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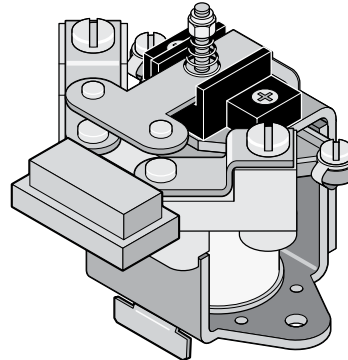
Important Note

The information shown in these documents is for guidance only. No liability is accepted for any errors or omissions. The designer or user is solely responsible for the safe and proper application of the parts, assemblies or equipment described.



Power Relay P

- Specify S design in your order
- 1 bridge contact for 50 A
- With blow-out magnet for switching high DC loads
- Auxiliary contact as control contact possible



Order Code

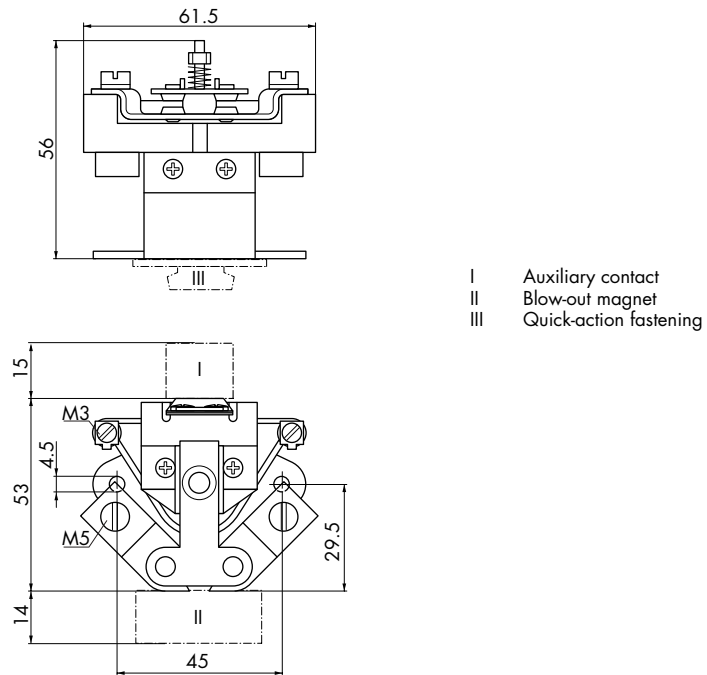
Order code	P	A	S	-	24 V	DC	
Type of relay							
Power relay	P						
Contact arrangement							
A 1 N/O		A					
R 1 N/C		R					
Contact material single contact (main contact)							
S Hard silver			S				
C AgCdO (model A only)			C				
W Tungsten			W				
Contact material auxiliary contact							
- Without auxiliary contact (no code letter)				-			
S Hard silver				S			
Nominal operation coil voltage (see coil data)							
24 V					24 V		
Coil current type							
DC Direct current						DC	
AC Alternating current 50 Hz (60 Hz on request)						AC	
Extensions							
- None (no code letter)							-
B Quick-action fastening for rail EN50022-35 x 7.5							B
M Blow-out magnet only with N/O contact							M

Contact Data

	P			
Contact arrangement	Single contact (main contact)			Auxiliary contact
Type of contact	Bridge contact			Single contact
Contact material	Hard silver	AgCdO	Tungsten	Hard silver
Nominal contact current	50 A	50 A	10 A	6 A
Inrush current	≤ 100 A	≤ 200 A	≤ 300 A	≤ 6 A
Nominal contact voltage	400 VAC / DC			250 VAC
Max. switching capacity (resistive)	4000 VA			100 VA
Min. switching capacity	500 mA / 60 VDC		-	50 mA / 20 VDC



Dimensions, Connection Diagram(s)



General Data

	P	
Pull-in time	approx. 30 ms	
Drop-out time	approx. 20 ms	
Bounce time	approx. 8 ms	
Mechanical service life	> 5 x 10 ⁶ switching cycles DC > 2 x 10 ⁶ switching cycles AC	
Test voltage		
Coil - contact	2500 VAC	
Contact - frame	2500 VAC	
Auxiliary contact - frame	2000 VAC	
Insulation group VDE 0110b/2.79	C380 single contact (main contact) C125, B250 coil and auxiliary contact	
Ambient temperature	-25 °C to +60 °C DC -25 °C to +40 °C AC	
Vibration resistance (30 - 100 Hz)	> 5 g N/O contact > 2 g N/C contact	
Weight	approx. 220 g	
Operating range	DC Class 1 (0.8 - 1.1 U _N)	AC, 50 Hz Class 1 (0.8 - 1.1 U _N)
Pull-in after coil excitation with U _N at T _U	20 °C	20 °C
Drop-out	> 0.05 U _N	> 0.15 U _N

Coil Data

Coil voltage* DC	P Pull-in power approx. 1.3 W Nominal operation coil power approx. 3.0 W		Coil voltage AC 50 Hz	P Inrush current approx. 1.4 x nominal current Nominal operation coil power 9.5 VA	
	Nom. resistance (Ω)	Nominal current (mA)		Nom. resistance (Ω)	Nominal current (mA)
12	55	220	12	2.94	680
24	193	120	24	11.2	370
40	528	76	42	35.1	220
60	1250	48	60	64.7	160
110	3670	30	110	245	87
220	15000	15	230	1170	41

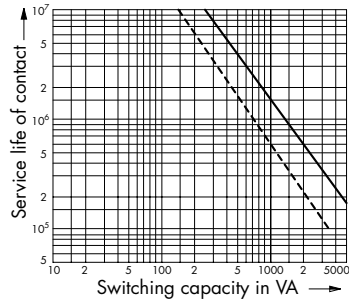
*Other voltages on request



Electrical Service Life

Electrical Service Life AC

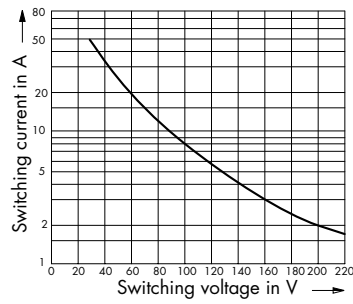
- 90 % operation
- resistive load
- - - - inductive load
- cos φ = 0.4 ... 0.7



Switching Capability DC

without blow-out magnet

Below limiting characteristic: service life of contacts
 1×10^6 switching cycles (90 % operation)
 resistive load



Electrical Service Life DC

with blow-out magnet, resistive load

Switching current (A)	Voltage (V)	Service life switching cycles approx.
2	220	5×10^6
5		5×10^6
10		0.5×10^6

Electrical Service Life AC

Auxiliary contact

Switching capacity (VA)	Service life switching cycles approx.
100	5×10^6