

Technical Data Sheet

BETAflam® Solar 125 RV flex 1500V DC

Description

Compact, double insulated, halogen free photovoltaic wire with sun light resistant separate jacket. Single conductor, flame retardant, electron-beam cross-linked compounds.

Approval according

EN 50618:2014 tested and certified by TÜV Rheinland, Germany

Application

Applicable as photovoltaic wire for modules and connection to the inverter of grounded and ungrounded photovoltaic power systems. The high quality electron-beam cross-linked components are offering UV and ozone protection at 90°C.



*complete labelling see page 2

Construction



- 1. Conductor: tinned fine copper strands according to VDE 0295 / IEC 60228, Cl. 5
- 2. Insulation: white electron-beam cross-linked compound, flame retardant, halogen free
- 3. Jacket: black electron-beam cross-linked compound, flame retardant, halogen free, UV and ozone resistant, with white or red marking

Dimensions

Construction Nominal Section [n x mm ²]	Article - Nr.	Cond.-Ø [mm]	Cable-Ø [mm]	Resistance max mΩ/m	Weight [kg/km]	Fire Load [kWh/m]
1 x 2.5	313738	2.05	5.0 +/-0.2	8.21	46	0.093
1 x 4	313740	2.45	5.5 +/-0.2	5.09	61	0.107
1 x 6	313742	3.0	6.1 +/-0.2	3.39	82	0.127
1 x 10	313744	4.1	7.2 +/-0.2	1.95	126	0.158
1 x 16	313746	5.0	8.5 +/-0.5	1.24	190	0.213
1 x 25	313747	6.2	10.4 +/-0.5	0.79	291	0.314
1 x 35	313748	7.7	11.9 +/-0.7	0.56	400	0.392
1 x 50	313749	9.7	14.3 +/-0.7	0.39	570	0.549

Other dimensions or with red marking upon request.

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Labelling

LEONI BETAFLAM SOLAR 125 RV FLEX 1500V DC 1 X xxMM2 H1Z2Z2-K (EN50618/TÜV)

↑
Cross Section

↑
Production Lot Number
for internal purpose
Subject to modifications

Technical Data

Nominal voltage U_0 : 1500V DC (conductor-conductor and conductor-earth
max. permitted voltage 1,8kV DC)

Test voltage: 6,5 kV AC 50Hz

Temperature rating (20'000h) + 120°C

Ambient temperature - 50°C up to + 90°C

Max. short circuit temperature 280°C / +536°F

Min. bending radius fixed installation $4 \times \varnothing$
occasionally moved $> 5 \times \varnothing$

Material Properties / Standards

Design / Dimensions EN 50618:2014

Halogen free EN 50267-2-1, EN 50267-2-2
EN 60684-2

Flame retardant EN/IEC 60332-1-2, EN/IEC 60332-3-25*

Low smoke emission EN/IEC 61034-2

Resistance against acid and alkaline solution: EN 60811-2-1

Weathering/UV resistance HD 605/A1

Ozone resistance EN 50396 72h/40 °C, method B
Volume concentration 200×10^{-8}

Low fire load* DIN 51900

No hazardous and toxic substances* EU-Directive: RoHS 2002/95/EC; PAH 2005/69/EC;
PFOS 2006/122/EC

No corrosive gases* EN/IEC 60754-2

*Additional properties not part of the TÜV Rheinland test requirements:

Material properties and technical data are subject to modifications.