WRHD-DC-AC-700

DC-AC SINE INVERTER
300....700VA DC/AC INVERTER
110Vdc , 115Vdc and 127Vdc to 230Vac

GENERAL FEATURES:

Sine wave output voltage
Selectable output frequency: 50/60Hz
High input-output isolation 3000Vrms
Remote inhibit
Input and output alarm (optional)
Railway version EN50155, RIA12 (optional)
Fire and smoke: EN45545-2 approved

Available models

		24Vdc 16.8 ... 30V	36Vdc 25.2 ... 45V	48Vdc 33.6 ... 60V	72Vdc 50.4 ... 90V	110Vdc 77 ... 138V
	120Vac	750W	750W	750W	750W	750W
	230Vac	750W	750W	750W	750W	750W

Version and order code:

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

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

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

pwr : Output power (700W)

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

Request a quote

LOREME 12, rue des Potiers d'Etain - 57071 Metz ☎ 03.87.76.32.51 - www.loreme.fr - Email: Commercial@Loreme.fr - Technique@Loreme.fr

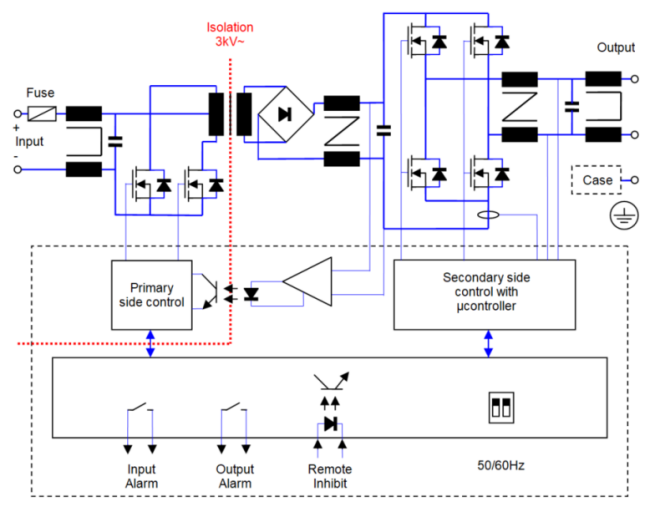
WRHD-DC-AC-700

INPUT	
Input voltage range	See table
Maximum input ripple	5% Vin nom (Vrms, 100Hz)
OUTPUT	
Output voltage	120 / 230Vac sinusoidal
Load regulation	4%
Line regulation	0.4% @ ΔVin -20…+25% 10% @ ΔVin -30…+25%
Output frequency	50 / 60Hz ± 0.25Hz
Output wave distortion THD	< 2% (16 samples average)
Output voltage HF ripple	< 20Vpp
ENVIRONMENTAL	
Storage temperature	-40 … 85°C
Operating temperature full load	-25 … 55°C (-40 … 55°C)
Operating temperature 50% load	-25 … 70°C (-40 … 70°C)
Cooling	Variable speed internal fan
MTBF (MIL-HDBK-217-E; G_b, 25°C)	160.000 h
EMC	
Immunity according to	EN61000-6-2 / EN50121-3-2
Emissions according to	EN61000-6-3 / EN50121-3-2
SAFETY	
Safety according to	EN60950
Dielectric strength: Input /output	3000 Vrms / 50Hz / 1min
Dielectric strength: Output / Earth	1500 Vrms / 50Hz / 1min
Dielectric strength: Input / Earth	1500 Vrms / 50Hz / 1min
Fire and smoke	EN45545 approved
MECHANICAL	
Weight	1950 g
Dimensions	130 x 270 x 50mm
PROTECTIONS	
Against input over-currents	Internal fuse for 36, 48, 72, and 110V input models
Against output overloads < 10A	Linear
Against output overloads > 10A	Triggered
Against over-temperature	Shutdown with automatic recovery
CONTROL	
Remote inhibit input	OFF: applying 4...24 Vdc, Impedance >3k3Ω
Input and output alarm (OPTIONAL)	Isolated contact relay open when alarm (< 0.1A at 150Vcc)

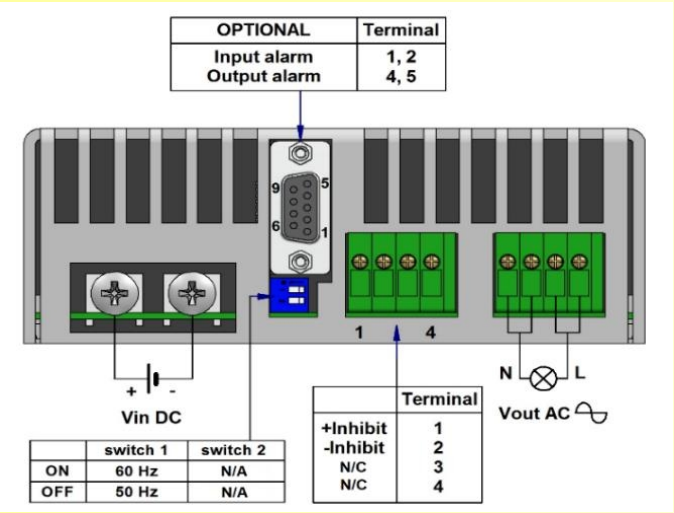
LOREME 12, rue des Potiers d'Etain - 57071 Metz ☎ 03.87.76.32.51 - www.loreme.fr - Email: Commercial@Loreme.fr - Technique@Loreme.fr

WRHD-DC-AC-700

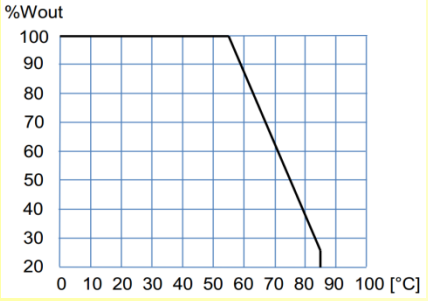
BLOCKS DIAGRAM



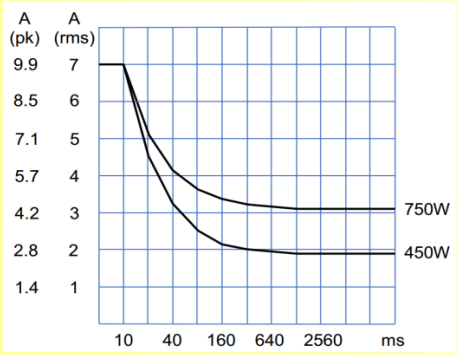
CONNECTIONS



POWER DERATING vs AMBIENT TEMPERATURE



OPERATION CURVE LIMIT



DESCRIPTION

The WRHD DC-AC 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 DC-AC 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.

INSTALLATION

- The device includes 10 M3 threaded holes that allows different mounting positions. For other mounting solutions see the accessories.
- Make connections as shown in the table.
- The default output frequency is 50Hz. For 60Hz simply actuate the dip-switch as indicated in the figure.
- The inverter includes active overload protection but does not provide protection against prolonged reactive overload conditions. Therefore, the maximum power output (VA) should not be exceeded.
- The EMC output filter is connected to the case, which causes a leakage current lower than 1mA. In order to prevent any touch current, connect the case to earth by means of any mounting hole.

For safety reasons, the following requirements must be met:

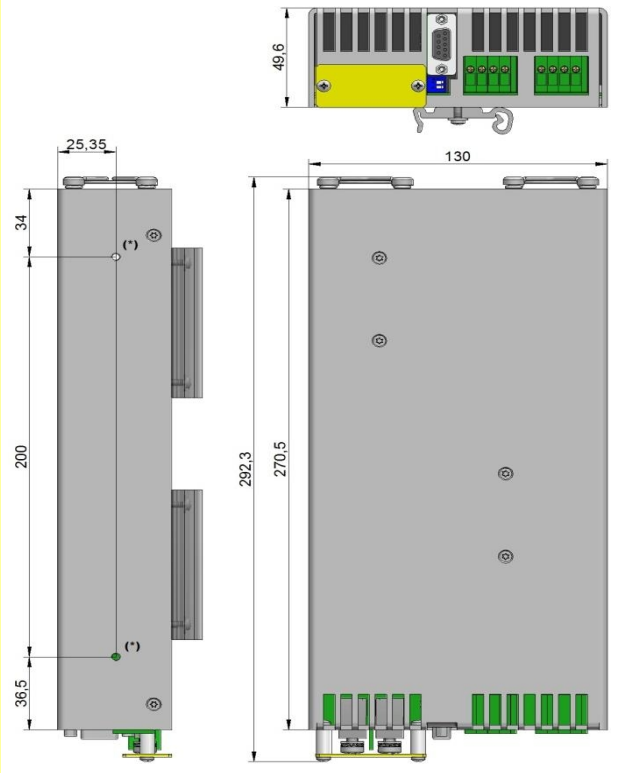
- Provide the equipment with some kind of protective enclosure that complies with the electrical safety directives in effect within the country where the equipment is installed.
- Add an external fuse of 60A and 50A for the models of input voltage 12V and 24V respectively.
- Use cables of adequate cross-section to connect inputs and outputs. The following table lists the maximum currents and the minimum cross-sections for the cables used for each power connection.

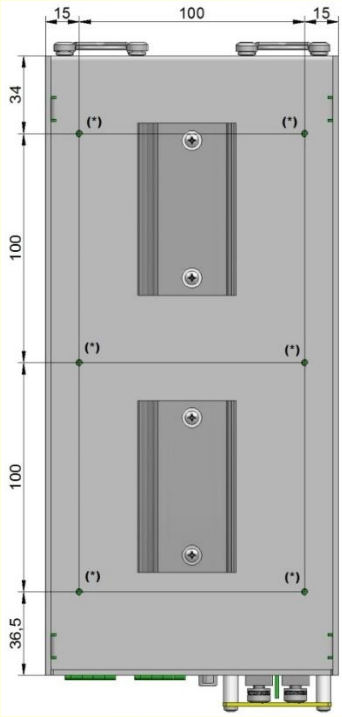
	Input 12Vcc	Input 24Vcc	Input 36Vcc	Input 48Vcc	Input 72Vcc	Input 110Vcc	Output 120Vca	Output 230Vca
Max. current	60 A	50 A	33A	25 A	17A	12 A	6.7 A	3.5 A
Cable section	**10 mm²**	**10 mm²**	**6 mm²**	**2.5 mm²**	**2.5 mm²**	**1.5 mm²**	**1 mm²**	**0.75 mm²**

LOREME 12, rue des Potiers d'Etain - 57071 Metz ☎ 03.87.76.32.51 - www.loreme.fr - Email: Commercial@Loreme.fr - Technique@Loreme.fr

WRHD-DC-AC-700

DIMENSIONS





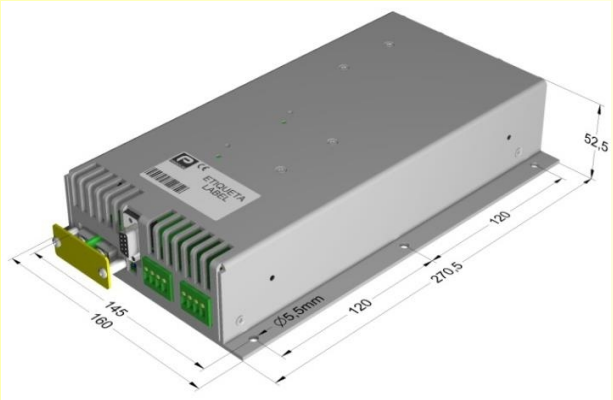
(*) M3 threaded hole. Maximum screw depth: 3mm

ACCESSORIES

ACCESSORIES	NOTES	CODE
DIN RAIL CLIP	Screws included. Order 2 units per inverter	**9135**
Mounting base	Screws included	**9265**

9135

9265



LOREME 12, rue des Potiers d'Etain - 57071 Metz ☎ 03.87.76.32.51 - www.loreme.fr - Email: Commercial@Loreme.fr - Technique@Loreme.fr