

# Series SUP800 High Power Resistor

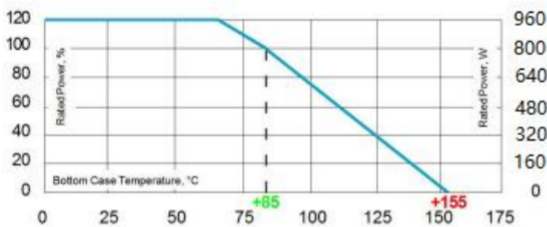
Mainly used as a snubber resistor to compensate the C-R peaks in traction power supplies. Furthermore for speed drives, power supplies, control devices and robotics. The easy mounting fixture guarantees an auto-calibrated pressure to the cooling plate of about 300 N.

- 800W operating power
- Non-Inductive design
- ROHS compliant
- Materials in accordance with UL 94 V-0



## Product Detail:

### 1. Derating

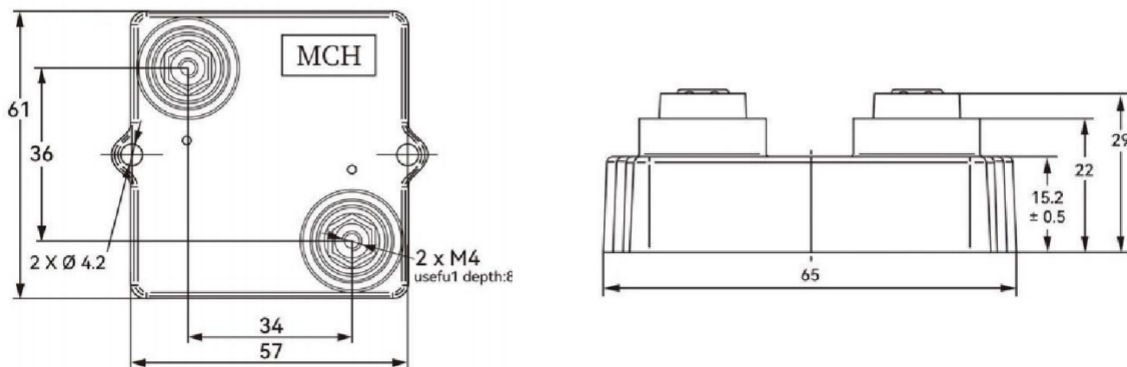


Derating (thermal resist.) SUP800: 8.47W/K (0.12 K/W)

Power rating: 800 W at 85°C bottom case temperature

This value is only applicable when using a thermal conduction to the heat sink  $R_{th-cs} < 0.025 K/W$ . This value can be obtained by using a thermal transfer compound with a heat conductivity of at least 1 W/mK. The flatness of the cooling plate must be better than 0.05 mm overall. Surface roughness should not exceed 6.4  $\mu m$ .

### 2. Dimensions in millimeters



### 3. Specifications

Resistance ranges:  $0.1 \Omega \leq 0.2 \Omega$  (HC-version)

$> 0.2 \Omega \leq 1 M \Omega$  (higher values on request)

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

±1 % to ±2 % on special request for limited ohmic values with the reduction of the max. power / pulse rating (ask for details)

Temperature Coefficient: ±500PPM/°C (0.1 Ω ≤ 0.2Ω) standard

±150PPM/°C (> 0.25 Ω ≤ 1 MΩ) standard

lower TCR on special request for limited ohmic values

Power rating: 800 W at 85°C bottom case temperature

Short time overload: 960 W at 70°C for 10sec., ΔR = 0.4% max.

Maximum operating voltage: 5,000 V DC = 3,500 V AC RMS (50 Hz)

higher voltage on request, not exceeding max. power

Electric strength voltage: 7 kVrms / 50 Hz / 500 VA, test time 1 min

between terminal und case (up to 12 kVrms on request)

voltages above 10 kVrms are tested at DC equivalent to avoid pre damage of component

Insulation resistance: > 10 GΩ at 1,000 V

Single shot voltage: up to 12 kV norm wave (1.5/50 μsec)

Creeping distance: > 29mm (standard, higher on request)

Air distance: > 14 mm (standard, higher on request)

Inductance: ≤ 80 nH (typical), measuring frequency 10 kHz

Capacity/mass: ≤ 140 pF (typical), measuring frequency 10 kHz

Capacity/parallel: ≤ 40 pF (typical), measuring frequency 10 kHz

Operating temperature: -55°C to +155°C

Mounting - torque for contacts: 1.8 Nm to 2 Nm

Mounting - torque: 1.6 Nm to 1.8 Nm M4 screws

Cable variation available on request: HV-cable / Flying leads (ask for details)

Standard cable type: H&S Radox 9 GKW AX 1,5mm<sup>2</sup> (other cable types on special request)

Weight: ~73.3g

#### 4. Ordering Information

Type	ohmic Value	TOL
SUP800	100K	5%