



It juices up your car

PLU-16-1, PLU-32-1, PLU-16-3, PLU-32-3
PLU-16-3(1), PLU-32-3(1)

ViatorPower ePLUG

EV charging station with built-in Type2 socket



USER MANUAL

**Please read this user manual through carefully, before
using the EV Charging Station for the first time!**

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Thank you for purchasing our product!

Viatorpower ePLUG charging station is an EVSE (Electric Vehicle Supply Equipment) to charge the batteries of full electric and plug-in-hybrid cars. ePLUG includes a Type2 (female) socket to which a standard EV charging cable can be connected (charging cable is not included).

ePLUG charging station can be used universally for any type of EV cars. It is an ideal solution not only for home use, but also for office parking lots, shared parking lots, restaurants, commercial facilities, condominiums and other - partially or completely - public places.

The device can be mounted onto the wall or to an optionally available EVSE pillar unit, preferably where your vehicle is usually parked – such as in a garage, parking lot, parking space - both indoors and outdoors.

Please note that the installation of the appliance may only be carried out by a qualified electrician!

We hope that the device will help you in long run to enjoy the pleasure of electric driving and always have enough energy at your disposal to reach your destination safely.

For more useful information on charging electric vehicles, please visit www.viatorpower.com. If you still have questions about the use and operation of the device, please contact the manufacturer's customer service at info@viatorpower.com, where they will be happy to answer your questions.

Quality guarantee: 2 years warranty

The device has been designed and manufactured to serve you without failure for long time. If, within two years of purchase, it still fails and the defect is attributed to the defective design or manufacture, it will be repaired or replaced at the manufacturer's own expense.

To use the warranty, you need the warranty card and / or a copy of the invoice. For details please refer to the information on the warranty card or contact the distributor.

1.

Safety instructions

1.1. Notices

Observe the notices in the installation guide and the relevant legal regulations.

Mounting and installation specifications may differ depending on the installation location. **It is the responsibility of the installer to comply with safety regulations, standards, professional protocols and applicable legislation.**



ATTENTION! RISK OF ELECTRIC SHOCK!

Touching live parts can result in accidents, life-threatening, and serious property damage. Always de-energize the appliance and the network before installation and pay special attention to comply with the electric shock protection and safety regulations.

The appliance must be placed in a location that is not reachable by children!

Do not install or use the device in the presence of flammable and explosive gases!

THE APPLIANCE MUST BE INSTALLED BY A QUALIFIED ELECTRICIAN!

The device can only be used when it is permanently connected to the electric network. It is forbidden to operate from a socket or outlet!

Use the device only for its intended purpose as described in the operating instructions!

WARNING! ALL RESPONSIBILITIES AND OBLIGATIONS OF THE MANUFACTURER AND DISTRIBUTOR CEASED IF THE APPLIANCE IS NOT USED FOR ITS PURPOSE.

1.2. Fuses and cables

When installing the device, always use switching devices in accordance with the specifications and apply the appropriate cables and wires according to the nominal voltage and current!

1.3. Repairs

The end-user must not carry out any repairs on the device!

Opening or removing the cover of the device by the end-user is life-threatening and prohibited!

Do not modify the device in any way!

WARNING! ALL RESPONSIBILITIES AND OBLIGATIONS OF THE MANUFACTURER AND DISTRIBUTOR CEASED WITH ANY MODIFICATION / CHANGE OF THE APPLIANCE BY THE END USER.

1.4. Recycling

The device must be disposed of as hazardous waste at the end of its life cycle and / or as non-repairable device and must be disposed at an electronic recycle point.

2.

General description

eCABLE charger is used to charge batteries of full electric and plug-in hybrid cars (EVSE - Electric Vehicle Supply Equipment).

In the front panel of ePLUG a Type2 (female) socket is installed to which a standard EV charging cable can be connected. There is always a Type2 (male) connector on one end of EV charging cables (which connects to the charger) and a Type1 or Type2 (female) connector on the other end, depending on type of your car's charging inlet. The EV charging cable is not included, it shall be purchased separately.

Electric vehicle's original accessories are usually including a 230V outlet chargers. These usually charge the vehicle from a household socket for a very long time because their charging power is limited (usually not exceed 2... 2.5kW - 10... 12A charging current). **The eCABLE is significantly more powerful, so it can be used to charge electric vehicle much faster than with the low power household-socket charger.**

The device is available in four versions, which are capable of delivering different power

Charging station (Article number)	Socket type	Charging cable	Voltage	Phase	Max. current	Max. power
PLU-16-1	T2 socket	230VAC	1	1x16A	3,7kW	optional
PLU-32-1	T2 socket	230VAC	1	1x32A	7,4kW	optional
PLU-16-3	T2 socket	400VAC	3	3x16A	11kW	optional
PLU-32-3	T2 socket	400VAC	3	3x32A	22kW	optional

Note: the PLU-16-3 and the PLU-32-3 devices can be used universally in both single-phase and three-phases networks. Their performance is determined by whether only one or three phases are connected to the device.

Abbreviations of the article numbers

PLU-16-1-M
1 2 3 4

1. *PLU = Charger with ePLUG connector, does not include overcurrent and overcurrent breaker*
2. *16 = Maximum charging current 16A
32 = Maximum charging current 32A*
3. *1 = 1 phase(230VAC)
3 = 3 phases (400VAC)*
4. *Optional ID; can consists of multiple letter that refers to the optional accessories of the device.*

Which type of charger shall be used for your car depends on two important factors:

1. What is the max. power (max. charging current) the vehicle's on-board charger can accept
2. The max. load of local grid at the installation site

During the process of charging electric vehicles, data is exchanged and communication is going on between the charging point and the on-board charger that is built into the vehicle. This data exchange covers (among other things) the maximum charging current that the charging station can deliver and the current that the vehicle's on-board charger is able to accept and handle. Therefore, for example, it is not possible to charge a car with 11kW power in case its on-board charger can handle only max. 6kW charging power. Some vehicles can be charged with a three-phases, others with only a single-phase current. If the performance of the external charging point differs from the performance of the car's on-board charger, that's not a problem, but charging will always be at the lower of these two. So the maximum charging current (maximum power) only indicates the maximum power that the charger is capable to deliver. However, whether you can take full advantage of the maximum charging power depends on the specifications of the vehicle's on-board charger.

It has to be considered that an electrical network of a property is a complex system. The wires, the electrical utility connections are sized for the general needs of the household and there may not be enough reserve in the system to connect an additional high-power consumer such as an EV charger to the grid. It may not be possible to use certain electrical consumers during charging process because of overload in the network. Poorly sized wires can become hot and, in extreme cases, ignite, causing serious property damage and death. Therefore, be sure to have the property's electrical system inspected by a professional electrician before installing the EV charger. It may also be necessary to request the electricity supplier to increase the electrical capacity of the property. (To use eCABLE devices, 3.7kW (1x16A), 7.4kW (1x32A), 11kW (3x16A), or 22kW (3x32A) electrical power shall be available in the electrical network of the property.)

Technical specifications

Nominal voltage	230V AC (1 phase) or 400V AC (3 phases)*
Maximum charging current	16A or 32A*
Max. charging power	3,7kW, 7,4kW, 11kW, 22kW*
Overcurrent- and electric shock protection	Not built-in, shall be installed at the installation site
Connector type	Type2 (female) socket
Display	Tri-color LED
Housing	Flame and impact resistant, fiberglass reinforced, extruded polyester, painted
IP protection	IP 54
Operational temperature	-20...+50°C
Enclosing dimension	kb.160x260x120mm
Weight	cca.5,0kg

*Depending on the appliance type

THE APPLIANCE SHOULD ONLY BE INSTALLED BY A QUALIFIED ELECTRICIAN!

*In accordance with the relevant standards, electrical safety devices (RCO, RCB) have to be installed in the charging circuit during installation. These devices are not included with the charger and shall be purchased separately. The distributor offers them in optional **installation kits** which can be ordered from the distributor.*

3.

Using the device

3.1. Introducing the device



3.2. Indications of the LED indicator

The LED indicator shows the status of the device and the charging process. The LED is located inside the device, its light is clearly visible from a distance through a small window mounted on the front panel.

When the device is powered, the control electronics runs initialization and self-test program. This takes about 5...10 seconds and during this initialization process the LED flashes in different colors. The device then enters standby mode and waits for a vehicle to get connected.

The LED indicator indicates the following statuses:

LED status	Meaning
Not lighting	The charger is not powered. It is out of service.
Flashes blue (approximately in every second)	The charger is in standby mode and a vehicle can be connected to it.
Solid blue	A vehicle is connected to the charger, the data exchange between the vehicle and the charger is in progress.
Solid green	Vehicle charging is in progress.
Solid red	You have connected a vehicle to the charger that may release hazardous gases while charging (an older lead-acid battery electric vehicle) and requires a fan control. Such vehicles cannot be charged with this charger!
Flashes red (approximately in every second)	Failure recognized.

3.3. Connecting and charging the EV

You can connect your electric vehicle to the charger with a standard charging cable (not included). There is always a Type2 (male) plug on one end of the charging cable (which connects to the charger) and a Type1 or Type2 (female) plug on the other end (depending on the type of your car's charging inlet). You need to have the right cable for your EV.



1.The LED flashes in blue (approximately in every second)

2. **Connect the charging cable to the charger.** Fold up the socket cover and push the plug into the correct position and push it perpendicular to the socket until it stops. Do not pull or force, the connector should slide easily and smoothly into the socket. **Make sure to push the plug all the way in!**

3.**Connect the other end of the cable to the EV.** Pay attention to a stable, correct connection here. Be sure to run the cable loosely, lying on the ground. **Never stretch, pull, force the cable, but stand closer to the charger with the car!**

If the device also has an optional key locker, turn the key to the open position (indicated by a green dot). The charger will not connect to the vehicle until the key lock is turned on.



4. Lock the vehicle and / or allow charging according to the vehicle owner's manual - if required. The LED should then light up solid blue and the latch will lock the connector.

An electrical lock (latch) is built into the socket, which locks the plug throughout the charging process to prevent it from being accidentally pulled out. Do not try to unplug the cable while it is charging!

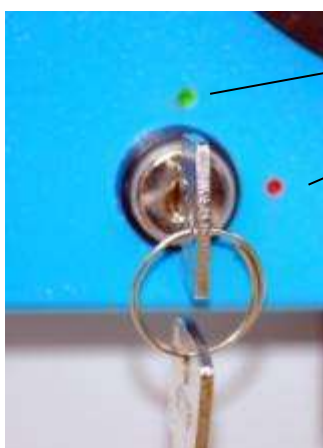
5. When the charging process starts, the LED will turn to solid green. Charging lasts until the car battery is fully charged or the charging is stopped.

6. When the car battery is fully charged, the device switches to the "vehicle connected" state (the LED turns to solid blue). The charging process is complete. **Always disconnect the cable from the vehicle first and then from the charger connector.** (In some cars, you can only disconnect the cable by opening the doors and / or stopping charging according to the vehicle's instruction manual.)

7. If the charging process is still on-going but you want to stop it, always do that from the vehicle! Open the vehicle door and / or stop charging according to the vehicle's operating instructions. **Do not unplug or pull the charging cable out during charging process!** (The closed latch also does not allow to unplug the cable.)

When charging is complete, disconnect the cable from the charger! Keep the cable in a protective case / bag or hang it loosely on a cable holder so that the connectors do not touch the floor. The connectors and cable must be protected from mechanical damage and dirt. **Never stand on the charging cable with the car, as its internal wires may be damaged! If a plug and/or its contact terminals are damaged or dirty, do not use the charging cable until it has been properly repaired!**

3.4. Key lock (optional)



green dot (ON - charging enabled)

red dot (OFF - charging disabled)

If you ordered the device with this option, there is a key lock installed on the front panel. **The key lock does not de-energize or switch off the charger!** The key lock in the charger control activates electronics that prevents the charger from connecting (exchanging data) with the vehicle. Thus, even if an unauthorized person connects your vehicle to the charger with the charging cable, the LED will flash blue and will not charge the vehicle until enabled with the key lock.

If you turn off the key lock while charging (turning it to the disable charging position), the charger continuously reduces the charging current to 6A in about 5 seconds and then completely shuts off the charging current from the output. The charging cable can then be unplugged from the vehicle socket) and the charger switches to standby mode, the LED starts flashing blue.

3.5. De-energizing the appliance

If it is necessary for any reason, you can only disconnect the appliance and the lead-in cable with the circuit breaker switch installed in the local electrical distribution cabinet by the installer. Label this power switch!

3.6. Limiting the maximum charging current

Charging your vehicle with the maximum charging current of the charger sometimes may overload your home electrical network. This can especially happen if several high-power consumers operate in the property in parallel (e.g., electric boiler, electric oven, air conditioner, washing machine, dishwasher, and car charging, etc.) then the electrical overcurrent protection of the property is activated and one or more fuses (circuit breakers)

in the electrical distribution cabinet are switching off. If this is rare, it turns occasionally then turn off one of the consumers and turn the fuse back on. Avoid using high-power consumers in your household at the same time as charging the vehicle.

However, if you regularly overload the home network while charging your car, you have the following options:

- Ask your electricity supplier to increase the electrical performance of the property (this might be an additional paid service)
- The maximum charging current of the charger shall be limited. This means that the charger will charge the vehicle with less power (and of course little slower).

The maximum charging current of the device can be reduced in one ampere steps up to 6A. **To do this, the removal of the cover of the appliance is required, hence only a qualified electrician shall do it!**

Setting the charging current limit is described in the installation guide supplied with the device.

3.7. Troubleshooting guide

Symptom	Cause of error / Remediation
LED indicator is off	The device is not receiving power, it's out of service. • Check with your service provider whether you have a power failure, • Check that the overcurrent and / or current protection switch in the electrical cabinet is not switched off - switch it on again!
LED flashes blue, but the charger is not connected to the vehicle	The charging cable is not connected properly • Check that the charging cable is properly connected (as far as it will go) to the charger and the vehicle; The key lock is off • Enable charging with the key switch.
LED is solid blue, but the charging does not start	Not an error. The vehicle battery is fully charged and no additional charge is required
When the vehicle is connected, the LED is solid red	You want to charge an electric vehicle (old, lead-acid battery) whose batteries can release hazardous gases while charging, so you need to control a ventilation fan. • The charger can not be used to charge such vehicles.
LED flashes red	Other error • This fault usually indicates a fault in the electric vehicle (on-board charger).
The charging cable cannot be unplugged, the LED is solid blue or solid green	Not an error - during the charging process, the car's charging input locks the connector to prevent the charging cable from being accidentally unplugged. • Wait for the charging process to end, or stop charging and then unplug the charging cable.
When charging, one or more circuit breakers / fuses in the electrical distribution cabinet are regularly switched off	The property network is overloaded. • The maximum charging current of the charger must be limited.

4.

Repair and maintenance

4.1. Repair

The end-user shall not make any repairs on the device. Opening or removing the cover of the device by the end-user is life-threatening and strictly prohibited!

The appliance may only be installed and repaired by a qualified electrician. Repairs may only be carried out by replacing the defective part.

During the warranty period, repairs may only be carried out by a person authorized by the manufacturer. Notify the distributor or manufacturer of any damage with the device during the warranty period.

Modification of the device in any form is strictly prohibited!

WARNING! ALL RESPONSIBILITIES AND OBLIGATIONS OF THE MANUFACTURER AND DISTRIBUTOR CEASED WITH ANY MODIFICATION / CHANGE OF THE APPLIANCE BY THE END USER.

4.2. Maintenance

The device requires no maintenance other than regular (monthly) testing of the electric shock protection (RCB).

4.3. Cleaning

The outer cover of the appliance shall only be cleaned with a dry cloth. No other type of cleaning is required.

Do not clean the device with wet cloth or with chemicals!



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