getpower
e MOBILITY

DC/HPC Charging solutions

DM30

30 kW MOVEABLE DC FAST CHARGER

User Manual and Installation Instructions

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BERGER Stromversorgungen GmbH & Co. KG

Bannmatten 10
77855 Achern
Germany

Phone: +49-7841-67304-0
E-Mail: info@get-power.de
Web: www.get-power.de

As of: Version 1.0

For the latest version of this User Manual please scan the QR-Code.

INHALT

INTRODUCTION

The **MOVEABLE FASTCHARGER DM30** enables you fast charging of EVs with high battery capacities as well as commercial vehicles.

The **mobile FastCharger DM30** is the top choice for car service centers and EV dealer workshops. It has the advantage of mobility and can be used within a radius of 15m at the requested point of charge. The high protection degree (IP55) allows also outdoor operation. The DM30 is equipped with a Combo 2 DC-EV-Connector and a 4,5m charging cable. The charger complies with the cconnectivity norm IEC 62196, as well as to IEC 61851-1, Mode 4, the international charging standard Combined Charging System (CCS). With that, the DM30 can be used for safe and quick charging of all EU Battery Electric Vehicles (BEV) and plug-in-hybrid cars (PHEV). Compared to a 11 kW AC-Wall-box, the DM30 offers 4 times faster charging (e.g. for a Ford Mustang MACH-E with a 75 kWh battery and charging from 10 – 80 % of the total battery capacity, equivalent to 305 km reach).[1]

The network connectivity over LAN, WiFi or 4G enables remote data access and failure analysis. In the same time it allows the operation with a backend-software over the OCPP communication protocol, with load management and individual billing systems. In this way your DM30 can become a public charging station. It can be found within a network of public chargers via an App and opens you new business opportunities as Charge Point Operator.

FEATURES

- Moveable design and pluggable power modules make installation easy and flexible.
- Offers customers the convenience of start/stop charging control from an authorized RFID smart card or mobile APP.
- Built on latest industry standards for DC charging.
- Carries an outdoor rating capable of withstanding solid and liquid intrusions in outdoor settings making the unit more stable and highly reliable.
- Provides a high-contrast, screen interface with multi-function buttons.

APPLICATIONS

- Automotive Reapair Shops
- EV Dealer Workshops
- Parking Garages
- Commercial fleet operators

1. BASIC USER INTERFACE

Main unit :

7" Information screen
- Charging status
- Alarm information
- User authorization

Right button

Left button

RFID card reader

Indication light for operation status

Indication light for operation status

RJ45 port

USB port

Cable holder

Antenna

Emergency stop button

Handle

Charger gun cable holster

Door handle

CEE socket 5pin 3P+N+PE Male 380~415 Vac 63 A

Front caster with push-down brake

Rear caster

Charger Gun Holster

Charger-Cable & Gun Storage

2. SPECIFICATION

2.1 PRODUCT SPECIFICATION

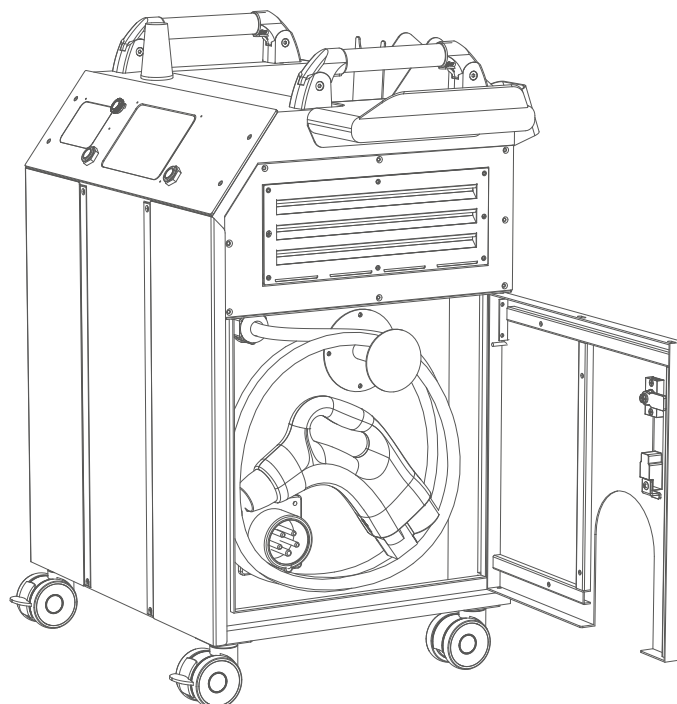| Model Name		DMYx301 Series
AC INPUT	Voltage rating	3Φ380 ~ 415 Vac (±15%)
	Max. input current	47 A
	Max. input power	33 kVA
	Electrical distribution	3P + N + PE (Wye Configuration)
	Power grid system	TN / TT and IT
	Frequency	50/60 Hz
	Power factor	> 0,99
	Efficiency	> 94 %, at optimize V/I point
DC OUTPUT	One output	**CCS2** or CHAdeMO or GB/T
	Output voltage range	**DC 150 ~ 950 V (CCS2)** DC 150 ~ 500 V (CHAdeMO) DC 150 ~ 750 V (GB)
	Max. output current	**CCS2: 80 A@150 Vdc ~ 375 Vdc, reduction from 80 A to 31.5 A in the voltage range 375-950 Vdc** CHAdeMO: 60 A@150 Vdc ~ 500 Vdc GB/T: 80 A@150 Vdc ~ 375 Vdc when output voltage up to 950 Vdc the output current is 31.5 A
	Max. output power	DC 30 kW
	Voltage accuracy	+/- 2%
	Current accuracy	+/- 2%
Electrical isolation		Isolation between input and output
Standby power		< 100W
Communication	External	Ethernet, Wi-Fi and 3G or 4G
	Internal	CAN Bus / RS485
Input protection		OVP, OCP, OPP, OTP, UVP, RCD, SPD
Output protection		SCP, OCP, OVP, LVP, OTP, IMD
Internal protection		OTP, AC contactor detection, DC contactor detection, Fuse detection
Load management		Via OCPP 1.6JSON

User interface & control	Display	7-inch LCD
	User authentication	RFID: Support ISO 14443A/B, ISO 15693, FeliCa Lite-S (RCS966), OCPP, 2D barcode, APP, mobile payment
	Backend support	OCPP 1.6 JSON
Environmental conditions	Operation temperature	-30° C to 50° C, with derating from 50° C to 60° C
	Storage temperature	-40° C to 70° C
	Relative humidity	5 %~95 % RH, non-condensing
	Altitude	≤ 2000 m
Regulations	Safety	IEC 61851-1, IEC 61851-23
	EMI/EMC	IEC 61851-21-2
	Charging Interface	CHAdeMO Ver 1.2 **CCS DIN 70121, ISO15118** GB/T 27930
Mechanical specifications	Dimensions (W x D x H mm)	747 x 620 x 992
	Weight (typ.)	≤ 80 kg
	DC charging connector	**CCS2** or CHAdeMO or GB/T
	Charging cable length	4,5 m
	Charging cable number	1
	Input cable and connection	10 m cable with 63 A CEE socket
	Cooling	Fan cooling
	Ingression protection	IP55
	Anti-vandalism	IK10 (does not include LCD & RFID cove)
	Acoustic Noise (dB(A))	65 dB(A) (Pout with DC 25kW at Rt=30℃)

2.2 DM30 VERSION DESCRIPTION

The DM30 series are available in different versions depending on the charging connectors, below table shows the available combinations.

Version	Connector Type
DMYx301M00	**CCS2**
DMYx301J00	CHAdeMO
DMYx301G00	GB
DMYx301U00	CCS1

2.3 LED INDICATION AND OPERATION STATUS

Status LED	Light	Remark
Standby	Green	
Fault	Red	
Charging	Blue	

2.4   DIMENSIONS

Main Size of Charger (Unit mm):
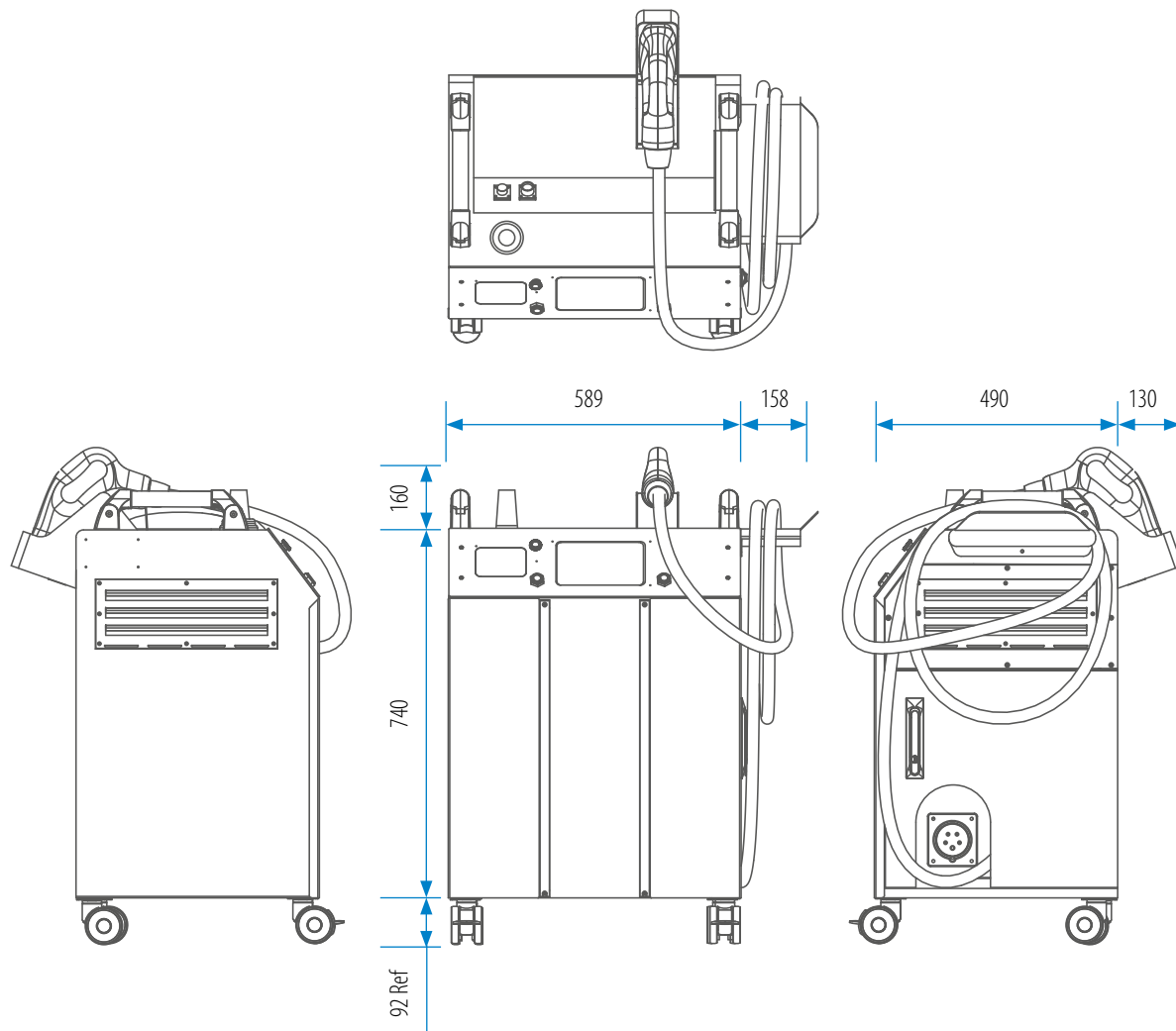
2.5   DIRECTION OF COOLING AIRFLOW

Air Out

Air In
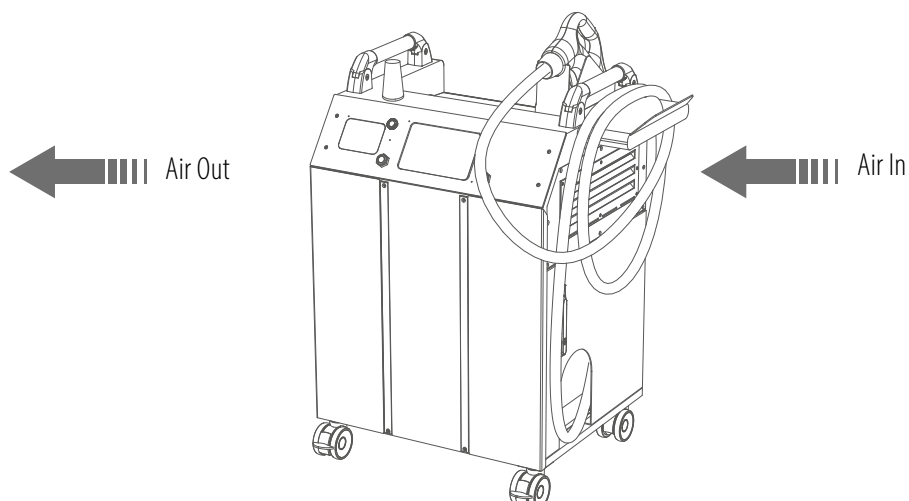
3. INSTALLATION INSTRUCTION

3.1 BEFORE INSTALLATION

- Read all the instructions before using and installing this product.

- Do not use this product if power cable or charging cable have any damage.

- Do not use this product if the enclosure or charging connector are broken or open or if there is damage.

- Do not put any tool, material, finger or other body part into the charging connector or EV connector.

> **WARNING:** The product should be installed only by a licensed contractor and/or licensed technician in accordance with all building codes, electrical codes and safety standards.

> **WARNING:** The product should be inspected by a qualified installer prior to initial use. Under no circumstances will compliance with the information in this manual relieve the user of his /her responsibilities to comply with all applicable codes and safety standards.

- Power feed must be 3-phase Wye configuration with TN(-S)/IT/TT grounding systems.

- In the installation of TN(-S) system: the neutral (N) and the PE of the power distribution are directly connected to the earth. The PE of the charger equipment is directly connected to the PE of power distribution and separate conductor for PE and neutral (N).

- In the installation of IT system: the neutral of the power distribution system is isolated from the earth. The PE of the charger equipment is isolated to the PE of power distribution to the earth.

- In the installation of TT system: the neutral (N) and the PE of the power distribution are directly connected to the earth. The PE of the charger equipment is isolated to the PE of power distribution to the earth.

- The capacity of power supply should be higher than 33.0 kVA in order to function correctly.

- The product should be installed in free air area and keep at least 30 cm clearance distance to all air vent of the product.

- Need sufficient space for product installation and maintenance, please keep not less than 60cm clearance distance from all around the product (not relevant for DM30 mobile Charger).

- Do not move the charger in speed higher than 1 m/second (about 3.6 km/h normal walking speed) , and do not move at bumpy surface .

3.2   GROUNDING AND SAFETY REQUIREMENT

- The product must be connected to a grounded, metal, permanent wiring system. Connections shall comply with all applicable electrical codes, incl. country deviations.

- Ensure no power is connected at all times when installing, servicing, or maintaining the charger.

- Use appropriate protection when connecting to main power distribution network.

- Use appropriate tools for each task.

- Do not apply electrical power to charger or charging cars before the charger is well and secure parked.

CAUTION: The disconnect switch for each ungrounded conductor of AC input shall be provided by installation contractor or technician.

CAUTION: A cord extension set or second cable assembly shall not be used in addition to the cable assembly for connection of the EV to the EVSE.

3.2.1 SERVICE WIRING

- Ground Connection

   Always connect the Neutral at the service to Earth Ground. If ground is not provided by the electrical service then a grounding stake must be installed nearby. The grounding stake must be connected to the ground bar in the main breaker panel and Neutral connected to Ground at that point.

- 400 VAC (Line to Line) 3-phase

CAUTION! This is feed from Wye-connection power grid, the DC fast charger can connect to L1, L2 or L3, and Neutral. Earth ground must be connected to neutral at only one point, usually at the breaker panel.
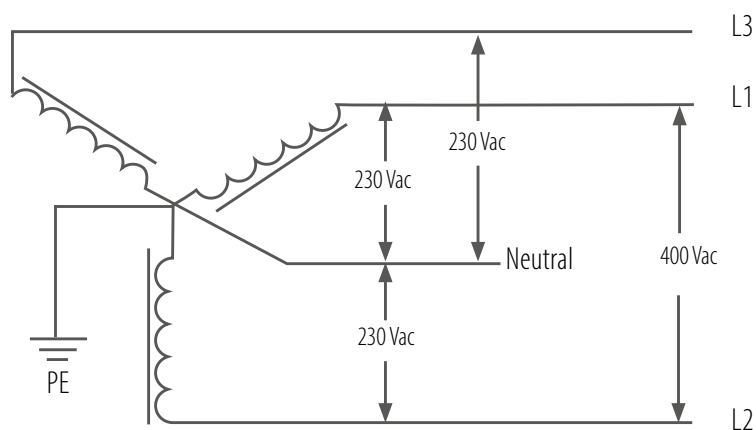
400 V Three-Phase wiring connection

DANGER! Be aware of high voltage!

DANGER! Earth connection is essential!

3.3   UNPACK THE CHARGER

WARNING!
Charger weight is >80kg!
Be careful during unpacking process.

Step 1
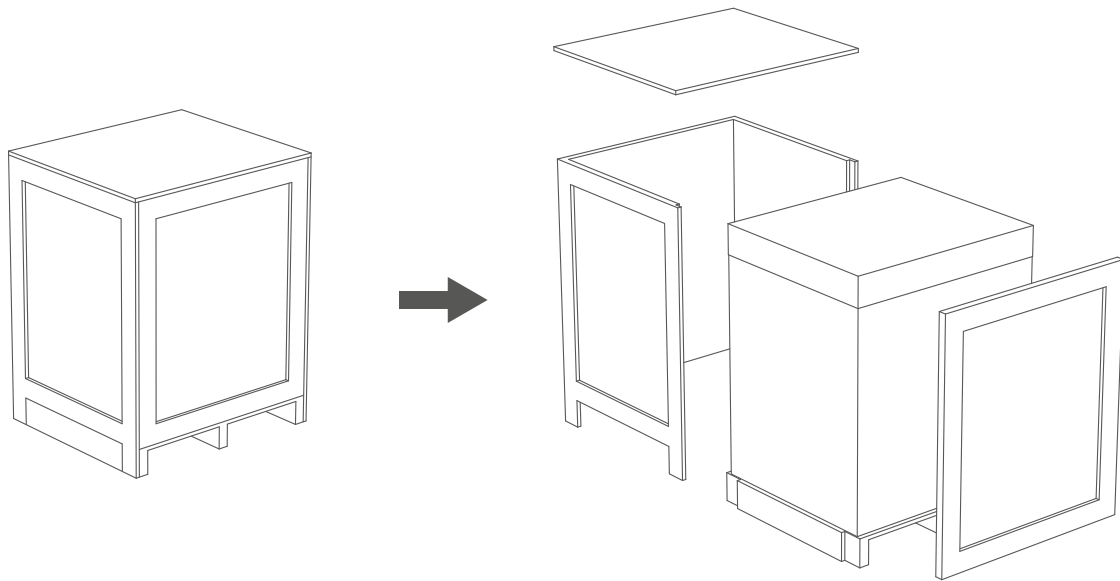
Step 2

Remove the packaging films and the paper covers.
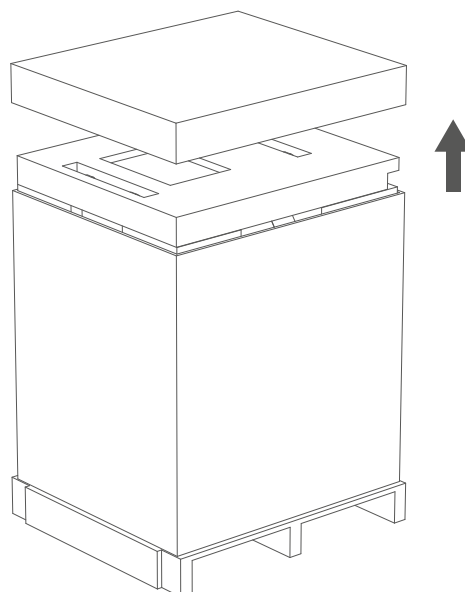
Step 3

Remove the surrounding cardboards and films.
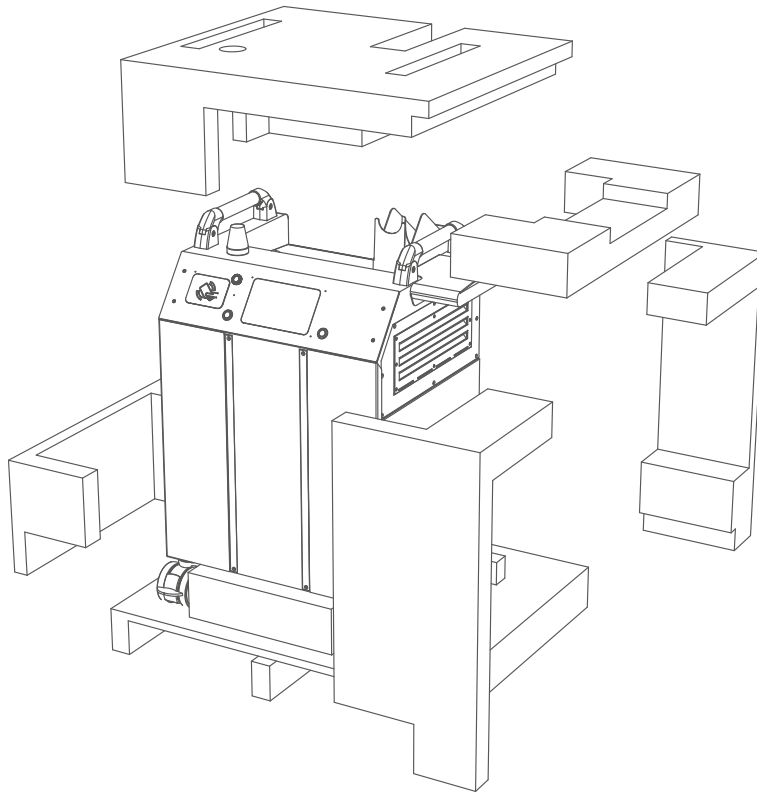
3.4   RECOMMENDED TOOLS FOR INSTALLATION AND INSPECTION

3.4.1   RECOMMENDED TOOLS FOR INSTALLATION

Type	Description
Philips screwdriver	Nr. 2 and 3
Shifting wrench	8" (24 mm)
Ball-Head Hex Key	2.5 mm und 5 mm
Socket screwdriver	Nr. 8 und 10
Electrical tape	Black/15 mm Width
AC input cable	AWG#5 (16 mm^2) Cable x 5 (L1, L2, L3, N, PE)
Ring terminal	AWG#5 x 5 (L1, L2, L3, N, PE) Ring terminal (inside diameter is 6.4 mm; outer diameter is 15.1 mm)
Crimping pliers for ring terminal	
Wire stripper	
Wire cutters	

3.4.2   RECOMMENDED TOOLS FOR INSPECTION & COMMISSIONING

Type	Description
EV or EV simulator	Meets CHAdeMO/CCS2/GBT standard
Multiple meter	1000 V
Current probe	100 Amp
RFID authorized card	
RFID no valid Card	
Door key	
Needle-Nose plier	

3.5 INSTALLATION PROCEDURE

Step 1

Place the moveable charger on the flat ground. Push down all front wheel-brakes until hearing the click sound.
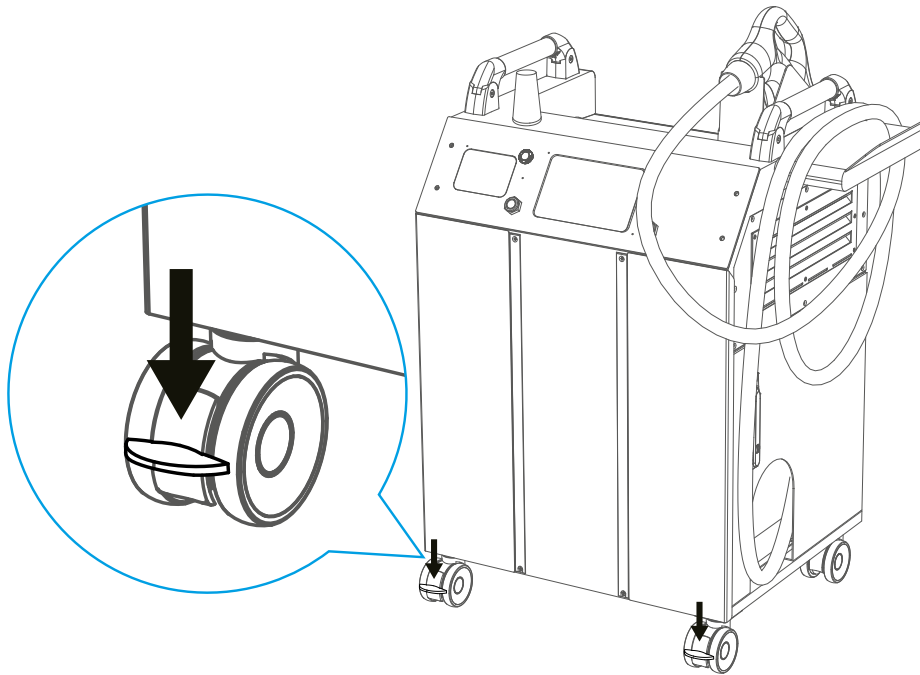
Step 2

Open the side door and fasten the female CEE plug on the extension cable into the male CEE socket on charger, make sure both sides are inter-locked appropriately then close the door.
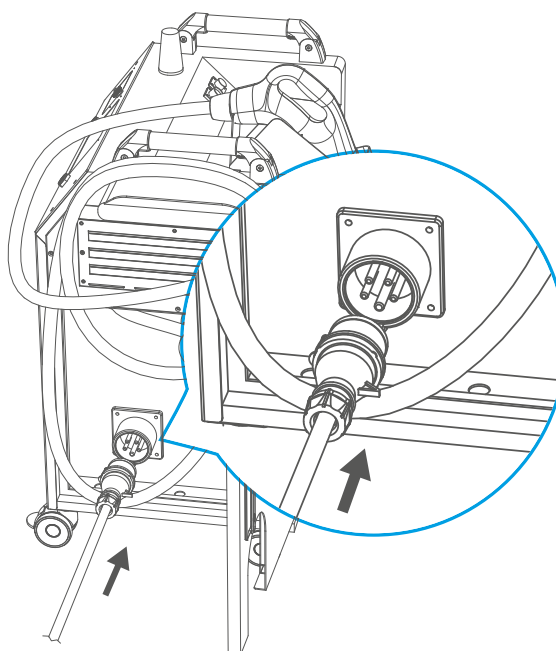
Step 3

Fasten AC power cord to the wall socket or distribution box according to local regulation. This shall be operated by qualified technician.
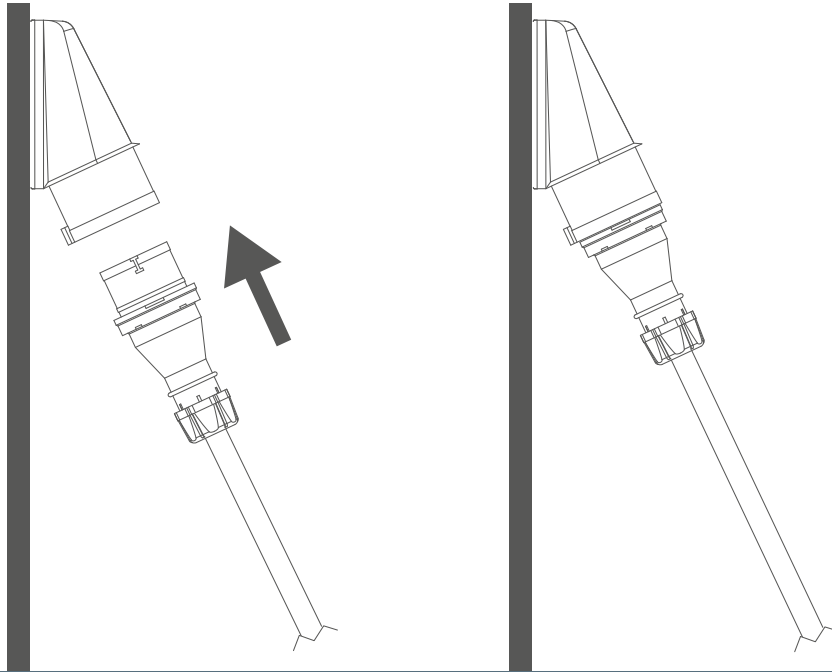
Step 4

Turn on the power source and then operation screen will be ready within 30 seconds.
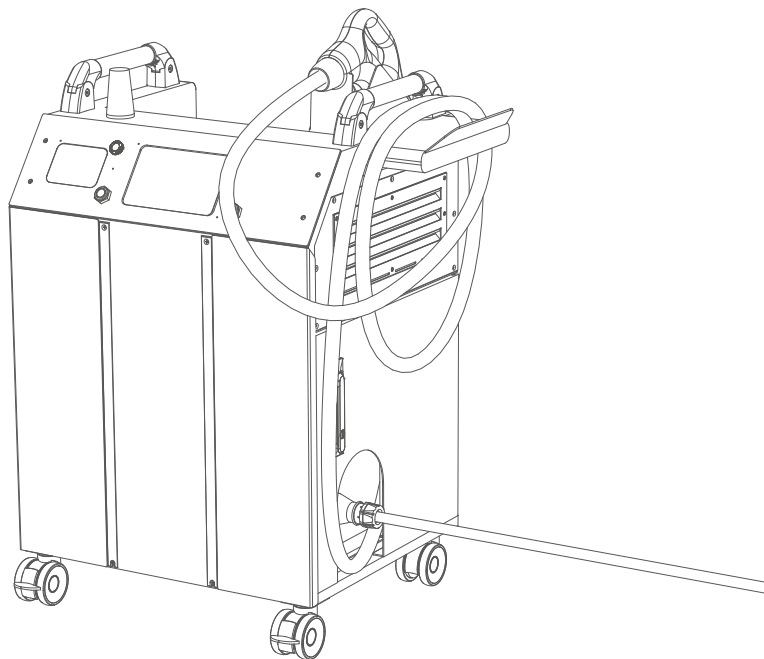
Not following installation instruction will cause charger damage.

3.6 INSTALLATION INSPECTION & COMMISSIONING

3.6.1 ENVIRONMENTAL CHECK

Item	Status	Remark
Ambient temperature		
Ambient humidity		
Sunshade		Recommended but not required.
Rain canopy		Recommended but not required.
Air circulation / drafty		
Dust level		
Anti-vandalism measures		

3.6.2 EXTERNAL INFRASTRUCTURE READINESS & CHECK

Item	Status	Remark
Input Wirings & Terminals		
Key & Lock of cabinet door		
No Fuse Breaker (NFB)		**Notice:** Current rating of NFB shall be higher than 65 Amp
Residual Current Device (RCD)		**Notice:** Maximum RCD residual current shall not excess 30 mA
Input electricity capacity		
Input electricity configuration		
Grounding resistance (<10 Ω)		
Grounding system (TN)		
Input voltage & frequency		
Grounding system (TN)		

3.6.3 EVSE CHECK – STATIC (NON-POWERED)

Item	Status	Remark
Outlook		
Labeling & warning signs		
Package (Accessory) list		
Robustness of input wirings		

3.6.4 EVSE CHECK - POWER ON

Item	Status	Remark
Screen on		
Acoustic noise		
Screen display & function		
Time display correctly		
Network connection quality		
Cooling fans operation & noise		
Led status indication		
EVSE setting		
Function of engineer mode		
Version of Hard- and Software		
Remote control & monitoring		
Backend server connection		

3.6.5 EVSE CHECK - CHARGING

Item	Status	Remark
User authorization —RFID		
User authorization —QR Code		
User authorization —Others		
Waiting time of connection check		
Reading of each display item		
Full charge test		Check of temperature reading of inner parts is a must.
Function of electronic lock		
Reading of engineer mode		
Airflow & noise of cooling fan		
Charging record (log) upload		
Remote control & monitoring		

3.6.6 EVSE CHECK —SYSTEM POWER BUTTON

Item	Status	Remark
Emergency stop button		Test the function of the emergency stop button

4. NETWORK SETTING

4.1 WI-FI NETWORK SETTING
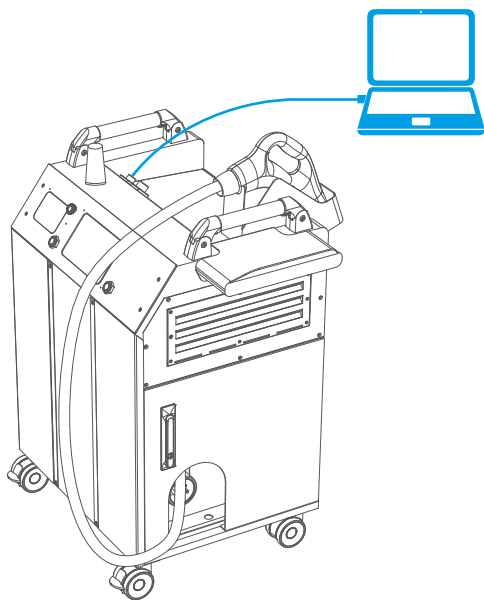
- Laptop with RJ45 interface.
- Connect RJ45 cable from laptop to charger's RJ45 port.
- Setup parameters in the web service.

Use the following IP address:

IP address: 192 . 168 . 1 . 1

Subnet mask: 255 . 255 . 255 . 0

Default gateway: .   .   .

Step 1

Before opening web browser, please enter network setting to set your IPV4 static IP to 192.168.1.1 in PC.

192.168.1.10

login https://192.168.1.10

Account   admin

Password   1231231238

Step 2

Open web service browser, type the IP address of charger "192.168.1.10" into the URL bar to access the web page of charger.

- Account: admin
- Password: 1231231238

192.168.1.10

SET   UPGRADE   OTHER LANGUAGE

System
Charging
Network
Backend

Step 3

SET -> Network.

× |

← → ⟳ | 🔍 | 192.168.1.10

Network

Network Status	+
Ethernet Interface	+
Ethernet Interface	+
Wi-Fi Module	+
3G/4G Module	+

× |

← → ⟳ | 🔍 | 192.168.1.10

SET   UPGRADE   OTHER LANGUAGE

Wi-Fi Module

Wi-FiMode

Wi-FiSsid

Wi-FiPassword

Set
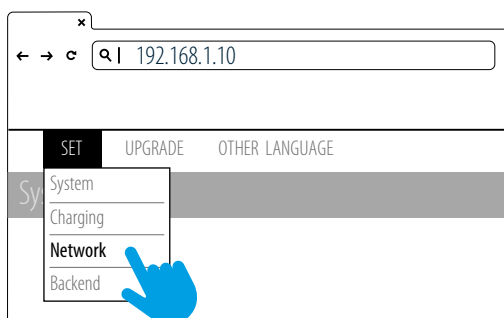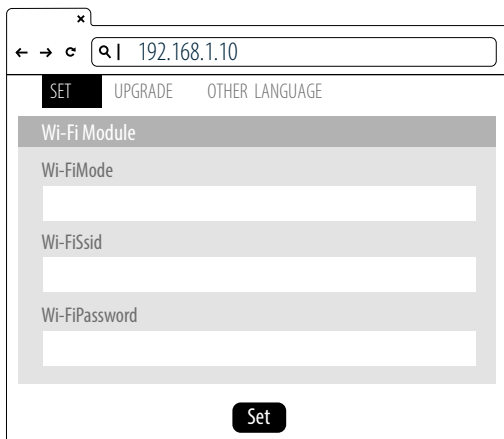
Step 4

Select Wi-Fi module

Select Wi-Fi modes and fill in SSID and password according to your application, if not required, just keep default.

Wi-Fi Setting	Description
Wi-Fi SSID	Service Set Identifier, SSID
Wi-Fi Password	Password to access to Wi-Fi
Wi-Fi DHCP server	DHCP server of Wi-Fi
Wi-Fi DHCP Client	DHCP Client des Wi-Fi
Wi-Fi IP address	Wi-Fi IP address
Wi-Fi Submask address	Wi-Fi submask address
Wi-Fi Gateway address	Wi-Fi gateway address

4.2   3G/4G SETTING

4.2.1   SIM CARD INSTALLATION
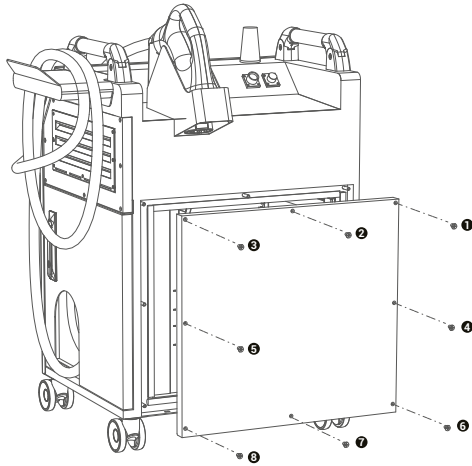
Step 1

Remove 8 screws to open the back door.
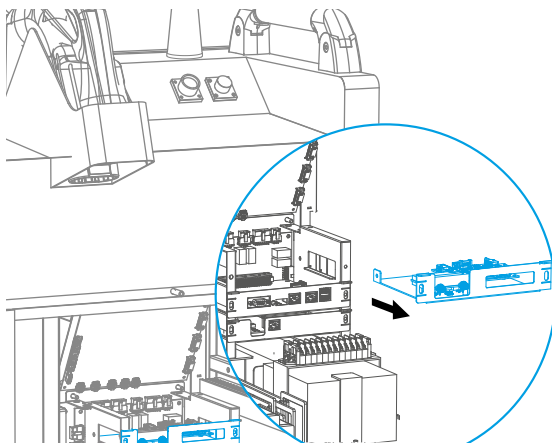
Step 2

Remove screws and take out the tray as indicated, you can see the 4G/Wi-Fi module.
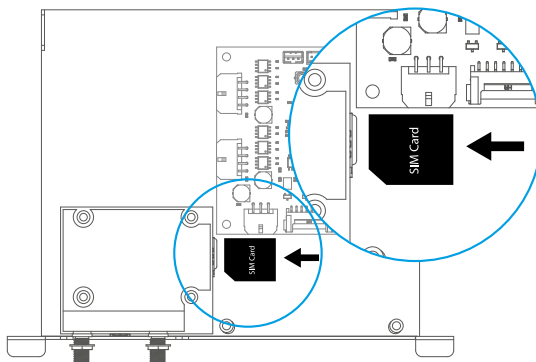
Step 3

Insert 3G/4G Micro SIM card in the tray, ensure the gold contacts are facing down and the notch is located in the right position. Note the tray might be damaged if insert SIM card in wrong direction.

Step 4

Reinstall the tray and back door, ensure the back door is well fixed at original position which considering water and dust resistant.

4.2.2 SETTING AND ENABLE 3G/4G MODULE
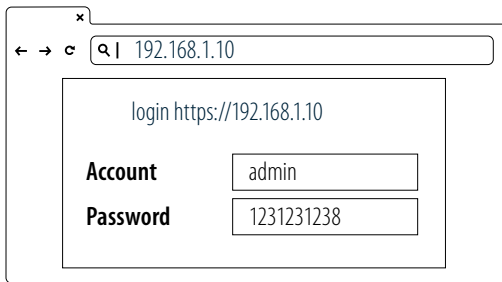
Step 1

- Please contact your SIM provider to get the APN, PPP ID and password.
- **Note:** PPP ID and password maybe options depend on your SIM provider.
- Open the web page of charger and sign-in
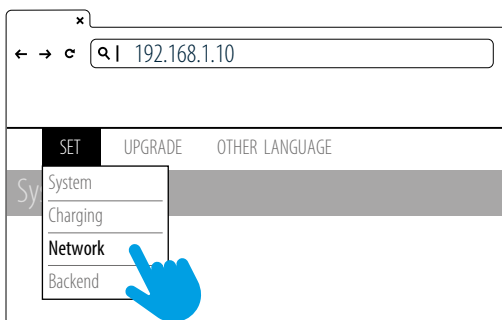
Step 2

SET -> Network.
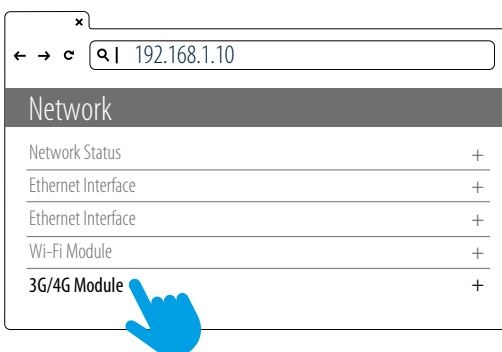
Step 3

- Network -> 3G/4G Module to fill corresponding information into TelcomApn, TelcomChapPapid and TelcomChapPapPwd.
- Press"Set" to save those information. Then 3G/4G will be activated in few minutes.
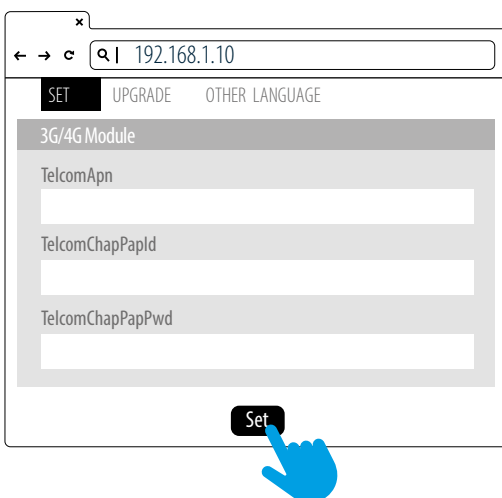
TelcomApn	APN Setting
TelcomChapPapId	Login ID authentication
TelcomChapPapPwd	Login password authentication
TelcomIpAddress	IP address

4.3 TIME SETTING

Automatic setting: The time will be adjusted automatically when the charger connects to internet.

Time server :

- time.windows.com

- cn.ntp.org.cn

- tock.stdtime.gov.tw

Note: Firewall and network environment may influence the time server connection

Manual setting:
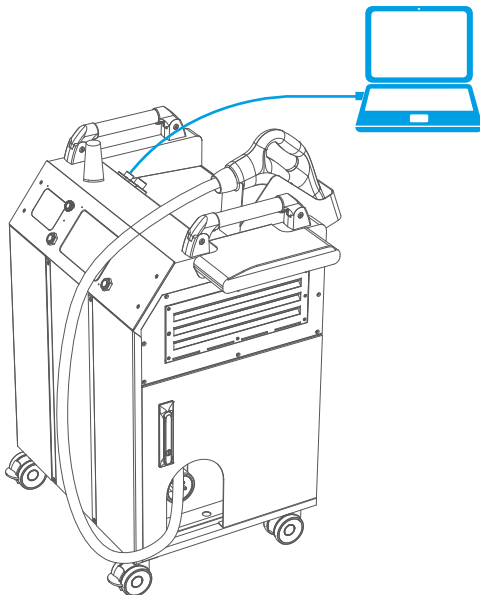
Step 1

- Laptop with RJ45 interface.

- Connect RJ45 cable from laptop to charger's RJ45 port.
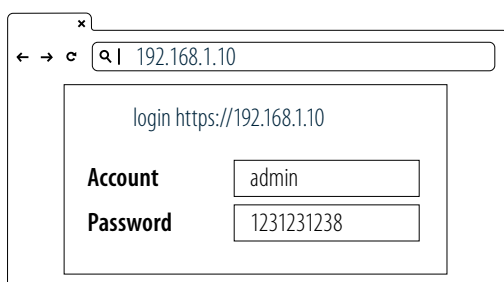
- Setup parameters in the web service.

Use the following IP address:

IP address:	192 . 168 . 1 . 1
Subnet mask:	255 . 255 . 255 . 0
Default gateway:	. . .

Step 2

Before opening web browser, please enter network setting to set your IPV4 static IP to 192.168.1.1 in PC

login https://192.168.1.10

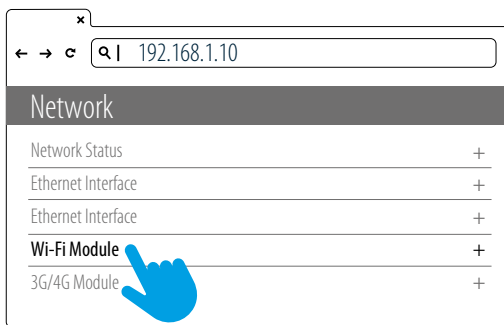|	
Account	admin
Password	1231231238

Step 3

Open web service browser, type the IP address of charger "192.168.1.10" into the URL bar to access the web page of charger.

- Account: admin

- Password: 1231231238

Step 4

SET -> SYSTEM.
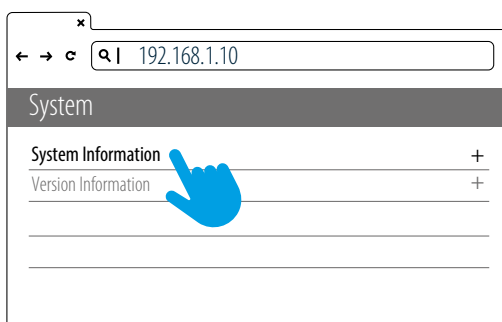
Step 5

Click „System information".
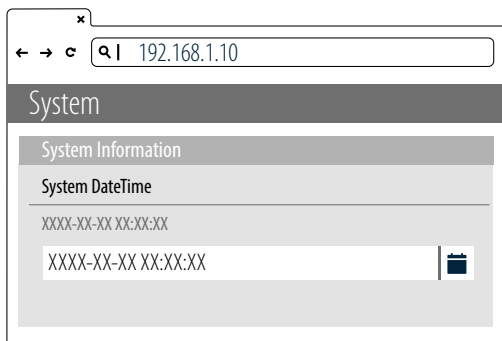
Step 6

Click system date time.

Click the calendar button on the right to set the current time.
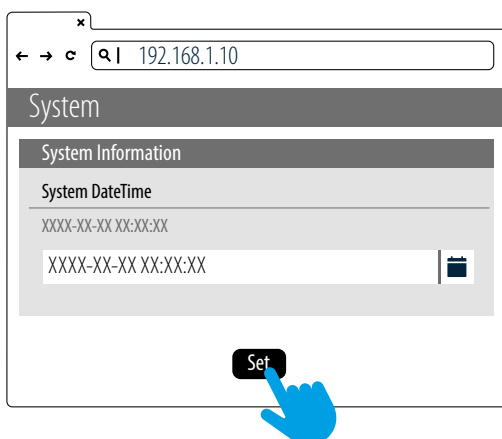
Step 7

After the setting is completed, click SET and wait until the setting completion window appears.

5. OPERATION PROCESS

5.1 OPERATING SEQUENCE

- 28 -

Park the charger well and secure before charging.

- System initialization
- User authorization
- Plug in DC charging connector
- Preparing for charging
- In charging
- Charging terminated
- Status messages

5.2 OPERATING PROCEDURE

5.2.1 SYSTEM-INITIALISIERUNG

- When the charger is powered on, it start with the "Charging Station" Initializing page.
- You will see the below image on the screen after powering on and the system is initializing.
- The initializing process will take around 2 minutes, then shows homepage.

Initializing page

OCPP backend connection indicator

Wi-Fi connection indicator

3G/4G connection indicator

Unit and currency if billing function is enabled
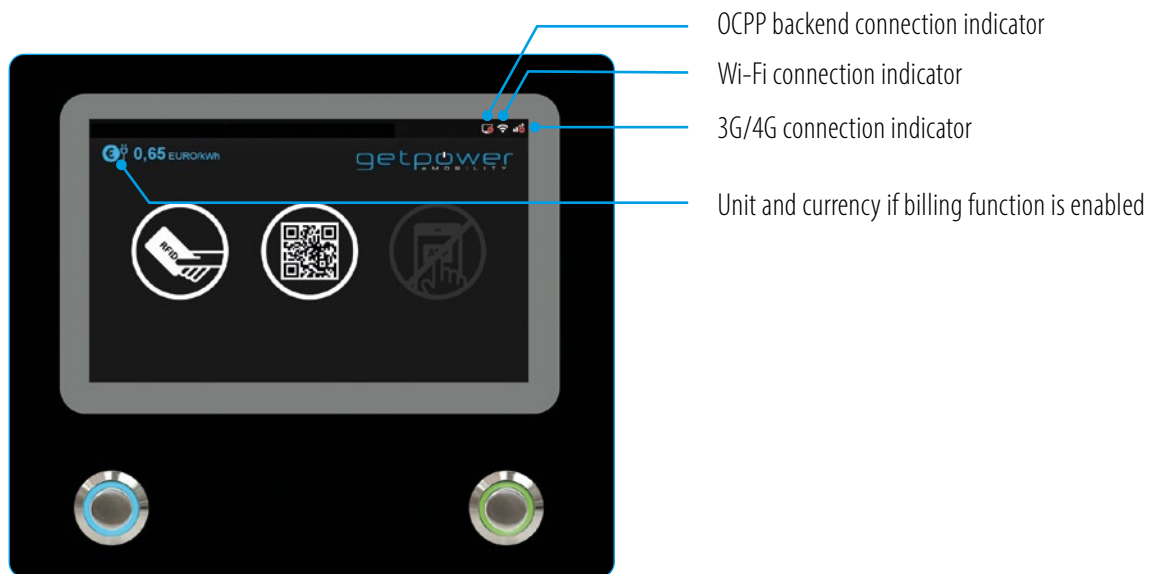
Home page

5.2.2 USER AUTHORIZATION

- After the system is initialized the screen will stay at homepage as below illustrated.

- Use your RFID card or mobile app to authorize the use of the EVSE..

User authorization method: RFID,

QR code and mobile APP.

- Unauthorized method(s) will be darker on the screen if the method is disabled.

Home page

5.2.3   PLUG IN DC CHARGING CONNECTOR

- After authorization the screen will ask the user to plug the charging connector into the EV DC charging inlet as below illustrated.

- Take the DC charging connector from the charging cable holder and plug the connector into EV DC charging inlet. The charger will automatically detect the type of the charging connector.

- It will normally take less than 10 seconds to start the process after completing the physical connection of charging connector to charging inlet. To terminate this session, please press the left button to return to the Home page

The screen will return to homepage and terminate this session if the left button is pressed

Plug-in page

5.2.4   PREPARE FOR CHARGING

- After authorization and plug-in process, the charger will start communicating with the vehicle and the screen will show the preparing page as below illustrated.

Information of selected charging connector

Connector select button (not required, if only 1 charging gun is installed)

Preparing page

5.2.5 IN CHARGING

- The screen will show the charging page as below illustrated once the charger goes into the ready to charge stage.

- To start charging, load the charging information. When the battery has been fully charged or reaches the limit of the setting it will stop charging automatically and go to the next process.

- User also can tap the RFID to stop charging.
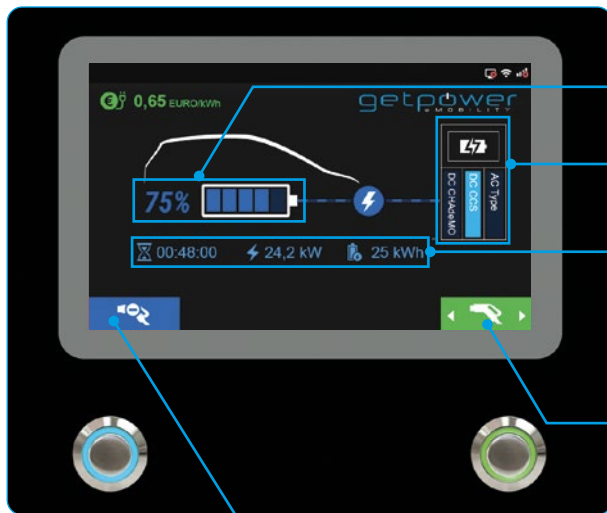
EV battery SOC

Show the selected connector in use

Charging information area includes charging duration, charged power and energy

Press right button to select the charger connector that the user would like to stop (only required, if more as 1 charging gun is installed)

Tap RFID card or push stop button to stop

Charging page

5.2.6 CHARGING TERMINATED

- After charging is terminated the charger system will show the charging summary page as below illustrated and the charging connector will automatically unlock.

- Unplug the charging connector from charging inlet of the EV and return the charging connector to charging cable holder.

- The screen will go back to the homepage or the other charging connector's charging page if unplugged from the charging connector.

- During simultaneous charging the screen will go to the other charging connector's charging page if either charging connector is unplugged.

Charging duration
Charging power

Charging energy

Charging summary page

5.2.7 STATUS MESSAGES

- When problems occur with this charger or the charging process a status code will display on screen as below illustrated. Please follow the troubleshooting table to solve the proble

Status code

5.3 TROUBLESHOOTING

- Please follow the instruction in the table when errors occur during the charging process.

- Or please contact the DC quick charger provider for further instructions.

- If an emergency occurs push the "Emergency Stop Button" to stop charging immediately.

5.4 STATUS CODES

* For latest status code, please visit our website.   (V0.24)

Status Code	Description
011001	CHAdeMO output fuse blew
011002	CCS output fuse blew
011003	GB output fuse blew
011004	RCD/CCID self-test fail
011005	AC input contactor 1 welding
011006	AC input contactor 1 driving fault
011007	AC input contactor 2 welding
011008	AC input contactor 2 driving fault
011009	AC output relay welding
011010	AC output relay driving fault
011011	CHAdeMO output relay welding
011012	CHAdeMO output relay driving fault
011013	CCS output relay welding
011014	CCS output relay driving fault
011015	GB output relay welding
011016	GB output relay driving fault
011017	AC connector temperature sensor broken
011018	CHAdeMO connector temperature sensor broken
011019	CCS connector temperature sensor broken
011020	GB connector temperature sensor broken
011021	Wi-Fi module broken
011022	3G/4G module broken

Status Code	Description
011023	Aux. power module broken
011024	Relay control module /smart box broken
011025	CHAdeMO connector lock fail
011026	GB connector lock fail
011027	AC connector lock fail
011028	CHAdeMO module broken
011029	CCS module broken
011030	GBT module broken
011031	PSU module broken
011032	RCD/CCID module broken
011033	Maximum Output Current setup error
011034	Shutter fault
011035	BLE module broken
011036	Rotary switch fault
011037	Reserved
011038	Reserved
011039	Reserved
011040	Reserved
012200	System L1 input OVP
012201	System L2 input OVP
012202	System L3 input OVP
012203	System L1 input UVP
012204	System L2 input UVP
012205	System L3 input UVP
012206	PSU L1 input OVP
012207	PSU L2 input OVP
012208	PSU L3 input OVP
012209	PSU L1 input UVP
012210	PSU L2 input UVP
012211	PSU L3 input UVP
012212	System L1 input drop
012213	System L2 input drop
012214	System L3 input drop
012215	System AC output OVP

Status Code	Description
012216	System AC L1 output OCP
012217	System CHAdeMO output OVP
012218	System CHAdeMO output OCP
012219	System CCS output OVP
012220	System CCS output OCP
012221	System GB output OVP
012222	System GB output OCP
012223	System ambient/inlet OTP
012224	System critical point OTP
012225	PSU ambient/inlet OTP
012226	PSU critical point OTP
012227	Aux. power module OTP
012228	Relay board/smart box OTP
012229	CHAdeMO connector OTP
012230	CCS connector OTP
012231	GB connector OTP
012232	AC connector OTP
012233	RCD/CCID trip
012234	CHAdeMO GFD trip
012235	CCS GFD trip
012236	GB GFD trip
012237	SPD trip
012238	Main power breaker trip
012239	Aux. power breaker trip
012240	PSU communication fail
012241	Wi-Fi module communication fail
012242	3G/4G module communication fail
012243	RFID module communication fail
012244	Bluetooth module communication fail
012245	LCM module communication fail
012246	Aux. power module communication fail
012247	Relay control board/smart box communication fail
012248	CCS module communication fail
012249	CHAdeMO module communication fail

Status Code	Description
012250	GBT module communication fail
012251	Emergency stop
012252	Door open
012253	System fan decay
012254	Fail to create share memory
012255	CSU initialization failed
012256	AC Ground Fault
012257	MCU self-test Fault
012258	Relay self-test Fault
012259	CHAdeMO ground fault detection timeout (GFD)
012260	CCS ground fault detection timeout (GFD)
012261	GB/T ground fault detection timeout (GFD)
012262	System AC L1 output Circuit Short
012263	PSU Duplicate ID
012264	PSU Output Short Circuit
012265	PSU Discharge Abnormal
012266	PSU Dc Side Shutdown
012267	PSU Failure Alarm
012268	PSU Protection Alarm
012269	PSU Fan Failure Alarm
012270	PSU Input UVP
012271	PSU Input OVP
012272	PSU WalkIn State
012273	PSU Power Limited State
012274	PSU Id Repeat
012275	PSU Severe Uneven Current
012276	PSU Three Phase Input Inadequate
012277	PSU Three Phase Input Imbalance
012278	PSU Pfc Side Shutdown
012279	Reserved
012280	Self-test Failed due to communication of Relay board failure
012281	Self-test Failed due to communication of Fan board failure
012282	Self-test Failed due to communication of Primary(STM of DCM) failure
012283	Self-test Failed due to communication of CHAdeMO board failure

Status Code	Description
012284	Self-test Failed due to communication of CCS board failure
012285	Self-test Failed due to AC Contact failure
012286	Self-test Failed due to communication of PSU failure
012287	Self-test Failed due to Model name is none match
012288	CCS output UVP
012289	CHAdeMO output UVP
012290	GBT output UVP
012291	Self-test Failed due to communication of GBT board failure
012292	Self-test Failed due to communication of AC failure
012293	Self-test Failed due to communication of LED board failure
012294	AC input OVP
012295	AC input UVP
012296	CHAdeMO ground fault detection - warning
012297	CCS ground fault detection - warning
012298	GBT ground fault detection - warning
012299	System AC L2 output OCP
012300	System AC L3 output OCP
012301	System AC L2 output Circuit Short
012302	System AC L3 output Circuit Short
013600	Normal stop charging by user
013601	Charging Time's up
013602	Replace system air filter
013603	Reach to CHAdeMO max. plugging times.
013604	Reach to CCS max. plugging times.
013605	Reach to GBT max. plugging times.
013606	Reach to AC max. plugging times.
013607	CSU firmware update fail
013608	CHAdeMO Module firmware update fail
013609	CCS Module firmware update fail
013610	GB Module firmware update fail
013611	Aux. power module firmware update fail
013612	Relay control module firmware update fail
013613	LCM module firmware update fail
013614	Bluetooth module firmware update fail

Status Code	Description
013615	Wi-Fi module firmware update fail
013616	3G/4G module firmware update fail
013617	SMR firmware update fail
013618	RFID module firmware update fail
013619	configured by USB flash drive
013620	configured by backend
013621	configured by web page
013622	Disconnected from Internet through Ethernet
013623	Disconnected from Internet through Wi-Fi
013624	Disconnected from Internet through 3G/4G
013625	Disconnected from AP through Wi-Fi
013626	Disconnected from APN through 3G/4G
013627	Reserved
013628	Reserved
013629	Reserved
013630	Reserved
013631	Reserved
023700	CHAdeMO EV communication Fail
023701	CCS EV communication Fail
023702	GBT EV communication Fail
023703	AC: pilot fault
023704	CHAdeMO: battery malfunction
023705	CHAdeMO: no charging permission
023706	CHAdeMO: battery incompatibility
023707	CHAdeMO: battery OVP
023708	CHAdeMO: battery UVP
023709	CHAdeMO: battery OTP
023710	CHAdeMO: battery current difference
023711	CHAdeMO: battery voltage difference
023712	CHAdeMO: shift position
023713	CHAdeMO: battery other fault
023714	CHAdeMO: charging system error
023715	CHAdeMO: EV normal stop
023716	CHAdeMO: connector temperature sensor broken

Status Code	Description
023717	CHAdeMO: connector lock fail
023718	CHAdeMO: d1 on no receive
023719	CHAdeMO: BMS k to j on timeout
023720	CHAdeMO: BMS charge allow timeout
023721	CHAdeMO: wait ground fault timeout
023722	CHAdeMO: BMS EV relay on timeout
023723	CHAdeMO: BMS req current timeout
023724	CHAdeMO: BMS k to j off timeout
023725	CHAdeMO: BMS EV relay off timeout
023726	CHAdeMO: ADC more than 10v
023727	CHAdeMO: ADC more than 20v
023728	CHAdeMO: BMS charge before stop
023729	CHAdeMO: charger get normal stop command
023730	CHAdeMO: charger get emergency stop command
023731	CHAdeMO: isolation result fail
023732	CHAdeMO: mother board miss link
023733	CHAdeMO: output voltage more than limit
023734	CHAdeMO: require current more than limit
023735	CHAdeMO: re capability BMS eqr current exceed
023736	CHAdeMO: charge remaining count done
023737	CCS: EVCC EVErrorCode FAILED_RESSTemperatureInhibit
023738	CCS: EVCC EVErrorCode_FAILED_EVShiftPosition
023739	CCS: EVCC EVErrorCode FAILED_ChargerConnectorLockFault
023740	CCS: EVCC EVErrorCode FAILED_EVRESSMalfunction
023741	CCS: EVCC EVErrorCode FAILED_ChargingCurrentdifferential
023742	CCS: EVCC EVErrorCode_FAILED_ChargingVoltageOutOfRange
023743	CCS: EVCC EVErrorCode_FAILED_ChargingSystemIncompatibility
023744	CCS: EVCC EVErrorCode_FAILED_EmergencyEvent
023745	CCS: EVCC EVErrorCode_FAILED_Breaker
023746	CCS: EVCC EVErrorCode_FAILED_NoData
023747	CCS: EVCC EVErrorCode_FAILED_reserved_by_DIN_A
023748	CCS: EVCC EVErrorCode_FAILED_reserved_by_DIN_B
023749	CCS: EVCC EVErrorCode_FAILED_reserved_by_DIN_C
023750	CCS: EVCC EVErrorCode_FAILED_reserved_by_ISO_1

Status Code	Description
023751	CCS: EVCC EVErrorCode_FAILED_reserved_by_ISO_2
023752	CCS: EVCC EVErrorCode_FAILED_reserved_by_ISO_3
023753	CCS: EVCC EVErrorCode_FAILED_reserved_by_OEM_1
023754	CCS: EVCC EVErrorCode_FAILED_reserved_by_OEM_2
023755	CCS: EVCC EVErrorCode_FAILED_reserved_by_OEM_3
023756	CCS: EVCC EVErrorCode_FAILED_reserved_by_OEM_4
023757	CCS: EVCC EVErrorCode_FAILED_reserved_by_OEM_5
023758	CCS: SECC ResponseCode_FAILED_SequenceError
023759	CCS: SECC ResponseCode_FAILED_SignatureError
023760	CCS: SECC ResponseCode_FAILED_UnknownSession
023761	CCS: SECC ResponseCode_FAILED_ServiceIDInvalid
023762	CCS: SECC ResponseCode_FAILED_Payment SelectionInvalid
023763	CCS: SECC ResponseCode_FAILED_IdentificationSelectionInvalid
023764	CCS: SECC ResponseCode_FAILED_ServiceSelectionInvalid
023765	CCS: SECC ResponseCode_FAILED_CertificateExpired
023766	CCS: SECC ResponseCode_FAILED_CertificateNotYetValid
023767	CCS: SECC ResponseCode_FAILED_CertificateRevoked
023768	CCS: SECC ResponseCode_FAILED_NoCertificateAvailable
023769	CCS: SECC ResponseCode_FAILED_CertChainError
023770	CCS: SECC ResponseCode_FAILED_CertValidationError
023771	CCS: SECC ResponseCode_FAILED_CertVerificationError
023772	CCS: SECC ResponseCode_FAILED_ContractCanceled
023773	CCS: SECC ResponseCode_FAILED_ChallengeInvalid
023774	CCS: SECC ResponseCode_FAILED_WrongEnergyTransferMode
023775	CCS: SECC ResponseCode_FAILED_WrongChargeParameter
023776	CCS: SECC ResponseCode_FAILED_ChargingProfileInvalid
023777	CCS: SECC ResponseCode_FAILED_TariffSelectionInvalid
023778	CCS: SECC ResponseCode_FAILED_EVSEPresentVoltageToLow
023779	CCS: SECC ResponseCode_FAILED_PowerDeliveryNotApplied
023780	CCS: SECC ResponseCode_FAILED_MeteringSignatureNotValid
023781	CCS: SECC ResponseCode_FAILED_NoChargeServiceSelected
023782	CCS: SECC ResponseCode_FAILED_ContactorError
023783	CCS: SECC ResponseCode_FAILED_CertificateNotAllowedAtThisEVSE
023784	CCS: SECC ResponseCode_FAILED_GAChargeStop

Status Code	Description
023785	CCS: SECC ResponseCode_FAILED_AlignmentError
023786	CCS: SECC ResponseCode_FAILED_ACDError
023787	CCS: SECC ResponseCode_FAILED_AssociationError
023788	CCS: SECC ResponseCode_FAILED_EVSEChargeAbort
023789	CCS: SECC ResponseCode_FAILED_NoSupportedApp-Protocol
023790	CCS: SECC ResponseCode_FAILED_ContractNotAccepted
023791	CCS: SECC ResponseCode_FAILED_MOUnknown
023792	CCS: SECC ResponseCode_FAILED_OEM_Prov_CertificateRevoke
023793	CCS: SECC ResponseCode_FAILED_OEM_SubCA1_CertificateRevoked
023794	CCS: SECC ResponseCode_FAILED_OEM_SubCA2_CertificateRevoked
023795	CCS: SECC ResponseCode_FAILED_OEM_RootCA_CertificateRevoked
023796	CCS: SECC ResponseCode_FAILED_MO_Prov_CertificateRevoked
023797	CCS: SECC ResponseCode_FAILED_MO_SubCA1_CertificateRevoked
023798	CCS: SECC ResponseCode_FAILED_MO_SubCA2_CertificateRevoked
023799	CCS: SECC ResponseCode_FAILED_MO_RootCA_CertificateRevoked
023800	CCS: SECC ResponseCode_FAILED_CPS_Prov_CertificateRevoked
023801	CCS: SECC ResponseCode_FAILED_CPS_SubCA1_CertificateRevoked
023802	CCS: SECC ResponseCode_FAILED_CPS_SubCA2_CertificateRevoked
023803	CCS: SECC ResponseCode_FAILED_CPS_RootCA_CertificateRevoked
023804	CCS: SECC ResponseCode_FAILED_reserved_1
023805	CCS: SECC ResponseCode_FAILED_reserved_2
023806	CCS: SECC ResponseCode_FAILED_reserved_3
023807	CCS: SECC ResponseCode_FAILED_reserved_4
023808	CCS: SECC ResponseCode_FAILED_reserved_5
023809	CCS: SECC TIMEOUT_SLAC_TT_EVSE_SLAC_init
023810	CCS: SECC TIMEOUT_SLAC_TP_match_response
023811	CCS: SECC TIMEOUT_CM_START_ATTEN_CHAR_IND
023812	CCS: SECC TIMEOUT_SLAC_TT_EVSE_match_MNBC
023813	CCS: SECC TIMEOUT_SLAC_TP_EVSE_avg_atten_calc
023814	CCS: SECC TIMEOUT_SLAC_CM_ATTEN_CHAR_RSP
023815	CCS: SECC TIMEOUT_SLAC_CM_VALIDATE_REQ_1ST__CM_SLAC_MATCH_REQ
023816	CCS: SECC TIMEOUT_SLAC_TT_EVSE_assoc_session
023817	CCS: SECC TIMEOUT_SLAC_TT_EVSE_vald_toggle
023818	CCS: SECC TIMEOUT_SLAC_CM_MNBC_SOUND_IND

Status Code	Description
023819	CCS: SECC TIMEOUT_SLAC__CM_VALIDATE__REQ_2ND___CM_SLAC_MATCH_REQ
023820	CCS: SECC TIMEOUT_SLAC_reserved_3
023821	CCS: SECC TIMEOUT_SLAC_reserved_4
023822	CCS: SECC TIMEOUT_SLAC_reserved_5
023823	CCS: SECC TIMEOUT_SLACC__SDP_UDP_TT_match__join
023824	CCS: SECC TIMEOUT_SLACC__SDP_TCP_TT_match__join
023825	CCS: SECC TIMEOUT_SLACC__SDP_TP_amp__map__exchange
023826	CCS: SECC TIMEOUT_SLACC__SDP_TP_link__ready__notification
023827	CCS: SECC TIMEOUT_SLACC__SDP_reserved_1
023828	CCS: SECC TIMEOUT_SLACC__SDP_reserved_2
023829	CCS: SECC TIMEOUT_SLACC__SDP_reserved_3
023830	CCS: SECC TIMEOUT_SLACC__SDP_reserved_4
023831	CCS: SECC TIMEOUT_SLACC__SDP_reserved_5
023832	CCS: SECC TIMEOUT_V2G_Msg_Performance_Time_SupportedAppProtocolRes
023833	CCS: SECC TIMEOUT_V2G_Msg_Performance_Time_SessionSetupRes
023834	CCS: SECC TIMEOUT_V2G_Msg_Performance_Time_ServiceDiscoveryRes
023835	CCS: SECC TIMEOUT_V2G_Msg_Performance_Time_ServicePaymentSelectionRes
023836	CCS: SECC TIMEOUT_V2G_Msg_Performance_Time_ContractAuthenticationRes
023837	CCS: SECC TIMEOUT_V2G_Msg_Performance_Time_ChargeParameterDiscoveryRes
023838	CCS: SECC TIMEOUT_V2G_Msg_Performance_Time_PowerDeliveryRes
023839	CCS: SECC TIMEOUT_V2G_Msg_Performance_Time_CableCheckRes
023840	CCS: SECC TIMEOUT_V2G_Msg_Performance_Time_PreChargeRes
023841	CCS: SECC TIMEOUT_V2G_Msg_Performance_Time_CurrentDemandRes
023842	CCS: SECC TIMEOUT_V2G_Msg_Performance_Time_WeldingDetectionRes
023843	CCS: SECC TIMEOUT_V2G_Msg_Performance_Time_SessionStopRes
023844	CCS: SECC TIMEOUT_V2G_Sequence_Time
023845	CCS: SECC TIMEOUT_V2G_ReadyToCharge_Performance_Time
023846	CCS: SECC TIMEOUT_V2G_CommunicationSetup_Performance_Time
023847	CCS: SECC TIMEOUT_V2G_CableCheck_Performance_Time
023848	CCS: SECC TIMEOUT_V2G_CPState_Detection_Time
023849	CCS: SECC TIMEOUT_V2G_CPOscillator_Retain_Time
023850	CCS: SECC TIMEOUT_V2G_PreCharge_Performace_Time
023851	CCS: SECC TIMEOUT_V2G_reserved_2
023852	CCS: SECC TIMEOUT_V2G_reserved_3

Status Code	Description
023853	CCS: SECC TIMEOUT_V2G_reserved_4
023854	CCS: SECC TIMEOUT_V2G_reserved_5
023855	CCS: CAN TIMEOUT_TP_GET_EV_TARGET_INFO
023856	CCS: CAN TIMEOUT_TT_GET_EV_TARGET_INFO
023857	CCS: CAN TIMEOUT_TP_GET_EV_BATTERY_INFO
023858	CCS: CAN TIMEOUT_TT_GET_EV_BATTERY_INFO
023859	CCS: CAN TIMEOUT_TP_EV_STOP_EVENT
023860	CCS: CAN TIMEOUT_TT_EV_STOP_EVENT
023861	CCS: CAN TIMEOUT_TP_EVSE_STOP_EVENT
023862	CCS: CAN TIMEOUT_TT_EVSE_STOP_EVENT
023863	CCS: CAN TIMEOUT_TP_GET_MISC_INFO
023864	CCS: CAN TIMEOUT_TT_GET_MISC_INFO
023865	CCS: CAN TIMEOUT_TP_DOWNLOAD_REQUEST
023866	CCS: CAN TIMEOUT_TT_DOWNLOAD_REQUEST
023867	CCS: CAN TIMEOUT_TP_START_BLOCK_TRANSFER
023868	CCS: CAN TIMEOUT_TT_START_BLOCK_TRANSFER
023869	CCS: CAN TIMEOUT_TP_DATA_TRANSFER
023870	CCS: CAN TIMEOUT_TT_DATA_TRANSFER
023871	CCS: CAN TIMEOUT_TP_DOWNLOAD_FINISH
023872	CCS: CAN TIMEOUT_TT_DOWNLOAD_FINISH
023873	CCS: CAN TIMEOUT_TP_ISOLATION_STATUS
023874	CCS: CAN TIMEOUT_TT_ISOLATION_STATUS
023875	CCS: CAN TIMEOUT_TP_CONNECTOR_INFO
023876	CCS: CAN TIMEOUT_TT_CONNECTOR_INFO
023877	CCS: CAN TIMEOUT_TT_RTC_INFO
023878	CCS: CAN TIMEOUT_TP_RTC_INFO
023879	CCS: CAN TIMEOUT_TP_EVSE_PRECHARGE_INFO
023880	CCS: CAN TIMEOUT_TT_EVSE_PRECHARGE_INFO
023881	CCS: CAN TIMEOUT_MSG_Sequence
023882	CCS: CAN MSG_Unrecognized_CMD_ID
023883	CCS: SECC DIN_Msg_Decode_Error
023884	CCS: SECC DIN_Msg_Encode_Error
023885	CCS: SECC ISO1_Msg_Decode_Error
023886	CCS: SECC ISO1_Msg_Encode_Error

Status Code	Description
023887	CCS: SECC ISO2_Msg_Decode_Error
023888	CCS: SECC ISO2_Msg_Encode_Error
023889	CCS: SECC CP_State_Error
023890	CCS: SECC Unexpected_60V_Before_Charing_Error
023891	CCS: SECC Not_Ready_For_Charging
023892	CCS: SECC TIMEOUT_QCA7000_COMM (The firmware code of QCA7000 may not be installed, yet)
023893	CCS: SECC FAIL_QCA7000_SETKEY
023894	Reserved
023895	Reserved
023896	Reserved
023897	Reserved
023898	Reserved
023899	Reserved
023900	GBT_LOS_CC1
023901	GBT_CONNECTOR_LOCK_FAIL
023902	GBT_BATTERY_INCOMPATIBLE
023903	GBT_BMS_BROAA_TIMEOUT
023904	GBT_CSU_PRECHARGE_TIMEOUT
023905	GBT_BMS_PRESENT_VOLTAGE_FAULT
023906	GBT_BMS_VOLTAGE_OVER_RANGE
023907	GBT_BSM_CHARGE_ALLOW_00_10MIN_COUUNTDONE
023908	GBT_WAIT_GROUNDFAULT_TIMEOUT
023909	GBT_ADC_MORE_THAN_10V
023910	GBT_ADC_MORE_THAN_60V
023911	GBT_CHARGER_GET_NORMAL_STOP_CMD
023912	GBT_CHARGER_GET_EMERGENCY_STOP_CMD
023913	GBT_ISOLATION_RESULT_FAIL
023914	GBT_MOTHER_BOARD_MISS_LINK
023915	GBT_OUTPUT_VOLTAGE_MORE_THAN_LIMIT
023916	GBT_REQ_CURRENT_MORE_THAN_LIMIT
023917	GBT_OUTPUT_VOLTAGE_MORE_THAN_10_PERCENT
023918	GBT_OUTPUT_VOLTAGE_DIFF_BCS_5_PERCENT
023919	GBT_STOP_ADC_MORE_THAN_10V
023920	Reserved

Status Code	Description
023921	Reserved
023922	Reserved
023923	Reserved
023924	Reserved
023925	Reserved
023926	Reserved
023927	Reserved
023928	Reserved
023929	Reserved
023930	GBT_CEM_BHM_TIMEOUT
023931	GBT_CEM_BRM_TIMEOUT
023932	GBT_CEM_BCP_TIMEOUT
023933	GBT_CEM_BRO_TIMEOUT
023934	GBT_CEM_BCL_TIMEOUT
023935	GBT_CEM_BCS_TIMEOUT
023936	GBT_CEM_BSM_TIMEOUT
023937	GBT_CEM_BST_TIMEOUT
023938	GBT_CEM_BSD_TIMEOUT
023939	GBT_CEM_BEM_OTHER_TIMEOUT
023940	GBT_BEM_CRM_TIMEOUT
023941	GBT_BEM_CRMAA_TIMEOUT
023942	GBT_BEM_CTS_CML_TIMEOUT
023943	GBT_BEM_CRO_TIMEOUT
023944	GBT_BEM_CCS_TIMEOUT
023945	GBT_BEM_CST_TIMEOUT
023946	GBT_BEM_CSD_TIMEOUT
023947	GBT_BEM_BEM_OTHER_TIMEOUT
023948	Reserved
023949	Reserved
023950	GBT_BST_SOC_GOAL
023951	GBT_BST_TOTAL_VOLTAGE_GOAL
023952	GBT_BST_CELL_VOLTAGE_GOAL
023953	GBT_BST_GET_CST
023954	GBT_BST_ISOLATION

Status Code	Description
023955	GBT_BST_OUTPUT_CONNECTOR_OTP
023956	GBT_BST_COMPONEN
023957	GBT_BST_CHARGE_CONNECTOR
023958	GBT_BST_OTP
023959	GBT_BST_OTHER
023960	GBT_BST_HIGH_V
023961	GBT_BST_CC2
023962	GBT_BST_CURRENT
023963	GBT_BST_VOLTAGE
023964	GBT_GET_BST_NO_REASON
023965	Reserved
023966	Reserved
023967	Reserved
023968	Reserved
023969	Reserved
023970	GBT_BSM_CELL_OVER_VOLTAGE
023971	GBT_BSM_CELL_UNDER_VOLTAGE
023972	GBT_BSM_OVER_SOC
023973	GBT_BSM_UNDER_SOC
023974	GBT_BSM_CURRENT
023975	GBT_BSM_TEMPERATURE
023976	GBT_BSM_ISOLATE
023977	GBT_BSM_OUTPUT_CONNECTOR
023978	Reserved
023979	Reserved
033900	disconnected from backend through Ethernet
033901	disconnected from backend through Wi-Fi
033902	disconnected from backend through 3G/4G
033903	Remote start charging by backend
033904	Remote stop charging by backend
033905	Remote reset by backend
033906	Reserved
033907	Reserved

NOTES TO FAILURE CODES

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NOTES TO FAILURE CODES

6. MAINTENANCE

6.1 GENERAL MAINTENANCE

- The DC fast charger is cooled by forced air. Please keep charger in a ventilated location and do not block the air vents of the DC fast charger.

- Please clean or replace the air filters regularly to ensure the DC fast charger works properly.

- Clean the DC fast charger at least three times a year, keep the exterior clean at all times.

- Clean the outside of the cabinet with damp cloth or wet cotton towel, only use low-pressure tap water and cleaning agents with PH level between 6 to 8.

- Do not apply high-pressure water jets.

- Do not use cleaning agents with abrasive components and do not use abrasive tools. Improper cleaning agents might spoiled coating, painting, surface, brightness and durability of all exterior parts.

- If there is water intruding into the DC fast charger then please cut off the power source immediately and contact the DC fast charger provider for repair.

- Please make sure the charging connector is returned to the holder of the charging connector after charging to prevent damage.

- If there is damage to the charging connector, charging cable or holder of the charging connector then please contact the DC fast charger provider.

- When using the DC fast charger please handle properly. Do not strike or scrape the cabinet or touch screen.

- If the enclosure or touch screen is broken, cracked, open or shows any other indication of damage then please contact DC fast charger provider.

WARNING: Danger of electrical shock or injury. Turn OFF power at the panelboard or load center before working on the equipment or removing any component. Do not remove circuit protective devices or any other component until the power is turned OFF.

- Disconnect electrical power to the DC fast charger before any maintenance work to ensure it is separated from the supply of AC mains. Failure to do so may cause physical injury or damage to the electrical system and charging unit. .

NOTE:

- Before switching off main breaker to begin maintenance, please record the status code number on the LCD monitor.
- Maintenance of the DC fast charger shall be conducted only by a qualified technician.
- After opening the front door of the DC fast charger, turn off the main breaker and auxiliary breaker before any maintenance work.
- Replace the ventilation filter every six to twelve months.
- Check the connection of inner cables monthly.

6.2   REPLACEMENT KITS AND ACCESSORIES

The DC EVSE offers the following replacement kits and accessories.

Replacement Kit List
7-inch LCD
CCS1/CHAdeMO 65 Amp, GBT 80 Amp (or above) CCS2 80 A DC charging connector & 5m charging cable
Emergency stop button
30 KW DC PSU G-1K0100
MW aux. power HEP-100-12 V
MW aux. power HEP-185-24 V
Control & Supervisory Unit (CSU)
Surge Protection Device (SPD)
DC fan
Air filters
AWG#5 (16 mm^2) cable x 5 (L1, L2, L3, N, PE)
Door key

LIMITED PRODUCT WARRANTY

The warranty period for this charger is two years.

Any spare parts provided by **Berger Stromversorgungen GmbH & Co.KG** and used as replacements for repair are covered by a five-year guarantee.

Replacement and repair parts manufactured by alternative manufacturers to those on the maintenance parts are only allowed if authorized by **Berger Stromversorgungen GmbH & Co.KG**.

Warranty exclusions:

- Damage or rendered non-functional as a result of power surges, lighting, earthquake, fire, flood, pest damage, abuse, accident, misuse, negligence or failure to maintain the product or other event beyond Berger's reasonable control or not arising from normal operating condition.

- Cosmetic or superficial defect, dents, marks or scratches after use.

- Components which are separate from the product, ancillary equipment and consumables, such as door key, RFID card, quick guide, air filter, fuse, cable, wires and connectors.

- Damage as a result of modifications, alterations or disassembling which were not pre-authorized in writing by **Berger Stromversorgungen GmbH & Co.KG**.

- Damage due to the failure to observe the applicable safety regulations governing the proper use of the product.

- Installed or operated not in strict conformance with the documentation, including without limitation, not ensuring sufficient ventilation for the product as described in Berger installation instruction.

If a defect in the product arises and valid claim is received within the warranty period, your sole and exclusive remedy will be for **Berger Stromversorgungen GmbH & Co.KG**, at its sole discretion and to extent permitted by law, to

1. Repair the defect in the product at no charge, using new or refurbished parts.
2. Exchange the product with new or refurbished product that is functionally equivalent to the original product.

Any remedy hardware product will be warranted for the remainder of the original warranty period or 90 days from delivery to the customer, whichever is longer.

In order to receive the remedy set for above, you must contact Berger during the warranty period and provide the model number, series number, proof of purchase, and date of purchase.

APPENDIX - PACKAGE LIST

Pos.	Description	Quantity	Remark
1	EVSE	1	
2	User manual	1	
3	OQC report	-	
4	RFID card	2	
5	Key of cabinet	2	
6	10 meters AC power cord	1	As below picture shown

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is a brand of **BERGER Stromversorgungen GmbH & Co. KG**, with which the company specializes in sales and services in the field of charging solutions for electromobility.

Since our founding in 2000, **BERGER Stromversorgungen GmbH & Co. KG** has built up an extensive range of more than 30,000 different power supply types. In cooperation with leading switch-mode power supply manufacturers, such as PHIHONG Technologies, we develop, produce and distribute standard power supplies and customized devices for demanding industrial applications.

As the European representative of **ZEROVA Technologies**, we distribute the innovative and reliable EV chargers in the range of 3.6 to 22 kW (AC) and 30 to 360 kW (DC) for the growing electromobility market. At the same time, we are the contact for product and application consulting as well as repair and installation service of the ZEROVA chargers in German-speaking countries.

In addition to the distribution of standard devices, our offer also includes individual solutions for our customers, which are built up with several chargers and include intelligent load management and simple billing systems for operation in multi-family houses or company fleets. We operate various chargers (AC and DC) from our product portfolio with the getpower SmartChargingSystem in conjunction with a photovoltaic system and a modern energy management system for automatic load distribution and load control in our company building in Achern. The system is also available to our customers for product demonstration and training purposes.Contact us and benefit from our comprehensive range of innovative EV charging systems as well as our expertise and consulting in electromobility.

getpower
eMOBILITY

by BERGER Stromversorgungen GmbH & Co. KG
Bannmatten 10 | 77855 Achern | Germany

Web
www.get-power.de

E-mail:
info@get-power.de

Phone:
+49 [0] 7841 - 6 73 04-0