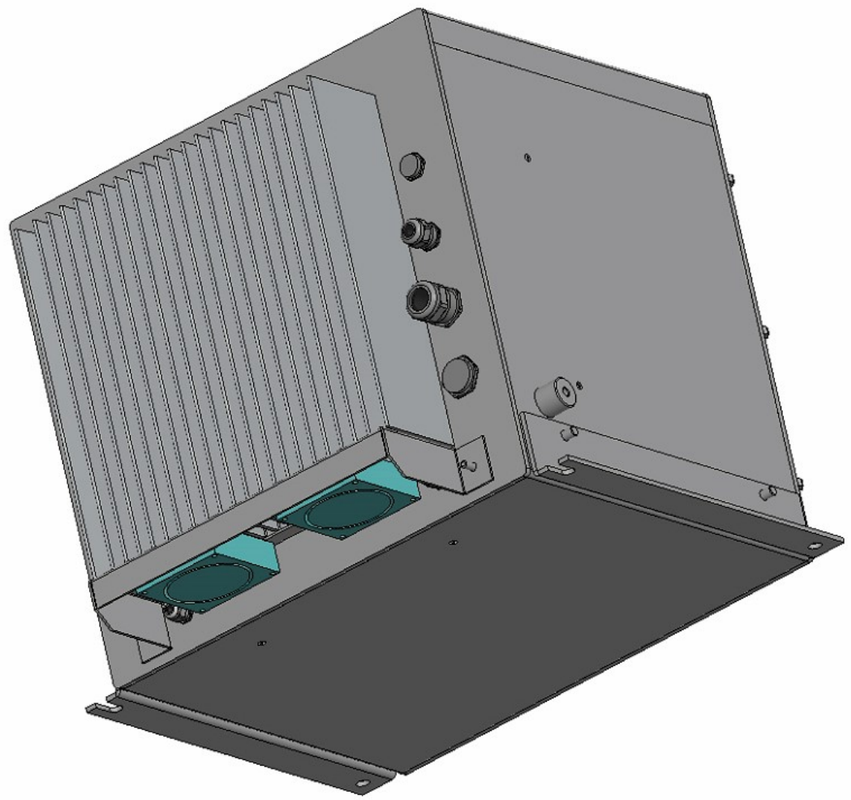
ENI-FL40/DBC Traction Inverter



APPLICATION

The ENI-FL40/DBC traction inverter is designed to power the compressor/fan motor of devices in the auxiliary circuits of diesel-electric shunting and similar locomotives. The inverter is powered by the voltage rectified by the auxiliary rectifier from the vehicle's auxiliary generator. The input voltage is supplied from the locomotive's auxiliary rectifier output to the power input terminals; the value of the current drawn is measured/controlled by a current sensor. Input capacitors make the voltage in further power circuits independent of disturbances and temporary fluctuations. The part converting the DC voltage into three-phase AC is made as a three-phase TD bridge made on high-current power two-transistor IGBT modules, built on a high-performance heat sink. The output wire current sensors protect the AC inverter circuits against overcurrents/shorts in the compressor/fan circuits in the vehicle installation. The power track built on the heatsink is cooled by a stream of ambient air supported by two fans mounted in its lower part. Protection against an emergency overheating of the radiator is provided by a temperature sensor, the state of which is controlled by the control system. Control and control of the inverter operation is carried out using the CAN/CAN Open bus.

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SPECIFICATION

TYPE	ENI-FL40/DBC
Supply voltage	580 V_{DC} 20%
Control supply voltage	24 V_{DC} ± 30%
Rated output voltage	3x400 V_{DC}/50 Hz
Output voltage ripple	≤ 2%
Rated power output	40 kVA
Maximum load current	58 A_{RMS}
Electronic short-circuit and output overload protection	
Control via CAN/CAN Open bus	
Ambient operating temperature range	-30°C ÷ +40°C
Cooling	forced
Level of security	IP54
Size	490 x 459 x 402 mm

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