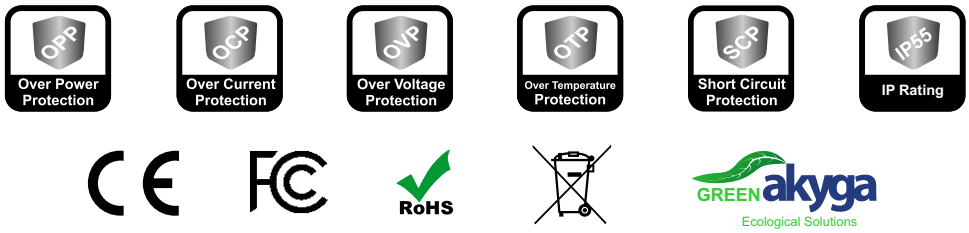


www.akyga.com /ak-ec-12

Short description of the product

The Akyga AK-EC-12 is used for charging an electric car via three-phase IEC 60309 5-PIN socket. It is compatible with all 240-450 V / 6-16 A car models with IEC 62196-2 Type 2 plug and maximum charging power is 11 kW. A set of protectors OVP, OTP, OPP, SCP, OCP and the soft start technology provides safe and stable operation of both power supply and charged vehicle.

The product is adapted to supply voltage of the electrical socket 240 - 450 V.
The power consumption of charging vehicle can not exceed the power supply nominal current.

The product is compatible with the applicable national and European requirements.

What is in the box?

- AK-EC-12 electric car charger
- Storage Bag

Symbols explanation:

There is a particular danger connected with service.

There is a risk of losing health or life (e.g. by electic shock).

Important tips and information.

The CE standard description on the product is the manufacturer's declaration that the marked product meets the requirements of the directive so-called The "New Approach" of the European Union (EU). For security and certification (CE) reasons, the device can not be rebuild or change in any way. In the reason of using the power supply for other purposes than those described, the product may be demaged. The incorrect use may also cause hazard such as short-circuits, burns, electric shocks, etc. Read the users manual carefully and keep it for later use. The product could be share to third partie only with the user manual included.

Product accordance with the EU directive 2002/96/EC. The symbol of the crossed out basket placed on the product means that the marked product can not be disposed of with other household waste. After use, the product must be return to collection point for used electical and electronic equipment or to the seller. Appropriate segregation of rubbish for subsequent processing, recovery or descrution contributes to avoiding negative effects on the environment and health, and also allows the recovery of raw materials from which the product is made.

The RoHS mark on the product is the manufacturer's declaration that the marked product meets the requirements of the EU Restriction of Hazardous Substances (2002/95/EC) directive, which aims to reduce the amount of hazardous substances penetrating into the environment from electrical and electronic waste.

EV charger

The II protection class device. It provides protection against electric shock against direct and indirect contact, and thanks to the additional isolation it is not necessary to connect the device case with the protective earth conductor.

Safety Precautions

WARNING! Product heats up during operation. To reduce the risk of burns or overheating the EV charger, do not place it in restricted ventilation area. Also, do not allow the working EV charger to touch soft surface such as pillows, blankets or clothing. The EV charger meets the limits on the surface temperatures available to the user, as defined in the International Standard for Safety of Information Technology Equipment (IEC 60950).

The manufacturer of the product is not responsible for damage or insults caused in effect of disobey the safety instructions and informations contained in these user manual.

- Keep the product and the packaging out of range of children and animals. The package includes a foil that child could choke while playing.
- It is forbidden to apply the mechanical load to the product - strong shocks, impacts, dropping or crushing may cause its damage.
- The product operation in adverse conditions is not allowed. Adverse conditions are primarily: exposure to direct sunlight, high or very low ambient temperatures, strong vibrations, high humidity, surrounds of gases, dusts or flammable and aggressive liquids.
- If the product has been damaged, does not work properly or has been stored for a long period of time in bad or unfavorable conditions, safe operation of the device is not possible. It is essential to stop using the product and to protect it against re-use for security purposes.
- It is forbidden to insert wet plugs into electrical outlet and the car charging port.
- If it rains during charging - do not let water get into the power socket and car charging port. If the plugs got wet - disconnect the mains fuse before pulling them out of the sockets or, if you can not do this, first disconnect the plug from the power socket and then from the car charging port.
- Product and power cord should not be touched with moist or wet hands under no circumstances.
- Short-circuiting the current connection is prohibited.
- Make sure that the power cord is not crushed, bent, twisted, rubbed against sharp edges or mechanically loaded in any other way. Avoid thermal load of the cable - in particular keep away from heat sources (such as stoves, radiators, fireplaces).
- To avoid the risk of fire or electric shock - connect the device to an electrical outlet with increased resistance above 16 A with ground and protected by a circuit breaker.
- It is forbidden to connect the EV charger to damaged and ungrounded sockets.
- Store the EV charger cable freely so that the cord does not break.
- Power cords should be laid in such a way as to eliminate the risk of stumbling or hooking over.
- Its forbidden to modify the power cord. In the case of modifications, the cable may be damaged, causing threats to life, health and property.
- Connection of EV charger to electricity is made by plugging in a IEC 60309 5-PIN plug into the corresponding socket.
- Before connecting the EV charger to the socket, make sure that the voltage specified on the EV charger matches voltage supplied to the electrical outlet.
- Take into account the user's manuals for other devices conected to the charger.
- Mains plug should be disconnected from power socket if the product is not in use for a long time.
- When disconnecting the power cord from the socket and from the device, do not pull on the cord, but only on the part of the cable plug provided for this purpose.
- In case of any doubts regarding operation, safety or connection of the product, please contact the manufacturer or a qualified specialist for this purpose.
- All maintenance, adjustment and repair work on the product may only be carried out by a qualified person in a specialist facility.

Removing the most common problems

Problem	Cause	Solution
The charger does not work (LEDs do not light)	No voltage	• Check if charger is properly connected to the car charging port
	Problem with the plug	• Check if EV charger is properly connected to the car charging port
	There is a suspicion of a product defect	• Stop using and contact the seller
Car does not charge	EV charger is not connected to the car	• Connect the charger to the car
	Car does not prepare to charging properly	• Check if car motor is turn on • Make sure that the another charger is not connected to car's second charging port
	Problem with the plug	• Check if the plug is connected correctly
	There is a suspicion of a product defect	• Stop using and contact the seller

How to use

1. Check that the charger or cable is not damaged.
2. Make sure the charger has the right type of plug for your car.
3. Turn off the car motor.
4. Check that the power socket is not damaged.
5. Connect the charger to the electrical outlet (IEC 60309).
6. Select the appropriate charging current by pressing the button.
7. Pull the protective cap off the plug.
8. Connect the other plug to the car's charging port.
9. The charging process will start automatically. The red diode will light up.
10. When the charging process is finished, the charger will automatically turn off. The LEDs will turn off.
11. After charging, disconnect the charger from the electrical outlet, then disconnect the plug from the car's charging port by pressing the button that releases the clip and put the protective cap on.

EV charger

Charging status indicator

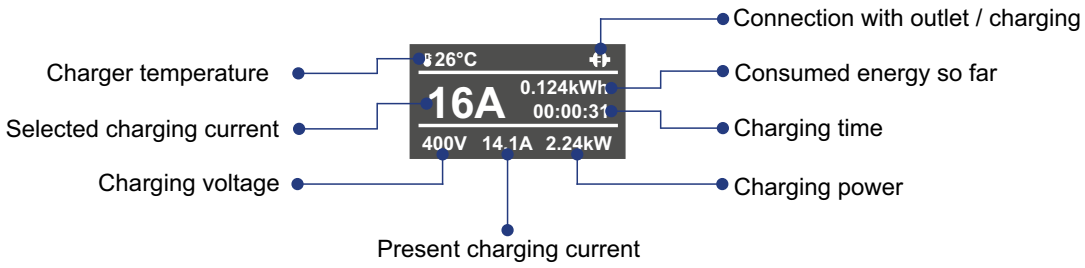
Failure LED	State LED	Charge LED	Notice
---	Shine	---	Off, no connection with the car
---	Blink slowly	---	There is a connection with the car but it does not charge
---	Blink fast	---	Car communication failure
---	Flashes	Shine	Car is charging
---	---	---	End of charging process
Blink	Shine	---	Charger failure

Cleaning the EV power adapter

Disconect the EV charger from the electrical socket and connected devices before cleaning.

- Use soft and antistatic cloth for cleaning the charger.
- Do not use abrasive or chemical cleaners.

Displayed messages



EV charger

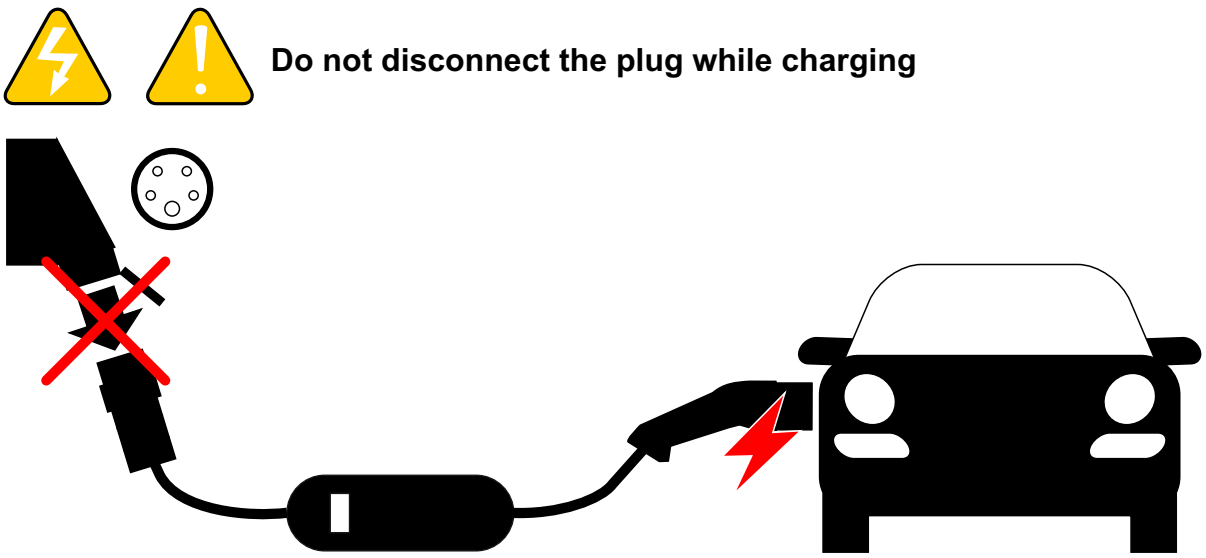
Type 2 connector

The Type 2 socket plug should be connected to a car charging port. The Type 2 socket outlet has seven holes.

IEC 60309 5-Pin connector

The plug with an IEC 5-Pin connector should be plugged into a suitable socket. It is characterised by five protruding pins and a red housing.

EV charger



Technical specfication

Product code:	**AK-EC-12**
Supply voltage:	**240 - 450 V, 50/60 Hz**
Output voltage:	**240 - 450 V, 50/60 Hz**
Output amperage:	**6A, 8A, 10A, 13A, 16A**
Maximum power:	**11 kW**
Temperature:	**-30 - 50 ºC**
Material:	**Thermoplastic**
Isolation material:	**TPE**
IP Rating:	**IP54**
Flame resistance:	**UL94V-0**
OVP (over voltage protection):	**Yes**
OCP (over current protection):	**Yes**
OPP (overpower protection):	**Yes**
OTP (over temperaturre protection):	**Yes**
SCP (short circuit protection):	**Yes**
Cable length	**5 m**
Power inlet:	**IEC 60309 5-PIN**
Output connector:	**IEC 62196-2 Type 2**
Compilance with standards:	**CE, FCC, RoHS**
REACH compatibility:	**Yes**
EAN code:	**5901720136831**

EV charger

Product manufacturer:

Akyga Europe sp. z o.o.
ul. Wrocławska 1c
52-200 Suchy Dwór