FAST MOVING TECHNOLOGY

STÄUBLI

Photovoltaic main catalog

Solarline | Connectors for renewable energy

Advantages of the MC4 connector range

Protected

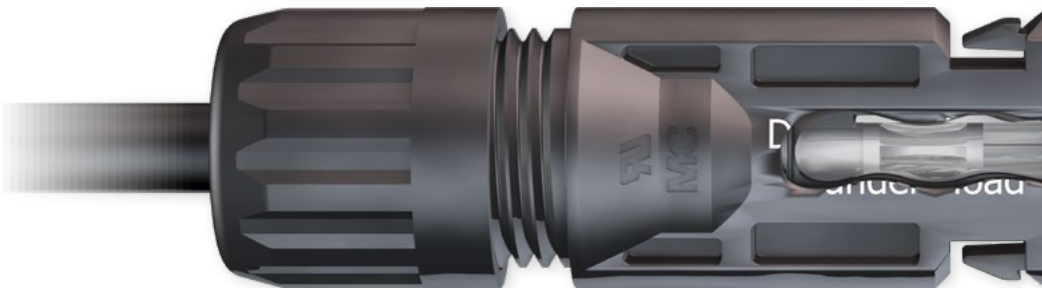
UV

IP68

Safety class II

Proven MULTILAM technology with high long-term stability

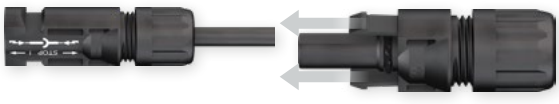
More than 50 years of experience and core competence

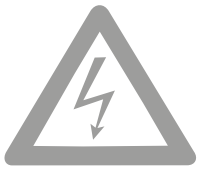


Range of cable cross-sections

10 mm²	◯	◯	8 AWG
6 mm²	◯	◯	10 AWG
4 mm²	○	○	12 AWG
2.5 mm²	○	○	14 AWG
1.5 mm²	○		

Locking system

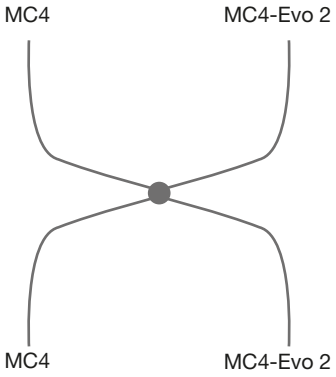


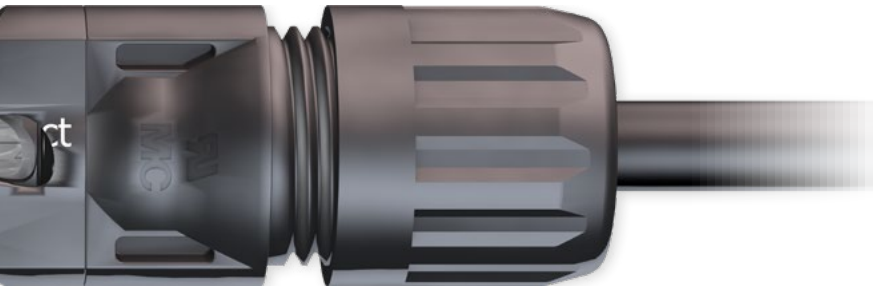


Voltage level

TÜV 1000 V/1500 V
UL 1000 V/1500 V

Compatibility





Certificates

TÜV These products are certified by TÜV Rheinland LGA GmbH

cTÜVus

UL recognized

EAC

CSA

JET

CQC

Safety locking device

NEC 2014

Overview of plug connectors

	Approvals [1]
Plug connectors	
MC4 	TÜV EAC UL CSA CQC
MC4-Evo 2 	TÜV UL JET
MC4-Evo AC 	TÜV UL
Panel receptacles	
MC4 	TÜV EAC UL CSA
MC4-Evo 2 	TÜV UL
Branch connectors	
MC4 	EAC UL

Legend

Assembly with tool

Available as ready-assembled product

For assembly on site

Features	Salt mist spray test	Rated curren	Rated voltage (max.)				Locking system (UL)	Degree of protection		Safety class	Ambient temperature range	Sealing caps	Page
	Category	A	TÜV (V DC)	UL/CSA (V DC)	TÜV (V AC)	UL (V AC)		mated	unmated		°C		
	VI	22.5/30/45/50	1500	1500	–	–	Locking	IP65 IP68	IP2X	II	-40 ... +85 (TÜV)	×	12 14
	VI	22/39/45/53/69	1500	1500	–	–	Locking	IP65 IP68	IP2X	II	-40...+85 (TÜV)	×	16 18
	–	16/20/26/32/43	–	–	250	600	Locking	IP65 IP67	IP2X	II	-40...+85	×	20
	–	22.5/39/45/51	1250	1500	–	–	Locking	IP65 IP68	IP2X	II	-40...+85	×	22 24
	–	32/42/47	1500	1500	–	–	Locking	IP65 IP68	IP2X	II	-40...+90 (UL)	×	26 28
	–	50	–	1500	–	–	Locking	IP67	IP2X	II	-40...+85 (UL)	×	30

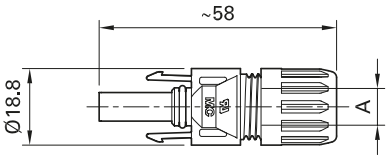
Suitable for customer-specific assembly

[1] Certifications are in some cases limited to specific types or still pending. Details are given on the relevant product pages.

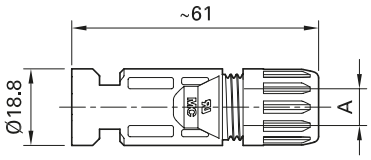
Female and male cable coupler MC4

Female and male cable coupler as individual part (including insulating part)

PV-KBT4...



PV-KST4...



Order No.	Type	Female cable coupler	Male cable coupler	Ø range of cable gland	Conductor cross section			Approvals			
				A (mm)	mm²	AWG	b (mm)	TÜV	UL	CSA	CQC
32.0010P0001-UR	PV-KBT4/2,5I-UR	×		5-6	2.5	14	3	×	×	×	×
32.0011P0001-UR	PV-KST4/2,5I-UR		×	5-6	2.5	14	3				
32.0140P0001-UR	PV-KBT4/2,5X-UR	×		5.5-7.4	2.5	14	3				
32.0141P0001-UR	PV-KST4/2,5X-UR		×	5.5-7.4	2.5	14	3				
32.0012P0001-UR	PV-KBT4/2,5II-UR	×		5.9-8.8	2.5	14	3				
32.0013P0001-UR	PV-KST4/2,5II-UR		×	5.9-8.8	2.5	14	3				
32.0014P0001-UR	PV-KBT4/6I-UR	×		5-6	4; 6	12; 10	5				
32.0015P0001-UR	PV-KST4/6I-UR		×	5-6	4; 6	12; 10	5				
32.0142P0001-UR	PV-KBT4/6X-UR	×		5.5-7.4	4; 6	12; 10	5				
32.0143P0001-UR	PV-KST4/6X-UR		×	5.5-7.4	4; 6	12; 10	5				
32.0016P0001-UR	PV-KBT4/6II-UR	×		5.9-8.8	4; 6	12; 10	5				
32.0017P0001-UR	PV-KST4/6II-UR		×	5.9-8.8	4; 6	12; 10	5				
32.0080-UR	PV-KBT4/8II-UR	×		6.05-8.56	–	8	4.4		×	×	
32.0081-UR	PV-KST4/8II-UR		×	6.05-8.56	–	8	4.4				
32.0034P0001	PV-KBT4/10II	×		5.9-8.8	10	–	7.2	×			×
32.0035P0001	PV-KST4/10II		×	5.9-8.8	10	–	7.2				

Note:

For more detailed information concerning the suitable cable gland range, please consult MA231

MA

Assembly Instructions MA231

www.staubli.com/electrical

Sealing caps page 43

Assembly tools page 48

- Snap-in lock
- In accordance with NEC 2014, requires a tool to open
- Proven MULTILAM technology with high long-term stability, which ensures consistently low performance loss throughout the entire service life of the plug connector
- Tried and tested plug connectors, over 15 years of experience in the field
- Available for assembly with cross-sections of 10 mm²
- Also available as ready made leads
- Mating compatibility with MC4 connector family
- Leads made to customer's specifications, see page 50

Technical data	
Connector system	Ø 4 mm
Rated voltage	1000 V DC (IEC 62852) 1500 V DC (2Pfg2330)[1)] 1500 V DC (UL)[2)]
Rated current TÜV (85°C)	22.5 A (2.5 mm²) 39 A (4 mm²/6 mm²) 45 A (10 mm²)
Rated current UL	30 A (14 AWG) 30 A (12 AWG/10 AWG) 50 A (8 AWG)
Rated impulse voltage	12 kV (1000 V DC (TÜV)) 16 kV (1500 V DC (TÜV))
Ambient temperature range	-40°C...+85°C (TÜV) -40°C...+75°C (UL)
Upper limiting temperature	105°C (TÜV)
Degree of protection, mated unmated	IP65, IP68 (1 h/1 m) IP2X
Overvoltage category/Pollution degree	CATIII/3
Contact resistance of plug connectors	≤0.25 mΩ
Safety class	1000 V DC: II 1500 V DC: 0
Contact system	MULTILAM
Type of termination	Crimping
Contact material	Copper, tin plated
Insulation material	PC/PA
Locking system (UL)	Locking type
Flame class	UL94-V0
Ammonia resistance (acc. to DLG)	1500 h, 70°C/70% RH, 750 ppm
Salt mist spray test, degree of severity 6	IEC 60068-2-52
TÜV-Rheinland certified, in accordance with IEC 62852 TÜV-Rheinland certified, in accordance with 2PfG2330 UL recognized component, in accordance with UL 6703 CSA certified, in accordance with UL 6703 CQC certified according CNCA/CTS0002-2012	R60127190[3)] R60087448 E343181 250725 CQC16024138286

[1)] 2Pfg2330: only approved for locations with restricted access

[2)] for selected configurations; see assembly instructions MA231 for details

[3)] For PV junction boxes in accordance with IEC62790, lines in accordance with EN50618 must be used