



## Main Feature

1. Miniature size with low power consumption for rated loading to 16A.
2. Surge Strength up to 10,000V.
3. Operating temperature up to 105°C.
4. Halogen Free series available.
5. UL Class F insulation available.
6. Comply with RoHS and REACH regulations



## Contact Rating

Load Type	AHQ (LM)	AHQ (LM1)	AHQ(DM2F)
Rated Load (Resistive)	5A 250VAC	10A 250VAC	16A 277VAC
	-	12A 125 VAC	-
	5A 30VDC	10A 30VDC	-
Contact Capacity	-	10A 277VAC	-
Rated Carrying Current	-	TV-5 120VAC	TV-8
Max. Allowable Voltage	5A	10A	16A
	AC 250V	AC 250V	AC 277V
Max. Allowable Current	DC 30V	DC 30V	-
	5A	12A	16A
Max. Allowable Power Force	1,250VA	2,500VA	4432VA
	150W	300W	-
Contact Material	Ag Alloy	Ag Alloy	Ag Alloy
Contact Form	SPST	SPST	SPST

## Application

Domestic Appliances, Office Machines, Audio Equipment, etc.

## Performance (at Initial Value)

- Contact Resistance ..... 100mΩ Max.@1A,6VDC
- Operate Time..... 10mSec. Max.
- Release Time ..... 5 mSec. Max.
- Dielectric Strength:
  - Between Coil & Contact ..... 4,000VAC at 50/60 Hz for one minute
  - Between Contacts ..... 1,000VAC at 50/60 Hz For one minute
- Surge Strength ..... 10,000V (between coil & contact 1.2x50μSec.)
- Insulation Resistance ..... 100 MegaΩ Min. at 500VDC
- Max. On/Off Switching:
  - Electrical..... 6 Cycles per Minute
  - Mechanical ..... 300 Cycles per Minute
- Temperature Range..... -40~+105°C
- Humidity Range..... 45~85% RH.
- Coil Temperature Rise..... 40°C Max.
- Vibration:
  - Endurance ..... 10 to 55 Hz dual amplitude width 1.5mm
  - Error Operation..... 10 to 55 Hz dual amplitude width 1.5mm
- Shock:
  - Endurance ..... 1,000 m/S<sup>2</sup>
  - Error Operation..... 100 m/S<sup>2</sup>
- Life Expectancy:
  - Mechanical ..... 10<sup>7</sup> Operations at No Load condition
  - Electrical ..... 10<sup>5</sup> Operations at Rated Resistive Load
  - 2.5x10<sup>4</sup> Operations at TV Rated Load
- Weight ..... About 9.0 g



## Safety Standard & File Number

- LM:  
UL & C-UL..... E520111
- LM1:  
UL & C-UL..... E520111

- DM2F:  
UL..... E520111

## Coil Specification (at 20°C)

Coil Sensitivity	Nominal Voltage (VDC)	Nominal Current (mA)	Coil Resistance ( $\Omega \pm 10\%$ )	Power Consumption (W)	Pull-In Voltage (VDC)	Drop-Out Voltage (VDC)	Maximum Allowable Voltage (VDC)
AHQ(LM/LM1)	3	67	45	Abt. 0.20	80% Maximum	5% Minimum	110%
	5	40	125				
	6	33.3	180				
	9	22.5	400				
	12	16.7	720				
	15	13.3	1,125				
	18	11.1	1,620				
	24	8.3	2,880				
AHQ(DM2F)	48	4.2	11,520	Abt. 0.36	80% Maximum	5% Minimum	110%
	5	71.4	70				
	6	60	100				
	9	40	225				
	12	30	400				
	15	24	625				
	18	20	900				
	24	15	1,600				
48	7.5	6,400					

## Ordering Information

AHQ SH 1 12 L M 1 F

**Insulation System:** Nil: Standard Class  
F: Class F

**Rated Carrying Current:** Nil: 5A  
1: 10A  
2: 16A(New)

**Contact Form:** M: One Form A

**Coil Sensitivity:** D: New structure Standard DC, 16A  
L: High DC

**Coil Voltage:** 03: 3V, 05: 5V, 06: 6V, 09: 9V, 12: 12V  
15: 15V, 18: 18V, 24: 24V, 48: 48V

**Number of Pole:** 1: One Pole

**Type of Sealing:** SH: RTIII Wash Tight

**Type:** AHQ

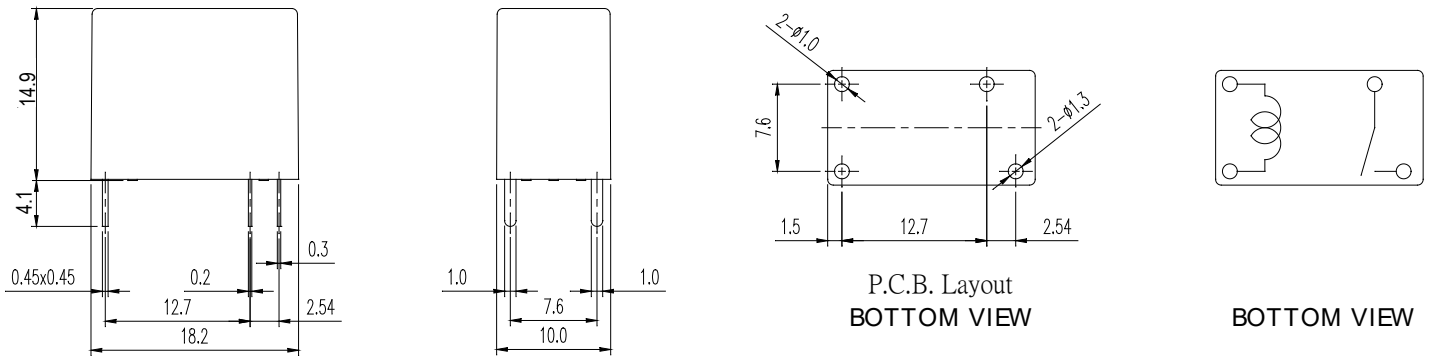
\*Note: 16A is with class F and the ordering part no shall be "DM2F".

## Classification

Model	AHQ		
Rated Carrying Current	5A	10A	16A
Wash Tight	AHQ SH 1□□LM	AHQ SH 1□□LM1/F	AHQ SH 1□□DM2F

Dimension ( $\leq 5\text{mm} \pm 0.2\text{mm}$ ,  $> 5\text{mm} \pm 0.3\text{mm}$ , the tolerance of PCB thru hole:  $+0.1\text{mm}$ )

### AHQ-LM/LM1



### AHQ-DM2

