K.H.O.N.S

Khons Wall Mount EV Charging Station

User Manual & Installation Instructions

Khons makes EV charging easy and convenient!

User Guide

Thank you for purchasing the Khons Wall Mount EV Charging Station for use with your electric vehicle. This User Guide shows how to use the Charging station with installation instructions for an electrician.

This document is your guide to the Khons EV charging station 1 phase & 3 phase. It provides easy-to-use instructions for using the Charging station with your electric vehicle.

Please Note: This user's manual includes the latest information available at the time of printing. Khons Technology Co.,Ltd. reserves the right to make changes to this manual or product without further notice.Changes, modifications, or repairs to this product by parties other than an authorized service provider could void the product warranty.

Contents

KHONS

KHONS-WB-03SPSW
KHONS-WB-03SPNW

Wall-Mounted EV Charging station--3.6kW 1 Phase
-Single plug Type 1 or Type 2
-LCD display is optional
-For domestic use

Features

NFC/RFID	Simple assembly	Delicate design
IOT	European standard	APP remote control
WIFI/4G	Secondary development of software	OCPP1.6/2.0

Datasheet

Input & Output	KHONS-WB-03SPSW	KHONS-WB-03SPNW
Input voltage	110~250V AC	110~250V AC
Input frequency	50Hz/60Hz	50Hz/60Hz
Output voltage	110~250V AC	110~250V AC
Output power	3.6kW	3.6kW
Rated current	16A	16A
Connection	Type 2/Type 1 Plug	Type 2/Type 1 Plug
Cable length	5m	5m

Protection		
Over voltage protection	Yes	Yes
Under voltage protection	Yes	Yes
Over load protection	Yes	Yes
Short circuit protection	Yes	Yes
Leakage protection	Yes	Yes
Over-temp protection	Yes	Yes
Lightning protection	Yes	Yes
Ground protection	Yes	Yes
UV resistance	Yes	Yes

Function & Accessory		
Ethernet/WIFI/4G	Yes/Opt/Opt	Yes/Opt/Opt
LCD	Yes	No
RCD	Type A/Type B	Type A/Type B
LED Indicator	Yes	Yes
Emergency button	Yes	Yes
Power adjustment	Opt	Opt

Working Environment		
Protection degree	IP65	IP65
Operating temperature	-25℃~+50℃	-25℃~+50℃
Relative humidity	5%~95%RH	5%~95%RH
Altitude	<2000m	<2000m
Cooling	Natural air cooling	Natural air cooling
Standby power consumption	<6W	<6W

Mechnical		
Dimension(W/H/D)	500/385/200mm	500/385/200mm
Weight	<9KG	<9KG

Mounting Accessories		
Wall-mounting bracket/Ground-mounting pile	Yes/Opt	Yes/Opt
Certificate	CE	CE

KHONS

KHONS-WB-07SPSW
KHONS-WB-07SPNW

Wall-Mounted EV Charging station--7 kW 1 Phase

-Single plug Type 1 or Type 2

-LCD display is optional

-For domestic use

Features

NFC/RFID	Simple assembly	Delicate design
IOT	European standard	APP remote control
WIFI/4G	Secondary development of software	OCPP1.6/2.0

Datasheet

Input & Output	KHONS-WB-07SPSW	KHONS-WB-07SPNW
Input voltage	110~250V AC	110~250V AC
Input frequency	50Hz/60Hz	50Hz/60Hz
Output voltage	110~250V AC	110~250V AC
Output power	7kW	7kW
Rated current	32A	32A
Connection	Type 2/Type 1 Plug	Type 2/Type 1 Plug
Cable length	5m	5m
Protection		
Over voltage protection	Yes	Yes
Under voltage protection	Yes	Yes
Over load protection	Yes	Yes
Short circuit protection	Yes	Yes
Leakage protection	Yes	Yes
Over-temp protection	Yes	Yes
Lightning protection	Yes	Yes
Ground protection	Yes	Yes
UV resistance	Yes	Yes
Function & Accessory		
Ethernet/WIFI/4G	Yes/Opt/Opt	Yes/Opt/Opt
LCD	Yes	No
RCD	Type A/Type B	Type A/Type B
LED Indicator	Yes	Yes
Emergency button	Yes	Yes
Power adjustment	Opt	Opt
Working Environment		
Protection degree	IP65	IP65
Operating temperature	-25℃~+50℃	-25℃~+50℃
Relative humidity	5%~95%RH	5%~95%RH
Altitude	<2000m	<2000m
Cooling	Natural air cooling	Natural air cooling
Standby power consumption	<6W	<6W
Mechnical		
Dimension(W/H/D)	500/385/200mm	500/385/200mm
Weight	<13KG	<13KG
Mounting Accessories		
Wall-mounting bracket/Ground-mounting pile	Yes/Opt	Yes/Opt
Certificate	CE	CE

Datasheet

KHONS-WB-11TPSW
KHONS-WB-11TPSP

Wall-Mounted EV Charging station--11kW 3 Phase
-Single plug Type 2
-Mounting pole is optional
-For domestic use or commercial use

Features

NFC/RFID	Simple assembly	Delicate design
IOT	European standard	APP remote control
WIFI/4G	Secondary development of software	OCPP1.6/2.0

	KHONS-WB-11TPSW	KHONS-WB-11TPSP
Input & Output		
Input voltage	110~440V AC	110~440V AC
Input frequency	50Hz/60Hz	50Hz/60Hz
Output voltage	110~440V AC	110~440V AC
Output power	11kW	11kW
Rated current	16A	16A
Connection	Type 2 Plug	Type 2 Plug
Cable length	5m	5m
Protection		
Over voltage protection	Yes	Yes
Under voltage protection	Yes	Yes
Over load protection	Yes	Yes
Short circuit protection	Yes	Yes
Leakage protection	Yes	Yes
Over-temp protection	Yes	Yes
Lightning protection	Yes	Yes
Ground protection	Yes	Yes
UV resistance	Yes	Yes
Function & Accessory		
Ethernet/WIFI/4G	Yes/Opt/Opt	Yes/Opt/Opt
LCD	Yes	Yes
RCD	Type A/Type B	Type A/Type B
Supported payment	No	NFC/RFID(Opt)
LED Indicator	Yes	Yes
Emergency button	Yes	Yes
Power adjustment	Opt	Opt
Working Environment		
Protection degree	IP65	IP65
Operating temperature	-25℃~+50℃	-25℃~+50℃
Relative humidity	5%~95%RH	5%~95%RH
Altitude	<2000m	<2000m
Cooling	Natural air cooling	Natural air cooling
Standby power consumption	<6W	<6W
Mechnical		
Dimension(W/H/D)	500/385/200mm	500/385/200mm 1470/340/300mm
Weight	<12KG	<24KG
Mounting Accessories		
Wall-mounting bracket/Ground-mounting pile	Yes/Opt	Yes/Opt
Certificate	CE	CE

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KHONS-WB-22TPSP
KHONS-WB-22TSSP

Wall-Mounted EV Charging station--22kW 3 Phase
-Single plug or single socket Type 2
-With Mounting pole
-For domestic use or commercial use

Features

NFC/RFID	Simple assembly	Delicate design
IOT	European standard	APP remote control
WIFI/4G	Secondary development of software	OCPP1.6/2.0

	KHONS-WB-22TPSP	KHONS-WB-22TSSP
Input & Output		
Input voltage	110~440V AC	110~440V AC
Input frequency	50Hz/60Hz	50Hz/60Hz
Output voltage	110~440V AC	110~440V AC
Output power	22 kW	22 kW
Rated current	32A	32A
Connection	Type 2 Plug	Type 2 Socket
Cable length	5m	0.7m
Protection		
Over voltage protection	Yes	Yes
Under voltage protection	Yes	Yes
Over load protection	Yes	Yes
Short circuit protection	Yes	Yes
Leakage protection	Yes	Yes
Over-temp protection	Yes	Yes
Lightning protection	Yes	Yes
Ground protection	Yes	Yes
UV resistance	Yes	Yes
Function & Accessory		
Ethernet/WIFI/4G	Yes/Opt/Opt	Yes/Opt/Opt
LCD	Yes	Yes
RCD	Type A/Type B	Type A/Type B
Supported payment	NFC/RFID(Opt)	NFC/RFID(Opt)
LED Indicator	Yes	Yes
Emergency button	Yes	Yes
Power adjustment	Opt	Opt
Working Environment		
Protection degree	IP65	IP65
Operating temperature	-25℃~+50℃	-25℃~+50℃
Relative humidity	5%~95%RH	5%~95%RH
Altitude	<2000m	<2000m
Cooling	Natural air cooling	Natural air cooling
Standby power consumption	<6W	<6W
Mechnical		
Dimension(W/H/D)	500/385/200mm 1470/340/300mm	500/385/200mm 1470/340/300mm
Weight	<24KG	<22KG
Mounting Accessories		
Wall-mounting bracket/Ground-mounting pile	Yes/Opt	Yes/Opt
Certificate	CE	CE

KHONS

KHONS-WB-22TPSW
KHONS-WB-22TPNW

Wall-Mounted EV Charging station--22kW 3 Phase
-Single plug Type 2
-Without Mounting pole
-For domestic use or commercial use

Features

NFC/RFID	Simple assembly	Delicate design
IOT	European standard	APP remote control
WIFI/4G	Secondary development of software	OCPP1.6/2.0

Input & Output	KHONS-WB-22TPSW	KHONS-WB-22TPNW
Input voltage	110~440V AC	110~440V AC
Input frequency	50Hz/60Hz	50Hz/60Hz
Output voltage	110~440V AC	110~440V AC
Output power	22 kW	22 kW
Rated current	32A	32A
Connection	Type 2 Plug	Type 2 Plug
Cable length	5m	5m
Protection		
Over voltage protection	Yes	Yes
Under voltage protection	Yes	Yes
Over load protection	Yes	Yes
Short circuit protection	Yes	Yes
Leakage protection	Yes	Yes
Over-temp protection	Yes	Yes
Lightning protection	Yes	Yes
Ground protection	Yes	Yes
UV resistance	Yes	Yes
Function & Accessory		
Ethernet/WIFI/4G	Yes/Opt/Opt	Yes/Opt/Opt
LCD	Yes	Yes
RCD	Type A/Type B	Type A/Type B
Supported payment	NFC/RFID(Opt)	NFC/RFID(Opt)
LED Indicator	Yes	Yes
Emergency button	Yes	Yes
Power adjustment	Opt	Opt
Working Environment		
Protection degree	IP65	IP65
Operating temperature	-25℃~+50℃	-25℃~+50℃
Relative humidity	5%~95%RH	5%~95%RH
Altitude	<2000m	<2000m
Cooling	Natural air cooling	Natural air cooling
Standby power consumption	<6W	<6W
Mechnical		
Dimension(W/H/D)	500/385/200mm	500/385/200mm
Weight	<9KG	<9KG
Mounting Accessories		
Wall-mounting bracket/Ground-mounting pile	Yes/Opt	Yes/Opt
Certificate	CE	CE

2 Schematic

① 4G Antenna

② LCD

③ LED indicator

④ Front enclosure

⑤ Power Cords

⑥ Output Cords

Figure 1 Front Of device

⑦ USB interface

⑧ Emergency button

⑨ Back cover

⑩ Bracket

⑪ Back enclosure
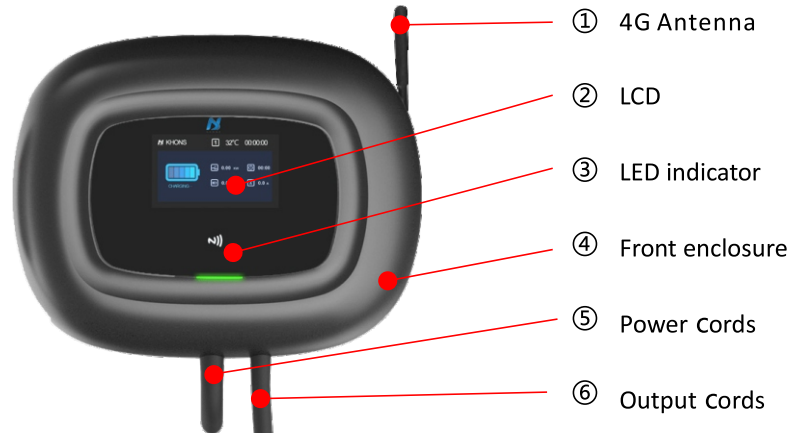
⑫ LAN interface
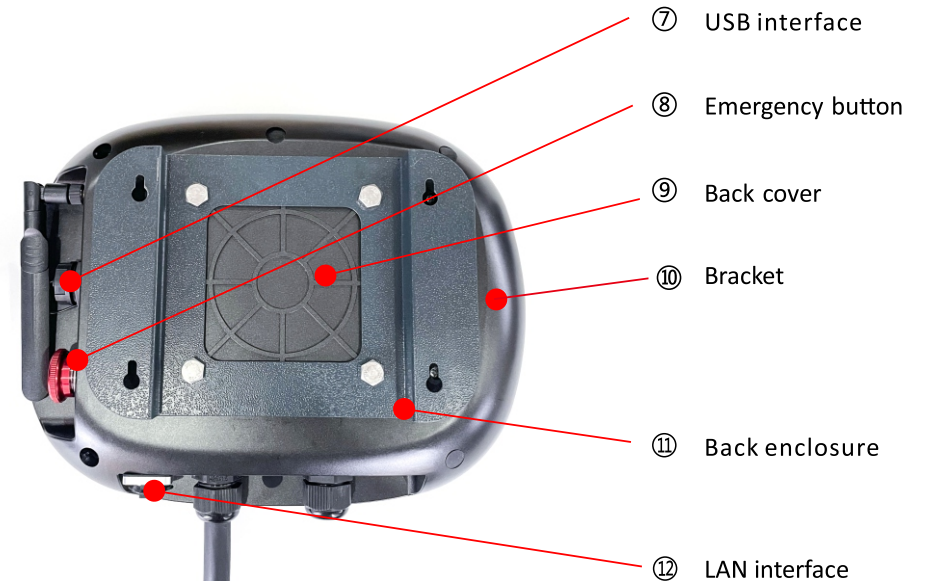
Figure 2 Back of device

3 Installation

3.1 Wiring

⑩ Back cover

⑪ Waterproof cable connector

① L3-input
② L2-input
③ L1-input
④ N-input
⑤ PE-input

⑧ RCD
⑥ Cord anchorage
⑦ Cable ties

⑨ 4G card

Figure 3 Wiring

Installation steps
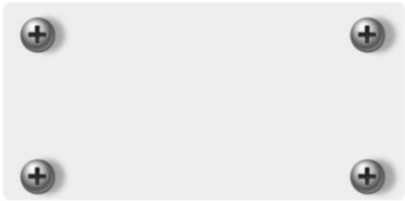
Picture			
Step	I	II	III
Description	Remove the back cover, the cable ties, the cord anchorage and the waterproof cable connector. Install the 4G card (if applicable).	Put the power cord through the waterproof cable connector and input hole.	Fix the power cord and the cord anchorage, tighten the screw of waterproof cable connector.

3 Installation

3.2 Wall-mounted charging station list

Picture								
Component	Main device	Bracket	Cable fastener	Plug holder	Self-tapping screws S4*30	Cross screws M4*8	Hexagon bolt 8*12	Power cord (OPT)
Quantity	1	1	1	1	8	4	4	1

Installation steps

Picture			
Step	I	II	III
Description	Refer to section 3.1 for wiring.Fix the self-tapping screws (S4*30) as the positioning screws for the main device on the wall according to the size of bracket.	Fix the cable fastener on the wall with the self-tapping screws (S4*30), and fix the plug holder on the cable fastener with the cross screws (M4*8).	Fix the bracket on the main device with the hexagon bolt (8*12).Hang the main device on wall according to the positioning screws and plug the EV connector into the holder.

3 Installation

3.3   Type A for floor-standing charging station list

Picture								
Component	Main device	Pile (OPT)	Key (OPT)	Bracket (OPT)	Plug holder(OPT)	Cross screws M4*8 (OPT)	Hexagon bolt 8*12	Power cord (OPT)
Quantity	1	1	1	2	1	4	8	1

Installation steps

Picture						
Step	I	II	III	IV	V	VI
Description	Use a key to unlock the pile, and remove the back panel.	Put through the power cord from the bottom of pile to the outlet hole.	Fix the pile on the ground and fix the plug holder on the cable fastener with the cross screws (M4*8).	Refer to section 3.1 for wiring. Fix the brackets on the main device with the hexagon bolt(8*12).	Fix the main device on the pile with hexagon bolt(8*12).	Fix the back panel of pile, hang the cable on the cable fastener, and plug into the holder.

3 Installation

3.4 Type B for floor-standing station list

Picture								
Component	Main device	Mode 3 Charging cable(OPT)	Key (OPT)	Pile (OPT)	Bracket (OPT)	Socket (OPT)	Hexagon bolt 8*12	Cross screws M5*10
Quantity	1	1	1	1	2	1	8	3

Installation steps

Picture			
Step	I	II	III
Description	Use a key to unlock the pile, and remove the back panel, Put through the power cord from the bottom of pile to the left hole, put through the EV connector cord in the same way.	Fix the pile on the ground. Fix the socket with cross screws (M5*10).	Refer to section 3.1 for wiring.Fix the brackets on the main device with the hexagon bolt (8*12).Fix the main device on the pile with hexagon bolt(8*12),Fix the back panel of pile.

4 Configruation

4.1 Register personal account

4.1.1 Download and install the Khons application from the third-party application store, e.g. Google play for the Android system or App store for the iOS system.you can also visit the website: https://www.khonsevse.com/khons _app_download/index.html.

4.1.2 Open the application and refer to the instructions in the user center to register a personal account.

4.1.3 Please use your registered email address to send an email to reset new password when you forgot the password. The method is the same as the first account registration.

4.2 Register the device information.

4.2.1 Login your personal account and add the device according to application reminder.

NOTICE 1 Please make sure that the smart phone connected with ab 4G wireless or 2.4G WIFI network and that the camera works properly.

NOTICE 2 The QR code is usually on the device.

NOTICE 3 You need to enter the WIFI password manually when the device is brand new or the WIFI setup is changed.

4.2.2 You can register multiple devices in the Khons application. The method of registered the device as shown Clause 4.3.1 .

4.3 Charge mode

4.3.1 It takes about 30 seconds for the device to start.

4.3.2 Working mode

Working mode	Range	Operation method
RFID/NFC module	D	Electronic key
	C	Refer to the software application
4G wireless module	C, D	
2.4G WIFI wireless module	C, D	
LAN interface	C, D	
Remark 1.C=commercial use 2.D=domestic use 3.The RFID/NFC, 2.4G WIFI and 4G modules are optional except the LAN interface.		

4.4 Interface of device

4.4.1 Instruction

① Logo

② Phase of power supply

③ Device temperature

④ Charging period

⑤ Transient power

⑥ Average voltage

⑦ Average current

⑧ Charged energy

⑨ Charging mark

⑩ Device state

Figure 21 Device interface instruction
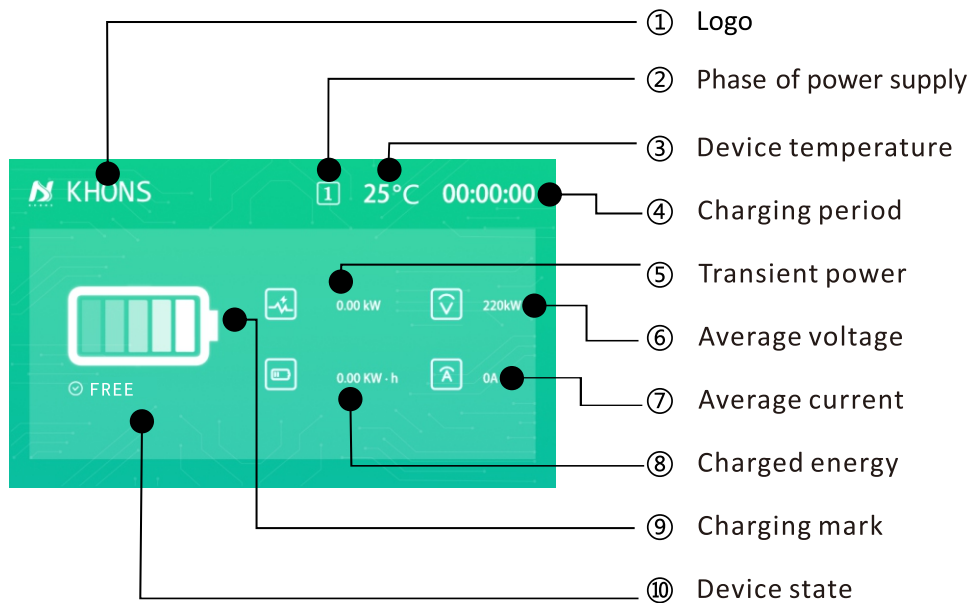
4.4.2 It takes about 30 seconds to start after the device is connected with the power supply.

4.4.3 Device state

Status	LED Indicator	Description
Free	Light	The power plug is connected but the EV connector is disconnected.
Connect	Blink	The power plug is connected but the EV connector is connected.
Charging	Breath	The device is charging.

5 Error/Warning message

Error/Warning Message	Description	Solution
Over temperature	The temperature of the device beyond the upper temperature limits 80°C.	Close power supply and contact the manufacturer or agents.
Leakage current	The leak current of the device beyond the special limits.	
Cable error	The cables of the device was broken, or the cables can't match the device.	
Hardware error	The hardware of the device was broken.	
Calibration error	The calibration process error.	
RFID/NFV error	The module of RFID/NFC was broken.	
Over current	Output current of the device beyond the 1.2 time rated current.	Close power supply and check electric vehicle.
No ground	The device was not grounded.	Close power supply and check the distribution grid.
Phase error	The phase of power supply error.	Reconnect the terminals.
*High temperature	The temperature of the device beyond 70°C but less than the upper temperature limit 80°C.	Check ambient temperature.
*High voltage	Input voltage of the device beyond the upper voltage limit 265Vac for single-phase systems or 450Vac for three-phase systems.	Close power supply and check distribution grid.
*WIFI / 4G disconnected	WIFI was disconnected.	Check the WIFI network.
*4G disconnected	4G was disconnected.	Check the 4G network.
*EV connector error	The EV connector is failed or disconnected from Electric Vehicles.	Close power supply and re-insert the EV connector.
*, warning message		

WARNING

IN ORDER TO ENSURE SAFETY OF PERSONS AND PROPERTIES, IT MUST DISCONNCTED THE POWER SUPPLY AS SOON AS POSSIBLE WHEN THE DEVICE WAS FAILED.

PLEASE DON'T PULL OUT THE EV CONNECTOR WHEN THE ELECTRIC VEHICLE IS CHARGING.

Remark

The instructions do not purport to cover all details or variations in equipment nor to provide for every possible contingency to be met in connection with installation, operation or maintenance. Should further information be desired or should particular roblems arise which are not covered sufficiently for the purchaser' s purposes, the matter should be referred to the Khons company.

After sales services:
Khons provides life-long technical support. Pls feel free to contact us for any quality issues via email: khons@cnkhons. com or call us via: +86 28 83128852 or visit our web site to leave a message: www. khonsevse. com.

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