



DATASHEET

RPL1 Power Controller

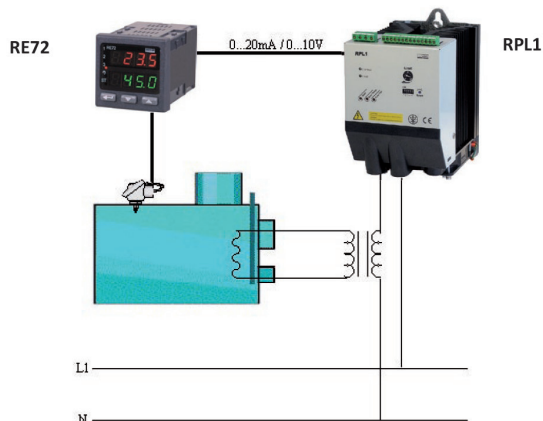
RS Stock number 9028111 / 9028120 / 9028123

ENGLISH



FEATURES	
Phase control	ON/OFF control
Impulse control	Soft Start
I _{LIM}	SPAN
INPUT	
	0..10V 0..20mA
OUTPUT	
125A	2x
GALVANIC ISOLATION	

- For power control of resistive and resistive-inductive load (transformer connected to resistive load or to rectifier circuit).
- Control mode: on/off (similar to solid state relay), pulse, phase.
- Amplification of input control signal (SPAN).
- Limitation of load current.
- Overload protection.
- Signalization of exceeding the maximum temperature of radiator.
- Control of 3-phase load (requires two RPL1 controller units).

EXAMPLE OF APPLICATION

INPUTS

Input type	Quantity	Range	Remarks
Synchronizati on input	–	230 V a.c. – version RPL1-xx1xx 400 V a.c. – version RPL1-xx2xx 500 V a.c. – version RPL1-xx3xx	–
Control voltage input	1	0...5 V 0...10 V	Rin = 20 k Ω Rin = 40 k Ω
Control current input	1	0(4)...20 mA	Rin = 125 Ω
Control pulse input	1	0/4...32 V	Rin = 20 k Ω
STOP signal input 1	1	4...8 V	Rin = 1 k Ω

OUTPUTS

Output type	Quantity	Range	Remarks
Voltage (Master/Slave)	1	6 ...12 V	non stabilized
Relay	2	NO	60 mA/350 V, Ron = 35 Ω, U _{zot} = 1500 V _{RMS}

ELECTRICAL PARAMETERS OF POWER CIRCUIT

No.	Max. output current	Load supply voltage	Max. load	Lose power in thyristor
1	25 A	230 V / 50 Hz 400 V / 50 Hz 500 V / 50 Hz	5.7 kW 10.0 kW 12.5 kW	< 40 W
2	40 A	230 V / 50 Hz 400 V / 50 Hz 500 V / 50 Hz	9.2 kW 16.0 kW 20.0 kW	< 65 W
3	70 A	230 V / 50 Hz 400 V / 50 Hz 500 V / 50 Hz	16.0 kW 28.0 kW 35.0 kW	< 120 W
4	125 A	230 V / 50 Hz 400 V / 50 Hz 500 V / 50 Hz	28.0 kW 50.0 kW 62.0 kW	< 215 W

- Leakage current in the thyristor circuit: < 20 mA
- Load type: resistive or resistive-inductive ($0.2 < \cos < 1$), compatible with the category of operational use AC-51 acc. to EN 60947-4-3

EXTERNAL FEATURES	
Overall dimensions	135 x 201 x 199 mm 135 x 231 x 199 mm - ver. RPL1-x4xx (version with a fan)
Weight	4.5 kg 5.0 kg – ver. RPL1-x4xx (version with a fan)

RATED OPERATING CONDITIONS	
Supply voltage N-L1	195 ... 230 ... 253 V a.c.
Supply voltage frequency	50 Hz
Power consumption	4.5 VA
Temperature: ambient	0 ... 40°C
Temperature: storage	-25...55
Humidity	< 90 % , without condensation
Operating position	vertical

SAFETY AND COMPATIBILITY REQUIREMENTS		
Electromagnetic compatibility	noise immunity	acc. to EN 60947-4-3
	noise emissions	
Pollution level	2	
Installation category	III	
Protection grade from terminal side	IP10 acc. to EN 60529	
Protection grade from casing side	IP20 acc. to EN 60529	
Noise immunity	EN 60947-4-3	
Maximal phase-to-earth voltage	320 V for power circuits and supply, 50 V for other circuits	

Power controller RPL1 meets the requirements of the norm EN 60947-4-3.

Caution: In the case of phase control, the controller meets the requirements of electromagnetic compatibility in terms of noise emissions, only when working near the transition of the supply voltage across zero.

