

Methode Electronics

Power Solutions

The Methode EV Charge Coupler Connector



Electric Vehicle Charge Coupler Connector J1772 AC Level 1 & 2

KEY SPECIFICATIONS:

- Complies with SAE J1772 and meets USR & CNR requirements
- PowerBud [®] patented contact technology proven in excess of 10,000 cycles
- Very low insertion and extraction forces
- Secure squeeze-to-release locking mechanism
- Keyed housing ensures proper mating polarity
- Ergonomic contoured grip makes the connector comfortable and easy to use
- Robust strain relief allows
 flexibility in the cable while
 maintaining a secure attachment
 to the connector
- Very flexible cable, even at low temperatures
- Available in custom molded colors

Specifically designed for electric vehicle charging applications, this charge coupler connector mates with sockets conforming to SAE J1772. This connector incorporates Methode's patented PowerBud® contact technology which insures very low power contact resistance and a lifetime in excess of 10,000 mating-unmating cycles.



PowerBud [®] patented contact technology features highly redundant points of contact, which efficiently conducts a much higher current with low resistance and low insertion force than similar-sized contacts. The cycle life has been proven in excess of 10,000 cycles.



The Methode J1772 connector has the option for an integrated white LED docking light that allows easy location of inlet when charging in the evening or a dimly lit environment.



The ergonomic contoured grip and strain relief make the coupler comfortable and easy to use, while Methode's custom cable remains flexible at low temperatures. Utilizing the PowerBud contact system, it achieves agency recognition up to 40A. The highest in the industry for AC Level 1 & 2 couplers.



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EVSE Connector J1772 AC Level 1 & 2

Electrical Specifications		
Description	Test Condition	Value/Limits
Current Rating	Power Contacts	40A, 300VAC
		32A, 300VAC
		20A, 300VAC
	Cianal Cantacta	16A, 300VAC
I +	Signal Contacts	2A, 12VDC
Interconnect Resistance	Power Contacts	TBD
	Signal Contacts	TBD
Mechanical Specifications		
Description	Test Condition	Value/Limits
Housing	UL 94, 746C	Thermoplastic, V-0, f1
Insertion / Extraction Force		TBD
Environmental Specifications		
Description	Test Condition	Value/Limits
Environmental Rating	UL 2251	35
Temperature Range	Operating	-30°C to +90°C
	Non-operating	-30°C to +90°C
Humidity Range	Operating, non-condensing	10%-90% RH
	Non-operating, non-condensing	5%-93% RH
Altitude	Operating	0 to 2000 meters
	Non-operating	0 to 12,000 meters
Safety and Regulatory Specifications		
Description	Test Condition	Value/Limits
Safety	UL 2251, CSA C22.2 No.182-17	Power: 40A, 300VAC
		32A, 300VAC
		20A, 300VAC
		16A, 300VAC
	UL File E346777	Signal:12VDC, 2 A
Automotive Compatibility	SAE J1772	AC Level 1 & 2
RoHS	IEC Directive 2002/95/EC	< 0.1% Lead (Pb)
	(Restriction of Hazardous	< 0.1% Mercury (Hg)
	Substances Directive)	< 0.01% Cadmium (Cd)
		lexavalent Chromium (Cr [VI])
	< 0.1% Polybrominated Biphenyls (PBB)	
	< 0.1% Polybrominated Diphenyl Ethers (PBDE)	
	< 0.1% Decabromodiphenyl Ether (DecaBDE)	