TA-DC-MD7kW

Operation manual

TARY
泰瑞通达

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Symbol	Meaning
	Warning sign:Indicates danger. Pay attention to the operational steps, practices, or the potential for personal injury caused by incorrect execution; The operation after the "warning" mark can only be carried out when the indicated conditions are fully understood and met.
	Caution sign: indicates danger. Take care of the procedure, or the damage or destruction of the product that may result from incorrect use, and only perform the operation after the "caution" mark when the specified conditions are fully understood and met.
	Hint sign: Indicates the use of tips or useful information. Tips and useful information are marked with "tips". It does not contain information warning of dangerous or harmful features.
	"Non-recyclable" sign: located in the product, instruction manual or on the packaging, indicating that electrical and electronic equipment and accessories should be disposed of separately from ordinary household waste. When scrapped, it should be treated as industrial waste, otherwise it may cause accidents.

Our company is committed to continuous improvement and updates of our products. The hardware and software of our products will be constantly upgraded, and any changes to the information provided will not be notified separately.

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NO 1. Important information

1.1 Safety Tips

Symbol	Implication
	Failure to follow safety instructions may result in life danger, injury and equipment damage; Disclaim any resulting claims. • Electrical hazard Only trained, qualified and authorized electrical professionals shall be responsible for installation. Initial commissioning and maintenance of the charger shall comply with existing standards and installation regulations. For details, see section A Installation Instructions. Electrical hazard/fire hazard - you must regularly inspect the charger's socket or charging gun (including the charging cable) for damage and check the housing for damage. - If the charger is damaged, turn it off and replace it immediately. - Charger repair or replacement shall not be performed without authorization, only by the manufacturer. - Do not modify or modify the charger without authorization. - Do not remove signs such as safety symbols, warnings, nameplates, labels, or pipeline markings. • During the first installation, disconnect the power supply before connecting the external power supply to the charger input. Do not connect the power line. • No extension cable shall be used when connecting an electric vehicle to an electric vehicle power supply. • Connect only to electric vehicles or their charging devices, do not connect to other loads (power tools, etc.). Hold the plug when pulling out the charging gun. Do not pull the cable. • Do not bend, squeeze or tilt the charging gun to cause mechanical damage. • Keep the contact surface away from heat sources, dirt, or water. • Some vehicles may produce toxic or explosive gases in indoor areas during charging, so an external ventilation system must be equipped. • When charging an electric vehicle with a charger, read the vehicle's instructions carefully. • Avoid the charger falling from a height or strong mechanical force impact, otherwise the electrical safety of the equipment may be damaged, resulting in safety risks. • It is strictly prohibited to use in an environment with combustible materials or explosive gases, otherwise there is a risk of explosion. • Do not let conductive objects such as metal foreign bodies fall into the inside of the charger, otherwise an accident may occur. • The PE end of the charger must be reliably grounded, otherwise electric shock or fire accidents may occur.

Symbol	Implication
	Be careful • Risk of damage. • In use, ensure that the air duct of the equipment is good to facilitate heat dissipation.

1.2 Specified Use

The DC-MD7 is a 7kW portable DC charger that can charge electric vehicles both indoors and outdoors.
• The installation and connection of charging machines shall comply with the regulations of each country.
• The stated use of the equipment includes compliance with the environmental conditions established for the equipment in all cases.
• Equipment development, production, inspection and filing according to relevant safety standards. Therefore, if the instructions and safety technical tips for the specified use are followed, the product will not normally cause property damage or endanger the health of persons.
• The instructions contained in this manual must be strictly followed, otherwise there may be safety hazards or failure of safety devices. Although the relevant safety tips are described in this manual, care must be taken to comply with the safety regulations and accident prevention regulations for the appropriate application.
• Only connected electric vehicles or their charging devices. Do not connect to other devices (e.g. power tools).
• Due to technical or legal restrictions, it is not possible to supply all models/options to all countries and regions.

1.3 About this Manual

• This document is applicable to the device type: TA-DC-MD7kW
• This manual is intended for:
End customer (Charger user)
Commissioning, service technicians
agent
Car factory main engine factory

NO 2. Product overview

2.1 Product technical specifications

Working environment

argument	Min	Type	Max	units	note
temperature range	-30	25	50	℃	
Operating humidity range	45		80	RH%	When the outer surface temperature is below the dew point,Condensation can also work normally
altitude			2000	M	
Atmospheric pressure	70		106	KPa	
Heat dissipation mode	Independent duct air cooling				

Storage environment

argument	Min	Type	Max	units	note
Storage temperature range	-40	25	90	℃	
Storage humidity range	5	25	95	RH%	
altitude			2000	M	
Atmospheric pressure	70		106	KPa	

Rated output direct current

argument	Type	units	note
Direct current voltage	500	V	
Output voltage range	90-280	V	
efficiency	95	%	

Rated input AC

argument	Type	units	note
Input connection	L1+N+PE	RH%	
Power factor	0.99	M	

Product regulation

argument	Note
Standard	IEC61851-1
Charging protocol	CCS2 DIN 70121 /ISO15118/IEC61851-23
IP	55
IK	8
surge	Severe level 3
Voltage drop	Severe level 3

Mechanical parameter

item	argument	unit
dimension	420*260*140mm	mm
weight	7	Kg(Includes input and output cables)

2.2 Product Functions

1) Convenient charging, plug and play.
2) With a one-click stop button.
3) With overload protection, short circuit protection, discharge, leakage protection and other functions.
4) Breathing light display charging progress, fault reminder function.

2.3 Technical Features

1) The appearance design is more concise, the product is lighter, thinner, convenient and simple to carry.
2) No need for industrial three-phase electricity, no need for AC charging pile, no need for car charger.
3) The internal contactor is added, and the charger does not output direct current before successfully shaking hands with the BMS, which is safer.
4) Dual battery protection mechanism, automatic stop after the battery is full.
5) Applicable to all models that meet the new and old European standards of electric vehicles.

NO. 3. Use of charging machine

3.1 Appearance of the charger

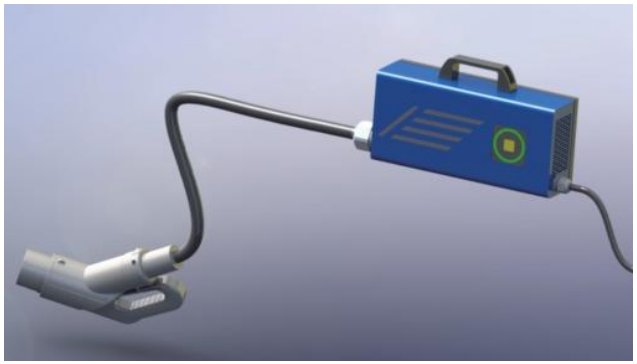

Figure 3-1 Appearance of a portable charger

Ac input cable, DC charging gun storage method:
• When not charged, put the cable away, do not drag or pull the cable;
• When charging, ensure that the AC input cable is reliably connected to the socket, and the DC charging gun is connected to the car end
Plug the socket tightly;

3.2 Initiating charge

1) Insert the gun:
Securely connect the charging gun to the charging interface of the vehicle to ensure that it is locked.
2) Power on:
Plug the input cable into the 32A CEE, and charge the machine automatically after the power is turned on.
3) End charging:
Press the one-button stop button, the charger stops charging, unplug the charging gun, pull out the input cable plug, the charging process is finished.

• Never use brute force to pull a mechanically locked gun out of its socket.
• If you do not press the "Start/Stop" button during the charging process, the charging gun electronic lock can be unlocked only after the charging is finished. Due to power failure, the electromagnetic lock will automatically unlock.

NO. 4. Troubleshooting

When the charger is faulty, the indicator will be displayed accordingly. Some faults may cause the charger to stop output. Table 4-1 lists the possible faults

Fault state	solution
The status indicators are off	1. Check whether the AC 220VAC input is normal. 2. If the AC input is normal, contact the manufacturer for help.
After the gun is inserted, the status indicator (yellow and green) does not blink	1. Check whether the charging gun is properly connected. 2. If the gun cable is properly connected, disconnect the AC power, and power on the machine again. 3. Please find the manufacturer for help.
Status light (red) flicker	1. Restart the charger after drawing the gun. 2. Please find the manufacturer for help.

NO 5. Maintenance

5.1 Power Distribution System

The AC input of the charger is drawn from the power grid, and a 32A CEE is required for connection.

5.2 Line System

Periodically check the input and output cables of the charger:
• Weekly routine inspection: Check whether the cable is heated or damaged.
• Monthly routine inspection: check whether the cable is heated, damaged, whether the cable is stressed by the external tension, and whether the fixed is firm.
• Annual routine inspection: check whether the cable is tightly connected to the switch, whether the grounding is reliable, and whether the cable is heated or damaged.
Whether the insulation resistance of the cable meets the requirements, whether the sealing measures of the cable into the charger are intact, and whether the holes are tightly sealed.

5.3 Circuit Components

The following checks should be carried out by professional maintenance personnel:
• Weekly routine check: whether the charging gun mechanical lock latch is damaged and whether the connection is abnormal.
• Quarterly routine inspection: whether there is a spark burning phenomenon at the connection of the charging gun wire core, if abnormal, timely replacement of parts.
• Annual routine inspection: Dust is removed from the box with a brush and vacuum cleaner. Do not blow dust into the components during cleaning, resulting in short circuit. Comprehensively check all components of the box, and replace abnormal components in time.

5.4 Device Appearance

• Monthly routine check whether there are stains on the appearance of the charger, and clean the charger shell as a whole;
• Whether the sheet metal of the electrical cabinet is deformed or rusted, and whether the paint is damaged, the appearance should be modified by timely anti-rust treatment.

5.5 Maintenance Cycle

Check item	One month	trimester	Six months	Twelve months	measure
Charging gun	✓	✓	✓	✓	Repair and replace
Input cable	✓	✓	✓	✓	Repair and replace

NO 6. Customer service

If you have questions or problems, please contact the company or agent responsible for performing the electrical installation.
Before contacting Customer Service:
• Check the troubleshooting measures in the Troubleshooting section.
• Check the troubleshooting measures in the vehicle manufacturer's manual.
• Please record the model and serial number of the device
(the device's nameplate)

A.1 Power Supply Requirements

The power supply mode of the DC charger is AC single-phase 7KW power supply. The input electrical requirements are as follows:
• AC operating voltage: AC220V±15%
• AC operating frequency: 50HZ±10%
• Voltage asymmetry: not more than 5%
• Voltage distortion: the non-sinusoidal content does not exceed 10% of 220V

A.2 Normal Operating Environment Requirements

• Working temperature: -30℃~ 50℃
• Relative humidity: 5% ~ 95%
• Installation vertical inclination: ≤ 5%
• Installation and operation altitude: ≤ 2000 m
• No strong vibration and shock at the use site, no strong electromagnetic interference

A.3 Cable Distribution Requirements

• Maximum allowable operating temperature of conductor core: 85℃
• Ambient temperature: -20~50℃