





CHARGING STATIONS FOR ELECTRIC VEHICLES

201

LED lighting and charging electric vehicles (EV)



They illuminate the streets and charge electric of

The idea of SMART CITY has taken over the world - searching for solutions that will increase the quality of life of city dwellers and at the same time will be environmental friendly is a challenge faced by modern industry. The designers from ROSA also took it up and designed a charger for electric cars in a lighting pole.



Chargers are available in the form of SAL-EV lighting poles with a height of 6-10 m dedicated to public spaces and KARIN LED EV 1.3 m high, which are perfect for public spaces and private properties. ROSA chargers are available in versions with a power of 3,7 to 22 kW, which are most often recommended by electric vehicles manufacturers because they extend the battery life.

Combination of the functions of space lighting and charge of electric vehicles.

Electric vehicles charging stations installed in SAL and KARIN street lighting poles are perfect for this in public spaces. In the slender casing of an anodized aluminum column, the company built all the components required for public charging stations including an electricity meter compliant with the MID directive, electrical security, an RFID reader facilitating the authorization process, and multicolor indication of the charger status. The station supports the OCPP protocol, thus enabling integration with the management and billing system. **The applied solutions allow users to safely and intuitively carry out the process of charging vehicles, as well using smartphones.**

KARIN LED EV BASIC chargers, which are not equipped with payment functions, are recommended as charging stations for home use.

cars

Cheaper and faster investment

Electric car charging stations fitted in street lighting poles are a perfect solution for cities and municipalities that modernize their outdoor lighting. Together with the replacement of lighting energy-efficient, they can also provide residents with charging points for electric vehicles. It is a much cheaper and faster investment compared to the installation of a traditional charging station.

There is no need for a new connection, as the charging station installed in the pole uses the existing connection. Designers from ROSA propose solutions adapted to the existing lighting network in order to place charging stations within it in the most beneficial way. With this type of investment, it is also not necessary to report

construction works or perform geodetic as-built inventory, because the installation of the charger involves replacing the old lighting pole with a new one with an extended function. It is also important that no new element appears in the urban space that could adversely affect the aesthetics of the surroundings.





RGB module informing about charging status







Two variants due to the application



KARIN LED EV

In public spaces

Safe and intuitive charging proces



RFID reader

Electricity meter compliant with the MID directive

The wiring chamber is locked with a key



LED module

light temperature 5000K, 4000K, 3500K, 2700K frosted diffuser made of PMMA

Charger status indication - RGB module green colour - charging point is available blue colour - charging point is occupied red colour - charging point is inactive



Anodized aluminum housing
The station is available in 10 anodizing
colours, each with the option of chemical
brightening with anti-corrosive
and decorative properties

The option of integration with a billing system Open OCPP protocol v.1.6 Communication 3G or Ethernet



KARIN LED EV BASIC On private properties

LED module

light temperature 5000K, 4000K, 3500K, 2700K frosted diffuser made of PMMA

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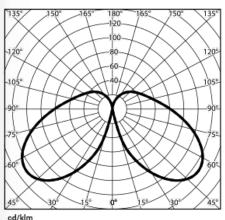
Technical specifications

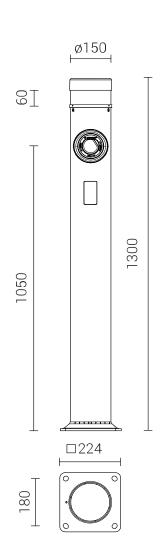


Dimensions:	1,3 m, ø150 mm
Material:	aluminium
Maximum charging power:	22 kW
Power supply:	max 3F: L1, L2, L3, N, PE; 400 V, 50 Hz
Charging connector:	IEC 62196 Type-2
Charging Type:	Mode 3
Communication:	Ethernet, HSPA/GSM/GPRS/EDGE OCPP protocol
Types of protection:	residual current device and overcurrent circuit breaker
Energy meter:	MID

Lighting specifications

Number of LEDs:	8
Expected useful lifetime:	L90F10 - 50 000h, L80F20 - 100 000h
CRI:	>80 dla 2700K, 3500K; >70 dla 4000K, 5000K
Input voltage frequency:	50 - 60Hz
Diffuser:	frosted made of polymethyl methacrylate (PMMA)
Power factor:	≥ 0,9









Lighting pole with vehicle charger



RFID reader

Safe and intuitive charging proces



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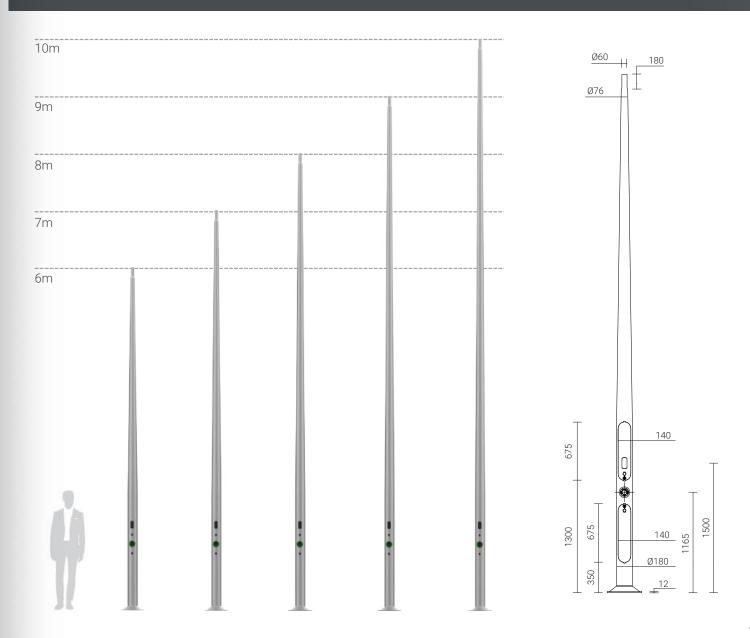
Electricity meter compliant with the MID directive

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Communication
3G or Ethernet
The option of integration with a billing system
Open OCPP protocol

Product height variants

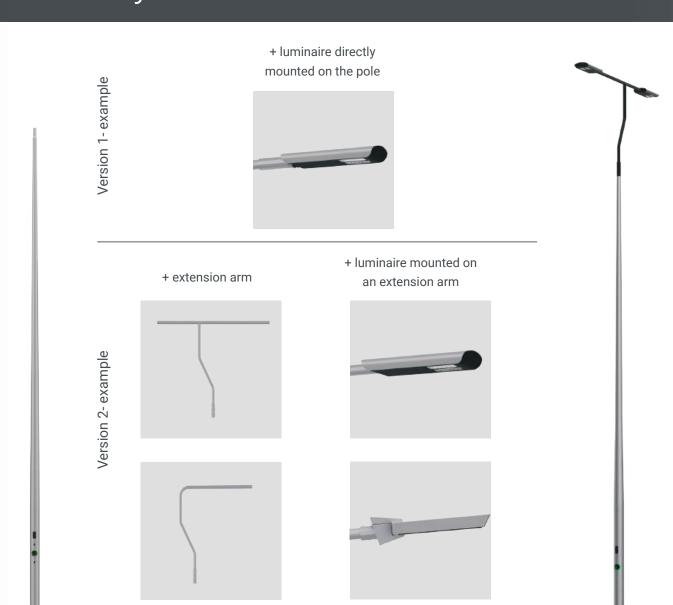


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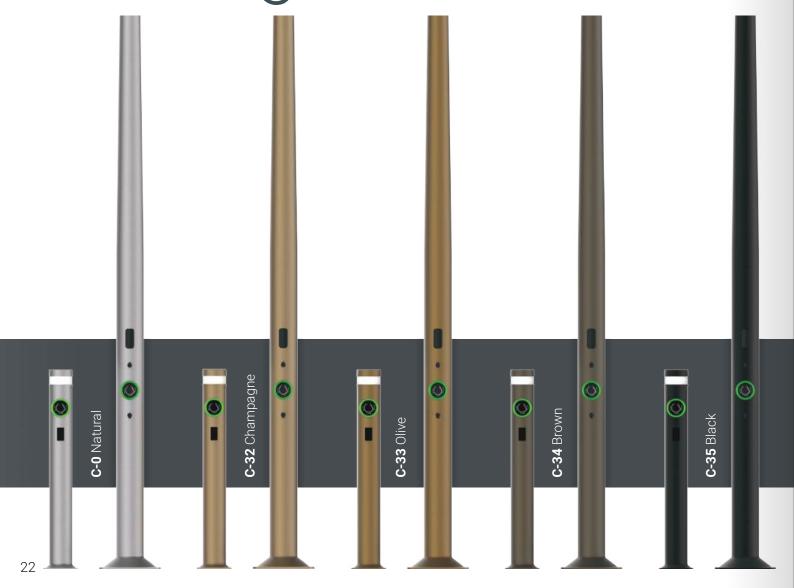
Possibility to assemble a full set







Anodized aluminum housing



All ROSA electric vehicle charging stations are made of anodized aluminum, thanks to which their surface is resistant to corrosion and is resistant to harmful weather conditions. ROSA aluminum anodized poles are available in 10 colors with the possibility of shining.



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