

BETA flam[®] Solar125 RV flex FRNC

Photovoltaic power cables, halogen free, flame retardant

LEONI



Advantages

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



BETA flam[®] Solar125 RV flex FRNC

Applications

Double insulated, electron-beam cross-linked cables for photovoltaic power applications. With reduced diameter and integrated jacket.

Construction

- Conductor Tinned fine copper strands, 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
- Jacket colour ● black

Electrical characteristics

Rated value $U_0/U = 600 / 1000$ V AC,
1000 / 1800 V DC
Test voltage 6500 V, 50 Hz, 5 min.

Thermal characteristics

Operating temperature -40° C up to $+125^{\circ}$ C
 -40° F up to $+257^{\circ}$ F
Ambient temperature -40° C up to $+90^{\circ}$ C
> 25 years (TÜV) -40° F up to $+194^{\circ}$ F
Max. short circuit temp. 280° C, $+536^{\circ}$ F, 5 s

Bending radius	<10 mm	>10 mm
Fixed installation	> 4 × Ø	> 5 × Ø
Occasionally moved	> 5 × Ø	> 7 × Ø

Standards / Material properties

- Fire performance: IEC 60332-1, IEC 60332-3-24
- Smoke emission: IEC 61034; EN 61034-2
- Low fire load: DIN 51900
- Approvals: TÜV 2 PrG 1169 08.2007 PV1-F
- Application standards: UNE 21123; UNE 20.460-5-52, UTE C 32-502

Dimensions, weights

Construction	Marking	Conductor	Outer	Resistance	Weight	Fire load	Order no.
n × mm ²	Colour	mm	mm	max, mΩ/m	kg/km	kWh/m	
1 × 4	○ white	2.55	5.05	5.09	56	0.086	304468
1 × 6	○ white	3.10	5.65	3.39	76	0.100	304469
1 × 10	○ white	4.10	6.70	1.95	118	0.126	304471
1 × 16	○ white	5.50	9.70	1.24	211	0.288	304472
1 × 25	○ white	6.60	11.20	0.79	304	0.369	304474
1 × 4	● red	2.55	5.05	5.09	57	0.086	306470
1 × 6	● red	3.10	5.65	3.39	77	0.100	306471

BETAflam® Solar 125 flex 1500V DC

Photovoltaic power cables, halogen free, flame retardant

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Advantages

- 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



New
EN 50618

BETAflam® Solar 125 flex 1500V DC

Applications

Is used as photovoltaic cable between solar modules and invertors in a photovoltaic system with a rated value $U_0 = 1,5$ kV DC.

Construction

- Conductor Tinned fine copper strand according 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 11 kV AC 50 Hz

Thermal characteristics

Operating temperature -50° C up to $+120^\circ$ C
Ambient temperature -50° C up to $+90^\circ$ C
Max. short circuit temp. 280° C, $+536^\circ$ 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: TÜV 2 PFG 1990/05.12
- Application standards: prEN50618

Dimensions, weights

Construction	Marking	Conductor	Outer	Resistance	Weight	Fire load	Order no.
$n \times \text{mm}^2$	Colour	mm	mm	max. mΩ/m	kg/km	kWh/m	
1 × 4	○ white	2.55	6.15	5.09	71.95	0.141	309345
1 × 6	○ white	3.10	6.70	3.39	93.45	0.159	309346
1 × 10	○ white	4.10	7.70	1.95	135.58	0.191	309347
1 × 4	● red	2.55	6.15	5.09	71.95	0.141	309349
1 × 6	● red	3.10	6.70	3.39	93.45	0.159	309350
1 × 10	● Rot	4.10	7.70	1.95	135.58	0.191	309351