

INTELLIGENT AIR CONTROL IAC

INVERTER OF TYPE IAC FOR AIR COMPRESSOR DRIVES

- Power supply by 3AC-/DC-board network or vehicle battery
- V/f-control for compressor motor
- Soft start function for compressor motor
- Control and monitoring of the entire air supply unit
- Communication with TCMS via binary inputs/outputs
- Diagnostic interface via Ethernet

Technical description

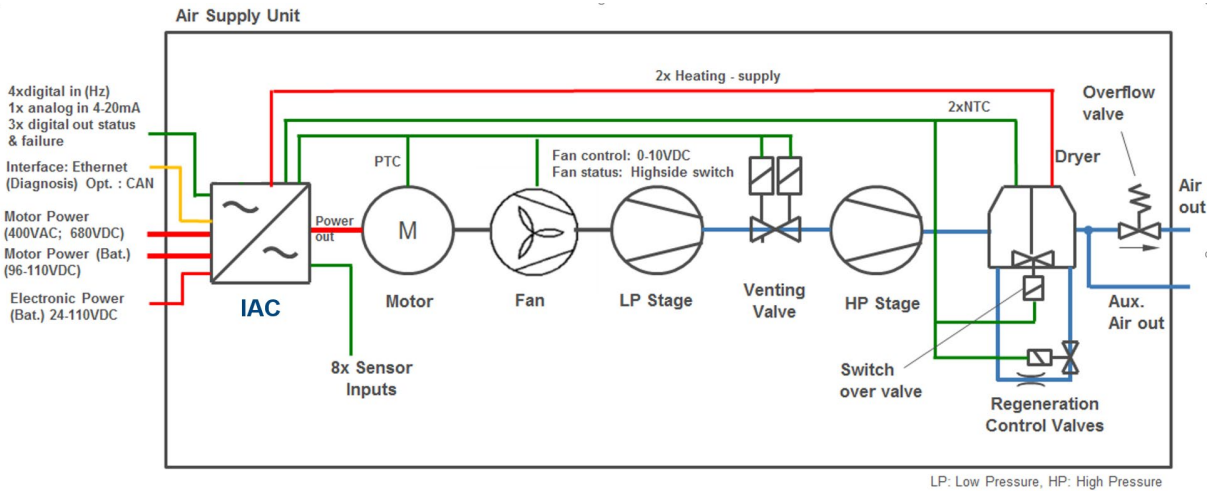
The IAC inverter is used as the central control unit of the air supply unit within a rail vehicle. The following functions are realized by the IAC:

- Control of the compressor speed
- Dryer control depending on compressor speed (changeover/regeneration logic and heating control)
- operation of the compressor on DC-vehicle-battery
- motor temperature supervision

- Basic inverter diagnostics (e.g. voltage and current monitoring)
- control of an optional E-fan
- monitoring of the air supply unit (e.g. air pressure)
- optional: Communication via CAN with TCMS

The IAC inverter is supplied from the 3AC/DC on-board power supply grid or the DC vehicle battery (optional).

Typical application



Electrical data	
Input voltage	3AC 400 / 480 V (IT / TN power supply acc. to EN 50533:2012, Class 1) DC 480 V ... 780 V (insulated DC grid, OV2)
Output power	14kVA/26kVA
Output voltage	3AC 0-330 V, 0-70 Hz
Output current	25A/40A
Communication and control	
Communication	CAN / Ethernet (diagnostics) / 4 x DI / 3 x DO / 1x AI 0-10mA
Control voltage	DC 24-110V according to EN 50155
Mechanical data	
Dimensions (L x W x H)	540 mm x 380 mm x 260 mm
Weight	40 kg
Protection class	IP 65
Cooling	Natural convection
Ambient temperature	-40 °C ... +55 °C
Other	
EMC	EN 50121-3-2
Fire protection	EN 45545
Design of electrical connections	Plugs

Kiepe Electric GmbH

Kiepe-Platz 1
40599 Düsseldorf
Tel: +49 211 7497-0
Fax: +49 211 7497-300
info@kiepe.knorr-bremse.com
www.kiepe.knorr-bremse.com



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