

KONTRAC PN 50 DC / PN 100 DC

Trackside auxiliary converter fed by overhead line



KONTRAC PN 100 DC

KONTRAC PN 50 DC / PN 100 DC is a trackside auxiliary power supply converter fed by 3 kV DC overhead line. It is used in order to supply various loads inside the substation facilities (power supply for integrated lighting and information systems, railway signaling and protection systems, etc.).

Overhead line might generate spikes, sags and surges caused by the current drawn from locomotives. Those are likely to damage the input stages of conventional converters.

In order to provide a trackside noise filtered power source, we use the same technology as for our rolling stock converters.

The converter is primarily intended to be used as a backup energy source (in case of power outage from the distribution network).

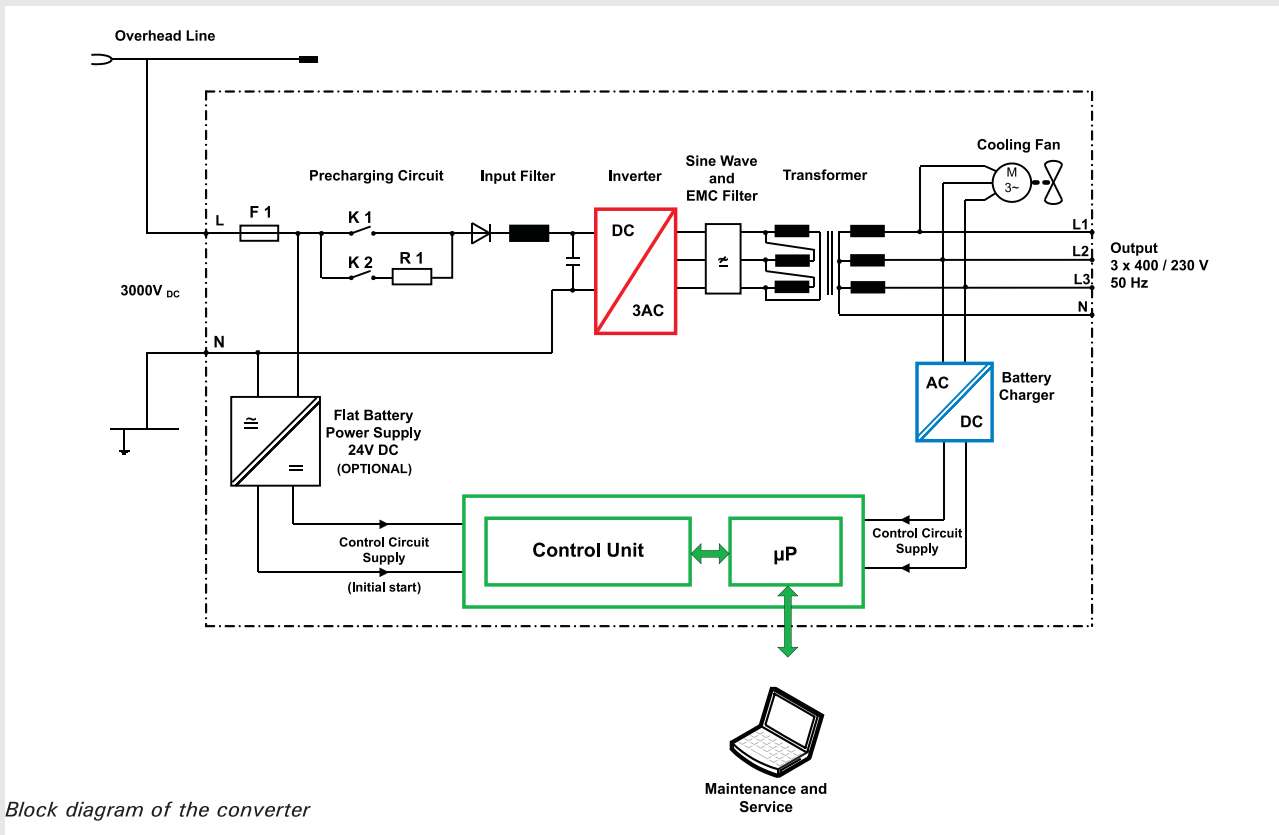
However, in projects where poor or no distribution network is available at site, this converter can be implemented as a primary power source as well.

Features

- Rolling stock converter technology
- Robust input high-voltage inverter
- Output transformer ensures galvanic isolation
- Sine wave output filter
- EMC output filter
- Easy maintenance
- Modular design of power unit
- Flat battery power supply for initial start (optional)
- Air cooling

KONTRAC PN 50 DC / PN 100 DC consists of:

- Input contactors and precharging circuit
- Input filter
- Input high-voltage inverter power module
- Output sine wave filter
- Output EMC filter
- Output transformer
- Integrated battery charger for control circuit power supply
- Air ventilation system
- Control unit



Block diagram of the converter

Basic technical data

	KONTRAC PN 50 DC	KONTRAC PN 100 DC
Input voltage:	3,0 kV DC	
Minimum input voltage:	2,0 kV DC	
Maximum input voltage:	3,6 kV DC	
AC output voltage:	3 x 400 / 230 V, 50 Hz	
AC output power:	50 kVA	100 kVA
Cooling:	Forced air-cooling	
Size (W x D x H):	1200 x 1000 x 2200 mm	2000 x 1000 x 2200 mm
Weight:	< 700 kg	< 1000 kg
Mounting place:	Outdoor or substation	
Connecting interface:	CAN / MVB / Ethernet	

Digital control unit

Proprietary powerful diagnostic and visualization tool (ZTT) is compatible with all our platforms through many generations of control electronic solutions. Configurable event-driven data logging and event recording is integrated in the control electronics.

Mechanical design and cooling system

The converter has IP54 mechanical protection and it is designed for mounting outdoor or inside the traction substations. The modular design of the power module allows an easy maintenance. The converter is efficiently cooled by forced air.

Diagnostic and visualization

Proprietary powerful diagnostic and visualization tool (ZTT) is compatible with all our platforms through many generations of control electronic solutions. Configurable event-driven data logging and event recording is integrated in the control electronics.



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