SMALL INSTRUMENTATION POWER SUPPLIES AC-DC & DC-DC *type AL25*

- ***Universal input: 20….265 Vac-dc***
  SMPS version
- ***Total protection***
  short-circuits, overload, thermal
- ***1 to 3 insulated output*** *(1 Watt per output)*
  3.3 V……...24 V up to 72 V by coupling
  30 mA…...500 mA depending of output voltage
- ***very small footprint***
  62 x 63 x 23mm
- ***Applications***
  4..20 mA loop power supply, instrumentation.

The standard version of the AL25 is intended for separated power of 4 ... 20mA current loops. Very compact and fully protected, it is available in 1-3 isolated outputs, current limited to protect the sensor in case of a default on the loop. This power supply can be declined for any output voltage, single or symmetrical.

Description:

- SMPS allow high power density without heating due to its high efficiency.
- Power limitation of each channel to protect the equipment connected on the output, separate output in order to preserve the independence of loops allowing optimum safety operation.

specifications:

- 1, 2 or 3 isolated channels (model dependant) allowing coupling the outputs in series or parallel, thereby obtaining exotic or symmetric output voltages, or to increase the available output current.
- 24 Vdc output voltage up to 72 V by coupling,
- Permanent protection against short circuits,
- Overload protection.
- Thermal protection (output power limitation)
- Natural convection cooling,
- Embedded EMC filter in accordance with EN55022 class A,
- Regulated output voltage,
  stability better than 0.5%, ripple <100mV,
- Protection against output transient by 24V clipper.

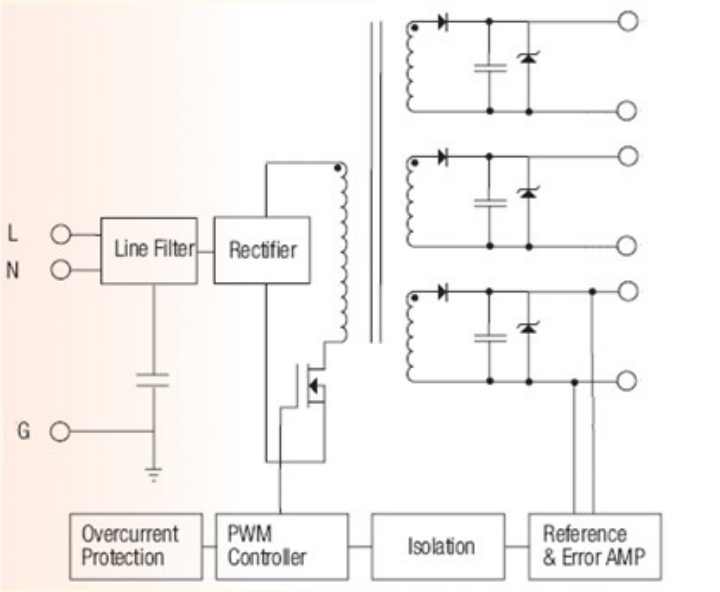
Realization:

- DIN rail mounting
- Protection IP20
- Conformal coating
- Green Led for power supply presence,
- Connection by screw terminals, wire section up to 2.5 mm²

Implementation and installation recommendations:

- primary protection with fuse (delayed 2A) recommended,
- maintain a spacing of 2 mm for natural ventilation.

Bloc diagram 1, 2, 3 output versions



Version and order code:

Request a quote

Standard 24 Volts output model:
AL25-1 : 1 output version 24V 30mA
AL25-2 : 2 outputs version 24V 30mA
AL25-3 : 3 outputs version 24V 30mA

Specific output voltage model:

ALvv25 vv = required output voltage
The number of available outputs depends on the required voltage.
The total output power is 4 Watts.

TECHNICAL SPECIFICATIONS

Power Supply

Input voltage	45….265VAC / 20...370VDC
Input frequency	47….440Hz
Typical efficiency	85%
Inrush current	2A typical

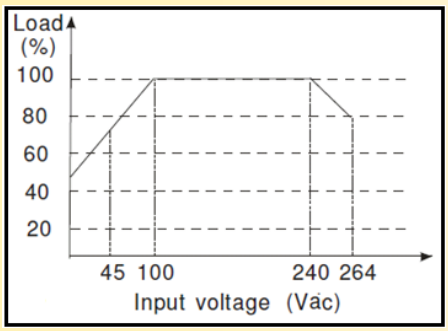
Outputs

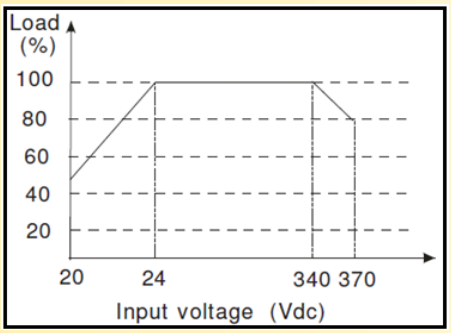
Accuracy	±2% max. (no load)
Regulation	-5% max. (full load)
Ripple	< 1% Vout max (limited to 20MHz)

Continuous short circuit protection, automatic restart.

Overload protection	110% typ.
Switching frequency	100kHz typ.
Output hold time	Typical 50 ms.

Output power characteristics as a function of the input voltage

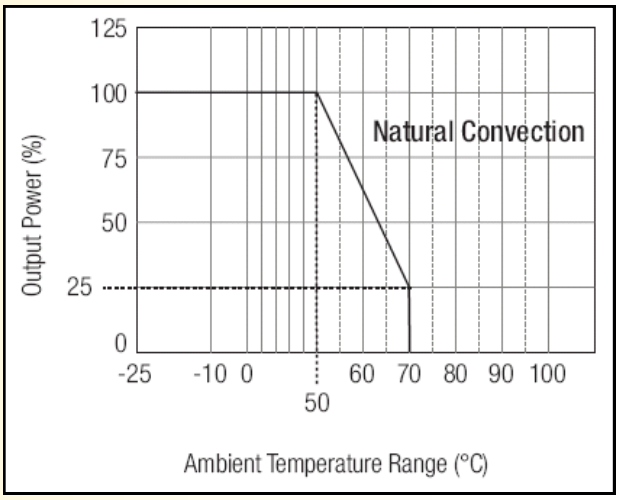




ENVIRONMENT

Operating temperature	-10 °C to 60 °C (natural convection)
Thermal protection	100°C internal
Storage	-20 °C to 105 °C
Relative humidity	85 % (not condensed)
Temperature coefficient	±0.02%/°C typical
Insulation resistance	100 MΩ min.
Dielectric strength	2000VAC (input / output)
Weight	100 g
MTBF (+25°C)	> 4 000 000 hours

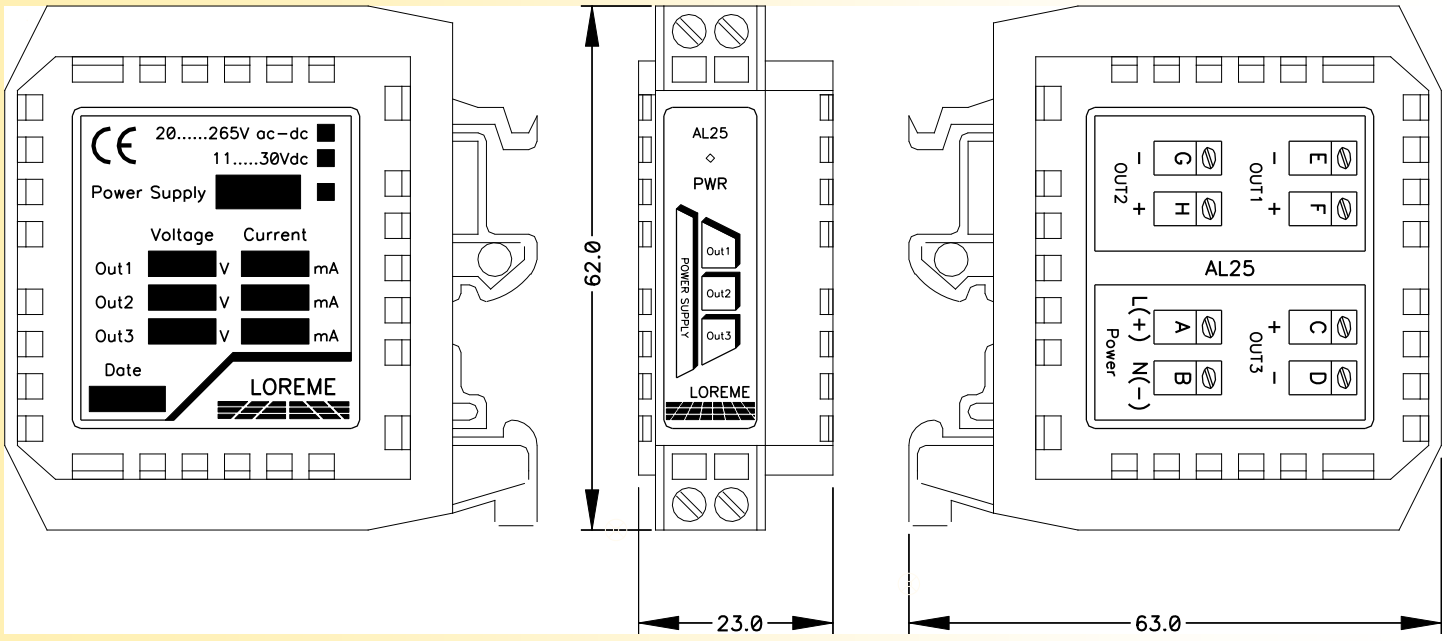
Output power characteristics vs ambient temperature



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*
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:



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