

Small isolated DC-DC converter DIN rail mounted

WR25



- **Wide input range, ratio of 1 to 4**
9...36Vdc or 18...75Vdc input
- **Fully protected**
short-circuits, overload, thermal
high efficiency EMC filter embedded
- **1 isolated (1500Vdc) output, up to 30Watt**
3.3v, 5v, 10v, 12v, 15v, 24v, 30V, 48V
up to 90% efficiency
- **Applications**
Isolation, EMC protection, level adaptation



The WR25 is a DC-DC converter suitable for harsh industrial environment. Provide a perfect load separation (low input/output capacity), embed a high efficiency EMC filter. Useful for decoupling of sensitive equipments and for elimination of ground loops.

Description:

- Switching mode converter allow high power density without heating due to its high efficiency.
- Limitation of power to protect the equipment connected to output and preserve the independence of main power supply, this for a optimum operating safety.

specifications:

- output voltage from 3.3V to 48Vdc,
- permanent short circuits protection,
- overload protection,
- thermal protection (output power limitation),
- natural convection cooling,
- embedded EMC filter in accordance with EN55022 class A,
- regulated output voltage,
stability greater than 0.5%, ripple < 100mV
- transient protection for input and output,
- common mode filter for conducted high frequency disturbances
- extended operating temperature

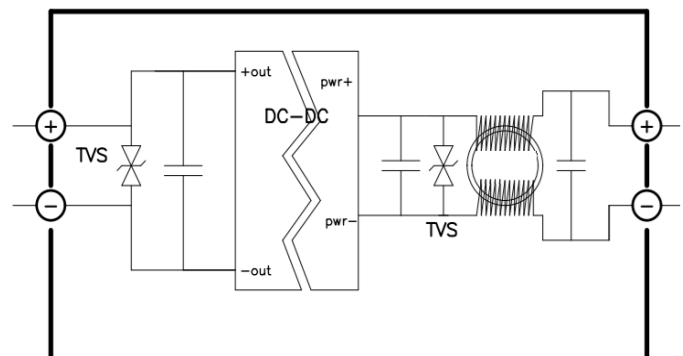
Features:

- DIN rail mounting,
- Protection rating IP20,
- Conformal coating for electronic protection,
- Green LED for main voltage presence,
- Connection by screw terminals, wire section up to 2.5 mm².

Implementation:

- primary protection with fuse optional
(6A @ 24V, 3A @ 48V delayed)
- maintain a spacing of 3 mm between devices for natural convection.

Internal synoptic



Version and order code:

[Request a quote](#)

WR25 -U-P

U, output voltage : 3.3V, 5V, 10V, 12V, 15V, 24V, 30V, 48V
other on request

P, output power : 10W, 15W, 20W, 30W

Special version :

WR25-INV : Version with inverted wiring
power supply on top terminals, output on bottom terminals

Power Supply

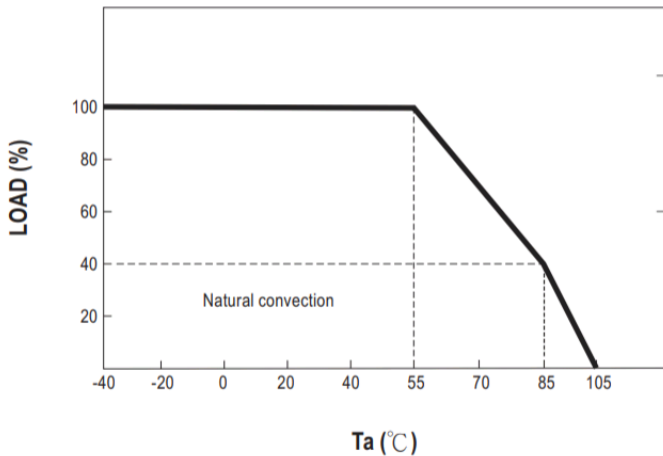
Input voltage 9...36Vdc TVS protection
 18...75Vdc TVS protection
 Typical efficiency 89%
 Inrush current 4A typical

Outputs

Accuracy +/- 1.5%
 Line regulation +/- 0.2% max. (input variations)
 Load regulation +/- 1% max. (full load)
 Ripple < 100mV (limited to 20MHz)
 Thermal drift +/- 0.02% / °C typical
 Continuous short circuit protection, automatic restart.
 Overload protection 110% typ.
 Switching frequency 100kHz typ.
 Output hold time Typical 50 ms.

Input / Output capacity 1500pF

Output power characteristic vs ambient temperature



ENVIRONMENT

Operating temperature -40 °C to 85 °C (natural convection)
 see the derating graphs
 Storage temperature -40 °C to 105 °C
 Thermal protection 105°C internal
 Humidity 85 % (not condensed)
 Insulation resistance > 500 MΩ min.
 Dielectric strength 1500VAC (input / output)
 Weight < 100g
 Shock IEC 60068-2-27 (operating) 15 G / 11 ms
 Bump IEC 60068-2-29 (transportation) 40 G / 6 ms
 Vibration IEC 60068-2-6 (operating) 1 G / 10 - 150 Hz
 Vibration CEI 60068-2-6 (transportation) 2 G / 10 - 150 Hz
 MTBF (MIL HDBK 217F) > 1 200 000 hours @ 25°C
 Life time > 200 000 hrs @ 30°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:

