

BETAflam® Solar 125 RV flex 1500V DC

Photovoltaic power cables, halogen free, flame retardant

Advantages

- EN50618 approval
- Electron-beam cross-linked compounds
- UV, ozone and hydrolysis resistant
- High temperature resistance, the materials do not melt or flow
- Good cold flexibility
- Very long service life >25 years at 90 °C
- Compatible to all popular connectors



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Applications

Is used as photovoltaic cable between solar modules and inverters in a photovoltaic system with a rated value $U_0 = 1.5$ kV DC.

Construction

- Conductor Tinned fine copper strand acc. to VDE 0295 / IEC 60228, Class 5
- Insulation XLPO, flame-retardant, halogen free, electron-beam cross-linked
- Jacket XLPO, flame-retardant, halogen free, electron-beam cross-linked, UV and ozone resistant, **with white or red marking and stripe**
- Jacket colour ● black

Electrical characteristics

Rated value $U_0 = 1500$ V DC
(max. permitted voltage U_0 1800 V DC)

Test voltage 6.5 kV AC 50 Hz

Thermal characteristics

Operating temperature -50 °C up to $+120$ °C
Ambient temperature -50 °C up to $+90$ °C
Max. short circuit temp. $+280$ °C, $+536$ °F / 5 s

Bending radius

Fixed installation $> 4 \times \varnothing$
Occasionally moved $> 5 \times \varnothing$

Standards / Material properties

- Fire performance IEC 60332-1
- Smoke emission IEC 61034; EN 61034-2
- Low fire load DIN 51900
- Approvals EN50618; H1Z2Z2-K, IEC 62930

Fire properties acc. to CPR

- D_{ca} -s2, d2, a2 EN 50575, EN 13501-6
- Fire performance D_{ca} EN 50399
- Low corr. of the combustion gases EN 60754-2
– halogen free a2
- Medium smoke density s2 EN 50399
- Flaming droplets d2 EN 50399
- No flame propagation EN 60332-1-2
- Material selection RoHS-compliant

| Nominal cross section | Conductor \varnothing | Outer \varnothing | Resistance max. at 20°C | Weight | Fire load | Order no. | |
|-----------------------|-------------------------|---------------------|-------------------------|--------|-----------|-----------|--------|
| $n \times mm^2$ | mm | mm | m Ω /m | kg/km | kWh/m | ○ White* | ● Red* |
| 1 × 2.5 | 1.95 | 5.00 | 8.21 | 46 | 0.095 | 313738 | 313739 |
| 1 × 4 | 2.45 | 5.50 | 5.09 | 61 | 0.109 | 313740 | 313741 |
| 1 × 6 | 3.00 | 6.10 | 3.39 | 82 | 0.127 | 313742 | 313743 |
| 1 × 10 | 3.90 | 7.20 | 1.95 | 126 | 0.158 | 313744 | 313745 |
| 1 × 16 | 5.00 | 8.50 | 1.24 | 190 | 0.213 | 313746 | – |
| 1 × 25 | 6.20 | 10.40 | 0.79 | 291 | 0.314 | 313747 | – |
| 1 × 35 | 7.70 | 11.90 | 0.56 | 400 | 0.392 | 313748 | – |
| 1 × 50 | 9.70 | 14.30 | 0.39 | 570 | 0.549 | 313749 | – |

* Jacket colour black with red or white inscription

| Nominal cross section | Order no. | | | | | |
|-----------------------|-----------------|--------|-----------------|-----------------|-----------------|-----------------|
| | 8 × 500 m | | 18 × 500 m | | 8 × 1000 m | |
| $n \times mm^2$ | ○ White* | ● Red* | ○ White* | ● Red* | ○ White* | ● Red* |
| 1 × 4 | – | – | 313740V2 | 313741V2 | 313740V3 | 313741V3 |
| 1 × 6 | – | – | 313742V2 | 313743V2 | 313742V3 | 313743V3 |
| 1 × 10 | 313744V3 | – | – | – | – | – |

More information on the standard packaging unit see page 34. Further packaging units on request. **Bold** printed order no. = stock item * Jacket colour black with red or white inscription

You can download the corresponding declaration of performance from our website www.leoni.com/en/cpr by entering the declaration of performance ID.