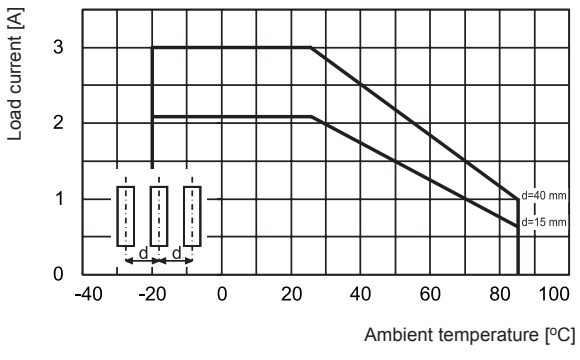
AC Load
- 3 A / 240 V

- Optically isolated • Input LED indicator
- High dV/dt capability and high blocking voltage
- Low input power consumption
- TTL and CMOS compatible
- Zero voltage turn-on, zero current turn-off
- Built-in snubber network
- Recognitions, certificates, directives: RoHS, cULus

Type of relay ❶ ❷	**D32-A0-24-030-0**	D32-A0-24-030-1	D32-A1-24-030-0	D32-A1-24-030-1
Input circuit				
LED indicator	LED red		–	
Nominal voltage	24 V DC		24 V DC	
Control voltage range	4...32 V DC		3...32 V DC	
Max. control current	15 mA at U = 32 V DC		15 mA at U = 32 V DC	
Release voltage	1,5 V DC		1,0 V DC	
Input resistance	2,0 kΩ		2,2 kΩ	
Output circuit				
Nominal load current	1,5 A AC see Fig.			
Max. load current	3 A AC see Fig.			
Nominal load voltage	rest condition: 240 V AC			
Load voltage range	24...280 V AC			
Non-repetitive peak voltage	rest condition: 600 V AC			
Non-repetitive surge current	operating state: 80 A			
Max. off-state leakage current	rest condition: 5 mA			
Max. on-state voltage drop	operating state: 1,5 V			
Min. load current	operating state: 50 mA			
Off-state dV/dt	max. allowable rate of voltage rise: 100 V/µs			
Operating frequency range	47...63 Hz			
General data				
Output circuit switching moment	Z ❸	R ❹	Z ❸	R ❹
Max. turn-on time	8,3 ms ❺	100 µs ❺	8,3 ms ❺	100 µs ❺
Max. turn-off time	8,3 ms ❺			
Min. insulation resistance	between input and output, input / output and cover: 100 MΩ 500 V DC			
Insulation dielectric strength	between input and output: 2 500 V AC 1 minute			
Max. capacitance	between input and output: 10 pF			
Dimensions (L x W x H)	43,1 x 10,2 x 25,4 mm			
Weight	18,5 g			
Storage temperature	-40...+100 °C			
Operating temperature	-20...+85 °C rated value: +50 °C see Fig.			

Load current in the function of the ambient temperature and distances between relays



Dimensions, mounting openings raster, ordering codes - see page 9

❶ The data in bold type pertain to the standard versions of the relays.
❷ Basic technical data at 20 °C
❸ Z - switching of the output circuit at zero voltage transition
❹ R - instantaneous switching of the output circuit
❺ At rated voltage

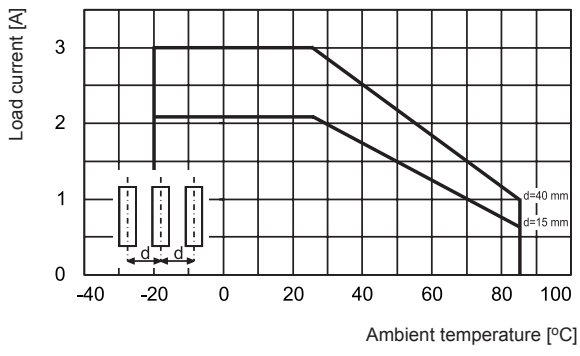
NEW product

AC Load
- 3 A / 380 V

- **Applications**: lamp and motor load switching
- **Mounting**: relays RSR20 are designed for direct PCB mounting, single in line package

Type of relay ❶ ❷	**D32-A0-38-030-0**	D32-A1-38-030-0
Input circuit		
LED indicator	LED red	–
Nominal voltage	24 V DC	24 V DC
Control voltage range	4...32 V DC	3...32 V DC
Max. control current	16 mA at U = 32 V DC	16 mA at U = 32 V DC
Release voltage	1,5 V DC	1,0 V DC
Input resistance	2,0 kΩ	2,2 kΩ
Output circuit		
Nominal load current	1,5 A AC see Fig.	
Max. load current	3 A AC see Fig.	
Nominal load voltage	rest condition: 380 V AC	
Load voltage range	48...415 V AC	
Non-repetitive peak voltage	rest condition: 800 V AC	
Non-repetitive surge current	operating state: 120 A	
Max. off-state leakage current	rest condition: 5 mA	
Max. on-state voltage drop	operating state: 1,6 V	
Min. load current	operating state: 50 mA	
Off-state dV/dt	max. allowable rate of voltage rise: 500 V/µs	
Operating frequency range	47...63 Hz	
General data		
Output circuit switching moment	Z ❸	
Max. turn-on time	8,3 ms ❺	
Max. turn-off time	8,3 ms ❺	
Min. insulation resistance	between input and output, input / output and cover: 100 MΩ 500 V DC	
Insulation dielectric strength	between input and output: 4 000 V AC 1 minute	
Max. capacitance	between input and output: 10 pF	
Dimensions (L x W x H)	43,1 x 10,2 x 25,4 mm	
Weight	18,5 g	
Storage temperature	-40...+100 °C	
Operating temperature	-20...+80 °C rated value: +50 °C see Fig.	

Load current in the function of the ambient temperature and distances between relays



Dimensions, mounting openings raster, ordering codes - see page 9

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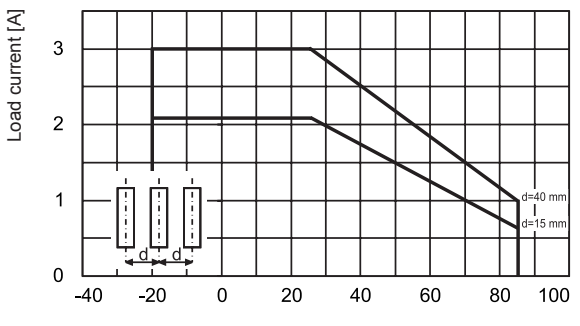
❷ Basic technical data at 20 °C
❸ Z - switching of the output circuit at zero voltage transition
❺ At rated voltage

DC Load
- 3 A / 60 V

Type of relay ❶ ❷	**D32-D0-06-030-1**	D32-D1-06-030-1
Input circuit		
LED indicator	LED red	–
Nominal voltage	24 V DC	24 V DC
Control voltage range	4...32 V DC	3...32 V DC
Max. control current	15 mA at U = 32 V DC	15 mA at U = 32 V DC
Release voltage	1,5 V DC	1,0 V DC
Input resistance	2,0 kΩ	2,2 kΩ
Output circuit		
Nominal load current	1,5 A DC see Fig.	
Max. load current	3 A DC see Fig.	
Nominal load voltage	rest condition: 60 V DC	
Load voltage range	3...60 V DC	
Non-repetitive peak voltage	rest condition: 60 V DC	
Non-repetitive surge current	operating state: 5 A	
Max. off-state leakage current	rest condition: 1 mA	
Max. on-state voltage drop	operating state: 1,5 V	
Min. load current	operating state: 10 mA	
Operation resistance	operating state: 1 Ω	
General data		
Output circuit switching moment	R ❹	
Max. turn-on time	50 µs ❺	
Max. turn-off time	100 µs ❺	
Min. insulation resistance	between input and output, input / output and cover: 100 MΩ 500 V DC	
Insulation dielectric strength	between input and output: 3 500 V AC 1 minute	
Max. capacitance	between input and output: 10 pF	
Dimensions (L x W x H)	43,1 x 10,2 x 25,4 mm	
Weight	18,5 g	
Storage temperature	-40...+100 °C	
Operating temperature	-20...+80 °C rated value: +50 °C see Fig.	

Load current in the function of the ambient temperature and distances between relays



Dimensions, mounting openings raster, ordering codes - see page 9

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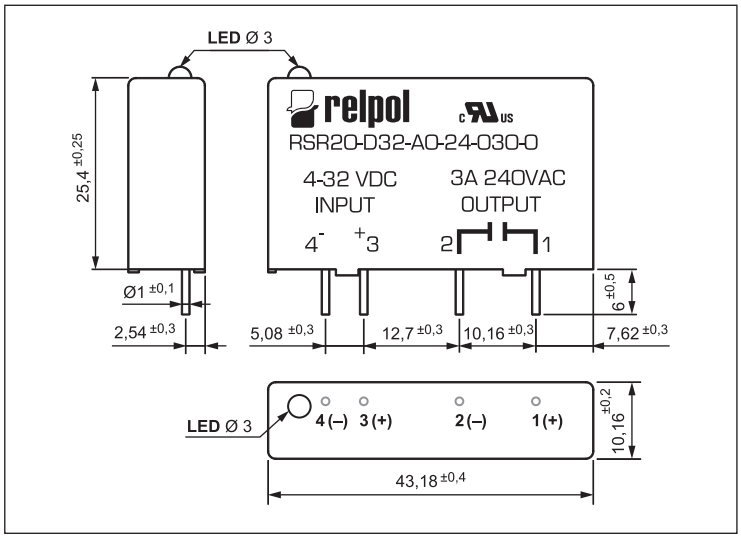
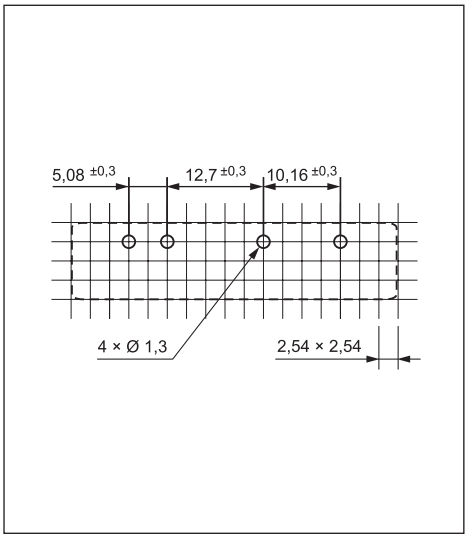
❷ Basic technical data at 20 °C
❹ R - instantaneous switching of the output circuit
❺ At rated voltage

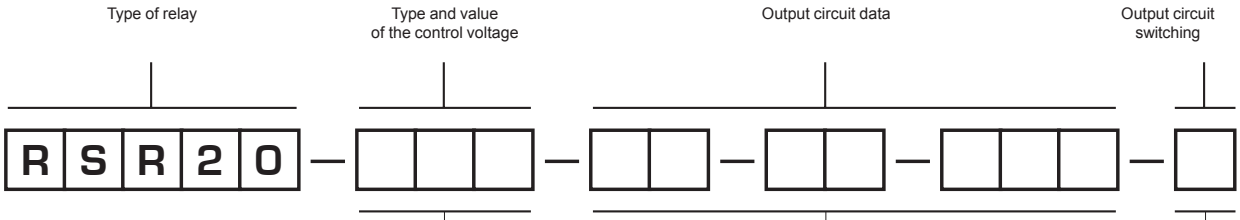
Dimensions



Mounting openings raster



Ordering codes



Type and value of the control voltage

D32 - maximum control voltage 32 V DC

Output circuit data

A0-24-030 - output voltage 240 V AC,
maximum output circuit current 3 A AC, with operation state signalling

A1-24-030 - output voltage 240 V AC,
maximum output circuit current 3 A AC, without operation state signalling

A0-38-030 - output voltage 380 V AC,
maximum output circuit current 3 A AC, with operation state signalling

A1-38-030 - output voltage 380 V AC,
maximum output circuit current 3 A AC, without operation state signalling

D0-06-030 - output voltage 60 V DC,
maximum output circuit current 3 A DC, with operation state signalling

D1-06-030 - output voltage 60 V DC,
maximum output circuit current 3 A DC, without operation state signalling

Output circuit switching

0 - relay making at zero voltage
and breaking at zero current
(only for versions 240 V AC and 380 V AC)

1 - instantaneous switching relay

Example of ordering code:

RSR20-D32-A0-24-030-0 solid state relay **RSR20**, maximum control voltage 32 V DC, rated voltage of output circuit - load 240 V AC, maximum output circuit current 3 A AC, with operation state signalling (LED red), making at zero voltage and breaking at zero current