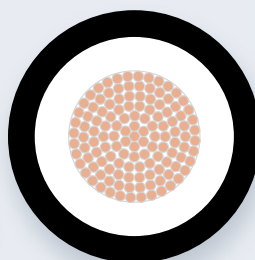


BETAflam® Solar 125 RV flex FRNC

Photovoltaic power cables, halogen free, flame retardant



Advantages

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

BETAflam® Solar 125 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

Operation temperature	$U_0/U = 600 / 1000 \text{ V AC,}$ $1000 / 1800 \text{ V DC}$
Test voltage	6500 V, 50 Hz, 5 min.

Thermal characteristics

Operation temperature	-40 °C up to +125 °C	-40 °F up to +257 °F
Ambient temperature	-40 °C up to +90 °C	> 25 years (TÜV)
Short circuit temperature	280 °C, +536 °F max.	

Bending radius $\varnothing < 10 \text{ mm}$

Fixed installation	$> 4 \times \varnothing$	$> 5 \times \varnothing$
Occasionally moved	$> 5 \times \varnothing$	$> 7 \times \varnothing$

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 PfG 1169 08.2007 PV1-F
- Application standards: UNE 21123; UNE 20.460-5-52, UTE C 32-502



Dimensions, weights

Construction	Inscription	Conductor construction	Conductor \varnothing	Outer \varnothing	Resistance	Weight	Fire load	Order no.
$n \times \text{mm}^2$	Colour	$n \times \text{mm}$	mm	mm	max. m Ω /m	kg/km	kWh/m	
1 × 2.5	○ white	45 × 0.25	2.05	4.65	8.21	41	0.079	304467
1 × 4	○ white	52 × 0.30	2.55	5.05	5.09	56	0.086	304468
1 × 6	○ white	78 × 0.30	3.10	5.65	3.39	76	0.100	304469
1 × 10	○ white	75 × 0.40	4.10	6.70	1.95	118	0.126	304471
1 × 16	○ white	119 × 0.40	5.50	9.70	1.24	211	0.288	304472
1 × 25	○ white	182 × 0.40	6.60	11.20	0.79	304	0.369	304474
1 × 35	○ white	259 × 0.40	7.70	12.30	0.56	404	0.414	304475
1 × 50	○ white	380 × 0.40	9.90	14.90	0.39	582	0.558	304476
1 × 2.5	● red	45 × 0.25	2.05	4.65	8.21	41	0.079	307701
1 × 4	● red	52 × 0.30	2.55	5.05	5.09	57	0.086	306470
1 × 6	● red	78 × 0.30	3.10	5.65	3.39	77	0.100	306471

Order units

Construction	Inscription	Order no.	Order no.	Order no.	Order no.	Order no.
$n \times \text{mm}^2$	Colour	50 × 100 m	24 × 500 m	18 × 500 m	18 × 1000 m	8 × 1000 m
1 × 4	○ white	304468V8	304468V1	∅	304468V2	∅
1 × 6	○ white	304469V8	∅	304469V2	∅	304469V3
1 × 10	○ white	∅	∅	304471V2	∅	∅
1 × 4	● red	∅	306470V1	∅	306470V2	∅
1 × 6	● red	∅	∅	306471V2	∅	306471V3

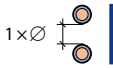

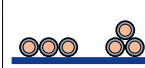

More information on the standard packaging unit see transport conditions page 19.
Further packaging units upon request.

Bold printed order no. = stock item
Further designs upon request.

Technical informations

Current rating 120 °C / 248 °F

Ambient temperature 30 °C / 86 °F

Construction	Free in air 	On surfaces without opposite contact 	On surfaces with opposite contact 	In conduit, casing, duct 
mm ²	A	A	A	A
2.5	51	48	34	27
4	68	65	45	36
6	88	84	59	47
10	121	115	80	64
16	160	152	106	85
25	211	200	140	112
35	261	248	174	139
50	320	304	213	170

Continuous duty with current loads as per above table.

This gives a conductor temperature of 120 °C.

(Calculation according IEC 60287)

Conversion factors for deviating ambient temperatures (basis 30 °C)

Temperature °C	Current rating at 120 °C Factor
20	× 1.05
30	× 1.00
40	× 0.94
50	× 0.88
60	× 0.82
70	× 0.75
80	× 0.67
90	× 0.58