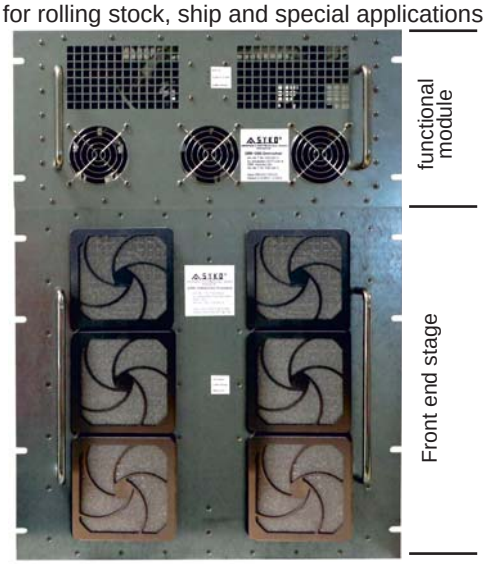
19“-System
6kVA stat. / 7kVA dyn.

3Ph-Sinus-Inverter
on 1000/1500V UIC-high voltage bus

SYKO®

- **Current / voltage cascaded front end stage**
- **Use on UIC-high voltage bus**
- **Increased and high frequent isolation**
- **Ui-range / transients acc. UIC 550**
- **f/U run-up / external set point**
- **Input impedance acc. UIC550**
- **Regulated, active power factor**
- **Over all efficiency >88%**
- **Regulated forced ventilation**

for rolling stock, ship and special applications



Series DRR.UIC isolated AC and DC

preliminary

Input:

- Fuse external (customer)
- EMC-filter EN 50121.3.2
- Input impedance acc. UIC550
- Voltage capable acc. UIC550
- Resonant transforming stage
- 12 kV / 1ms transients
- Impedance characteristic = f (t)
- Integral power run-up
- Under- over voltage turn-off with amplitude and time hysteresis
- Power connectors Cage Clamp 4 mm²

Output:

- Synthetic 3ph sine wave
- contin./dyn. short circuit + no-load proof
- Over load monitoring = f(t)
- Run-up with f/U-Control
- 0-5 VDC or 5-34 V PWM / f/U- set-point
- isolated 5V-output for f/U
- Stability ±3 % = f (Io/Ta)
- Run-up delay approx. 40s
- several failure indications (input signals)
- 3 x auto run-up after failure
- Power Connectors Cage Clamp 4 mm²

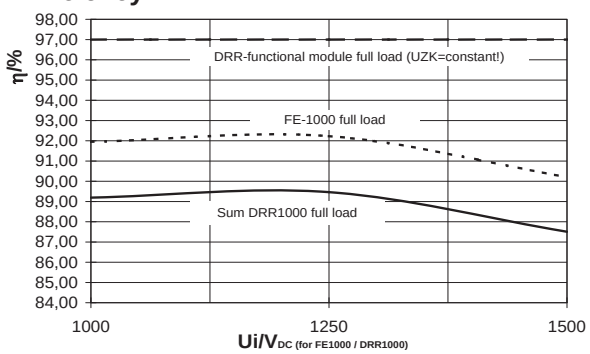
In general:

- On/Off-remote isolated
- Air-/creepage distances improved isolation
  Input - output.: 40mm
  Input - ground: 20mm
  Output-ground: 5mm
- Intermediate level 2 x 700 V DC
- Forced regulated ventilation Ta >35°C
- Temperature monitoring on PCB
- Dimension 19“ Frontend: 10 HE
  Inverter: 5 HE
- Weight:
  Frontend: 50 kg
  Inverter: 20 kg
  Sum 70 kg
- CE-conformity on request

Ui	Po	Uo	fo	Model number
V	kVA	Veff / 3Ph	Hz	
	cont./dyn.	zero to	max	
680 - 1200 AC	6 / 7	400	50	DRR.UIC1000AC.400.60/70
1280V / 10s	6 / 7	460	60	DRR.UIC1000AC.460.60/70
1000V AC UIC hv-bus				
16²/₃ Hz				
1050 - 1740 AC	6 / 7	400	50	DRR.UIC1500AC.400.60/70
1860V / 10s	6 / 7	460	60	DRR.UIC1500AC.460.60/70
1500V AC UIC hv-bus				
50Hz				
900 - 2050 DC	6 / 7	400	50	DRR.UIC1500DC.400.60/70
2500V / 10s	6 / 7	460	60	DRR.UIC1500DC.460.60/70
1500V DC UIC hv-bus				
840 - 1560 DC	6 / 7	400	50	DRR.UIC1200DC.400.60/70
1640V / 10s	6 / 7	460	60	DRR.UIC1200DC.460.60/70
1200V-traction line				

Higher short term run-up power	on request
Cange of output voltage / output frequency	on request
Modification costs for possible changes above values:	on request

Efficiency



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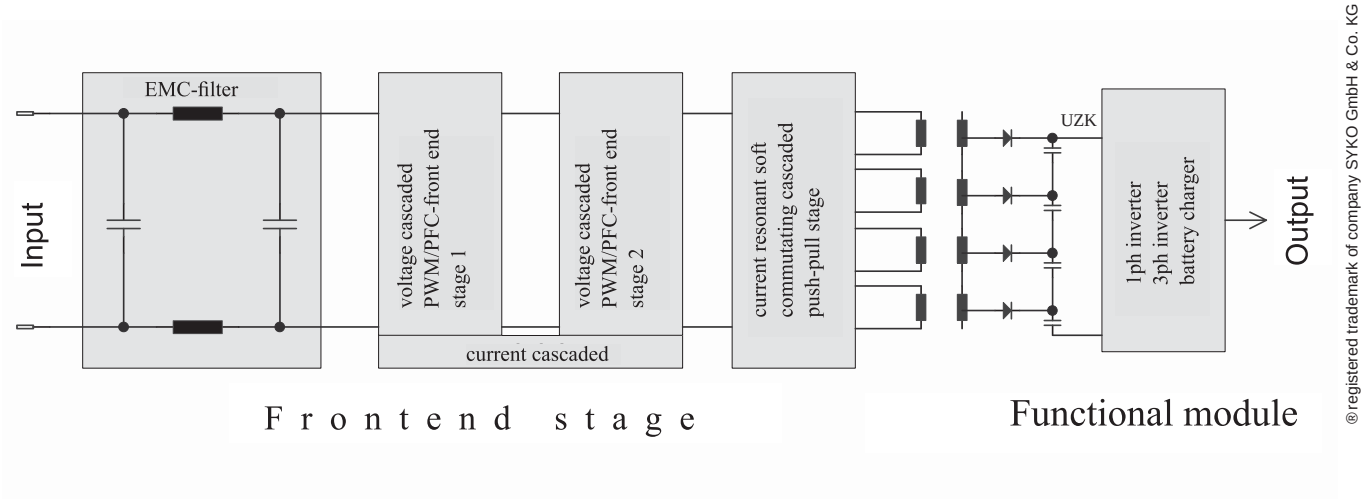


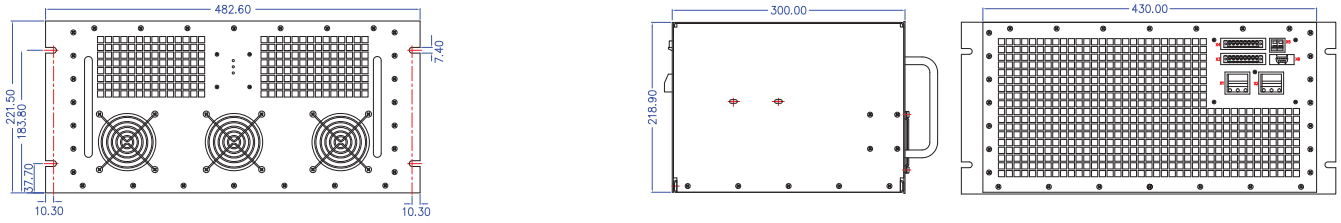
This ***DRR.UIC*** three phase inverter series has been designed to supply air pressure compressors, decentralised driver cap air conditioning, air circulation, emergency ventilation and so on. The unit can deal with the continuous UIC-high voltage levels, 10s short term over voltages and peak values of the 12kV-transient. The fronend stage generates an isolated intermediate voltage level with improved isolation (request), which feeds the series connected 3ph-inverter (functional module). AC-input levels ≥15 Hz are actively treated with the patented and cascaded Re-generator-Topology with power factor stage on trapeze and sinus input characteristics. High electrolytic capacitors block low frequent voltages and foil capacitors block high frequent voltages from the intermediate level.

The choice of passive and active components as well as the chosen switching multi stage concept with according control and monitoring functions and an over all efficiency of up to 90% lead to high and stable functionality. The internal forced ventilation is temperature regulated. Output sided clean and synthetic 3ph-voltage is generated with the use of a 3ph-choke and output EMC-filter. The internally generated isolated 5V-voltage can be used as set-point input with 0–5 V or 5–34 V/ ≥1 kHz/PWM-valuated to sweep the f/U-curve from zero to maximum.

The inverter module can be replaced by other modules such as the HBL.M battery charger series. Then the entire concept works as battery charger system from 1kV AC / 16,7Hz without 33,3Hz current ripple.

Inverter-Modul

Dimension W x D x H 428,6x300x218,90



UIC-Frontend

Dimension W x D x H 428,6x555x443,6