X.

Female panel connectors are typically used as the load side of the circuit.

Panel connectors can be either front or rear mounted on equipment while maintaining EN/ESI creepage and clearance distances, and are supplied in brass material (up to 250A) or in copper material (up to 400A) versions.

These connectors have M12 threaded post termination and are supplied with pre-installed contacts.

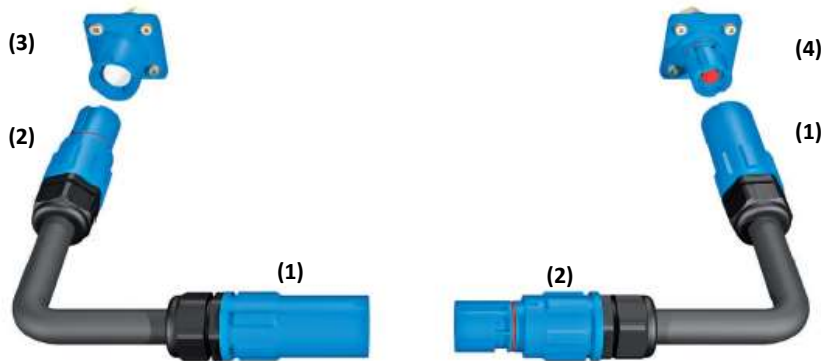
## Introduction

### SPPC – Single Pole Power Connectors

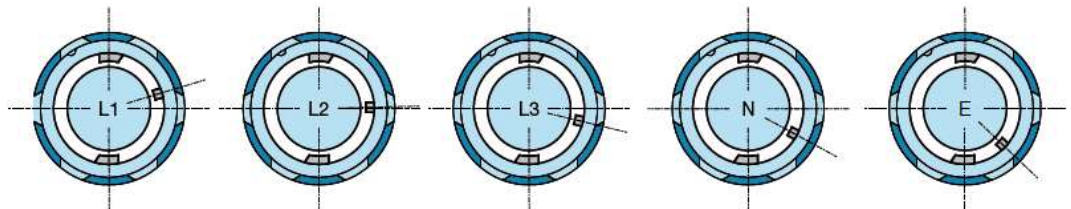
Power connectors types:

- **Source:** female connector is the source of the power, it receives and holds the male connector.
- **Drain:** male connectors receives and holds the female connector. The Drain connectors have a pin for the secondary locking (locks into the source connectors) The release key is required to unlock the secondary locking pin.
- **Inline:** source (1) or drain (2) is a moveable connectors fitted to a cable. The contacts are available in crimp or screw terminal.
- **Panel:** source (3) or drain (4) receptacle connectors to be fixed to a panel.

Power connectors cannot be mated/unmated under voltage or underloaded.



### Mechanically keyed to prevent connection errors



### Harmonised colour coding.

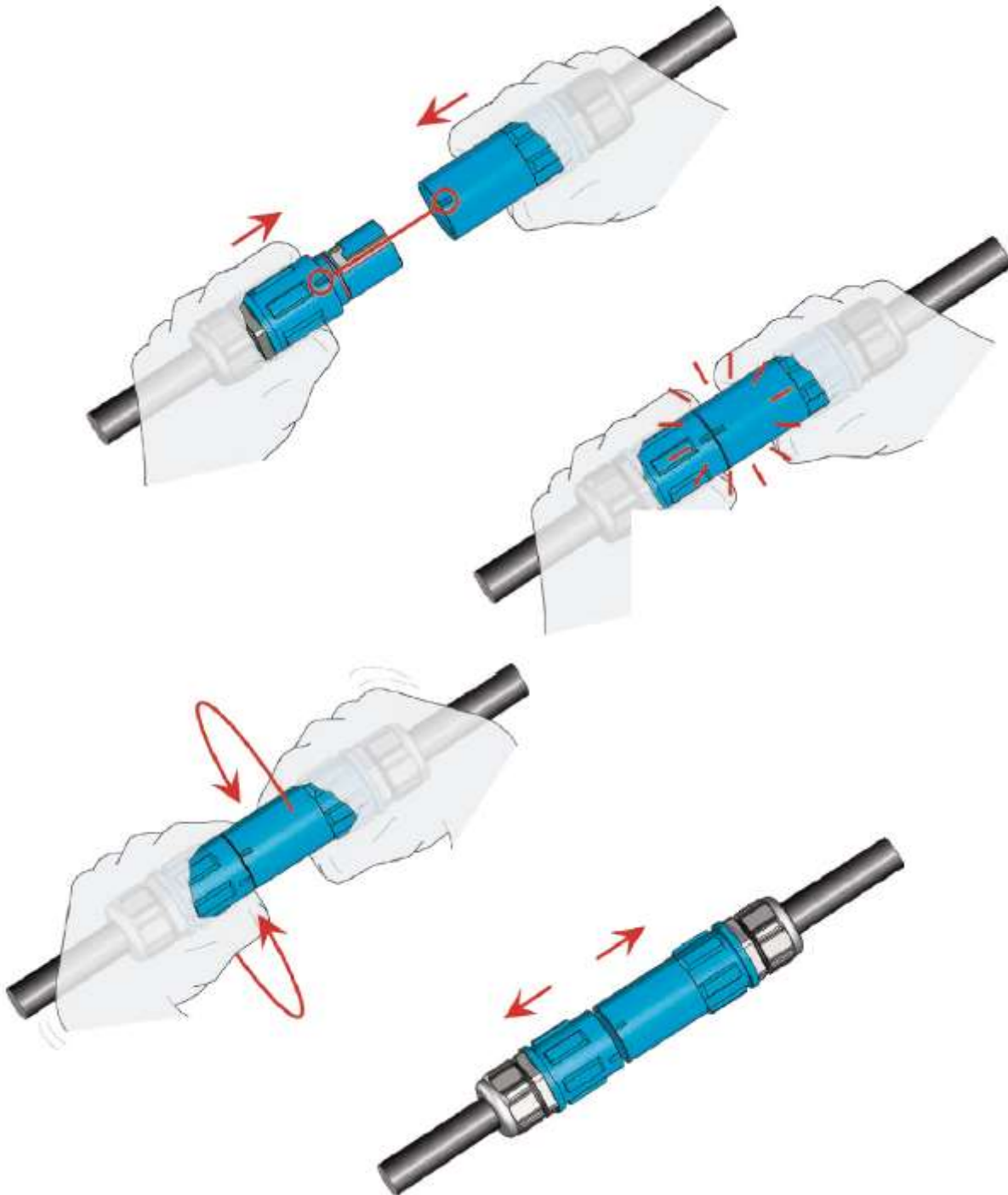
\* Other extra European or personalized colours available on request

| Standard          | Phase L1                                                                                       | Phase L2                                                                                        | Phase L3                                                                                       | Neutral                                                                                          | Earth                                                                                            |
|-------------------|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| Europe            | Brown (BR)  | Black (BK)   | Grey (GY)  | Blue (BU)   | Green (GN)  |
| UK (*)            | Red (RD)    | Yellow (YL)  | Blue (BU)  | Black (BK)  | Green (GN)  |
| USA (*)           | Black (BK)  | Red (RD)     | Blue (BU)  | White (WH)  | Green (GN)  |
| Australia (*)     | Red (RD)    | White (WH)   | Blue (BU)  | Black (BK)  | Green (GN)  |
| Direct current DC | -                                                                                              | Red (RD)     | -                                                                                              | Black (BK)  | Green (GN)  |

## Characteristics

### VANTEN mating system: a faster and more reliable connection

- Position major key alignment arrows
- Firmly push the male and female connectors together
- Rotate the male and female connectors in opposite direction until the padlock symbol is in alignment with the arrow symbol
- Release the connectors and they spring into the locked position.
- To unlock, push the connectors firmly together, rotate in opposite directions and pull apart



## Introduction

### SPPC – Single Pole Power Connectors

**Unwanted uncoupling prevention: a simple trap makes the system safer.**

The connectors can only be separated by removing it with a suitable tool.



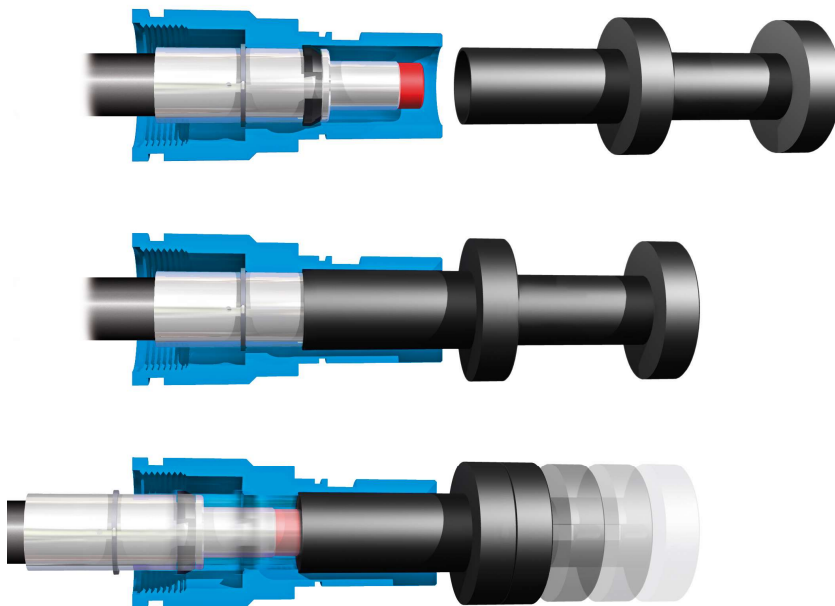
### Contact Removal

The contacts are inserted from the rear and snap into position within the insulator with no requirements for any cotter/dowel pin or assembly tool.

The contacts are removed from the insulator by using a simple tool to release the retaining clip.

- Improved mechanical insulator strength
- Reliable sealing
- Improved electrical integrity of the insulator
- Reduced assembly times
- The contacts can be removed and replaced

No replacement parts (cotter/dowel pins) are required.



## Characteristics

## SPPC - HK

| Series  | Connector Type | Key Position | Insulator Color | Contact Termination | Cable external diameter | Modification Number* |
|---------|----------------|--------------|-----------------|---------------------|-------------------------|----------------------|
| SPPC-HK | LS             | L1           | BR              | C-120               | M                       |                      |

|                   |    |
|-------------------|----|
| Cable/Line Source | LS |
| Cable/Line Drain  | LD |
| Panel Source      | PS |
| Panel Drain       | PD |

|         |    |
|---------|----|
| Earth   | E  |
| Neutral | N  |
| Phase 1 | L1 |
| Phase 2 | L2 |
| Phase 3 | L3 |

|        |    |                                                                                     |
|--------|----|-------------------------------------------------------------------------------------|
| Brown  | BR |  |
| Black  | BK |  |
| Grey   | GY |  |
| Blue   | BU |  |
| Green  | GR |  |
| Red    | RD |  |
| Yellow | YL |  |
| White  | WH |  |

|                                                                 |        |
|-----------------------------------------------------------------|--------|
| M12 post – 250A<br>up to 70mm <sup>2</sup>                      | M12-T2 |
| M12 post – 400A<br>up to 120mm <sup>2</sup>                     | M12-T4 |
| Screw terminal – 250A<br>up to 70mm <sup>2</sup> *              | S-70   |
| Crimp contacts – 400A<br>95mm <sup>2</sup> - 120mm <sup>2</sup> | C-120  |

|             |    |
|-------------|----|
| 7mm – 15mm  | S  |
| 11mm – 21mm | M  |
| 15mm – 25mm | OS |

## Product Range

### PANEL SOURCE CONNECTORS - 250A

M12 post for conductor up to 70mm<sup>2</sup>



| Color*                                                                                             | Designation             | Order Number |
|----------------------------------------------------------------------------------------------------|-------------------------|--------------|
| Brown – Phase L1  | SPPC-HK-PS-L1-BR-M12-T2 | 440004       |
| Black – Phase L2  | SPPC-HK-PS-L2-BK-M12-T2 | 440017       |
| Grey – Phase L3   | SPPC-HK-PS-L3-GY-M12-T2 | 440071       |
| Blue – Neutral    | SPPC-HK-PS-N-BU-M12-T2  | 440072       |
| Green – Earth     | SPPC-HK-PS-E-GN-M12-T2  | 440018       |

### PANEL SOURCE CONNECTORS – 400A

M12 post for conductor up to 120mm<sup>2</sup>



| Color*                                                                                              | Designation             | Order Number |
|-----------------------------------------------------------------------------------------------------|-------------------------|--------------|
| Brown – Phase L1   | SPPC-HK-PS-L1-BR-M12-T4 | 440033       |
| Black – Phase L2   | SPPC-HK-PS-L2-BK-M12-T4 | 440034       |
| Grey – Phase L3  | SPPC-HK-PS-L3-GY-M12-T4 | 440035       |
| Blue – Neutral   | SPPC-HK-PS-N-BU-M12-T4  | 440032       |
| Green – Earth    | SPPC-HK-PS-E-GN-M12-T4  | 440031       |

### PANEL DRAIN CONNECTORS - 250A

M12 post for conductor up to 70mm<sup>2</sup>



| Color*                                                                                               | Designation             | Order Number |
|------------------------------------------------------------------------------------------------------|-------------------------|--------------|
| Brown – Phase L1  | SPPC-HK-PD-L1-BR-M12-T2 | 440024       |
| Black – Phase L2  | SPPC-HK-PD-L2-BK-M12-T2 | 440025       |
| Grey – Phase L3   | SPPC-HK-PD-L3-GY-M12-T2 | 440069       |
| Blue – Neutral    | SPPC-HK-PD-N-BU-M12-T2  | 440070       |
| Green – Earth     | SPPC-HK-PD-E-GN-M12-T2  | 440001       |

### PANEL DRAIN CONNECTORS – 400A

M12 post for conductor up to 120mm<sup>2</sup>



| Color*                                                                                               | Designation             | Order Number |
|------------------------------------------------------------------------------------------------------|-------------------------|--------------|
| Brown – Phase L1  | SPPC-HK-PD-L1-BR-M12-T4 | 440011       |
| Black – Phase L2  | SPPC-HK-PD-L2-BK-M12-T4 | 440065       |
| Grey – Phase L3   | SPPC-HK-PD-L3-GY-M12-T4 | 440066       |
| Blue – Neutral    | SPPC-HK-PD-N-BU-M12-T4  | 440068       |
| Green – Earth     | SPPC-HK-PD-E-GN-M12-T4  | 440067       |

\*European Harmonized Color Set,  
others colors set on request

## Characteristics

### CABLE/LINE DRAIN CONNECTORS - 250A

Screws terminal for conductor up to 70mm<sup>2</sup>



| Color*                                                                                             | Designation             | Order Number |
|----------------------------------------------------------------------------------------------------|-------------------------|--------------|
| Brown – Phase L1  | SPPC-HK-LD-L1-BR-S-70-M | 440002       |
| Black – Phase L2  | SPPC-HK-LD-L2-BK-S-70-M | 440054       |
| Grey – Phase L3   | SPPC-HK-LD-L3-GY-S-70-M | 440073       |
| Blue – Neutral    | SPPC-HK-LD-N-BU-S-70-M  | 440074       |
| Green – Earth     | SPPC-HK-LD-E-GN-S-70-M  | 440036       |

Sleeves included, for cable conductor size 16mm<sup>2</sup> - 25mm<sup>2</sup> - 35mm<sup>2</sup> - 50mm<sup>2</sup> - 70mm<sup>2</sup>

### CABLE/LINE DRAIN CONNECTORS – 400A

Crimp contacts 95mm<sup>2</sup> - 120mm<sup>2</sup>



| Color*                                                                                              | Designation               | Order Number |
|-----------------------------------------------------------------------------------------------------|---------------------------|--------------|
| Brown – Phase L1   | SPPC-HK-LD-L1-BR-C-120-OS | 440028       |
| Black – Phase L2   | SPPC-HK-LD-L2-BK-C-120-OS | 440029       |
| Grey – Phase L3  | SPPC-HK-LD-L3-GY-C-120-OS | 440030       |
| Blue – Neutral   | SPPC-HK-LD-N-BU-C-120-OS  | 440027       |
| Green – Earth    | SPPC-HK-LD-E-GN-C-120-OS  | 440026       |

### CABLE/LINE SOURCE CONNECTORS – 250A

Screws terminal for conductor up to 70mm<sup>2</sup>



| Color*                                                                                               | Designation             | Order Number |
|------------------------------------------------------------------------------------------------------|-------------------------|--------------|
| Brown – Phase L1  | SPPC-HK-LS-L1-BR-S-70-M | 440075       |
| Black – Phase L2  | SPPC-HK-LS-L2-BK-S-70-M | 440055       |
| Grey – Phase L3   | SPPC-HK-LS-L3-GY-S-70-M | 440076       |
| Blue – Neutral    | SPPC-HK-LS-N-BU-S-70-M  | 440077       |
| Green – Earth     | SPPC-HK-LS-E-GN-S-70-M  | 440078       |

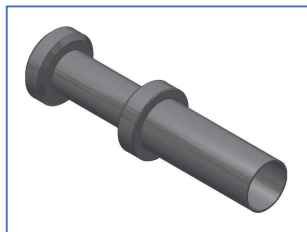
Sleeves included, for cable conductor size 16mm<sup>2</sup> - 25mm<sup>2</sup> - 35mm<sup>2</sup> - 50mm<sup>2</sup> - 70mm<sup>2</sup>

### CABLE/LINE SOURCE CONNECTORS – 400A

Crimp contacts 95mm<sup>2</sup> - 120mm<sup>2</sup>



| Color*                                                                                               | Designation               | Order Number |
|------------------------------------------------------------------------------------------------------|---------------------------|--------------|
| Brown – Phase L1  | SPPC-HK-LS-L1-BR-C-120-OS | 440056       |
| Black – Phase L2  | SPPC-HK-LS-L2-BK-C-120-OS | 440057       |
| Grey – Phase L3   | SPPC-HK-LS-L3-GY-C-120-OS | 440062       |
| Blue – Neutral    | SPPC-HK-LS-N-BU-C-120-OS  | 440064       |
| Green – Earth     | SPPC-HK-LS-E-GN-C-120-OS  | 440063       |

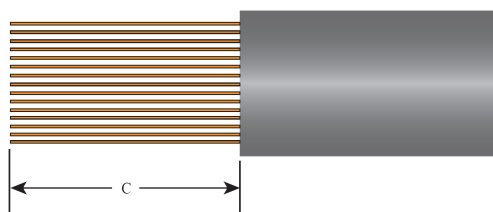
**REMOVAL TOOL**


| Type                            | Designation | Order Number |
|---------------------------------|-------------|--------------|
| <i>Crimp and Screw contacts</i> | SPPC-HK-RT  | 750070       |

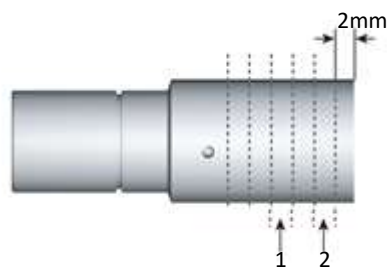
**CRIMPING TOOL**

Due to the numerous cable types available, it is recommended to contact us to confirm cable and crimp suitability.

| Cable Size                   | Up to 70mm <sup>2</sup> | 95mm <sup>2</sup> | 120mm <sup>2</sup><br>AWG 4/0 |
|------------------------------|-------------------------|-------------------|-------------------------------|
| Insulation Strip (dim C)     | 26mm                    | 20mm              | 20mm                          |
| Recommended Number of Crimps | N/A (set screw)         | 2                 | 2                             |
| Hand Operated Crimp Tool     | N/A                     | HT120             | HT120                         |
| Crimp Die Set                | N/A                     | ME24-C            | ME29-C                        |
| Contact Removal Tool         | 750070                  | 750070            | 750070                        |



C



## Characteristics

## SPPC - HK

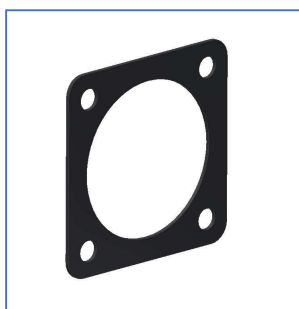
### CABLE GLAND FOR INLINE CONNECTORS



| Type                       | Designation    | Order Number |
|----------------------------|----------------|--------------|
| M32 threaded<br>7mm – 15mm | SPPC-HK-M32-S  | 750061       |
| M32 threaded<br>11mm-21mm  | SPPC-HK-M32-M  | 750060       |
| M32 threaded<br>15mm-25mm  | SPPC-HK-M32-OS | *            |

\* On request

### PANEL GASKET



| Type             | Designation | Order Number |
|------------------|-------------|--------------|
| Neoprene Gaskets | SPPC-HK-PG  |              |

### SLEEVE FOR SCREW CONTACTS

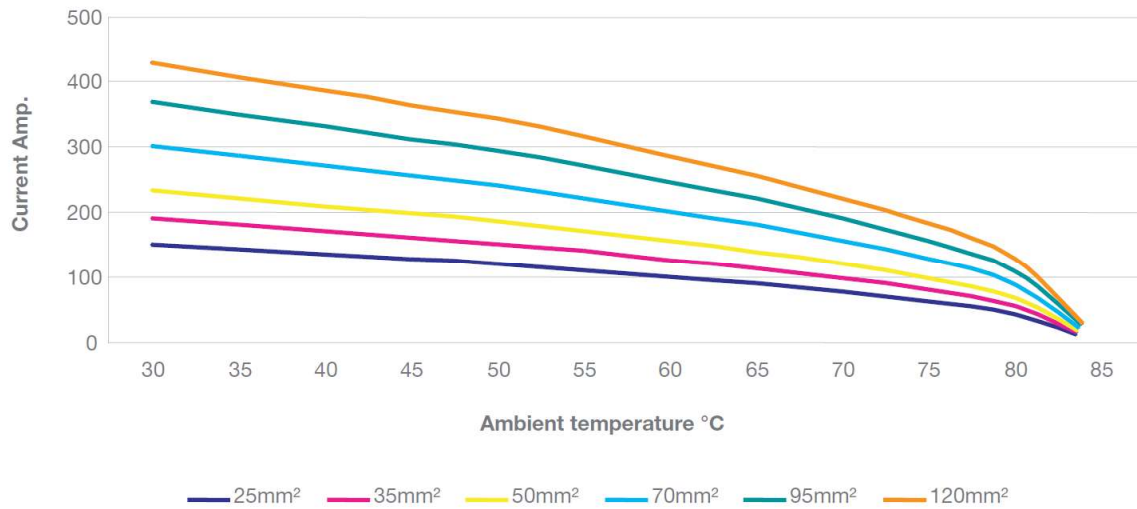


| Type     | Designation    | Order Number |
|----------|----------------|--------------|
| Sleeve** | SPPC-HK-SLEEVE | 750063       |

\*\* Sleeves for cable conductor size 16mm<sup>2</sup> - 25mm<sup>2</sup> - 35mm<sup>2</sup> - 50mm<sup>2</sup> - 70mm<sup>2</sup>

## Product Range

Derating data for 85°C rubber insulated cables.



## CHARACTERISTICS

|                                                 |                                                              |
|-------------------------------------------------|--------------------------------------------------------------|
| Insulation                                      | 1250V                                                        |
| Maximum panel thickness to guarantee insulation | 6mm                                                          |
| Panel contact tightening torque                 | 30Nm Max                                                     |
| Screws tightening torque (in-line connectors)   | 12Nm                                                         |
| Contact retention in Insulator                  | 400N axial load                                              |
| Inline contact retention                        | Plastic Clip                                                 |
| Panel mount contact retention                   | Dowel Pin                                                    |
| Contact release                                 | Front                                                        |
| M32 Clamping range                              | 7mm ÷ 25mm                                                   |
| Flammability                                    | UL94 V0                                                      |
| Environmental sealing (when mated)              | IP67                                                         |
| Connector protection (unmated)                  | IP2X                                                         |
| Rated voltage to Earth                          | 1750VAC, panel thickness<4mm<br>1250VAC, panel thickness>4mm |
| Contact resistance                              | <0.1mOhms                                                    |
| Short circuit current                           | 11KA -1 seconds                                              |
| Short circuit current                           | 4KA – 3 seconds                                              |
| Surge current (din VDE 0102/1.90)               | 45KA – 10 mseconds                                           |
| Temperature range                               | -30°C/+120°C                                                 |

## Characteristics

### LUG-IT - Power cable joining system



Lugit is a safe and efficient means to make temporary connection / extensions of single core power cables that are pre-terminated with copper lug terminals.

#### APPLICATIONS

- Power distribution
- Utilities
- Electric Vehicles
- Railway Equipment
- Military Field Power
- Mobile Generators
- Loadbanks
- Back-up Power Systems

#### Key characteristics

- Increase cable utilization
- Reusable
- Suitable for temporary connections
- Standardize on cable lengths held in stock
- Decrease cable purchase
- Reduce transportation of cables between sites
- No need for connectors or junction boxes
- Daisy chain hook up system

#### Details

- IP67 Protected when assembled.
- Nominal Voltage Un: 1000Vac
- 2 Lug-it sizes available according to the lug and cable dimensions:
  - LJP-120 from 35mm<sup>2</sup> up to 120mm<sup>2</sup>
  - LJP-300 from 150mm<sup>2</sup> up to 300mm<sup>2</sup>.
- Insulating voltage: 5.000Vac
- Rated current (to be checked with the specific cable characteristics):
  - Lugs 120 mm<sup>2</sup>:350A (30°C)
  - Lugs 185 mm<sup>2</sup>:570A (30°C)
  - Lugs 240 mm<sup>2</sup>:670A (30°C)
  - Lugs 300 mm<sup>2</sup>:780A (30°C)
- Working temperature: -30°C ÷ +120°C
- Protection degree: IP67 (EN 60529)
- Audible and tactile indication of locking
- Secure lock for unwanted / unauthorised release
- Quick assembly in approx. 2 minutes without special tools. The system can be disassembled and reused

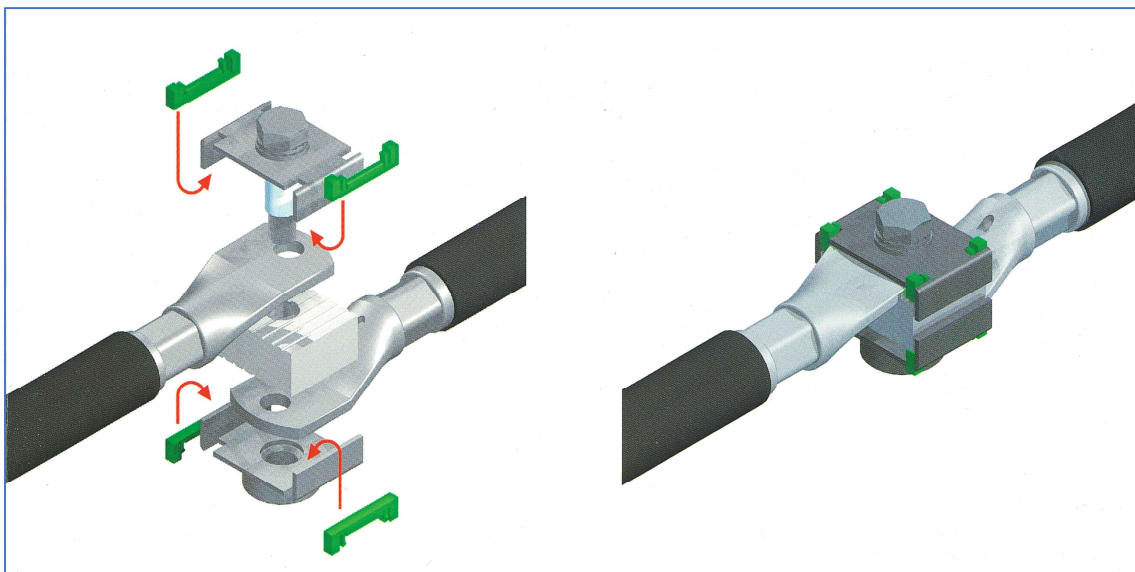
## Product Range

### LUG-IT 300

*Lock the central locking ring using the remote release key.*



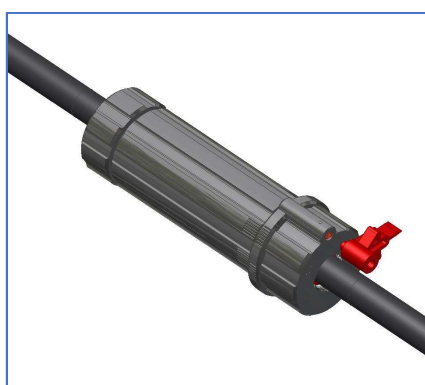
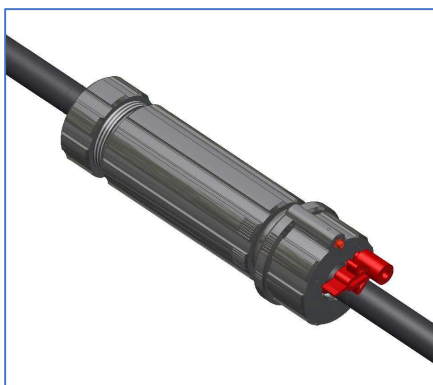
*Lug Palm Width 45mm max, Bolt Hole 12mm,*



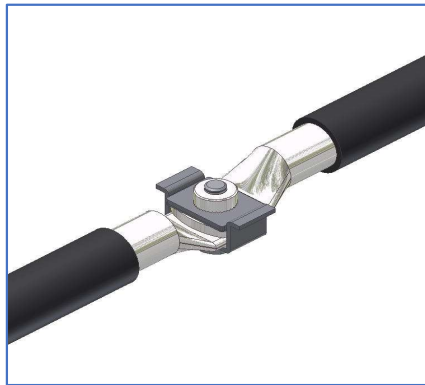
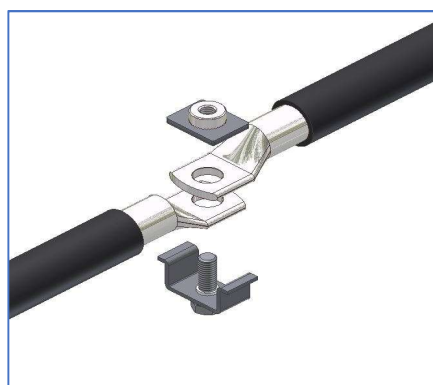
## Characteristics

### LUG-IT 120

*Lock the central locking ring using the remote release key.*



*Lug Palm Width 30mm max, Bolt Hole 10mm or 12mm,*



## Product Range

### LUG-IT 300

*Accepts cables 185mm<sup>2</sup>, 240mm<sup>2</sup> and 300mm<sup>2</sup>, for lugs with 12mm holes,  
Lug Palm Width 45mm max, Bolt Hole 12mm,  
External Cable Ø 20mm – 32mm.*



| Designation  | Order Number |
|--------------|--------------|
| SPPC-LJP-300 | 354801       |

### LUG-IT 120

*Accepts cable 35mm<sup>2</sup> up to 120mm<sup>2</sup>, for lugs with 8,2mm holes,  
Lug Palm Width 30mm max, Bolt Hole 10mm or 12mm,  
External Cable Ø 16mm – 23mm.*



| Designation  | Order Number |
|--------------|--------------|
| SPPC-LJP-120 | 354804       |

### LUG-IT KEY

*remote locking/release key*



| Designation  | Order Number |
|--------------|--------------|
| SPPC-LJP-KEY | 750082       |

**SAFETY*****Information regarding the use of the product within recommended safety limits***

*To use the connectors described in this catalogue according to the necessary safety requirements we suggest you apply the following criteria:*

- *use the connectors and connected cables within their electrical and environmental limits*
- *follow the characteristics of each version (shell, class and type of strain relief) and carefully choose the appropriate connector for the required use*
- *make sure to respect the procedures regarding the correct assembly of connectors and the crimping of contacts*
- *any connector damaged during shipment, storage, assembly or use should be replaced*
- *never uncouple the connectors when under power*
- *always protect the parts against shock when the circuit is under power*
- *always check the circuit before putting it under power*
- *consult Radiall VanSystem Srl if in doubt*
- *the user must take final responsibility for electrical safety Radiall VanSystem Srl reserves the right to amend the specifications of this catalogue without issuing prior notice.*

For the instructions concerning assembly and crimping of contacts please consult the appropriate tools manuals.

We recommend to respect the following general rules:

- to be used always the tools recommended by Radiall VanSystem's catalogue or manuals
- to be applied the suggested norms for tool maintenance and calibration

DO NOT USE ALTERNATIVE GREASES OR OILS which could damage the insert and affect the functionality of the connector.

Radiall VanSystem Srl reserves the right to amend the specifications of this catalogue without issuing prior notice.



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Компания «Океан Электроники» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

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## JONHON

«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели,  
кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).



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