

# 【HIGH POWER RESISTOR- FCH300 Series】



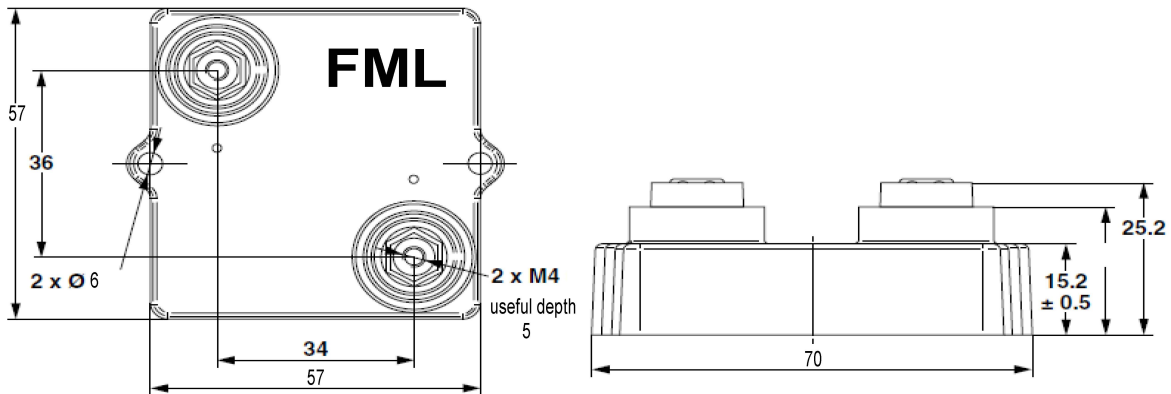
## ■ Features

- Thick film & Non-inductive design, ROHS compliant
- High voltage and pulse loading, easy load connecting with M4 or M5 screws
- Extremely low TCR down to 50PPM with high power
- High power rating up to 300 Watts at 85 degree.

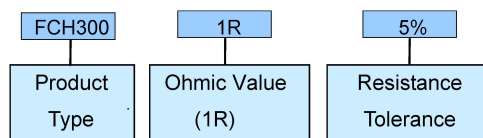
## ■ Applications

- E-variable speed drives
- Power supplies
- Control devices, robotics, motor control and other power designs

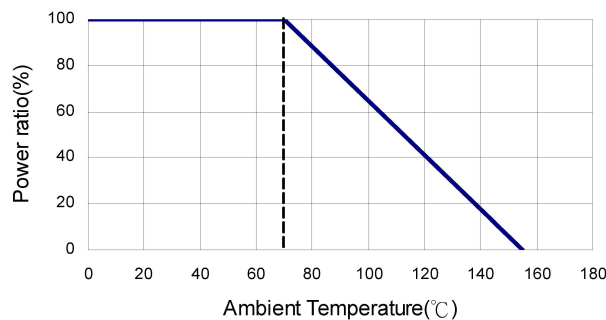
## ■ Construction



## ■ Part Numbering



## ■ Derating Curve



## ■ Technical and standard electrical specifications

Resistance ranges:  $0.5 \Omega \sim 1M \Omega$

Resistance Tolerance:  $\pm 5\% \sim \pm 10\%$

Temperature Coefficient:  $\pm 150PPM/^{\circ}C$  ( $25^{\circ}C \sim 105^{\circ}C$ ) On special request

Power Rating: 300W at  $85^{\circ}C$  Bottom case temperature

Maximum Working Voltage: 5000VDC, higher voltage in request, not exceeding max. power

Peak Current: up to 1500 Amp. depending on pulse length and frequency please ask for details

Electric Strength Voltage: 6kVrms, 50Hz, up to 12kVrms On special request

Single Shot Voltage: up to 12kV Normwave (1.5/50usec)

Parital Discharge: 4kVrms, <10pC, up to 7kV On special request

Insulation Resistance:  $10G \Omega$  Min at 500V, C reeping Distance: 42 mm Min.

Air Distance: 14 mm Min. ; Inductance:  $\leq 80$  nH; Capacity/Mass:  $\leq 110$  pF; Capacity/Parallel:  $\leq 40$  pF;

Moisture Resistance: 56day/ $40^{\circ}C$ ,  $RH \geq 95\%$ ,  $\Delta R \leq \pm (0.25\% + 0.001 \Omega)$ ,

Vibration, High Frequency: MIL-Std-202, Method 204, cond. D,  $\Delta R \leq \pm (0.2\% + 0.001 \Omega)$  Max.

Short Time Overload: 450W at  $70^{\circ}C$  for 10sec. ,  $\Delta R = 0.4\%$  max.

Working Temperature Range:  $-55^{\circ}C \sim 150^{\circ}C$

Max. Torque for Contacts: 2Nm; Max. Torque for Mounting: 1.8Nm M4 screws;

## ■ Reference Standards: IEC60115-1:2001(GB/T5729-2003)

MIL-STD-202/MIL-R-39009D

## ■ Storage Temperature: $25 \pm 3^{\circ}C$ ; Humidity < 80%RH