

- **Burst fired dimmer**

Voltage range from 200Vac to 440Vac
also available in 24Vac, 48Vac, 115Vac, ...

- **Output power : 7KW at 230V - 12KW at 400V**

Current range from 0.1A to 30A
integrated high speed fuse

- **Internal proportional setpoint**

Control by potentiometer

- **Application : Plastics processing**

ovens, dryers,
Climatic chambers,
Test bench,
Heating tape
(not suitable for inductive load)



Autonomous and compact AC energy regulator for proportional linear control of resistive load using burst fire mode. Can be used with most of resistance heaters.

Description:

Dimmer with proportional control command for resistive load

High robustness due to absence of mobile mechanical parts and contact subject to wear, ensuring greater longevity and maintenance costs reduction (insensitive to shocks and vibrations)

- Burst fired (zero-crossing) for high inertia system (cycle time : 1 second)
- Don't generate electromagnetic disturbance.
- Operating frequency : 40-500Hz self adaptive
- Setpoint adjustment with single turn potentiometer (0...100% graduated)
- Panel mounting, natural convection cooling. Designed for supply nominal current with room temperature up to 60°C.
- Connection of output and power supply on screw terminal blocks (2.5 mm²)
- Self powered, build in protection with RC circuit

Designed for resistive load, it is therefore necessary to ensure of inrush current compatibility at power up.

The short circuit protection is done by an internal fast fuse (fast fuse 30A 600V HS (type SCR) 10x38mm)

The static relay protection against the load short circuit should be done be a fast fuse with $i^2t = 1/2 i^2t$ of relay

Note: Semiconductor relays do no provide galvanic isolation between network and load, so it is necessary to switch off main supply before any intervention on the load.

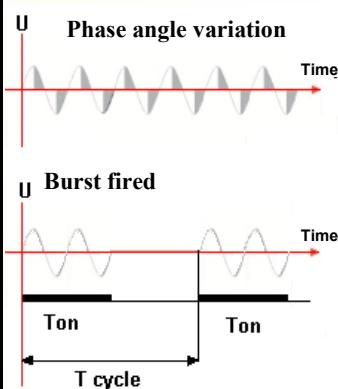
Modulation type:

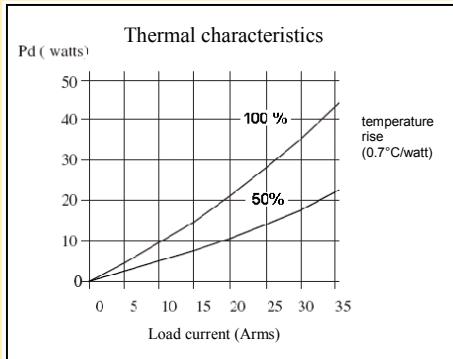
Phase angle variation

Advantage: Allows precise load control. Suitable for low inertia loads.
Disadvantage: generates more disturbance.

Burst fired

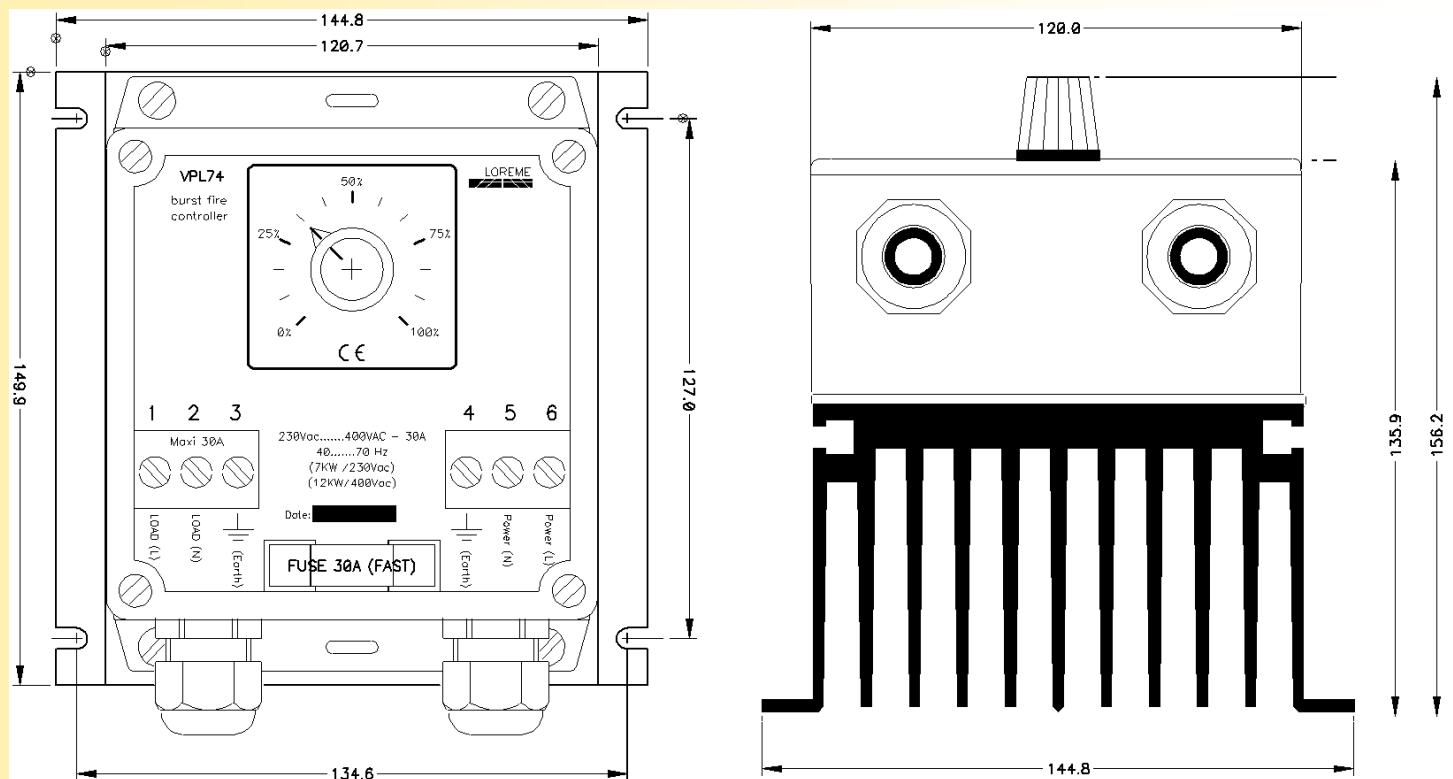
Advantage: "clean" switching, no disturbance generated.
Disadvantage: not appropriate for low inertia loads, accuracy limitation of load control due to cycle time. (1% for a 1second cycle at 50Hz)



| SETPOINT | | ENVIRONMENT | | | | | | | | | | | | | |
|--|---|--|----------------------|---|---|------------------|--------------------|-----------------|-----------------------|------------------|-----------------------|------------------|-------------------------|-----------------|-----------------------|
| 3/4 turn potentiometer | 0 ... 100% | Operating temperature | -10 °C to 60 °C | | | | | | | | | | | | |
| OUTPUT | | Storage temperature | -20 °C to 85 °C | | | | | | | | | | | | |
| Full wave burst fire | | Humidity | 85 % (not condensed) | | | | | | | | | | | | |
| Burst fire period : | 1.2 second | Dielectric strength | 2500 Vrms continuous | | | | | | | | | | | | |
| Output current: | 30 A | Weight | 750 g | | | | | | | | | | | | |
| Permissive overload | 40A 2 seconds | Protection rating | IP50 | | | | | | | | | | | | |
| Non repetitive overload current: | 250A peak | Offstate dv/dt | 500V/us | | | | | | | | | | | | |
| I^2t (<10ms) (for fuse determination) | 1500 A ² s | For optimum performance and dissipation, the unit must be mounted vertically | | | | | | | | | | | | | |
| Current, minimal load: | 10mA | | | | | | | | | | | | | | |
| Off state leakage current: | < 1mA | | | | | | | | | | | | | | |
| Output power | 7KW at 230Vac 12KW at 400Vac | | | | | | | | | | | | | | |
| Voltage dropout: | 1.4V | POWER SUPPLY | | | | | | | | | | | | | |
| Power dissipation: | 1.4 x Is (watts) | 200Vac.....440Vac 40 - 500Hz Other on request | | | | | | | | | | | | | |
| Temperature rising: | 0.7°C/Watt at 100% 0.98°C/Ampere at 100% | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | |
| Electromagnetic compatibility 2014/30/UE / Low Voltage Directive 2014/35/UE <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Immunity standard for industrial environments EN 61000-6-2</td> <td style="width: 50%;">Emission standard for industrial environments EN 61000-6-4</td> </tr> <tr> <td>EN 61000-4-2 ESD</td> <td>EN 61000-4-8 AC MF</td> </tr> <tr> <td>EN 61000-4-3 RF</td> <td>EN 61000-4-9 pulse MF</td> </tr> <tr> <td>EN 61000-4-4 EFT</td> <td>EN 61000-4-11 AC dips</td> </tr> <tr> <td>EN 61000-4-5 CWG</td> <td>EN 61000-4-12 ring wave</td> </tr> <tr> <td>EN 61000-4-6 RF</td> <td>EN 61000-4-29 DC dips</td> </tr> </table> | | | | 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 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 |
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|  EN 55011 group 1 class A | | | | | | | | | | | | | | | |

WIRING AND OUTLINE DIMENSIONS:

Attention : The wiring should be made by qualified personnel. Dangerous voltage may be present on the opening cover. Always disconnect the power source before any operation.



In order to secure their technical features, we recommend at least a 25 mm spacing between each devices.