

307



»» Features

- ☐ Miniature 12A 125VAC, 10A 250VAC/30VDC PCB Relay.
- ☐ UL/CUL, TUV, VDE approved.
- ☐ 450mW and 200mW coil are available.
- ☐ High CTI 250 material or product comply with IEC 60335-1 are available.
- ☐ Complies with RoHS-Directive 2011/65/EU.
- ☐ Optional for halogen free version.
- ☐ Optional for explosion-proof version.

»» Type List

◆ Standard type

Terminal style	Contact form	Insulation system	Designation (provided with)		
			Flux tight	Sealed type	Sealed type washable
PCB terminal	1A (SPNO)	-----	307-1AH-C	307-1AH-V	307-1AH-S
		F	307-1AH-F-C	307-1AH-F-V	307-1AH-F-S

◆ High power type

PCB terminal	1A (SPNO)	-----	307H-1AC-C	307H-1AC-V	307H-1AC-S
		F	307H-1AC-F-C	307H-1AC-F-V	307H-1AC-F-S

»» Ordering Information

307 ☐ ☐ - 1A H - ☐ - C ☐
 1 2 3 4 5 6 7 8

- | | |
|--|---|
| 1. 307 -- Basic series designation | 6. Blank -- Standard type
F -- Class F |
| 2. Blank -- Standard type
H -- High power type | 7. C -- Flux tight
V -- Sealed type
S -- Sealed type washable |
| 3. Blank -- Standard type
N -- High sensitivity type | 8. ☐ -- Coil voltage (please refer to the coil rating data for the availability) |
| 4. 1A -- Single pole normally open | |
| 5. C -- Contact material AgNi
H -- Contact material AgSnO | |

»» Contact Rating

Type	307	307H
Resistive load	5A 240VAC	8A 240VAC 10A 240VAC (*) 12A 125VAC (*)

Note : 307H special version of 10A 240VAC 100K ops. can be selected.

»» Coil Rating (DC)

◆ Standard Type

Rated voltage (V)	Rated current $\pm 10\%$ at 23°C (mA)	Coil resistance $\pm 10\%$ at 23°C (Ω)	Max. continuous voltage at 70°C (307) at 85°C (307H)	Pick up voltage(Max.) at 23°C	Drop out voltage(Min.) at 23°C	Power consumption at rated voltage
3	150	20	130 % of rated voltage	75 % of rated voltage	5 % of rated voltage	approx. 0.45W
5	90.9	55				
6	75	80				
9	50	180				
12	37.5	320				
18	25	720				
24	18.8	1280				

◆ High sensitivity type

Rated voltage (V)	Rated current $\pm 10\%$ at 23°C (mA)	Coil resistance $\pm 10\%$ at 23°C (Ω)	Max. continuous voltage at 70°C (307) at 85°C (307H)	Pick up voltage(Max.) at 23°C	Drop out voltage(Min.) at 23°C	Power consumption at rated voltage
3	66.7	45	130 % of rated voltage	80 % of rated voltage	5 % of rated voltage	approx. 0.2W
5	40.0	125				
6	33.3	180				
9	22.2	405				
12	16.7	720				
18	11.1	1620				
24	8.3	2880				

» Specification

Contact material	AgNi / AgSnO alloy	
Contact resistance ⁽¹⁾	100mΩ Max. (at 1A/6VDC by 4-wire resistance measurement)	
Operate time ⁽¹⁾	10ms Max.	
Release time ⁽¹⁾	5ms Max.	
Insulation resistance ⁽¹⁾	100MΩ Min. (DC 500V)	
Dielectric strength ⁽¹⁾	Between open contact	: AC 1000V, 50/60Hz 1 min.
	Between contact and coil	: AC 2500V, 50/60Hz 1 min
Vibration resistance	Operating extremes	10 ~ 50Hz , amplitude 1.0 mm
	Damage limits	10 ~ 50Hz , amplitude 1.0 mm
Shock resistance	Operating extremes	10G
	Damage limits	100G
Life expectancy	Mechanical	10,000,000 ops. (frequency 18,000 ops./hr)
	Electrical	100,000 ops. (※)30,000 ops. (frequency 360 ops./hr)
Operating ambient temperature	307	-30 ~ +70 °C (no freezing)
	307H	-40 ~ +85 °C (no freezing) ⁽²⁾
Weight	Approx. 6 g	

Note : (1) Initial value. Operate and release time excluding contact bounce.

(2) Special version of high temperature 105°C can be selected.

» Safety Approval

Certified	UL/CUL	TUV	VDE
	307, 307H	307	307H
File No.	E88991	R50128391	40028236

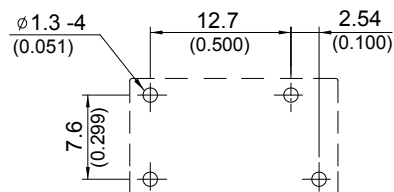
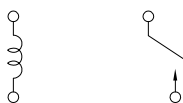
» Safety Approval Rating

UL/CUL		TUV	VDE
307	307H	307	307H
5A 277VAC 5A 30VDC 1/4HP 125/250VAC	10A 277VAC 10A 30VDC 12A 125VAC 1/4HP 125/250VAC TV-3 (for AgSnO contact)	5A 250VAC 5A 30VDC	10A 250VAC T85 6A 250VAC T105

Note : If there is cleaning process and sealed type is selected, the vent-hole should be removed after the process.

Technical drawing of a rectangular plate. The top view shows a rectangle with a width of 18.8 (0.740) and a height of 10.6 (0.417). A circular feature is located on the right side. The bottom view shows the plate with three vertical supports. The dimensions for the supports are: 0.5 (0.020) for the left support, 0.2 (0.008) for the middle support, and 0.4 (0.016) for the right support. The total width of the plate is 12.7 (0.500). The total height of the plate is 2.54 (0.100).

»» PC Board Layout
BOTTOM VIEW



Coil operating range (Standard type)

The graph plots Coil voltage (%) on the Y-axis (40 to 240) against Ambient temperature (°C) on the X-axis (0 to 100). It shows the operating range for two current ratings: 0A and 5A. Two additional lines represent the coil voltage percentage relative to the rated voltage (100V) at different temperatures.

Ambient temperature (°C)	0A Coil Voltage (%)	5A Coil Voltage (%)	with coil voltage 100% (%)	without coil voltage (%)
20	220	190	68	65
40	195	175	80	75
60	175	155	90	85
70	170	150	95	90

