

855A



»» Features

- 30A general purpose Power Relays.
- UL Class F and 10KV surge.
- With & without quick terminals on top.
- SPNO, SPNC, SPDT contact configurations.
- Open frame, dust cover sealed flux free & sealed washable flange cover etc. are both available.
- Complies with RoHS-Directive 2011/65/EU.

»» Type List

◆ 855AP

Terminal style	Contact form	UL Insulation system approval	Designation (provided with)		
			Flux tight	Sealed type	Sealed type washable
P (PCB terminal)	1A (SPNO)	-----	855AP-1A-C	855AP-1A-V	855AP-1A-S
		F	855AP-1A-F-C	855AP-1A-F-V	855AP-1A-F-S
		-----	855AP-1A-C-B	855AP-1A-V-B	855AP-1A-S-B
		F	855AP-1A-F-C-B	855AP-1A-F-V-B	855AP-1A-F-S-B
	1C (SPDT)	-----	855AP-1C-C	855AP-1C-V	855AP-1C-S
		F	855AP-1C-F-C	855AP-1C-F-V	855AP-1C-F-S
		-----	855AP-1C-C-B	855AP-1C-V-B	855AP-1C-S-B
		F	855AP-1C-F-C-B	855AP-1C-F-V-B	855AP-1C-F-S-B

◆ 855AW

Terminal style	Contact form	Insulation system	Designation
			Flanged cover
W (quick terminal)	1A (SPNO)	-----	855AW-1A-C1
		F	855AW-1A-F-C1
		-----	855AW-1A-C1-B
		F	855AW-1A-F-C1-B
	1C (SPDT)	-----	855AW-1C-C1
		F	855AW-1C-F-C1
		-----	855AW-1C-C1-B
		F	855AW-1C-F-C1-B

◆ 855AWP

Terminal style	Contact form	Insulation system	Designation		
			Flux tight	Sealed type	Sealed type washable
WP (PCB terminal & quick terminal)	1A (SPNO)	-----	855AWP-1A-C	855AWP-1A-V	855AWP-1A-S
		F	855AWP-1A-F-C	855AWP-1A-F-V	855AWP-1A-F-S
		-----	855AWP-1A-C-B	855AWP-1A-V-B	855AWP-1A-S-B
		F	855AWP-1A-F-C-B	855AWP-1A-F-V-B	855AWP-1A-F-S-B
	1C (SPDT)	-----	855AWP-1C-C	855AWP-1C-V	855AWP-1C-S
		F	855AWP-1C-F-C	855AWP-1C-F-V	855AWP-1C-F-S
		-----	855AWP-1C-C-B	855AWP-1C-V-B	855AWP-1C-S-B
		F	855AWP-1C-F-C-B	855AWP-1C-F-V-B	855AWP-1C-F-S-B

◆ 855AWP

Terminal style	Contact form	Insulation system	Designation	
			Flux tight cover without shroud	Sealed type washable without shroud
WP (PCB terminal & quick terminal)	1A (SPNO)	-----	855AWP-1A-C2	855AWP-1A-S2
		F	855AWP-1A-F-C2	855AWP-1A-F-S2
		-----	855AWP-1A-C2-B	855AWP-1A-S2-B
		F	855AWP-1A-F-C2-B	855AWP-1A-F-S2-B
	1C (SPDT)	-----	855AWP-1C-C2	855AWP-1C-S2
		F	855AWP-1C-F-C2	855AWP-1C-F-S2
		-----	855AWP-1C-C2-B	855AWP-1C-S2-B
		F	855AWP-1C-F-C2-B	855AWP-1C-F-S2-B

»» Ordering Information

855A W - 1A - - -
 1 2 3 4 5 6 7

- | | |
|-------------------------------------|---|
| 1. 855A -- Basic series designation | 5. Blank -- Open type |
| 2. W -- Quick terminals | C -- Flux tight |
| P -- PCB terminals | V -- Sealed type |
| WP -- Quick and PCB terminals | S -- Sealed type washable |
| 3. 1A -- Single pole normally open | C1 -- Flanged cover |
| 1B -- Single pole normally closed | C2 -- Flux tight cover without shroud |
| 1C -- Single pole double throw | S2 -- Sealed type washable without shroud |
| 4. Blank -- Standard type | 6. Blank -- Standard type |
| F -- Class F | B -- With insulation barrier |
| | 7. <input type="checkbox"/> -- Coil voltage (please refer to the coil rating data for the availability) |

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»» Contact Rating

Load type	1A	1B	1C
Resistive load	30A 240VAC	15A 240VAC	NC/NO:10A/20A 240VAC
Max. switching current	30A	15A	20A
Max. switching voltage	240VAC	240VAC	240VAC
Max. switching capacity	7200VA	3600VA	4800VA

»» Coil Rating (DC)

Rated voltage (V)	Rated current $\pm 10\%$ at 23°C (mA)	Coil resistance $\pm 10\%$ at 23°C (Ω)	Max. continuous voltage at 85°C	Pick up voltage(Max.) at 23°C	Drop out voltage(Min.) at 23°C	Power consumption at rated voltage
5	185	27	130 % of rated voltage	75 % of rated voltage	10 % of rated voltage	approx. 0.93W
6	150	40				
9	93	97				
12	77	155				
18	47	380				
24	36	660				
36	25	1,440				
48	19	2,560				
110	8	13,400				

»» Specification

Contact material	AgSnO alloy	
Contact resistance ⁽¹⁾	50m Ω Max. (at 1A/6VDC by 4-wire resistance measurement)	
Operate time ⁽¹⁾	15 ms Max.	
Release time ⁽¹⁾	15 ms Max.	
Vibration resistance	Operating extremes	10~55Hz, amplitude 1.5 mm
	Damage limits	10~55Hz, amplitude 1.5 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. (frequency 600 ops./hr)
Operating ambient temperature	-55~+85°C (no freezing) ⁽²⁾	
Weight	Approx. 25.5g (P), 36g (W), 30g (WP)	

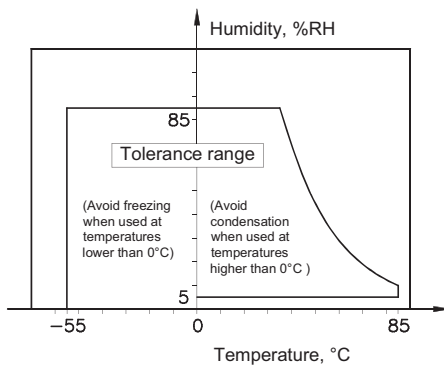
Note : (1) Initial value. Operate and release time excluding contact bounce.

(2) -55 ~ +105°C is available.

(3) Unless otherwise specified, all tests are under room temperature and humidity.

(4) Consider the heat of PCB is necessary, please check the actual condition of PCB.

- (5) Applying no diode to this relay. The life expectancy will be lower when a diode is used. To use a varistor (ZNR) could absorb the coil surge of relay that is recommended.
- (6) Do not use the relay exceeding the coil rating, contact rating and life expectancy, or this may cause the risk of overheating.
- (7) To assure optimum performance, avoid the relay from dropping, hitting, or other unnecessary shocks.
- (8) Do not switch the contacts without any load as the contact resistance may become increased rapidly.
- (9) Flux tight version is recommended. If there is cleaning process and sealed type is selected, the vent-hole should be removed after the process.
- (10) Use suitable harnesses and bus bars according to the current as below :
- 15A type : Min. 3.0 mm²
30A type : Min. 6.0 mm²
- (11) Usage, transport and storage conditions
- 1. Temperature: -55~+85°C
 - 2. Humidity: 5 to 85% R.H.
 - 3. Pressure: 86 to 106 kPa
 - Furthermore, the humidity range varies with the temperature. So, use relays within the range indicated in the graph below.



- (12) Please contact Song Chuan for the detailed information.

»» Insulation Data

Insulation resistance ⁽¹⁾	100 MΩ Min. (DC 500V)
Dielectric strength ⁽¹⁾	Between open contact : AC 1500V, 50/60Hz 1 min.
	Between contact and coil : AC 2000V, 50/60Hz 1min. : AC 2500V, 50/60Hz 1min.(Only for with insulation barrier)
Insulation of IEC 61810-1	
Clearance / creepage distances	Between coil to contact : Basic, ≥ 1.5mm / ≥ 2.5mm
	Between open contact : Functional
Rated insulation voltage	250V
Rated impulse withstand voltage	2500V
Pollution degree	2
Rated voltage	230 / 400V
Overtoltage category	II

Note : (1) Initial value.

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»» Safety Approval

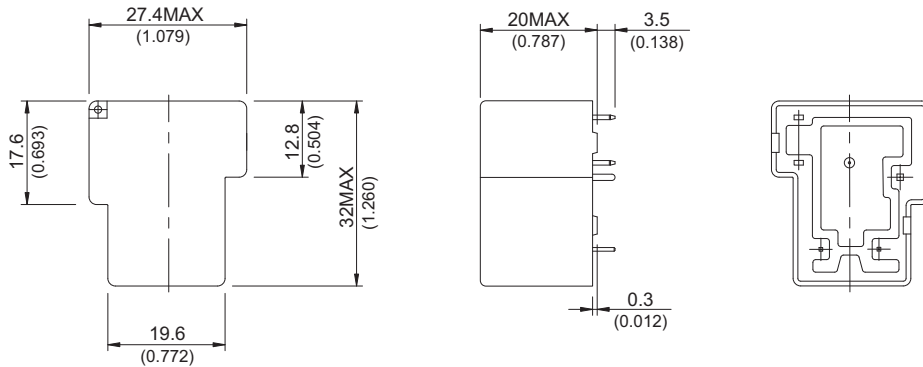
Certified	UL / CUL	TUV
File No.	E88991	R50057260

»» Safety Approval Rating

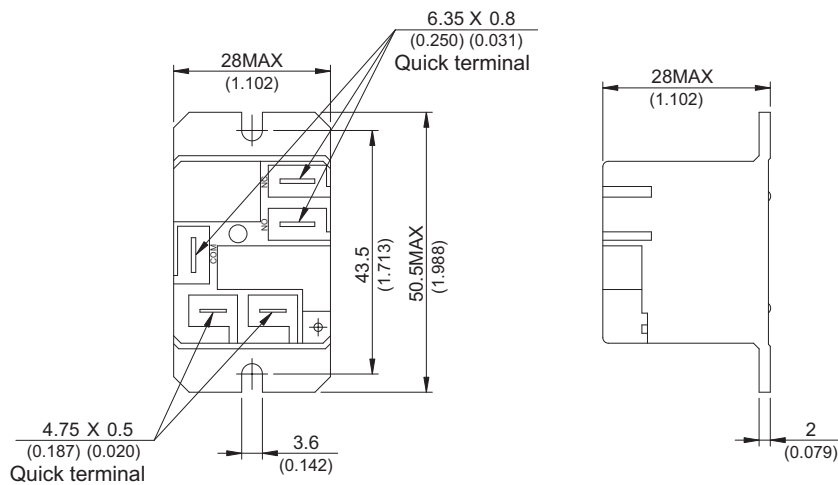
UL / CUL			TUV
1A	1B	1C	
30A 240VAC 20FLA/60LRA 240VAC TV-5	15A 240VAC/28VDC 10FLA/33LRA 240VAC	NO: 20A 240VAC/28VDC 20FLA/60LRA 240VAC TV-5 NC: 10A 240VAC/28VDC 10FLA/33LRA 240VAC	NO: 30A 250VAC NC: 15A 250VAC

»» Outline Dimensions

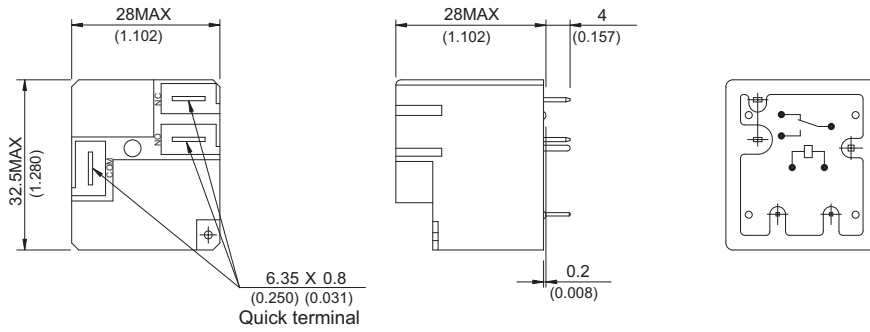
◆ 855AP



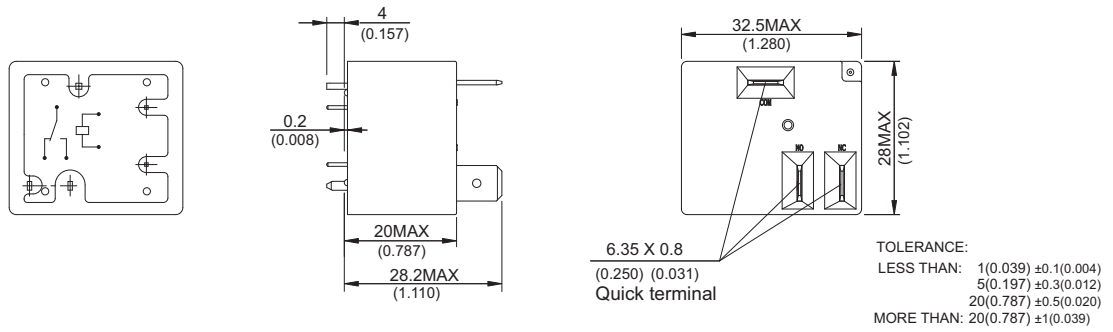
◆ 855AW



◆855AWP (-C,-V,-S)



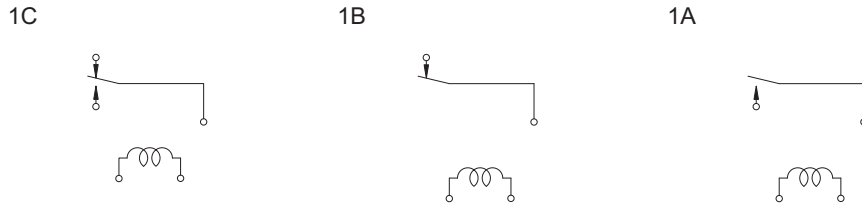
◆855AWP (-C2,-S2)



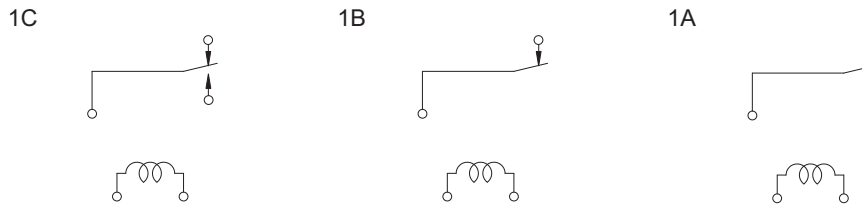
»» Wiring Diagram

BOTTOM VIEW

◆855AP/AWP



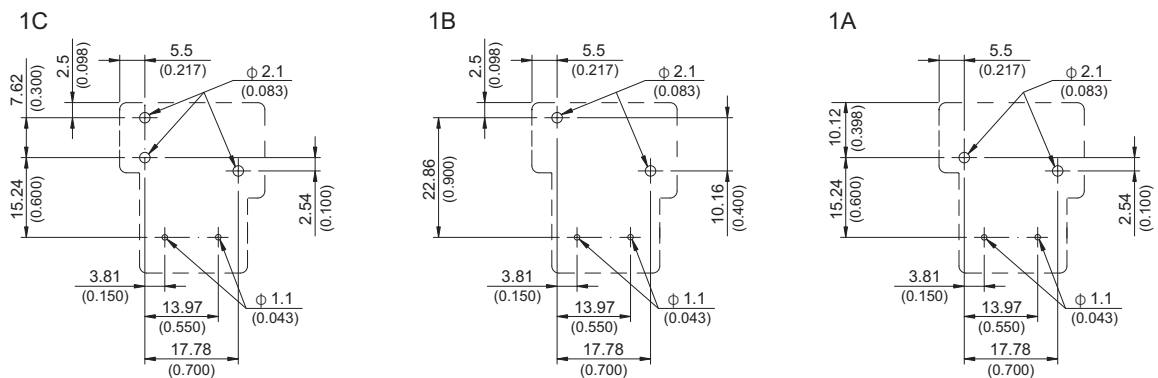
◆855AW



»» PC Board Layout

BOTTOM VIEW

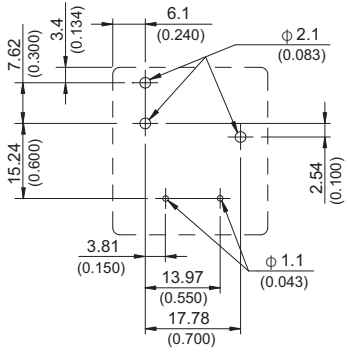
◆855AP



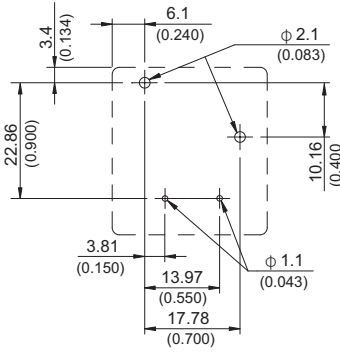
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◆855AWP

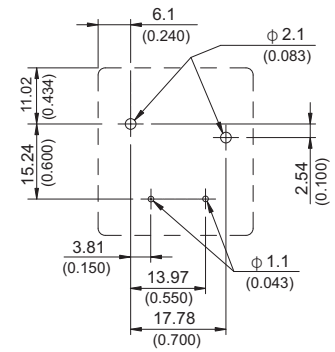
1C



1B

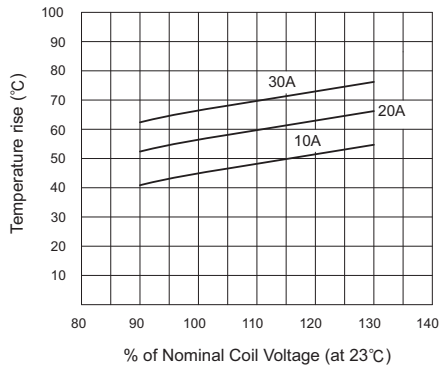


1A

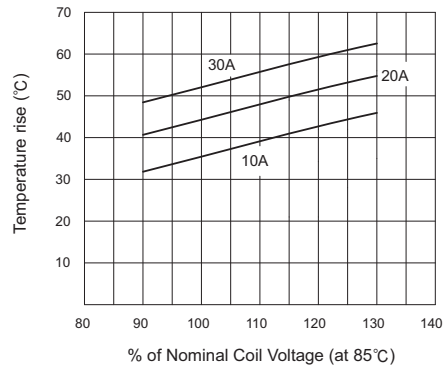


»» Engineering Data

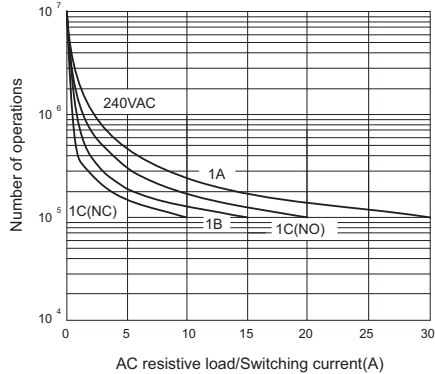
Coil temperature rise



Coil temperature rise



Life expectancy



Operate time/Release time

