

# ◇ RP 1x0 240-0.5-x

- AC solid state relays for PCB mounting.
- Zero switching.
- 0.5 A load current.
- Up to 650 V<sub>p</sub> non-repetitive voltage.
- Up to 280 V<sub>RMS</sub> line voltage.
- 2 input ranges: 3-16 VDC, 3-32 VDC.
- Isolation: OPTO (input-output) 4 KV.

T.25-31

## SPECIFICATIONS

### Input

	RP 110 240-0.5-5	RP 100 240-0.5-0
Control voltage range	3-16 VDC	3-32 VDC
Pick up voltage, max.	3 VDC	3 VDC
Drop out voltage, min.	1 VDC	1 VDC
Reverse voltage, max.	6 VDC	6 VDC
Resp. time pick up, max.	1/2 cycle	1/2 cycle
Resp. time drop out, max.	1/2 cycle	1/2 cycle
Input impedance	1.5 K $\Omega$	1.5 K $\Omega$

### Output

Load current, max.	0.5 A <sub>RMS</sub>
Load current, min.	3 mA <sub>RMS</sub>
Overload current t=1 s, max.	2 A
Non-rep. surge current t=20 ms, max.	10 A <sub>p</sub>
Off-state leakage current @ rated voltage, max.	2 mA <sub>RMS</sub>
I <sup>2</sup> t for fusing t=10 ms, max.	0.2 A <sup>2</sup> s
di/dt, max.	25 A/ $\mu$ s
On-state voltage @ rated current, max.	3.5 V <sub>RMS</sub>
dV/dt Off-state, max.	15 V/ $\mu$ s
dV/dt Comm., max.	15 V/ $\mu$ s
Line voltage range	24-280 VAC
Non-rep. voltage, max.	650 V <sub>p</sub>
Zero voltage turn-on, max.	$\pm 20$ V
Line frequency range	45-65 Hz
Power factor, min.	< 0.5. For pf < 0.5, use snubber circuit, R=100 $\Omega$ , C=47 nF

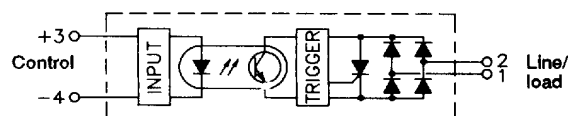
### Thermal data

Operating temp. range	-40 to +100°C
Storage temp. range	-40 to +100°C
Junction temperature, max.	115°C
Thermal resistance junction-ambient, max.	40°C/W
Thermal resistance junction-case, max.	20.5°C/W

### Isolation

Input-output Voltage	4000 VAC <sub>RMS</sub>
Resistance, min.	10 <sup>10</sup> $\Omega$
Capacitance, max.	5 pF

## WIRING DIAGRAM



◇ Items not produced by the holder of the ISO 9001 certificate

S  
I  
N  
G  
L  
E  
  
P  
H  
A  
S  
E  
  
A  
C

# ORDERING KEY

ELECTROMATIC CONTROLS

49E D

3213074 0002840 T80 ELEC

100: Zero switching, housing A  
110: Zero switching, housing B  
120: Zero switching, housing C

Line voltage  
240: 24-280 VAC

Load current  
0.5: 0.5 A

Control voltage  
5: 3-16 VDC  
0: 3-32 VDC

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◇ RP 100  
110  
120

240

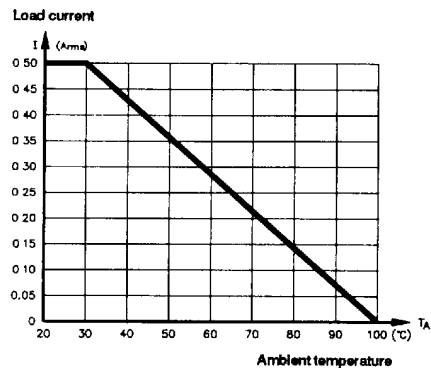
-0.5

-5  
-0

## Note:

Not all types are available. See specifications.

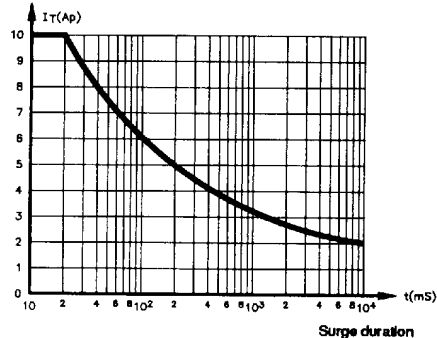
## Derating curve



## Non-repetitive surge current curve $f=50$ Hz

The curve is only applicable in case of faults such as completely or partly short-circuited loads. The curve is *not* applicable for normal operation.

## Peak surge current

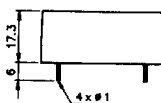
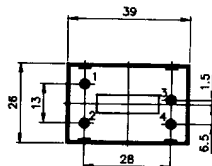


## MECHANICAL DATA

Housing material/colour  
Terminals  
Potting compound

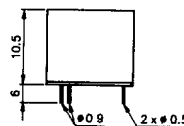
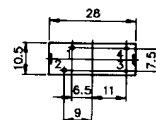
Noryl GFN 1, black  
Tin-plated  
Polyurethane

RP 100



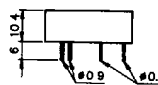
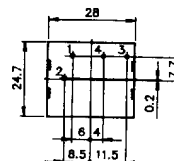
Housing A

RP 110



Housing B

RP 120



Housing C

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