

Three phase inverter on traction line

Power increase to 10 kW with product improvement of DRR 02 series, which is a sine wave inverter for 600/750 V DC-traction line acc. EN 50163

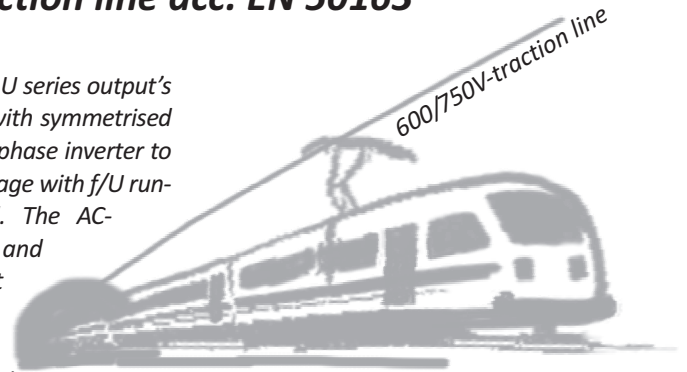
With product improvement SYKO increased the power of our DRR02 series to 10 kW. The DRR02 series is a railway compliant three phase sinus inverter for the compliant use on 600/750 V DC-traction line voltage. In operation on the input voltage range (400 - 950) V DC and continuous power the efficiency of 95 % is realised. According to EN 50163 the transient strength / over voltage up to >1050V/5min, 1270V/50ms and 1950V/10ms is realised. The patented Double-Regenerator-Stage as PWM-frontend works as buck/boost-Topology to a symmetric regulated and short circuit proof 650V DC-intermediate voltage level (UZK).

The UZK intermediate level is used to supply:

- A) isolated battery charger
- B) high power (main) three-phase inverter
- C) further low power three-phase inverters
- D) an isolated single phase inverter

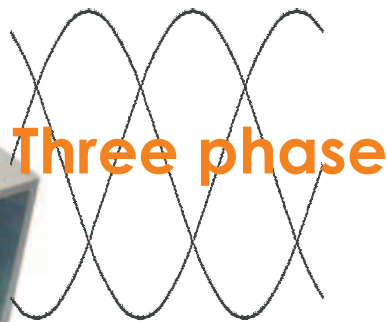
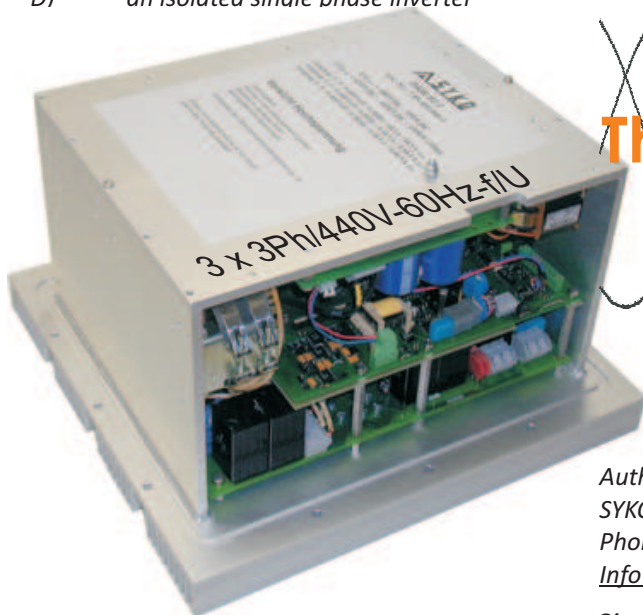
Internally on the DRR 02.U series output's intermediate level UZK with symmetrised midpoint a 10kVA three phase inverter to generate 400V sinus voltage with f/U run-up is series connected. The AC-output is continuous and short term short circuit proof, over load protected and stable over the whole input voltage range.

The input and output circuits are EMC-filtered. An internal over voltage protected housekeeper generates all internal needed supply voltages for all potential levels, supplies the transistor \pm drive unit, regulation/processor unit and supplies the current sensors with especially designed coil bobbin.



The internal fan, which is supplied by the internal housekeeper and regulated over temperature, increases the unit's MTBF value from 60°C.

The converter is equipped with under and over voltage monitoring, integral run-up current, delayed re-start, temperature monitoring of power unit and PCB etc. As well as floating signal inputs for ON/OFF and change of rotation direction. The inverter runs up with controlled f/U and time acceleration or the f/U-curve can be set via external set point with analogue signal or via resistor setup. Optionally the output can generate 440V/60Hz in boost mode operation. The DRR 02 as IP20 version is optionally available in IP65-solution.



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POWER

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