

Application:

- ♦ 17AM series thermal protector is the product sensitive to temperature & current.
- ♦ Advanced structure , small size , sensitive action , big contact capacity & long life.
- Protect against overheating & over-current in motor, electric
 & thermal appliance, lamp ballasts, transformers, automotive
 motor , integrated circuit & other electric equipments.



Naming Rule:

17AM	D1	-	***	A
1	2		3	4

1.Series Naming

2. Voltage&Current Rating D1: AC125V,16A D2: AC250V,10A D3: AC250V,8A

- 3. Rated Open Temperature (e.g.: $50 = 50^{\circ}$ C)
- 4. Terminal Configuration: A:Terminals on the same side B: Terminals on different sides

Structure:(Unit:mm)





> Materials:

1	2	3	4	5	6	7	8	9
Leads	Sleeve	Shell	Movable Contact	Bimental	Stationary Contact	Connected Iron Nail	Baseboard	Insulation Paper

Leads

UL 3321 AWG #18 copper core leads, black color, tinned.

> Shell:

The steel material used for case is plated with alloy of nickel and zinc.

Sleeve material

Insulated sleeve is complied with electric appliance's requirement.

Capability

> Rating current:

16A/AC 125V, 10A/AC 250V or customized

Open Temperature:

the 17AM-D Series will open under the given temperature(Temperature Range:50~165 °C) with tolerance of

 $\pm 5\,^\circ\!\!\mathbb{C}$ (Refer to table 1) .

Tensile Resistance Test:

Terminals should endure more than 50N. And terminals should be no loose and leads have no rupture or slipping.

Insulated voltage

a. The leads should endure AC660V after opening without arc over under duration of 1min.

b. Between the outgoing lines or terminals of the thermal protector and insulated sleeves shall endure voltage of AC 1500V and duration of 1min, without arc over.

Insulated resistance:

Under normal conditions, insulated resistance between leads and insulated sleeve should be more than

100MΩ.(By DC500V insulation measurement machine).



Contact resistance:

Contact resistance of thermal protector should be less than $50m\Omega$.

> Air tightness Test :

There is no continuous air bubble from the thermal protector when the protector is placed into above 85 deg. water (not boiling water).

Heat Resistance Test:

It will last 96 hours when the protector is placed where the ambient temperature is 150 deg.

Humidity Resistance Test :

It will last 48 hours when the protector is placed where the ambient temperature is 40 deg. and relative humidity is 95%.

Heat Shock Test :

It will last 5 cycles when the protector is placed where the ambient temperature is exchanged between 150 deg. and minus 20 deg. for 30min.

Vibration Test:

The thermal protector should be normal after 2h in the conditions with amplitude of 1.5mm, frequency change of $10\sim55$ Hz, change period of $3\sim5$ min, Vibration directions of X, Y and Z.

> Fallen Test:

Let the thermal protector freely fall down 0.70m above cement ground.

Pressure Resistance Test :

Let the thermal protector dip into the sealed oilcan and give 2MPa press lasting for 24 hours.

- After Above relevant test, the performance of the thermal protector shall meet the following requirements:
- a.Change of opening temperature shall be within $\pm 7^{\circ}$ C comparing to the initial value.
- b.Contact resistance should be under $50m\Omega$.
- c.Appearance should have no evident distortion.
- d.Leads should have no cracking.
- e.Insulated voltage shall be complied with above relevant test description



f.Insulated resistance shall be complied with above relevant test description

Life Test

Protector acts 1000 times under external power in the condition of rated voltage, current and 0.7 power. the performance of the thermal protector shall meet the following requirements:

a.Change of opening temperature should be within $\pm 7^{\circ}$ C comparing to the initial value.

b.Contact resistance should be less than $100m\Omega$. The opening temperature shall be normal after further 5000 cycles.

Additional items:

a.During the opening temperature test, the rate of temperature rising should be controlled to $1^{\circ}C/1$ min. b. The case of protector can't endure strong impact or pressure when it is used in circuit

Table1: For Open Temperature and Coding of 17AM Series Thermal Protector

Code No.	Rated Open Temperature	Rated Reset Temperature
17AMD*-050A	50±5℃	45∼30°C
17AMD*-055A	55±5℃	45∼30°C
17AMD*-060A	60±5°C	50∼35℃
17AMD*-065A	65±5°C	55~40°C
17AMD*-070A	70±5℃	60∼40°C
17AMD*-075A	75±5℃	65~40°C
17AMD*-080A	80±5℃	70∼40°C
17AMD*-085A	85±5℃	75∼45℃
17AMD*-090A	90±5℃	80∼45℃
17AMD*-095A	95±5℃	80∼45℃
17AMD*-100A	100±5℃	85~50°C
17AMD*-105A	105±5℃	90∼50°C



Code No.	Rated Open Temperature	Rated Reset Temperature
17AMD*-110A	110±5°C	90∼50°C
17AMD* 115A	115+5°C	95∼55°C
17AMD*-113A	120 + 5%	<u> </u>
17AMD*-120A	120±5°C	95~550
17AMD*-125A	125±5℃	100~60°C
17AMD*-130A	130±5℃	105∼60°C
17AMD*-135A	135±5℃	110∼60°C
17AMD*-140A	140±5℃	115∼60°C
17AMD*-145A	145±5°C	120∼60°C
17AMD*-150A	150±5℃	120~60°C
17AMD*-155A	155±5℃	125~60°C
17AMD*-160A	160±5℃	125~60°C
17AMD*-165A	165±5℃	125~60°C

Note: The items which this standard have not referred or customs require shall be made additionally.

CONTACT INFORMATION

Shanghai Ecube-Tech Electronics Technology Co., Ltd. 上海赫品电子科技有限公司 Email: Marketing@ecube-tech.com Tel:+86 21 50723288 Fax:400 8892 163 Ext. 324988 Address: No.245, Jinan Road, Huangpu Area, Shanghai, 200021, China Website: <u>www.ecube-tech.com</u>