FAST MOVING TECHNOLOGY

MC4-Evo stor connector

Renewable Energy | Solar Photovoltaics

EN

MC4-Evo stor cable coupler and panel receptacle

Fool-proof energy storage connector with MC4-Evo 2 performance

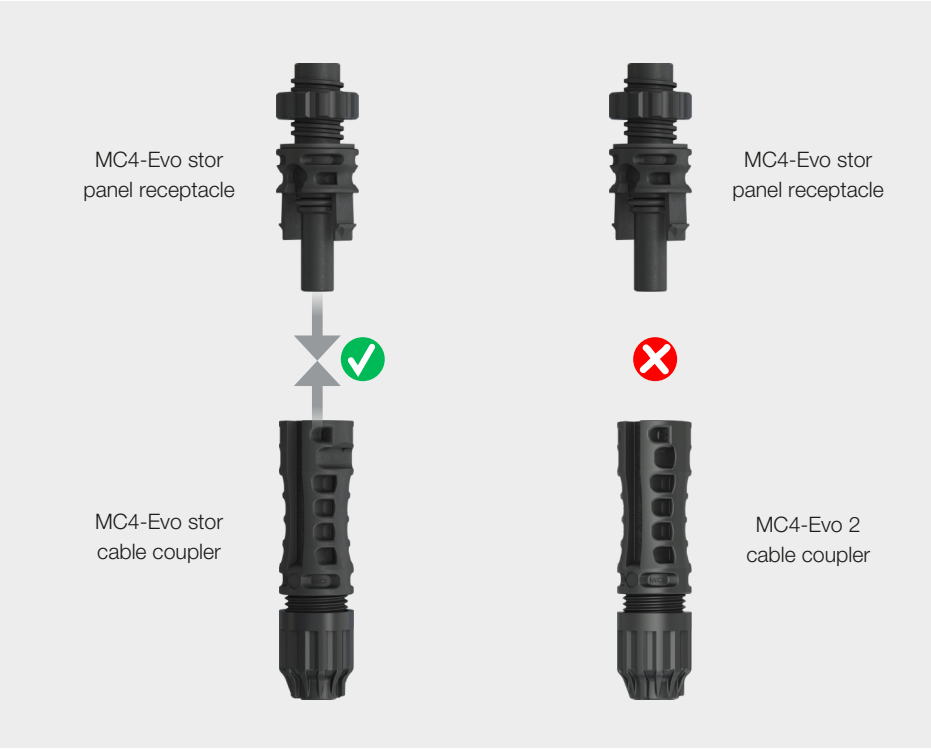
- MC4-Evo stor to connect hybrid inverters to BESS (battery energy storage system)
- Tilted mating face guarantees no mismatching between BESS and PV string
- Established MC4-Evo 2 technical performance
- DC 1500 V TÜV and UL certified

No PV DC string input errors

Due to a tilted mating face mismatching errors with PV string and battery output on DC side of inverters are not possible.

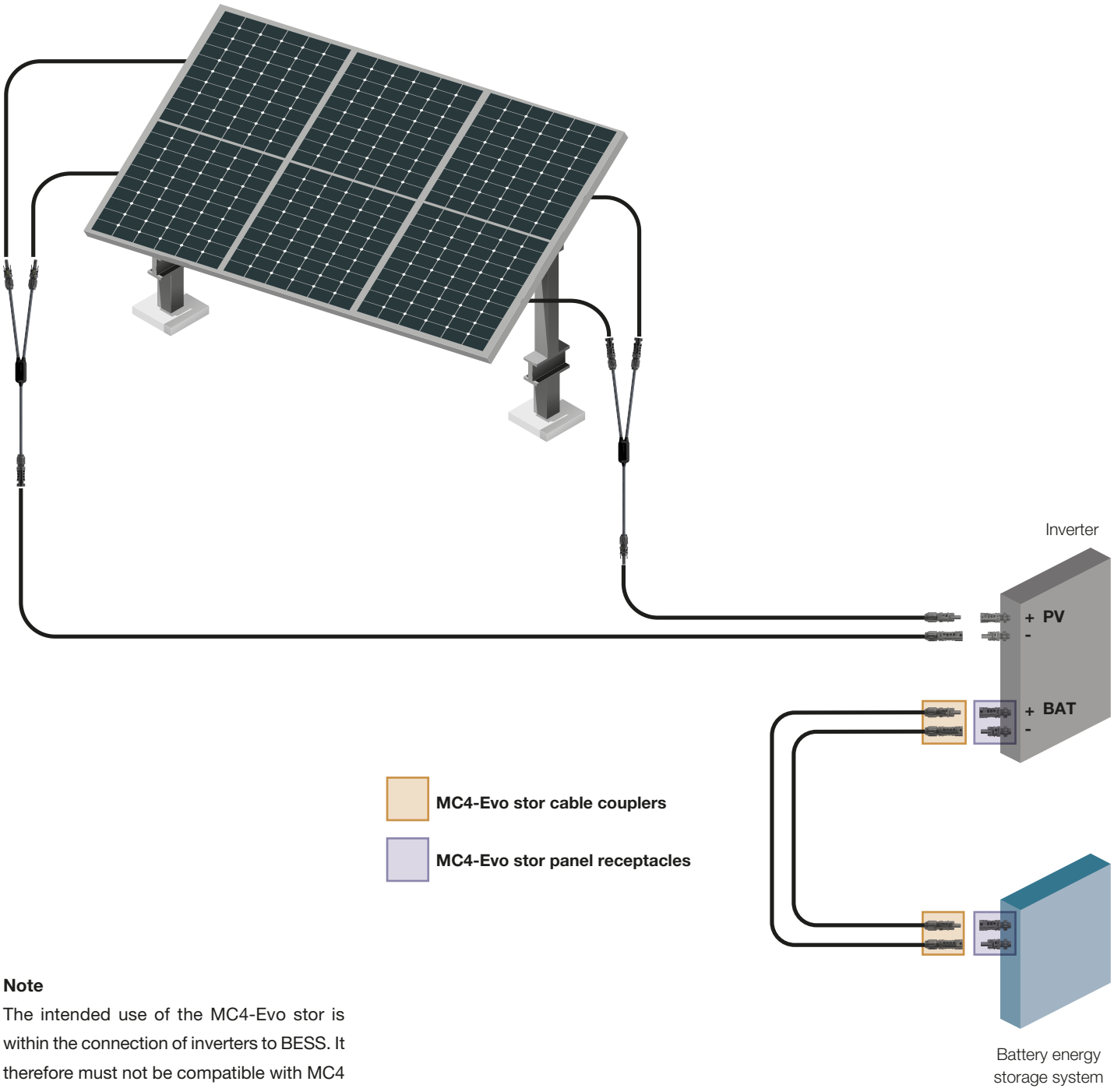
Utilisation matrix

		Socket		
		MC4	MC4-Evo 2	MC4-Evo stor
Plug	MC4	✓	✓	✗
	MC4-Evo 2	✓	✓	✗
	MC4-Evo stor	✗	✗	✓



Application example with MC4-Evo stor

Application example with an inverter and a BESS (battery energy storage system). MC4-Evo stor panel receptacles are integrated in both the inverter and the BESS: No missmatching errors are possible on the DC side of the inverter.



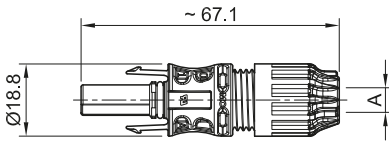
Note

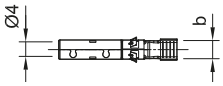
The intended use of the MC4-Evo stor is within the connection of inverters to BESS. It therefore must not be compatible with MC4 or MC4-Evo 2.

MC4-Evo stor female and male cable coupler

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

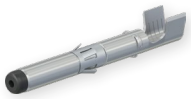
MC4-Evo stor female cable coupler

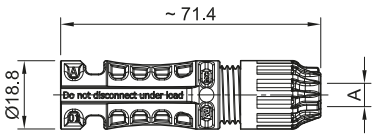


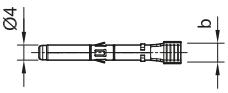


PV-KBT4-EVO ST/...

MC4-Evo stor male cable coupler







PV-KST4-EVO ST/...

Order No.	Type	Female cable coupler	Male cable coupler	Ø range of cable gland	Cross section of conductor		Width of crimp opening
				A (mm)	mm²	AWG	b (mm)
32.0256P0001	PV-KBT4-EVO ST/2.5I	×		4.7 – 6.4	2.5	14	4
32.0257P0001	PV-KST4-EVO ST/2.5I		×				
32.0258P0001	PV-KBT4-EVO ST/2.5X	×		6.1 – 7.3			
32.0259P0001	PV-KST4-EVO ST/2.5X		×				
32.0260P0001	PV-KBT4-EVO ST/2.5II	×		6.4 – 8.5			
32.0261P0001	PV-KST4-EVO ST/2.5II		×				
32.0262P0001	PV-KBT4-EVO ST/6I	×		4.7 – 6.4	4; 6	12; 10	5.8
32.0263P0001	PV-KST4-EVO ST/6I		×				
32.0264P0001	PV-KBT4-EVO ST/6X	×		6.1 – 7.3			
32.0265P0001	PV-KST4-EVO ST/6X		×				
32.0266P0001	PV-KBT4-EVO ST/6II	×		6.4 – 8.5			
32.0267P0001	PV-KST4-EVO ST/6II		×				
32.0268P0001	PV-KBT4-EVO ST/10II	×			10	8	6.5
32.0269P0001	PV-KST4-EVO ST/10II		×				
32.0270P0001	PV-KBT4-EVO ST/10X	×		6.1 – 7.3			
32.0271P0001	PV-KST4-EVO ST/10X		×				

MA

Assembly Instructions MA297

www.staubli.com/electrical

Note:

For more detailed information concerning the suitable cable gland range, please consult MA297.

- DC 1500 V according to IEC 62852:2014+Amd1:2020 and UL 6703
- MULTILAM Technology has proven the quality and durability several 100 million times since 2004
- Suited for all climatic environments thanks to resistance to UV, and high IP class (IP68)
- Available as a field and preassembled connector, standard Stäubli crimping tools can be used
- MC4 and MC4-Evo are registered trademarks owned by Stäubli.

Technical data	
Connector system	Ø 4 mm
Rated voltage	DC 1500 V (IEC 62852:2014+Amd.1:2020)[1)] DC 1500 V (UL 6703)[2)]
Rated current IEC	32 A (2.5 mm^2) 42 A (4.0 mm^2) 47 A (6.0 mm^2) 62 A (10.0 mm^2)
Rated current UL	30 A (14 AWG) 39 A (12 AWG) 50 A (10 AWG) 70 A (8 AWG)
Rated impulse voltage (IEC)	16 kV (DC 1500 V)
Ambient temperature range	-40 °C ... +85 °C (IEC/UL)
Upper limiting temperature	115 °C (IEC)
Degree of protection, mated unmated	IP65/IP68 (1 h, 1 m) IP2X
Overvoltage category/Pollution degree	CAT III/3
Contact resistance of plug connectors	≤ 0.2 mΩ
Safety class	II
Contact system	MULTILAM
Type of termination	Crimping
Contact material	Copper, tin plated
Insulation material	PA
Locking system (UL)	Locking type
Flame class	UL94-V0
TÜV Rheinland certification number UL-File number (UL6703 and CSA C22.2 No. 182.5) (cULus Listed and UL Recognized)	R 60163331 E343181

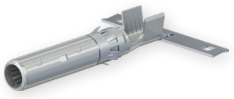
[1)] Please take the cable to be used from MA297

[2)] The connectors are to be used with USE2 or PV-Wire cables.

MC4-Evo stor female and male cable coupler

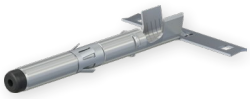
Contacts on carrier band (including insulating part)

MC4-Evo stor female cable coupler



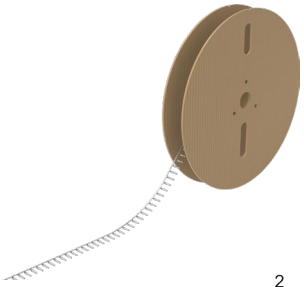
PV-KBT4-EVO ST/...

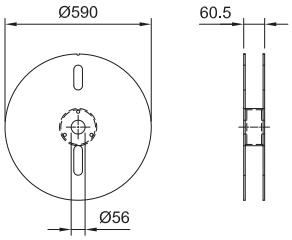
MC4-Evo stor male cable coupler

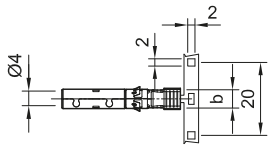


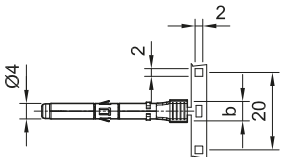
PV-KST4-EVO ST/...

Contacts on carrier band









Order No.	Type	Female cable coupler	Male cable coupler	Ø range of cable gland	Cross section of conductor		Width of crimp opening	Crimping tool	Contacts per reel[2]
				A (mm)	mm²	AWG	b (mm)		
32.0256P2000	PV-KBT4-EVO ST/2.5I	×		4.7 – 6.4	2.5	14	4	[1]	2000
32.0257P2000	PV-KST4-EVO ST/2.5I		×					[1]	2000
32.0258P2000	PV-KBT4-EVO ST/2.5X	×		6.1 – 7.3				[1]	2000
32.0259P2000	PV-KST4-EVO ST/2.5X		×					[1]	2000
32.0260P2000	PV-KBT4-EVO ST/2.5II	×		6.4 – 8.5				[1]	2000
32.0261P2000	PV-KST4-EVO ST/2.5II		×					[1]	2000
32.0262P2000	PV-KBT4-EVO ST/6I	×		4.7 – 6.4	4; 6	12; 10	5.8	[1]	2000
32.0263P2000	PV-KST4-EVO ST/6I		×					[1]	2000
32.0264P2000	PV-KBT4-EVO ST/6X	×		6.1 – 7.3				[1]	2000
32.0265P2000	PV-KST4-EVO ST/6X		×					[1]	2000
32.0266P2000	PV-KBT4-EVO ST/6II	×		6.4 – 8.5				[1]	2000
32.0267P2000	PV-KST4-EVO ST/6II		×					[1]	2000
32.0268P1500	PV-KBT4-EVO ST/10II	×			10	8	6.5	[1]	1500
32.0269P1500	PV-KST4-EVO ST/10II		×					[1]	1500
32.0270P1500	PV-KBT4-EVO ST/10X	×		6.1 – 7.3				[1]	1500
32.0271P1500	PV-KST4-EVO ST/10X		×					[1]	1500

MA

Assembly Instructions MA297

www.staubli.com/electrical

[1] Information about a semi-automatic crimp device or assembly device on request

[2] Reel type subject to alterations

Note:

For more detailed information concerning the suitable cable gland range, please consult MA297.

- Feeder bands for fully automatic assembly
- Tools specially designed for MC4-Evo stor available for automatic crimping
- Process reliability as result of specially developed supply reel

- MC4 and MC4-Evo are registered trademarks owned by Stäubli.

Technical data	
Connector system	Ø 4 mm
Rated voltage	DC 1500 V (IEC 62852:2014+Amd.1:2020)[3] DC 1500 V (UL 6703)[4]
Rated current IEC	32 A (2.5 mm^2) 42 A (4.0 mm^2) 47 A (6.0 mm^2) 62 A (10.0 mm^2)
Rated current UL	30 A (14 AWG) 39 A (12 AWG) 50 A (10 AWG) 70 A (8 AWG)
Rated impulse voltage (IEC)	16 kV (DC 1500 V)
Ambient temperature range	-40 °C ... +85 °C (IEC/UL)
Upper limiting temperature	115 °C (IEC)
Degree of protection, mated unmated	IP65/IP68 (1 h, 1 m) IP2X
Overvoltage category/Pollution degree	CAT III/3
Contact resistance of plug connectors	≤ 0.2 mΩ
Safety class	II
Contact system	MULTILAM
Type of termination	Crimping
Contact material	Copper, tin plated
Insulation material	PA
Locking system (UL)	Locking type
Flame class	UL94-V0
TÜV Rheinland certification number UL-File number (UL6703 and CSA C22.2 No. 182.5) (cULus Listed and UL Recognized)	R 60163331 E343181

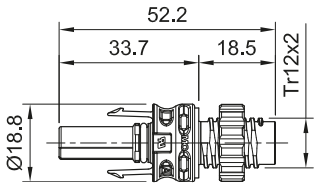
[3] Please take the cable to be used from MA297

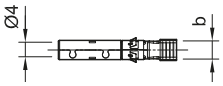
[4] The connectors are to be used with USE2 or PV-Wire cables.

MC4-Evo stor female and male panel receptacle

Female and male panel receptacles as individual part (including insulating part)

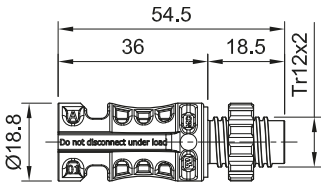
MC4-Evo stor female panel receptacle

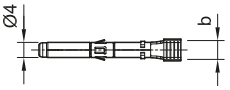




PV-ADB4-EVO ST/...

MC4-Evo stor male panel receptacle





PV-ADS4-EVO ST/...

Order No.	Type	Female cable coupler	Male cable coupler	Cross section of conductor		Width of crimp opening
				mm²	AWG	b (mm)
32.0272P0001	PV-ADB4-EVO ST/2.5	×		2.5	14	4
32.0273P0001	PV-ADS4-EVO ST/2.5		×	2.5	14	4
32.0274P0001	PV-ADB4-EVO ST/6	×		4; 6	12; 10	5.8
32.0275P0001	PV-ADS4-EVO ST/6		×	4; 6	12; 10	5.8
32.0276P0001	PV-ADB4-EVO ST/10	×		10	8	6.5
32.0277P0001	PV-ADS4-EVO ST/10		×	10	8	6.5

MA

Assembly Instructions MA702

www.staubli.com/electrical

- Assembly directly via the threads or in the perforated plate with the plastic nut (contained in scope of delivery)
- Thanks to the D shape, the threaded connection is secured against turning
- DC 1500 V according to IEC 62852:2014+Amd1:2020 and UL 6703
- Degree of protection IP68 (1m/1h) guarantees highest connection safety
- Fast and clean connection
- With preassembled flat seal
- MC4 and MC4-Evo are registered trademarks owned by Stäubli.

Technical data	
Connector system	Ø 4 mm
Rated voltage	DC 1500 V (IEC 62852:2014+Amd.1:2020) DC 1500 V (UL 6703)
Rated current IEC	32 A (2.5 mm^2) 42 A (4.0 mm^2) 47 A (6.0 mm^2) 62 A (10.0 mm^2)
Rated current UL	30 A (14 AWG) 35 A (12 AWG) 50 A (10 AWG) 70 A (8 AWG)
Rated impulse voltage	16 kV (DC 1500 V)
Ambient temperature range	-40 °C...+85 °C (IEC) -40 °C...+90 °C (UL)
Upper limiting temperature	115 °C
Degree of protection, mated unmated	IP65; IP68 (1 m, 1 h) IP2X
Overvoltage category/Pollution degree	CATIII/3
Contact resistance of plug connectors	≤ 0.2 mΩ
Safety class	II
Contact system	MULTILAM
Type of termination	Crimping
Contact material	Copper, tin plated
Insulation material	PA
Locking system (UL)	Locking type
Flame class	UL94-V0
TÜV Rheinland certification number UL-File number	R 60163467 E343181

MC4-Evo stor female and male panel receptacle

Contacts on carrier band (including insulating part)

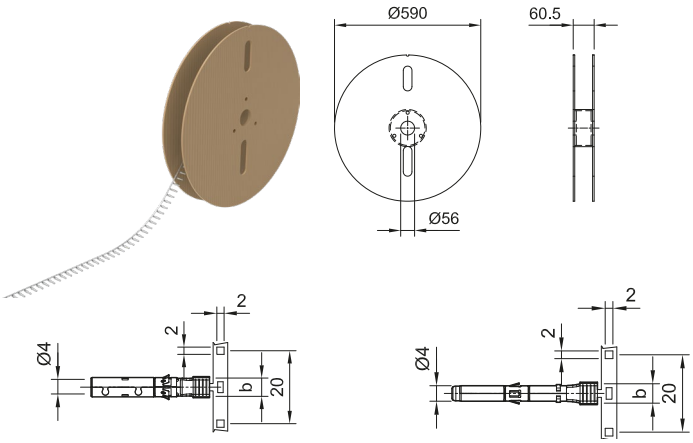
MC4-Evo stor female panel receptacle

PV-ADB4-EVO ST/...

MC4-Evo stor male panel receptacle

PV-ADS4-EVO ST/...

Contacts on carrier band



Order No.	Type	Female panel recepta	Male panel rceptacle	Cross section of conductor		Width of crimp opening	Crimping tool	Contacts per Reel[2]
				mm²	AWG	b (mm)		
32.0272P2000	PV-ADB4-EVO ST/2.5	×		2.5	14	4	[1]	2000
32.0273P2000	PV-ADS4-EVO ST/2.5		×	2.5	14	4	[1]	2000
32.0274P2000	PV-ADB4-EVO ST/6	×		4; 6	12; 10	5.8	[1]	2000
32.0275P2000	PV-ADS4-EVO ST/6		×	4; 6	12; 10	5.8	[1]	2000
32.0276P1500	PV-ADB4-EVO ST/10	×		10	8	6.5	[1]	1500
32.0277P1500	PV-ADS4-EVO ST/10		×	10	8	6.5	[1]	1500

MA

Assembly Instructions MA702

www.staubli.com/electrical

[1] Information about a semi-automatic crimp device or assembly device on request

- Feeder bands for fully automatic assembly
- Tools specially designed for MC4-Evo stor available for automatic crimping
- Process reliability as result of specially developed supply reel
- MC4 and MC4-Evo are registered trademarks owned by Stäubli.

Technical data	
Connector system	Ø 4 mm
Rated voltage	DC 1500 V (IEC 62852:2014+Amd.1:2020) DC 1500 V (UL 6703)
Rated current IEC	32 A (2.5 mm^2) 42 A (4.0 mm^2) 47 A (6.0 mm^2) 62 A (10.0 mm^2)
Rated current UL	30 A (14 AWG) 35 A (12 AWG) 50 A (10 AWG) 70 A (8 AWG)
Rated impulse voltage	16 kV (DC 1500 V)
Ambient temperature range	-40 °C...+85 °C (IEC) -40 °C...+90 °C (UL)
Upper limiting temperature	115 °C
Degree of protection, mated unmated	IP65; IP68 (1 m, 1 h) IP2X
Overvoltage category/Pollution degree	CATIII/3
Contact resistance of plug connectors	≤ 0.2 mΩ
Safety class	II
Contact system	MULTILAM
Type of termination	Crimping
Contact material	Copper, tin plated
Insulation material	PA
Locking system (UL)	Locking type
Flame class	UL94-V0
TÜV Rheinland certification number UL-File number	R 60163467 E343181

PV Sol MC4-Evo stor 11014103-en H 08.2025

● Stäubli Units ○ Representatives/Agents

Global presence of the Stäubli Group

www.staubli.com

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