

S12 RELAY

SHORI

◆ Features

- Heavy duty 30A general purpose power relays.
- Optional for open frame, dust cover, sealed type and with and without quick terminal on top ,etc.
- High insulation type Dielectric strength type available.
- Ideal for HVAC, UPS & power supply, home appliances.



◆ Coil Data [at 23°C]

Rated voltage (V)	Coil Resistance ±10% (Ω)	Rated Current ±10% (mA)	Pick up Voltage (Max)	Drop out Voltage (Min)	Max continuous Voltage	Power consumption At rated Voltage
5	27	186	75% of rated voltage	10% of rated voltage	130% Max of Rated voltage	Approx.0.93W
6	40	155				
9	97	93				
12	155	77				
15	256	59				
18	380	47				
24	660	36				
48	2560	18				
110	13450	8				

◆ Contact Rating

Load type	1A	1B	1C	
			NO	NC
Resistive load	30A 277VAC	15A 277VAC	20A 277VAC	10A 277VAC
Max. switching current	30A	15A	20A	10A
Max. switching voltage	250VAC			
Max. switching capacity	7500VA	3750VA	5000VA	2500VA

◆ Type List

Terminal style	Contact form	UL Insulation System approval	Designation(provided with)	
			Open type	Sealed type washable
PCB terminal	1A (SPNO)	-----	S12-PA-12	S12-PAS-12
		F	S12-PA-12-F	S12-PAS-12-F
	1B (SPNC)	-----	S12-PB-12	S12-PBS-12
		F	S12-PB-12-F	S12-PBS-12-F
	1C(SPDT)	-----	S12-PC-12	S12-PCS-12
		F	S12-PC-12-F	S12-PCS-12-F

Quick connect terminal	1A (SPNO)	-----	-----	S12-FAS-12
		F		S12-FAS-12-F
	1B (SPNC)	-----	-----	S12-FBS-12
		F		S12-FBS-12-F
	1C(SPDT)	-----	-----	S12-FCS-12
		F		S12-FCS-12-F
PCB terminal & Quick Connect terminal	1A (SPNO)	-----	-----	S12-QAS-12
		F		S12-QAS-12-F
	1B (SPNC)	-----	-----	S12-QBS-12
		F		S12-QBS-12-F
	1C(SPDT)	-----	-----	S12-QCS-12
		F		S12-QCS-12-F

◆ Ordering information

S12 - P C S - 12 - F

1 2 3 4 5 6

1. S12 -- Basic series designation
2. P -- PCB terminal
F -- Quick connect terminal
Q -- PCB terminal & quick connect Terminal
3. A -- Single pole normally open
B -- Single pole normally closed
C -- Single pole double throw
4. S -- Sealed type washable
Blank -- Open type
5. 12 -- Coil Voltage (5V~110V)
6. Insulation standard
F -- Class F
Blank -- standard type

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◆ Specification

Contact material	Ag Alloy	
Contact resistance	50 mΩ Max	
Operate time	15 ms Max	
Release time	10 ms Max	
Insulation resistance	100 MΩ Min. (DC 500V)	
Dielectric strength	Between open contact : AC 1500V ,50/60Hz 1 min.	
	Between contact and coil : AC 1500V, 50/60Hz 1 min.	
Vibration resistance	Operating extremes	10~50Hz, amplitude 1.5 mm
	Damage limits	10~50Hz, amplitude 1.5 mm
Shock resistance	Operating extremes	10G
	Damage limits	100G
Life expectancy	Mechanical	10,000,000 operations (frequency 18,000 operations/hr)
	Electrical	100,000 operations (frequency 1,200 operations/hr)
Operating ambient temperature	-30~+85°C(no freezing)	
Weight	Approx.20g(open type)、25g(P type)、30g(Q、F type)	

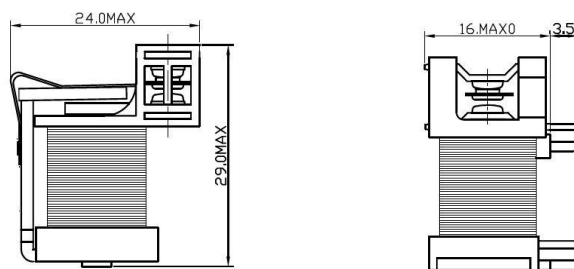
◆ Safety Approval

Certified	UL/CUL	TUV
File No.	E188091	R50082833

◆ Safety Approval Rating (UL/CUL)

PAS	PBS	PCS	
		NO	NC
30A 277VAC	15A 277VAC	20A 277VAC	10A 277VAC
20A 30VDC	15A 30VDC	20A 30VDC	10A 30VDC
2HP 250VAC	1/2HP 250VAC	2HP 277VAC	1/2HP 277VAC
1HP 125VAC	1/4HP 125VAC	1HP 125VAC	1/4HP 125VAC
TV-15 125VAC			

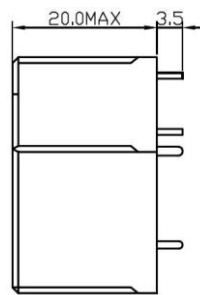
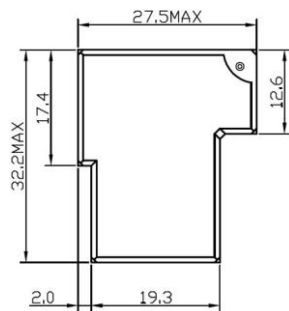
➤ Outline S12 Open type



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➤ S12 (P) type



Dimension:mm

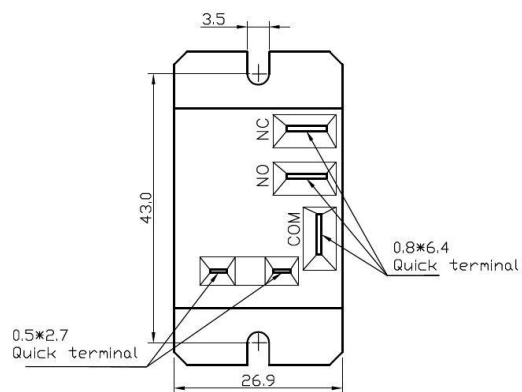
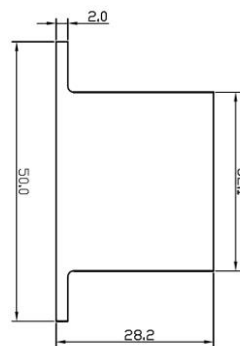
TOLERANCE:

<1mm:±0.2mm

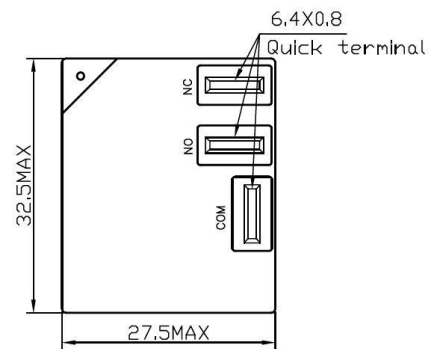
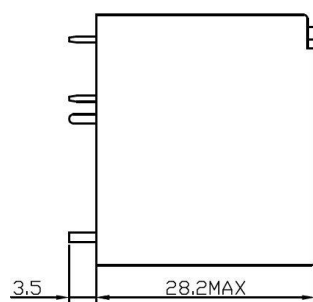
1-5mm:±0.3mm

>5mm :±0.4mm

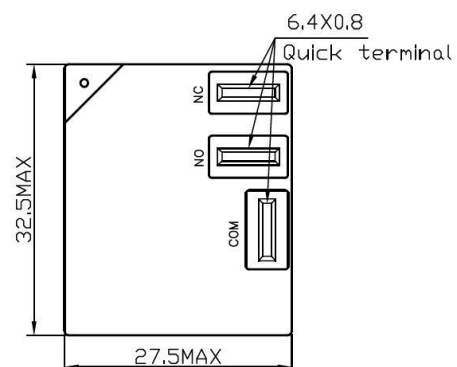
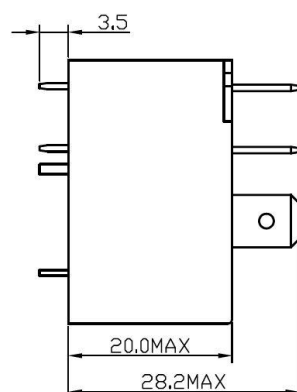
➤ S12 (F) type



➤ S12 (Q) type (Cover with shroud)



➤ S12(Q) type (Lower cover)

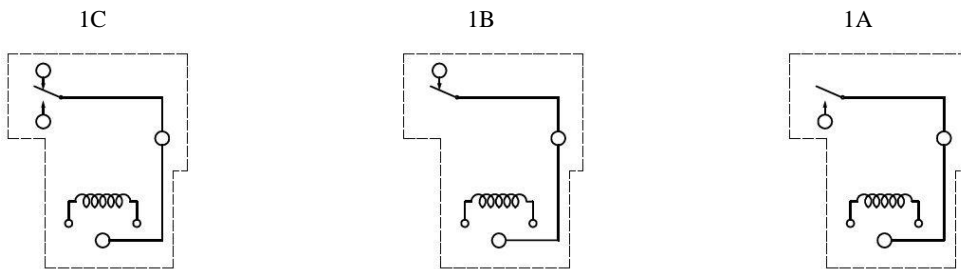


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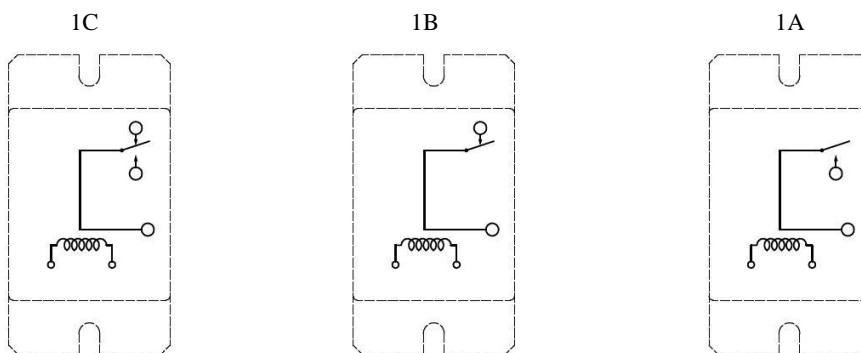
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◆ Wiring Diagram (BOTTOM VIEW)

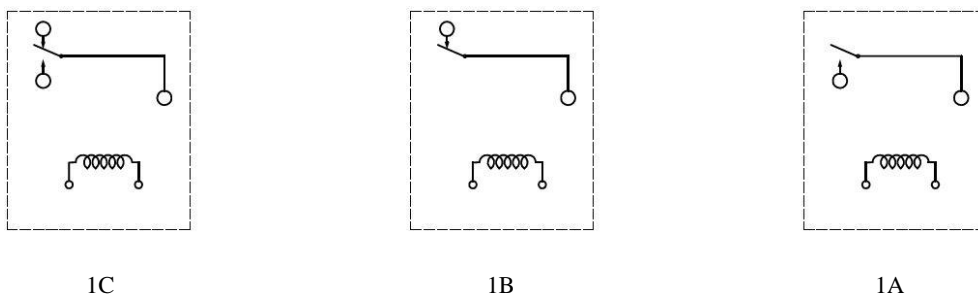
S12(P)



S12(F)

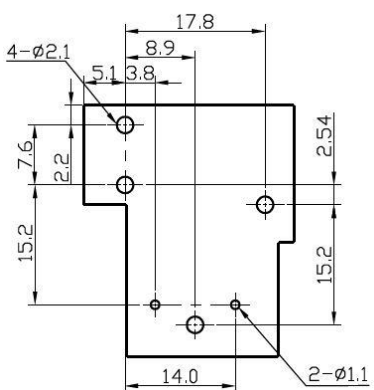


S12(Q)

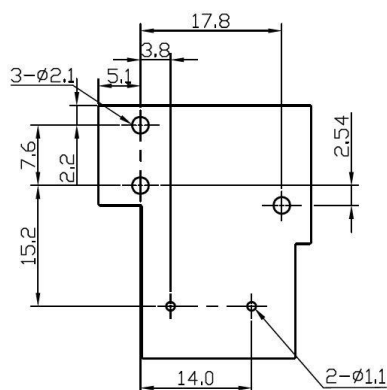


◆ PC BOARD LAYOUT (BOTTOM VIEW)

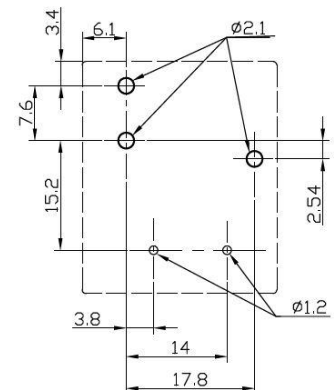
S12(P) type(2 common terminal)



S12(P) type(1 common terminal)

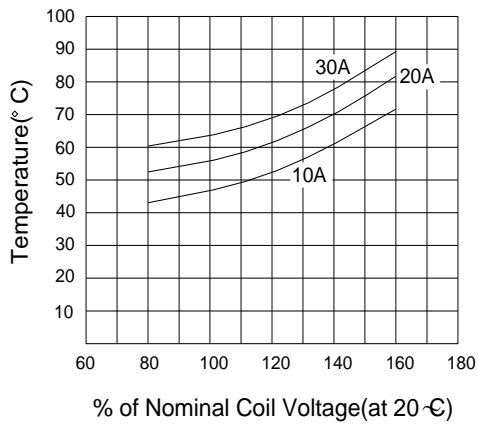


S12(Q) type

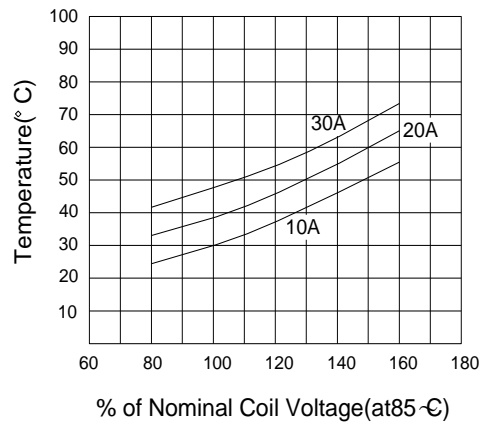


◆ Engineering Data

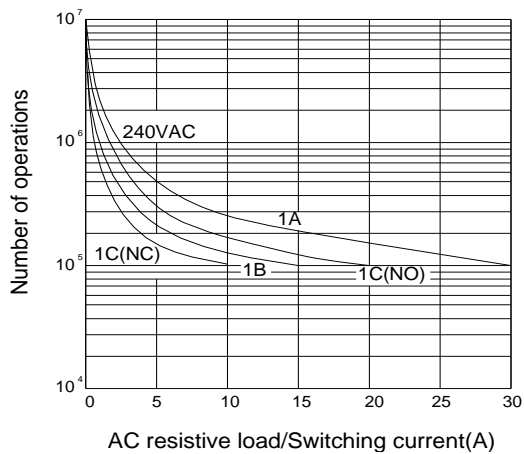
Coil temperature rise



Coil temperature rise



Life expectancy



Operate time/Release time

