

MOBILE CHARGING STATION

SECTRON AC CHARGER

16A, 400V, CEE 5pin - Type 2, 5m

USER MANUAL

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Declaration of Conformity

SECTRON s.r.o.
Josefa Šavla 1271/12
709 00 Ostrava
Czech Republic

we declare under our sole responsibility that the product:

SECTRON Portable charger for electric car 16A, 400V, CEE 5pin - Type 2, 5m
SECTRON Portable charger for electric car 32A, 400V, CEE 5pin - Type 2, 5m
SECTRON Portable charger for electric car 32A, 400V, CEE 5pin - Type 2, 7m

devices for charging electric vehicles by conductive connection (EVSE)

provided that they are installed, maintained and used in accordance with the operating instructions and for the purpose for which they were manufactured, are safe and in accordance with government regulations

- Government Regulation No. 118/2016 Coll., On Conformity Assessment of electrical equipment designed for use within certain voltage limits to the making available on the market (2014/35/EU)
- Government Regulation No. 117/2006 Coll., On the conformity assessment of products in terms of electromagnetic compatibility to the making available on the market (2014/30/EU)
- Government Regulation No. 481/2012 Coll., On the restriction of the use of certain hazardous substances in electrical and electronic equipment (2011/65/EU)

Based on tests by proven certified laboratories and certificates supplied by component manufacturers, the above equipment complies with standards and the directive

ČSN EN 61851-1:2019
ČSN EN 62752:2016 + A1:2020
ČSN EN 61000-6-4:2007 + A1:2011
ČSN EN 61000-6-2:2005
ČSN EN 61000-3-11:2000
ČSN EN 61000-3-12:2011
RoHS

The CE marking affixed to a product indicates the conformity of the product with binding European technical and legislative regulations and standards.

In Ostrava on 1. 12. 2020

Name and signature:



Ing. Marek Zamarski, MBA
CEO of SECTRON s.r.o.

Safety instructions



- Dangerously high voltage inside the device.
- The charger is not equipped with its own power switch. Protective devices installed on the network side are also used to disconnect from the network.
- Read this manual carefully before installation, commissioning and use.
- This device cannot be installed or operated if it is damaged. Visually inspect all parts of the device before use. In case of damage, do not use the device.
- The manufacturer is not liable for defects caused by using this device in violation of the instructions for use.
- Electrical equipment should only be installed, serviced and maintained by qualified personnel. SECTRON assumes no responsibility for any consequences arising from the use of this equipment. A qualified person is one who has skills and knowledge related to the design, operation and installation of electrical equipment and has completed safety training aimed at identifying and avoiding possible risks.
- It is forbidden to remove the covers of the device when it is connected to the power grid and via the connector to the vehicle. If it is necessary to remove the cover, both cables must be disconnected from the power grid and from the vehicle! Do not remove the markings, warning symbols and type plate.
- It is strictly forbidden to connect other devices to the charger.
- Take care to protect the charger from being run over, pinching and other mechanical damage.
- Protect the charger from contact with external sources of heat, water, dirt and chemicals.
- Disconnect the power supply when cleaning the charging connectors.
- In the event that the device comes into contact with water (eg rain during charging), it must be thoroughly dried before being repackaged!
- When using the device, observe the legal regulations and local restrictions.
- All components built into the device are energized during operation of the mobile AC station.
- Use only the recommended accessories to prevent damage to the device, possible damage to property, health and violation of the relevant regulations.
- Observe any logins with the grid operator.
- Make sure that only persons who have read these operating instructions have access to the charging station.
- Warranty void if seal broken



IMPORTANT WARNING
RISK OF ELECTRIC SHOCK, ARC, BURNS OR EXPLOSION

- Do not use this device if it is damaged or if the charging cable is damaged.
- Make sure that the correct connection cable is used to connect to the power grid.
- Charge the vehicle in a well-ventilated area as recommended by the manufacturer.
- Do not modify the installed equipment. Failure to follow these instructions will result in death or serious injury.



RISK OF EQUIPMENT DAMAGE AND ELECTRIC SHOCK

- Do not use this device in the rain or during a thunderstorm.
- Do not spray water on this appliance. Do not wash with a high-pressure cleaner or similar device.
- Do not wash the electric car while it is charging. Failure to follow these instructions will result in death or serious injury.



Packaging includes

Packaging includes:

- SECTRON AC Charger
- IEC 62196, Type 2 electrical plug, Mennekes (EU standard, black-white)
- Three-phase plug CEE 400 V, 16 A, 5-pin intended for households (red)
- Textile packaging for transport and storage



Device description

The SECTRON AC Charger is used to charge electric vehicles equipped with an IEC 62196, Type 2, Mennekes socket from a 400 V 3-phase mains, terminated in a CEE 400 V, 16 A, 5-pin socket.

To connect the charger to a 230 V 1-phase mains, terminated in CEE 230 V sockets (blue 3-pin sockets for caravans and boats), SCHUKO or FRENCH (standard household sockets), adapters that are not included in the basic package can be also used.

The device is encapsulated in a durable plastic housing resistant to temperatures up to 115 °C and with IP65 protection.

On the front of the charger there is a display showing operating states and buttons for setting the delayed start of charging and limiting the maximum current

Vehicle compatibility

The device is compatible with all models of electric and plug-in hybrid vehicles of all manufacturers equipped according to the European standard with the socket IEC 62196, Type 2, Mennekes.

Basic functions and controls

The SPECTRON AC Charger is equipped with a delayed charging start function, thanks to which you can take advantage of cheaper low tariff rates or influence the end time of charging your vehicle. After connecting the charger to the power grid, the default value 0 h is shown in the lower left corner of the display, which can be gradually increased in steps from 1 to 9 hours with the TIME button. Subsequent pressing resets the value. The countdown of the set delayed start time is started by connecting the Type 2 connector to the vehicle.

The maximum current limiting function is used to set the charging power. When the charger is connected to the power grid, the default value of 16 A is shown on the left side of the display, which can be changed by the AMPS button in steps from 6 to 16 A. In places with insufficient power from the grid, if there is more devices connected or of the power supply is limited, it is advisable to reduce the maximum current consumption. Consult the value provider with the electrical connector operator and after you start charging, wait for the vehicle to set charging power.

The layout of the display is shown in the figure below.

Number of active phases	3	Charge	0.01 kWh	Transferred energy	
Maximum current	16 A	00:00:22		Charging time	
		410 V	14.5 A	Mains voltage / Mains current	
Delayed start / Temperature	0 h	20 °C	3.91 kW	Charging power	
Delayed start button	TIME		AMPS		Reduced maximum current button

The charger remembers the value of the transferred energy, which is shown in the upper right corner of the display, even after it is disconnected from the power supply. This value is read with each subsequent charging cycle. (up to a maximum of 999.99 kWh).

To clear the value press and hold the TIME button. This will restart the device and reset the counter. After this restart, the value will be read again from zero until the next reset.

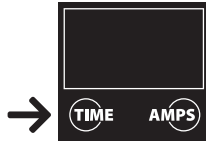
Description of the charging process

Take extra care when handling the cable while using the charger. Lay the cable so that it cannot be tripped over or run over by a vehicle.

1. To activate the charger, connect the red CEE plug to the appropriate CEE 400 V, 5-pin socket.
2. Set the required parameters for maximum current limit and delayed charging start.
3. Connect the white-black plug IEC 62192, Type 2, Mennekes to the appropriate socket on the vehicle.
4. Charging will start immediately or after the delayed start time has elapsed.
5. Follow the vehicle instructions to complete charging. First, disconnect the connector from the vehicle.
6. Note the energy in kWh supplied to the vehicle and disconnect the red plug from the power grid.



Insert the 3-phase plug into the socket



Use the TIME button to set a delayed start



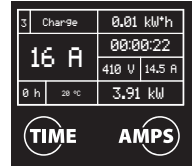
Use the AMPS button to set the charging current



Insert the connector into the vehicle's charging port



The charging process is indicated by the illuminated strip



The display shows information about charging in progress

Displaying of the charging history

To display the values of the supplied energy of each charging process, it is necessary to enter the memory section.

With the charger disconnected from the power supply, press and hold the AMPS button. Plug the charger into an electrical outlet. Hold the button until "Check" appears on the display. Once the button is released, the "Cumulative Power" value will show up on the display. That is the total value of energy supplied to the vehicle battery. This value is the same as the one of the supplied energy on the basic screen in charging mode.

You can use the TIME button to switch from the Cumulative Power screen to the "Power record" screen, where you can find the list of each charging cycle including the values of the energy supplied. Scroll through the list of charging cycles using the TIME button.

You can switch back to the "Cumulative Power" screen from the "Power record" screen using the AMPS button.

Resetting saved values from memory

Always reset values on that screen where you want the values to be deleted!

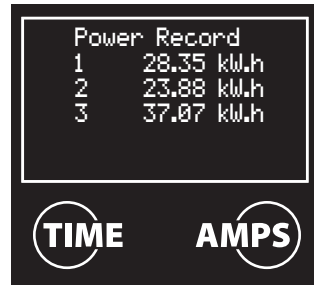
To reset the "Cumulative Power", press and hold the AMPS button. The display flashes and the zero value shows up.

To reset the "Power record", press and hold the TIME button. The charging history is deleted then.

By disconnecting the charger from the power supply and reconnecting it again, you will return to the basic mode of the charging setting



Total energy value screen



Charging cycles history screen

Technical parameters of the device

Type of product	Type 2 Charger (Mennekes)	IP class	IP65
Vehicle plug	Type 2 IEC62196-2 Female plug (WB-IC-AC1.0-16AT)	Connector life expectancy	≥10 000 connections
Power supply plug	CEE 400V 16A 5-pin	Standard for flammability degree	UL94 V-0
Input	230V/400V, 50 Hz, 6A-16A (3-phase)	Operating temperature	-30 °C ~ 60 °C
Output	230V/400V, 50 Hz 6A-16A (3-phase)	Cable length	5 m
Charging power	3.5-11 kW	Color	grey
Insulation resistance	500 MΩ	Weight	2.9 kg
Contact resistance	0.055±0.005 Ω	Charging current setting	6-16 A
Power resistance of the connector	≤80 N	Delayed start setting	0-9 hours
Circuit breaker RCD	$I_{\Delta N}$ AC = 30 mA $I_{\Delta N}$ DC = 6 mA		

Technical support

SECTRON technical support is available to answer all your technical questions around SECTRON AC Charger charging stations.

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e-mail: hotline@sectron.cz
on weekdays 8.00-15.00



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