

## TÜV 2 PFG 1169 PV1-F (FR-4mm<sup>2</sup>-B)

|              |             |
|--------------|-------------|
| Rating:      |             |
| Voltage:     | 600/1000V   |
| Temperature: | -40°C--90°C |

|              |   |
|--------------|---|
| Description: |   |
| Conductor:   | Tinned annealed copper                                    |
| Insulation:  | 120°CXLPE   |
| Jacket:      | 120°CXLPE,Black   |
| Marking:     | TÜV 2 PFG 1169 PV1-F 1x**mm <sup>2</sup> www.fr-cable.com |

**Application:**  
Specifically designed for connecting photovoltaic system components inside and outside of building and equipment with high mechanical requirements and extreme weather conditions. For permanent installations.

**General characteristics:**

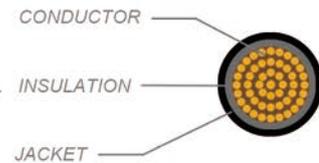


**Construction**

|                            |          |
|----------------------------|----------|
| Conductor                  |          |
| Area(mm <sup>2</sup> )     | 1*4.0    |
| Construction(N/mm)         | 56/0.30  |
| Conductor(Dia.)            | 2.69     |
| Insulation                 |          |
| Standard thickness         | 0.75     |
| Standard diameter          | 4.09±0.1 |
| Jacket                     |          |
| Standard thickness(mm)     | 1.05     |
| Outer diameter             | 6.20±0.2 |
| Conductor resistance(20°C) | 5.09     |
| Weight rated               | 70.71    |

|                                    |         |
|------------------------------------|---------|
| <b>Electrical properties</b>       |         |
| Insulation resistance(70°C)(MΩ-km) | ≥ 1000  |
| Withstand voltage(V/5min)          | AC 6500 |
| Spaek Voltage(V/5min)              | AC 6500 |
| Min bending radius(mm)             | 4*D     |

|  |               |
|--|---------------|
| <b>Packaging</b>   |               |
| BOX(art.code FR-100-6mm <sup>2</sup> / FR-500-6mm <sup>2</sup> ) |               |
| Size:  | 280x280x100mm |
| Weight:  | ±7Kg          |
| Cablee length box:   | 100m          |
| PALLET (art.code FR-100-6-150pcs-15000m)                         |               |
| Size:  | 1100x1100mm   |
| Amount of boxes on one pallet:                                   | 150pcs        |
| Weight of total pallet:  | ±1050Kg       |
| Cable length pallet:   | 15000m        |



## TÜV 2 PFG 1169 PV1-F (FR-4mm<sup>2</sup>-B)

Main performance parameter of finished cable

|   |                       |
|---|-----------------------|
| Voltage test of finished cable                                      |                       |
| Min.time of dipping in water  | ≥1(h)                 |
| Testing voltage (AC)  | 6500(V)               |
| Min.voltage applying time at one time                               | 5(min)                |
| Test result   | no breakdown          |
| Sheathed surface resistance   |                       |
| Length of specimen:   | 250mm                 |
| Test result   | ≥109Ω                 |
| Penetrate the insulation resistance                                 |                       |
| Temperature   | 20℃                   |
| Test result   | ≥1014Ω                |
| High temperature stress   |                       |
| Temperature   | 140℃                  |
| Test result   |                       |
| A: with 1.2 Voltage test  | A: No breakdown       |
| B: deep pressure  | B: Wall thickness 50% |
| Damp-heat test  |                       |
| Temperature   | 90℃                   |
| Humidity  | 85%                   |
| Test result   |                       |
| Aging before and after the tensile strength of Change               | ≤30%                  |
| Aging before and after the elongation at break of Change            | ≤-30%                 |
| Acid-alkali Resistance  |                       |
| Min.time of dipping in  | 168h                  |
| Test result   |                       |
| Aging before and after the tensile strength of Change               | ≤-30%                 |
| Elongation  | ≥100                  |
| Low-temperature bending   |                       |
| Temperature   | -40℃                  |
| Time  | 16h                   |
| Test result   | No crack              |
| Ozone resistance  |                       |
| Ozone concentration   | 200x106%              |
| Time  | 72h                   |
| Test result   | No crack              |
| Heat shrinkable jacket test   |                       |
| Test result   | ≤2%                   |
| Flame retardant   |                       |
| Vertical burn   |                       |
| Test result   |                       |
| Fixture on the lower edge from the starting point and carbonization | ≥50mm                 |
| Burning fuel downward from the lower edge of bottom fixture         | ≤540mm                |

## TÜV 2 PFG 1169 PV1-F (FR-4mm<sup>2</sup>-B)

Halogen content of non-metallic materials

Test result

Chlorine and bromine content

HCL≤0.5HBr≤0.5%

Fluoride content

F≤0.1%

The inner layer of insulation and sheath of the mechanical properties

Test result

Aging before tensile strength

8.0N/mm<sup>2</sup>

Aging before elongation

125%

Aging before and after the tensile strength of change

-30%

Aging before and after the elongation at break of change

-30%

Hot extension

Temperature

200°C

Test result

The inner layer of insulation and sheath

Elongation under load

≤100%

Elongation after unloading

≤25%

Life expectancy hot

Test result

≥25 years