



# RS 302 240 - XX - XX

- 3-phase solid state relay.
- Instant-on switching.
- Inductive loads.
- Load current: 3 x 10 A, 25 A, 40 A.
- Line voltage: 12-240 VAC.
- Control voltage: 5, 12, 24 VDC.
- Output: 3 alternistors.
- Isolation: Reed relay (Input-output) 4 KV/8 mm.
- Reverse polarity protection of input.

## SPECIFICATIONS

Input	RS 302 240 - xx - 05	RS 302 240 - xx - 12	RS 302 240 - xx - 24	Output	RS 302 240 - 10 - xx	RS 302 240 - 25 - xx	RS 302 240 - 40 - xx
Control voltage range	5 VDC	12 VDC	24 VDC	Nominal line voltage	127/220 VAC <sub>RMS</sub>	127/220 VAC <sub>RMS</sub>	
Pick up voltage	Max. 4 VDC	Max. 10 VDC	Max. 20 VDC	Break down voltage	Min. 600 V <sub>P</sub>	Min. 600 V <sub>P</sub>	
Drop out voltage	Min. 1 VDC	Min. 1 VDC	Min. 1 VDC	Leakage current	Max. 10 mA	Max. 10 mA	
Max. voltage	8 VDC	17 VDC	30 VDC	Critical di/dt off state	200 V/μs	200 V/μs	
Input current at nominal control voltage	110 mA	45 mA	25 mA	Frequency range	47-63 Hz	47-63 Hz	
Input impedance	40 Ω	260 Ω	950 Ω	Min. load current	200 mA	200 mA	
Resp. time pick up	Max. 1 ms	Max. 1 ms	Max. 1 ms	Max. load current	10 A	25 A	40 A
Resp. time drop out	Max. 20 ms	Max. 20 ms	Max. 20 ms	Surge current - non repetitive			
				t=20 ms, f=50 Hz	100 A <sub>P</sub>	250 A <sub>P</sub>	350 A <sub>P</sub>
				I <sup>2</sup> t for fusing t=10ms	40 A <sup>2</sup> s	265 A <sup>2</sup> s	610 A <sup>2</sup> s
				Critical di/dt	≥ 50 A/μs	≥ 100 A/μs	≥ 100 A/μs
				On state voltage	Max. 1.6 V <sub>RMS</sub>	Max. 1.6 V <sub>RMS</sub>	Max. 1.6 V <sub>RMS</sub>
				Power factor	Min. 0.5	Min. 0.5	Min. 0.5

Isolation	RS 302 240 - xx - xx
Isolation voltage (input-output)	4000 VAC <sub>RMS</sub>
Isolation voltage (input-case)	4000 VAC <sub>RMS</sub>
Isolation voltage (output-case)	2500 VAC <sub>RMS</sub>
Isolation resistance (input-output)	10 <sup>10</sup> Ω
Capacitance (input-output)	25 pF
Capacitance (input-case)	30 pF
Capacitance (output-case)	100 pF
Creepage distance (input-output)	8 mm

Thermal data	RS 302 240 - 10 - xx	RS 302 240 - 25 - xx	RS 302 240 - 40 - xx
Ambient operating temperature		-20 to +80°C	
Storage temperature		-40 to +100°C	
Max. junction temperature		110°C	
Thermal resistance (junction-case) 3 ph.	0.75°C/W	0.5°C/W	0.4°C/W
Thermal resistance (junction-case) 1 ph.	2.25°C/W	1.5°C/W	1.2°C/W

See surge current and derating curves page 5.

MECHANICAL DATA	RS 302 240 - xx - xx
Housing material/colour	Noryl/black
Bottom plate material	Tin-plated aluminium

## WIRING DIAGRAM

