

PHOTOVOLTAIC STRING AND MODULE CABLES
BETAflam® Solar 125 RV+ flex 1500V DC

Photovoltaic power cables, halogen-free, flame retardant



BauPV / CPR

 C_{ca}

CCHDA0000064


 Bauart geprüft
Sicherheit
Regelmäßige
Produktions-
Überwachung
www.tuv.com
ID 111125875

 Type Approved
Safety
Regular Production
Surveillance
www.tuv.com
ID 111125875

EN 50618

zertifiziert • certified

IEC 62930

zertifiziert • certified

Application

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

Construction

Conductor	Tinned fine copper strand acc. to VDE 0295 / IEC 60228, class 5
Insulation	Polyolefin Copolymer, electronbeam cross-linked
Sheath	Polyolefin Copolymer, electronbeam cross-linked
Sheath colour	Black with white or red marking and stripe

Advantages

- EN 50618, IEC 62930 approval
- Electron-beam cross-linked compounds
- UV, ozone and hydrolysis resistant
- Very high resistance to temperature
- High fire performance acc. to the Construction Product Regulation
- Very long service life > 25 years at 90 °C
- Compatible to all popular connectors

Electrical properties

Rated voltage	U0	1500 V DC
Maximum voltage	U0m	1800 V DC
Test voltage		6.5 kV, 50 Hz / 5 min.

Thermal properties

Max. operating temperature		+120°C
Min. ambient temperature		-50°C
Max. ambient temperature		+90°C
Max. short circuit temperature		+280°C (max. 5s)

Mechanical properties

Bending radius	fixed installation	$\geq 4 \times \varnothing$
Bending radius	occasionally moved	$\geq 5 \times \varnothing$

Material properties / Standards

Fire performance	IEC 60332-1
Smoke emission	IEC 61034; DIN EN 61034-2
Low fire load	DIN 51900
Fire properties acc. to CPR	
Cca s1a, d2, a1	DIN EN 50575; DIN EN 13501-6
Fire performance Cca	DIN EN 50399
Very low smoke emission s1a	DIN EN 50399
Flaming droplets d2	DIN EN 50399
Very low corrosivity of combustion gases – halogen free a1	DIN EN 60754-2
No flame propagation	DIN EN 60332-1-2

Approvals

EN 50618; H1Z2Z2-K,
IEC 62930

Construction Cross-sec.	Conductor-Ø	Color code	R ₂₀	Outer-Ø	Weight	Fire load	Part no.	Part no.	Part no.	Part no.
[n x mm ²]	[mm]		[mΩ/m]	[mm]	[kg/km]	[kWh/m]		PU* (8x500m)	PU* (18x500m)	PU* (8x1000m)
1x4mm ²	2.45	weiss	5.09	5.5	61	0.110	317550		317550V2	317550V3
1x4mm ²	2.45	rot	5.09	5.5	61	0.110	317551		317551V2	317551V3
1x6mm ²	3.00	weiss	3.39	6.1	82	0.128	317552		317552V2	317552V3
1x6mm ²	3.00	rot	3.39	6.1	82	0.128	317553		317553V2	317553V3
1x10mm ²	3.90	weiss	1.95	7.2	126	0.168	317554	317554V3		
1x10mm ²	3.90	rot	1.95	7.2	126	0.168	317555	317555V3		

*PU Packaging unit = reel x cable length/pallet