

DC-AC SINE INVERTER 220VA DIRECT/ALTERNATING CONVERTER 110Vdc , 115Vdc and 127Vdc to 230Vac

GENERAL FEATURES:

- Sine wave output voltage
- Selectable output frequency: 50/60Hz
- Adjustable output voltage
- Output failure alarm
- Remote inhibit
- High input-output isolation 3000Vrms
- Fire and smoke: EN45545-2 approved



	12Vdc 9.5 ... 15V ⁽¹⁾	24Vdc 16.8 ... 30V	36Vdc 25.2 ... 45V	48Vdc 33.6 ... 60V	72Vdc 50.4 ... 90V	110Vdc 77 ... 138V
120Vac	180W	200W	220W	220W	220W	220W
230Vac	180W	200W	220W	220W	220W	220W

Version and order code:

WRHD-DC/AC in / out / pwr : DC-AC Sine converter
output 110Vac ou 230Vac single phase

in : Input DC voltage (12Vdc, 24Vdc, 48Vdc, 110Vdc, 127Vdc) +/-20%

out : Output AC voltage 110Vac, 230Vac (50Hz standard)

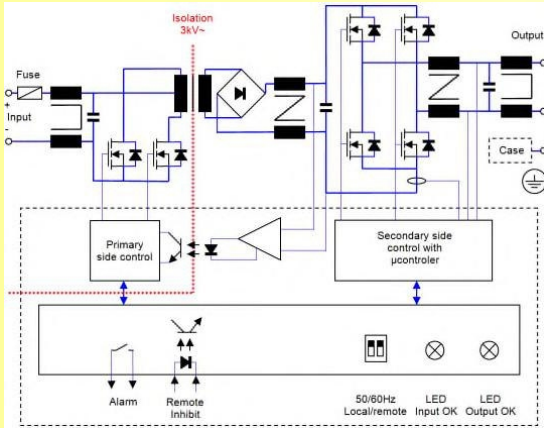
pwr : Output power (220W)

Mounting :
-RD DIN rail mounting (option)
-WM Wall mounting (standard)

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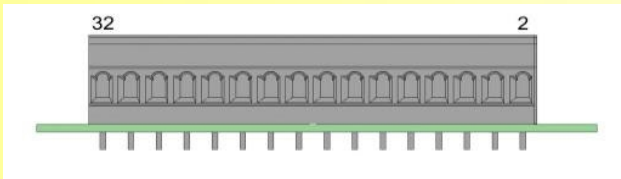
INPUT	
Input voltage range	See table
Maximum input ripple	5% Vin nom (Vrms, 100Hz)
OUTPUT	
Nominal output voltage (Vonom)	See table
Adjust range	± 5% of Vonom
Load regulation	4%
Line regulation	0.4% @ ΔVin -20...+25% 10% @ ΔVin -30...+25% 1% @ ΔVin -10...+25% for 12V input models 10% @ ΔVin -20...+25% for 12V input models
Output frequency	50 / 60Hz ± 0.25Hz
Output wave distortion THD	< 2% (16 samples average)
Output voltage HF ripple	< 20Vpp for 230Vac models < 10Vpp for 120Vac models
ENVIRONMENTAL	
Storage temperature	-40 ... 80°C
Operating temperature (full load)	-40 ... 55°C
Operating temperature (62.5% load)	-40 ... 70°C
Cooling	Natural convection
MTBF (MIL-HDBK-217-E; Gb, 25°C)	250.000 h
EMC	
Immunity according	EN61000-6-2 EN50121-3-2
Emissions according	EN61000-6-3 EN50121-3-2
SAFETY	
Safety according to	EN60950-1, EN62368-1 Class I OV category II, Pollution degree 2 Input / output isolation: reinforced
Dielectric strength: Input / output	3000 Vrms / 50Hz / 1min (routine test 2s)
Dielectric strength: Output / ground	1500 Vrms / 50Hz / 1min (routine test 2s)
Dielectric strength: Input / ground	500 Vrms / 50Hz / 1min (routine test 2s)
Fire and smoke	EN45545-2
MECHANICAL	
Weight	900 g
Dimensions	100 x 220 x 40mm
PROTECTIONS	
Against input over-currents	Internal fuse
Against output overloads < Iompk	linear
Against output overloads > Iompk	Triggered
CONTROL	
Remote inhibit input	4 ... 24 Vdc
Output failure alarm	Solid state relay, open when alarm. Max: 60V, 0.3A

BLOCKS DIAGRAM



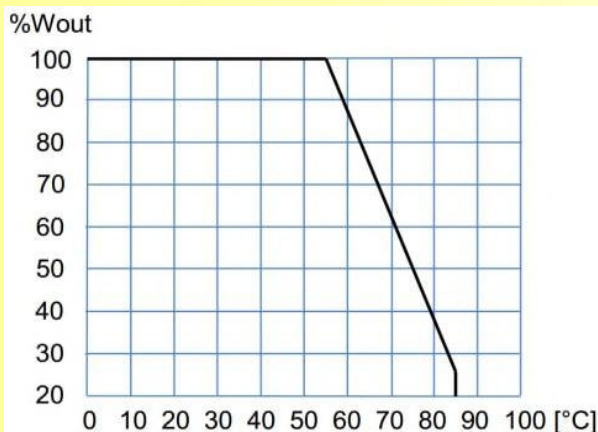
CONNECTIONS

Spring clamp terminals (Max. 12A / terminal)



CONNECTION	Terminal
-Vin	2, 4, 6
+Vin	8, 10
-Inhibit	12
+Inhibit	14
-Alarm	16
+Alarm	18
N	22, 24
L	28, 30
PE	32

POWER DERATING vs AMBIENT TEMPERATURE



DESCRIPTION

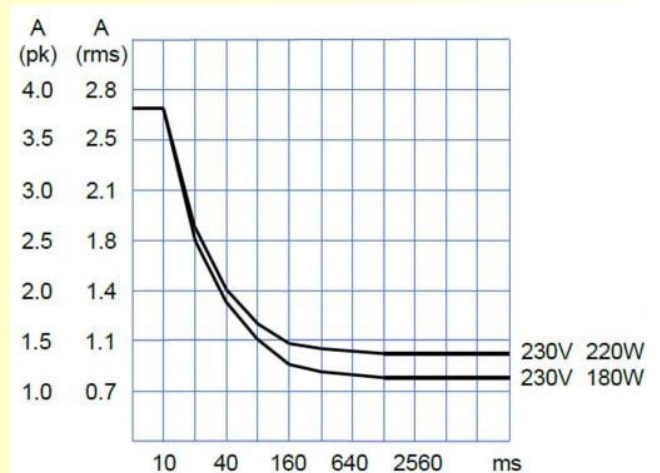
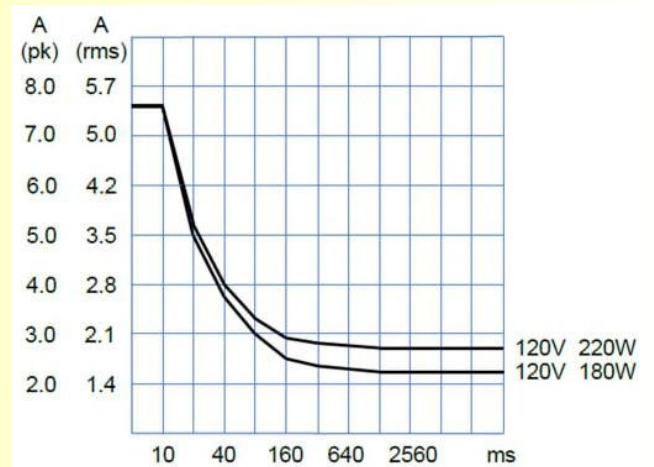
The WRHD-220 consists of sine-wave 120Vac or 230Vac output voltage DC-AC converters. The frequency can be set to 50Hz or 60 Hz, and input and output are galvanically isolated.

The WRHD-220 inverters consist of two cascaded converters, one DC-DC generating an intermediate output voltage from the input voltage. That intermediate voltage is inverted to supply the output voltage and frequency by means of a second DC/AC converter.

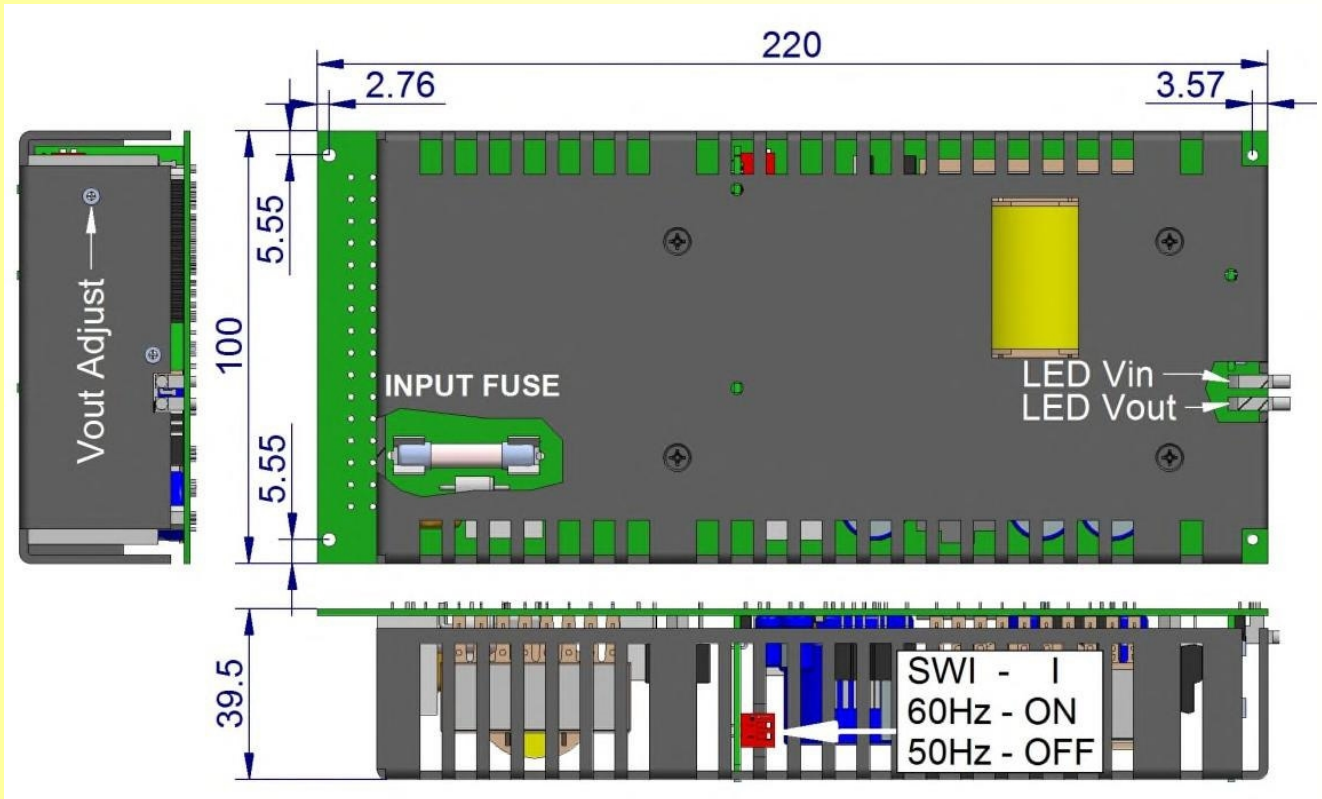
The input is protected against reverse polarity by means of fuse and against under-voltage by unit shutdown.

The output has protection of maximum average power and maximum peak current. The unit shutdowns when the operation curve limit is exceeded for more than one second. Every 2 seconds after shutdown, the unit tries to restart up to 3 times. If the overload persists, the unit remains shutdown until an input reconnection.

OPERATION CURVE LIMITS



DIMENSIONS



Option -RD

