

# **Portable EV charger**



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### **IMPORTANT SAFETY INSTRUCTIONS**

Before using or maintaining this product, it is important to read the following safety instructions. Failure to follow and implement all the specified instructions and procedures, will invalidate the warranty and as such DUOSIDA will not be liable for any claims for compensation.

# ♠ DANGER

- Do not open the charger.
- Do not use the charger if it is damaged.
- Do not use an extension lead on the charging cable.
- Do not touch or insert foreign objects into the plugs.
- Do not install the charger near flammable, explosive, or combustible materials.

# ⚠ WARNING

- All work on the equipment must only be carried out by qualified personnel who have read and fully understood all safety information and installation requirements contained in this manual.
- The electrical installation must comply with all local applicable safety requirements, standards and guidelines.
- Do not expose to liquid, vapor or rain.
- The charger must be out of reach from children.
- EV charger must be connected to a protective earth conductor.
- No modifications must be made to the EV charger.
- Components should not be changed or replaced by the end-user or unqualified personnel.
- The shell of the product is thermoplastic. Do not be affected by external shock.
- After using the connector to charge, when the gun pull out, it is necessary to pull out the charging gun parallel
  to the interface. Do not shake the gun body when the gun is pulled out. First unplug the power end and then
  unplug the vehicle end; Plug is not allowed when charging.
- The product for self test when power on, To detect leakage function etc.
- Please against storage or use conditions in Specification, and do not use in exceeding five times the earth's magnetic field in any direction or the power supply sinusoidal wave distortion exceeding 5%.
- The product shall be plugged in directly into the fixed socket-outlet without the use of an extension cord.
- Improper connection of the equipment-grounding conductor is able to result in a risk of electric shock. Check with a qualified electrician or serviceman if you are in doubt as to whether the product is properly grounded. Do not modify the plug provided with the product if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

#### GROUNDING INSTRUCTIONS

This product must be grounded and equipped with wires with equipment grounding conductors and grounding plugs. If the product is not grounded, the system will report a grounding fault.

The plug must be inserted into a properly installed and grounded socket According to all local laws and regulations.

#### **BEFORE FIRST USE**



- Keep any packaging materials away from children and pets these materials are a potential source of danger, e.g. suffocation.
- Remove all the packing materials.
- Remove and review all components before use.

#### **SYMBOLS ON TYPE LABEL**

$\triangle$	DANGER	Indicates a hazardous situation that, if not avoided, will result in death or serious injury.
$\triangle$	WARNING	Indicates a hazardous situation that, if not avoided, could result in death or serious injury.
$\triangle$	CAUTION	Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.
UL, cUL	Certified safety	The product has passed the UL test and meets the requirements of the Equipment and Product Safety Act of the United States, Canada and North America.
C UL US	UL, cUL mark	The EV charger complies with the requirements of the applicable UL AND cUL guidelines

#### **INTENDED USE**



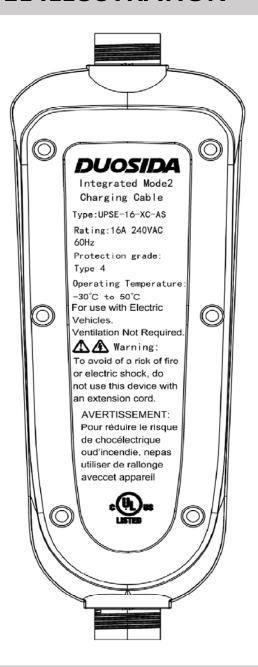
Do not use the product when either you, the vehicle or the product is exposed to severe rain, snow, electrical storm or other inclement weather.



If rain falls during charging, do not allow rain water to run along the length of the charging cable. It may cause the electrical outlet or charging port to become wet.

- This product is intended to charge electric vehicles compatible with SAE J1772 charging standard.
- No liability will be accepted for damages resulting from improper use or noncompliance with these instructions.

### **LABEL ILLUSTRATION**

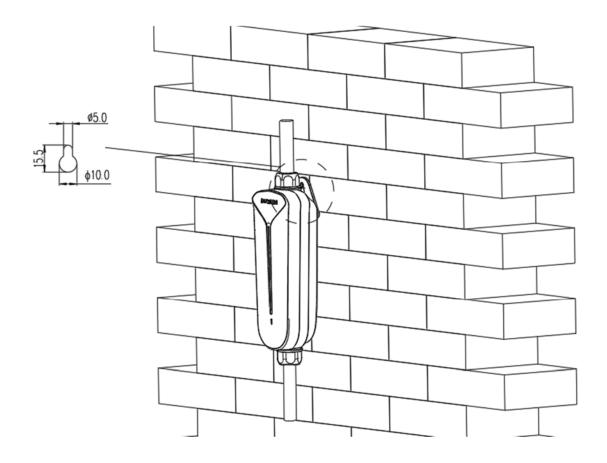


#### **PRODUCT DESCRIPTION**

This product mainly consists of on-line control box, charging connector, etc. It's a portable charging device for electric vehicle. It enables owners to charge EV or PHEV safely and easily, anywhere, through a standard home power interface. There are no corrosive gases such as acid and alkali in the surrounding environment so as not to affect the product performance. Avoid direct exposure to rain or excessive humidity. And should try to prevent damage caused by impact shell.

## **MOUNTING OF THE EV CHARGER**

The wall hanging style of charger is shown in the figure below. The size of the mounting hole is shown in the figure. Make sure that the head size of the bolt is less than 10mm and the bolt diameter is less than 5mm.



#### **OPERATING INSTRUCTIONS**

## ⚠ CAUTION

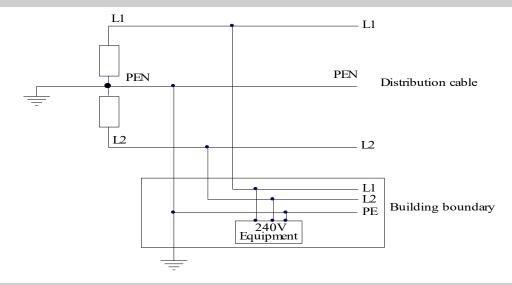
- The product's maximum working current is 16 A, Ensure the circuit breaker of the outlet supports current of 20 A or more.
- Fully plug the power plug into the outlet.
- The product shall be used in dual-live wire, Input voltage 240VAC. The equipment shall not be used if it is not
  operated correctly according to the instructions or consulted with the manufacturer, responsible supplier or
  electrician.
- Storage or use should not exceed the parameters described in this manual, The product does not require an adapter.
- If product is used in other ungrounded systems, such as isolation winding generators or isolation transformers, Product cannot operate.

The instruction manual shall include the word "CAUTION" and the following or equivalent: "To reduce the risk of fire, connect only to a circuit provided with 20 amperes maximum branch circuit overcurrent protection in accordance with the National Electrical Code, ANSI/NFPA 70 and the Canadian Electrical Code, Part I, C22.1."

- Connect inlet to power socket.
- Connect charging connector to charging socket of vehicle, and the connection indicator blue light solid.
- After a few seconds, the product enters the charging mode, and the charging indicator green light turn one by one.
- To stop charging, press the unlock button of the car key or stop charging in the car.
- Disconnect charging connector from charging socket of the vehicle

SPECIFICATIONS				
Product Name	Mode2 Charging Cable			
Туре	UPSE-16-XC-AS			
Input Rating	240 Vac, two phases, 60 Hz, 16 A maximum			
Connections	L1, L2, and Ground			
Standby Power	< 5 W			
Output Rating	240 Vac, two phases, 16 A maximum, 60 Hz, 3.84 kW maximum			
Internal Residual Current Detection	20 mA CCID per UL 2231			
Upstream Breaker	2-pole 24 A breaker on dedicated circuit, non-GFCI type			
Plug-Out Protection	Power output is terminated upon detection of charging connector plug-out			
Electrical Protection	Over Current, Short Circuit, Over Voltage, Under Voltage, Ground Fault, Surge Protection, Over temperature			
Operating Temperature	-30 ℃ to +50 ℃			
Humidity	95% relative humidity, non-condensing			
Charging Cable Length	5m,straight cable			
Life Cycle	>10000			
Insulation flame retardant	UL94-V0			
Dimension (W x D x H)	183 x 70 x 46			
Net Weight	1.8 kg			
Certificate	UL, cUL			
Control Output	Frequency: 1000± 30Hz			
Control Output	Duty Cycle: 26.7%			
Charging Interface	SAE J1772 compliant charging connector			

### **ELECTRICAL CONNECTION**



#### **FUNCTION DESCRIPTION**

- 1. When the device is powered on, If the leakage detection function fails, And the device cannot be charged; Leakage protection: when the leakage current exceeds 15-20mA for protection, need to restart to re-use.
- 2. Over Current Protection: When the current exceeds 19A, the equipment OverCurrent protection, cut off the output.
- 3. Over Voltage Protection: Protection when the input voltage exceeds 275V, Return when voltage to normal.
- 4. Short circuit protection: Protection when the current exceeds 50% rate current. Need to re-plug before return use.
- 5. Over temperature protection: When the internal temperature of the device is exceeds 90 degrees, the device enters the temperature protection and cuts off the output, Return when temperature drops to normal.
- 6. Status Indicators

State Name	Red light	Green light	Blue light
ERROR	See ERROR CODES	Off	Off
Unusable state	On	Normally	Normally
IDLE	Off	Off	Solid
Ready for charging	Off	Off	Flashing
Charging	Off	Turn one by one	Off
End of the charging	Off	Solid	Off

## **ERROR CODES**

1 Leakage self-check fault:	The red light flashes once
2 Grounding detection fault:	The red light flashes twice
3 Relay detection failure:	The red light flashes 3 times
4 CP error:	The red light flashes 4 times
5 CP negative 12V error:	The red light flashes 5 times
6 flash fault:	The red light flashes 6 times
7 5 v fault:	The red light flashes 7 times
8 The 12 v fault:	The red light flashes 8 times

#### FCC Caution.

This device complies with part 15 of the FCC Rules. 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.

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

Note: 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 particular 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.