

ÖLFLEX® SOLAR V4A

DB 0025960EN
valid from: 25.02.2010

1. LAPP Designation

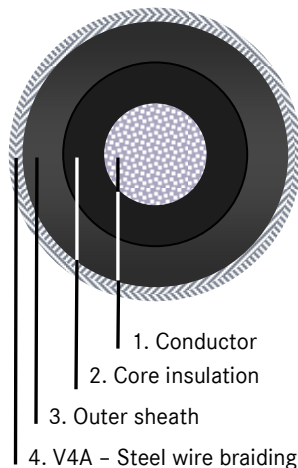
ÖLFLEX® SOLAR V4A

2. Application

ÖLFLEX® SOLAR V4A are double insulated cross-linked solar cables which are in addition flame retardant. Beside the extended temperature range the compound materials achieve best values concerning weather-, ozone-, UV- resistance and flexibility.

ÖLFLEX® SOLAR V4A are developed for outdoor use for the individual connection of solar panels among themselves and for connection with the frequency converter. The additional armouring made of stainless high-grade steel wire braiding protects the cable against martens, rodents and termites.

3. Cable design



1. Conductor : fine wire strands of tinned copper wires, according IEC 60228, Class 5
2. Core insulation : temperature resistant and halogen free Co-Polyolefine, electron beam cross-linked
Colour : black
3. Outer sheath : flame retardant and halogen free Co-Polymere, electron beam cross-linked
highly weather- and UV resistant
Colour : black
4. Armouring : Close-meshed braid of high-grade V4A steel wires (X5CrNiMo 17/12/2) as stainless protection against martens, rodents and termites

4. Electrical Properties

Originator: H. Trzebiatowski / PCM
approved: H. Krämer/ DC

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Nominal voltage U_0/U acc. VDE
Max. permitted DC voltage
Test voltage
Voltage resistance tests

AC 600/1000 V / DC 900/1500 V
1,8 kV (Conductor/Conductor, non earthed system)
AC 6,5 kV
according EN 50395

5. Thermal Properties

Temperature range
Thermal endurance test
High temperature pressure test
Damp-Heat resistance test

fixed installed -40° C up to +90° C max. conductor temperatur
according EN 60216-2
according EN 60811-3-1
according EN 60068-2-78 with 85% humidity

6. Mechanical Properties

Minimum bending diameter

Dynamic penetration
Notch propagation
Tensile strength and elongation
of insulation and jacket

5 x cable diameter (fixed installed)
15 x cable diameter (flexible use)
according requirement specification AK 411.2.3 Annex F
according requirement specification AK 411.2.3 Annex G
according EN 60811

7. Chemical Properties

Ozone resistance
Weathering- UV resistance
Flame characteristics
Halogen free
Acid and alkaline resistance

according EN 50396 part 8.1.3 Method B
according HD 605/A1
flame retardant according IEC 60332-1-2
according IEC 60754-1
according EN 60811-2-1 (Oxal acid and sodium hydroxid)

8. EC Directives

The cables are conform to the EC directives CE 2006/95/EC (Low Voltage Directive)
and RoHS 2002/95/EC (Restriction of the use of certain hazardous substances).