

2016

EVSE - Electric Vehicle Chargers



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EVSE (Electric Vehicle Supply Equipment) EVCharger Product Catalogue

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What is EVSE? And why does your electric car need it?

EVSE (Electric Vehicle Supply Equipment).

EVSE is a protocol to help keep you and your electric car safe while charging.

Using two-way communication between the charger and car, the correct charging current is set based on the maximum current the charger can provide as well as the maximum current the car can receive.

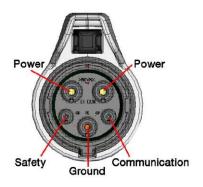
As part of the protocol, a safety lock-out exists, preventing current from flowing when the charger is not connected to the car. It ensures that if a cable is not correctly inserted, power will not flow through it.

EVSE can also detect hardware faults, disconnecting the power and preventing battery damage, electrical shorts or worse still, fire.

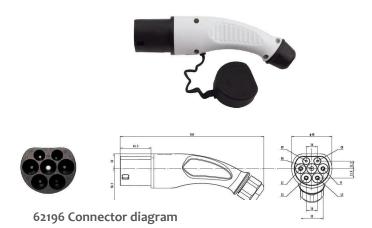
There was a time when electric vehicle owners seeking ultimate connectivity and charging at the highest possible rate would have to manually adjust their car's charger to ensure that only the charger did not pull more power than the circuit the car was charging from.

EVSE eliminates all user interaction beyond plugging the J1772/62196 connector in. The charger takes care of the rest.

[Source: Green Car Reports, N Bloomfield, 2010, http://www.greencarreports.com/news/1050948_what-is-evse-and-why-does-your-electric-car-charger-need-it]



J₁₇₇₂ Connection diagram





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Portable EVSE - EV charger

Type 2 Portable EV charger (PE =Type 2 EVE 62196-2 portable charger)

Model: MB-PE-16A-2 Model: MB-PE-32A-2

Specification:

220 VAC 50Hz/60Hz 16A or 32A

Operating Temperature:-25°C to +50°C

IP Class

In-Cable box: IP 54

Charging connector: IP54

Electrical Standards: IEC 62196

Feature: Real time charging data via LCD display panel





EVE 62196-2 Connector Plug

















Wall (source) Connector Plugs				
Region	Plug Type			
AU / NZ customers	Australian plug, Max 10A			
UK customers	UK BS1363, Max 13A			
EU customers	Schuko, 16A blue CEE plug, Max 16A			
	32A blue CEE plug, Max 32A			
FR customers	NFC 61314 French plug			

Wall side (source) plug: Customize according to different countries and standards:



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Wall mount EVSE - EV charger - Type 1 & Type 2

Model: MB-WB-32A-1 (Type 1) / MB-WB-32A-2 (Type 2) (WB=Wall box)

Wall-mounted EV Charging Station (7.6kW Level-2, indoor)

Input AC voltage: 220 V 10% (198V-242V)
Output AC voltage: 220 V 10% (198V-242V)

Output maximum current: 16A /32 A

Rated power: 7.6KW max

Single Phase

Standard: IEC 62196 / J1772 Rated AC frequency: 50 Hz

Cord Length: 18 feet

Wall-mounted

Protective measures: Earth leakage protection; Lighting strike protection; Surge protection;

Working environment: $-20 \, ^{\circ}\text{C} \sim +50 \, ^{\circ}\text{C}$ 5% $\sim 95\%$ with no condensation Storage environment: $-25 \, ^{\circ}\text{C} \sim +70 \, ^{\circ}\text{C}$ 5% $\sim 95\%$ with no condensation

Enclosure: IP 54







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Cable Type

1	Гуре	Series	Rated voltage	Rated current	Power	Cable size
1	1	MB-EVE-63MP1T/3T	240 / 415V AC	63 Amp	15.1 / 45.3KW	10mm ²
2	2	MB-EVE-32MPZT/3T	240 / 415V AC	32 Amp	7.6 / 22.8KW	6mm²
3	3	MB-EVE-16MPZT/3T	240 / 415V AC	16 Amp	3.8 / 11.5KW	2.5mm ²

Use the cable type above (1, 2 or 3) when making product selections.



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62196-2 Male Plug (most Australian models)

Model: MB-EVE-XMP--YC--ZT

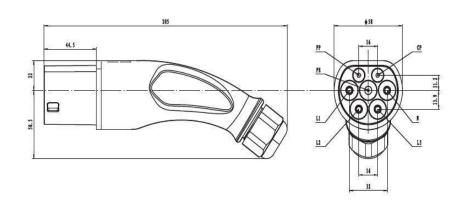
EVE=European standards / type 2, X=Amps, Y=cable length, MP= Male plug, C=Cable, ZT=phase, 1T=single phase, 3T= three phase

Example MB-EVE-32MP-32BLK-1T (32A EVE plug, 3 metre Black type 2 cable, single phase)

- IP54 Rated Ergonomic Pistol Grip Style
- Impact Resistant (resists vehicle roll over)
- 10,000 Mating Cycles
- Cable Strain Relief Feature
- Insulated Terminal Design
- Single and 3 Phase Cable
- Dust Cap on Lanyard
- High Visibility Orange or Black Cable
- Custom Options on Cable Length and Colour
- CE & TUV Approved









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J1772 Plug

Model: MB-EVA-XP-YC

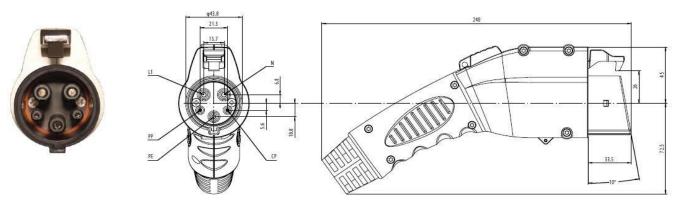
EVA=American standards /Type 1, X=Amps, Y=cable length, P=plug, C=Cable

Example: Model MB-EVE-32MP-32BLK-1T (32A EVA plug, 3 metre Black type 2 cable, single phase)

- Meet SAE J1772 2009 (Type 1) North American standard, UL Rated
- IP54 Rated Ergonomic Pistol Grip Style
- Impact Resistant 'Run Over' Proof
- 10,000 Mating Cycles
- Cable Strain Relief Feature
- Insulated Terminal Design
- Locking Feature for Padlock
- · Dust Cap on Lanyard
- Custom Options on Cable Length and colour
- CE & UL Approved









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J1772 to 62196-2 Female to Male Plug cable

Model: MB-EVAE-XP-YC

EVAE=American standards to European standards /Type 1 to type 2, X=Amps, Y=cable

length, P=plug, C=Cable

Model: MB-EVAE-32P-32ORANGE (Type 1 to type 2, 32A plug, 3 metre Orange type 2 cable) Model: MB-EVEA-32P-32ORANGE (Type 2 to type 1, 32A plug, 3 metre Orange type 2 cable)

- IP54 Rated Ergonomic Pistol Grip Style
- Impact Resistant 'Run Over' Proof
- 10,000 Mating Cycles
- Cable Strain Relief Feature
- Insulated Terminal Design
- J1772 Locking Feature for Padlock
- Dust Cap on Lanyard
- High Visibility Orange Or Black Cable
- Custom Options on Cable Length and Col
- CE & UL Approved
- Cable Colour Option: Orange or black





Model: MB-EVAE-XP-YC Cable Type

Туре	Model	Cable Spec.	Colour	Remark	
1	MB-EVAE-16P-YC	3*2.5mm2+2*0.5mm2	Black Or Orange	The length of the cable can be	
2	MB-EVAE-32P-YC	3*6.0mm2+2*0.5mm2	Black Or Orange	customized	







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62196-2 Male Plug + Cable

Model: MB-EVE-XMP--YC--ZT

EVE=European standards /type 2, X=Amps, Y=cable length, MP= Male plug, C=Cable,

ZT=phase, 1T= single phase, 3T= three phase

Example: Model MB-EVE-32MP-52-1T (32Amp male type 2 plug, 5 metre cable length, Type 2 cable, single phase)



Туре	MB-EVE-XMPYCZT	Mating Force	≤80N
Colour	White	Mating Cycles	≥10000
Rated Current	16A/ 32A/ 63A	Flame Retardant	UL94 V-0
Rated Voltage	240V	IP Rating	IP54
Test Voltage	2000V	Operating Temperature	-30C to 60C



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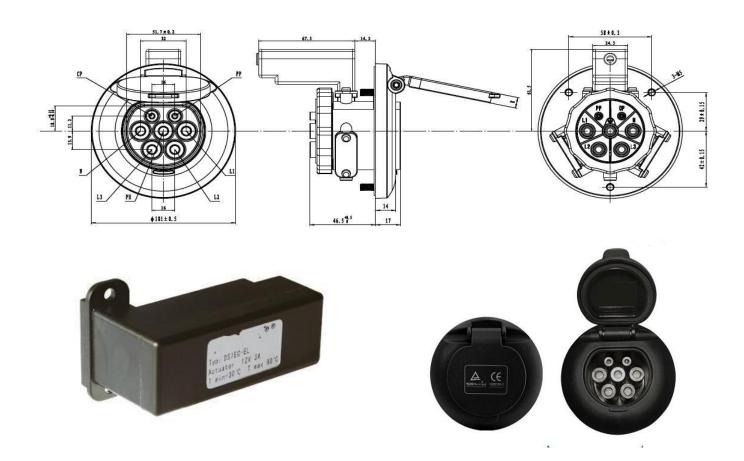
62196 Female socket

Model: MB-EVE-XFS--YC--ZT--EL

EVE=European standards /type 2, X=Amps, Y=cable length, FS= Female socket, C=Cable, ZT=phase, 1T= single phase, 3T= three phase, EL=electronic lock

Example: Model MB-EVE-32FS-32-1T-EL (Type 2, 32 amp female socket, 3 meter type 2 cable, single phase)

- 3 Point Fixing
- Water Drain
- Hinged Lid
- can work with Electronic Locking Solenoid with Manual Override
- Solenoid Fixing options, Vertical, 120° or 240°
- Single and 3 Phase





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