

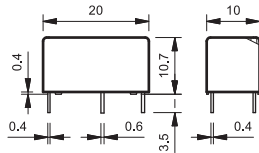
Order code	Manufacturer code	Description
60-4091	n/a	32.21 12V DC MINIATURE SPST 6A RELAY RC

	Page 1 of 5
The enclosed information is believed to be correct, Information may change without notice due to product improvement. Users should ensure that the product is suitable for their use. E. & O. E.	Revision A 20/02/2007

## Features

### Printed circuit mount 6 A relay

- 1 Pole changeover contacts or 1 Pole normally open contact
- Subminiature, low profile package
- Sensitive DC coil - 200 mW
- Wash tight: RT III
- Cadmium Free contact material option



### 32.21-x000

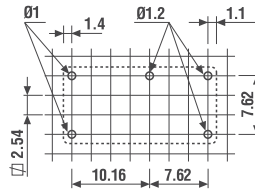
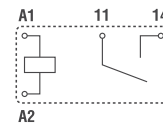
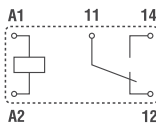


- 1 CO (SPDT), 6 A
- Low coil power
- PCB mount

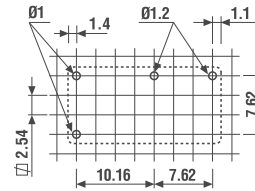
### 32.21-x300



- 1 NO (SPST-NO), 6 A
- Low coil power
- PCB mount



Copper side view

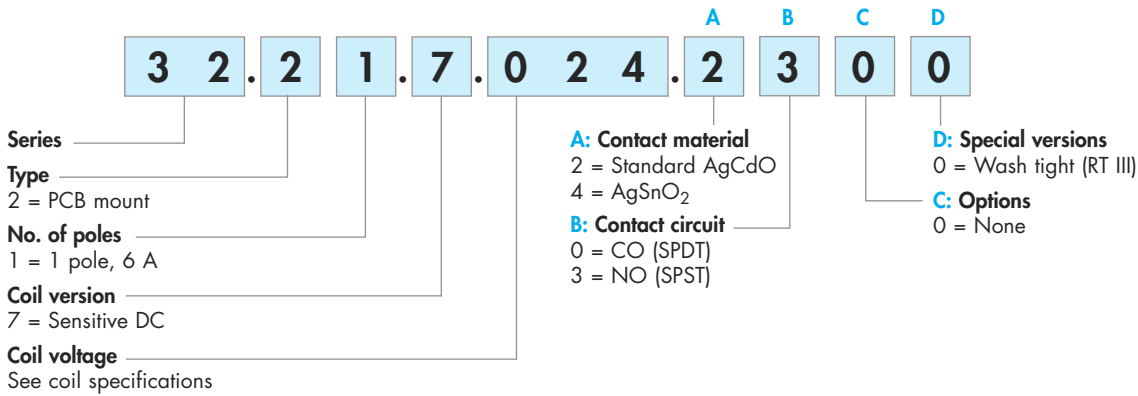


Copper side view

Contact specification			
Contact configuration		1 CO (SPDT)	1 NO (SPST-NO)
Rated current/Maximum peak current	A	6/15	6/15
Rated voltage/Maximum switching voltage V AC		250/400	250/400
Rated load AC1	VA	1,500	1,500
Rated load AC15 (230 V AC)	VA	250	250
Single phase motor rating (230 V AC)	kW	0.185	0.185
Breaking capacity DC1: 30/110/220 V	A	3/0.35/0.2	3/0.35/0.2
Minimum switching load	mW (V/mA)	500 (10/5)	500 (10/5)
Standard contact material		AgCdO	AgCdO
Coil specification			
Nominal voltage (U <sub>N</sub> )	V AC (50/60 Hz)	—	—
	V DC	5 - 12 - 24 - 48	5 - 12 - 24 - 48
Rated power AC/DC	VA (50 Hz)/W	—/0.2	—/0.2
Operating range	AC	—	—
	DC	(0.78...1.5)U <sub>N</sub>	(0.78...1.5)U <sub>N</sub>
Holding voltage	AC/DC	—/0.4 U <sub>N</sub>	—/0.4 U <sub>N</sub>
Must drop-out voltage	AC/DC	—/0.1 U <sub>N</sub>	—/0.1 U <sub>N</sub>
Technical data			
Mechanical life AC/DC	cycles	—/20 · 10 <sup>6</sup>	—/20 · 10 <sup>6</sup>
Electrical life at rated load AC1	cycles	100 · 10 <sup>3</sup>	100 · 10 <sup>3</sup>
Operate/release time	ms	6/4	6/2
Insulation between coil and contacts (1.2/50 µs)	kV	5	5
Dielectric strength between open contacts V AC		1,000	1,000
Ambient temperature range	°C	−40...+85	−40...+85
Environmental protection		RT III	RT III
Approvals (according to type)			

## Ordering information

Example: 32 series PCB, 1 NO (SPDT-NO) - 6 A contacts, 24 V sensitive DC coil.



**Selecting features and options: only combinations in the same row are possible.**  
Preferred selections for best availability are shown in **bold**.

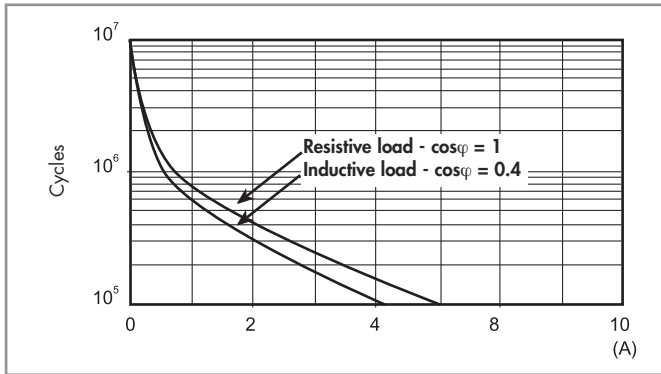
Type	Coil version	A	B	C	D
32.21	sens. DC	<b>2 - 4</b>	<b>0 - 3</b>	<b>0</b>	<b>0</b>

## Technical data

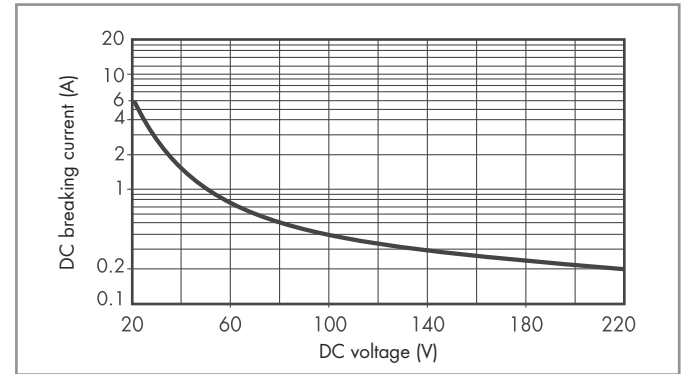
Insulation according to EN 61810-1			
Nominal voltage of supply system	V AC	230/400	
Rated insulation voltage	V AC	250	
Pollution degree		2	
Insulation between coil and contact set			
Type of insulation		Basic	
Overvoltage category		III	
Rated impulse voltage	kV (1.2/50 µs)	4	
Dielectric strength	V AC	4,000	
Insulation between open contacts			
Type of disconnection		Micro-disconnection	
Dielectric strength	V AC/kV (1.2/50 µs)	1,000/1.5	
Conducted disturbance immunity			
Burst (5...50)ns, 5 kHz, on A1 - A2	EN 61000-4-4	level 4 (4 kV)	
Surge (1.2/50 µs) on A1 - A2 (differential mode)	EN 61000-4-5	level 3 (2 kV)	
Other data			
Bounce time: NO/NC	ms	2/10 (changeover)   2/— (normally open)	
Vibration resistance (5...55)Hz: NO/NC	g	10/10 (changeover)   10/— (normally open)	
Shock resistance	g	20	
Power lost to the environment	without contact current	W	0.2
	with rated current	W	0.5
Recommended distance between relays mounted on PCB	mm	≥ 5	

## Contact specification

F 32 - Electrical life (AC) v contact current



H 32 - Maximum DC1 breaking capacity



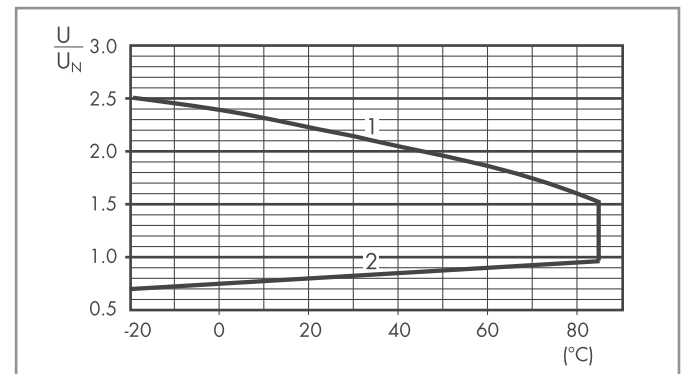
- When switching a resistive load (DC1) having voltage and current values under the curve, an electrical life of  $\geq 100 \cdot 10^3$  can be expected.
- In the case of DC13 loads, the connection of a diode in parallel with the load will permit a similar electrical life as for a DC1 load. Note: the release time for the load will be increased.

## Coil specifications

DC coil data - 0.2 W sensitive

Nominal voltage $U_N$ V	Coil code	Operating range		Resistance R $\Omega$	Rated coil consumption I at $U_N$ mA
		$U_{min}$ V	$U_{max}$ V		
5	7.005	3.9	7.5	125	40
12	7.012	9.4	18	720	16
24	7.024	18.7	36	2,880	8.3
48	7.048	37.4	72	11,520	4

R 32 - DC coil operating range v ambient temperature



- 1 - Max. permitted coil voltage.
- 2 - Min. pick-up voltage with coil at ambient temperature.

