

# RSR50

Power Type (10, 25, 40A)



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DESCRIPTION	D32-A1-24-100-1	TYPES	RSR50			
			D32-A0-24-100-0	D32-A0-24-100-1	D32-A	
<b>INPUT CIRCUIT</b>						
LED indicate			YES		NO	
Control voltage range			4-32 VDC		3-32 VDC	
Control current			15 mA Max.		15 mA Max.	
Min. turn-off voltage			1.5 VDC		1 VDC	
Input impedance			2.0 K $\Omega$ Min.		2.0 K $\Omega$ Min.	
<b>OUTPUT CIRCUIT</b>						
Max. load current			10 A (rms)		10 A (rms)	
Nominal load voltage			240 VAC	240 VAC	240 VAC	240 VAC
Load voltage range			24 - 280 VAC	24 - 280 VAC	24 - 280 VAC	24 - 280 VAC
Non-repetitive Max. peak voltage			600 VAC	600 VAC	600 VAC	600 VAC
Non-repetitive Max. peak current			125 A			
Max. off-state leakage current			1 mA			
On state voltage drop			1.6 V			
Min. load current			50 mA			
Max. off-state slew rate (dv/dt)			250 V/ $\mu$ s			
Operating frequency range			47 Hz ~ 63 Hz			
<b>GENERAL CHARACTERISTICS</b>						
Zero-on, random-on			Z	R	Z	R
Max. turn-on time (60Hz)			8.3 ms	100 $\mu$ s	8.3 ms	100 $\mu$ s
Max. turn-off time (60Hz)			8.3 ms			
Insulation resistance			DC 500 V 10 <sup>9</sup> $\Omega$ Min. (between input & output, input/output & case)			
Dielectric strenght			3.5K VAC (between input & output)			
Capacitance			15 pF Max. (between input & output)			
Operating temperature			-20°C ~ +80°C			
Storage temperature			-40°C ~ +100°C			
Heatsink			3.5°C/W (Max. load current)			

## Features

- Optically isolated.
- Input LED indicator.
- High dv/dt and high blocking voltage.
- Low input power consumption.
- TTL and CMOS compatible.
- Zero voltage turn-on, zero current turn-off (minizes EMI/RFI).
- High surge rating allows lamp and motor load switching.
- Output snubber circuit protection.

## Options

- protective cover available



# RSR50

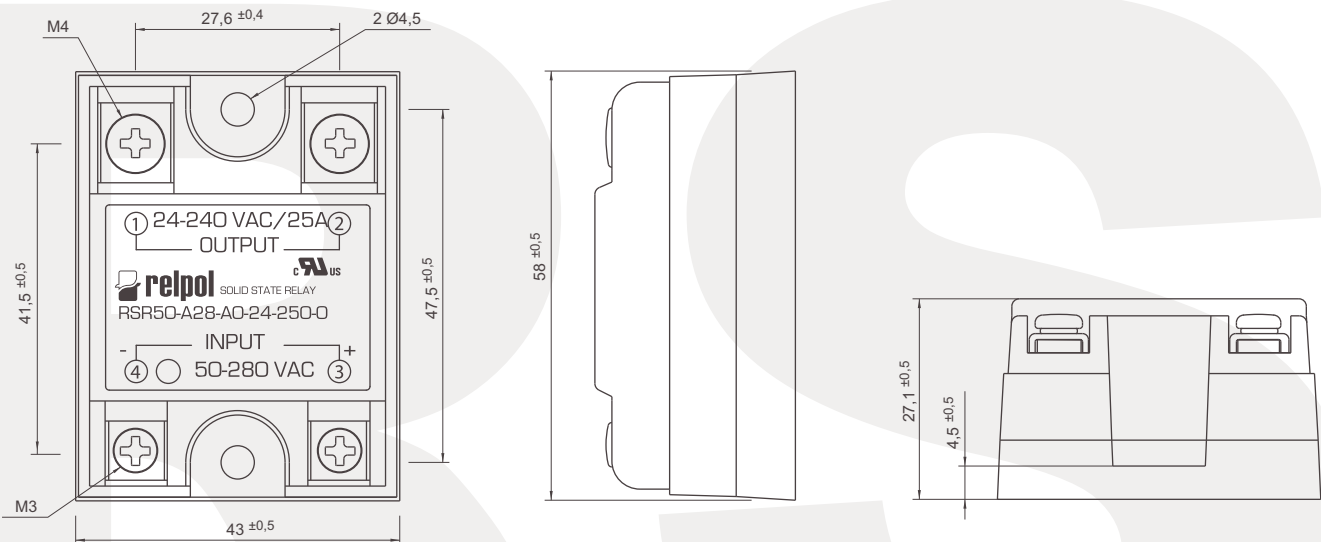
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Power Type (10, 25, 40A)



DESCRIPTION D32-A1-24-250-1	TYPES	RSR50			
		D32-A0-24-250-0	D32-A0-24-250-1	D32-	
<b>INPUT CIRCUIT</b>					
LED indicate		YES		NO	
Control voltage range		4 - 32 VDC		3 - 32 VDC	
Control current		15 mA Max.		15 mA Max.	
Min. turn-off voltage		1.5 VDC		1 VDC	
Input impedance		2.0 KΩ Min.		2.0 KΩ Min.	
<b>OUTPUT CIRCUIT</b>					
Max. load current		25 A (rms)		25 A (rms)	
Nominal load voltage		240 VAC	240 VAC	240 VAC	240 VAC
Load voltage range		24 - 280 VAC	24 - 280 VAC	24 - 280 VAC	24 - 280 VAC
Non-repetitive Max. peak voltage		600 VAC	600 VAC	600 VAC	600 VAC
Non-repetitive Max. peak current		260 A			
Max. off-state leakage current		7 mA			
On state voltage drop		1.6 V			
Min. load current		100 mA			
Max. off-state slew rate (dv/dt)		250 V/μs			
Operating frequency range		47 Hz ~ 63 Hz			
<b>GENERAL CHARACTERISTICS</b>					
Zero-on, random-on		Z	R	Z	R
Max. turn-on time (60Hz)		8.3 ms	100 μs	8.3 ms	100 μs
Max. turn-off time (60Hz)		8.3 ms			
Insulation resistance		DC 500 V 10 <sup>9</sup> Ω Min. (between input & output, input/output & case)			
Dielectric strenght		3.5K VAC (between input & output)			
Capacitance		15 pF Max. (between input & output)			
Operating temperature		-20°C ~ +80°C			
Storage temperature		-40°C ~ +100°C			
Heatsink		1.5°C/W (Max. load current)			

## Dimensions



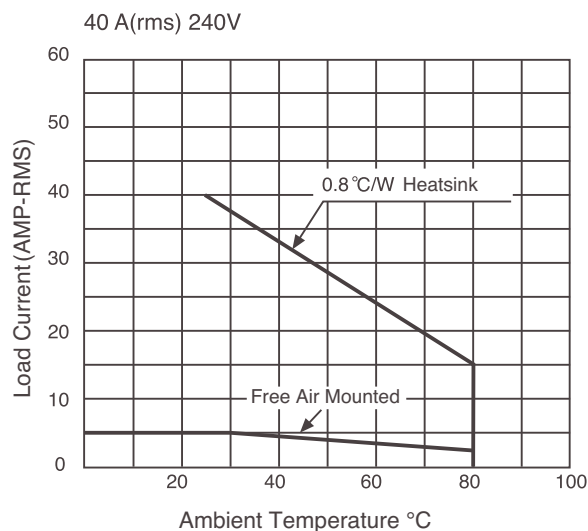
# RSR50

Power Type (10, 25, 40A)



DESCRIPTION D32-A1-24-400-1	TYPES	RSR50			
		D32-A0-24-400-0	D32-A0-24-400-1	D32-	
<b>INPUT CIRCUIT</b>					
LED indicate		YES		NO	
Control voltage range		4 - 32 VDC		3 - 32 VDC	
Control current		15 mA Max.		15 mA Max.	
Min. turn-off voltage		1.5 VDC		1 VDC	
Input impedance		2.0 K $\Omega$ Min.		2.0 K $\Omega$ Min.	
<b>OUTPUT CIRCUIT</b>					
Max. load current		40 A (rms)		40 A (rms)	
Nominal load voltage		240 VAC	240 VAC	240 VAC	240 VAC
Load voltage range		24 - 280 VAC	24 - 280 VAC	24 - 280 VAC	24 - 280 VAC
Non-repetitive Max. peak voltage		600 VAC	600 VAC	600 VAC	600 VAC
Non-repetitive Max. peak current		315 A			
Max. off-state leakage current		7 mA			
On state voltage drop		1.8 V			
Min. load current		100 mA			
Max. off-state slew rate (dv/dt)		250 V/ $\mu$ s			
Operating frequency range		47 Hz ~ 63 Hz			
<b>GENERAL CHARACTERISTICS</b>					
Zero-on, random-on		Z	R	Z	R
Max. turn-on time (60Hz)		8.3 ms	100 $\mu$ s	8.3 ms	100 $\mu$ s
Max. turn-off time (60Hz)		8.3 ms			
Insulation resistance		DC 500 V 10 <sup>9</sup> $\Omega$ Min. (between input & output, input/output & case)			
Dielectric strenght		3.5K VAC (between input & output)			
Capacitance		15 pF Max. (between input & output)			
Operating temperature		-20°C ~ +75°C			
Storage temperature		-40°C ~ +100°C			
Heatsink		0.8°C/W (Max. load current)			

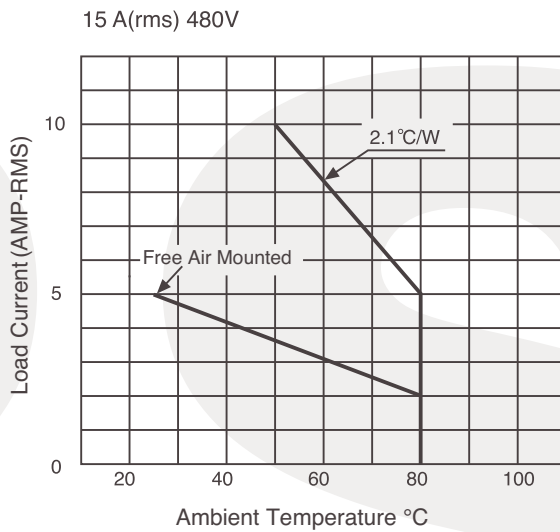
Temperature derating chart  
40 A(rms), 240 VAC





DESCRIPTION D32-A1-48-150-1	TYPES	RSR50			
		D32-A0-48-150-0	D32-A0-48-150-1	D32-	
<b>INPUT CIRCUIT</b>					
LED indicate		YES		NO	
Control voltage range		4 - 32 VDC		3 - 32 VDC	
Control current		120 mA Max.		120 mA Max.	
Min. turn-off voltage		1.5 VDC		1 VDC	
Input impedance		270 Ω Min.		270 Ω Min.	
<b>OUTPUT CIRCUIT</b>					
Max. load current		15 A (rms)		15 A (rms)	
Nominal load voltage		440 VAC		440 VAC	
Load voltage range		48 - 480 VAC		48 - 480 VAC	
Non-repetitive Max. peak voltage		800 VAC		800 VAC	
Non-repetitive Max. peak current		200 A			
Max. off-state leakage current		2 mA			
On state voltage drop		1.6 V			
Min. load current		70 mA			
Max. off-state slew rate (dv/dt)		700 V/μs			
Operating frequency range		47 Hz ~ 63 Hz			
<b>GENERAL CHARACTERISTICS</b>					
Zero-on, random-on		Z	R	Z	R
Max. turn-on time (60Hz)		8.3 ms	100 μs	8.3 ms	100 μs
Max. turn-off time (60Hz)		8.3 ms			
Insulation resistance		DC 500 V 10 <sup>9</sup> Ω Min. (between input & output, input/output & case)			
Dielectric strenght		3.5K VAC (between input & output)			
Capacitance		15 pF Max. (between input & output)			
Operating temperature		-20°C ~ +75°C			
Storage temperature		-40°C ~ +100°C			
Heatsink		2.1°C/W (Max. load current)			

Temperature derating chart  
15 A(rms), 480 VAC



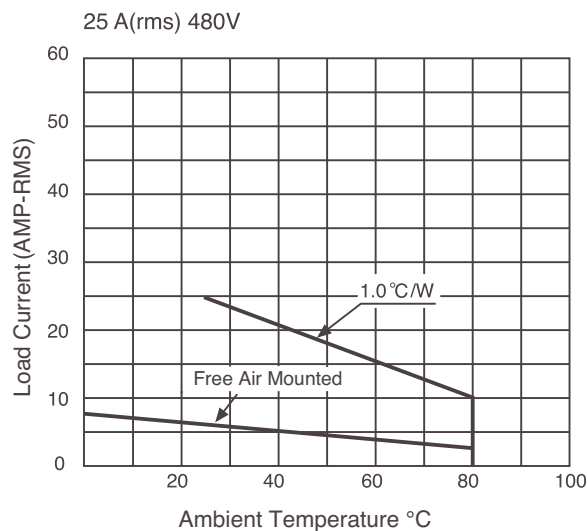
# RSR50

Power Type (10, 25, 40A)



DESCRIPTION	TYPES	RSR50			
		D32-A0-48-250-0	D32-A0-48-250-1	D32-A	
<b>INPUT CIRCUIT</b>					
LED indicate		YES		NO	
Control voltage range		4 - 32 VDC		3 - 32 VDC	
Control current		120 mA Max.		120 mA Max.	
Min. turn-off voltage		1.5 VDC		1 VDC	
Input impedance		270 Ω Min.		270 Ω Min.	
<b>OUTPUT CIRCUIT</b>					
Max. load current		25 A (rms)		25 A (rms)	
Nominal load voltage		440 VAC		440 VAC	
Load voltage range		48 - 480 VAC		48 - 480 VAC	
Non-repetitive Max. peak voltage		800 VAC		800 VAC	
Non-repetitive Max. peak current		250 A			
Max. off-state leakage current		1 mA			
On state voltage drop		1.6 V			
Min. load current		120 mA			
Max. off-state slew rate (dv/dt)		700 V/μs			
Operating frequency range		47 Hz ~ 63 Hz			
<b>GENERAL CHARACTERISTICS</b>					
Zero-on, random-on		Z	R	Z	R
Max. turn-on time (60Hz)		8.3 ms	100 μs	8.3 ms	100 μs
Max. turn-off time (60Hz)		8.3 ms			
Insulation resistance		DC 500 V 10 <sup>9</sup> Ω Min. (between input & output, input/output & case)			
Dielectric strenght		3.5K VAC (between input & output)			
Capacitance		15 pF Max. (between input & output)			
Operating temperature		-20°C ~ +75°C			
Storage temperature		-40°C ~ +100°C			
Heatsink		1.0°C /W (Max. load current)			

Temperature derating chart  
25 A(rms), 480 VAC



# RSR50

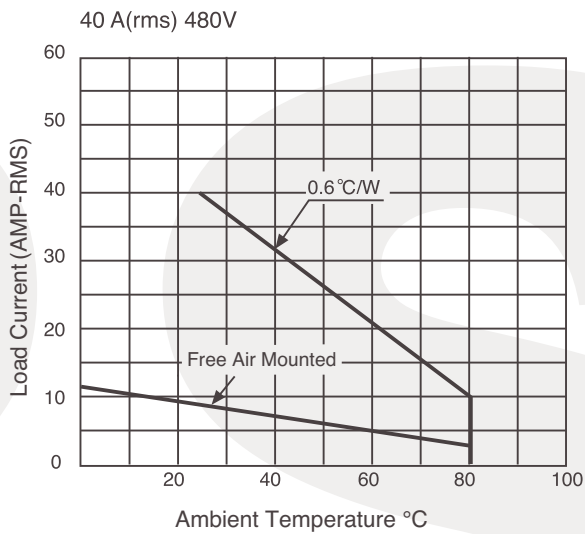
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Power Type (10, 25, 40A)



DESCRIPTION D32-A1-48-400-1	TYPES	RSR50			
		D32-A0-48-400-0	D32-A0-48-400-1	D32-	
<b>INPUT CIRCUIT</b>					
LED indicate		YES		NO	
Control voltage range		4 - 32 VDC		3 - 32 VDC	
Control current		120 mA Max.		120 mA Max.	
Min. turn-off voltage		1.5 VDC		1.5 VDC	
Input impedance		270 Ω Min.		270 Ω Min.	
<b>OUTPUT CIRCUIT</b>					
Max. load current		40 A (rms)		40 A (rms)	
Nominal load voltage		440 VAC		440 VAC	
Load voltage range		48 - 480 VAC		48 - 480 VAC	
Non-repetitive Max. peak voltage		800 VAC		800 VAC	
Non-repetitive Max. peak current		400 A			
Max. off-state leakage current		1 mA			
On state voltage drop		1.8 V			
Min. load current		120 mA			
Max. off-state slew rate (dv/dt)		900 V/μs			
Operating frequency range		47 Hz ~ 63 Hz			
<b>GENERAL CHARACTERISTICS</b>					
Zero-on, random-on		Z	R	Z	R
Max. turn-on time (60Hz)		8.3 ms	100 μs	8.3 ms	100 μs
Max. turn-off time (60Hz)		8.3 ms			
Insulation resistance		DC 500 V 10 <sup>9</sup> Ω Min. (between input & output, input/output & case)			
Dielectric strenght		3.5K VAC (between input & output)			
Capacitance		15 pF Max. (between input & output)			
Operating temperature		-20°C ~ +75°C			
Storage temperature		-40°C~ +100°C			
Heatsink		0.6°/W (Max. load current)			

Temperature derating chart  
40 A(rms), 480 VAC



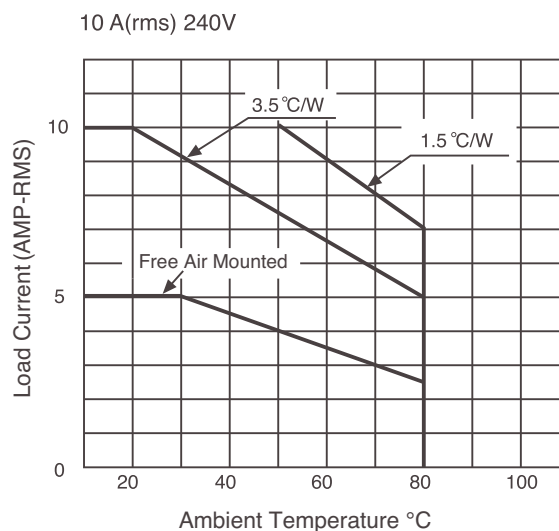
# RSR50

Power Type (10, 25, 40A)



DESCRIPTION	TYPES	RSR50	
		A28-A0-24-100-0	A28-A1-24-100-0
<b>INPUT CIRCUIT</b>			
LED indicate		YES	NO
Control voltage range		50 - 280 VAC	50 - 280 VAC
Control current		15 mA Max.	15 mA Max.
Min. turn-off voltage		40 VAC	35 VAC
Input impedance		106 K $\Omega$ Min.	106 K $\Omega$ Min.
<b>OUTPUT CIRCUIT</b>			
Max. load current		10 A (rms)	10A (rms)
Nominal load voltage		240 VAC	240 VAC
Load voltage range		24 - 280 VAC	24 - 280 VAC
Non-repetitive Max. peak voltage		600 VAC	600 VAC
Non-repetitive Max. peak current		125 A	
Max. off-state leakage current		1 mA	
On state voltage drop		1.6 V	
Min. load current		50 mA	
Max. off-state slew rate (dv/dt)		250 V/ $\mu$ s	
Operating frequency range		47 Hz ~ 63 Hz	
<b>GENERAL CHARACTERISTICS</b>			
Zero-on, random-on		Z	Z
Max. turn-on time (60Hz)		10 ms	10 ms
Max. turn-off time (60Hz)		20 ms	
Insulation resistance		DC 500 V 10 <sup>9</sup> $\Omega$ Min. (between input & output, input/output & case)	
Dielectric strenght		3.5K VAC (between input & output)	
Capacitance		15 pF Max (between input & output)	
Operating temperature		-20°C ~ +80°C	
Storage temperature		-40°C ~ +100°C	
Heatsink		3.5°C/W (Max. load current)	

Temperature derating chart  
10 A(rms), 240 VAC



# RSR50

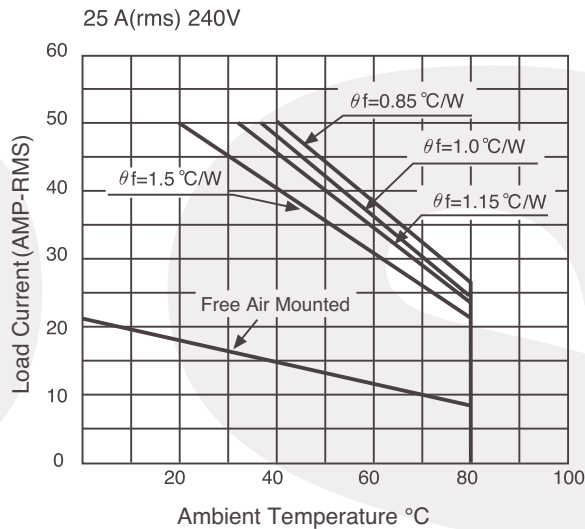
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Power Type (10, 25, 40A)



DESCRIPTION	TYPES	RSR50	
		A28-A0-24-250-0	A28-A1-24-250-0
<b>INPUT CIRCUIT</b>			
LED indicate		YES	NO
Control voltage range		50 - 280 VAC	50 - 280 VAC
Control current		15 mA Max.	15 mA Max.
Min. turn-off voltage		40 VAC	35 VAC
Input impedance		106 K $\Omega$ Min.	106 K $\Omega$ Min.
<b>OUTPUT CIRCUIT</b>			
Max. load current		25 A (rms)	25 A (rms)
Nominal load voltage		240 VAC	240 VAC
Load voltage range		24 - 280 VAC	24 - 280 VAC
Non-repetitive Max. peak voltage		600 VAC	600 VAC
Non-repetitive Max. peak current		260 A	
Max. off-state leakage current		7 mA	
On state voltage drop		1.6 V	
Min. load current		100 mA	
Max. off-state slew rate (dv/dt)		250 V/ $\mu$ s	
Operating frequency range		47 Hz ~ 63 Hz	
<b>GENERAL CHARACTERISTICS</b>			
Zero-on, random-on		Z	Z
Max. turn-on time (60Hz)		10 ms	10 ms
Max. turn-off time (60Hz)		20 ms	
Insulation resistance		DC 500 V 10 <sup>9</sup> $\Omega$ Min. (between input & output, input/output & case)	
Dielectric strenght		3.5K VAC (between input & output)	
Capacitance		15 pF Max. (between input & output)	
Operating temperature		-20°C ~ +80°C	
Storage temperature		-40°C ~ +100°C	
Heatsink		1.5°C/W (Max. load current)	

Temperature derating chart  
25 A(rms), 240 VAC





DESCRIPTION	TYPES	RSR50	
		A28-A0-24-400-0	A28-A1-24-400-0
<b>INPUT CIRCUIT</b>			
LED indicate		YES	NO
Control voltage range		50 - 280 VAC	50 - 280 VAC
Control current		15 mA Max.	15 mA Max.
Min. turn-off voltage		40 VAC	35 VAC
Input impedance		106 KΩ Min.	106 KΩ Min.
<b>OUTPUT CIRCUIT</b>			
Max. load current		40 A (rms)	40 A (rms)
Nominal load voltage		240 VAC	240 VAC
Load voltage range		24 - 280 VAC	24 - 280 VAC
Non-repetitive Max. peak voltage		600 VAC	600 VAC
Non-repetitive Max. peak current		315 A	
Max. off-state leakage current		7 mA	
On state voltage drop		1.8 V	
Min. load current		100 mA	
Max. off-state slew rate (dv/dt)		250 V/μs	
Operating frequency range		47 Hz ~ 63 Hz	
<b>GENERAL CHARACTERISTICS</b>			
Zero-on, random-on		Z	Z
Max. turn-on time (60Hz)		10 ms	10 ms
Max. turn-off time (60Hz)		20 ms	
Insulation resistance		DC 500 V 10 <sup>9</sup> Ω Min. (between input & output, input/output & case)	
Dielectric strenght		3.5K VAC (between input & output)	
Capacitance		15 pF Max. (between input & output)	
Operating temperature		-20°C ~ +75°C	
Storage temperature		-40°C ~ +100°C	
Heatsink		0.8°C/W (Max. load current)	

### Part numbering system

