

50  
years  
1958-2008

# Solid state relays

- relays RSR20
- slim relays RSR30
- miniature relays RSR40
- power relays RSR50
- three phase relays RSR60



# Automation is our passion



**For dozens of years now, Relpol S.A.**

has been a worldwide known supplier of components

used in industrial and power automation, power electronics, industrial and applied electronics, telecommunication, etc.



Apart from complete delivery of components, Relpol S.A. provides its partners with technical consultancy based upon **extensive knowledge of the application of the components.**

Taking into account **the significant role of the products of Relpol S.A.**, we have made their quality improvement our priority strategic goal.

**You are welcome to review** our catalogs which present a very wide line of products for industrial automation.

**Due to the wide line of products,** orders of non-standard products should be consulted with the manufacturer or distributor.



## The leading position

of the manufacturer of electromagnetic relays in Europe

provides for Relpol's presence  
in markets worldwide.

### Commercial Partnerships of Relpol S.A.

**RELPOL M** Minsk / Belarus

**RELPOL BG** Varna / Bulgaria

**RELPOL HUNGARY** Budapest / Hungary

**RELPOL BALTIJA** Vilnius / Lithuania

**RELPOL ELTIM** Sankt-Petersburg / Russia

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**RELPOL FRANCE** Paris / France

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# In automation for you



## The standards quality guaranteed

Taking into account the high requirements of the market and our customers' full satisfaction, Relpol S.A. constantly strives for improvement of the quality of the products and services we offer. Our own technological, designing and research facilities remarkably help us to achieve our goals.

The modern production profile and high quality of the products that comply with the requirements of the European Union are confirmed by the ISO 9001 : 2001, ISO 14001 : 2005 CERTIFICATES.

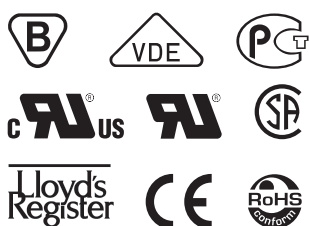
ISO 9001 : 2001

ISO 14001 : 2005

The Gold Statuette of the Business Centre Club 1995 / EUROPRODUCT 2002 / EUROPRODUCT 2003 / the Statuette of the Minister of Economic Affairs, Labor and Social Policy 2003 / GOLD EUROPRODUCT 2003 / ELECTROPRODUCT 2003 / GOLD MEDAL Automaticon 2004 / the Statuette for the Pillar of the Polish Economy 2004 / Product of the Year 2005

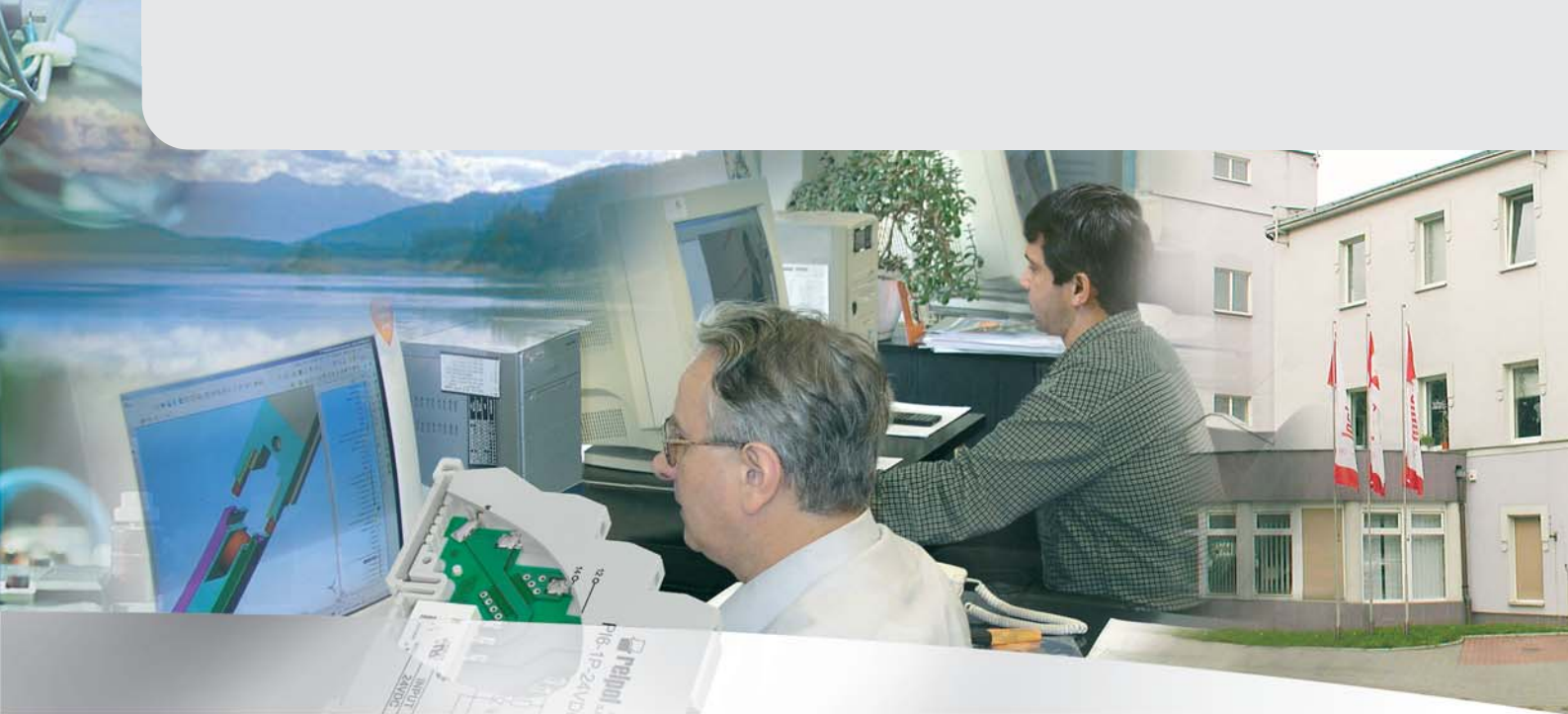
## The innovative features of our technological solutions

and the reliability of our products



are confirmed by numerous recognitions and certifications BBJ, VDE, UL, CSA, GOST, LR, RoHS and by prizes and awards.





## Relations and trust

Our co-operation with numerous renowned suppliers of materials and components necessary for the production process allows us to realize even complex deliveries quickly and smoothly. We build long-term partnership relations with our customers.

Owing to regular consultations and steady contribution of our Partners to our activities, we gain the knowledge necessary for reliable and professional services.

Relpol S.A. runs its own Research and Development Department which designs new products to follow the worldwide trends and solutions in the electrotechnical industry.

The permanent development of our staff along with human resources stabilization provide our customers with professional service.

Relpol S.A. Technical Support Department advises the Client and helps to solve the problems of electrical applications and, thus, enhances their satisfaction at cooperation with ourselves.

The long years of experience, the knowledge of the electrotechnical industry and the market activities of Relpol S.A. have been proved by co-operation with the largest corporations worldwide.

## Environment protection

With the development of technology we shall not forget

about the issues of the environment protection.

Reduction of the natural environment pollution with regard to the production process and the products of Relpol S.A. is a constant process aimed at minimizing of the environmental impact.

**Our products meet the requirements of the RoHS Directive.**



## Solid state relays



### Solid state relays

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### Slim

### solid state relays

RSR30 ..... 10



### Miniature

### solid state relays

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### Power

### solid state relays

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### Three phase

### solid state relays

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## **Relpol SSRs offer the user many outstanding features**

and should be treated as a separate class of relay. However, due to the design of SSRs, the user is always faced with a few limitations which are different from those of electromechanical relays. The following outline of advantages and limitations of SSRs will serve as a guide to the professional use of these devices.

**Advantages:**

- long life and high reliability - more than 10<sup>9</sup> operations,
- no contact arcing, low EMI, high surge capability,
- high resistance to shock and vibration,
- high resistance to aggressive chemicals and dust,
- no electromechanical noise,
- logic compatibility,
- fast switching,
- low coupling capacitance.

In Relpol SSRs an optimized thermal design is achieved by applying the "**Direct Copper Bonding**" technology /DCB/. This technology finally eliminates the thermal fatigue between chip /silicon/ and terminals /copper/. Furthermore, it reduces the thermal resistance between junction and ambient. The DCB substrate, on which the chip is soldered, consists of a ceramic insulator /Al<sub>2</sub>O<sub>3</sub>/ with a layer of copper /Cu/ on both sides. The copper is bonded with the ceramic material in order to get similar thermal expansion conditions for both materials. Thereby the mechanical stress between silicon chip and copper will be minimized while the relay is in operation.




**Instant-on SSRs feature a turn-on time of less than 1 ms.** This fast switching capability makes it possible to phase angle control the power output by means of an external control circuit. In the analog switching relay this function is already built-in.

SSRs are available with input circuits which are directly **compatible with logic components for CMOS, TTL**, microprocessors or analog circuits. Logic compatibility is important since SSRs are often directly controlled by PLCs or other logic outputs.

Relpol SSRs **do not create mechanical noise** since everything is controlled entirely electronically. In applications such as office machinery or in medical equipment this is for the benefit of the user.


No arcing will occur on the contacts since switching takes place inside the semiconductor material, which changes from a non-conductor to a conductor at the signal of the control input. Line and load radiation are reduced considerably because the SCRs, alternistors or triacs are basically current latching devices, which will turn off as soon as the current is near zero.

This is known as "zero crossing turn off". This greatly reduces the radiated electromagnetic interference /EMI/, and this reduction of EMI is often well received by the equipment designers.

The relays are recognized and certified by:  **UL**  
They meet the requirements of RoHS Directive.

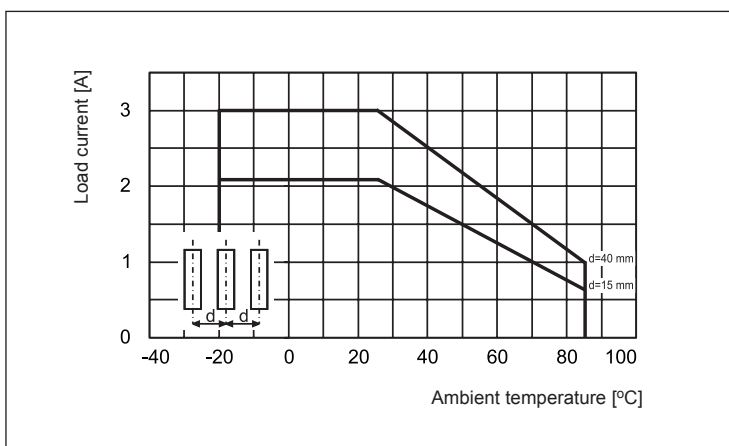


**AC Load**  
- 3 A / 240 V

- 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, 

Type of relay ① ②	D32-A0-24-030-0	D32-A0-24-030-1	D32-A1-24-030-0	D32-A1-24-030-1
<b>Input circuit</b>				
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	
<b>Output circuit</b>				
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			
<b>General data</b>				
Output circuit switching moment	Z ③	R ④	Z ③	R ④
Max. turn-on time	8,3 ms ⑤	100 μs ⑤	8,3 ms ⑤	100 μs ⑤
Max. turn-off time	8,3 ms ⑤			
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

- ① The data in bold type pertain to the standard versions of the relays.
- ② Basic technical data at 20 °C
- ③ Z - switching of the output circuit at zero voltage transition
- ④ R - instantaneous switching of the output circuit
- ⑤ At rated voltage





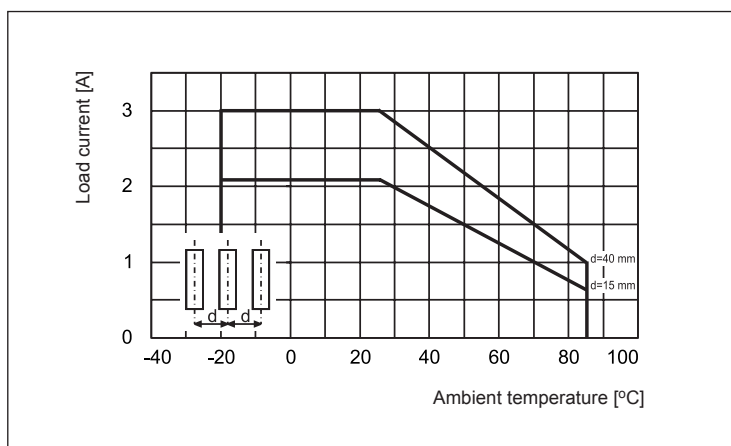
**NEW**  
product

**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 ① ②	D32-A0-38-030-0	D32-A1-38-030-0
<b>Input circuit</b>		
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
<b>Output circuit</b>		
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	
<b>General data</b>		
Output circuit switching moment	Z ③	
Max. turn-on time	8,3 ms ⑤	
Max. turn-off time	8,3 ms ⑤	
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

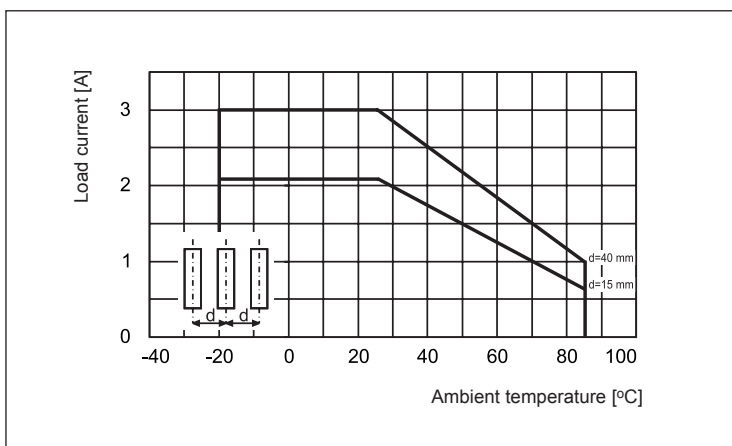
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- ③ Z - switching of the output circuit at zero voltage transition
- ⑤ At rated voltage



**DC Load**  
**- 3 A / 60 V**

Type of relay ❶ ❷	D32-D0-06-030-1	D32-D1-06-030-1
<b>Input circuit</b>		
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 k $\Omega$	2,2 k $\Omega$
<b>Output circuit</b>		
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 $\Omega$	
<b>General data</b>		
Output circuit switching moment	R ❸	
Max. turn-on time	50 $\mu$ s ❹	
Max. turn-off time	100 $\mu$ s ❹	
Min. insulation resistance	between input and output, input / output and cover: 100 M $\Omega$ 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.	

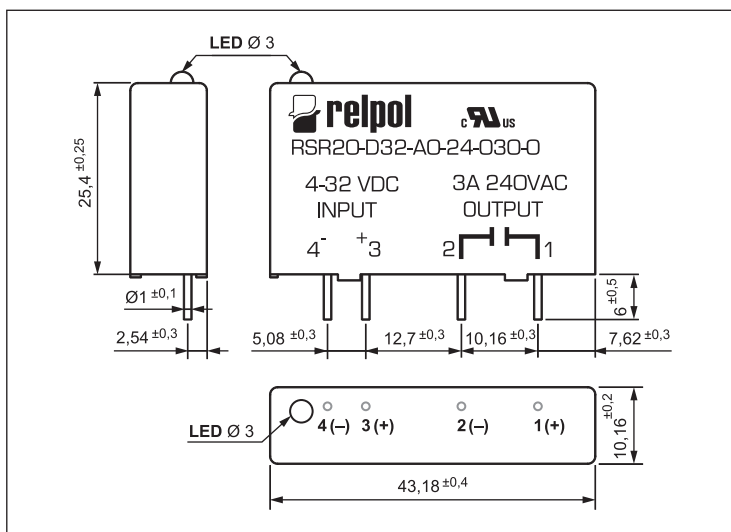
### Load current in the function of the ambient temperature and distances between relays



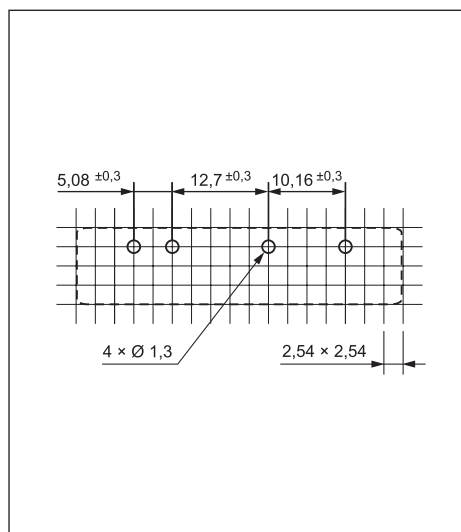
### Dimensions, mounting openings raster, ordering codes - see page 9

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

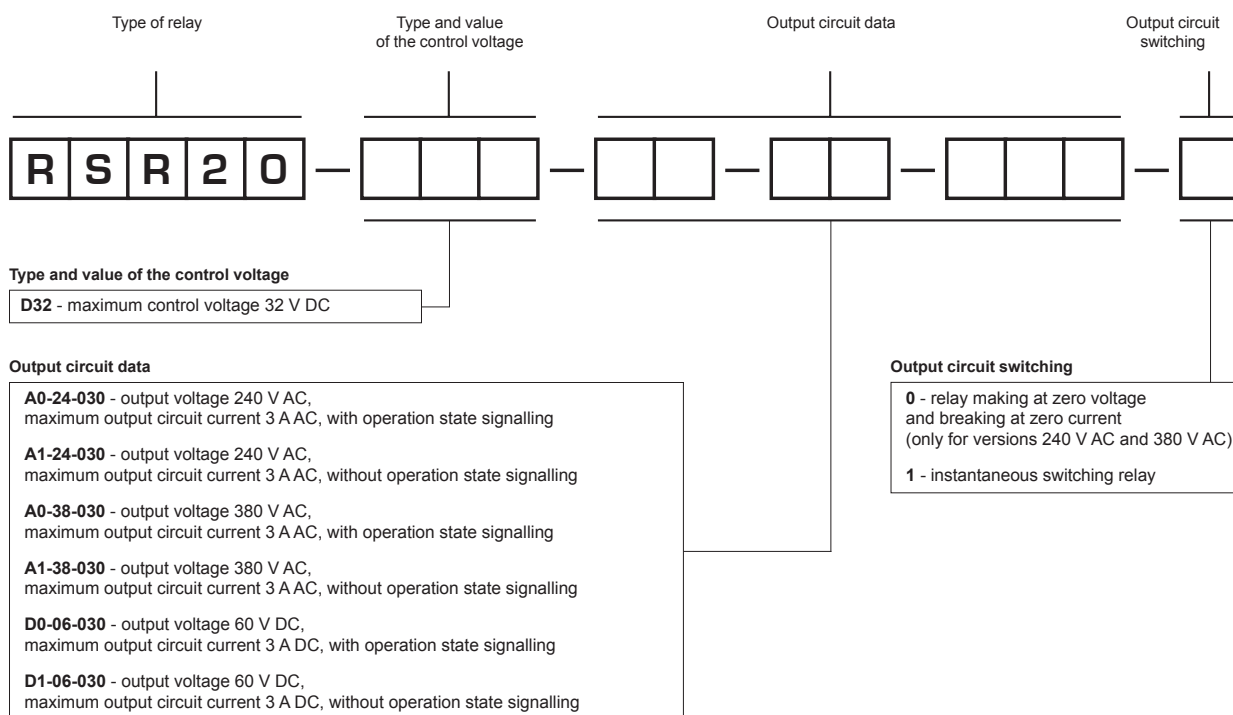
## Dimensions



## Mounting openings raster



## Ordering codes




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

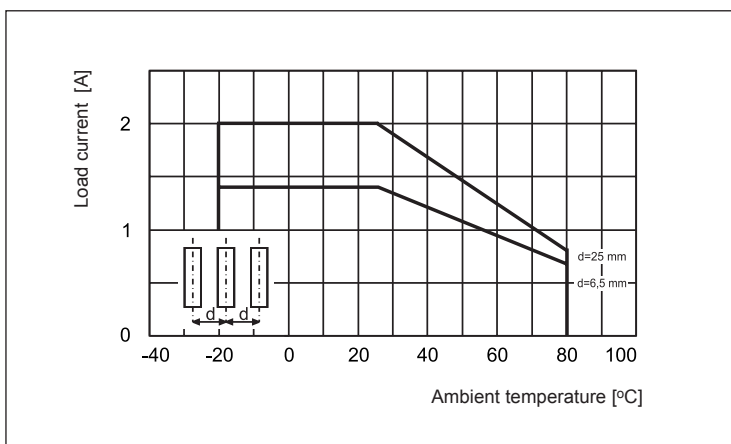


**AC Load**  
- 2 A / 240 V

- Optically isolated
- Low on-state resistance
- Low input power consumption
- TTL and CMOS compatible
- RC networks (V AC)
- MOSFET output thyristor (V DC)
- Recognitions, certificates, directives: RoHS, 

Type of relay ① ②	D05-A1-24-020-1	D12-A1-24-020-1	D24-A1-24-020-1
<b>Input circuit</b>			
Nominal voltage	5 V DC	12 V DC	24 V DC
Control voltage range	3...10 V DC	7...20 V DC	18...32 V DC
Max. control current	12 mA	10 mA	7,7 mA
Release voltage	1,0 V DC	1,0 V DC	1,0 V DC
Input resistance	320 Ω	1,07 kΩ	3,0 kΩ
<b>Output circuit</b>			
Nominal load current		1 A AC see Fig.	
Max. load current		2 A AC see Fig.	
Nominal load voltage		rest condition: 240 V AC	
Load voltage range		12...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: 1,5 mA	
Max. on-state voltage drop		operating state: 1,2 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...400 Hz	
RC snubber		10 nF, 100 Ω	
<b>General data</b>			
Output circuit switching moment		<b>R</b> ④	
Max. turn-on time		100 μs ⑤	
Max. turn-off time		1/2 cycle + 1 ms ⑤	
Insulation dielectric strength		between input and output: 4 000 V AC 1 minute	
Dimensions (L x W x H)		28 x 5 x 15 mm	
Weight		4 g	
Storage temperature		-40...+100 °C	
Operating temperature		-20...+80 °C rated value: +55 °C see Fig.	
Max. solder bath temperature		220 °C 10 s	

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



### Dimensions, mounting openings raster, ordering codes - see page 14

- ① The data in bold type pertain to the standard versions of the relays.
- ② Basic technical data at 20 °C
- ④ R - instantaneous switching of the output circuit
- ⑤ At rated voltage

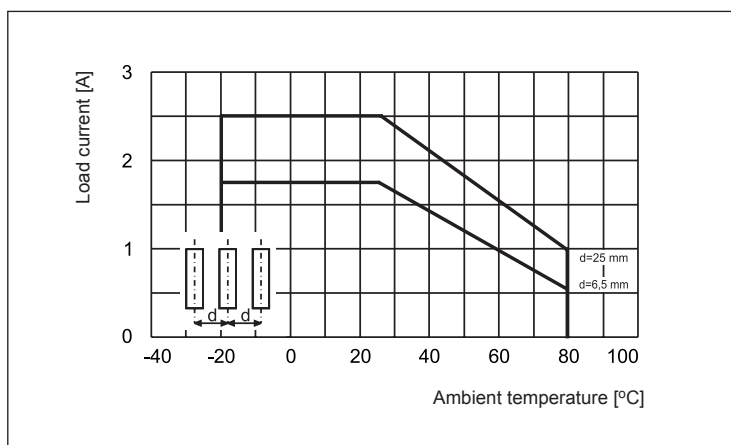


**DC Load**  
- 2,5 A / 48 V

- **Applications:** household appliances, temperature control system, industrial automatic control, light system, office appliances, factory appliances
- **Mounting:** relays RSR30 are designed for direct PCB mounting, single in line package

Type of relay ① ②	DO5-D1-04-025-1	D12-D1-04-025-1	<b>D24-D1-04-025-1</b>	D48-D1-04-025-1
<b>Input circuit</b>				
Nominal voltage	5 V DC	12 V DC	24 V DC	48 V DC
Control voltage range	3...10 V DC	7...20 V DC	18..32 V DC	38..58 V DC
Max. control current	12 mA	10 mA	7,7 mA	4,4 mA
Release voltage	1,8 V DC	3,6 V DC	8,3 V DC	8,3 V DC
Input resistance	320 Ω	1,07 kΩ	3,0 kΩ	10,8 kΩ
<b>Output circuit</b>				
Nominal load current	1 A DC see Fig.			
Max. load current	2,5 A DC see Fig.			
Nominal load voltage	rest condition: 48 V DC			
Load voltage range	0..60 V DC			
Non-repetitive peak voltage	rest condition: 100 V DC			
Non-repetitive surge current	operating state: 6 A			
Max. off-state leakage current	rest condition: 1 mA			
Max. on-state voltage drop	operating state: 0,4 V			
Min. load current	operating state: 1 mA			
Operation resistance	operating state: 160 mΩ ③			
Peak power dissipation	600 W			
Operating switching frequency	10 Hz			
Transient voltage suppressor	Yes			
Max. voltage of suppressor operation	60 V DC			
<b>General data</b>				
Output circuit switching moment	R ④			
Max. turn-on time	50 μs ⑤			
Max. turn-off time	600 μs ⑤			
Insulation dielectric strength	between input and output: 3 750 V AC 1 minute			
Dimensions (L x W x H)	28 x 5 x 15 mm			
Weight	4 g			
Storage temperature	-25...+100 °C			
Operating temperature	-20...+80 °C rated value: +55 °C see Fig.			
Max. solder bath temperature	220 °C 10 s			

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



### Dimensions, mounting openings raster, ordering codes - see page 14

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- ② Basic technical data at 20 °C
- ④ R - instantaneous switching of the output circuit
- ⑤ At rated voltage
- ⑥ At rated current

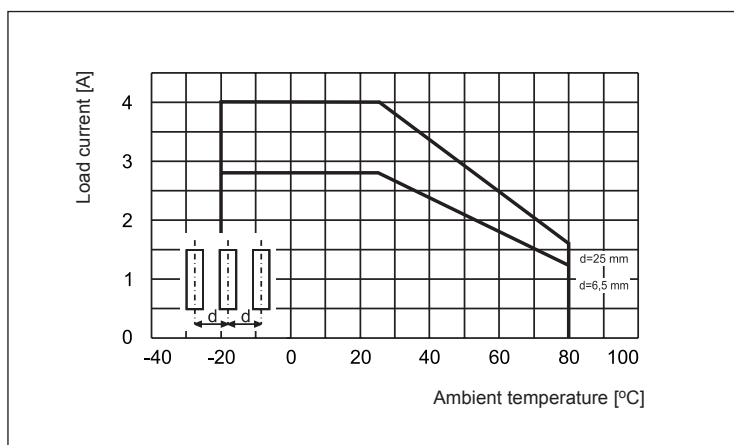


**DC Load**  
**- 4 A / 24 V**

Type of relay ❶ ❷	D05-D1-02-040-1	<b>D12-D1-02-040-1</b>	D24-D1-02-040-1	D48-D1-02-040-1
<b>Input circuit</b>				
Nominal voltage	5 V DC	12 V DC	24 V DC	48 V DC
Control voltage range	3...10 V DC	7...20 V DC	18..32 V DC	38..58 V DC
Max. control current	12 mA	10 mA	7,7 mA	4,4 mA
Release voltage	1,8 V DC	3,6 V DC	8,3 V DC	8,3 V DC
Input resistance	320 Ω	1,07 kΩ	3,0 kΩ	10,8 kΩ
<b>Output circuit</b>				
Nominal load current	2 A DC see Fig.			
Max. load current	4 A DC see Fig.			
Nominal load voltage	rest condition: 24 V DC			
Load voltage range	0...32 V DC			
Non-repetitive peak voltage	rest condition: 60 V DC			
Non-repetitive surge current	operating state: 6 A			
Max. off-state leakage current	rest condition: 1 mA			
Max. on-state voltage drop	operating state: 0,24 V			
Min. load current	operating state: 1 mA			
Operation resistance	operating state: 120 mΩ			
Peak power dissipation	600 W			
Operating switching frequency	10 Hz			
Transient voltage suppressor	Yes			
Max. voltage of suppressor operation	36 V DC			
<b>General data</b>				
Output circuit switching moment	R ❸			
Max. turn-on time	50 μs ❹			
Max. turn-off time	600 μs ❹			
Insulation dielectric strength	between input and output: 3 750 V AC 1 minute			
Dimensions (L x W x H)	28 x 5 x 15 mm			
Weight	4 g			
Storage temperature	-25...+100 °C			
Operating temperature	-20...+80 °C rated value: +55 °C see Fig.			
Max. solder bath temperature	220 °C 10 s			

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

### Dimensions, mounting openings raster, ordering codes - see page 14



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

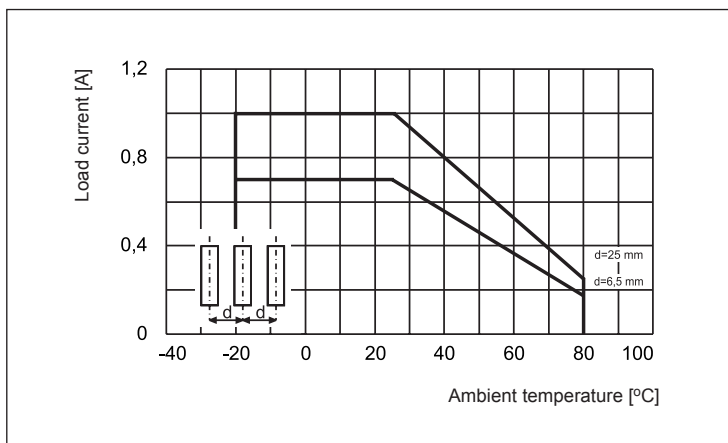
**NEW**  
product



**DC Load**  
**- 1 A / 100 V**

Type of relay ① ②	D05-D1-24-010-1	<b>D12-D1-24-010-1</b>	D24-D1-24-010-1	D48-D1-24-010-1
<b>Input circuit</b>				
Nominal voltage	5 V DC	12 V DC	24 V DC	48 V DC
Control voltage range	3...10 V DC	7...20 V DC	18..32 V DC	38..58 V DC
Max. control current	12 mA	10 mA	7,7 mA	4,4 mA
Release voltage	1,8 V DC	3,6 V DC	8,3 V DC	8,3 V DC
Input resistance	320 Ω	1,07 kΩ	3,0 kΩ	10,8 kΩ
<b>Output circuit</b>				
Nominal load current	0,4 A DC see Fig.			
Max. load current	1 A DC see Fig.			
Nominal load voltage	rest condition: 100 V DC			
Load voltage range	0...180 V DC			
Non-repetitive peak voltage	rest condition: 180 V DC			
Non-repetitive surge current	operating state: 6 A			
Max. off-state leakage current	rest condition: 1 mA			
Max. on-state voltage drop	operating state: 0,6 V			
Min. load current	operating state: 1 mA			
Operation resistance	operating state: 1,5 Ω ⑦			
Peak power dissipation	600 W			
Operating switching frequency	10 Hz			
Transient voltage suppressor	Yes			
Max. voltage of suppressor operation	180 V DC			
<b>General data</b>				
Output circuit switching moment	R ④			
Max. turn-on time	50 μs ⑤			
Max. turn-off time	600 μs ⑤			
Insulation dielectric strength	between input and output: 2 500 V AC 1 minute			
Dimensions (L x W x H)	28 x 5 x 15 mm			
Weight	4 g			
Storage temperature	-25...+100 °C			
Operating temperature	-20...+80 °C rated value: +55 °C see Fig.			
Max. solder bath temperature	220 °C 10 s			

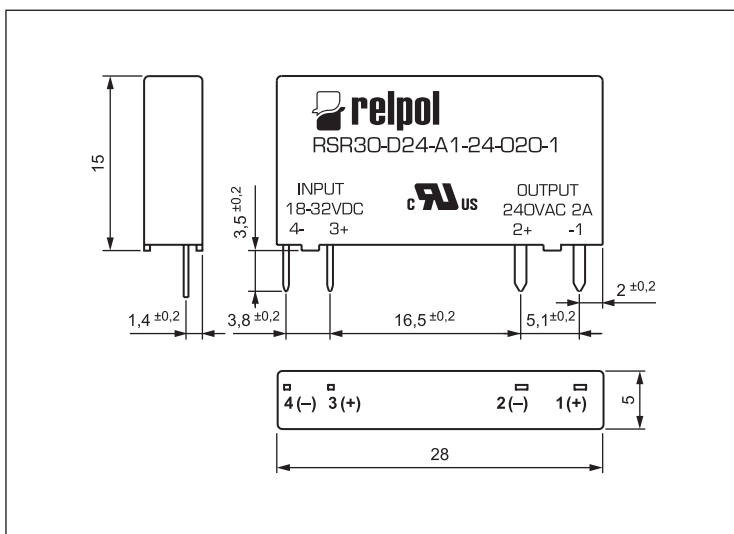
### Load current in the function of the ambient temperature and distances between relays



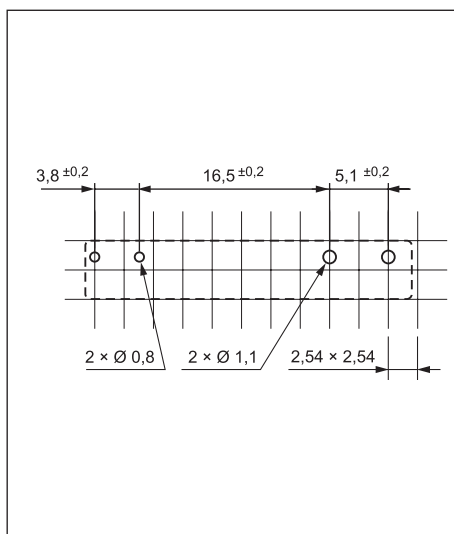
### Dimensions, mounting openings raster, ordering codes - see page 14

- ① The data in bold type pertain to the standard versions of the relays.
- ② Basic technical data at 20 °C
- ④ R - instantaneous switching of the output circuit
- ⑤ At rated voltage
- ⑦ Maximum value

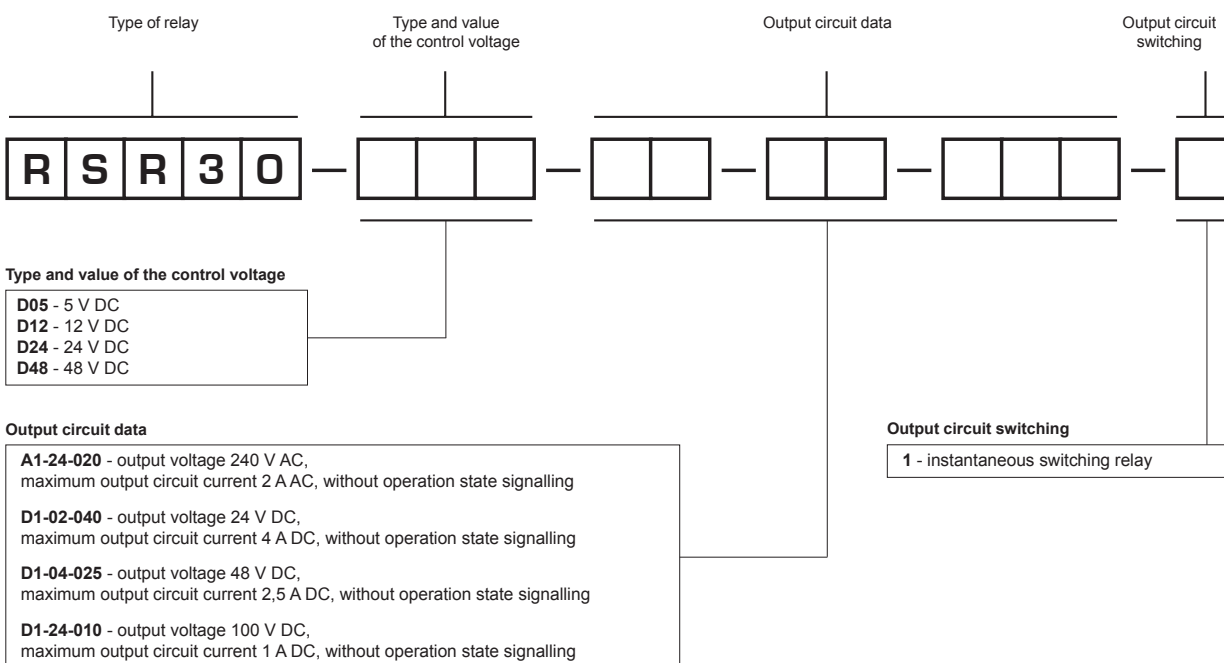
### Dimensions



### Mounting openings raster



### Ordering codes




Example of ordering code:

**RSR30-D12-D1-24-010-1** solid state relay **RSR30**, rated control voltage 12 V DC, rated voltage of output circuit - load 100 V DC, maximum output circuit current 1 A DC, without operation state signalling, instantaneous switching



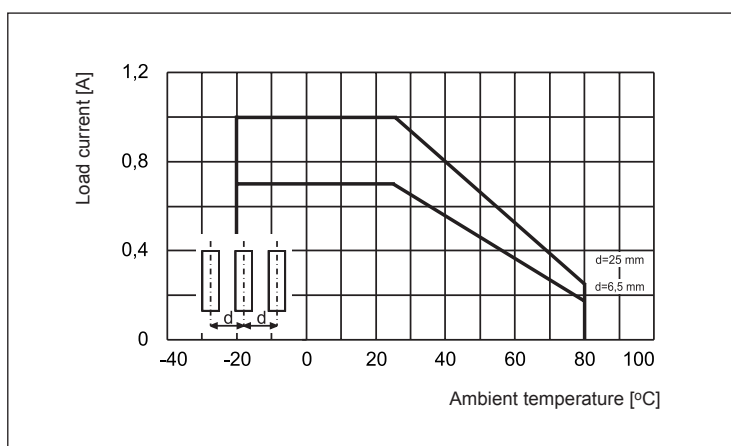


**AC Load**  
- 1 A / 240 V

- Optically isolated
- Ultra slim and light weight, SIL terminals type for high density mounting
- Low on-state resistance • Low input power consumption
- TTL and CMOS compatible
- RC networks (V AC)
- MOSFET output thyristor (V DC)
- Recognitions, certificates, directives: RoHS, 

Type of relay ① ②	D05-A1-24-010-1-0	D12-A1-24-010-1-0	<b>D24-A1-24-010-1-0</b>
<b>Input circuit</b>			
Nominal voltage	5 V DC	12 V DC	24 V DC
Control voltage range	3...10 V DC	17...20 V DC	18...32 V DC
Max. control current	12 mA	10 mA	7,7 mA
Release voltage	1,0 V DC	1,0 V DC	1,0 V DC
Input resistance	320 Ω	1,07 kΩ	3,0 kΩ
<b>Output circuit</b>			
Nominal load current		0,4 AAC see Fig.	
Max. load current		1 AAC see Fig.	
Nominal load voltage		rest condition: 240 V AC	
Load voltage range		24...265 V AC	
Non-repetitive peak voltage		rest condition: 600 V AC	
Non-repetitive surge current		operating state: 50 A	
Max. off-state leakage current		rest condition: 2 mA	
Max. on-state voltage drop		operating state: 1,5 V	
Min. load current		operating state: 50 mA	
<b>General data</b>			
Output circuit switching moment		<b>R ④</b>	
Max. turn-on time		1 ms ⑤	
Max. turn-off time		1/2 cycle + 1 ms ⑤	
Min. insulation resistance		between input and output: 1 000 MΩ 500 V DC	
Insulation dielectric strength		between input and output: 2 500 V AC 1 minute	
Dimensions (L x W x H)		20 x 5 x 17 mm	
Weight		3 g	
Storage temperature		-40...+100 °C	
Operating temperature		-30...+85 °C rated value: +55 °C see Fig.	
Max. solder bath temperature		220 °C 10 s	

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



### Dimensions, mounting openings raster, ordering codes - see page 17

- ① The data in bold type pertain to the standard versions of the relays.
- ② Basic technical data at 20 °C
- ④ R - instantaneous switching of the output circuit
- ⑤ At rated voltage

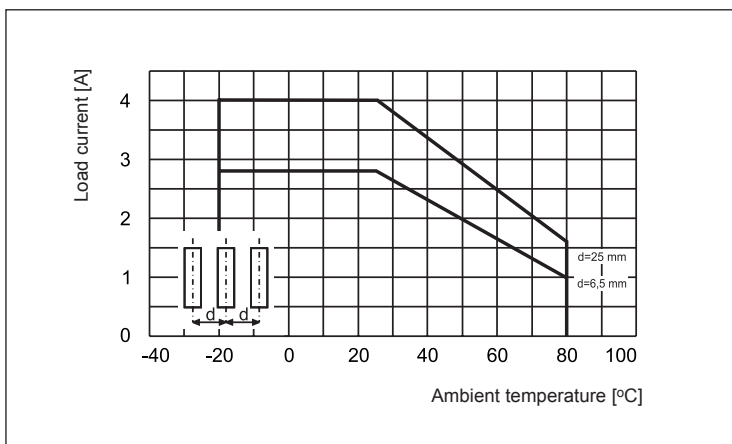


## DC Load - 4 A / 24 V

- **Applications:** temperature control system, industrial automatic control, light system, office appliances, factory appliances
- **Mounting:** relays RSR40 are designed for direct PCB mounting, single in line package

Type of relay ① ②	D05-D1-02 -040-1-P	D12-D1-02 -040-1-P	<b>D24-D1-02 -040-1-P</b>	D05-D1-02 -40-1-N	D12-D1-02 -40-1-N	<b>D24-D1-02 -40-1-N</b>
<b>Input circuit</b>						
Nominal voltage	5 V DC	12 V DC	24 V DC	5 V DC	12 V DC	24 V DC
Control voltage range	3...10 V DC	7...20 V DC	18..32 V DC	3...10 V DC	7...20 V DC	18..32 V DC
Max. control current	12 mA	10 mA	7,7 mA	12 mA	10 mA	7,7 mA
Release voltage	1,0 V DC	1,0 V DC	1,0 V DC	1,0 V DC	1,0 V DC	1,0 V DC
Input resistance	320 Ω	1,07 kΩ	3,0 kΩ	320 Ω	1,07 kΩ	3,0 kΩ
<b>Output circuit</b>						
Nominal load current	2 A DC see Fig.					
Max. load current	4 A DC see Fig.					
Nominal load voltage	rest condition: 24 V DC					
Load voltage range	0...30 V DC					
Non-repetitive surge current	operating state: 7 A 10 ms					
Max. off-state leakage current	rest condition: 1 mA					
Max. on-state voltage drop	operating state: 0,24 V					
Min. load current	operating state: 1 mA					
Operation resistance	operating state: 120 mΩ					
Operating switching frequency	10 Hz					
Output polarisation	P - 1(+)/ 2(-)			N - 1(-)/ 2(+)		
<b>General data</b>						
Output circuit switching moment	R ④					
Max. turn-on time	1 ms ⑤					
Max. turn-off time	0,1 ms ⑤					
Min. insulation resistance	between input and output: 1 000 MΩ 500 V DC					
Insulation dielectric strength	between input and output: 3 750 V AC 1 minute					
Dimensions (L x W x H)	20 x 5 x 17 mm					
Weight	3 g					
Storage temperature	-25...+80 °C					
Operating temperature	-20...+80 °C rated value: +50 °C see Fig.					
Max. solder bath temperature	220 °C 10 s					

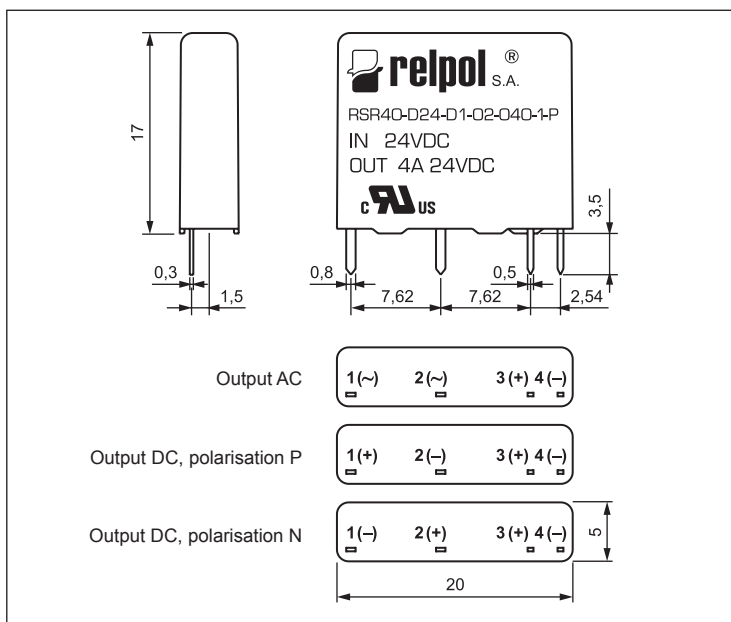
### Load current in the function of the ambient temperature and distances between relays



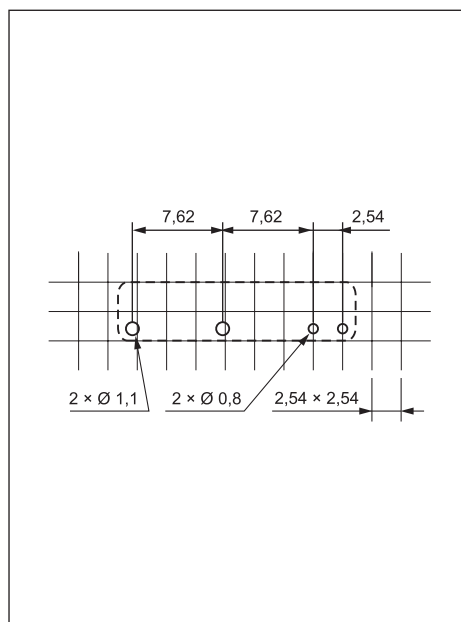
### Dimensions, mounting openings raster, ordering codes - see page 17

- ① The data in bold type pertain to the standard versions of the relays.
- ② Basic technical data at 20 °C
- ④ R - instantaneous switching of the output circuit
- ⑤ At rated voltage

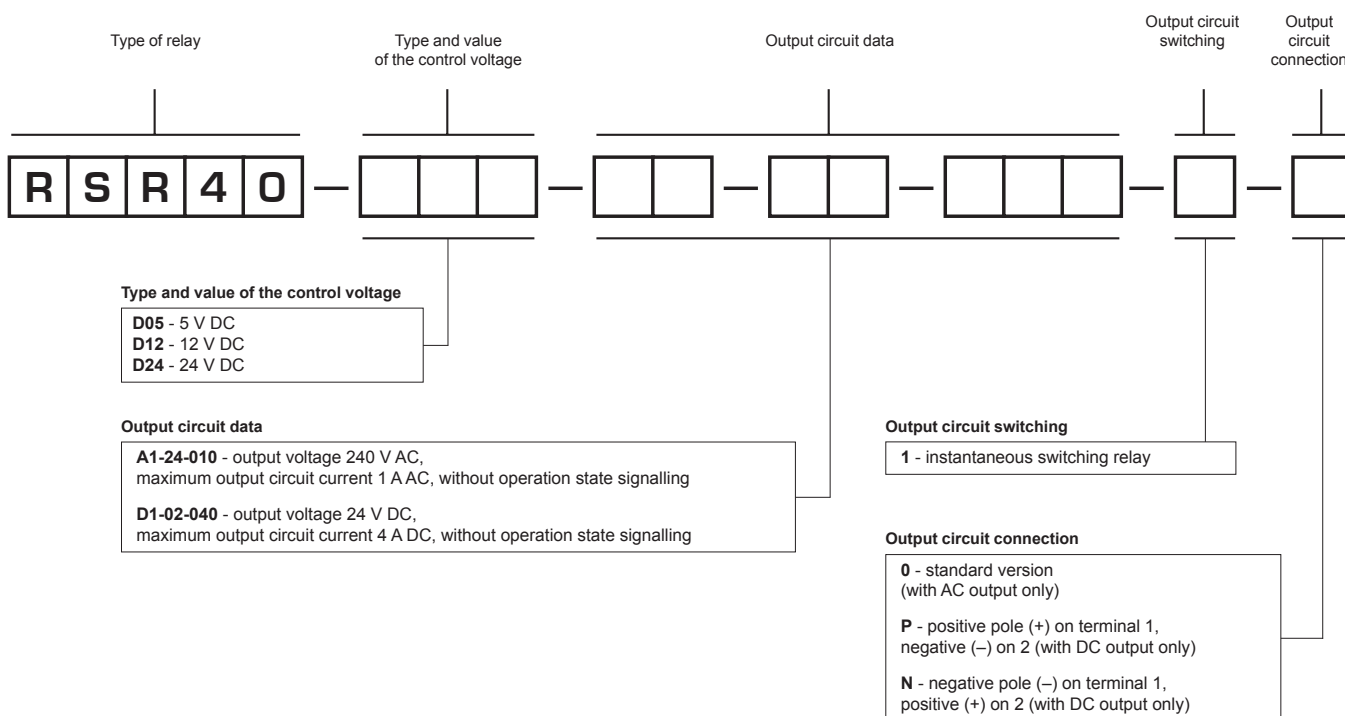
## Dimensions



## Mounting openings raster



## Ordering codes




Example of ordering code:

**RSR40-D24-D1-02-040-1-P** solid state relay **RSR40**, rated control voltage 24 V DC, rated voltage of output circuit - load 24 V DC, maximum output circuit current 4 A DC, without operation state signalling, instantaneous switching, output polarisation P - 1(+) / 2(-)



**AC Load**  
**10 A / 240 V**

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

Type of relay                      D32-A0-24-100-0    D32-A0-24-100-1    D32-A1-24-100-0    D32-A1-24-100-1

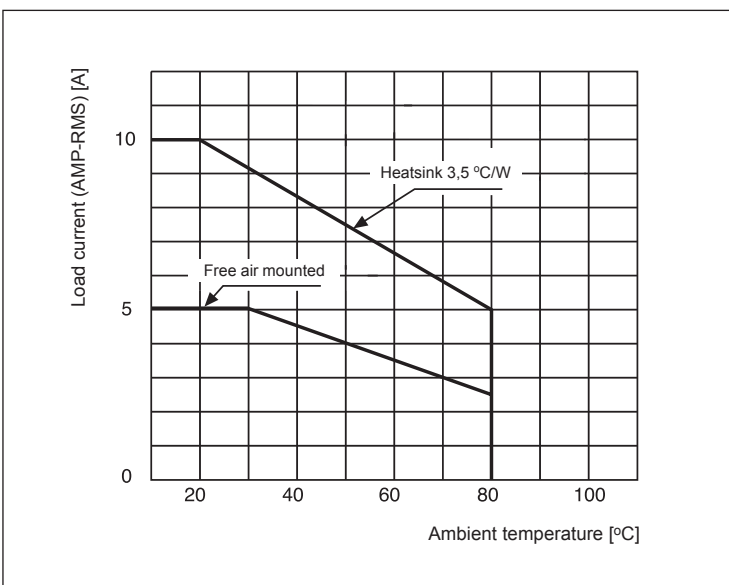
Input circuit	
LED indicator	LED red
Control voltage range	4...32 V DC
Max. control current	15 mA
Release voltage	1,5 V DC
Input resistance	2,0 kΩ

Output circuit	
Max. load current	10 A AC
Nominal load voltage	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: 125 A
Max. off-state leakage current	rest condition: 1 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: 250 V/μs
Operating frequency range	47...63 Hz

General data			
Output circuit switching moment	Z Ⓟ	R Ⓡ	Z Ⓟ
Max. turn-on time	8,3 ms	100 μs	8,3 ms
Max. turn-off time	8,3 ms		
Min. insulation resistance	between input and output, input / output and cover: 1 000 MΩ 500 V DC		
Insulation dielectric strength	between input and output: 3 500 V AC		
Max. capacitance	between input and output: 15 pF		
Dimensions (L x W x H)	58 x 43 x 27,1 mm		
Weight	91,5 g		
Storage temperature	-40...+100 °C		
Operating temperature	-20...+80 °C		
Heatsink (max. load current)	3,5 °C/W		

**Temperature derating chart - 10 AACrms, 240 V AC**

**Dimensions, ordering codes**  
- see page 27



Ⓟ Z - switching of the output circuit at zero voltage transition  
 Ⓡ R - instantaneous switching of the output circuit



**AC Load**  
**25 A / 240 V**

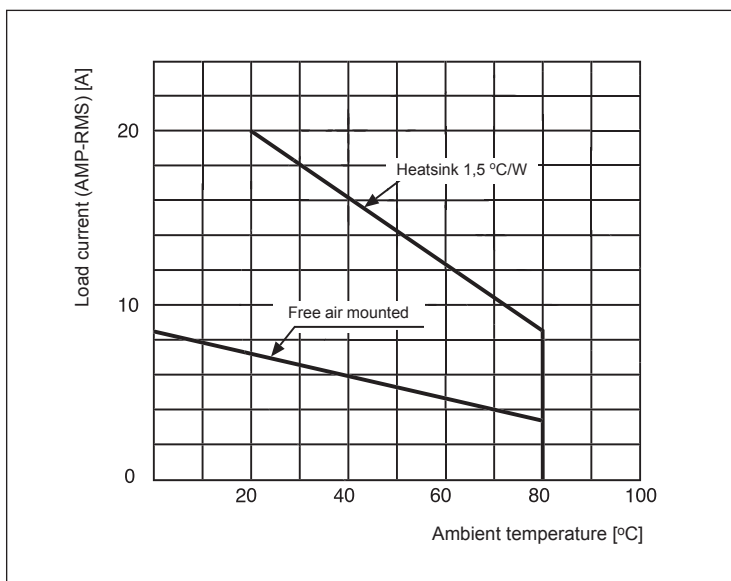
- **Applications:** lamp and motor load switching (high surge rating)
- **Mounting:** relays RSR50 are on panel mounting, using two M4 screws
- **Accessories:** heatsinks, protective covers

In case of selection accessories to RSR50, please contact with Relpol S.A., e-mail: linia@relpol.com.pl



Type of relay ❶	<b>D32-A0-24-250-0</b>	D32-A0-24-250-1	D32-A1-24-250-0	D32-A1-24-250-1
<b>Input circuit</b>				
LED indicator	LED red			–
Control voltage range	4...32 V DC			3...32 V DC
Max. control current	15 mA			15 mA
Release voltage	1,5 V DC			1,0 V DC
Input resistance	2,0 kΩ			2,0 kΩ
<b>Output circuit</b>				
Max. load current	25 A AC			
Nominal load voltage	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: 260 A			
Max. off-state leakage current	rest condition: 7 mA			
Max. on-state voltage drop	operating state: 1,6 V			
Min. load current	operating state: 100 mA			
Off-state dV/dt	max. allowable rate of voltage rise: 250 V/μs			
Operating frequency range	47...63 Hz			
<b>General data</b>				
Output circuit switching moment	<b>Z ❷</b>	<b>R ❸</b>	<b>Z ❷</b>	<b>R ❸</b>
Max. turn-on time	8,3 ms	100 μs	8,3 ms	100 μs
Max. turn-off time	8,3 ms			
Min. insulation resistance	between input and output, input / output and cover: 1 000 MΩ 500 V DC			
Insulation dielectric strength	between input and output: 3 500 V AC			
Max. capacitance	between input and output: 15 pF			
Dimensions (L x W x H)	58 x 43 x 27,1 mm			
Weight	91,5 g			
Storage temperature	-40...+100 °C			
Operating temperature	-20...+80 °C			
Heatsink (max. load current)	1,5 °C/W			

**Temperature derating chart - 25 AACrms, 240 V AC**



**Dimensions, ordering codes**  
- see page 27

- ❶ The data in bold type pertain to the standard versions of the relays.
- ❷ Z - switching of the output circuit at zero voltage transition
- ❸ R - instantaneous switching of the output circuit



**AC Load**  
**40 A / 240 V**

Type of relay ① **D32-A0-24-400-0** D32-A0-24-400-1 D32-A1-24-400-0 D32-A1-24-400-1

### Input circuit

LED indicator	LED red	–
Control voltage range	4...32 V DC	3...32 V DC
Max. control current	15 mA	15 mA
Release voltage	1,5 V DC	1,0 V DC
Input resistance	2,0 kΩ	2,0 kΩ

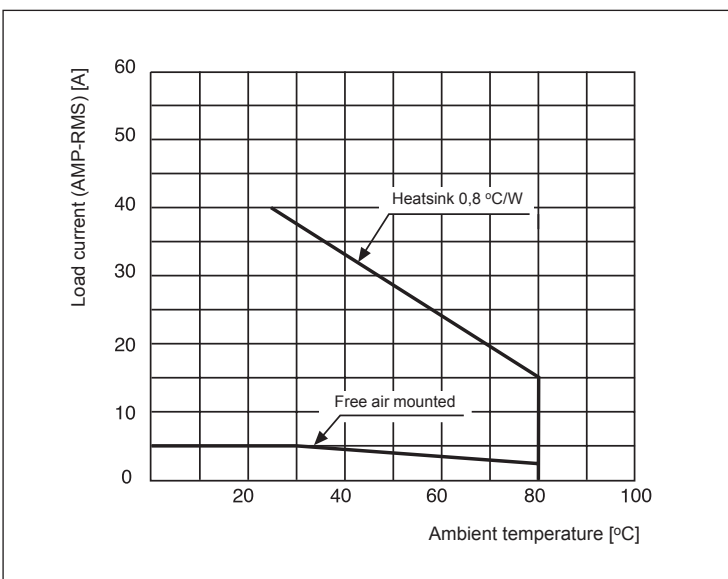
### Output circuit

Max. load current	40 A AC	
Nominal load voltage	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: 315 A	
Max. off-state leakage current	rest condition: 7 mA	
Max. on-state voltage drop	operating state: 1,8 V	
Min. load current	operating state: 100 mA	
Off-state dV/dt	max. allowable rate of voltage rise: 250 V/μs	
Operating frequency range	47...63 Hz	

### General data

Output circuit switching moment	Z ②	R ③	Z ②	R ③
Max. turn-on time	8,3 ms	100 μs	8,3 ms	100 μs
Max. turn-off time	8,3 ms			
Min. insulation resistance	between input and output, input / output and cover: 1 000 MΩ 500 V DC			
Insulation dielectric strength	between input and output: 3 500 V AC			
Max. capacitance	between input and output: 15 pF			
Dimensions (L x W x H)	58 x 43 x 27,1 mm			
Weight	91,5 g			
Storage temperature	-40...+100 °C			
Operating temperature	-20...+75 °C			
Heatsink (max. load current)	0,8 °C/W			

### Temperature derating chart - 40 A ACrms, 240 V AC



### Dimensions, ordering codes

- see page 27

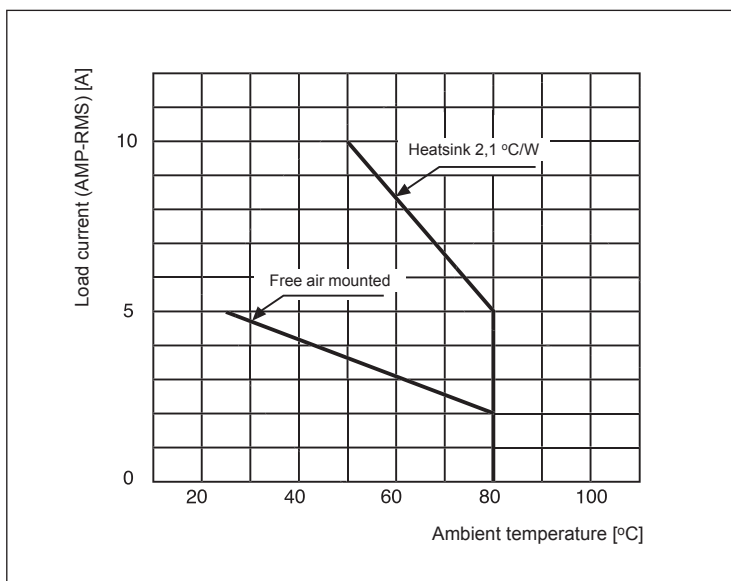
- ① The data in bold type pertain to the standard versions of the relays.
- ② Z - switching of the output circuit at zero voltage transition
- ③ R - instantaneous switching of the output circuit



**AC Load**  
**15 A / 480 V**

Type of relay ❶	D32-A0-48-150-0	D32-A0-48-150-1	D32-A1-48-150-0	D32-A1-48-150-1
<b>Input circuit</b>				
LED indicator	LED red		-	
Control voltage range	4...32 V DC		3...32 V DC	
Max. control current	120 mA		120 mA	
Release voltage	1,5 V DC		1,0 V DC	
Input resistance	270 Ω		270 Ω	
<b>Output circuit</b>				
Max. load current	15 A AC			
Nominal load voltage	480 V AC			
Load voltage range	48...480 V AC			
Non-repetitive peak voltage	rest condition: 800 V AC			
Non-repetitive surge current	operating state: 200 A			
Max. off-state leakage current	rest condition: 2 mA			
Max. on-state voltage drop	operating state: 1,6 V			
Min. load current	operating state: 70 mA			
Off-state dV/dt	max. allowable rate of voltage rise: 700 V/μs			
Operating frequency range	47...63 Hz			
<b>General data</b>				
Output circuit switching moment	Z ❷	R ❸	Z ❷	R ❸
Max. turn-on time	8,3 ms	100 μs	8,3 ms	100 μs
Max. turn-off time	8,3 ms			
Min. insulation resistance	between input and output, input / output and cover: 1 000 MΩ 500 V DC			
Insulation dielectric strength	between input and output: 3 500 V AC			
Max. capacitance	between input and output: 15 pF			
Dimensions (L x W x H)	58 x 43 x 27,1 mm			
Weight	91,5 g			
Storage temperature	-40...+100 °C			
Operating temperature	-20...+75 °C			
Heatsink (max. load current)	2,1 °C/W			

**Temperature derating chart - 15 AACrms, 480 V AC**



**Dimensions, ordering codes**

- see page 27

- ❷ Z - switching of the output circuit at zero voltage transition
- ❸ R - instantaneous switching of the output circuit



**AC Load**  
**25 A / 480 V**

Type of relay ① **D32-A0-48-250-0** D32-A0-48-250-1 D32-A1-48-250-0 D32-A1-48-250-1

### Input circuit

LED indicator	LED red	–
Control voltage range	4...32 V DC	3...32 V DC
Max. control current	120 mA	120 mA
Release voltage	1,5 V DC	1,0 V DC
Input resistance	270 Ω	270 Ω

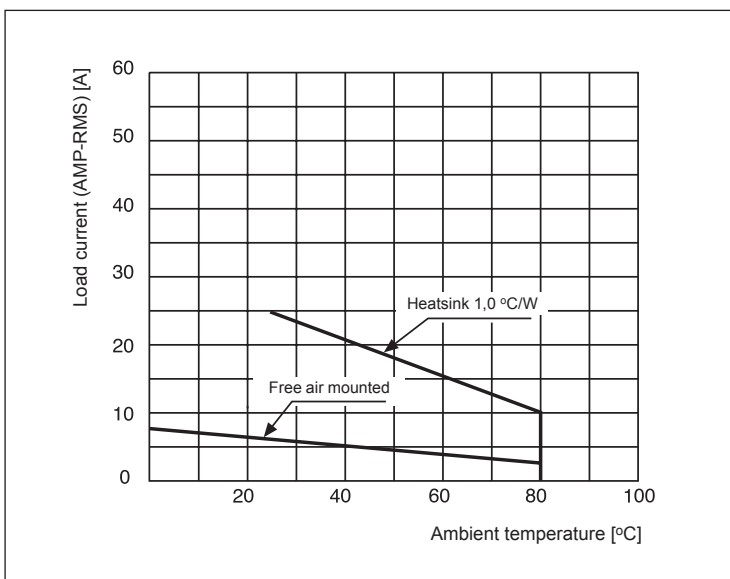
### Output circuit

Max. load current	25 A AC		
Nominal load voltage	480 V AC		
Load voltage range	48...480 V AC		
Non-repetitive peak voltage	rest condition: 800 V AC		
Non-repetitive surge current	operating state: 250 A		
Max. off-state leakage current	rest condition: 1 mA		
Max. on-state voltage drop	operating state: 1,6 V		
Min. load current	operating state: 120 mA		
Off-state dV/dt	max. allowable rate of voltage rise: 700 V/μs		
Operating frequency range	47...63 Hz		

### General data

Output circuit switching moment	<b>Z</b> ②	<b>R</b> ③	<b>Z</b> ②	<b>R</b> ③
Max. turn-on time	8,3 ms	100 μs	8,3 ms	100 μs
Max. turn-off time	8,3 ms			
Min. insulation resistance	between input and output, input / output and cover: 1 000 MΩ 500 V DC			
Insulation dielectric strength	between input and output: 3 500 V AC			
Max. capacitance	between input and output: 15 pF			
Dimensions (L x W x H)	58 x 43 x 27,1 mm			
Weight	91,5 g			
Storage temperature	-40...+100 °C			
Operating temperature	-20...+75 °C			
Heatsink (max. load current)	1,0 °C/W			

### Temperature derating chart - 25 A ACrms, 480 V AC



### Dimensions, ordering codes

- see page 27

- ① The data in bold type pertain to the standard versions of the relays.
- ② Z - switching of the output circuit at zero voltage transition
- ③ R - instantaneous switching of the output circuit

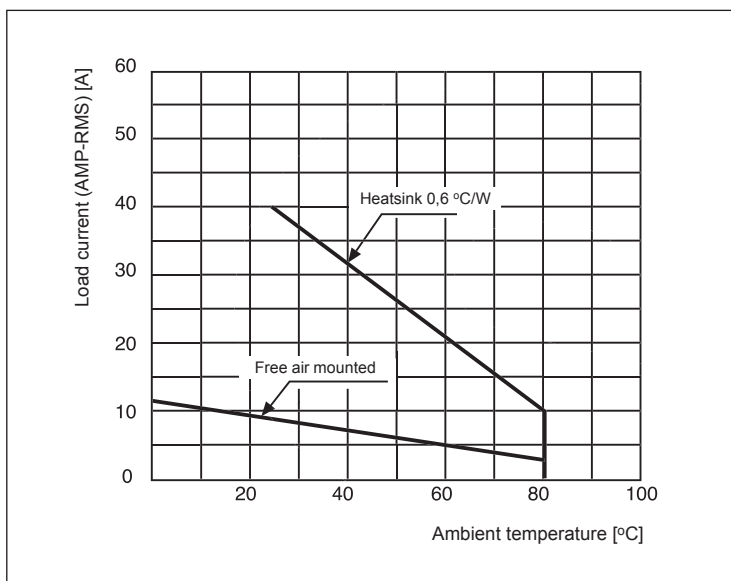




**AC Load**  
**40 A / 480 V**

Type of relay ❶	<b>D32-A0-48-400-0</b>	D32-A0-48-400-1	D32-A1-48-400-0	D32-A1-48-400-1
<b>Input circuit</b>				
LED indicator	LED red			–
Control voltage range	4...32 V DC			3...32 V DC
Max. control current	120 mA			120 mA
Release voltage	1,5 V DC			1,5 V DC
Input resistance	270 Ω			270 Ω
<b>Output circuit</b>				
Max. load current	40 A AC			
Nominal load voltage	480 V AC			
Load voltage range	48...480 V AC			
Non-repetitive peak voltage	rest condition: 800 V AC			
Non-repetitive surge current	operating state: 400 A			
Max. off-state leakage current	rest condition: 1 mA			
Max. on-state voltage drop	operating state: 1,8 V			
Min. load current	operating state: 120 mA			
Off-state dV/dt	max. allowable rate of voltage rise: 900 V/μs			
Operating frequency range	47...63 Hz			
<b>General data</b>				
Output circuit switching moment	<b>Z ❷</b>	<b>R ❸</b>	<b>Z ❷</b>	<b>R ❸</b>
Max. turn-on time	8,3 ms	100 μs	8,3 ms	100 μs
Max. turn-off time	8,3 ms			
Min. insulation resistance	between input and output, input / output and cover: 1 000 MΩ 500 V DC			
Insulation dielectric strength	between input and output: 3 500 V AC			
Max. capacitance	between input and output: 15 pF			
Dimensions (L x W x H)	58 x 43 x 27,1 mm			
Weight	91,5 g			
Storage temperature	-40...+100 °C			
Operating temperature	-20...+75 °C			
Heatsink (max. load current)	0,6 °C/W			

**Temperature derating chart - 40 AACrms, 480 V AC**



**Dimensions, ordering codes**

- see page 27

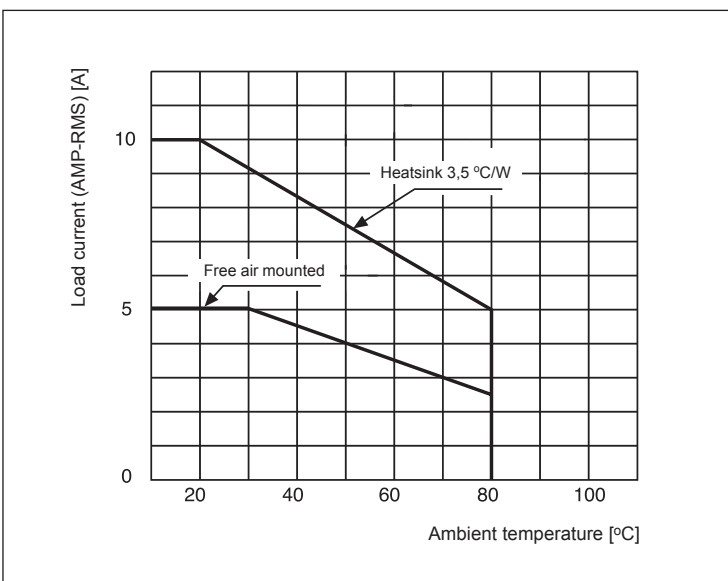
- ❶ The data in bold type pertain to the standard versions of the relays.
- ❷ Z - switching of the output circuit at zero voltage transition
- ❸ R - instantaneous switching of the output circuit



**AC Load**  
**10 A / 240 V**

Type of relay ①	A28-A0-24-100-0	A28-A1-24-100-0
<b>Input circuit</b>		
LED indicator	LED red	–
Control voltage range	50...280 V AC	50...280 V AC
Max. control current	15 mA	15 mA
Release voltage	40 V AC	35 V AC
Input resistance	106 kΩ	106 kΩ
<b>Output circuit</b>		
Max. load current	10 A AC	
Nominal load voltage	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: 125 A	
Max. off-state leakage current	rest condition: 1 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: 250 V/μs	
Operating frequency range	47...63 Hz	
<b>General data</b>		
Output circuit switching moment	Z ②	Z ②
Max. turn-on time	10 ms	10 ms
Max. turn-off time	20 ms	
Min. insulation resistance	between input and output, input / output and cover: 1 000 MΩ 500 V DC	
Insulation dielectric strength	between input and output: 3 500 V AC	
Max. capacitance	between input and output: 15 pF	
Dimensions (L x W x H)	58 x 43 x 27,1 mm	
Weight	91,5 g	
Storage temperature	-40...+100 °C	
Operating temperature	-20...+80 °C	
Heatsink (max. load current)	3,5 °C/W	

**Temperature derating chart - 10 AACrms, 240 V AC**



**Dimensions, ordering codes**

- see page 27

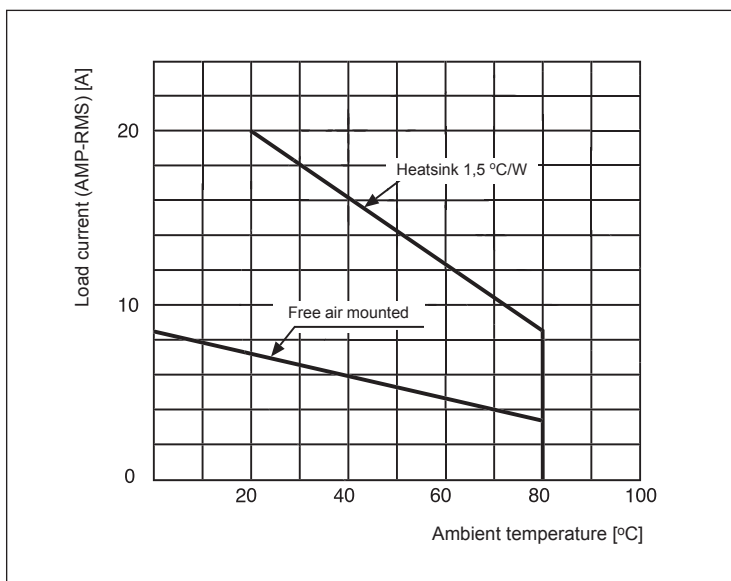
② Z - switching of the output circuit at zero voltage transition



**AC Load**  
**25 A / 240 V**

Type of relay ❶	<b>A28-A0-24-250-0</b>	A28-A1-24-250-0
<b>Input circuit</b>		
LED indicator	LED red	–
Control voltage range	50...280 V AC	50...280 V AC
Max. control current	15 mA	15 mA
Release voltage	40 V AC	35 V AC
Input resistance	106 kΩ	106 kΩ
<b>Output circuit</b>		
Max. load current	25 A AC	
Nominal load voltage	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: 260 A	
Max. off-state leakage current	rest condition: 7 mA	
Max. on-state voltage drop	operating state: 1,6 V	
Min. load current	operating state: 100 mA	
Off-state dV/dt	max. allowable rate of voltage rise: 250 V/μs	
Operating frequency range	47...63 Hz	
<b>General data</b>		
Output circuit switching moment	Z ❷	Z ❷
Max. turn-on time	10 ms	10 ms
Max. turn-off time	20 ms	
Min. insulation resistance	between input and output, input / output and cover: 1 000 MΩ 500 V DC	
Insulation dielectric strength	between input and output: 3 500 V AC	
Max. capacitance	between input and output: 15 pF	
Dimensions (L x W x H)	58 x 43 x 27,1 mm	
Weight	91,5 g	
Storage temperature	-40...+100 °C	
Operating temperature	-20...+80 °C	
Heatsink (max. load current)	1,5 °C/W	

**Temperature derating chart - 25 AACrms, 240 V AC**



**Dimensions, ordering codes**

- see page 27

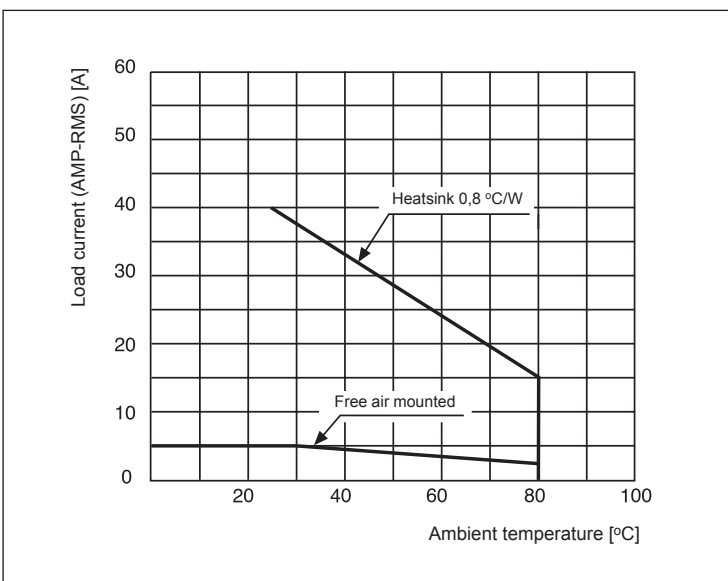
- ❶ The data in bold type pertain to the standard versions of the relays.
- ❷ Z - switching of the output circuit at zero voltage transition



**AC Load**  
**40 A / 240 V**

Type of relay ❶	<b>A28-A0-24-400-0</b>	A28-A1-24-400-0
<b>Input circuit</b>		
LED indicator	LED red	–
Control voltage range	50...280 V AC	50...280 V AC
Max. control current	15 mA	15 mA
Release voltage	40 V AC	35 V AC
Input resistance	106 kΩ	106 kΩ
<b>Output circuit</b>		
Max. load current	40 A AC	
Nominal load voltage	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: 315 A	
Max. off-state leakage current	rest condition: 7 mA	
Max. on-state voltage drop	operating state: 1,8 V	
Min. load current	operating state: 100 mA	
Off-state dV/dt	max. allowable rate of voltage rise: 250 V/μs	
Operating frequency range	47...63 Hz	
<b>General data</b>		
Output circuit switching moment	<b>Z</b> ③	<b>Z</b> ③
Max. turn-on time	10 ms	10 ms
Max. turn-off time	20 ms	
Min. insulation resistance	between input and output, input / output and cover: 1 000 MΩ 500 V DC	
Insulation dielectric strength	between input and output: 3 500 V AC	
Max. capacitance	between input and output: 15 pF	
Dimensions (L x W x H)	58 x 43 x 27,1 mm	
Weight	91,5 g	
Storage temperature	-40...+100 °C	
Operating temperature	-20...+75 °C	
Heatsink (max. load current)	0,8 °C/W	

**Temperature derating chart - 40 A ACrms, 240 V AC**

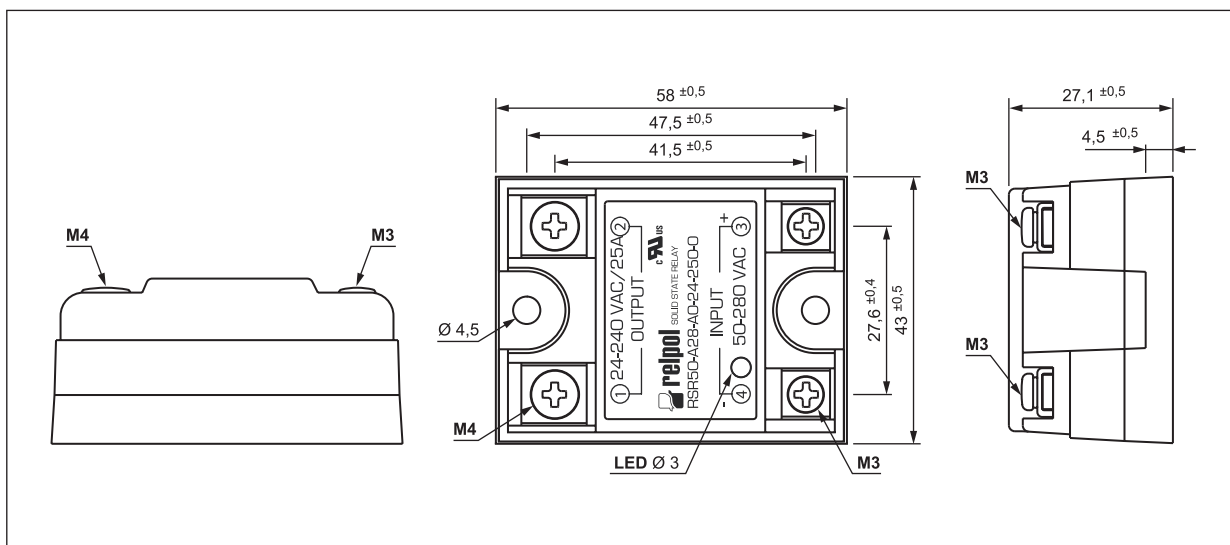


**Dimensions, ordering codes**

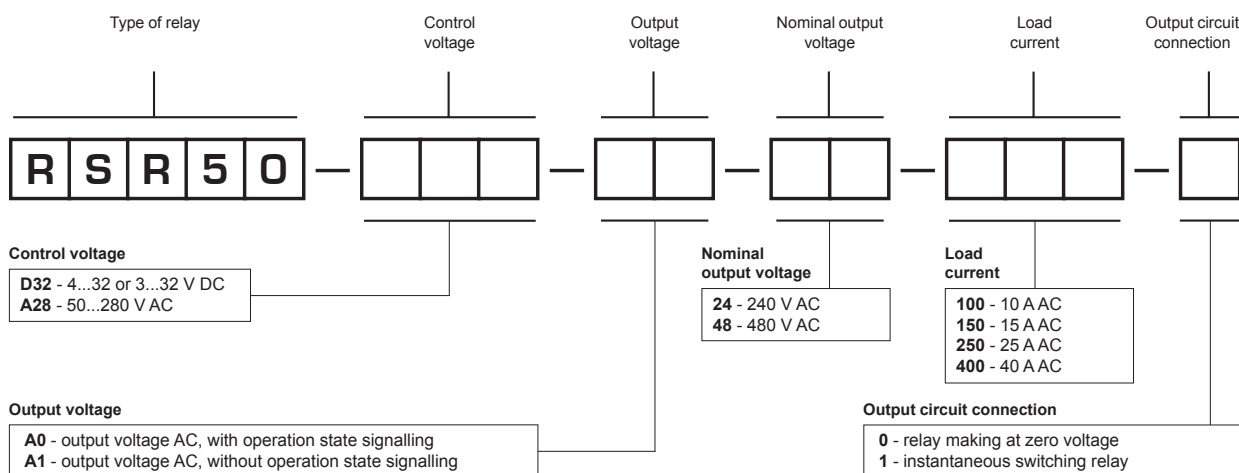
- see page 27

- ❶ The data in bold type pertain to the standard versions of the relays.
- ③ Z - switching of the output circuit at zero voltage transition

## Dimensions

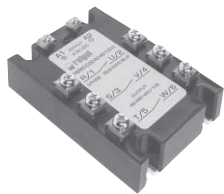


## Ordering codes



Example of ordering code:

**RSR50-A28-A0-24-250-0** solid state relay **RSR50**, control voltage range 50...280 V AC, rated voltage of output circuit - load 240 V AC, maximum output circuit current 25 A AC, with operation state signalling (LED red), making at zero voltage

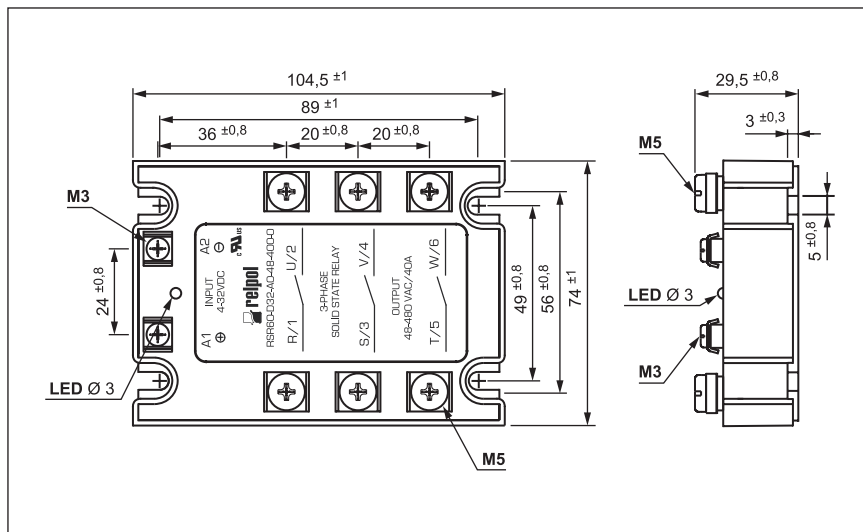


AC Load

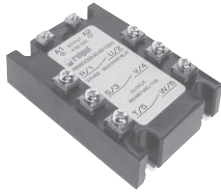
- Optically isolated • Input LED indicator
- No arc
- Noiseless
- Low input power consumption
- Zero current turn-off
- Built-in snubber network
- Recognitions, certificates, directives: RoHS,

Type of relay ❶	D32-A0-48 -100-0	<b>D32-A0-48</b> <b>-250-0</b>	<b>D32-A0-48</b> <b>-400-0</b>	D32-A1-48 -100-0	D32-A1-48 -250-0	D32-A1-48 -400-0
<b>Input circuit</b>						
LED indicator	LED red			-		
Control voltage range	4...32 V DC			4...32 V DC		
Max. control current	30 mA			30 mA		
Release voltage	3,8 V DC			3,8 V DC		
<b>Output circuit</b>						
Max. load current	10 A AC	25 A AC	40 A AC	10 A AC	25 A AC	40 A AC
Nominal load voltage	440 V AC					
Load voltage range	48...480 V AC					
Non-repetitive peak voltage ❸	800 V AC					
Non-repetitive surge current ❹	200 A	250 A	400 A	200 A	250 A	400 A
Max. off-state leakage current ❺	2 mA	1 mA	1 mA	2 mA	1 mA	1 mA
Max. on-state voltage drop ❻	1,6 V	1,6 V	1,8 V	1,6 V	1,6 V	1,8 V
Min. load current ❼	70 mA	120 mA	100 mA	70 mA	120 mA	100 mA
Off-state dV/dt ❽	700 V/μs	700 V/μs	900 V/μs	700 V/μs	700 V/μs	900 V/μs
Operating frequency range	47...63 Hz					
<b>General data</b>						
Output circuit switching moment	Z ❹					
Max. turn-on time	8,3 ms					
Max. turn-off time	8,3 ms					
Min. insulation resistance	between input and output, input / output and cover: 1 000 MΩ 500 V DC					
Insulation dielectric strength	between input and output: 3 500 V AC					
Max. capacitance	between input and output: 15 pF					
Dimensions (L x W x H)	74 x 104,5 x 29,5 mm					
Weight	310 g					
Storage temperature	-40...+100 °C					
Operating temperature	-20...+80 °C					
Heatsink (max. load current)	1,5 °C/W	0,5 °C/W	0,3 °C/W	1,5 °C/W	0,5 °C/W	0,3 °C/W

### Dimensions



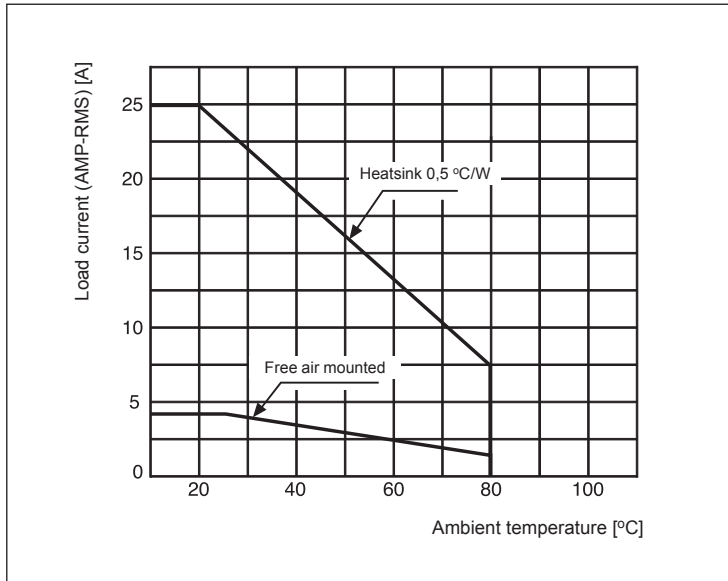
- ❶ The data in bold type pertain to the standard versions of the relays.
- ❷ Z - switching of the output circuit at zero voltage transition
- ❸ Rest condition
- ❹ Operating state
- ❽ Max. allowable rate of voltage rise



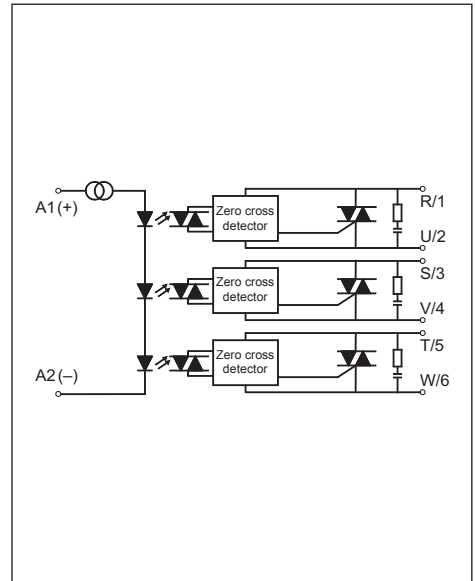
- **Applications:** lamp and motor load switching, household appliances, temperature control system, industrial automatic control, light system, office appliances, factory appliances
- **Mounting:** relays RSR60 are on panel mounting, using four M4 screws
- **Accessories:** heatsinks, adapters for mounting on 35 mm DIN rail mount, EN 50022

In case of selection accessories to RSR60, please contact with Relpol S.A., e-mail: linia@relpol.com.pl

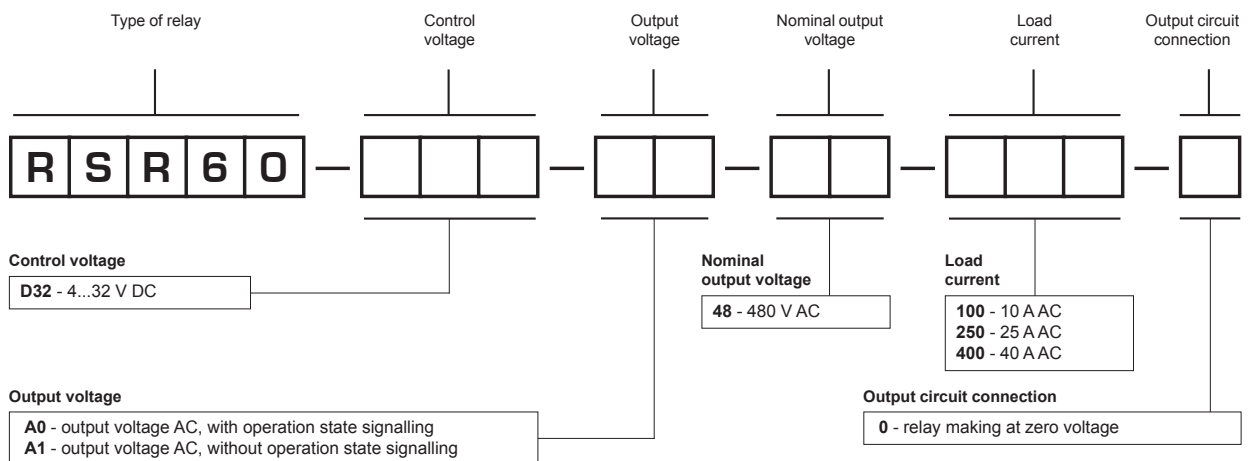
### Temperature derating chart - 25 A ACrms, 480 V AC



### Connections diagram



### Ordering codes



Example of ordering code:

**RSR60-D32-A0-48-250-0** solid state relay **RSR60**, control voltage range 4...32 V DC, rated voltage of output circuit - load 480 V AC, maximum output circuit current 25 A AC, with operation state signalling (LED red), making at zero voltage

# Trade offer of Relpol S.A.



electromagnetic and interface relays

time and monitoring relays

NEED programmable relays

RPS - DIN rail power supply

solid state relays

softstarts

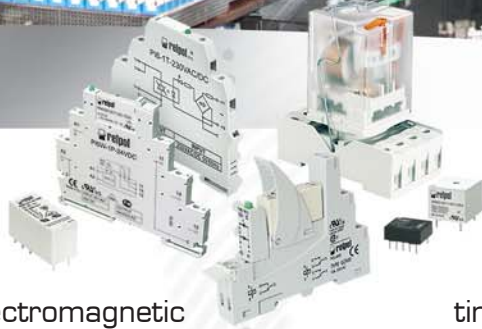
contactors

motor protection circuit breakers

switches and rotary switches

digital protection sets CZIP

overvoltage arresters





# Returnable card <sup>4E</sup>

Kindly send this card by fax +48 68 37 43 830 or by letter.

**1 Provide us, free of charge, following catalogues and marketing materials:**

- CD - a set of catalogues**
- CD - a set of approvals, certificates and declarations
- Electromagnetic relays, interface relays, plug-in sockets and accessories for relays
- Contactors and thermal overload relays
- Time relays
- NEED programmable relays
- Solid State Relays
- I am interested in, free of charge, training in the area of the Relpol S.A. company offer.**

**2 Client's remarks:**

.....  
.....

**3 Client's details:**

I am interested in the telephone  or e-mail  contact.

Send the offer to:

Full name .....

Company .....

Address .....

Zip code .....

Telephone ..... Fax .....

E-mail .....

I agree to receive by e-mail commercial informations regarding promotions, news and other events connected to the activity of Relpol S.A. company. In this scope I make my e-mail address available to the above mentioned company.

.....  
Date

.....  
Signature

We thank you for submitting this card to the Relpol S.A. company.

**RELPOL S.A.**  
ul. 11 Listopada 37  
68-200 Żary, Poland  
e-mail: relpol@relpol.com.pl

**Export Sales Department** Phone +48 68 47 90 832  
Fax +48 68 47 90 837, e-mail: export@relpol.com.pl  
**Marketing Department** Phone +48 68 47 90 900  
e-mail: marketing@relpol.com.pl

www.relpol.com.pl



# Declaration of conformity RoHS

RELPOL S.A.  
ul. 11 Listopada 37  
68-200 Żary, Poland

**RELPOL S.A. hereby confirms**  
that solid state relays supplied  
by our company meet the requirements  
of the **Directive 2002/95/EC "RoHS"**.

1.11.2005 r.

Date

A handwritten signature in blue ink that reads "A. Hyska".

R&D Department Director  
Andrzej Hyska





Project part - financed by the EUROPEAN UNION  
European Regional Development Fund



UNION FOR ENTERPRISING PEOPLE  
COMPETITIVENESS PROGRAMME

Due to the permanent development policy, Relpol S.A. reserves the right to introduce changes of data and characteristics of the products. The devices shall be operated by skilled personnel in accordance with the regulations in force pertaining to electrical systems. The technical data are of informational nature. Thus, Relpol S.A. does not accept any liability for inappropriate use of the presented products.

The offer of Relpol S.A.  
includes the following products:

- **subminiature signal relays**  
rated switching capacity: from 1 A to 3 A,  
coil voltage range: from 3 V to 48 V DC
- **miniature relays**  
rated switching capacity: from 5 A to 20 A
- **industrial relays**  
rated switching capacity: from 5 A to 30 A,  
mounting: to plug-in sockets on 35 mm DIN rail mount,  
EN 50022 or on panel mounting, for PCB
- **interface relays**  
rated switching capacity: from 0,5 A to 16 A,  
number of contacts: from 1 to 4
- **plug-in sockets for relays**  
PCB plug-in sockets, plug-in sockets  
for 35 mm DIN rail mount, EN 50022
- **contactors**  
rated switching power: from 2,2 kW to 200 kW  
/at 400 V/
- **motor protection circuit breakers**  
setting range: from 0,1 A to 63 A
- **time relays**  
single- and multifunction time relays,  
wide range of time adjustments
- **monitoring relays**  
monitoring of current, voltage, temperature
- **NEED programmable relays**  
versions: 8 inputs / 4 relay outputs,  
16 inputs / 8 relay outputs, programming: LAD, STL,  
supply voltages: 230 V AC, 24 V DC, 12 V DC,  
LED indicators of the relay and input / output status
- **RPS - DIN rail power supply**  
for automation systems, output circuit: 12 or 24 V DC,  
rated currents: from 1,5 A to 10 A
- **solid state relays**  
rated load currents: from 1 A to 100 A,  
switching at zero or at any time
- **overvoltage arresters**  
classes I, II and III, available with changeover  
signal contact
- **switches and rotary switches**  
lever switches of 1-, 2-, 3- and 4-pole versions,  
rotary switches from 1 to 6 sections  
and from 2 to 12 positions
- **digital protection sets for automation,  
measurements and control  
for mid-voltage fields**
- **production and installation  
of stationary devices for monitoring  
of radioactive radiation**



**RELPOL S.A.**  
ul. 11 Listopada 37  
68-200 Żary, Poland  
e-mail: [relpol@relpol.com.pl](mailto:relpol@relpol.com.pl)  
[www.relpol.com.pl](http://www.relpol.com.pl)  
**Export Sales Department**  
Phone +48 68 47 90 832  
Fax +48 68 47 90 837  
e-mail: [export@relpol.com.pl](mailto:export@relpol.com.pl)  
**Marketing Department**  
Phone +48 68 47 90 900  
e-mail: [marketing@relpol.com.pl](mailto:marketing@relpol.com.pl)

**RELPOL M Minsk / Belarus**  
Phone +375 17 298 44 11  
e-mail: [info@relpol-m.com](mailto:info@relpol-m.com)

**RELPOL BG Varna / Bulgaria**  
Phone +359 5 261 02 57  
e-mail: [office@relpol.biz](mailto:office@relpol.biz)

**RELPOL HUNGARY Budapest / Hungary**  
Phone +361 265 19 71  
e-mail: [relpol@relpol.hu](mailto:relpol@relpol.hu)

**RELPOL BALTIJA Vilnius / Lithuania**  
Phone +370 5 275 23 01  
e-mail: [baltija@relpol.com.pl](mailto:baltija@relpol.com.pl)

**RELPOL ELTIM Sankt-Petersburg / Russia**  
Phone +7 812 327 35 99  
e-mail: [relpol@mail.ru](mailto:relpol@mail.ru)

**RELPOL ALTERA Kiev / Ukraine**  
Phone +380 44 496 18 88  
e-mail: [svaltera@svaltera.kiev.ua](mailto:svaltera@svaltera.kiev.ua)

**RELPOL FRANCE Paris / France**  
Phone +33 160 798 500  
e-mail: [relpol.france@relpol.fr](mailto:relpol.france@relpol.fr)

**RELPOL LTD. London / England**  
Phone +44 1582 487707  
e-mail: [phil@relpol.com.pl](mailto:phil@relpol.com.pl)

[www.relpol.com.pl](http://www.relpol.com.pl)