SINGLE-PHASE POWER CONTROLLER / DIMMER
DIN rail mounting, for resistive or inductive load *Type : VPL50*

- ***Firing mode***
  Phase angle modulation

- ***Output power : 600 Watts max***
  Current range from 0.1A to 2.5A
  Embedded fast fuse

- ***Proportional internal setpoint***
  Setting by multi-turn trimmer

- ***Application :***
  Fan speed control
  pump flow rates adjustment
  motor control
  light dimmer,..

The VPL50 is a compact autonomous unit allows a power control of resistive or inductive loads with the phase angle modulated output. Designed for lighting or speed control on small single phase AC motor.

Description:

The VPL50 is concepted with optimized filter cells and "SNUBBERLESS" triac providing a perfect smoothing of output current, and a high decreasing of switching perturbations while improving the product reliability

The absence of mobile mechanical components and mechanical contacts (subject to wear) give to the VPL50 a great robustness, a longer service life, and reduced the maintenance cost (insensitive to shocks and vibrations).

flexibility in applications:

Phase angle modulation for application with fast dynamic and for precise control.

- Operating frequency 50 - 60 Hz self-adaptive.
- Setpoint via local multi-turn potentiometer.
- DIN rail mounting. Natural convection cooling
dimensioned to deliver the nominal current at an ambient temperature of 40°C

- Connection power supply and output on screw terminal blocks (2.5mm² maxi)
Self-powered, protection with internal RLC circuit and fast fuse.

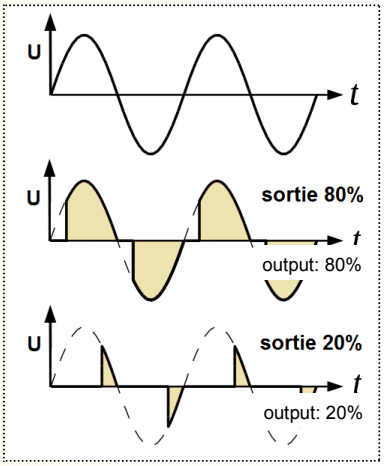
This product was mainly concepted for resistive or inductive loads, it is mandatory to ensure the compatibility with the inrush current when the load is powered.
An incandescent light have an inrush current of ten times the nominal current for few tens milliseconds.

The short circuit protection is made by an internal fast fuse. Reachable on low side
(Fast 3A, 5 x 20mm)

Note: Semi conductors relay have no galvanic isolation between the mains power and the load.
It is necessary to power off the unit before any intervention on the load circuit.

Firing mode:

Phase angle variation
Advantage : Allows a high accuracy control of the load. Suitable for low inertial loads.
Disadvantage: Switching mode is more "noisy". Generates more disturbances.



Request a quote

90 days accuracy (20 °C +/- 2 °C) *DATA SHEET CAN BE DOWNLOADED ON* WWW.LOREME.FR

TECHNICAL SPECIFICATIONS

INPUT (internal setpoint)

Multi-turn potentiometer (20 turns)	0…..100%

OUTPUT

Nominal current output:	2,5 A
Permissive overload:	4 A
Peak current (not repetitive):	30A during t=20 ms
I2t (<10ms) (for fuse definition)	50 A²S
Current, min. load	<100 mA
Leakage current blocked state:	< 2.5mA
voltage dropout:	1.4V
Dissipated power:	3.5 Watts

POWER SUPPLY

230V +/-15% 50 - 60Hz

ENVIRONMENT

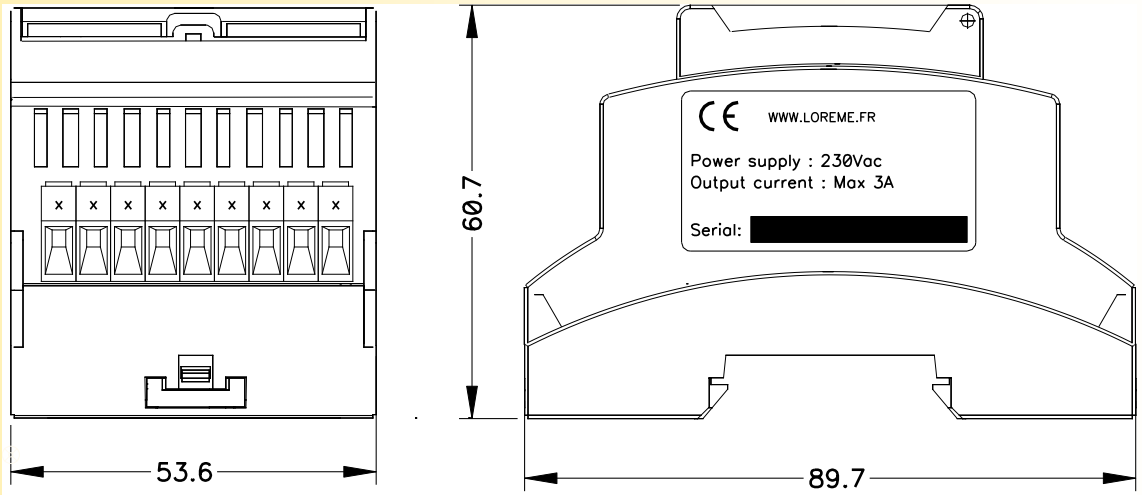
Operating temperature	-10 °C to 45 °C
Storage temperature	-20 °C to 85 °C
Humidity	85 % (not condensing)
Dielectric strength	2500 Vrms continuous
Weight	150 g
Protection rating	IP40
dv/dt immunity	400V/us

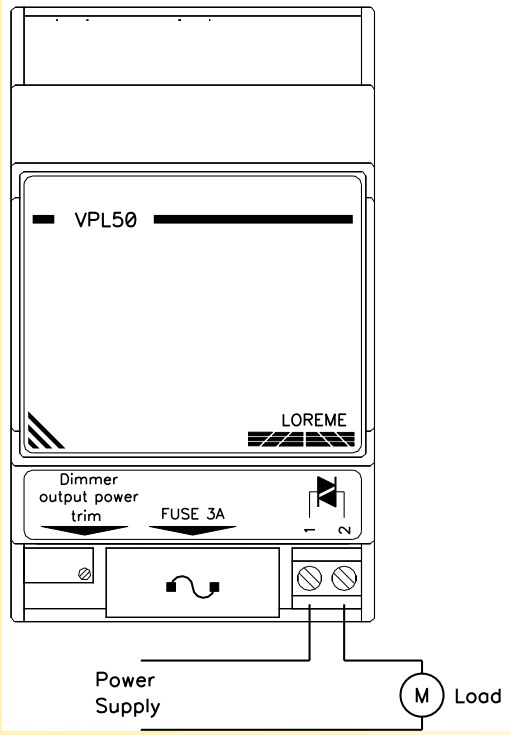
Horizontal rail mounting recommended for optimum dissipation

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*
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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