ENI-FT600/4x50/EL.1 Traction inverter

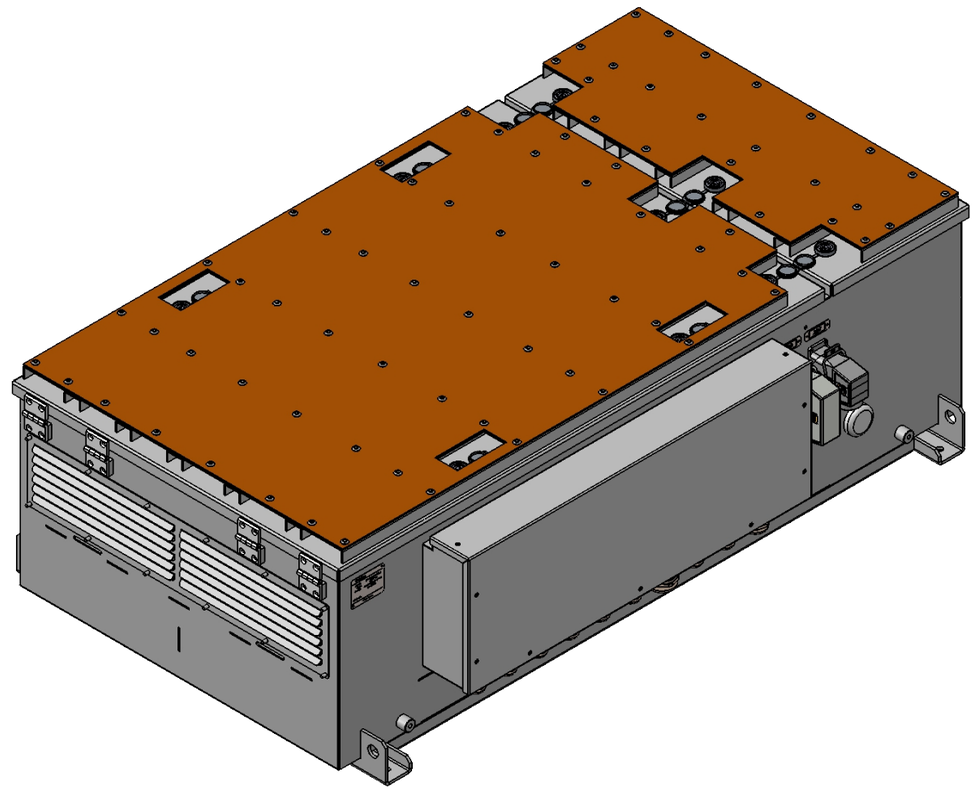
APPLICATION

The ENI-FT600/4x50/EL.1 inverter is used to supply 4 asynchronous traction motors with alternating voltage with adjustable frequency, it also ensures the functionality of driving without HV power supply. Inverters convert the voltage of the traction network to DC alternating voltage with adjustable amplitude and frequency. They allow you to change the direction of rotation of the traction motor (forward/reverse driving). The control system implements the vector control algorithm consisting in simultaneous indirect torque controland the flux of the traction motor rotor. The use of this regulation algorithm allowed to achieve very good traction properties in dynamic conditions and optimal use of the inverter.
Drive inverters provide:

- implementation of all motion functions of the vehicle: starting, braking (regenerative as a priority and resistive), coasting, braking at a standstill,
- obtaining dynamic parameters of starting and electrodynamic braking in accordance with the requirements of Regulation No. 344 of the Minister of Infrastructure of March 2, 2011.on the technical conditions of trams and trolleybuses and their necessary equipment,
- electrodynamic braking until the vehicle comes to a complete stop
- the possibility of ongoing monitoring of the drive status and vehicle start-up parameters using an operator panel connected to the CAN network.

Inverters convert the kinetic energy of the braking vehicle into electrical energy.
The resulting energy is used in accordance with the following priorities:

- return of energy to the traction network (if possible)
- after exceeding the set threshold of the recuperation voltage, its depletion in the roof braking resistor.



www.enika.pl
e-mail: enika@enika.pl

SPECIFICATION

TYPE	ENI-FT600/4x50/EL.1
Rated input voltage	600 V_{DC}
Supply voltage variation	400 ÷ 800 V_{DC}
Allowable maximum instantaneous supply voltage	1000 V_{DC}
Supply voltage for control circuits and cooling system	24 V_{DC} (+25% / -30%)
Cooling	Forced, air
Rated operating temperature (ambient)	IP65 - power electronics zona IP21 - fan zone
Rated operating temperature (ambient)	-25°C ÷ 40°C
Weight	approx. 310 kg
Dimensions (without connections)	1563 x 800 x 490 mm

www.**enika**.pl
e-mail: enika@enika.pl