

# RP1 SINGLE - PHASE POWER CONTROLLER

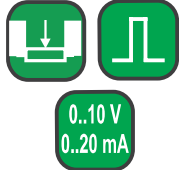
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## FEATURES:



- Contactless power switching on.
- For power control of resistive and inductive load.
- Output current up to 125 A.
- Signalling of fuse damages.
- Trigger deceleration of "softstart" type.
- Control of the initial trigger angle value.
- Load current limitation.
- Trigger stoppage by an external signal.
- Alarming relay outputs.
- Control by an impulse, continuous or potentiometric signal.
- Phase, impulse, on/off control.

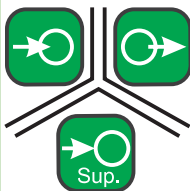
## INPUTS:



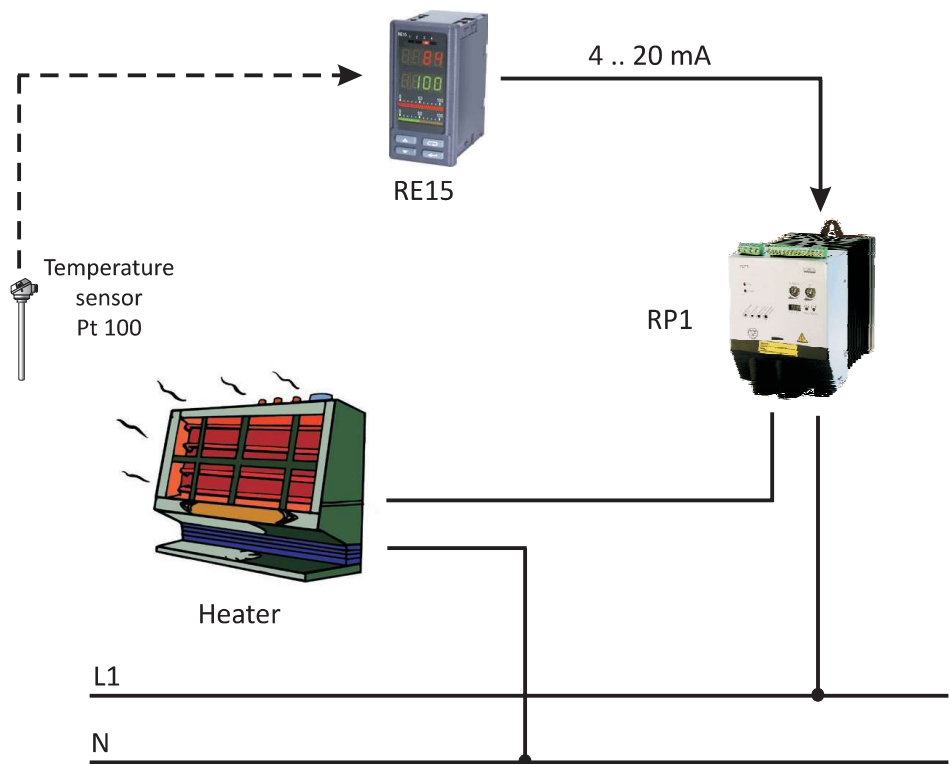
## OUTPUTS:



## GALVANIC ISOLATION:



## EXAMPLE OF APPLICATION



Control of single-phase heater.

### INPUTS

Input type	Range	Remarks
potentiometric	0 .. 10 k $\Omega$	
impulse	0/4 .. 32 V	$R_{in} = 20 \text{ k } \Omega$
continuous	0 .. 5 V	$R_{in} = 20 \text{ k } \Omega$
continuous	0 .. 10 V	$R_{in} = 40 \text{ k } \Omega$
continuous	0 .. 20 mA	$R_{in} = 125 \Omega$
continuous	4 .. 20 mA	$R_{in} = 125 \Omega$

### OUTPUTS

Output type	Properties	Remarks
thyristor	25, 40, 70, 125 A, 20 .. 440 V, 50/60 Hz	
alarming relay PK1	60 mA, 350 V, $R_{on} = 35 \Omega$	signaling of fuse damages
alarming relay PK2	60 mA, 350 V, $R_{on} = 35 \Omega$	signaling of incorrect work state

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## EXTERNAL FEATURES

Overall dimensions	135 x 201 x 199 mm 135 x 231 x 199 mm	
Weight	4.5 kg (version 125 A: 5 kg)	
Protection grade	from a casing side: IP20	from terminal side: IP10

## RATED OPERATING CONDITIONS

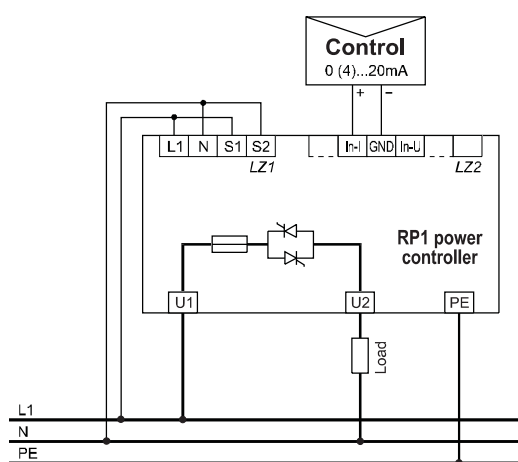
Supply voltage UWB	85 .. 115 .. 135 V a.c.	195 .. 230 .. 253 V a.c.
Temperature	ambient: 0 .. 40°C	storage: -25...55°C
Humidity	< 90 %	without condensation
Operating position	vertical	
External magnetic field	< 400 A/m	

## SAFETY AND COMPATIBILITY REQUIREMENTS

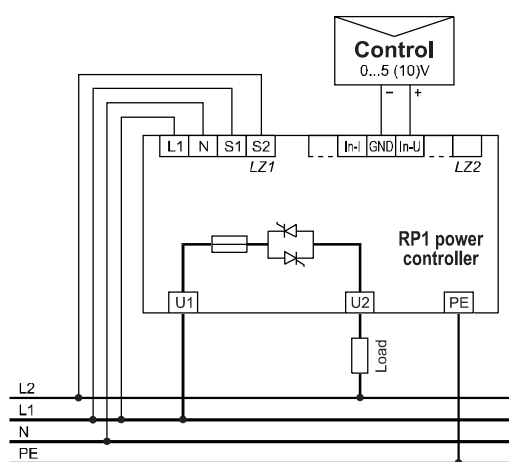
Electromagnetic compatibility	noise immunity	acc. to EN 60947-4-3
	noise emissions	acc. to EN 60947-4-3
Pollution level	2	
Installation category	III	
Maximal phase-to-earth voltage	320 V for power circuits and supply, 50 V for other circuits	for input circuits: 50 V

## CONNECTION DIAGRAMS

Fig.1. Connection of load in a single-phase system.



a) load supply  $U_{load} = 230\text{ V}$ ,  
supply  $U_{GTS} = 230\text{ V}$ .



b) load supply  $U_{load} = 400\text{ V}$ ,  
supply  $U_{GTS} = 230\text{ V}$ .

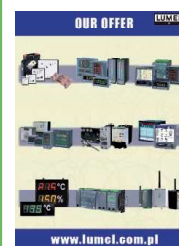
## SEE ALSO:



Controllers.



Temperature sensors.



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## ORDERING

	RP1 -	X	X	X
<b>Current range:</b>				
maximal output current 25 A			1	
maximal output current 40 A			2	
maximal output current 70 A			3	
maximal output current 125 A*			4	
<b>Gate triggering system (GTS):</b>				
supply voltage 85 .. 115 .. 135 V a.c.				1
supply voltage 195 .. 230 .. 253 V a.c.				2
<b>Acceptance tests:</b>				
without additional quality inspection requirements				8
with an extra quality inspection certificate				7
other requirements**				X

### Ordering example:

The code: **RP1 - 3 - 2 - 8** means:

- RP1** - power controller of RP1 type
- 3** - input current 70 A, in the range of voltages supplying the load circuit: 24 .. 400 V
- 2** - voltage supplying the GTS system: 230 V
- 8** - without additional quality inspection requirements.

\* the version RP1 for 125 A has a fixed fan  
\*\* after agreeing with the manufacturer