

RS 302 440 - XX - XX

- 3-phase solid state relay.
- Instant-on switching.
- Inductive loads.
- Load current: 3 x 10 A, 25 A, 40 A.
- Line voltage: 12-440 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 302 440 - XX - 05	RS 302 440 - XX - 12	RS 302 440 - XX - 24	Output	RS 302 440 - 10 - XX	RS 302 440 - 25 - XX	RS 302 440 - 40 - XX	
Control voltage range	5 VDC	12 VDC	24 VDC	Nominal line voltage	280/480 VAC _{RMS}	280/480 VAC _{RMS}	280/480 VAC _{RMS}	
Pick up voltage	Max. 4 VDC	Max. 10 VDC	Max. 20 VDC	Break down voltage	Min. 1200 V _P	Min. 1200 V _P	Min. 1200 V _P	
Drop out voltage	Min. 1 VDC	Min. 1 VDC	Min. 1 VDC	Leakage current	Max. 10 mA	Max. 10 mA	Max. 10 mA	
Max. voltage	8 VDC	17 VDC	30 VDC	Critical di/dt off state	≥ 500 V/μs	≥ 500 V/μs	≥ 500 V/μs	
Input current at nominal control voltage	110 mA	45 mA	25 mA	Frequency range	47-63 Hz	47-63 Hz	47-63 Hz	
Input impedance	40 Ω	260 Ω	950 Ω	Min. load current	200 mA	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 _P	250 A _P	350 A _P
				I ² t for fusing t=10ms	40 A ² s	265 A ² s	610 A ² s	
				Critical di/dt	≥ 50 A/μs	≥ 100 A/μs	≥ 100 A/μs	
				On state voltage	Max. 1.6 V _{RMS}	Max. 1.6 V _{RMS}	Max. 1.6 V _{RMS}	
				Power factor	Min. 0.5	Min. 0.5	Min. 0.5	
Isolation	RS 302 440 - XX - XX			Thermal data	RS 302 440 - 10 - XX	RS 302 440 - 25 - XX	RS 302 440 - 40 - XX	
Isolation voltage (input-output)	4000 VAC _{RMS}			Ambient operating temperature		-20 to +80°C		
Isolation voltage (input-case)	4000 VAC _{RMS}			Storage temperature		-40 to +100°C		
Isolation voltage (output-case)	2500 VAC _{RMS}			Max. junction temperature		110°C		
Isolation resistance (input-output)	10 ¹⁰ Ω			Thermal resistance (junction-case) 3 ph.	0.75°C/W	0.5°C/W	0.4°C/W	
Capacitance (input-output)	25 pF			Thermal resistance (junction-case) 1 ph.	2.25°C/W	1.5°C/W	1.2°C/W	
Capacitance (input-case)	30 pF							
Capacitance (output-case)	100 pF							
Creepage distance (input-output)	8 mm							

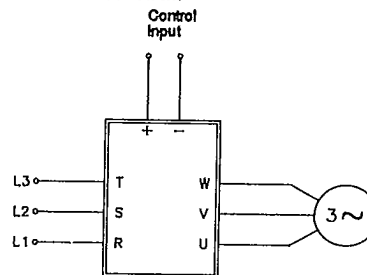
MECHANICAL DATA

Housing material/
colour
Bottom plate material

RS 302 440 -
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Noryl/black
Tin-plated
aluminium

WIRING DIAGRAM



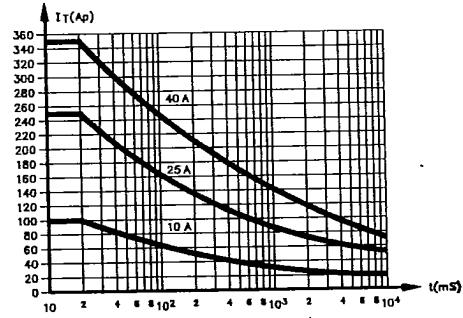
K17

1679

A-08

Non repetitive surge current curve

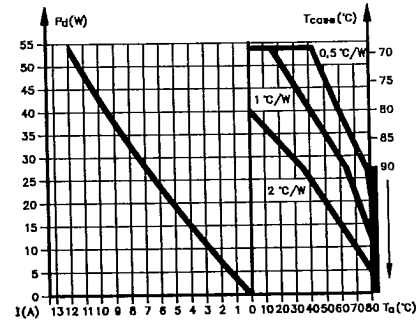
The curve is only applicable in case of faults such as completely or partly short-circuited loads. The curve is *not* applicable for normal operation.



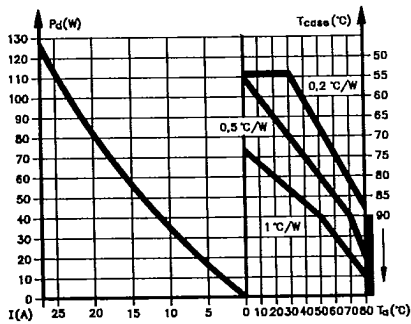
Derating curves

Thermally conducting paste must be applied between relay and heatsink

10 A relay



25 A relay



40 A relay

