

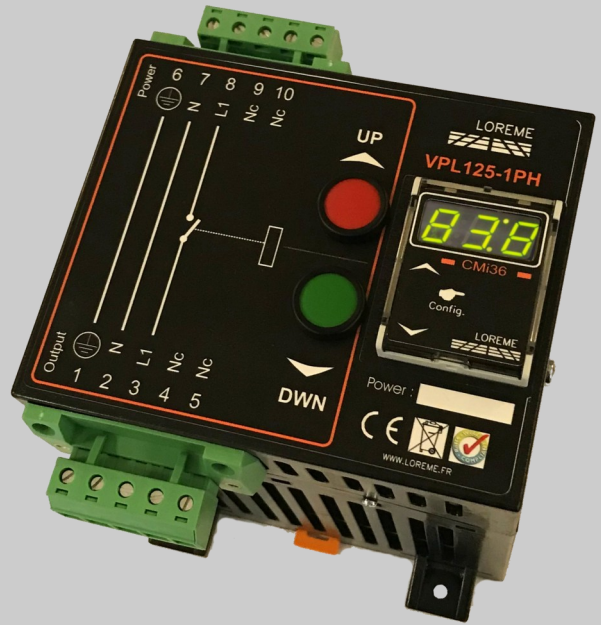
POWER CONTROLER, DIMMER

Single phase or three-phase

Type : VPL125 **LOREME**

- **Burst fired power mode**
2 s cycle duration
- **Single phase or three-phase version**
230Vac, 400Vac
- **Output power**

VPL125-1PH : 3 kW, single phase 230 Volts
VPL125-3PH : 4 kW, three-phase 400 Volts
- **Push-button setpoint adjustment**
 - 0 to 100 % output power with 0,5 % increment
 - Setpoint saved in memory
- **Application**
 - Plastics processing
 - Small oven, environmental chamber, test bench,
 - Heating resistor, band heaters, dryers, ...



Power dimmer with incremental control, allowing “Full wave burst” type triggering for resistive loads, intended for power control applications of heating resistors.

Description:

Proportional dimmer controller for resistive loads used in single or three-phases application.
High robustness due to absence of mobile mechanical parts, ensuring greater longevity and maintenance costs reduction (shocks and vibrations insensitivity).

Burst fired with zero-crossing commutation for high inertia systems (cycle time: 2 s) overcoming the problems of power factor and high frequency harmonics caused by "phase angle" technology.

Operating frequency 50 - 60 Hz self-adaptive.

Setpoint adjustment by push button, with display of the output power in percentage (0..100% on three digits) increment in steps of 0.5%.

Panel mounting or DIN rail mounting. Natural convection cooling designed for nominal current capacity at 45°C room temperature.

Connection:

Power supply and output on pluggable screw connectors (6 mm²).

The VPL125 was primarily designed for resistive loads, protection against short circuits must be done by a fast fuse (1/2 of switching device $i^2t \Rightarrow 500A^2s/2$ to ensure effective protection).

Note: semiconductor relays do no provide galvanic isolation between network and load.

Burst fired modulation type.

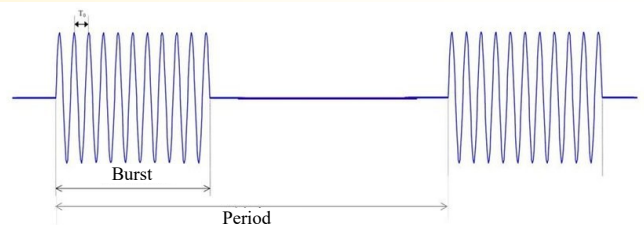
Operating:

In a given cycle time (variable according to the models), the variation of the power of the load is carried out by suppression of whole signal periods.

Advantage:

"clean" switching, no disturbance generated.

Disadvantage: not appropriate for low inertia loads, accuracy limitation of load control due to cycle time.
(1% for a 1 second cycle at 50Hz)



Version and order code:

VPL125-1PH Single phase dimmer.

VPL125-3PH Three-phase dimmer.

INPUT (setpoint)

Push button increment/decrement with 3 automatic adjustment speeds.

OUTPUT

Burst fired
 Burst fire period: 2 s
 Network frequency: 50 / 60 Hz
 Output current: 20 A
 Current, minimal load: 100mA
 Off state leakage current: < 2.5mA
 On state voltage drop: 1.4 V
 Power dissipation: 1.4 x Is (watts)
 Temperature rising: 1.6 x Is (°C)
 Non repetitive overload current: 200 A peak
 I²t (<10ms) 500 A²s

POWER SUPPLY (model dependent)

115V +/-15% 50 - 60Hz or
 230V +/-15% 50 - 60Hz or 400V +/-15% 50 - 60Hz

ENVIRONMENT

Operating temperature -10 °C to 45 °C
 Storage temperature -20 °C to 85 °C
 Humidity 85 % (not condensed)
 Dielectric strength 4000 Vrms permanent
 Weight 1200 g
 Protection rating IP20

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:**