

RP1 SINGLE - PHASE POWER CONTROLLER

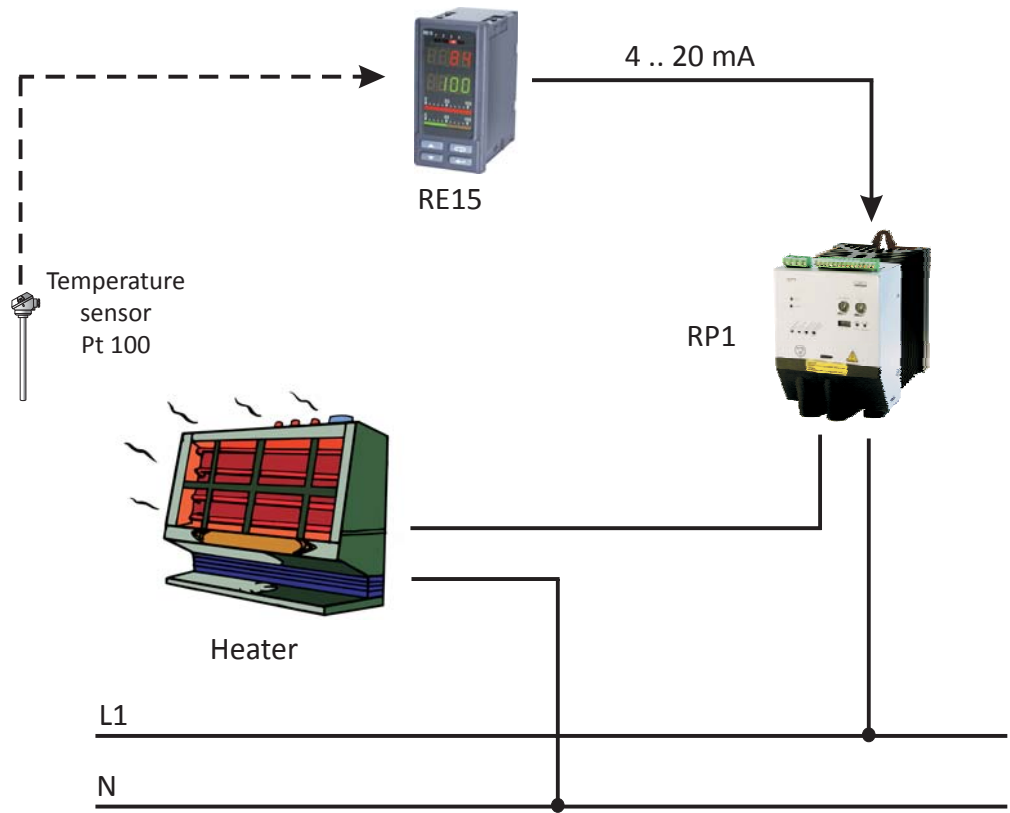
FEATURES:

- Phase control
- ON/OFF control
- Impulse control
- Soft Start
- I_{LIM}
- α_{LIM}



- 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.

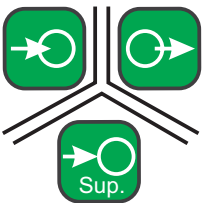
INPUTS:

- 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 _{in} = 20 kΩ |
| continuous | 0 .. 5 V | R _{in} = 20 kΩ |
| continuous | 0 .. 10 V | R _{in} = 40 kΩ |
| continuous | 0 .. 20 mA | R _{in} = 125 Ω |
| continuous | 4 .. 20 mA | R _{in} = 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 _{on} = 35 Ω | signaling of fuse damages |
| alarming relay PK2 | 60 mA, 350 V, R _{on} = 35 Ω | signaling of incorrect work state |

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

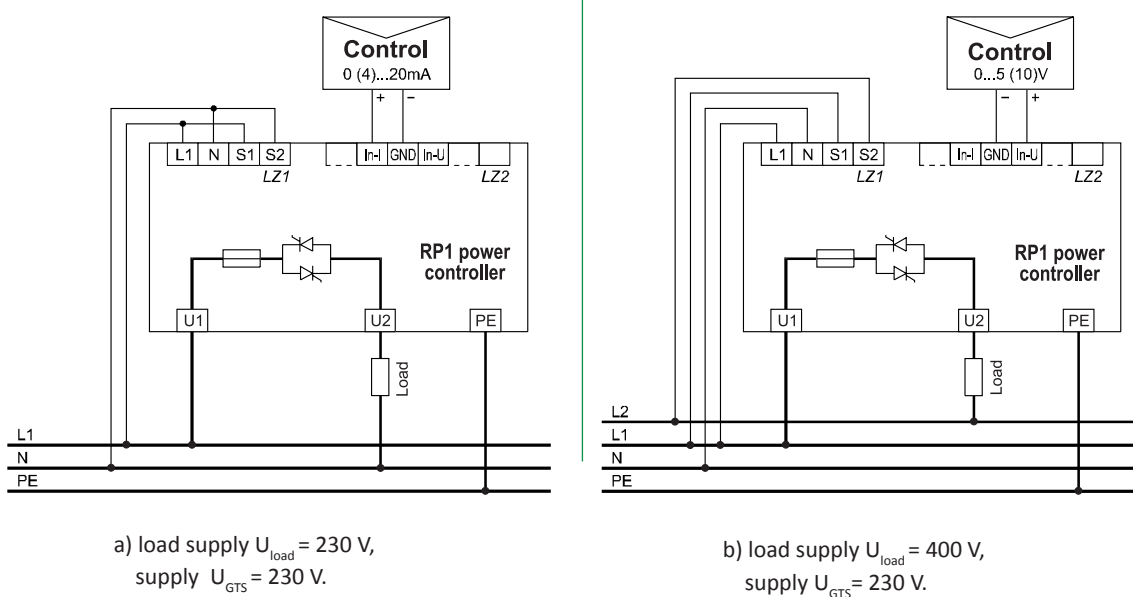
| | | |
|-------------------------|-------------------------|--------------------------|
| Supply voltage UWB | 85 .. 115 .. 135 V a.c. | 195 .. 230 .. 253 V a.c. |
| Temperature | ambient: 0 .. 40°C | storage: -25...55°C |
| Humidity | < 90 % | without condensation |
| Operating position | vertical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



SEE ALSO:

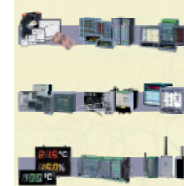


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ORDERING

| | | | | |
|--|------------------|---|---|---|
| | RP1 - | X | X | X |
| Current range: | | | | |
| 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 | | |
| Gate triggering system (GTS): | | | | |
| supply voltage 85 .. 115 .. 135 V a.c. | | 1 | | |
| supply voltage 195 .. 230 .. 253 V a.c. | | 2 | | |
| Acceptance tests: | | | | |
| 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