

Miniature Power Relay

CHP

Features

- 15A switching capability
- AC and DC coil
- Long life and high reliability
- Various terminals available
- Applied range: microwave oven, dish washer, UPS, air-condition, machine tool, sound equipment



1. COIL DATA (at 20°C)

1) DC coil

Nominal Voltage (VDC)	Pick-up Voltage (VDC)	Drop-out Voltage (VDC)	Max Allowable Voltage (VDC)	Coil Current (mA)(±10%)	Coil Resistance (Ω)	Coil Power (mW)
6	4.50	0.6	7.20	150	40 x (1±10%)	Approx. 900
9	6.80	0.9	10.8	100	90 x (1±10%)	
12	9.00	1.2	14.4	75.0	160 x (1±10%)	
18	13.5	1.8	21.6	50.0	360 x (1±10%)	
24	18.0	2.4	28.8	37.5	640 x (1±10%)	
36	27.0	3.6	43.2	25.0	1440 x (1±10%)	
48	36.0	4.8	57.6	18.8	2560 x (1±10%)	
60	45.0	6.0	72.0	15.0	4000 x (1±10%)	
110	82.5	11	132	8.18	13400 x (1±10%)	

2) AC coil

Nominal Voltage (VAC)	Pick-up Voltage (VAC)	Drop-out Voltage (VAC)	Max Allowable Voltage (VAC)	Coil Resistance (Ω)	Coil Power (VA)
6	4.80	1.80	7.20	10 x (1±10%)	Approx. 1.2
9	7.20	2.70	10.8	23 x (1±10%)	
12	9.60	3.60	14.4	40 x (1±10%)	
18	14.4	5.40	21.6	90 x (1±10%)	
24	19.2	7.20	28.8	160 x (1±10%)	
36	28.8	10.8	43.2	360 x (1±10%)	
48	38.4	14.4	57.6	650 x (1±10%)	
60	48.0	18.0	72.0	1000 x (1±10%)	
110	88.0	33.0	132	3400 x (1±10%)	
220	176	66.0	264	13600 x (1±10%)	
240	192	72.0	288	16800 x (1±10%)	

2. CONTACT DATA

Contact Arrangement	1 Form A, 1 Form B, 1 Form C	
Contact Resistance	100mΩ max. (Initial)	
Contact Material	AgSnO ₂	
Contact Ratings	15A 250VAC / 30VDC	
Max. Switching Voltage	250VAC / 30VDC	
Max. Switching Current	15A	
Max. Switching Power	3750VA / 450W	
Life Expectancy	Electrical	100,000 operations
	Mechanical	10,000,000 operations

3. CHARACTERISTICS

Insulation Resistance	1000MΩ min. (at 500VDC)	
Dielectric Strength	Open Contacts	1000VAC 1min
	Coil and Contacts	1500VAC 1min
Operate Time (at nominal voltage)	20ms max.	
Release Time (at nominal voltage)	20ms max.	
Temperature Range	-40 °C ~ 85 °C	
Shock Resistance	Functional	98 m/s ²
	Destructive	980 m/s ²
Vibration Resistance ¹⁾	10 ~ 55Hz, Double-amplitude	
Humidity	95% RH, 40 °C	
Termination	QC	
Weight	Approx. 45g	
Outline Dimension (L x W x H)	50.0 x 32.0 x 29.0 mm	

4. ORDERING INFORMATION

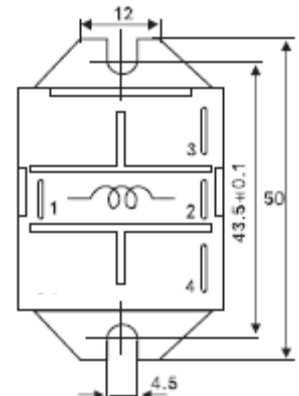
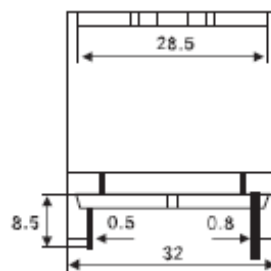
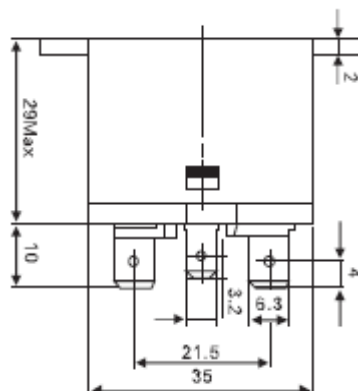
①	②	③	④
CHP	11	-	A240
① Relay Model	S		
② Contact Arrangement	11: 1 Form A (SPST-NO) 1B: 1 Form B (SPST-NC) 1: 1 Form C (SPDT)		
③ Coil Voltage	DC: D6=6VDC, D9=9VDC, D12=12VDC, 18D=18VDC, 24D=24VDC, D36=36VDC, D48=48VDC, D60=60VDC, D110=110VDC AC: A6=6VAC, A9=9VAC, A12=12VAC, A18=18VAC, A24=24VAC, A36=36VAC, A48=48VAC, A60=60VAC, A110=110VAC, A220=220VAC, A240=240VAC		
④ Terminal Form	S: Solder leg Quick-connected type		

5. DIMENSIONS (Unit: mm)

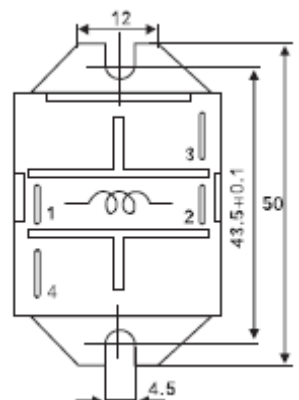
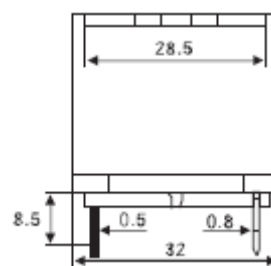
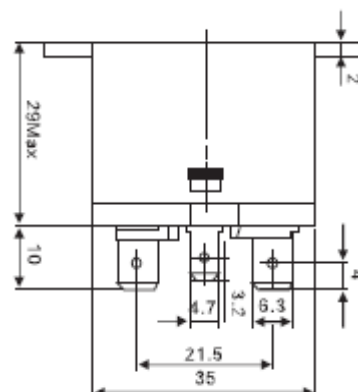
Outline Dimensions

PCB Layout (Bottom view)

1 Form A



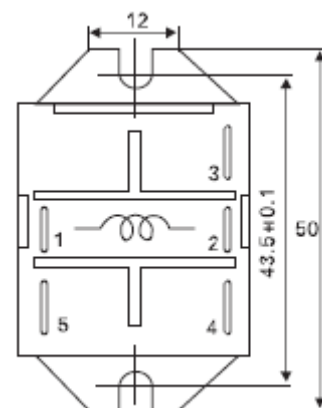
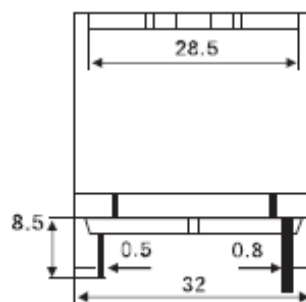
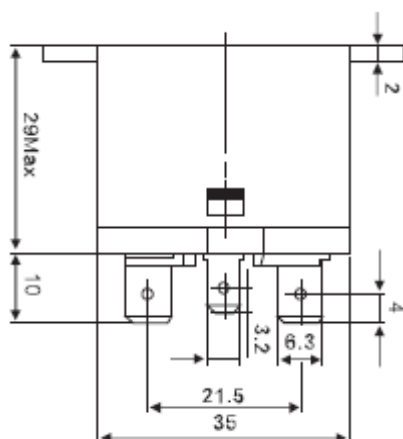
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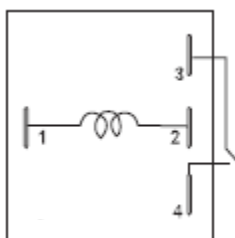
Outline Dimensions

PCB Layout (Bottom view)

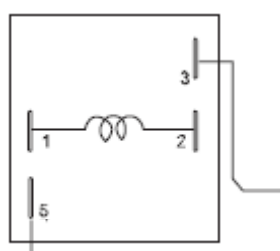
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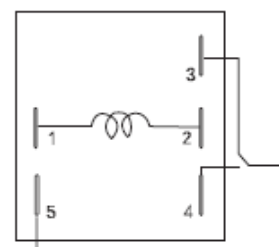
Wiring Diagram



1 Form A



1 Form B

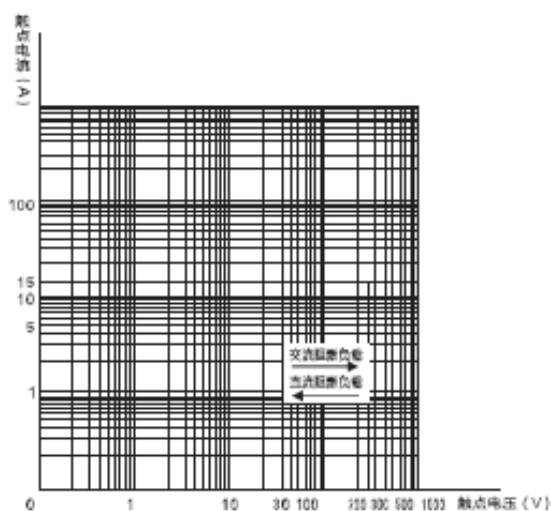


1 Form C

Remark: 1) In case of no tolerance shown in outline dimension: outline dimension $\leq 1\text{mm}$, tolerance should be $\pm 0.2\text{mm}$; outline dimension $> 1\text{mm}$ and $\leq 5\text{mm}$, tolerance should be $\pm 0.3\text{mm}$; outline dimension $> 5\text{mm}$, tolerance should be $\pm 0.4\text{mm}$.
2) The tolerance without indicating for PCB layout is always $\pm 0.1\text{mm}$.

6. ENDURANCE CURVES

Maximum Switching Power



Endurance Curve

