

EV Charger

User Manual



Important Safety Instructions Related To Risk of Fire or Electric Shock

WARNING: When working with electrical products, basic precautions should always be followed. This manual contains important instructions for MES-EV-LH-DG80-01, MES-EV-LH-DG48-01, MES-EV-LH-DG40-01, MES-EV-LH-SG80-01 models, and needs to be observed during installing, operating and maintaining.

1. Please read all instructions before using this product.
2. Use of this device around children should be done under supervision.
3. Do not stick your fingers into the EV connector.
4. Do not use this product if the flexible power cord or scooter cable is frayed, has torn insulation, or has any other damage.
5. Do not use this product if the housing or EV connector is broken, cracked, open, or otherwise damaged.
6. Indicate the ambient temperature grade: -30°C to 55°C.
7. Note the following or something similar: "To reduce the risk of fire, connect to a circuit providing the following function". @ampere's maximum branch circuit overcurrent protection shall be in accordance with the National Electrical Code ANSI/NFPA 70, and Canadian Electrical Code Part 1 C22.1.
8. Disconnecting Means. For equipment rated more than 60 amperes or more than 150 volts to ground, the disconnecting means shall be provided and installed in a readily accessible location. The disconnecting means shall be lockable open in accordance with 110.25.

Instructions de sécurité importantes relatives au risque d'incendie ou de choc électrique

AVERTISSEMENT : lors de l'utilisation d'appareils électriques, il convient de toujours respecter les mesures de sécurité élémentaires. Ce manuel contient des instructions importantes concernant les modèles MES-EV-LH-DG80-01, MES-EV-LH-DG48-01, MES-EV-LH-DG40-01, MES-EV-LH-SG80-01, qui doivent être respectées lors de l'installation, de l'utilisation et de l'entretien.

- 1) Veuillez lire toutes les instructions avant d'utiliser ce produit.
2. L'utilisation de cet appareil en présence d'enfants doit se faire sous surveillance.
3. Ne mettez pas vos doigts dans le connecteur EV.
4. n'utilisez pas ce produit si le cordon d'alimentation flexible ou le câble du scooter est effiloché, si l'isolation est déchirée ou s'il est endommagé de quelque manière que ce soit.
5. n'utilisez pas ce produit si le boîtier ou le connecteur EV est cassé, fissuré, ouvert ou autrement endommagé.
6. Indiquer la température ambiante : -30°C à 55°C.
7. notez la mention suivante ou une mention similaire : "Pour réduire le risque d'incendie, branchez l'appareil sur un circuit assurant la fonction suivante". La protection maximale contre les surintensités du circuit de dérivation de @ampere doit être conforme au Code national de l'électricité ANSI/NFPA 70 et au Code canadien de l'électricité, partie 1 C22.1.NFPA 70, and Canadian Electrical Code Part 1 C22.1.
8. Dispositifs de coupure. Pour les équipements d'une intensité nominale supérieure à 60 ampères ou d'une tension nominale à la terre supérieure à 150 volts, des dispositifs de coupure doivent être prévus et installés dans un emplacement facilement accessible. Ces dispositifs de coupure doivent pouvoir être verrouillés en position ouverte, conformément à l'article 110.25 du NEC.

SAVE THESE INSTRUCTIONS

CONSERVER CES INSTRUCTIONS

Instrucciones de seguridad importantes relacionadas con el riesgo de incendio o descarga eléctrica

ADVERTENCIA: Al trabajar con productos eléctricos, se deben seguir siempre las precauciones básicas. Este manual contiene instrucciones importantes para los modelos MES-EV-LH-DG80-01, MES-EV-LH-DG48-01, MES-EV-LH-DG40-01, MES-EV-LH-SG80-01, y debe respetarse durante la instalación, el funcionamiento y el mantenimiento.

1. Lea todas las instrucciones antes de utilizar este producto.

2. El uso de este aparato cerca de niños debe hacerse bajo supervisión.

3. No introduzca los dedos en el conector EV.

4. No utilice este producto si el cable de alimentación flexible o el cable del scooter están deshilachados, tienen el aislamiento roto o presentan cualquier otro daño.

5. No utilice este producto si la carcasa o el conector EV están rotos, agrietados, abiertos o presentan cualquier otro daño.

6. Indique el grado de temperatura ambiente: -30°C a 55°C.

7. Anote lo siguiente o algo similar: "Para reducir el riesgo de incendio, conecte a un circuito que cumpla la siguiente función". La protección máxima contra sobretensiones del circuito derivado de @ampere deberá ser conforme al Código Eléctrico Nacional ANSI/NFPA 70, y al Código Eléctrico Canadiense Parte 1 C22.1.

8. Medios de desconexión. En el caso de equipos con una intensidad nominal superior a 60 amperios o una tensión nominal a tierra superior a 150 voltios, se instalarán medios de desconexión en un lugar fácilmente accesible. Los medios de desconexión deberán poder bloquearse en posición abierta, de conformidad con el art. 110.25 del NEC.

GUARDE ESTAS INSTRUCCIONES

CONTENTS

Abbreviations 1

Safety Instructions 2

Standard 3

 Safety Standard 3

 Radio Frequency Standard 3

 Energy Star Standard 3

 Charging Connections 3

1 Product Information 4

 1.1 Type 4

 1.1.1 Shape and Size 4

 1.1.2 Block Diagram 5

 1.2 Cable Holder and Hook 6

 1.3 Model definition 7

 1.4 Specifications 10

2 Operations 12

 2.1 Power Switch 12

 2.2 About the Interface 12

3 Function Introduction 13

 3.1 User Interface & Control 13

 3.2 Configure the Network 18

 3.3 Operation Guide 18

 3.4 Troubleshooting 20

4 Product Installation 21

 4.1 Labels 21

 4.2 Packing List 22

 4.3 Check and Confirm 22

 4.4 Preparation 22

 4.5 Wall Mount Installation 24

 4.6 Maintenance 28

Warranty Agreement 28

Abbreviations

S/N	Abbreviations	Description
1	EV/PHEV	Electric vehicles, either BEV (battery electric vehicles) or PHEV (plug-in hybrid electric vehicles)
2	EVSE	Electric vehicle supply equipment
3	kW	Kilowatt
4	A	Ampere (unit of current)
5	V	Volts (unit of voltage)
6	Hz	Hertz (unit of frequency)
7	RFID	Radio frequency identification

Safety Instructions

In this manual, the following warning labels and precautions are used on AC EV Chargers:

WARNING

For use with Electric Vehicles.

Ventilation Not Required.

To avoid a risk of fire or electric shock, do not use this device with an extension cord.

This device is intended only for charging vehicles not requiring ventilation during charging.

THE SUITABILITY OF THE USE OF FLEXIBLE CORD IN ACCORDANCE WITH CE CODE, PART I

CAUTION

To reduce the risk of electric shock, connect only to properly grounded outlets.

Do not use this product if there is any damage to the unit.

Risk of electric shock. Do not remove cover or attempt to open the enclosure. No user serviceable parts inside. Refer servicing to qualified service personnel.

If the temperature $\geq 50^{\circ}\text{C}$

Hot surfaces – To reduce the risk of burns – Do not touch



AVERTISSEMENT

Pour utilisation avec des véhicules électriques
Aucune ventilation requise

Pour réduire le risque de choc électrique ou d'incendie, ne pas utiliser de rallonge avec cet appareil

Ce dispositif est destiné au chargement des véhicules ne nécessitant pas de ventilation au cours du chargement

LA PERTINENCE DE

L'UTILISATION DE CORDONS FLEXIBLES

SELON LE CODE CE, PREMIERE PARTIE.

ATTENTION

Pour réduire le risque de choc électrique, brancher sur une prise correctement mise à la terre

Ne pas utiliser ce produit si l'appareil est endommagé

Risque de choc électrique. Ne pas retirer le couvercle ni essayer d'ouvrir le boîtier. Aucune pièce interne réparable par l'utilisateur. Confier tout travail d'entretien ou de réparation à un technicien qualifié.

Si la température est $\geq 50^{\circ}\text{C}$

Surfaces chaudes – Pour réduire le risque de brûlures – Ne pas toucher



ADVERTENCIA

Para uso con vehículos eléctricos

No requiere ventilación

Para evitar un riesgo de incendio o choque eléctrico, no utilice este aparato con una extensión

Este dispositivo se destina únicamente para cargar vehículos que no requieren ventilación durante la carga

PRECAUCIÓN

Para reducir el riesgo de choque eléctrico, conectar únicamente a salidas puestas a tierra correctamente

No utilizar este producto si existe algún daño en la unidad

Riesgo de choque eléctrico. No quitar la cubierta ni intentar abrir el envoltente. En el interior existen partes que no pueden repararse por el usuario. Referirse a personal de mantenimiento calificado

Si la temperatura es $\geq 50^{\circ}\text{C}$

Superficies calientes: para reducir el riesgo de quemaduras, no tocar.



Standards

► Safety Standard

Complies with UL 2594 UL 2231 UL 1998 UL991

► Radio Frequency Standard

47CFR Part 15 (2020)

ANSI C63.4 (2014)

ICES-003 Issue 7: October 2020+

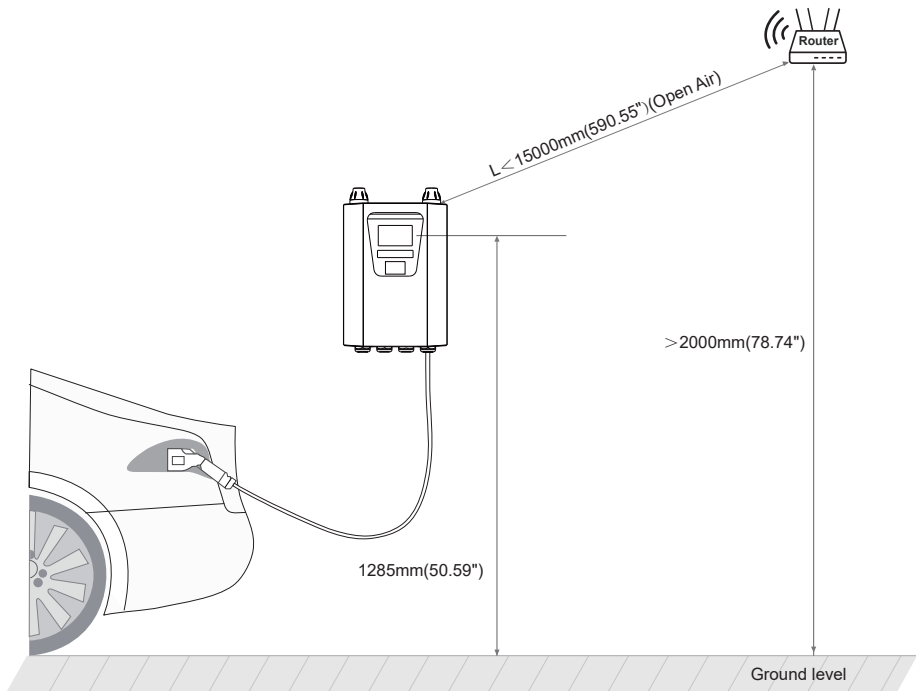
► Energy Star Standard.

ENERGY STAR® Program Requirements for Electric Vehicle Supply Equipment (EVSE) Version 1.0, 1.1 and 1.2

► Prerequisites for router signal:

Before installation, always check your specific EV charger's manual for exact distance requirements and ensure the location has strong Wi-Fi signal strength for optimal smart features as following:

- Ensure the distance between the router and the charger itself is less than 15M.
- Ensure there are no physical barriers or sources of signal interference between the charger(s) and the wireless router.
- Ensure the charger's connections do not surpass the 2.4Ghz wireless router's maximum client capacity.(Log in to the router's management interface to check.)



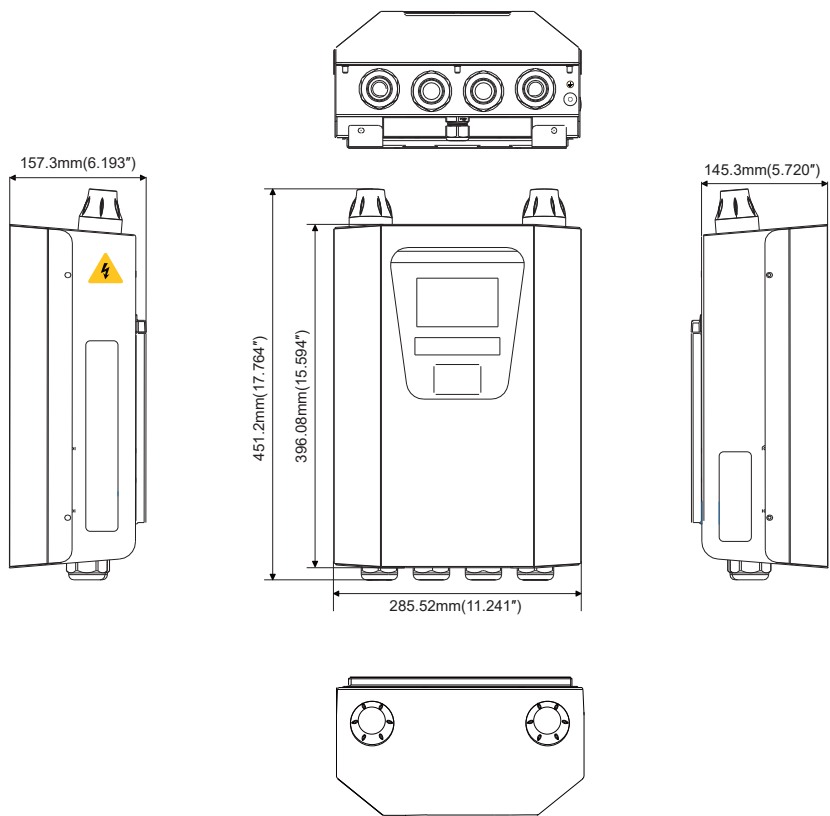
1 Product Information

1.1 Type

Welcome to our AC EVSE

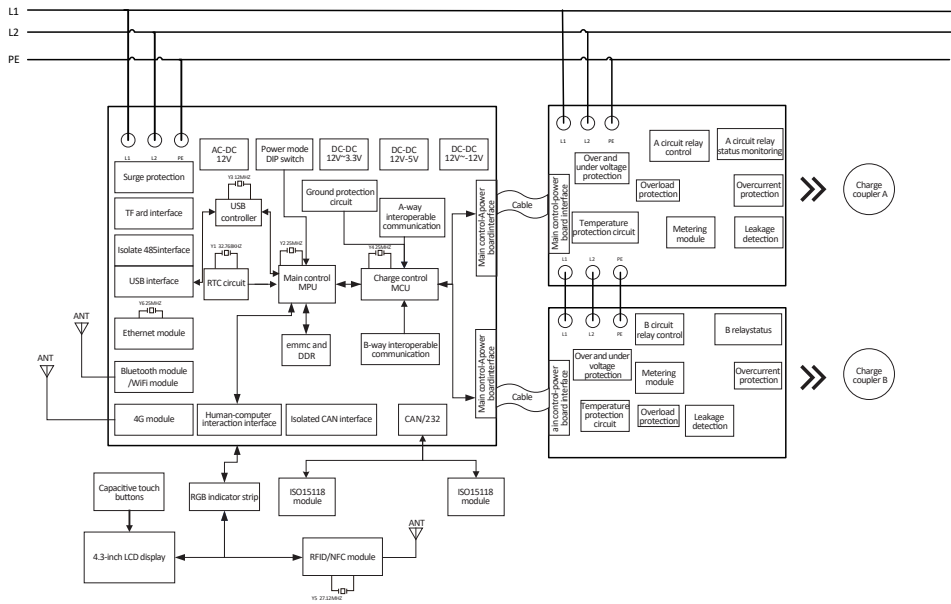
1.1.1 Shape and Size

The shape and size of the AC EVSE is shown in the figure below:



1 Block Diagram

The block diagram of EVSE is as follows:.

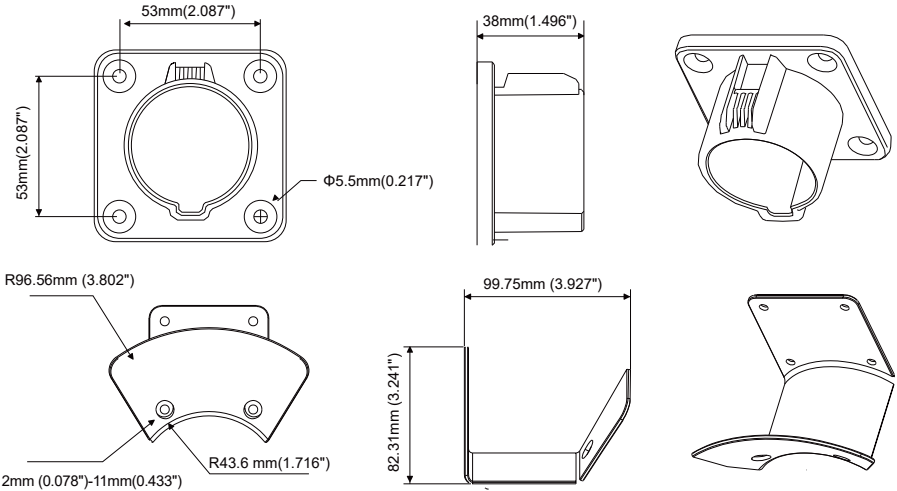


1.2 Cable Holder and Hook

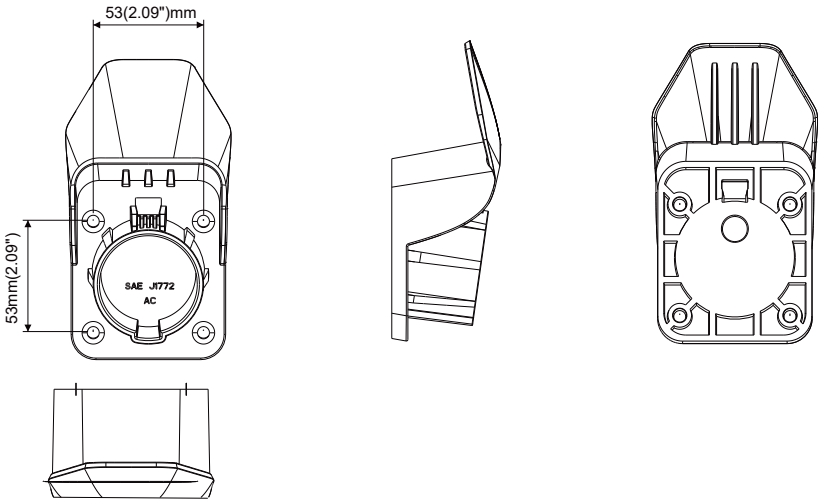
- ▷ The AC EVSE is equipped with an American standard car-side charging connector.
- ▷ When the EVSE is in standby mode, insert the car end charging connector into an empty seat to protect the car end charging connector.

Use the mounting screws to fix this empty socket in place next to the EVSE.

Optional 1



Optional 2



3 Specification

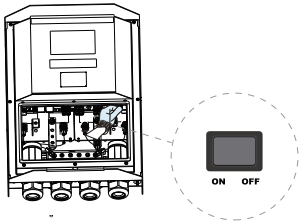
American Standard AC EV Charger Series							
Category	Specifications & Parameters						Optional
	Model	Rated input/output voltage	Rated input current	Rated output current	Max power	Charge Coupler	
Power Specification	MES-EV-LH-SG80-01	Level 2, 208/240VAC 50/60Hz	80A	80A	19.2kW	SAE J1772 /NACS 80A	Optional
	MES-EV-LH-DG40-01	Level 2, 208/240VAC. 50/60Hz	80A	2*40A	2*9.6kW	SAE J1772 /NACS 40A	Optional
	MES-EV-LH-DG48-01	Level 2, 208/240VAC 50/60Hz	96A	2*48A	2*11.52kW	SAE J1772 /NACS 48A	Optional
	MES-EV-LH-DG80-01	Level 2, 208/240VAC 50/60Hz	160A	2*80A Load Balancing	38.4kW	SAE J1772 /NACS 80A	Optional
Power Wiring	Hardwired via pigtail : L1/L2/GND						
Communication	LAN (RJ-45)						
	USB (type A)						
	4G cat. 4						
	WiFi 2.4G						
	BLE 5.0						
	1*USB(Type A) for upgrade firmware.1*USB(Type A) for POS						
	CAN						Optional
System	Linux+UCOS						
OCPP Version	OCPP 2.0.1						
User Interface & Control	LCD Screen Size:4.3-inch;/pixels resolution:800*480/262K colors/Brightness:900nit / No touch function						
	RGB LED light bar						
	Capacitive touch buttons						
	Power option switch						
Charging mode	RFID						
	Credit Card Reader POS(Optional)						Optional
	QR Code /APP						Optional
	ISO 15118						Optional
Meter	On-board power meter Measurement error accuracy less than 1%						Optional

Memory	Flash (4/8GB),DDR(1GB)	Optional
	TF card memory expansion	Optional
Real Time Clock	Supercapacitor	
Safely	CCID20	
	Over voltage protection	
	Under voltage protection	
	Over-current protection	
	Over load protection	
	Ground protection	
	Over-temp protection	
	Surge protection 6 kV @ 3,000A	
	Fault self-test	
Environmental	Enclosure Protection: Type 4, IK08	
	Operating Temperature: -30 ~ 55℃	
	Storage Temperature: -40 ~ 75℃	
	Humidity: Up to 95%, non-condensing	
	Altitude: <2000m	
	Cooling Method: Natural Cooling	
Structure	Net Weight: MES-EV-LH-SG80-01(10.29kg) MES-EV-LH-DG40-01(11.29kg) MES-EV-LH-DG48-01(16kg) MES-EV-LH-DG80-01(18.29kg) [Weight based on 25ft cable length]	
	Product Outline Size: 451.2(17.764")mm*285.52(11.241")mm*157.3(6.193")mm	
	Cable Length:25ft or Customization	
Certificate	Safety Regulations:ETL (UL2231 UL2594 UL1998 UL991)	
	Metering & Billing:CTEP	
	Energy Efficiency:Energy Star	
	Wireless Certificate:FCC/IC	
Warranty	2 year	

2 Operations

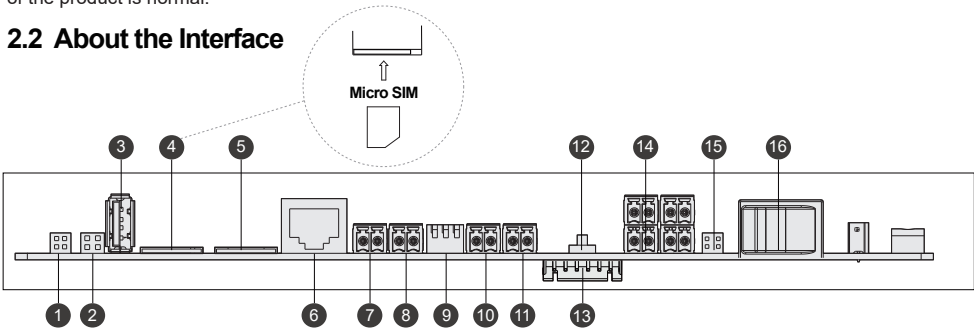
2.1 Power Switch

1. Check and make sure the mainboard power switch is off and that the fuse is there and installed. As shown below.



2. Turn on the power to this product, turn on the power switch on the mainboard; observe whether the boot interface of the product is normal.

2.2 About the Interface



NO.	Name	Function	Specification
1	Charge coupler A meter PF pulse output port.	Power pulse signal output interface	
2	4G Test Interface	Signaling test for 4G module	
3	POS interface	Pay by credit card	
4	SIM card interface	Internet connection	4G Micro SIM
5	TF Interface	TF card interface	Micro SD
6	Ethernet Interface	100M ethernet network	
7	Charge coupler A line Interface	CP signal, temperature signal, CC signal and power supply	
8	Charge coupler A 12V	Tesla Charge coupler power and temperature sampling	
9	Power mode selection	Refer power mode setup instructions	
10	Charge coupler B line Interface	CP signal, temperature signal, CC signal and power supply	
11	Charge coupler B 12V	Tesla Charge coupler power and temperature sampling	
12	Reset button	Debug port	
13	Download Interface	Press the button for 5 seconds to clear WiFi SSID and Press the button for 10 seconds for factory recovery	Firmware burn-in port
14	485 Interface	M-bus protocol	
15	Charge coupler B meter PF pulse output port	Power pulse signal output interface	
16	Power switch	Charging pile control power switch	

Charging with dual pot version MES-EV-LH-DG80-01/MES-EV-LH-DG48-01/MES-EV-LH-DG40-01 updates the rated current according to the DIP switch status, no reboot required

	 1 2 3 ▼ ON	 1 2 3 ▼ ON	 1 2 3 ▼ ON	 1 2 3 ▼ ON	 1 2 3 ▼ ON	 1 2 3 ▼ ON	 1 2 3 ▼ ON	 1 2 3 ▼ ON
MES-EV-LH-DG80-01					48A+48A	60A+60A	1*80A / 40A+40A	80A+80A
MES-EV-LH-DG48-01	16A+16A	24A+24A	32A+32A	40A+40A	48A+48A			
MES-EV-LH-DG40-01					40A+40A			

Charging with single pot version MES-EV-LH-SG80-01 updates the rated current according to the DIP switch status, no reboot required

	 1 2 3 ▼ ON	 1 2 3 ▼ ON	 1 2 3 ▼ ON	 1 2 3 ▼ ON	 1 2 3 ▼ ON	 1 2 3 ▼ ON	 1 2 3 ▼ ON	 1 2 3 ▼ ON
MES-EV-LH-SG80-01	16A	24A	32A	40A	48A	60A	80A	80A

EV Charging stations are considered continuous loads per the NEC because they are able to pull maximum current for > 3 Hours.

(Replace "breakers" with "a 60 Amp branch circuit is required.")

(editors note: A branch circuit is the rating of both the breaker AND the wire ampacity.)

Circuit breaker (amps)	Max output (amps)	Power output at 240 volts (kW)
200/2*100	2*80	38.4
100	80	19.2
75	60	14.4
60	48	11.5
50	40	9.6
40	32	7.6
30	24	5.7
20	16	3.8

3 Function Introduction

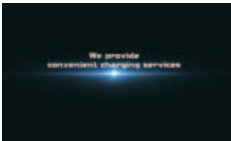
3.1 User Interface & Control



1. The electrical parameters are displayed in the upper left corner of the status bar. The order from left to right is: charging power, voltage level, and rated current.

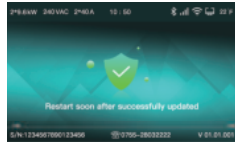
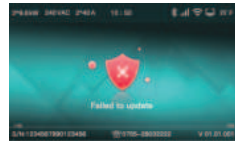
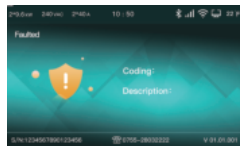
Charging power is calculated by multiplying the grid voltage and the rated current. The voltage level is automatically detected as "208VAC" or "240VAC" when turned on. The rated current can be set by dial switch. For details on dial settings, please refer to the interface introduction and instructions.

2. The upper right corner of the status bar displays network communication parameters. From left to right, there are Bluetooth, 4G, WIFI, Ethernet, and Fahrenheit icons in the charger. The Bluetooth icon only appears when the Bluetooth module is installed. If the 4G module is not installed, it will be a gray low-light icon. If the 4G module is installed normally, it will be a white high-light icon. If there is no connection, WIFI is a gray low-light icon. When WIFI is correctly set up and successfully connected, WIFI is a white high-light icon. If communication with the router is not established, Ethernet is a gray low-light icon, and when successfully established, a white high-light icon appears. The temperature inside the pile has a white highlight icon, it is dynamic, and it is displayed in degrees Fahrenheit.
3. This language switching prompt is unique to the "Ready" interface. When you touch the button below, you can switch between English and Spanish. Currently, these are the only two languages available.
4. Status prompts vary as per different language and different status.
5. The operation status of charge coupler A is displayed on the left, and the operation status of charge coupler B is displayed on the right. After swiping the card, the user can choose which charge coupler to activate for operation through the touch button at the bottom of the screen.
6. The main interface displays different content under each status.
7. Charging pile SN code - a unique code assigned at the time of shipment. The client can modify it through the server, and the uniqueness after modification is not guaranteed.
8. After-sales service phone number.
9. Software Version No.

Status	LED Description		Current Status Interactive Functions
Power On	After the red, green and blue colors flash once, yellow slow flash twice		No operation is recommended.
Available	Green always on		1. Enter to the available page after the bootup finished; 2. Touch the left and right keys to switch A and B cable languages respectively; 3. If there is no operation, the screen brightness will drop to 50% after 3 minutes; 4. There is cable insertion, card tapping platform interactive action screen and press any key brightness is 100%.
Charge Coupler Selection (Unplugged)	Green flash		1. If you tap the card in standby mode without plugging the cable, you will enter the cable selection (unplugged) interface; 2. Touch the left and right buttons to select A and B cables respectively, and enter the cable insertion interface after selection.
Charge Coupler Selection (Plugged)	Green flash		1. If you tap the card in standby mode with plugging the cable, you will enter the cable selection (plugged) interface; 2. Touch the left and right buttons to select A and B cables respectively, and enter the vehicle not ready interface after selection.

Connect the Charge Coupler to the Vehicle	Green flash		1. When a cable is not plugged in the standby state, and the user selects the cable for charging by tapping the card, APP activation, platform activation, etc. it jumps to the page that prompts the cable to be plugged; 2. The interface will stay for 1 minute, if the user does not insert the plug within 1 minute, it will return to the standby mode.
Vehicle not Ready	Blue slow flash		1. After inserting the coupler and charging, the S2 switch inside the car is not closed, and it is not ready for charging, will jumps to the car not ready page; 2. Enter the charging page when the car is ready; 3. If you unplug the charging cable at this time, the screen will return to the standby page.
Charging	Blue is always on		1. Enter the charging settlement page after successfully starting charging; 2. You'll be prompted to select a cable after the card is tapped; 3. Enter the charging completion interface after APP or platform stops charging; 4. Return to standby page with plugging out the cable.
Charging (Busy Electric Piles)	Blue is always on		1. After the charging is completed normally, enter the charging completion settlement page; 2. Unplug the charging cable or wait 1 minute to return to the standby page.
Complete	Purple is always on		1. After the charging is completed normally, enter the charging completion settlement page; 2. Unplug the charging cable to return to the standby page.
Fault Causes Charging to Stop	Unrecoverable fault: red is always on Recoverable fault: slow flashing red		1. If an abnormality occurs in the charging state, jump to the fault prompt page; 2. Return to standby page after unplugging charging cable.

Charge Coupler Disconnected	Purple slow flash		1. The plug is abnormally loose in the charging state, jumping to abnormal settlement page; 2. Hold for 1 minute and return to the standby page.
Reserved	Green slow flash		1. The user selects the electric pile in the APP, and enters the reserved page after operating the scheduled charging; 2. Only reserved users can start charging; 3. When non-reserved users start charging, it will prompt that the electric pile has been reserved; 4. After the scheduled time is exceeded, if the customer is not present for use, it will automatically return to the standby page.
Reminder to be Reserved	Green slow flash		1. Plugging in the cable in the booked state will prompt the device number have been booked; 2. The prompt disappears after unplugging the cable.
Charge Coupler Failure	Unrecoverable fault: red is always on Recoverable fault: slow flashing red		1. Pile body abnormality occurs in charging pile in non-charging state, jumping to the system fault interface; 2. Return to the standby page after the fault is resolved.
Out of Service	Yellow always on		1. In the standby state, will enter to out of service state when receive "stop use" command from the server; 2. Return to the standby state when receive "recover to use" command from server.

System Update	Yellow slow flash		1. Perform remote OTA in standby state, it will enter the upgrade page; 2. When the download is complete and the verification is successful, it will enter the upgrade success state; 3. During the download process, if the network is disconnected or the verification fails after the download is complete, it will enter to upgrade failure state; 4. After the upgrade is complete, the firmware version number in the bottom right corner will be updated.
System Update Succeeded	Yellow slow flash		1. After the update is successful, jump to the upgrade success page; 2. Wait for the device to reboot automatically, do not reboot manually.
System Update Failed	Red slow flash		1. If the upgrade fails, enter the upgrade failure prompt page; 2. Wait for 10 seconds and return to the state before the firmware upgrade.
System Fault	Unrecoverable fault: steady red Recoverable fault: slow flashing red		1. Pile body abnormality occurs in charging pile in non-charging state, jumping to the system fault interface; 2. Return to the standby page after the fault is resolved.

3.2 Configure WIFI Network

Follow the steps below to configure the Wi-Fi network settings for your EV charger (applicable to both mobile phones and computers):

Step 1: Connect to the EV Charger Hotspot

- Power on the EV charger. After successful startup, it will broadcast a Wi-Fi hotspot starting with "SN".
- On your mobile phone or computer's Wi-Fi settings, locate and select the hotspot beginning with "SN".
- If the hotspot is not found, try restarting the EV charger or waiting a moment (maximum wait time is 5 minutes).

Step 2: Access the Configuration Interface

- Once connected:
- Open a web browser (Chrome or Edge recommended).
- Enter the IP address "192.168.88.206" into the browser address bar and press Enter.
- On the login page, enter:
Username: "user"
Password: Locate the four-digit password on the product label of your EV charger.
- Click Login.

Step 3: Configure Target Wi-Fi Network

- After successful login, click on "Networking Setting" in the menu.
- Find the WiFi SSID setting field on the configuration page.
- Select or enter the name (SSID) of your target home/office Wi-Fi network.
- In the WiFi Password setting field, enter the correct password for this target network.
- Click the "Save" button.
- Upon successfully saving, the EV charger will attempt to connect to your configured target Wi-Fi network.

3.3 Operation Guide

1. Charging Preparation:

A. Find the available EV charger: Product, park the car, turn off the vehicle, and make the electric car in a chargeable state.



B. If choosing to use the APP: You can download the APP according to the prompts, and register an account according to the prompts.



C. If choosing to use the an RFID card: Contact the operator to obtain an RFID card; the Residential Charger is equipped with an RFID card in the box.



2. To Connect The Charging Connector

Open the cover of the car charging socket, and connect the charging cable to the car socket . Make sure the connection is successful.



3. Start Charging

A. Plug and charge

The charging mode is configured as plug and charge, when step 2 is completed, the car is ready to start charging.



B. Tap card to start

Put the RFID card close to the card-tapping. Select the charging cable to be activated according to the prompts to start charging, after the charging process taps the card again, selecting the corresponding charging cable will end the charging.



C. APP start and stop

Use the APP to scan the QR code, select the charging cable number according to APP prompts, start charging, and after charging, click to stop charging according to the APP prompts.



4. Charging:

During the charging process, the EV charger screen will display the charging voltage, charging current, charging time.

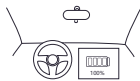


5. End Charging:

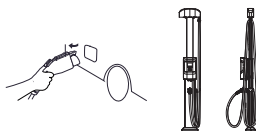
A. Through charging, the car owner can take initiative to end the charging, plug-and-play charging situation can be stopped through the car terminal; To start by tapping the card, you can stop by selecting the corresponding charging charge coupler after tapping the card; APP startup can be controlled and stopped in APP.



B. After the car is fully charged and the charging current is less than 1A for 15 minutes, the pile will automatically stop charging.

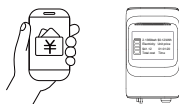


C. After the charging is completed, please pull out the charging coupler and put it back to the empty coupler-holder and hang the cables back on the hook.



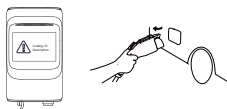
6. Order Settlement:

After the charging is completed, the display screen will display the charging power and charging cost. The order settlement will be completed on the APP or plat form.



7. Abnormal Situation:

In any state, if there is abnormal prompt on the screen and the light bar, please stop charging and disconnect the charging cable from the socket on the car.



3.4 Troubleshooting

When a fault occurs, the charger will automatically protect. The fault information and processing methods are as follows.

Fault Code	Error Name	Possibility Solution
0x00 / 0x10	PowerMeterFault	The meter communication was lost.Please contact your local representative of the manufacturer or after-sales service.
0x01/ 0x11	OverCurrentFault	There is an overload on the EV side.Please contact your local representative of the manufacturer or after-sales service.
0x02 / 0x12	UnderVoltage	The voltage on the power input is not sufficient.Please contact your local representative of the manufacturer or after-sales service.
0x03 / 0x13	OverVoltage	The maximum voltage on the power input is too high.Please contact your local representative of the manufacturer or after-sales service.
0x04 / 0x14	L1RelayCloseFailure	1. Examine the relay contact. 2. If necessary,Please contact your local representative of the manufacturer or after-sales service.
0x05 / 0x15	L2RelayCloseFailure	1. Examine the relay contact. 2. If necessary,Please contact your local representative of the manufacturer or after-sales service.
0x06 / 0x16	L1RelayOpenFailure	1. Examine the relay contact. 2. If necessary,Please contact your local representative of the manufacturer or after-sales service.
0x07 / 0x17	L2RelayOpenFailure	1. Examine the relay contact. 2. If necessary,Please contact your local representative of the manufacturer or after-sales service.
0x08 / 0x18	RelayTemperatureFailure	There is a deviation in the temperature self-inspection of the relay.Please contact your local representative of the manufacturer or after-sales service.
0x09 / 0x19	L1L2TemperatureFailure	There is a deviation in the temperature self-inspection of the relay.Please contact your local representative of the manufacturer or after-sales service.
0x0A / 0x1A	RelayOverTemperature	he internal temperature of relay is too high. 1. Do a check of the operation temperature on the product label. If the ambient temperature is too high, the EVSE will decrease the output current automatically. 2. If it is necessary, install the EVSE in an environment with a lower ambient temperature. 3. Do the procedure that is described for the problem 'the AC input voltage is too high'. 4. If you can not solve the problem, do not use the EVSE. Contact your local company representative or after-sales service.
0x0B / 0x1B	L1L2OverTemperature	The internal temperature of cable is too high. 1. Do a check of the operation temperature on the product label. If the ambient temperature is too high, the EVSE will decrease the output current automatically. 2. If it is necessary, install the EVSE in an environment with a lower ambient temperature. 3. Do the procedure that is described for the problem 'the AC input voltage is too high'. 4. If you can not solve the problem, do not use the EVSE. Contact your local company representative or after-sales service.

0x0C / 0x1C	LeakCurrentFailure	There is residual current(20mA AC) in the charge circuit.Current leaks into the ground. 1. De-energize the EVSE. 2. Please contact your local company representative or after-sales service.
0x0D / 0x1D	LeakCurrentCheckFailure	Leakage detection equipment is damaged, Please contact your local company representative or after-sales service.
0x0E / 0x1E	OverLoadFault	There is an overload on the EV side.Please contact your local representative of the manufacturer or after-sales service.
0x0F / 0x1F	CPVolFault	The CP Voltage is abnormal.Please contact your local representative of the manufacturer or after-sales service.
0x010 / 0x110	NACS Over Temperature	The internal temperature of NACS cable is too high. 1. Do a check of the operation temperature on the product label. If the ambient temperature is too high, the EVSE will decrease the output current automatically. 2. If it is necessary, install the EVSE in an environment with a lower ambient temperature. 3. Do the procedure that is described for the problem 'the AC input voltage is too high'. 4. If you can not solve the problem, do not use the EVSE. Contact your local company representative or after-sales service.
0x011 / 0x111	NACS PP VolFailure	The PP Voltage contact is detected too high or low value.Please contact your local representative of the manufacturer or after-sales service.
0x20	FlashFailure	There is an inconsistency between Flash writing and reading. 1.Clear the flash data. 2.If necessary,Please contact your local representative of the manufacturer or after-sales service.
0x21	EEPROMFailure	1.Please try to power cycle. 2.If necessary,Please contact your local representative of the manufacturer or after-sales service.
0x22	EmergencyStopFailure	1.Check if the emergency stop button is released 2.If necessary,Please contact your local representative of the manufacturer or after-sales service.
0x23	PowerLoss	1.Please confirm whether the power is on. 2.If necessary,Please contact your local representative of the manufacturer or after-sales service.
0x24	GroundFailure	PE missing or swap neutral and phase. 1.The EVSE is not earthed correctly or neutral and phase wires are swapped. 2.If necessary,Please contact your local representative of the manufacturer or after-sales service.
0x26	RTCFailure	1.Try to configuring the network and OCPP server. 2.If necessary,Please contact your local representative of the manufacturer or after-sales service.
0x30	ScreenFailure	The internal boards of the EVSE fail to communicate with screen. 1.Check if the connection of screen in the EVSE. 2.If necessary,Please contact your local representative of the manufacturer or after-sales service.

0x40	Reader communication failed more than 5 times	The internal boards of the EVSE fail to communicate with RFID reader. 1.Check if the connection of reader in the EVSE. 2.If necessary,Please contact your local representative of the manufacturer or after-sales service.
0x41	NetworkFailure	The network was disconnected with Wifi/Ethernet/4G.Please check the network connection status refer to the network configuration guide. If necessary,Please contact your local representative of the manufacturer or after-sales service.

4 Installation

4.1 Labels

WARNING

For use with Electric Vehicles. Ventilation Not Required.

To avoid a risk of fire or electric shock, do not use this device with an extension cord.

This device is intended only for charging vehicles not requiring ventilation during charging.

THE SUITABILITY OF THE USE OF FLEXIBLE CORD IN ACCORDANCE WITH CE CODE, PART I.

CAUTION

To reduce the risk of electric shock, connect only to properly grounded outlets. Do not use this product if there is any damage to the unit.

Risk of electric shock. Do not remove cover or attempt to open the enclosure. No user serviceable parts inside. Refer servicing to qualified service personnel.

If the temperature $\geq 50^{\circ}\text{C}$. Hot surfaces – To reduce the risk of burns – Do not touch

AVERTISSEMENT

Pour utilisation avec des véhicules électriques

Aucune ventilation requise

Pour réduire le risque de choc électrique ou d'incendie, ne pas utiliser de rallonge avec cet appareil.

Ce dispositif est destiné au chargement des véhicules ne nécessitant pas de ventilation au cours du chargement.

LA PERTINENCE DE L'UTILISATION DE CORDONS FLEXIBLES SELON LE CODE CE, PREMIERE PARTIE.

ATTENTION

Pour réduire le risque de choc électrique, brancher sur une prise correctement mise à la terre

Ne pas utiliser ce produit si l'appareil est endommagé

Risque de choc électrique.

Ne pas retirer le couvercle ni essayer d'ouvrir le boîtier.

Aucune pièce interne réparable par l'utilisateur.

Confier tout travail d'entretien ou de réparation à un technicien qualifié.

Si la température est $\geq 50^{\circ}\text{C}$

Surfaces chaudes – Pour réduire le risque de brûlures –

Ne pas toucher

ADVERTENCIA

Para uso con vehículos eléctricos

No requiere ventilación

Para evitar un riesgo de incendio o choque eléctrico, no utilice este aparato con una extensión

Este dispositivo se destina únicamente para cargar vehículos que no requieren ventilación durante la carga

PRECAUCION

Para reducir el riesgo de choque eléctrico, conectar únicamente a salidas puestas a tierra correctamente

No utilizar este producto si existe algún daño en la unidad

Riesgo de choque eléctrico. No quitar la cubierta ni intentar abrir el envoltorio.

En el interior existen partes que no pueden repararse por el usuario. Referirse a personal de mantenimiento calificado

Si la temperatura es $\geq 50^{\circ}\text{C}$

Superficies calientes: para reducir el riesgo de quemaduras, no tocar.



EV Charger

Model: MES-EV-LH-SG80-01

Input: 208Y/240VAC 50/60HZ

Max 80A Max 19.2kW

Output: 208Y/240VAC 50/60HZ

Max 80A Max 19.2kW

MMQ: 0.5kWh

Enclosure Type: TYPE 4

Operating Temp: $-30 \sim 55^{\circ}\text{C}$

$-22 \sim 131^{\circ}\text{F}$

Storage Temp: $-40 \sim 75^{\circ}\text{C}$

$-40 \sim 167^{\circ}\text{F}$

FOR USE WITH ELECTRIC VEHICLES.
FOR INDOOR OR OUTDOOR USE.



5014466

Conforms to UL Std. 2594

Certified to CSA Std. C22.2 #280

FCC ID: 2BMUW-DG80-01

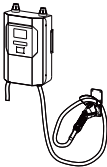
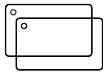
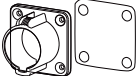
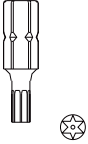
Contains FCC ID: 2AFOS-WT32C3-SX

Contains FCC ID: XMR2023FCU760KN

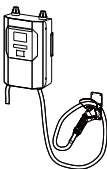
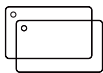
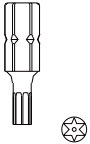
Contains FCC ID: XMR202008EC25AFXD

4.2 Packing List

Optional 1

	1 	2 	3 	4 
AC charger	Single RFID card (1pcs) Dual RFID card (2pcs)	Single Coupler holder (1pcs) Dual Coupler holder (2pcs)	Single Cord holder (1pcs) Dual Cord holder (2pcs)	Single Torx self-tapping screws (8pcs) Dual Torx self-tapping screws (16pcs)
5 	6 	7 	8 	9 
Single Rubber Plug Expansion Tube (8pcs) Dual Rubber Plug Expansion Tube (16pcs)	Expansion screw (4pcs)	Electric drill bit (1pcs)	3-hole waterproof connector BN-M32-25 (1pcs)	3-hole waterproof connector BN-M25-18 (1pcs)

Optional 2

	1 	2 	3 	4 
AC charger	Single RFID card (1pcs) Dual RFID card (2pcs)	Single Coupler holder (1pcs) Dual Coupler holder (2pcs)	Single Torx self-tapping screws (4pcs) Dual Torx self-tapping screws (8pcs)	Single Rubber Plug Expansion Tube (8pcs) Dual Rubber Plug Expansion Tube (16pcs)
5 	6 	7 	8 	
Expansion screw (4pcs)	Electric drill bit (1pcs)	3-hole waterproof connector BN-M32-25 (1pcs)	3-hole waterproof connector BN-M25-18 (1pcs)	

4.3 Check and Confirm

When unpacking, please carefully confirm the following points:

- ▶ According to the packaging list, whether the accessories are missing.
- ▶ Whether there is any damage during transportation.
- ▶ Whether the model and specification on the name plate of the machine are consistent with the order requirements.
- ▶ If any damaged or missing parts are found, do not start the machine and contact the supplier as soon as possible.
- ▶ Please keep the box and packaging materials for 1 month for future disposal. Paper packaging is recyclable.

4.4 Preparation

In order to ensure long-term stable operation of the product, it is recommended to avoid the following installation problems:

- ▶ This product is an electrical device. Handle with care and avoid severe vibration and shock.
- ▶ EVSE cannot be transported by dragging the charging connector and charging cable.
- ▶ EVSE cannot be used in extreme weather, especially when the ambient temperature is too low or too high, which will affect the use of EVSE.

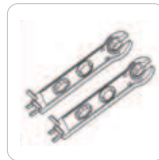
It is recommended to install EVSE in a ventilated and cool place away from direct sunlight and rain. To ensure good ventilation, you should install the EVSE vertically with enough space. Installation tools before installing AC EVSE, you should prepare at least the following tools:



Multimeter



Electric Impact Drill(D8mm+D6mm)



Wrench (10mm)



AWG23-7
Tube Terminal
Crimping Pliers



Phillips Screwdriver
(D5mm)



Electric Batch
(With plum blossom
hole T20.T25 bit)



Utility Knife



Anti-static bracelet



Heat Coupler



Wire Strippers



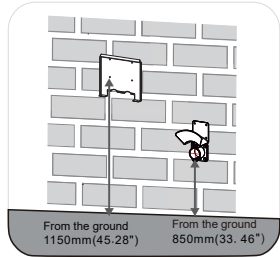
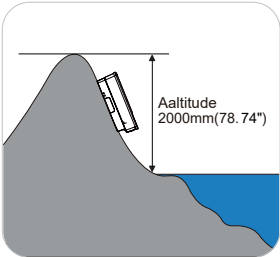
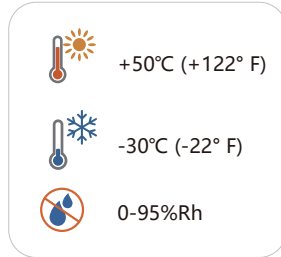
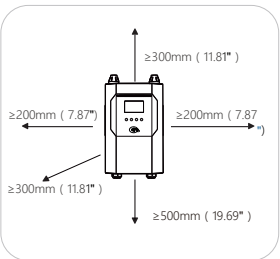
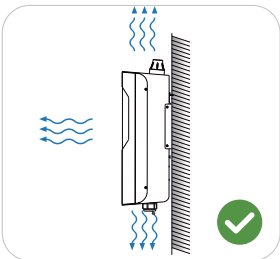
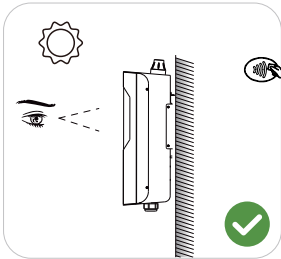
Marker Pen



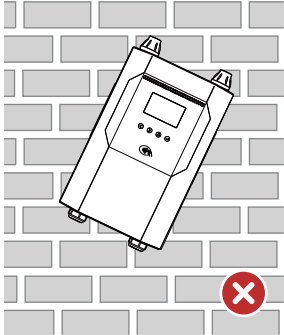
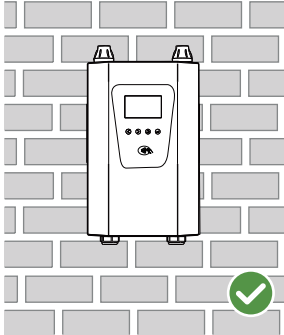
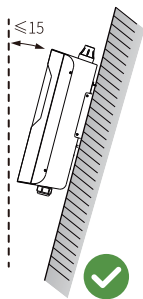
Rubber Hammer

4.5 Wall Mount Installation

Location Requirements

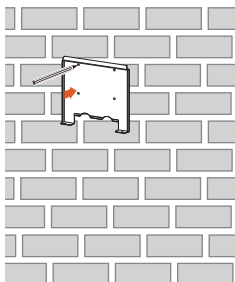


Angle Requirements

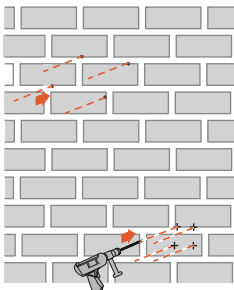


Angle Requirements

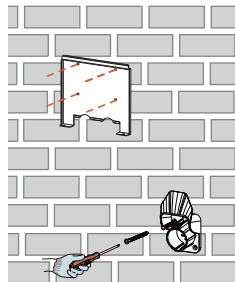
- 1 Install the wall-mounted version and trace holes on the wall



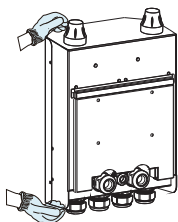
- 2 Punch holes in the wall



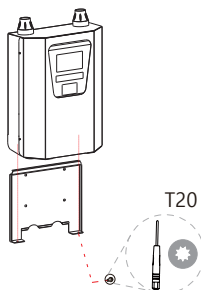
- 3 Install wall mounts, hanging plates and empty blocks



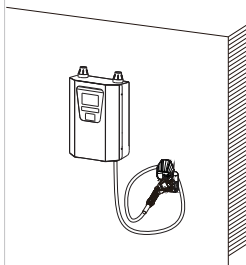
- 4 Install the pile body on the mounting plate



- 5 Set screw

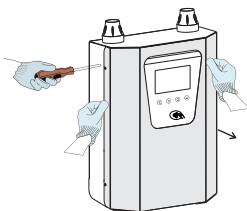


- 6 Installation pile completion diagram

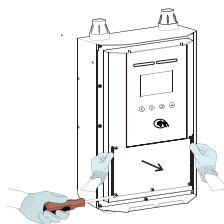


Bottom Wiring

- 1 Remove decorative cover

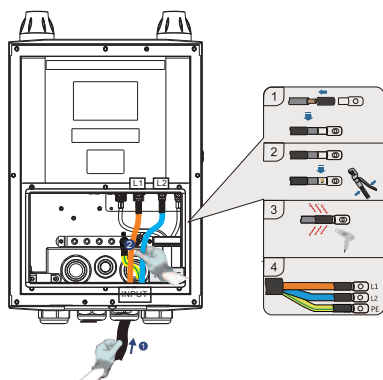


- 2 Remove wiring cover

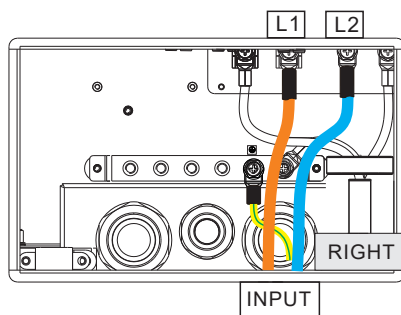


3 Input wire

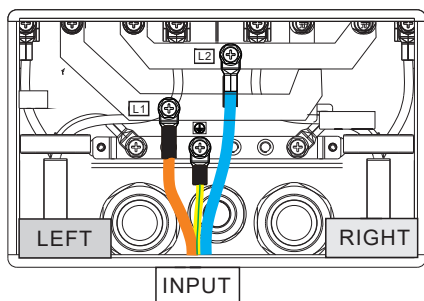
Single input



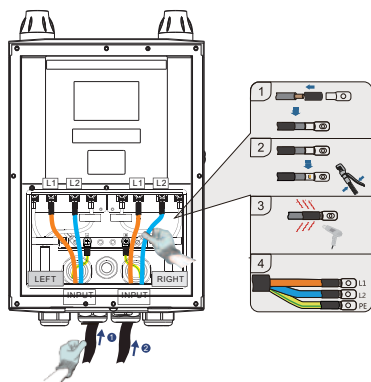
MES-EV-LH-SG80-01 (1*19.2kW)



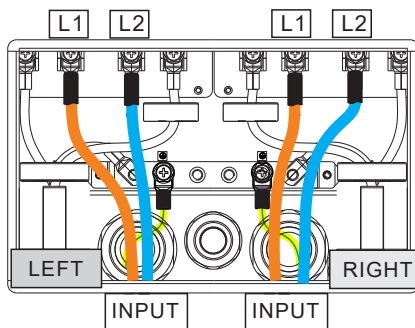
MES-EV-LH-DG40-01/MES-EV-LH-DG80-01
(2*9.6/1*19.2kW)



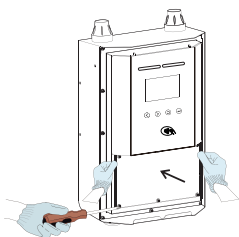
Dual input



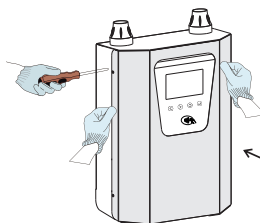
MES-EV-LH-DG80-01 (2*19.2kW)
MES-EV-LH-DG48-01 (2*11.52kW)



4 Installing decorative cover

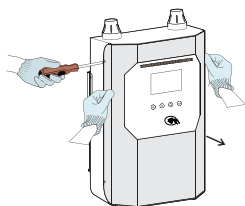


5 Installing wiring cover

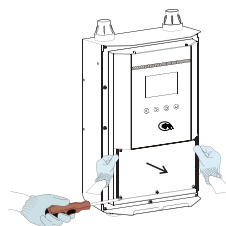


Back Wiring

1 Remove decorative cover

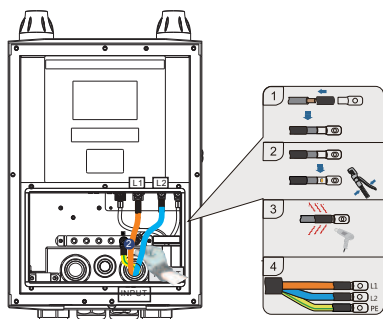


2 Remove wiring cover

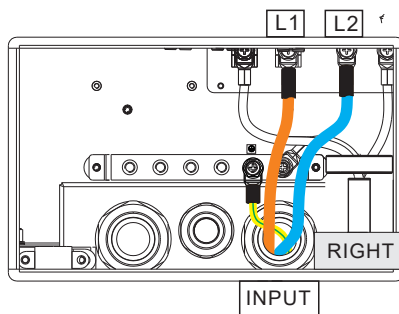


3 Input wire

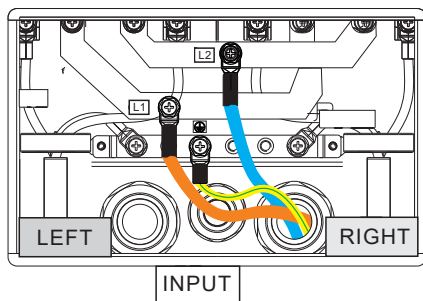
Single input



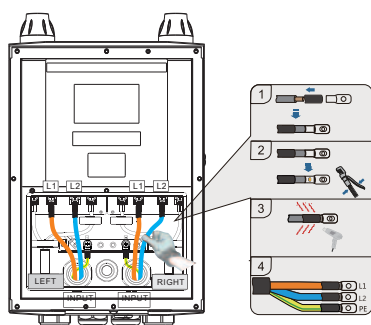
MES-EV-LH-SG80-01 (1*19.2kW)



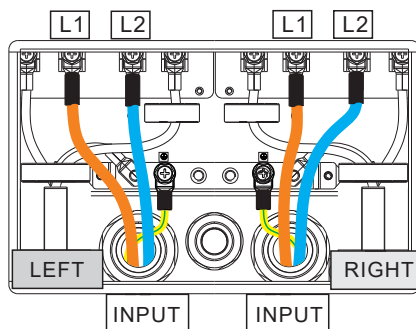
MES-EV-LH-DG40-01/MES-EV-LH-DG80-01
(2*9.6/1*19.2kW)



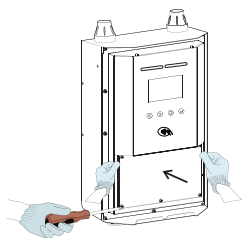
Dual input



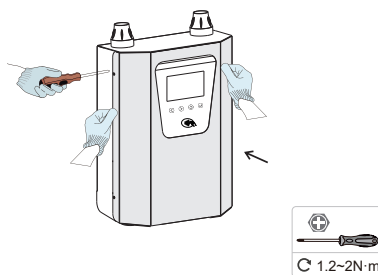
MES-EV-LH-DG80-01 (2*19.2kW)
MES-EV-LH-DG48-01 (2*11.52kW)



4 Installing decorative cover



5 Installing wiring cover



Color	Terminal
Brown	L1
Blue	L2
Yellow-green	PE

Copper cable cross-section: 3*4 AWG

Input terminal wire size:
4AWG stranded

SC25-6

Stripwire
13 mm(1/2 in)

Live Wire L1:Brown
Neutral Wire L2:Blue
Earth Wire PE:Yellow and Green

L1
L2
PE

Heat shrink tube
25.4 mm(1 in)

Wiring Port	L1 L2 PE
Crimp Terminal Specifications	SC25-6
Installation Tool Specifications	Diameter 3mm (0.1181") flat-blade screwdriver Diameter 5mm (0.1968") flat-blade screwdriver Diameter 5mm-6mm Phillips screwdriver
Specification of the input cable	With UL2263 certification, wire gauge 4AWG or above, temperature is 105 ℃
Screw Torque	4.9~5N·m

⚠ DANGER

If L1,L2, PE are connected incorrectly, it will not only damage the machine, but also create a potential shock hazard.

⚠ DANGER

In the TT, TN-C and TN-S system, make sure that the ground cable is connected reliably. Otherwise, it may cause electric shock.

GROUNDING INSTRUCTIONS

This product must be connected to a grounded, metal, permanent wiringsystem, or an equipment.grounding conductor must be run with the circuit conductors and connected to theequipment groundingterminal or lead on the product.

In the TT, TN-C and TN-S system, make sure that the ground cable is connected reliably. Otherwise, it may cause electric shock.

GROUNDING INSTRUCTIONS This product must be connected to a grounded, metal, permanent wiringsystem, or an equipment. grounding conductor must be run with the circuit conductors and connected to theequipment groundingterminal or lead on the product.

4.6 Maintenance

To ensure the long-term stable operation of the equipment, please perform regular (usually monthly) maintenance on the device according to the operating environment.

- a) Equipment is maintained by professionals.
- b) Check whether the equipment is well grounded and safe.
- c) Check whether there are safety hazards around the charging pile, such as whether there are high temperatures, corrosion or flammable and explosive items near the charger.
- d) Check whether the connection points of the input terminals are in good contact and whether there is any abnormality. Check other wiring points for looseness.

Warranty Agreement

- 1.The scope of the warranty refers to the product itself.
- 2.The warranty period is 24 months. During the warranty period, if the product fails or is damaged under normal use
(determined by the company's technicians), the company will repair it free of charge.
- 3.The starting time of the warranty period is the production date of the product.
- 4.Even within the warranty period, if the following conditions occur, a certain maintenance fee will be charged.
 - Equipment failure caused by failure to operate according to the user manual.
 - Equipment damage caused by fire, flood, abnormal voltage, etc.
 - Equipment damage caused by the entry of foreign objects.
 - Equipment damage caused by other human-made external factors.
- 5.Service fees shall be calculated based on actual costs. If there is any other contract, this contract shall prevail.
- 6.During the warranty period, be sure to keep this card and show it to the maintenance personnel.
- 7.If you have any questions, please contact the agent or our after-sales service center directly.



For Both FCC & IC application:

This device complies with Part 15 of the FCC Rules / Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a part installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

MPE Requirements

To satisfy FCC / IC RF exposure requirements, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during device operation.

To ensure compliance, operations at closer than this distance is not recommended.

Les antennes installées doivent être situées de façon à ce que la population ne puisse y être exposée à une distance de moins de 20 cm. Installer les antennes de façon à ce que le personnel ne puisse pas être à moins de 20 cm de la position centrale de l'antenne.

La FCC des États-Unis stipule que cet appareil doit être en tout temps éloigné d'au moins 20 cm des personnes pendant son fonctionnement.