DC-DC CONVERTER type: WRD
AC-DC CONVERTER type: WRACD

- ***Wide range of voltage***
- ***Input:*** *12V, 24V, 36V, 48V,*
- ***Output :*** *3.3V, 5V, 12V, 24V, 36V, 48V,*

- ***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***

WR23D
maxi 25 watts

WR35D
maxi 80 watts

WR45D
maxi 90 watts

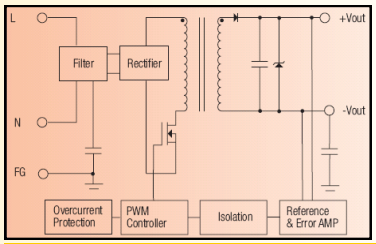
WR45HD
maxi 120 watts

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.

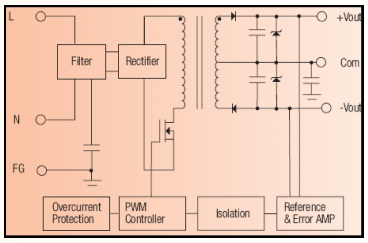
Description:
DIN rail mounting
23mm width case (25W) to 45mm (120W).
Internal shield on the 6 faces, silicon encapsulation and conformal coating, shock and vibration proof, insensitive to humidity and dust.
Connection on pluggable screw terminal: 2.5mm²/4mm².
Overloads protection,
Continuous short circuit 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, à 250 Vdc
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)*

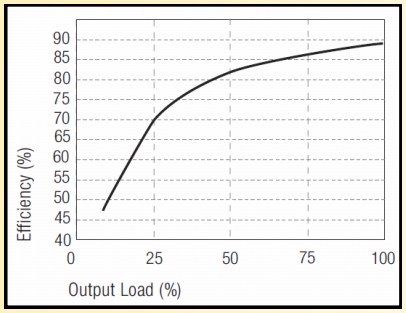
in : DC or AC input voltage *(model dependant)*
out : DC output voltage
pwr : output power
(to define for each output if multiple outputs)
-n : number of output *(outputs voltage can be different)*
-rev : reverse input voltage protection (option)

OUTPUTS (Number and voltage to be define)

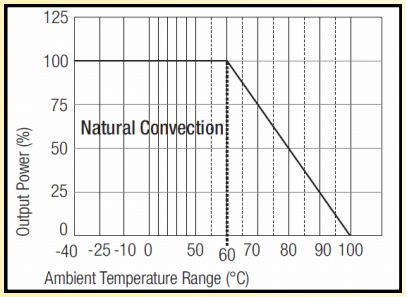
Single voltage output : 12, 15, 24, 30, 48, 72, 110, 125Vdc (other values on request)
Symmetrical voltage output : +/-5, +/-12, +/-15, +/-24, ….
or multiple output on request (8 max)

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).

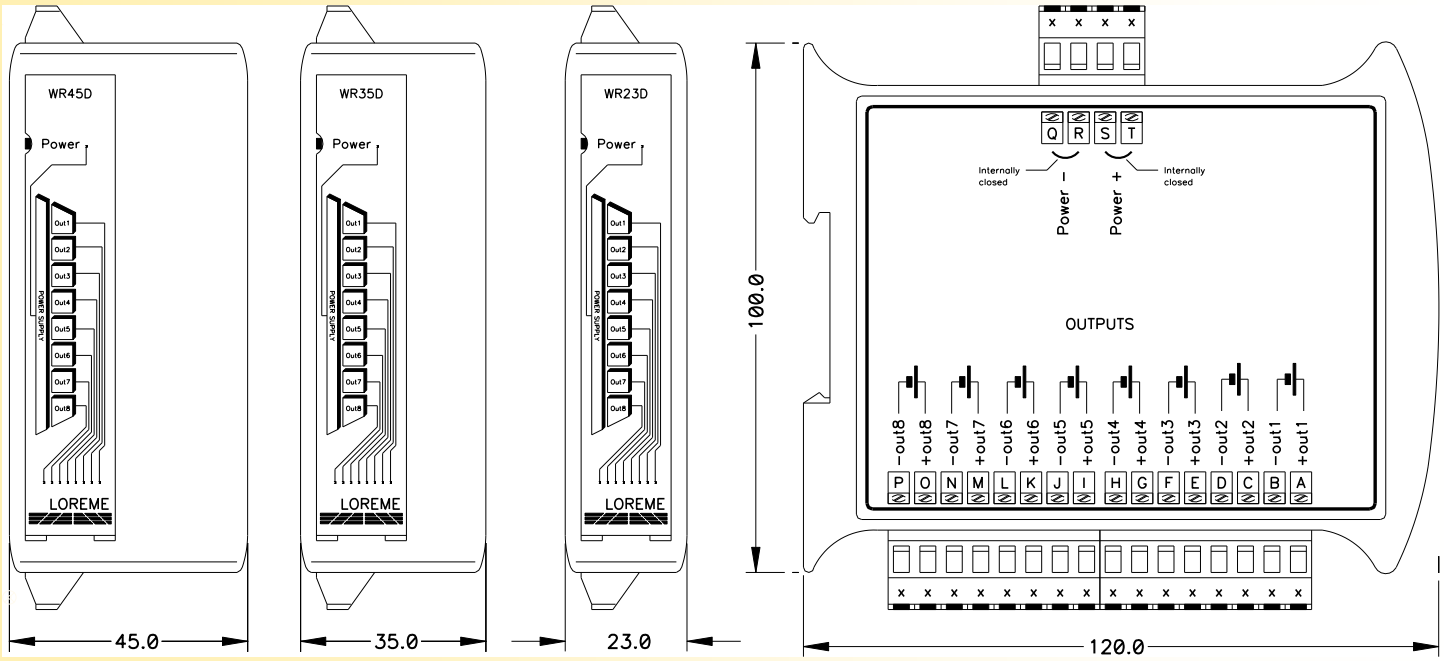
ENVIRONMENT

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*
EN 61000-4-3 RF	*EN 61000-4-9 pulse MF*	
EN 61000-4-4 EFT	*EN 61000-4-11 AC dips*	*group 1*
EN 61000-4-5 CWG	*EN 61000-4-12 ring wave*	*class A*
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