

Three phase output
up to 5500VA / 6600VA dyn.

3Ph Sine wave inverter for
high voltage battery 300/450/>600V_{DC}
traction line 600/750V_{DC}

SYKO®

- **Cascaded double stage-FE topology**
- **For direct traction line contact**
- **EN50163/VDE 0115-102 - traction line supply**
- **1050V/5min-1270V/20ms-1950V/2ms**
- **Synthetic sine wave output**
- **Access to intermediate level UZK (670V_{DC})**
- **Input and output EMC filter**
- **Speed monitored ventilation**
- **Over all efficiency > 93%**
- **f/U-control / I²t-limitation**

for rolling stock, vehicles, ship building, special technology



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on request

Series *DRR.H750* *isolated*

Main points:

Input

- External fuse (customer)
- Adapted input filter >15Ω
- Inrush current limitation
- Integral power run-up to intermediate capacity and 3ph-sine wave
- Under and over voltage switch-off with delayed re-start
- ain inhibit floating, polarity free
- Power connection:
WAGO Cage Clamp 4mm²
- Signal connection:
Phoenix plug 2,5mm²

Output intermediate circuit (UZK)

- No-load, short circuit proof
- UZK-regulation = f (Tu/Iout/Uin) ±2,5%
- For external loads up to 40 % of over all power with controlled run-up (on request)
- Isolated auxiliary voltage
- Clamp: WAGO Cage Clamp 4mm²

Output 3Ph-voltage:

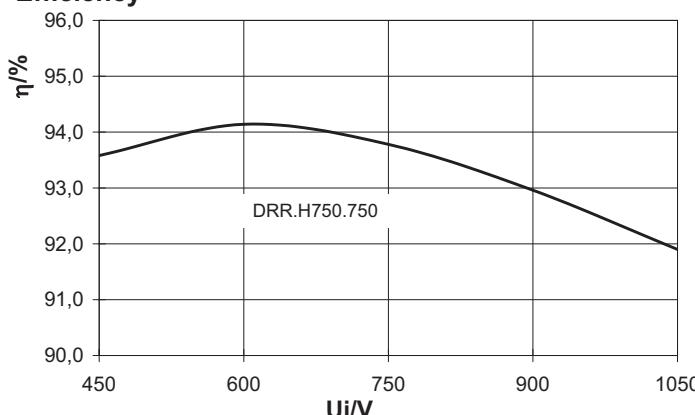
- Increased isolation
- Synthetic sine wave
- I²t and dyn. over load protection
- 3ph run-up with f/U control
- No-load, short circuit proof
- Stability ±3 % = f (Ta/Iout)
- Failure signalling (diverse)
- Acceleration monitoring
- 5V auxiliary output isolated
- Set-point input 0-5V = 0-f-max or 5-34V = 0-100% PWM (1kHz)
- Inhibit for AC-output (AC-off)
- Boost operation ~1,2 x Uo (Option)
- Clamp: WAGO Cage Clamp 4mm²

General:

- Air/creepage distances Inp.-outp.: 8mm
- Isolation test voltage: 2,5kV AC
- Ambient temperature -25/+70°C
- Derating from Ta>50°C / 1%/°C
- Speed monitored fan operation with optical indication
- Inside temperature-monitoring housing and on PCB
- Dimension: approx (493 x 422 x 195)mm
- Weight approx. 30kg
- CE-Conformity on request

Input	Output			
<u>Ui</u>	<u>UZK</u>	<u>Uo / f</u>	PA stat/dyn	Model number
V DC	VDC	Vrms	kVA	
210 - 420	370	200/220/60	4,0/4,8	DRR.H750.300.200.40/48*
500V / 20ms	740	400/440/50	4,4/5,3	DRR.H750.300.400.44/53*
300V-battery				
310 - 585	370	200/220/60	5,0/6,0	DRR.H750.450.200.50/60
1050 / 2ms	740	400/440/50	5,5/6,6	DRR.H750.450.400.55/66
450V-battery				
450 - 850	370	200/220/60	5,0/6,0	DRR.H750.600.200.50/60
950 / 100ms	740	400/440/50	5,5/6,6	DRR.H750.600.400.55/66
400V_{AC}-rectified Generator voltage		(3Ph pre-connected rectifier see product line L)		
450 - 1000	370	200/220/60	5,0/6,0	DRR.H750.750.200.50/60
1050V/5s	740	400/440/50	5,5/6,6	DRR.H750.750.400.55/66
1270V/20ms				
1950/2ms				
600/750V-traction line				
Modification costs for possible changes above values:				on request
Projecting costs:				on request
* Option on request				

Efficiency



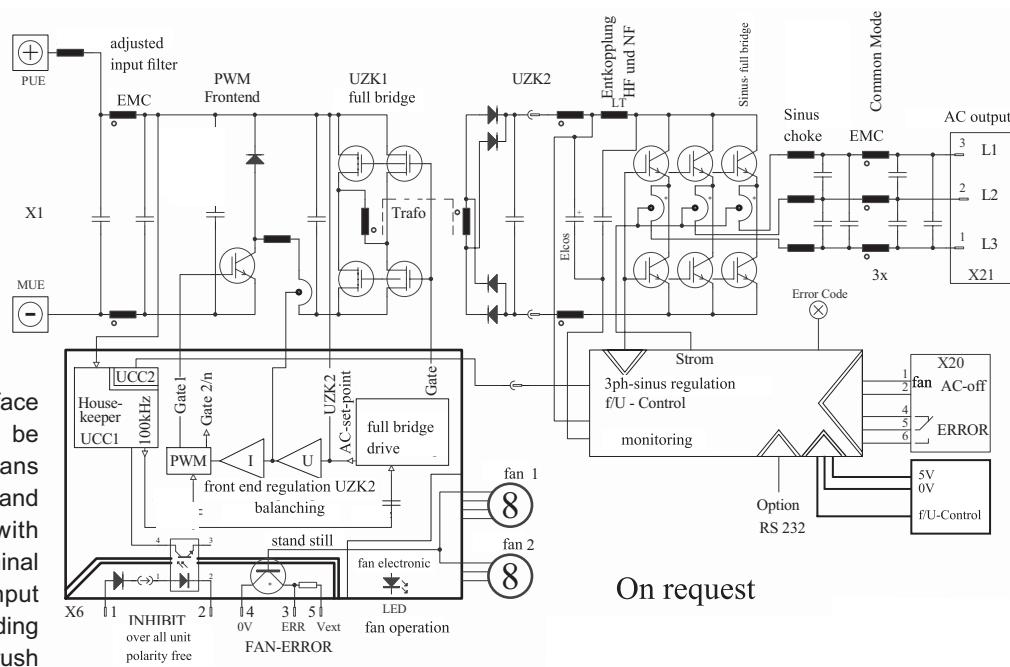
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The **DRR.H750** series is designed to generate a f/U-controlled three phase sine wave output out of traction line or high voltage batteries, including long term transients without current reflection. The 3ph-sinus output is processor controlled, dynamical and continuous short circuit proof and over load capable. With an set-point input 0-5V/PWM-interface the out put can proportional be regulated with f/U-curve. Fans can run-up without over load and compressors can run-up with max.150..200% of their nominal power. With an adapted input filter all requirements according EN50121-3-2 are kept and inrush currents are limited with $\geq 15\Omega$. The

unit is realised with a double voltage cascaded, with compelled balancing and double current cascaded input-FE-Power step, working PMW-valuated to a current and edge resonant full bridge. The secondary sided intermediate level is $\pm 2,5\%$ stable (but not regulated). This intermediate level, which is isolated to the input, optionally can be used for further loads such as battery charges up to 40% of the over all power (The intermediate level is galvanically connected to the 3ph AC-output).



On request

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