

DIN rail power supply, three phases or bi-phase, wide input range and 400Hz version

ALDRW



- **Universal wide range input**
single phase, bi-phase and three phases
50Hz, 60Hz and 400Hz frequency or DC
180...550 Vac / 250...780 Vdc
Switching power supply
- **Output voltage**
12Vdc - 15Vdc - 24Vdc - 48Vdc
- **Output power**
60Watt for **ALDRW60**
120Watt for **ALDRW120**
240Watt for **ALDRW240**
480Watt for **ALDRW480**
- **Fully protected**
Short circuits, overload, thermal
- **Built in Power factor correction**
- **Cooling by free air convection**
>91% efficiency
- **Contact relay for DC output ok (watchdog)**



Industrial power supplies with extended input range, single output, robust, fully protected and shielded. DIN rails mounting.

Description:

- Switching power supply allowing to have a high power in a small volume. The high efficiency of electronics limits the over-heating.
- Burn-in test at full load to increase reliability

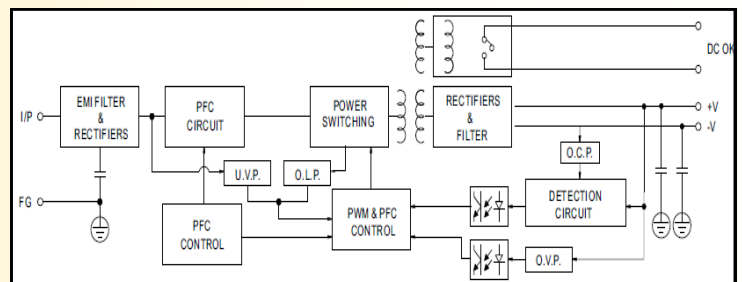
Features:

- DIN rail mounting, symmetrical TS35,
- IP20 protection rating,
- Aluminum housing, EMC shield on the 6 faces
- Led indication for voltage input presence
- Adjustment of output voltage by trimmer
- Watchdog relay (output OK), Normally closed contact
- Screw terminal 4mm² section maxi
- High resistance to vibration and shock
- Low sensitivity to humidity and dust
- Protected against overload
- Protected against continuous short circuits with automatic restart
- Thermal protection
output power limitation
- Natural convection cooling

Recommendation for implantation and installation:

- primary protection by fuse recommended (5A time delay fuse)
- respect a position allowing a good dissipation.
- respect a 15 mm space between each power supply.

Internal synoptic



Version and order code:

[Request a quote](#)

ALDRW P-V : Input 180...550 Vac / 250...780 Vdc (47Hz-63Hz / 400Hz)

P: power 60W, 120W, 240W, 480W
V: output voltage 12V, 15V, 24V, 28V, 48V, ...
with watchdog relay (Voltage output ok).

Power supply

Input voltage 180...550 Vac / 250..780 Vdc
 Input frequency 47...63Hz and 400Hz (depending on model)
 Typical efficiency > 91%
 Inrush current 50A typical, 100ms typical.
 (charge of internal filter capacitors)

Output

Output accuracy +/- 1% max.
 Output regulation +/- 0.5% max. (input voltage variation)
 Load regulation +/- 1% max. (output current variation)
 Current limit 110% typical
 Ripple < 150mVpp (20MHz limit)
 Output holdup time 18ms typical
 Start delay / rise time 800ms / 150ms

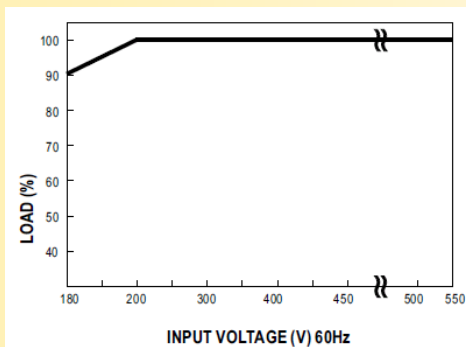
Load protection 110% typical (105% to 130%)
 Limitation of output current during 3 sec, output turn off and automatic restart after disappearance of defect

Switching frequency 60kHz typ.

Watchdog relay

Switching capacity 60Vdc/0.3A, 30Vdc/1A, 30Vac/0.5A

Output power function of input voltage



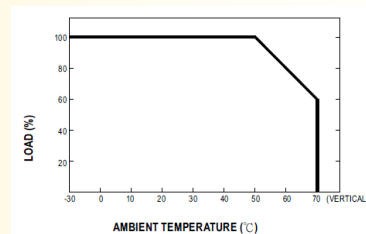
Environment

Operating temperature -30 °C to 70 °C
 (temperature derating of 2.5%/°C above 50°C)
 Thermal protection 95°C internal
 Storage temperature -40 °C to 85 °C
 Humidity 85 % (non condensed)
 Thermal drift +/- 0.03%/°C (0°C to 50°C)
 Atmospheric pressure 700 ... 1300mBar (resist to 200mBar/min)
 Isolation resistance >100 MΩ @ 500Vdc
 Dielectric strength 3000Vac (input / output)
 1500Vac (input / hearth)
 500Vac (output / hearth)

Weight **ALDRW120: 0.8Kg**
ALDRW240: 1.1Kg
ALDRW480: 1.7Kg

Shock CEI 60068-2-27 (operational) 15 G / 11 ms
 Bump CEI 60068-2-29 (transportation) 20 G / 6 ms
 Vibrations CEI 60068-2-6 (operational) 1 G / 10 - 150 Hz
 Vibrations CEI 60068-2-6 (transportation) 2 G / 10 - 150 Hz
 MTBF (MIL-HDBK-217F) 200 000 hours @ 25°C

Output power function of ambient temperature



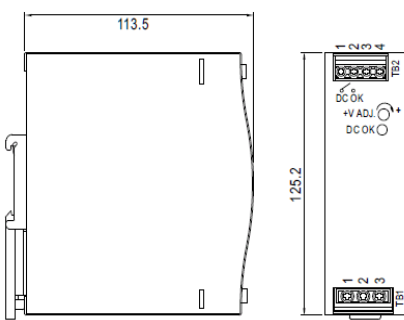
Electromagnetic compatibility 2004/108/CE / Low Voltage Directive 2006/95/EC

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:

ALDRW120

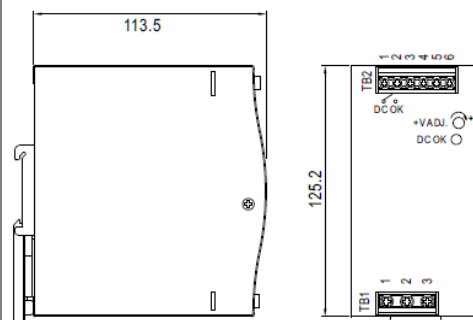
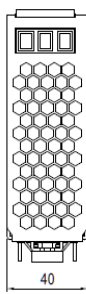


Terminal Pin No. Assignment (TB1)

Pin No.	Assignment
1	FG Ⓧ
2	AC/L2
3	AC/L1

Terminal Pin No. Assignment (TB2)

Pin No.	Assignment
1,2	Relay Contact
3	DC OUTPUT -V
4	DC OUTPUT +V

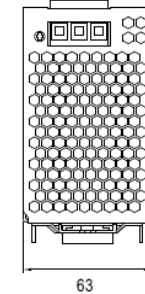


Terminal Pin No. Assignment (TB1)

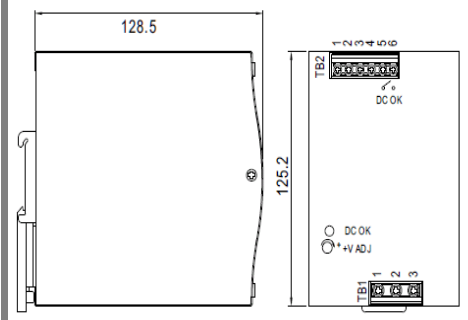
Pin No.	Assignment
1	FG Ⓧ
2	AC/L2
3	AC/L1

Terminal Pin No. Assignment (TB2)

Pin No.	Assignment
1,2	Relay Contact
3,4	DC OUTPUT +V
5,6	DC OUTPUT -V



ALDRW240



Terminal Pin No. Assignment (TB1)

Pin No.	Assignment
1	FG Ⓧ
2	AC/L2
3	AC/L1

Terminal Pin No. Assignment (TB2)

Pin No.	Assignment
1,2	DC OUTPUT +V
3,4	DC OUTPUT -V
5,6	Relay Contact

