

Sykonec ArCon Y-Plug / Y-NoPlug



The ArCon PV-Array-interconnection-systems comply completely with the requirements of TÜV 2PFG1913/04.2011. They are intended for interconnection of PV modules and other distributed generation sources in free movable, free hanging or fixed installations. They can be used indoor and outdoor as well as in industry. They are suitable for applications in/at equipment with protective insulation (protection class II). In other respects IEC 61215, IEC 61646, IEC 64/1123D, DIN VDE 0100 Teil 520 and IEC 60364-7-712 applies.

All ArCon products are subject to extensive routine and periodic tests and are suitable for durable outdoor use in an ambient temperature area from -40°C to +90°C.

After installation of the ArCon PV-Array-interconnection-system no connectors must be left unsealed. Enclosure caps for sealing the connectors are available from the connector manufacturers. Open cable ends (cable end to combiner box or PV inverter) have to be installed properly before start of operation.

| Technical data | |
|---|---|
| Rated voltage | up to 1.500 V DC |
| Insulation material | EVA-Compound 120 °C, i.A. an DIN VDE 0282-2, HD22.1 |
| Ambient temperature | - 40 °C to + 90 °C |
| Max. operating temperature | - 40 °C to + 120 °C |
| Resistance against | Ozone acc. to 2PFG 1913/04.11 |
| | UV acc. to 2PFG 1913/04.11 |
| | Moisture heat (steam heat test): 1,000 h at 90 °C and 85% humidity, according to DIN EN 60068-2-78 |
| | Long-term-resistance of insulation to DC acc. to 2PFG 1913/04.11: 240h, 1,5kV DC in Wasser bei 85°C |
| | Ammonia, 30 days in saturated NH ₃ -atmosphere (internal test) |
| Flammability (internal tests) | Single cable acc. to DIN EN 60332-1-2 |
| | Multiple cable acc. to DIN EN 50305-9 |
| | Lower smoke emission acc. to DIN EN 50268-2 |
| | Absence of Halogens acc. to EN 50525-1, appendix B |
| | Lower toxicity acc. to DIN EN 50305 |
| Degree of protection | IP 68 (1h, 1 m) |
| Spark test | 16 kV AC |
| Dielectric strength acc. to 2 PFG 1913/04.11 | Voltage test 1 h in water, 6,5 kV AC (5 minutes) |
| Contact resistance (measured acc. to TÜV 2 PFG 1913/04.11: directly at the output of the cables of the moulding of connection splice) | ≤ 0,5 mΩ |
| Tensile test | acc. to TÜV 2 PFG 1913/04.11 |

Sykonec ArCon Y-Plug / Y-NoPlug

Max. rated current for ArCon PV-array-interconnection-systems without using PV-connectors:

| Nominal cross sectional area | Current rating at kind of laying | | |
|------------------------------|----------------------------------|---------------------------|---|
| | single cable free in air | single cable on a surface | two loaded cables touching on a surface |
| mm ² | A | A | A |
| 6 | 70 | 67 | 57 |

| Conversion factors for different ambient temperature | |
|--|-------------------|
| Ambient temperature °C | Conversion factor |
| up to 60 | 1,00 |
| 70 | 0,92 |
| 80 | 0,84 |
| 90 | 0,75 |

Degree of protection and max. current rating for ArCon PV-array-interconnection-systems when using the following PV-connectors:

| Manufacturer | Type | Rated voltage | Rated current 6mm ² at 85°C acc. to IEC 62852 | IP protection class | Upper limit temperature |
|-----------------|---|--------------------------|--|---------------------|-------------------------|
| Stäubli | PV-KST4-EVO 2/xy-UR; PV-KBT4-EVO 2/xy-UR | 1500 V DC nach IEC 62852 | 53 A | IP65, IP68 (1h,1m) | 115°C |
| Phoenix Contact | PV-CM-C-xxxx-SET; PV-CF-C-xxxx-SET | 1500 V DC nach IEC 62852 | 35 A | IP65, IP68 (1h,1m) | 105°C |

Dimensions of Sykonec ArCon Y-Plug / Y-NoPlug

| Type | Cable cross-section | | ArCon | | |
|------|---------------------|---------------------|--------|-------|--------|
| | Main cable | Branch cable | Length | Width | Height |
| 1 | 6,0 mm ² | 6,5 mm ² | 49 mm | 24 mm | 15 mm |

The distances between individual ArCons as well as the lengths of main and branch cables can vary according to the used PV modules. The ArCon PV-array-interconnection-systems will be supplied with or without connectors on customer's request.

Smallest package unit: 1 ArCon Y-Plug / Y-NoPlug

All data may be subject to alterations and errors. 2019_1118_EN

