

technical specifications

Input

Nominal traction voltage	600 or 750 V DC	Allowed input voltage range	400 to 1000 V DC
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Output

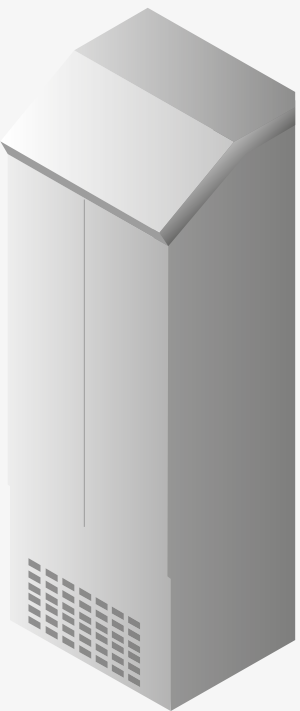
Nominal voltage	3x400/230 V AC, +- 10%	Efficiency	90 %
Type of electrical network	IT, TT or TNS	Short-circuit resistance	yes
Frequency	50 Hz	Approximate weight	400 kg
Shape	sinus	Dimensions (w x h x d)	636 x 1817 x 540 mm
Nominal power	50 KVA/ 50 kW cos φ=1	Ambient temperature	-25 až +40°C
Rated phase output current	72 A	Cooling system	forced, air

description & application

The inverter converts DC voltage used for power of traction tram or trolleybuses to alternate three-phase voltage 400/230 V, 50 Hz, sinusoidal waveform. It means that it's possible to charge all the devices designed for connection to a common distribution network of electricity supplier from the traction. Only the maximal inverter power is limited, see technical parameters. The reason for using the inverter is that access to a common distribution network in the urban area is not always simple,

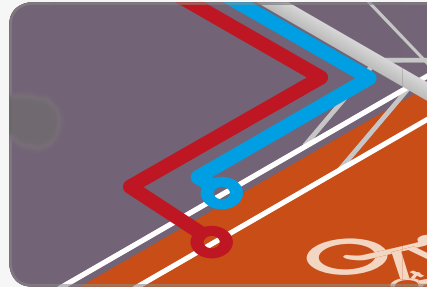
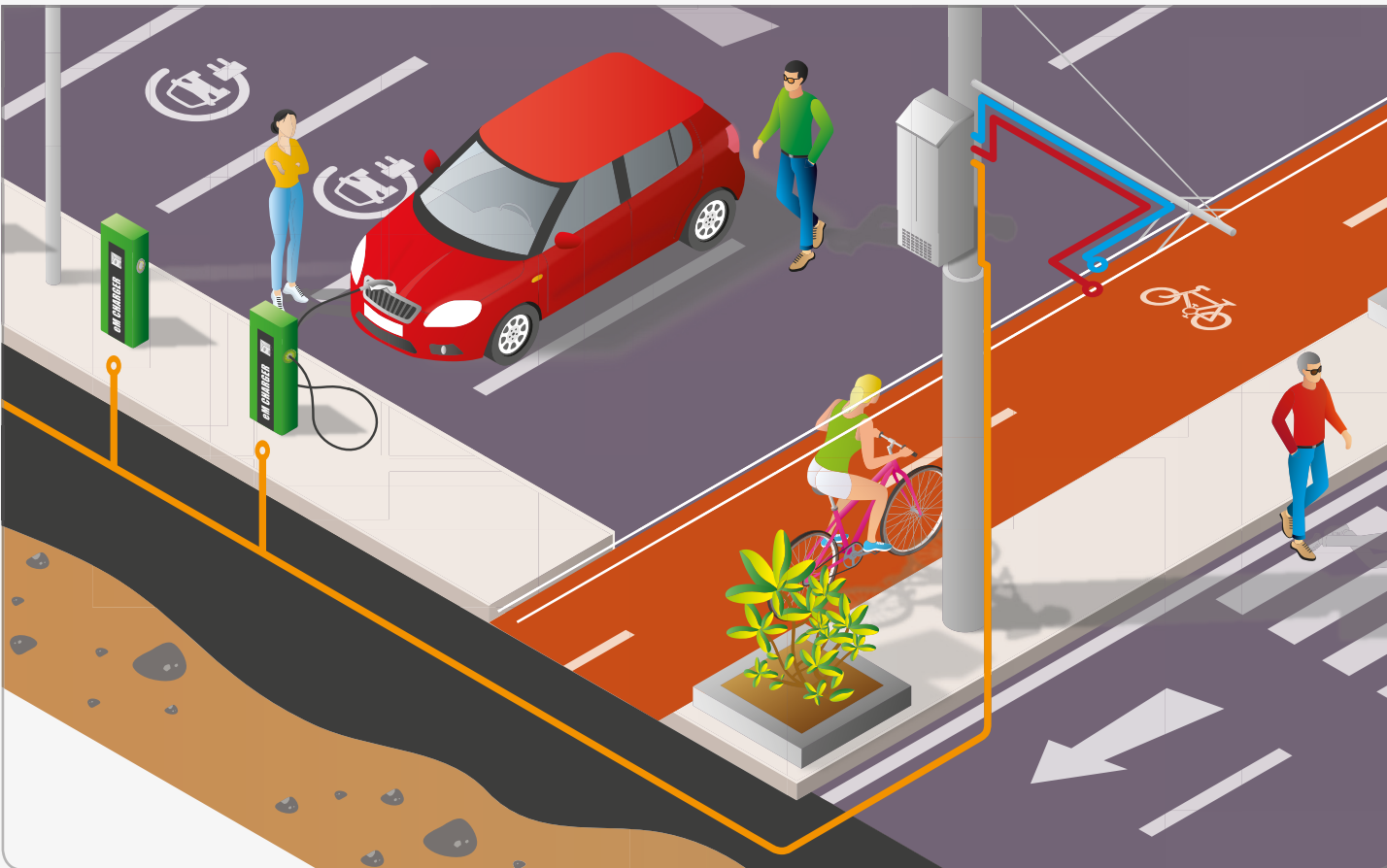
whether due to the necessary building permit, necessary excavation work, intervention to buildings or insufficient power of transformation stations. On the contrary, the connection is simple where there is a tramway or trolleybus track. The inverter can be mounted on the traction pole and connected to the overhead contact line. Then it's possible to charge all the various devices from there. It could be typically places such as sanitary facilities for tram and

trolleybuses drivers, information systems for passengers, or even the devices which are not directly related to the operation of public transport. As a good example for this are the very perspective and demanded charging stations for electromobility. One inverter can simultaneously power two three-phase chargers with input power of 22 kW and two single-phase chargers with power input of 3kW. The inverter is the ideal solution for these purposes.



Invertor function for electric vehicle charging stations

The voltage of 600 V or 750 V DC is removed from the overhead contact line and it is transformed into AC 3x400 / 230 V AC within the invertor. Invertor can be placed on random pole of the track. However, strategically appropriate places are mainly in the surroundings of shopping centers, public car parkings, P + R (Park & Ride), within business premises, etc.



Traction invertor takes energy from the traction line of public transport.

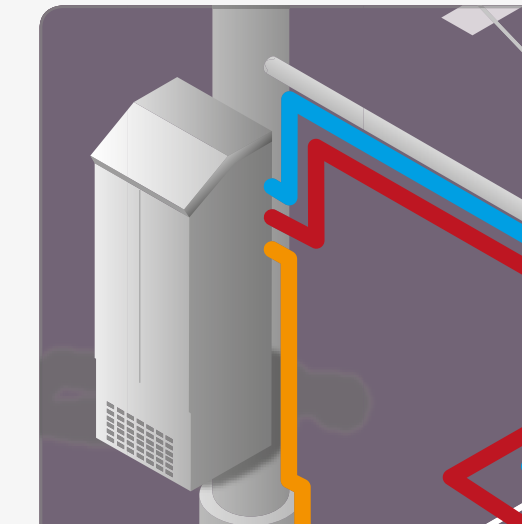
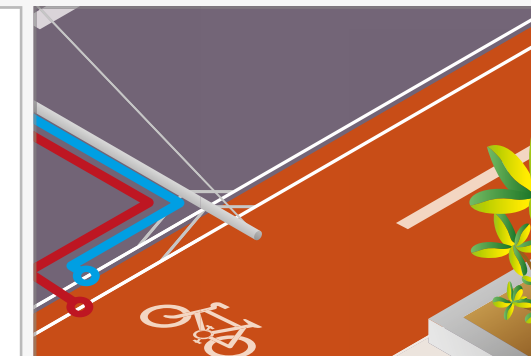


Charging station (common 3 kW or fast charging)

The power delivered by the invertor allows you to install, for example, 2 x 22 kW + 2 x 3 kW stations or about 10 - 16 times normal 3 kW stations).

Power source (traction line of public transport)

Traction line provides 600 V - 750 V DC.



Traction invertor DC/AC

It is used to transform traction DC voltage to AC voltage 3x400 / 230 V AC.