

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

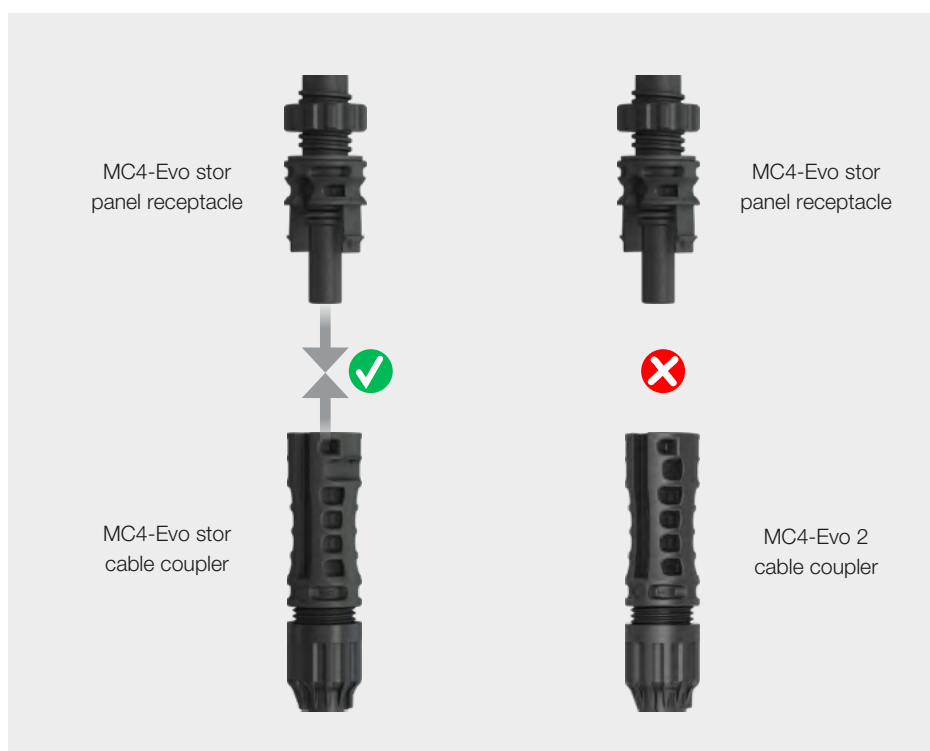
- MC4-Evo stor to connect hybrid inverters to BESS (battery energy storage system)
- Tilted mating face guarantees no mismatching between BESS and PV string
- Established MC4-Evo 2 technical performance
- DC 1500 V TÜV and UL certified

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

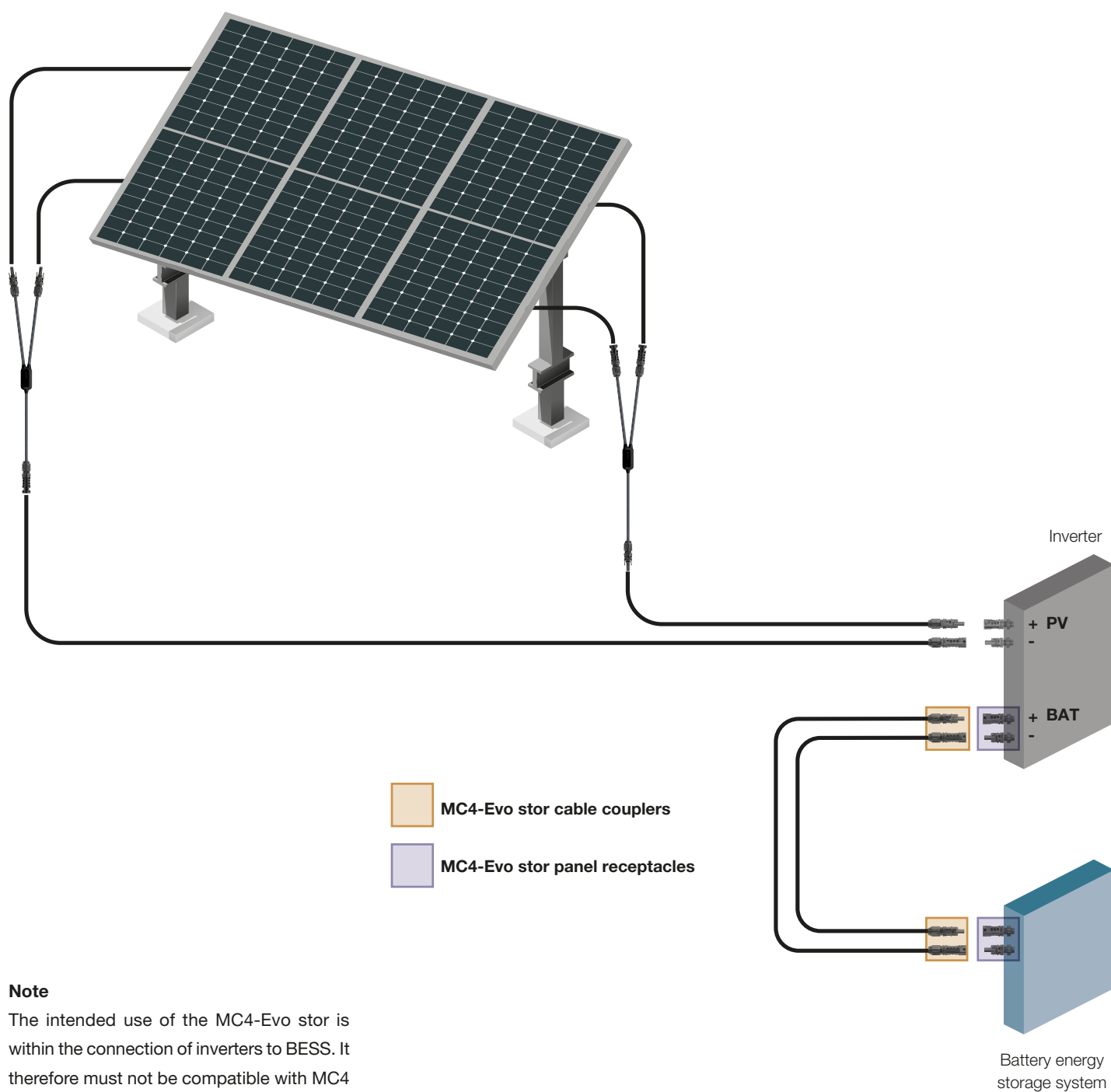
		Socket		
		MC4	MC4-Evo 2	MC4-Evo stor
Plug	MC4	✓	✓	✗
	MC4-Evo 2	✓	✓	✗
	MC4-Evo stor	✗	✗	✓



Application example with MC4-Evo stor

Application example with an inverter and a BESS (battery energy storage system). MC4-Evo stor panel receptacles are inte-

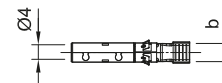
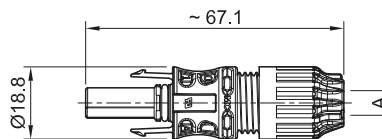
grated in both the inverter and the BESS: No mismatching errors are possible on the DC side of the inverter.



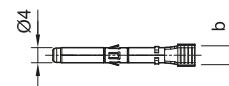
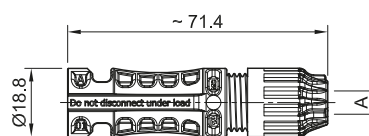
Female and male cable coupler MC4-Evo stor

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

PV-KBT4-EVO ST/...



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
					mm ²	AWG	
32.0256P0001	PV-KBT4-EVO ST/2.5I	x		A (mm)			
32.0257P0001	PV-KST4-EVO ST/2.5I		x	4.7 – 6.4	2.5	14	4
32.0258P0001	PV-KBT4-EVO ST/2.5X	x		6.1 – 7.3			
32.0259P0001	PV-KST4-EVO ST/2.5X		x	6.4 – 8.5			
32.0260P0001	PV-KBT4-EVO ST/2.5II	x		4.7 – 6.4			
32.0261P0001	PV-KST4-EVO ST/2.5II		x	6.1 – 7.3	4; 6	12; 10	5.8
32.0262P0001	PV-KBT4-EVO ST/6I	x		6.4 – 8.5			
32.0263P0001	PV-KST4-EVO ST/6I		x	6.1 – 7.3	10	8	6.5
32.0264P0001	PV-KBT4-EVO ST/6X	x		6.4 – 8.5			
32.0265P0001	PV-KST4-EVO ST/6X		x	6.1 – 7.3			
32.0266P0001	PV-KBT4-EVO ST/6II	x		6.4 – 8.5			
32.0267P0001	PV-KST4-EVO ST/6II		x	6.1 – 7.3			
32.0268P0001	PV-KBT4-EVO ST/10II	x					
32.0269P0001	PV-KST4-EVO ST/10II		x				
32.0270P0001	PV-KBT4-EVO ST/10X	x					
32.0271P0001	PV-KST4-EVO ST/10X		x				

Note:

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



Assembly Instructions MA297

www.staubli.com/electrical

- 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

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	R 60163331 E343181

¹⁾ Please take the cable to be used from MA297

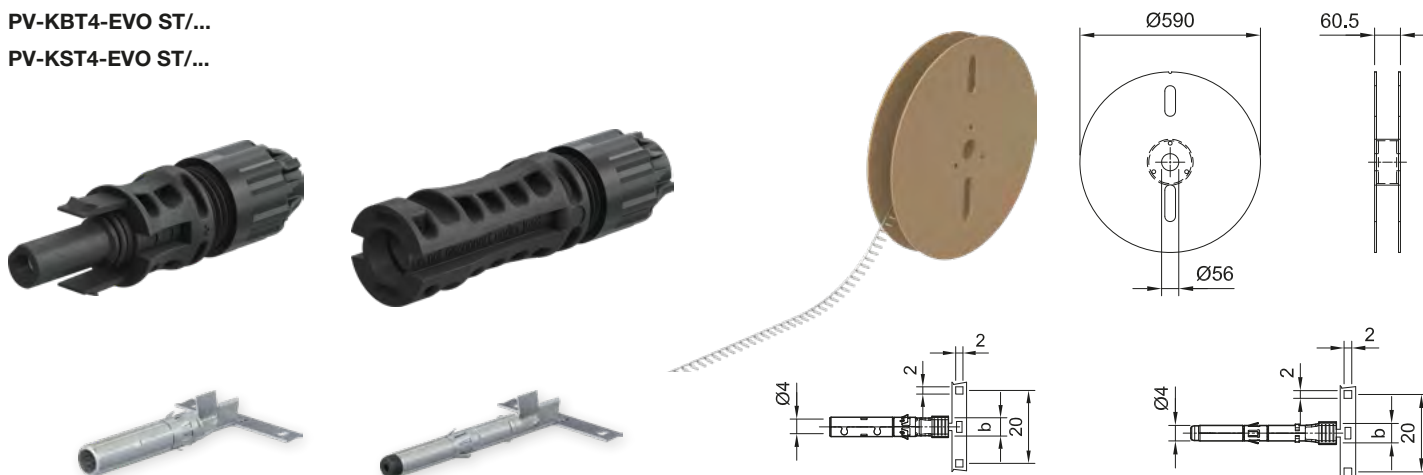
²⁾ The connectors are to be used with USE2 or PV-Wire cables.

Female and male cable coupler MC4-Evo stor

Contacts on carrier band (including insulating part)

PV-KBT4-EVO ST/...

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 b (mm)	Crimping tool	Contacts per reel ²⁾
					mm ²	AWG			
32.0256P2000	PV-KBT4-EVO ST/2.5I	x		A (mm)	2.5	14	4	1)	2000
32.0257P2000	PV-KST4-EVO ST/2.5I		x	4.7 – 6.4					
32.0258P2000	PV-KBT4-EVO ST/2.5X	x		6.1 – 7.3	4; 6	12; 10	5.8	1)	2000
32.0259P2000	PV-KST4-EVO ST/2.5X		x	6.1 – 7.3					
32.0260P2000	PV-KBT4-EVO ST/2.5II	x		6.4 – 8.5	10	8	6.5	1)	2000
32.0261P2000	PV-KST4-EVO ST/2.5II		x	6.4 – 8.5					
32.0262P2000	PV-KBT4-EVO ST/6I	x		4.7 – 6.4	10	8	6.5	1)	1500
32.0263P2000	PV-KST4-EVO ST/6I		x	4.7 – 6.4					
32.0264P2000	PV-KBT4-EVO ST/6X	x		6.1 – 7.3	10	8	6.5	1)	1500
32.0265P2000	PV-KST4-EVO ST/6X		x	6.1 – 7.3					
32.0266P2000	PV-KBT4-EVO ST/6II	x		6.4 – 8.5	10	8	6.5	1)	1500
32.0267P2000	PV-KST4-EVO ST/6II		x	6.4 – 8.5					
32.0268P1500	PV-KBT4-EVO ST/10II	x		6.1 – 7.3	10	8	6.5	1)	1500
32.0269P1500	PV-KST4-EVO ST/10II		x	6.1 – 7.3					
32.0270P1500	PV-KBT4-EVO ST/10X	x		6.1 – 7.3	10	8	6.5	1)	1500
32.0271P1500	PV-KST4-EVO ST/10X		x	6.1 – 7.3					

Note:

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



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

- 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

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	R 60163331 E343181

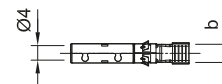
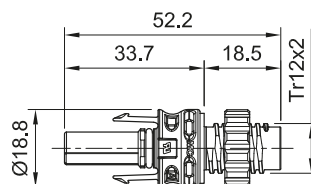
³⁾ Please take the cable to be used from MA297

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

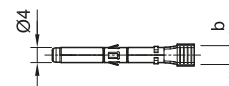
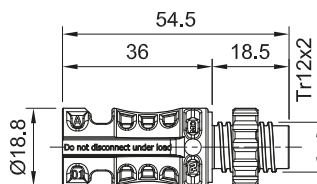
Female and male panel receptacle MC4-Evo stor

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

PV-ADB4-EVO ST/...



PV-ADS4-EVO ST/...



Order No.	Type	Female cable coupler	Male cable coupler	Cross section of conductor		Width of crimp opening b (mm)
				mm ²	AWG	
32.0272P0001	PV-ADB4-EVO ST/2.5	x		2.5	14	4
32.0273P0001	PV-ADS4-EVO ST/2.5		x	2.5	14	4
32.0274P0001	PV-ADB4-EVO ST/6	x		4; 6	12; 10	5.8
32.0275P0001	PV-ADS4-EVO ST/6		x	4; 6	12; 10	5.8
32.0276P0001	PV-ADB4-EVO ST/10	x		10	8	6.5
32.0277P0001	PV-ADS4-EVO ST/10		x	10	8	6.5



Assembly Instructions MA702

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- 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

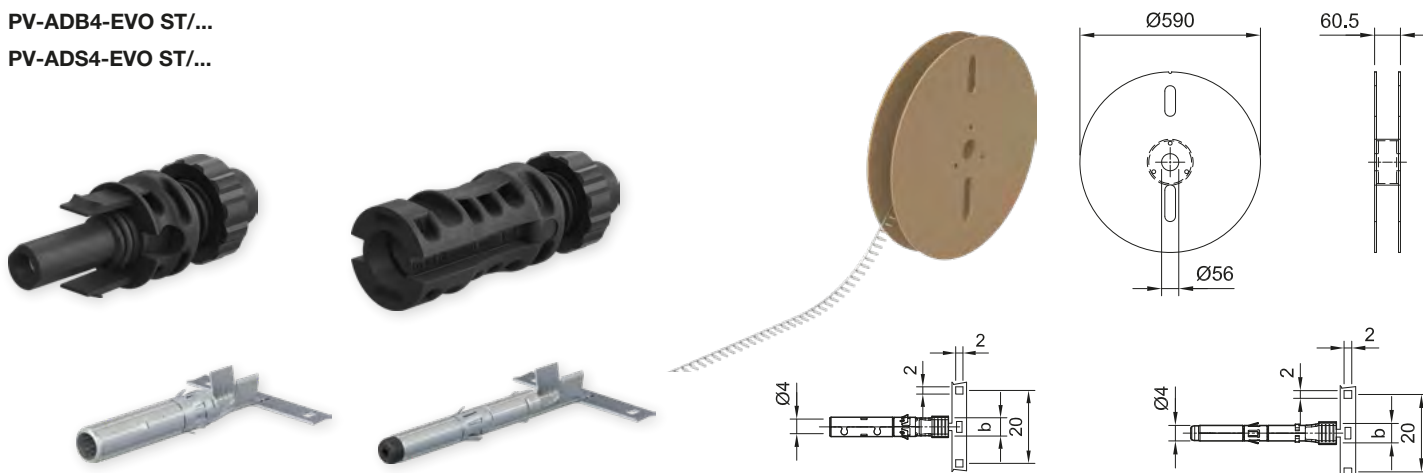
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Rated current UL	30 A (14 AWG) 35 A (12 AWG) 50 A (10 AWG) 70 A (8 AWG)
Rated impulse voltage	16 kV (DC 1500 V)
Ambient temperature range	-40 °C...+85 °C (IEC) -40 °C...+90 °C (UL)
Upper limiting temperature	115 °C
Degree of protection, mated unmated	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	R 60163467
UL-File number	E343181

Female and male panel receptacle MC4-Evo stor

Contacts on carrier band (including insulating part)

PV-ADB4-EVO ST/...

PV-ADS4-EVO ST/...



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



Assembly Instructions MA702

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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

Technical data	
Connector system	Ø 4 mm
Rated voltage	DC 1500 V (IEC 62852:2014+Amd.1:2020) DC 1500 V (UL 6703)
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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	R 60163467
UL-File number	E343181



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