KACO new energy.

Data sheet

Three-Phase
Charging Rectifier
LGI6501

Stay Flexible. Deliver Performance.

The three-phase charging rectifier LGI6501.

Depending on the availability of AC grids, batteries in railway vehicles are charged using various sources: from one-phase or three-phase land connections or three-phase "on-board" auxiliary power units, for example. Reason enough to use a charging rectifier that flexibly can adjust itself to the energy source: the LGI6501 from KACO new energy.

With efficient regulation, the LGI6501 makes available up to 3.3 kW of charging power with a one-phase power supply and up to 6.5 kW of charging power with a three-phase power supply. Active power factor correction (PFC) ensures sinusoidal grid current consumption, and it does this in both operating states, of course. A temperature-controlled charging characteristic facilitates optimum and safe charging of your battery set. A serial interface can be used to set parameters for the characteristics and charging powers. With the optional CAN interface, it is possible to communicate extensively (status information, warnings and error messages) with a central processing unit (the train computer, for example).

With the sealed IP65 housing, the LGI6501 is designed for outdoor use. An optional 19" rack-mount version is also available.

- Suitable for use on railway vehicles (EN 50155)
- IP65 housing
- Can be operated on one-phase and three-phase AC grids (3.3 kW/6.5 kW)
- Temperature-controlled charging characteristic, sense connection
- Galvanic isolation between input and output
- Parameters can be set via RS232, optional CAN interface

Technical data

Three-Phase Charging Rectifier LGI6501

EN 5000452-01-120901

Electrical Data	LGI6501
Input levels	
Input voltage	230 V; 50 Hz (40 Hz - 70 Hz) one-phase (L, N) 400V; 50Hz (40Hz - 70Hz) three-phase (L1, L2, L3)
Undervoltage / overvoltage shutdown	-30 % / +35 %
Input current	<16 A, integrated PFC (Power Factor Correction) Input current limit parameters can be set separately for one-phase and three-phase operation
Output levels	
Rated power (50 °C)	6 500 W
Max. rated power depending oninput voltage (30 °C)	7 200 W
Output voltage 24 V	27.0 V IU charge (temperature-controlled)
Output voltage 144 V	163.0 V IU charge (max. 350 W)
General electrical data	
Efficiency at rating	>92 %
Galvanic isolation	between interfaces, input and output
Radio interference suppression level	EN 50121-3-2
Potential-free message	3 message outputs (changeover contact max. 30 V, 0.5 A)
Control inputs	4 control inputs (24 V)
Communication	CAN-bus
Fault memory	present
Interface	- 24 V on-board grid and starter battery: Pfisterer PLUG system - service interface: M23 circular plug-in connector - all other interfaces: Harting HAN HPR system
Mechanical Data	
Display	4 status LEDs
Ambient temperature	-40 °C to +70 °C (EN 50155 Tx)
Cooling	convection
Note regarding cooling	do not cover the heat sink; it must be possible for natural convection to occur
Noise emission	noiseless
Protection rating	IP65
Housing form	self-supporting steel sheet housing for underfloor installation
Colour	RAL7022
Weight	82kg

Suitable for use on railway vehicles (EN 50155)

Environmental testing EN 60068-2-1, EN 60068-2-2, EN 60068-2-30 / Vibration and shock EN 61373 / EMC EN 50121-3-2