

# Connectors for PV applications

Rated voltage

**1500 VDC**

Rated input current

**25 / 40 A**

Standard

**MC-4**

Protection class

**IP 68**

Tested and certified  
according to TÜV standards  
IEC 62852:2014  
IEC 62852:2014/AMD1:2020  
EN 62852:2015/A1:2020



**Morek's photovoltaic connectors are designed for long-term outdoor use and are compatible with MC-4 connections.**

#### Advantages

- For conductors 4 ÷ 6 mm
- Rated voltage 1500 VDC
- Rated input current 25 A / 40 A
- Standard MC-4
- Protection class IP 68
- Easy disconnection without tools
- Versions for shield and panels



Flying version



Panel version

	male	female	male	female
Black	MAP1006B40	MAP2006B40	MAP1106B40	MAP2106B40

#### Technical data

	male	female	male	female
Conductor cross-section Cu (mm <sup>2</sup> )	4 - 6 mm <sup>2</sup>	4 - 6 mm <sup>2</sup>	4 - 6 mm <sup>2</sup>	4 - 6 mm <sup>2</sup>
Rated input current (A)	40 A (4 ÷ 6 mm <sup>2</sup> )	40 A (4 ÷ 6 mm <sup>2</sup> )	40 A (4 ÷ 6 mm <sup>2</sup> )	40 A (4 ÷ 6 mm <sup>2</sup> )
Rated voltage DC (V)	1500	1500	1500	1500
Rated impuls voltage (kV)	8	8	8	8
Rated insulation voltage (kV)	10	10	10	10
Pollution degree	3	3	3	3
Temperature range (°C)	-40 ÷ +85	-40 ÷ +85	-40 ÷ +85	-40 ÷ +85
Material of the electroconductive part	tinned copper	tinned copper	tinned copper	tinned copper
Material of the insulating part	PPE + PS	PPE + PS	PPE + PS	PPE + PS
Flammability	UL 94 V-0 standard, halogen free	UL 94 V-0 standard, halogen free	UL 94 V-0 standard, halogen free	UL 94 V-0 standard, halogen free
Width / Height / Length (mm)	20 / 20 / 62	20 / 20 / 59	20 / 20 / 62	20 / 20 / 62
Weight (g)	11	10	11	11
Package (pcs)	50 / 300	50 / 300	50 / 300	50 / 300
Tested according standards	EN 62852:2015 + A1:2020	EN 62852:2015 + A1:2020	EN 62852:2015 + A1:2020	EN 62852:2015 + A1:2020



Photovoltaic 2,5-6 mm<sup>2</sup> male connector



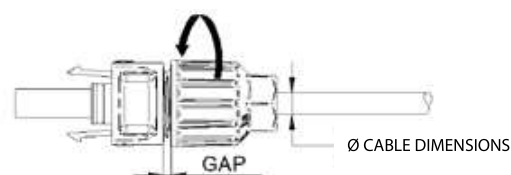
Photovoltaic 2,5-6 mm<sup>2</sup> female connector

White	MAP0000A40	-
Red / blue	-	MAP0001A40
Package (pcs)	1 pair	1

## Connector assembly instruction

**Please referred to the assembly specification for cable dimension as shown in the following table before cable assembling, and please do not applying exceeded tightening torque for the connecting safety and performance issues.**

- The cable must be 8 mm stripped.
- Insert the crimped contact without removing the gland ring.
- Applies to products:  
MAP2006B40  
MAP1006B40  
MAP2106B40  
MAP1106B40



#### Assembling specification

Cable dimension	Gap	Tightening torque
Sez. 4 mm (5,0 ÷ 6,6 mm <sup>2</sup> )	2,2 ± 0,2 mm	1,2 ÷ 1,5Nm
Sez. 6 mm (6,0 ÷ 7,1 mm <sup>2</sup> )	2,3 ± 0,2 mm	1,2 ÷ 1,5Nm

### TPE (Thermoplastic Elastomer)

- Excellent resistance to weathering, ozone and UV exposure
- Provides good chemical resistance, and excellent electrical properties limited resistance for oils (resists oils as splash)
- Flame retardant grades UL 94 V-0, halogen free
- Standard hardness 25 ShA – 70 ShA
- Recyclable
- Wide range of colors, easy to customize
- Service temperature range -40 to + 100 °C
- FDA approved grades available

### TPU (Thermoplastic Urethane)

- Good resistance to weathering, ozone and UV exposure
- Good abrasive properties
- Limited resistance for oils (resists oils as splash)
- Standard hardness 50 ShA – 70 ShA
- Recyclable
- Wide range of colors, easy to customize
- Service temperature range -40 - + 100 °C
- FDA approved grades available

### TPV (Thermoplastic Vulcanizate)

- Show excellent resistance to UV Light; very little change in Delta E
- Improved oil and chemical resistance; Exhibit superior chemical resistance over a wide range of temperature (Oils / Petroleum and Sebum, Automotive fluids, aqueous solutions, acids and bases, organic solvents).
- Flame retardant grades 50 ShA to 50 ShD, UL 94 V-0
- Hardness range 15 ShA to 50 ShD Temperature range continues use up to 125 °C and short-term exposure up to 150 °C. Brittle point lower than -60 °C for most grades. Provides good low-temperature flexibility and impact toughness.
- It looks and feels like thermoset rubber
- Improved compression set at elevated temperatures (over 70 °C)
- Medical/food contact grades from 45 ShA to 50 ShD

### EPDM (Ethylene Propylene Diene Monomer)

- Superior resistance to weathering, ozone and UV exposure
- Provides excellent chemical resistance, and good electrical properties
- Resists animal and vegetable oils, steam, water and oxygenated solvents
- Flame retardant grades UL 94 V-2
- Standard hardness 40 ShA – 70 ShA
- Limited range of colors
- Working temperature range -40 to + 120 °C
- EMC grades with attenuation around 40 dB

### NBR (Nitrile Butadiene Rubber)

- Limited weathering resistance
- It is generally resistant to fuel and other chemicals. Also

resistant to aliphatic hydrocarbons but less resistant aromatic hydrocarbons, ketones, esters, aldehydes and to ozone

- Flame resistance is poor
- Hardness range 20 - 95 ShA
- Working temperature range of -40 to + 125 °C
- Environmental performances: colorability, gas permeability and water resistance are excellent
- Other physical & mechanical properties: adhesion to metal and rigid materials are excellent, abrasion resistance, compression set and tear resistance are good to excellent

### CR (Chloroprene Rubber)

- Good weathering resistance, flame retarding. Moderate resistance to petroleum-based fluids
- Service temperature -45 to +120 °C
- Adhesion to many substrates
- Good resistance toward chemicals and ageing
- CR in general has good chemical stability and maintains flexibility over a wide temperature range
- Hardness range 40 – 95 ShA

### Q (Silicone)

- Excellent resistance to weathering, ozone and UV exposure
- Also provides excellent chemical resistance and good electrical properties
- Resists oils as splash
- Flame retardant grades UL 94 V-0
- Standard hardness 25 ShA – 90 ShA
- Wide range of colors, easy to customize
- Service temperature range -50 - + 200 °C