

SMC4 Solar Connector

- Simple on-site processing.
- Accommodates PV cable with different insulation diameters.
- Mating safety provided by keyed housings.
- Multiple plugging and unplugging cycles.
- High current carrying capacity.
- TUV and UL approved.

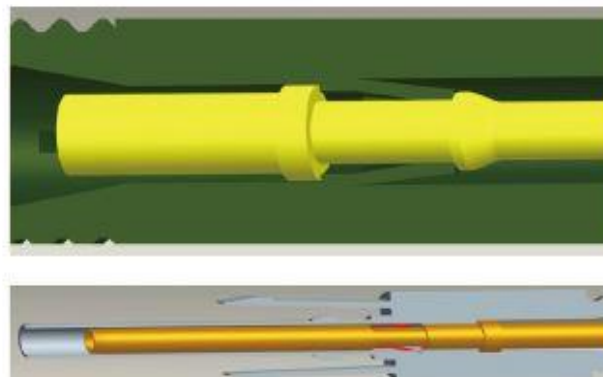
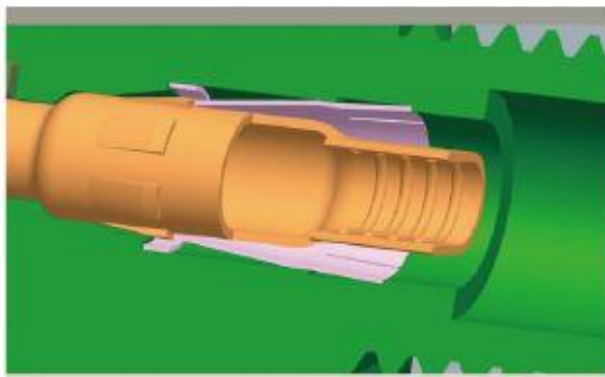


Specifications

Order NO.	Part P/N		Cable	
	Connector	Terminal	Conductor size (mm ²)	Cable OD (ΦDmm)
SMC4-CMMM-14	SMC4-CMMM-H	SMC4-CM-T14	AWG 14(2.5 mm ²)	Φ 4.5-Φ 8.5
SMC4-CMMM-12		SMC4-CM-T12	AWG 12(4.0 mm ²)	
SMC4-CMMM-10		SMC4-CM-T10	AWG 10(6.0 mm ²)	
Order NO.	Part P/N		Cable	
	Connector	Terminal	Conductor size (mm ²)	Cable OD (mm)
SMC4-CFPM-14	SMC4-CFPM-H	SMC4-CF-T14	AWG 14(2.5 mm ²)	Φ 4.5-Φ 8.5
SMC4-CFPM-12		SMC4-CF-T12	AWG 12(4.0 mm ²)	
SMC4-CFPM-10		SMC4-CF-T10	AWG 10(6.0 mm ²)	
Rated current			30A(2.5-6mm ²)	
Rated voltage			1000V DC	
Test voltage			6000V(50Hz, 1min)	
Overvoltage type/pollution degree			CAT III /2	
Contact resistance of plug connector			1mΩ	
Contact material			Copper, Tin-plated	
Insulation material			PPO	
Degree of protection			IP2X/IP67	
Flame class			UL94-V0	
Safety class			II	
Suitable cable			OD 4.5-8.5(2.5-6.0 mm ²)	
Insertion force/withdrawal force			≤50N/≥50N	
Connecting system			Crimp connection	
Temperature range			-40°C - +125°C	

comparison for internal structure

Connectors of other companies

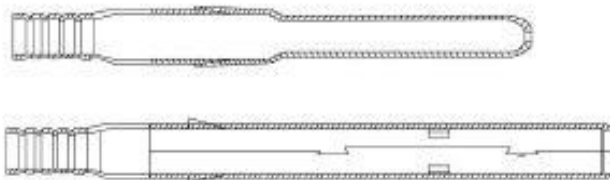


Structure:

Insulator design by forced demoulding. Create a slot (red circle marked) to fix spring by forced demoulding. Using spring to position terminal.

Shortcoming:

- Forced demoulding is not very steady. It can't ensure any products with same performance.
- Maintain force will change between 7–20kgf.
- Must assemble spring. It is to be a risk that sometimes operator will miss the spring.



Process: Stamping, Tin plating

Strongpoint:

- Low cost, high productive capacity.
- It can be continually rivet because of terminal have strip feeder.

Shortcoming

- Material is thin.
- It's easy to deform.
- It will be heat serious in a long time when using.
- It need to solder after riveting to reach pull force 31kgf.



Strongpoint: Simple structure

Shortcoming:

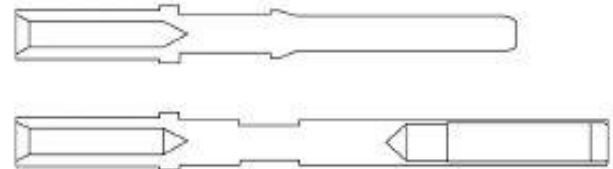
- The thread can't return back when screw open.
- Because of first reason, it can't be reuse.
- The screw is easy to get open.

Structure:

Moulding a fixed structure to replace spring (red circle marked). The fixed structure will be expand when terminal insert into insulator. It will be back to original position when terminal is to correct position and hold to terminal.

Shortcoming:

- All product is with same performance.
- Maintain force is 35kgf Min.
- Cut down the accessories.



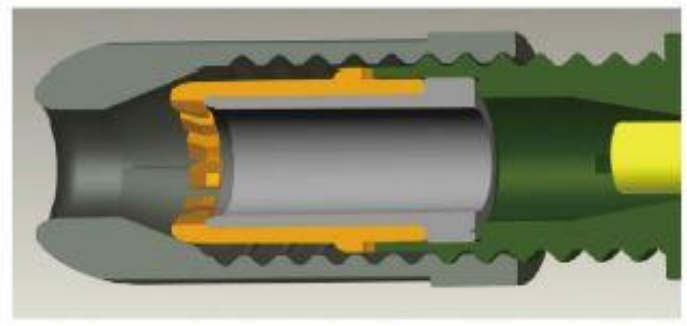
Process: Lathe Machining, Ag plating

Strongpoint:

- High cost, low productive capacity.
- It can't be continually rivet because it's without terminal rail.

Shortcoming

- Material is thin.
- It's easy to deform.
- It will be heat slight in a long time when using.
- Pull force can reach 31kgf after riveting.



Strongpoint: Add a part

Shortcoming:

- The thread can return back when screw open.
- It can be reuse.
- It's with an anti-loosen part, screw is not easy to get open.

Specifications

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SMC3-CMMM-12		SMC3-CM-T12	AWG 12(4.0 mm ²)	
SMC3-CMMM-10		SMC3-CM-T10	AWG 10(6.0 mm ²)	
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SMC3-CFPM-14	SMC3-CFPM-H	SMC3-CF-T14	AWG 14(2.5 mm ²)	Φ4.5-Φ6.5
SMC3-CFPM-12		SMC3-CF-T12	AWG 12(4.0 mm ²)	
SMC3-CFPM-10		SMC3-CF-T10	AWG 10(6.0 mm ²)	
Rated current		30A(2-6mm ²)		
Rated voltage		1000V DC		
Test voltage		6000V(50Hz, 1min)		
Overvoltage type/pollution degree		CAT II /2		
Contact resistant of plug connector		1mΩ		
Contact material		Copper,Tin-plated		
Insulation material		PPO		
Degree of protection		IP2X/IP67		
Flame class		UL94-V0		
Safety class		II		
Suitable cable		OD 4.5-6.5(2.5-6.0 mm ²)		
Insertion force/withdrawal force		≤50N/≥50N		
Connecting system		Crimp connection		
Temperature range		-40°C ~ +90°C		