

# RP1 SINGLE - PHASE POWER CONTROLLER

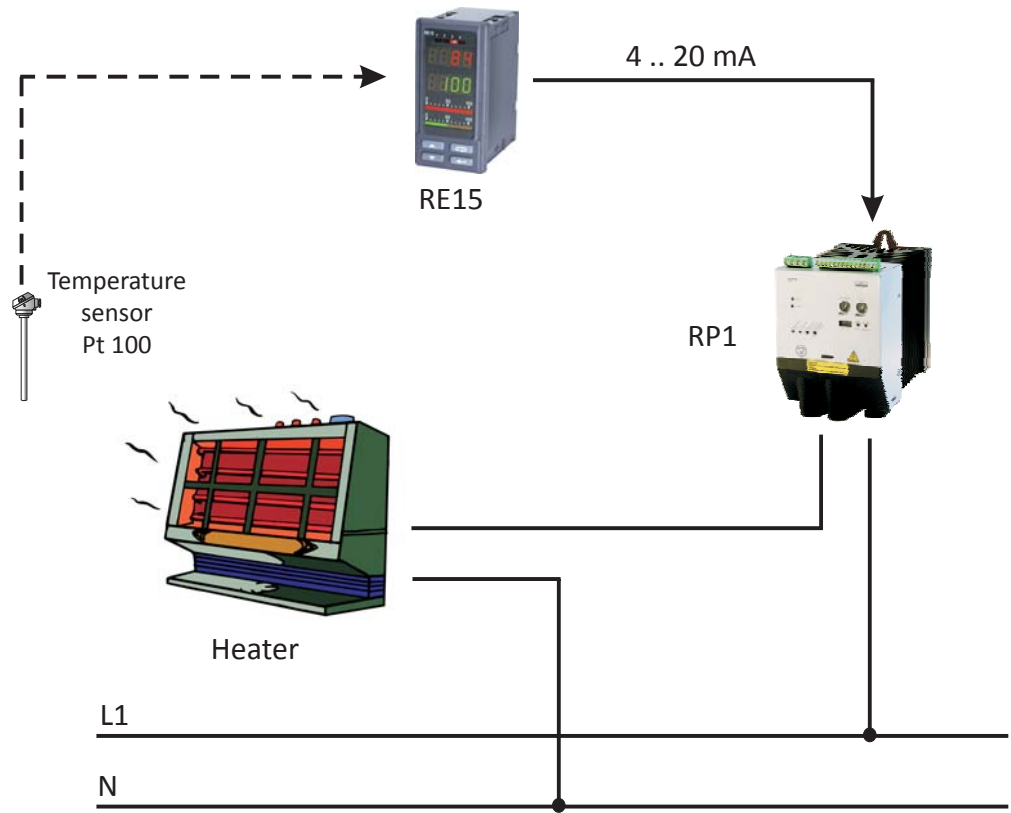
FEATURES:

- Phase control
- ON/OFF control
- Impulse control
- Soft Start
- I<sub>LIM</sub>
- α<sub>LIM</sub>



- 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.

EXAMPLE OF APPLICATION



Control of single-phase heater.

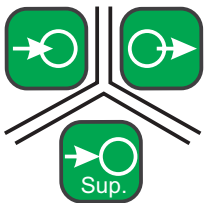
INPUTS:

- 
- 
- 0..10 V
- 0..20 mA

OUTPUTS:

- 125 A
- 2x

GALVANIC ISOLATION:



INPUTS

Input type	Range	Remarks
potentiometric	0 .. 10 kΩ	
impulse	0/4 .. 32 V	R <sub>in</sub> = 20 kΩ
continuous	0 .. 5 V	R <sub>in</sub> = 20 kΩ
continuous	0 .. 10 V	R <sub>in</sub> = 40 kΩ
continuous	0 .. 20 mA	R <sub>in</sub> = 125 Ω
continuous	4 .. 20 mA	R <sub>in</sub> = 125 Ω

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 <sub>on</sub> = 35 Ω	signaling of fuse damages
alarming relay PK2	60 mA, 350 V, R <sub>on</sub> = 35 Ω	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

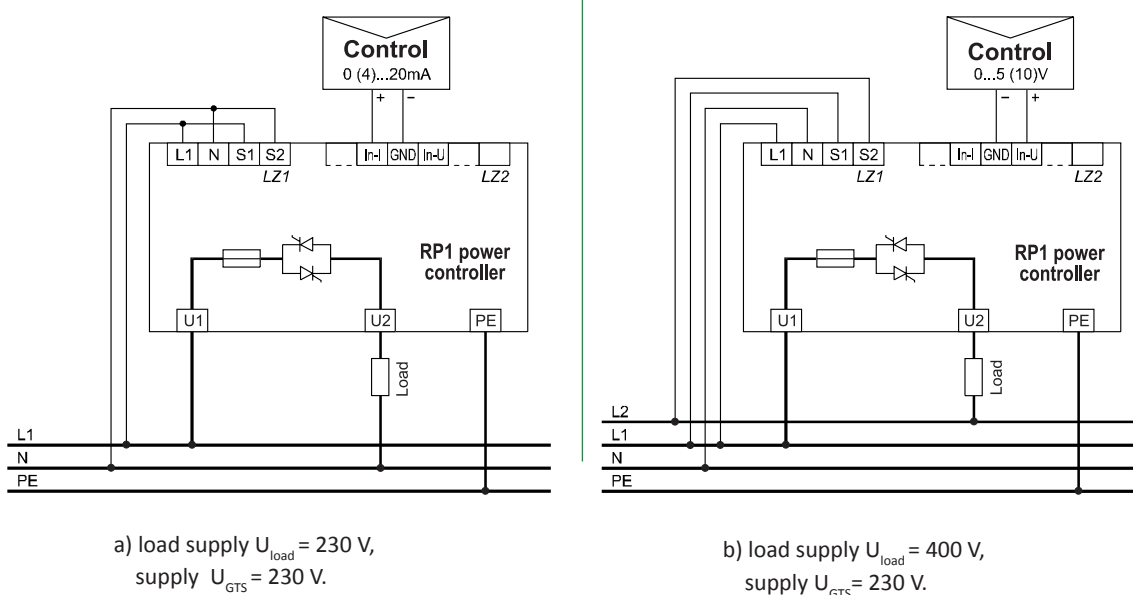
Supply voltage UWB	85 .. 115 .. 135 V a.c.	195 .. 230 .. 253 V a.c.
Temperature	ambient: 0 .. 40°C	storage: -25...55°C
Humidity	< 90 %	without condensation
Operating position	vertical	
External magnetic field	< 400 A/m	

## 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.



## ORDERING

	RP1 -	X	X	X
<b>Current range:</b>				
maximal output current 25 A	load voltage:	1		
maximal output current 40 A	24 .. 400 V a.c.	2		
maximal output current 70 A	50/60 Hz	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

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