

# M58 High Power Connectors

Series V, Size 3



The Smiths Interconnect M58 series is designed for high power applications in high voltage power generation, mechanical engineering, rolling mill drives, mechatronics, heavy printing and paper making machines, conveyors and marine applications.

The adoption of crimp contacts allows for a consistent high quality connection and reduces the total installation time of the connector by minimizing the number of operations. Machined contacts feature a closed barrel design ideally suited for manual hand tools and support a wide range of wire termination cross sections.

In addition the series features outstanding protection against electromagnetic interference through a full 360° screen shielding.

Suitable for High Power Applications

## Features & Benefits

### Superior Performance

- Long life and low rate of wear through excellent shock and vibration resistance
- Outstanding protection against electromagnetic interference through a full 360° screen shielding
- Corrosion resistant

### High Power Applications

- Crimp contacts for wire diameter from 10 mm<sup>2</sup> to 50mm<sup>2</sup>
- Ground connection

### UL certified

- UL/CSA approval file No. 178462

# Technical Characteristics

## Material & Finishes

|                    |                              |
|--------------------|------------------------------|
| Shell              | Aluminium, brass             |
| Shell plating      | Chemical nickel plated       |
| Inserts            | PA                           |
| Contacts           | CuZn, CuBe                   |
| Contact plating    | gold plated, silver plated   |
| Sealing            | FKM, NBR                     |
| Storage conditions | -40°C to 70°C / humidity 40% |

## Electrical

|                      |  |
|----------------------|--|
| Nominal current      | 165 A @ 20°C (Ø 10 mm)<br>15 A @ 20°C (Ø 1.6 mm) |
| Operating voltage    | 630 Vrms (Ø 10 mm)<br>125 Vrms (Ø 1.6 mm)        |
| Contact resistance   | <1 mΩ (Ø 10 mm)<br><3 mΩ (Ø 1.6 mm)              |
| Overvoltage category | III  |

## Physical & Environmental

|                             |                |
|-----------------------------|----------------|
| Operating temperature range | -40°C to 125°C |
| Environmental level         | IP67 (mated)   |
| Contamination level         | 3 (mated)      |
| Installation altitude       | up to 2000 m   |
| Fire & Smoke                | UL94 V0        |
| RoHS                        | Compliant      |