



Open Type

13.2×14×18

Dust Covered

18×16.4×20

4117

Features

- Superminiature, heavy power.
- Low coil power consumption.
- Switching current up to 2×10A.
- PC board mounting.
- Suitable for household appliance, electrical equipment, automation system, and automobile industry application.

Ordering Information

4117 C S 10 12VDC 1.0

1 2 3 4 5 6

1 Part number: 4117

2 Contact arrangement: A:1A; B:1B; C:1C; U:1U; W:1W

3 Enclosure: S: Sealed type; Z: Dust cover
O: open type

4 Contact Current: 10:10A; 20:20A

5 Coil rated Voltage(V): DC:3,5,6,9,12,18,24

6 Coil power consumption: 1.0:1.0W; 1.2:1.2W

Contact Data

Contact Arrangement

1A (SPSTNO), 1C (SPDT(B-M)), 1U (SPSTNODM), 1W (SPDTNC-NO)

Contact Material

Ag·SnO₂

Contact Rating (resistive)

1A, 1C: 10A/120VAC,28VDC 20A/14VDC ;

1U: 2×10A/120VAC,28VDC 2×20A/14VDC ;

1W: 2×10A/120VAC,28VDC 2×20A/14VDC

Max. Switching Power

1C: 280W 1200VA 1W: 2×280W 2×1200VA

Max. Switching Voltage

75VDC 380VAC

Max. Switching Current:20A

Contact Resistance or Voltage drop

≤50mΩ

Item 3.12 of IEC255-7

Operation | Electrical

10⁵

Item 3.30 of IEC255-7

life | Mechanical

10⁷

Item 3.31 of IEC255-7

Coil Parameter

Dash Numbers	Coil voltage VDC		Coil resistance Ω±10%	Pickup voltage VDC(max) (75%of rated voltage)	release voltage VDC(min) (10% of rated voltage)	Coil power consumption W	Operate Time ms	Release Time ms
	Rated	Max.						
003-1000	3	3.9	9	2.25	0.3			
005-1000	5	6.5	25	3.75	0.5			
006-1000	6	7.8	36	4.50	0.6			
009-1000	9	11.7	85	6.75	0.9	1.0	<10	<5
012-1000	12	15.6	145	9.00	1.2			
018-1000	18	23.4	324	13.5	1.8			
024-1000	24	31.2	576	18.0	2.4			
012-1200	12	15.6	120	9.00	1.2	1.2	<10	<5

CAUTION: 1.The use of any coil voltage less than the rated coil voltage will compromise the operation of the relay.
2.Pickup and release voltage are for test purposes only and are not to be used as design criteria.

Operation condition

Insulation Resistance	100M Ω min (at 500VDC)	Item 7 of IEC255-5
Dielectric Strength		
Between contacts	50Hz 750V	Item 6 of IEC255-5
Between contact and coil	50Hz 1500V	Item 6 of IEC255-5
Shock resistance	100m/s ² 11ms	IEC68-2-27 Test Ea
Vibration resistance	10~40Hz double amplitude 1.27mm	IEC68-2-6 Test Fc
Terminals strength	10N	IEC68-2-21 Test Ua1
Solderability	235 \pm 2 $^{\circ}$ C 3 \pm 0.5s	IEC68-2-20 Test Ta method 1
Ambient Temperature	-40~85 $^{\circ}$ C	
Relative Humidity	85% (at 40 $^{\circ}$ C)	IEC68-2-3Test Ca
Mass	9g(Open type) 12g	

Qualification inspection:

Perform the qualification test as specified in the table IV of IEC255-19-1 and minimum sample size 24.

Dimensions (Unit: mm)		mm	inch
		0.3	0.012
		0.4	0.016
		0.5	0.020
		0.6	0.024
		0.8	0.031
		1.0	0.039
		1.3	0.051
		2.1	0.083
		3.3	0.130
		3.4	0.134
		3.81	0.150
		4.6	0.181
		5.08	0.200
		8.89	0.350
<p>Dimensions</p>	<p>Mounting (Bottomz views)</p>	10.16	0.400
		13.2	0.520
		14	0.511
		16.4	0.646
		18	0.709
		20	0.787
<p>Wiring diagram (Bottom views)</p>	<p>1A 1C 1U 1W</p>		

NOTES 1).Dimensions are in millimeter.
2).Inch equivalents are given for general information only.

Reference Data

