DC - DC CONVERTERS WRDIN

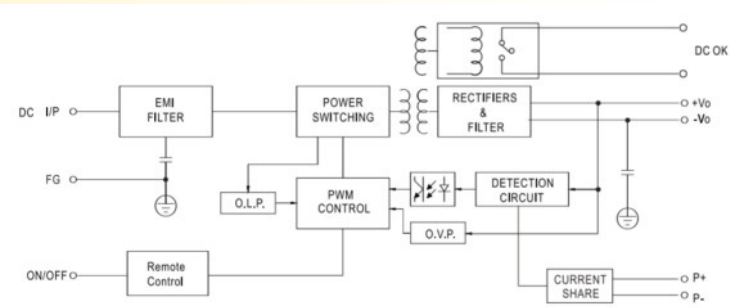
- ***Wide voltage range input***
  - *17...34Vdc*
  - *34...67Vdc*
  - *67….155Vdc*
  - *250… 1500Vdc*
- ***Output :*** *12V, 24V, 48V, adjustable*
- ***Power :*** *120W ; 240W ; 480W*
  peak power 150% during 5 seconds
- ***Fully protected***
  - *short circuits*
  - *overload*
  - *thermal*
- ***High efficiency up to 93%***
- ***Input / output isolation***
  - *2500V or 4000Vac*

The WRDIN series is a range of DC-DC converters mounted in DIN rail. These high density switching modules are suitable for a stable and isolated power supply.

Description:
DIN rail mounting
32mm width case for 120W to 85mm width for 480W
Shield on 6 faces, Conformal coating in option
Highly resistant to vibration and shocks
Wiring on screw terminal: 2.5mm² / 4mm²
Overload protected
Continuous short circuit protected
Thermal protection (output power limitation)
Natural convection cooling
Built-in EMI filter (EN55022 class A)
Parallel coupling with current sharing is possible.
(specific manufacturing on request)
Input voltage : from 9Vdc to 1500Vdc wide range
inrush current internally limited
Output voltage : 12, 24, 48Vdc

Technical specifications:
Output voltage accuracy: +/-1% typical
Line voltage regulation (input variation) : +/-0.5%
Load voltage regulation (output current variation) : +/-1%
Noise and ripple : < 100mV pp (20MHz bandwidth)
Temperature coefficient : +/- 0.02% / °C
Operating temperature : -20 to +55°C
Derating : 2.5% / °C above 55°C
Output current limitation : 150% peak
Current regulation above the nominal power
Switching frequency : 800KHz typical

Internal synoptic :



Version and order code:

Request a quote

WRDIN120 in / out	*120 watts*
WRDIN240 in / out	*240 watts*
WRDIN480 in / out	*480 watts*

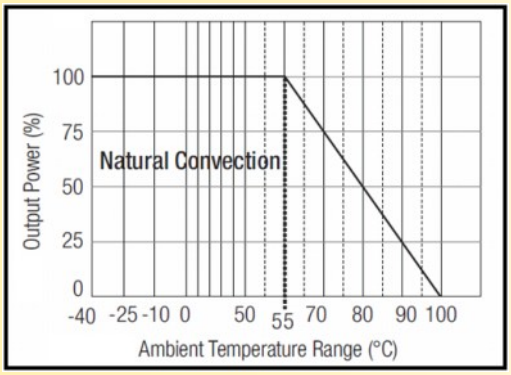
The WRDIN480 allows a parallel wiring of 4 modules max (see page 4)

in : rating input voltage
out : DC voltage output

ENVIRONMENT

Operating temperature:	-20 to 55 °C (without derating)
Storage temperature:	-40 to 85 °C
Humidity	95 % (not condensed)
Protection rating	IP20 (enclosure and connectors)
Dielectric strength	1500 Vrms continuous
Insulation resistance	> 100 Mohms at 1000Vdc
input/output capacity	1200pf typical
Safety standards	EN 60950-1
Maxi efficiency	between 81 and 92%.
Vibration	10-55Hz, 1G, 30 minutes X,Y,Z.
Weight	0.25 to 1Kg depend of model
MTBF (MIL-HDBK-217F)	400 000 hours @ 25°C

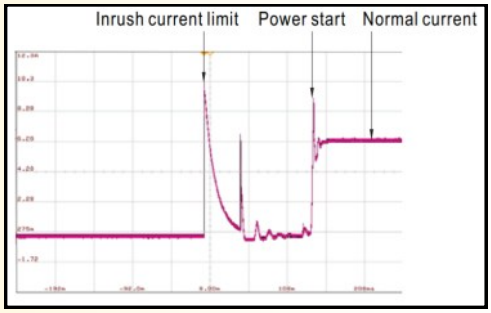
Output power function of temperature



To ensure the technical specifications, we recommend a spacing of at least 10mm between each device

POWER SUPPLY (must be defined)

DC input voltage: 9…18Vdc; 17...34Vdc; 34...67Vdc; 67...155Vdc
Wide range, with under voltage lockout and reverse polarity protection.
Rating inrush current : 30A



OUTPUTS

(Number and voltage to be defined)

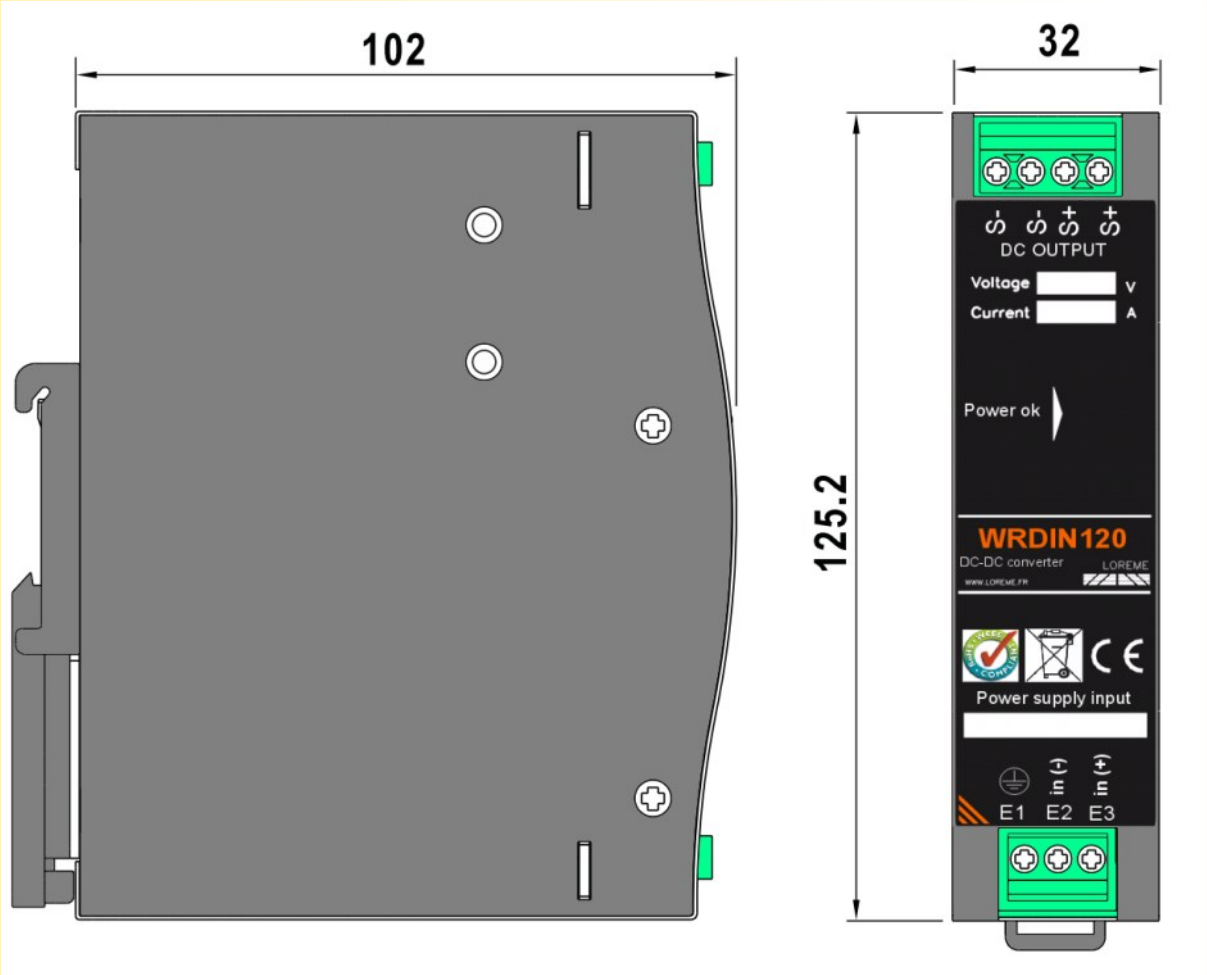
Voltage output : 12 Vdc, 24 Vdc, 48Vdc, adjustable 15%

Transient response : 1ms (typical)
(25% output load change)

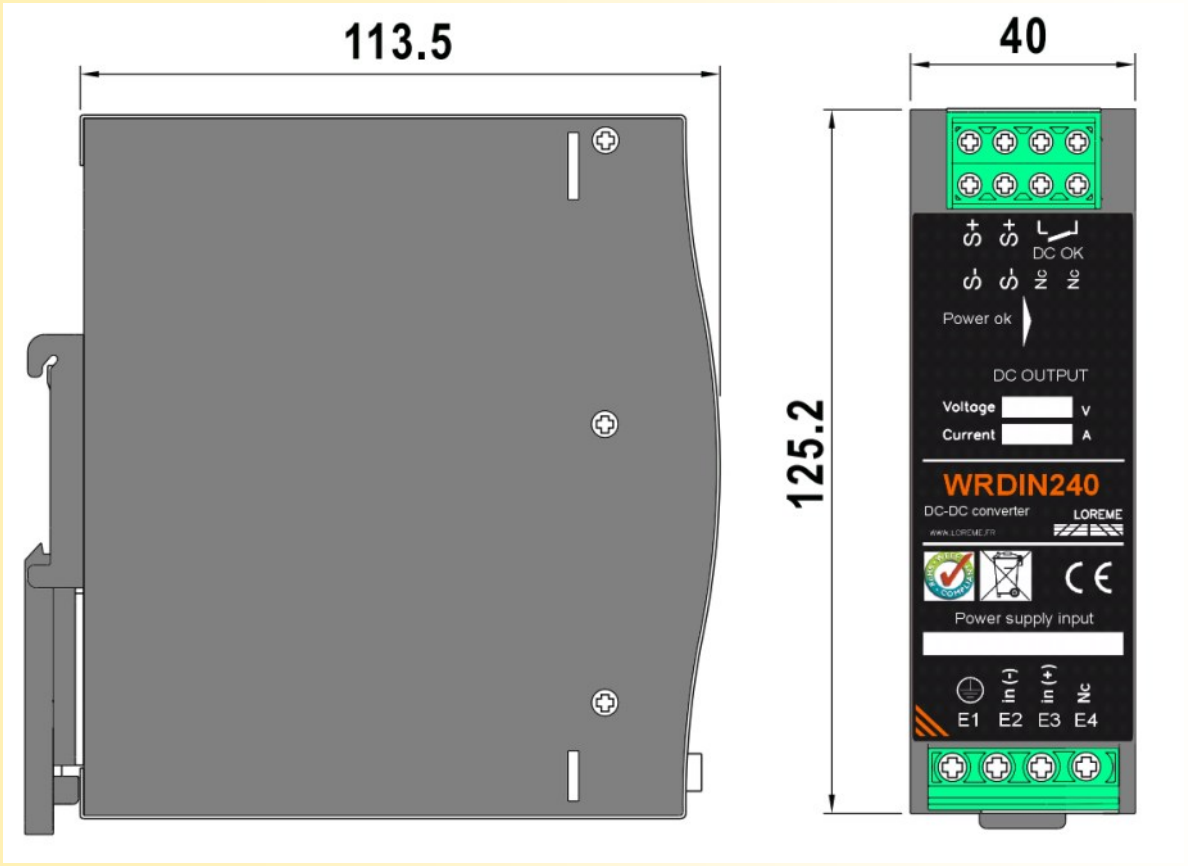
Electromagnetic compatibility 2014/30/UE / Low Voltage Directive 2014/35/UE

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	CE
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		

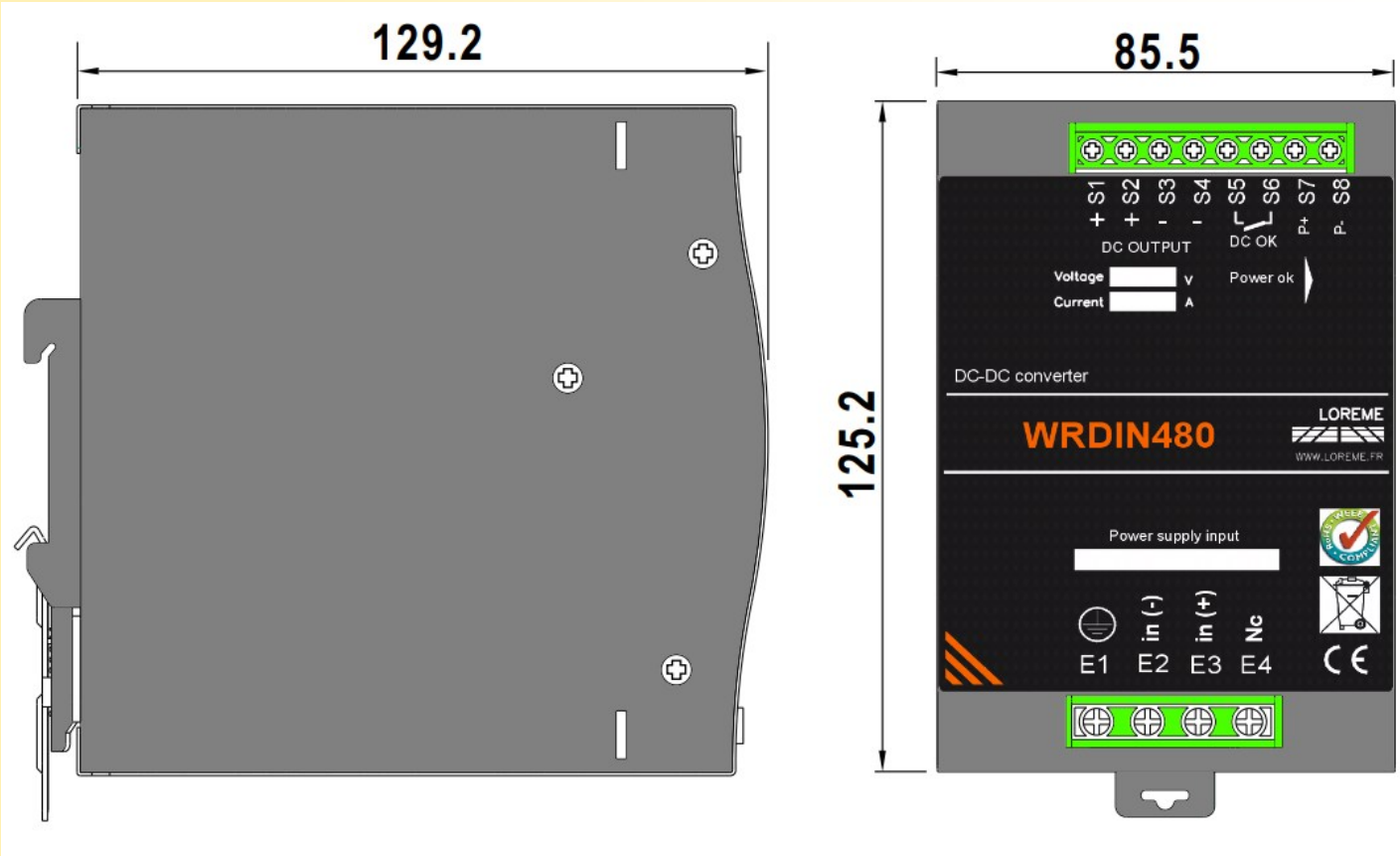
WIRING AND OUTLINE DIMENSIONS: WRDIN 120



WIRING AND OUTLINE DIMENTIONS: WRDIN240



WIRING AND OUTLINE DIMENTIONS : WRDIN480



Wiring for parallel coupling of 2 to 4 modules WRDIN480 (1800W total power)