

## STS-Flex™ 0,6/1kV

### Shore power or charging cable for vessels



STS-Flex™ is a 1kV cable for shore power and/or charging cable for all types of vessels that need a shore power connection. It is resistant to both fresh and salt water, and can withstand occasional submersion up to 20m. The cable is not armoured, so care must be taken that it is not exposed to propellers or similar.

STS-Flex™ has a small diameter, is weight optimized and very flexible. This makes it flexible in use and easy to handle and coil. Occasional reeling use is also allowed, for example for daily storage of the cable. The cables can also be supplied in reelable types on demand.

The cable design is based on an existing product for airport industry that has been used for several decades, with very good service life and handling characteristics. The cable is available from 125A up to 350A as standard, but can be delivered up to 1000A if desired. The current carrying capacity is based on a maximum ambient temperature of 30°C fully unrolled and lying on the ground, and a maximum conductor temperature of 90°C at full load.

STS-Flex™ has a symmetrical design with splitted pilot conductors to increase the life of the cable. Each pilot is twisted together by 3 pilot leaders, so that there are 4 pilots in total (4 triads). The cable has standard conductors identification according to HD308 as well as numbered pilot conductors from 1-12.

The cable is UV resistant and cold flexible down to -40°C. It is also halogen-free and flame retardant

| Art.nr  | Type   | Outer diam.<br>mm | Ampacity<br>A | Weight<br>kg/m |
|---------|--|-------------------|---------------|----------------|
| 113832D | STS-Flex™ 7G16 mm <sup>2</sup> + 4x3x0,5 mm <sup>2</sup> | 25,3 ± 1,2        | 125A          | 1,6            |
| 112106D | STS-Flex™ 7G35mm <sup>2</sup> + 4x3x0,75mm <sup>2</sup>  | 38,9 ± 1          | 250A          | 3,45           |
| 113983F | STS-Flex™ 7G70mm <sup>2</sup> + 4x3x0,75mm <sup>2</sup>  | 52 ± 2,5          | 350A          | 6,41           |

| Common to all cross sections       |  |
|------------------------------------|--|
| Outer cap                          | PUR, Flame retardant and halogen-free, color yellow                                |
| Properties                         | Extra flexible cable<br>Durable PUR outer jacket with good cut and tear resistance |
| Temperature range                  | - 30°C to + 80°C   |
| Halogen-free and flame retardant   | IEC 60754-1/2 & IEC 60332-1  |
| Weather- Ozone & UV resistant      | Yes  |
| Freshwater and saltwater resistant | Yes  |

**See the following pages for detailed information about the 3 different cables**

## STS-Flex™ 0,6/1kV, extra flexible 7x16 mm<sup>2</sup> + 4x3x0,5 mm<sup>2</sup>

| 113832/C            | CONSTRUCTION   |   |
|---------------------|--|---|
|                     | Assembly   | 7x16 mm <sup>2</sup> Class 6 bare copper conductors with TPE insulation, 12x0.5 mm <sup>2</sup> tinned copper conductors Class 6 with TPE-E insulation, assembled at short pitch    |
|                     | Pilot cores configuration                                | Triad with tape   |
| TECHNICAL DATA      |  |   |
| 16 mm <sup>2</sup>  | Color coding   | Color-coded according to. HD308, 2x Black, 2x Brown, 2x Grey +1 Green/Yellow (center)   |
|                     | Operating voltage  | 0,6/1kV   |
|                     | Test voltage   | 2kV/1 min.  |
|                     | Conductor resistance at 20°C                             | ≤1,27Ω/km   |
|                     | Maximum load of 2 conductors at 30°C ambient temperature | 125A<br>Maximum current carrying capacity can be achieved when the cable is fully unrolled and lying on the ground, ambient temperature 30°C and maximum conductor temperature 90°C |
| 0,5 mm <sup>2</sup> | Color coding   | White conductors numbered from 1 to 12  |
|                     | Operating voltage  | 300V  |
|                     | Test voltage   | 1kV/1 min.  |
|                     | Conductor resistance at 20°C                             | ≤ 44,1 Ω/km   |
| PROPERTIES          |  |   |
|                     | Bending radius, movable installation                     | ≥ 260 mm  |
|                     | Bending radius, fixed installation                       | ≥ 130 mm  |
|                     | Weight   | 1,6 kg/m  |
|                     | Outer diameter   | 25,3 ± 1,2mm  |

## STS-Flex™ 0,6/1kV, extra flexible 7x35 mm<sup>2</sup> + 4x3x0,75 mm<sup>2</sup>

| 112106/C             | CONSTRUCTION   |   |
|----------------------|--|---|
|                      | Assembly   | 7x35 mm <sup>2</sup> Class 6 bare copper conductors with TPE insulation, 12x0.75 mm <sup>2</sup> Class 6 bare copper conductors with TPE-E insulation, assembled at short pitch     |
|                      | Pilot cores configuration                                | Triple with tape  |
| TECHNICAL DATA       |  |   |
| 35 mm <sup>2</sup>   | Color coding   | Color-coded according to. HD308, 2x Black, 2x Brown, 2x Grey +1 Green/Yellow (center)   |
|                      | Operating voltage  | 0,6/1kV   |
|                      | Test voltage   | 2kV/1 min.  |
|                      | Conductor resistance at 20°C                             | ≤ 0,582 Ω/km  |
|                      | Maximum load of 2 conductors at 30°C ambient temperature | 250A<br>Maximum current carrying capacity can be achieved when the cable is fully unrolled and lying on the ground, ambient temperature 30°C and maximum conductor temperature 90°C |
| 0,75 mm <sup>2</sup> | Color coding   | White conductors numbered from 1 to 12  |
|                      | Operating voltage  | 300V  |
|                      | Test voltage   | 1kV/1 min.  |
|                      | Conductor resistance at 20°C                             | ≤ 27,3 Ω/km   |
| PROPERTIES           |  |   |
|                      | Bending radius, movable installation                     | ≥ 390 mm  |
|                      | Bending radius, fixed installation                       | ≥ 200 mm  |
|                      | Weight   | 3,45 kg/m   |
|                      | Outer diameter   | 38,9 ± 1mm  |

# STS-Flex™ 0,6/1kV, extra flexible 7x70 mm<sup>2</sup> + 4x3x0,75 mm<sup>2</sup>

| 113983/D CONSTRUCTION                |  |   |
|--------------------------------------|--|---|
|                                      | Assembly   | 7x70 mm <sup>2</sup> Class 6 bare copper conductors with TPE insulation<br>12x0.75mm <sup>2</sup> Class 6 bare copper conductors with TPE-E insulation, assembled at short pitch    |
|                                      | Pilot cores configuration                                | Triad with tape   |
| TECHNICAL DATA                       |  |   |
| 70 mm <sup>2</sup>                   | Color coding   | Color-coded according to. HD308,<br>2x Black, 2x Brown, 2x Grey +1 Green/Yellow (center)  |
|                                      | Operating voltage  | 0,6/1kV   |
|                                      | Test voltage   | 2kV/1 min.  |
|                                      | Conductor resistance at 20°C                             | ≤ 0,29 Ω/km   |
|                                      | Maximum load of 2 conductors at 30°C ambient temperature | 350A<br>Maximum current carrying capacity can be achieved when the cable is fully unrolled and lying on the ground, ambient temperature 30°C and maximum conductor temperature 90°C |
| 0,75 mm <sup>2</sup>                 | Color coding   | White conductors numbered from 1 to 12  |
|                                      | Operating voltage  | 300V  |
|                                      | Test voltage   | 1kV/1 min.  |
|                                      | Conductor resistance at 20°C                             | ≤27,3 Ω/km  |
| PROPERTIES                           |  |   |
| Bending radius, movable installation |  | ≥ 520 mm  |
| Bending radius, fixed installation   |  | ≥ 260 mm  |
| Weight                               |  | 6,41 kg/m   |
| Outer diameter                       |  | 52 ± 2,5mm  |

