

- **Mounting in portable heat sink case**
water and dustproof
good resistance to corrosion
screw watertight connectors
Wall mounting possible with 4 x M6
- **Input Ac or Dc**
Switching regulation
85....265Vac (50Hz , 60Hz , 400Hz)
100.....370Vdc ; 250....1500Vdc
- **Output**
up to 5000 Watts total , 1 to 3 outputs
output voltage : 12Vdc.....460Vdc
- **Fully protected**
Short circuit, overload, thermal
- **Options**
Watchdog relay for "output ok" condition



Strong and portable power supply for outdoor and mobile applications (case with carrying handle), configurable on request, fully protected and available from 1 to 3 isolated outputs.

Description :

- Switching power supply allowing high power density without heating due to the high efficiency of electronic. No air forced cooling with it's watertight cast aluminum case which also used as heat sink.

Features :

- Wall mounting with M6 screw or portable with carrying handle
- external size : 450 x 371 x 180mm
- Protection rating IP65
- Insensitive to dust and humidity
- Usable on wide temperature range : -30°C to +60°C
- Shielded case for high EMC protection.
- Connection on circular pluggable watertight connectors type "Ecomate"
- External coating to ensure a high resistance to corrosion
- High resistance to shocks and vibrations
- Overload protection
- short circuits protection
- thermal protection (output power limitation)
- Natural air cooling
- Embedded EMC filter in accordance with EN55022 class A
- Voltage output : single or symmetric (specific output on request)

Implementation and installation recommendations :

Primary protection with fuse recommended.
Be careful at positioning to ensure proper ventilation.

Version and order code:

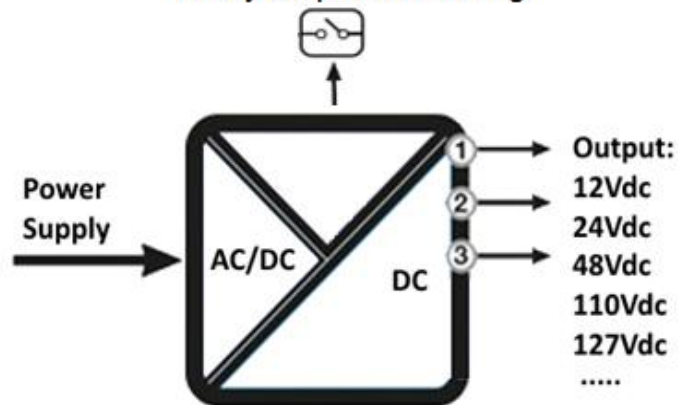
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AL450IP vvv-ppp : vvv - ppp voltage and power output must be defined provided with protective covers for connectors mating plug available on request

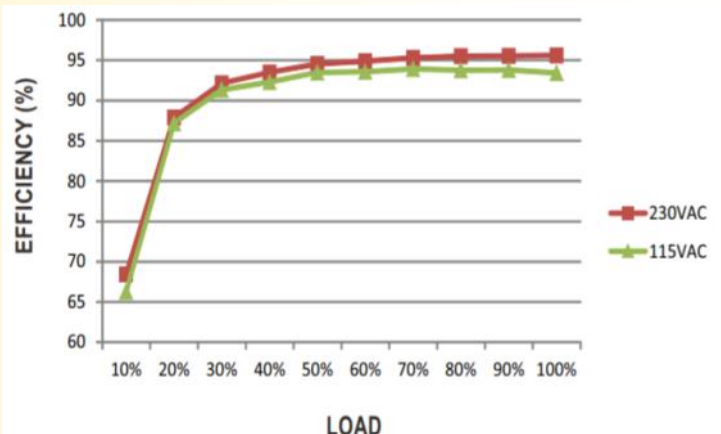
Option: - **Wd** Watchdog relay monitoring the voltage output
- **S2,S3** 2 to 3 outputs (isolated or with common 0V)

Synoptic

Relay output Monitoring



Efficiency function of load



Power supply

Standard input voltage 85...265 Vac / 120...370 Vdc
 Input frequency 47...440 Hz
 Typical efficiency > 90 %
 Power factor > 0.94 @230Vac full load
 Inrush current 15A typical

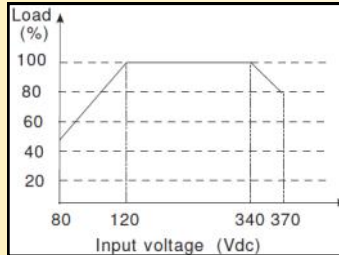
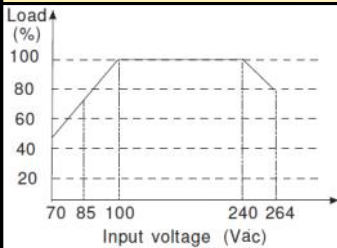
Output

Accuracy of output setting +/- 1 %
 Output regulation +/- 2 % max. (full load)
 Line regulation (change in input) : +/- 0.5%
 Output regulation (output current change) : +/- 1%
 Output ripple < 1 % Vout max (limited to 20MHz)
 Thermal stability +/- 0.02% / °C typical
 Continuous short circuit protected, automatic restart.
 Overload protection 110 % typ.
 Switching frequency 60 kHz typ.
 Output hold time 50 ms typical (230Vac input).

Watchdog relay (option)

Free potential changeover contact
 Dielectric strength (isolation) >2500Vac
 impulse withstand voltage (1.2 / 50µ) 6000V
 AC switching capacity: 250Vac (400Vac) 6Aac 2000VA
 DC switching capacity: 300Vdc 0.3Adc 90W
 DC switching capacity: 30Vdc 5Adc 150W

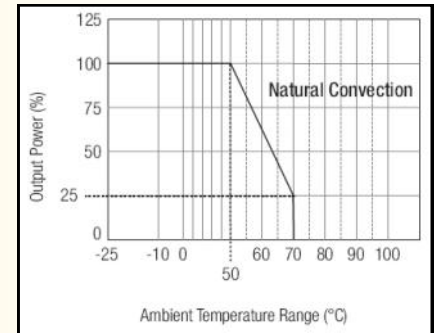
Output power characteristics vs input voltage



Environment

Operating temperature -30°C to 65 °C
 Temperature derating 2.5% / °C above 50°C
 Storage temperature -40 °C to 85 °C
 Thermal protection 100 °C internal
 Humidity 85 % (not condensed)
 Temperature coefficient +/- 0.02 %/°C typical
 Insulation resistance 100 MΩ min
 Dielectric strength 2500 VAC
 Weight 23 kg
 MTBF (+25 °C) > 350 000 hours
 Lifetime > 100 000 hours @30°C
 Vibration test 10 ~ 500Hz, 5G 10min.
 1 cycle, 60min. in the axes X,Y,Z

Output power characteristics vs ambient temperature



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 djps	
EN 61000-4-5 CWG	EN 61000-4-12 ring wave	
EN 61000-4-6 RF	EN 61000-4-29 DC djps	



WIRING AND OUTLINE DIMENSIONS:

Input: 110Vac / 230Vac
 Pin 1,2,3 : L (phase)
 Pin 4,5,6 : N (neutral)
 Pin 7 : E (earth)

6 pins male base connector
 C01630C00610012



Output: Vdc
 Pin 1 : +Vdc
 Pin 2 : Nc
 Pin 3 : 0V
 Pin 3 : E (earth)

4 pins female base connector
 C01620G00310012