



KONČAR

Končar Electronics and Informatics, Inc

KONTRAC PN 30 MS Two-system converter for passenger coach



KONTRAC PN 30 MS passenger coach

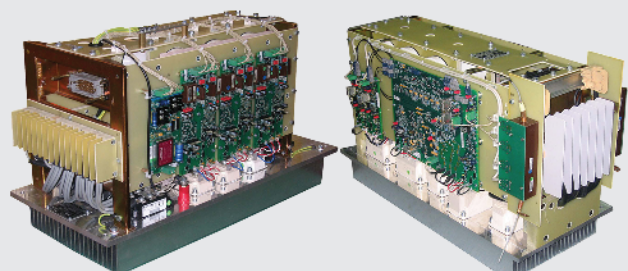
KONTRAC PN 30 MS serves as a power supply for air conditioned passenger coaches. It can be supplied from two conventional UIC voltages (1500 V, 50 Hz or 1500 V DC) used by European railways, contributing significantly to passengers comfort.

KONTRAC PN 30 MS consists of:

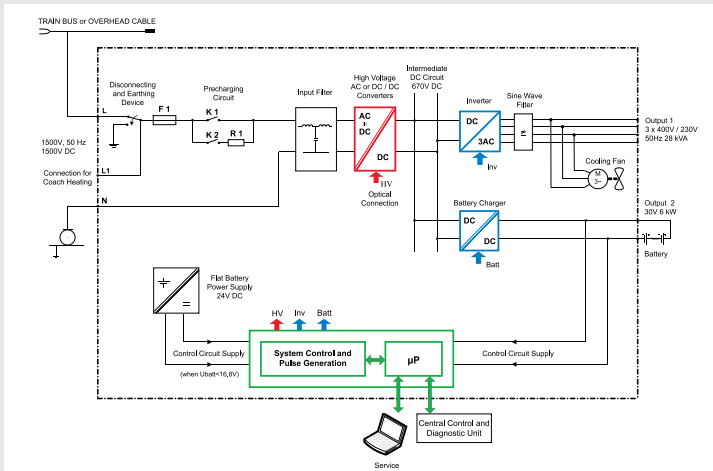
- Disconnecting and earthing device
- Input contactor and precharging circuit
- Input filter
- High-voltage modules
- Output inverter module and a battery charger
- Flat battery power supply
- Air system ventilation
- Control unit

Features

- Two input voltages
- Microprocessor control and diagnostics
- Input / output galvanic insulation
- Active control of input impedance
- Easy maintenance
- Modular design
- Integrated disconnecting and earthing device
- Flat-battery power supply
- Automatic switching to another input voltage i.e. supply system



Inverter and high voltage module



Block diagram of auxiliary converter KONTRAC PN 30 MS

Basic technical data

Input voltages:	1500 V, 50 Hz
	1500 V DC
AC outputs:	3 x 400 V, 50 Hz, 28 kVA
	230 V, 50 Hz, 2,8 kVA
DC output:	30 V _{DC} , 6 kW
Cooling:	Forced air-cooling
Size (L x W x H):	2150 x 2100 x 600 mm
Weight:	1020 kg
Mounting position:	Under-floor
Connecting interface:	CAN / MVB / Ethernet

Digital control unit

Digital control unit (DCU) is based on proprietary embedded control platform which has been used for years in our rail solutions (locomotives, coaches, trams, EMU, DMU).

DCU is responsible for all sequence control, regulation, protection, communication, supervision and diagnostics tasks.

Diagnostic and visualization

Proprietary powerful diagnostic and visualization tool (ZZT) 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 is designed for under-floor mounting with IP54 protection. Modular design of the converter allows an easy maintenance access enabling easy replacement of each power module. The increased power density of the power modules enables compact and light-weighted converter design.

The converter is efficiently cooled by forced air.



Croatian Railways passenger coach for local traffic equipped with the converter KONTRAC PN 30 MS

Application example

As a part of a large modernization project of passenger coaches owned by Croatian Railways, passenger coaches for local traffic have been equipped with dual system static converter KONTRAC PN 30 MS. The converter is used as a power supply for air conditioning unit, all single-phase and three-phase consumers, all DC consumers and for charging the coach battery.

In this way, it significantly contributes to pleasant and comfortable ride to different suburban destinations.



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