# A16-H Series 16A MINIATURE POWER RELAY

## FEATURES

- Outline dimension (19mm×10.2mm×14.9mm)
- 1 Form A (SPST) contact arrangement
- Designed to meet cULus,TUV,CQC requirements
- 4,000VAC dielectric stenght between coil and contact
- RoHS compliance
- REACH SvHC compliance
- Glow wire type avaliable

File NO. E341422

File NO. R50461636

File NO. CQC20002239037

## APPLICATION

Smart socket, Home appliance, Industrial controls,etc

## COIL PARAMETER

| | |
|---|---|
| Coil voltage | 3-48VDC |
| Coil power | 450mW |

## COIL DATA @23℃

| A16-H | | | | |
|---|---|---|---|---|
| Nominal coil voltage (VDC) | Nominal Current (mA) | Coil Resistance (Ω)±10% | Operate Voltage (VDC Max.) | Release Voltage (VDC Min.) |
| 3 | 150 | 20 | 2.25 | 0.15 |
| 5 | 89.0 | 55.6 | 3.75 | 0.25 |
| 9 | 50 | 180 | 6.75 | 0.45 |
| 12 | 37.5 | 320 | 9.00 | 0.60 |
| 18 | 25 | 720 | 13.50 | 0.90 |
| 24 | 18.7 | 1280 | 18.00 | 1.20 |
| 48 | 9.4 | 5120 | 36.00 | 2.40 |

## CONTACT DATA

| | |
|---|---|
| Contact arrangement | 1 Form A (SPST) |
| Contact material | Ag Alloy |
| Initial contact resistance | 100mΩ max.@6VDC,1A |
| Max. switching voltage | 277VAC/30VDC |
| Max. switching current | 16A |
| Max. switching power | 4432VA/480W |
| Contact rating (Resistive Load) | 16A 277/250/125VAC,Resistive Load |
| | 1/6HP 250/125VAC,Motor |
| | TV-8 250/125VAC,TV Load |
| Mechanical endurance | 1,000,000 ops Min.(no Load) |
| Electrical endurance | 16A 277VAC , 1s/9s on/off, 100,000 ops |
| Minimum load (reference value) | 100mA@5VDC |

## CHARACTERISTICS

| | | |
|---|---|---|
| Operate voltage | | 75% of nominal voltage or less |
| Release voltage | | 5% of nominal voltage or more |
| Operate time(At nominal voltage) | | 10ms max. |
| Release time(At nominal voltage) | | 4ms max. |
| Insulation resistance | | 1,000 MΩ min. (at 500 VDC) |
| Dielectric strength | Between coil and contacts | 4,000 VAC, 50/60 Hz for 1 min |
| | Between open contacts | 1,000 VAC, 50/60 Hz for 1 min |
| Surge voltage between coil and contacts | | 10,000V(1.2/50μs) |
| Vibration resistance | Destruction | 10 to 55 Hz.,1.5mm double amplitude |
| | Malfunction | 10 to 55 Hz.,1.5mm double amplitude |
| Shock resistance | Destruction | 1,000 m/s2(100G approximately ) |
| | Malfunction | 100 m/s2(10G approximately) |
| Ambient temperature | | -40~+85℃ (without icing or condensation) |
| Ambient humidity | | 20%~85% RH |
| Terminal | | PCB terminals |
| Enclosure (94V-0 Flammability Ratings) | | V: Vented(Flux-tight, RTII) |
| | | S: Sealed(Wash-tight, RTIII) |
| Weight | | Approx. 6g |

## ORDERING INFORMATION

| | A16 | -V | -1 | 12 | H | A | 2 | F | ,000 |
|---|---|---|---|---|---|---|---|---|---|

1.Product Family

2.Enclosure

S: Sealed(Wash-tight, RTIII)

V=Vented(Flux-tight, RTII)

3.Number of Poles

1=1 pole

4.Rated Coil Voltage

03,05,09,12,18,24,48VDC

5.Coil Power

H = Hingh power type(450mW)

6.Contact Arrangement

A = Form A(SPST)

7.Conact Material

2=$AgSnO_2$

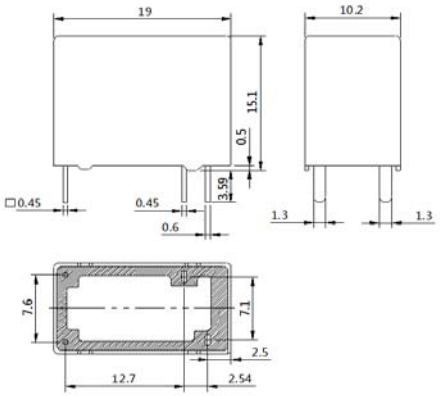
8.Insulation System

F = Class F(155℃)

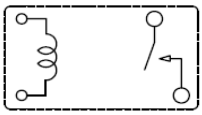
9.Additional numbers and /or letters

000-999，AAA-ZZZ，aaa-zzz or blank，which does not represent electrical changes, only for specific customer requirements

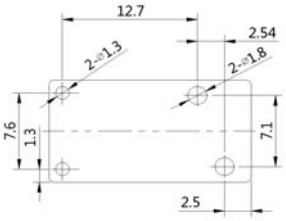
## OUTLINE DIMENSION




## WIRING DIAGRAMS (BOTTOM VIEWS)



## PC BOARD LAYOUTS (BOTTOM VIEWS)




Remarks:

1)The reference tolerance in outline dimension:

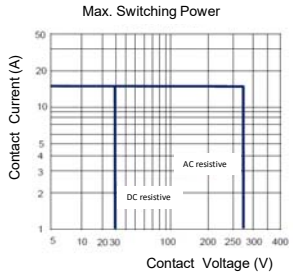
outline dimension ≤1mm, reference tolerance is ±0.2mm;

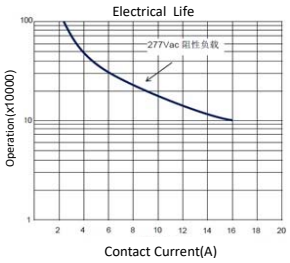
outline dimension > 1mm and ≤5mm, reference tolerance is ±0.3mm;

outline dimension > 5mm, reference tolerance is ±0.5mm.

2)The reference tolerance for PC Board layout is ±0.1mm.

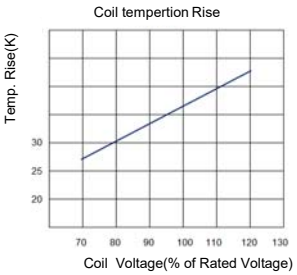
## Reference Date




Test Condition：

Resistive Load，250VAC，cosφ=0.75 85℃,1s on/9s off

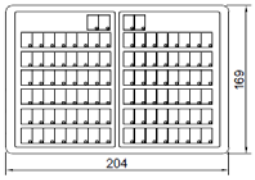



Test Condition：85℃ 16A

Mounting distance：10mm

## Packaging FIgure

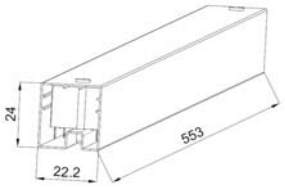
1.BOX




100 pcs inside a box

1000pcs inside a carton

2.TUBE




50 pcs inside a tube

2000 pcs inside a carton