

DC-DC CONVERTER up to 127Vdc
AC-DC CONVERTER up to 127Vdc

type: WRD
 type: WRACD



- **Wide range of voltage**
- **Input:** 12V, 24V, 36V, 48V, 110V, 127V
- **Output :** 3.3V, 5V, 12V, 24V, 36V, 48V, 110V, 115V, 120V, 125V, 127V
- **Power from 5 to 120 watts**
- **1 to 8 outputs**
- **Protection**
 - short circuits
 - overload
 - thermal
- **High efficiency up to 92%**
- **1500V input / output isolation**
- **Low ripple**
- **Excellent regulation**



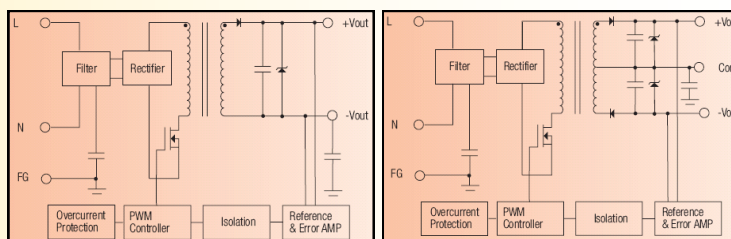
The WR... series is a complete range of high density switching DC-DC converters. This series offers a great flexibility and provide a secure and stabilized power supply.

Description:

DIN rail mounting
 23mm width case (25W) to 45mm (120W).
 Internal shield on the 6 faces, silicon encapsulation and conformal coating, shock and vibration proof, insensitive to humidity and dust.
 Connection on pluggable screw terminal: 2.5mm²/4mm².
 Overloads protection,
 Continuous short circuit protection,
 thermal protection (output power limiting).
 Natural air convection cooling.
 Embedded EMI filter (EN55022 class A).
 Possible to connect the outputs in parallel (currents summing). (specific manufacturing on request)
 Input voltage : available from 9V to 160VDC or AC with a wide input range (2:1 or 4:1 on demand)
 Output voltage: single : 12, 15, 24, 30, 48, 72, 110, 127Vdc
 dual (symmetrical): +/-5, +/-12, +/-15, +/-24 , ...
 or multiple outputs (up to 8 singles or 4 dual outputs)
Technical specifications:
 Output voltage accuracy: +/-1% typical
 Line voltage regulation (input variation) : +/-0.5%
 Load voltage regulation (output current variation) : +/-1%
 Output ripple and noise : < 100mVp-p (20MHz bandwidth)
 Temperature coefficient : +/-0.02% / °C
 Operating temperature: -20°C to +60°C (standard)
 Power derating 2.5% / °C above 60°C
 Operating temperature: -40°C to +85°C (extended version)
 Output current limitation : 110%

Synoptic for single output (1 channel)

Synoptic for dual output (1 channel)



Version and order code:

[Request a quote](#)

- WR23D in / out / pwr -n:** *maxi 25 watts*
- WR35D in / out / pwr -n:** *maxi 80 watts*
- WR45D in / out / pwr -n:** *maxi 90 watts*
- WR45HD in / out / pwr -n:** *maxi 120 watts*
- WR....AC in / out / pwr :** *(for AC input version)*

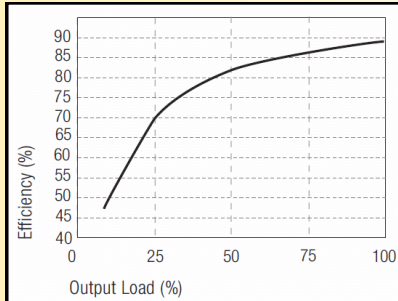
- in** : DC or AC input voltage (*model dependant*)
- out** : DC output voltage
- pwr** : output power
(*to define for each output if multiple outputs*)
- n** : number of output (*outputs voltage can be different*)
- rev** : reverse input voltage protection (option)

OUTPUTS (Number and voltage to be define)

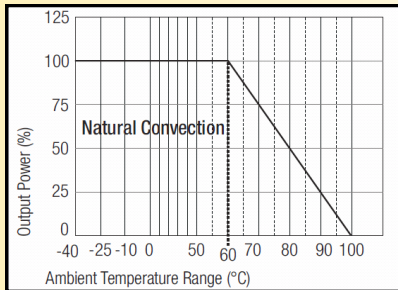
Single voltage output : 12, 15, 24, 30, 48, 72, 110, 125Vdc
 (other values on request)
 Symmetrical voltage output : +/-5, +/-12, +/-15, +/-24,
 or multiple output on request (8 max)

Transient response setting time 1 ms (typical)
 (25% load step change)

Efficiency function of output load
 (typical value)



Output power function of ambient temperature



POWER SUPPLY (to be define)

Input DC voltage: 9V, 12 V, 24 V, 48 V, 125 V, 200V, ...300V.
 Wide range, with under voltage lockout and overvoltage protection (2U nominal during 500ms).

ENVIRONMENT

Operating temperature -20 to 60 °C (without derating)
 Storage temperature -20 to 85 °C

Humidity 95 % (not condensing)
 Protection rating IP20 (enclosure and connectors)
 IP68 (electronic)

Dielectric strength 1500 Vrms continuous
 Insulation resistance > 100 Mohms at 1000Vdc
 input/output capacity 1200pf typical
 Safety standards EN 60950-1
 Efficiency between 81 and 92%.

Vibration 10-55Hz, 10G, 30 minutes X,Y,Z.

Weight model dependant, 0.1kg to 0.5Kg

Switching frequency 330 kHz typical

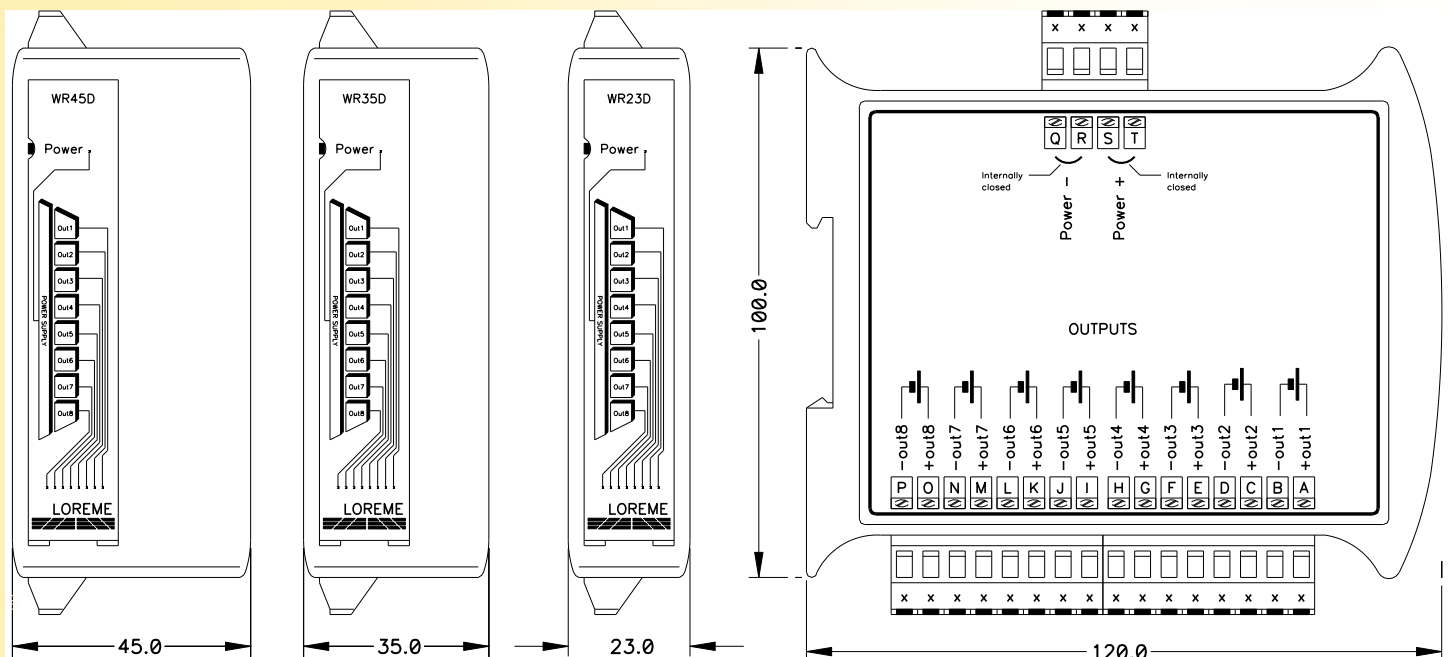
MTBF (MIL-HDBK-217F) 400 000 heures (+25°C)

Electromagnetic compatibility 2014/30/UE / Low Voltage Directive 2014/35/UE

Immunity standard for industrial environments EN 61000-6-2		Emission standard for industrial environments EN 61000-6-4
EN 61000-4-2 ESD	EN 61000-4-8 AC MF	EN 55011 group 1 class A
EN 61000-4-3 RF	EN 61000-4-9 pulse MF	
EN 61000-4-4 EFT	EN 61000-4-11 AC dips	
EN 61000-4-5 CWG	EN 61000-4-12 ring wave	
EN 61000-4-6 RF	EN 61000-4-29 DC dips	



WIRING AND OUTLINE DIMENSIONS:



WR45HD
 largeur 50mm

To ensure their technical characteristics, we recommend a gap of at least 5mm between each device