

SH Series

Precision Metal-Clad Shunts

Precision metal clad resistors designed in four-terminal technique, are distinguished by high load capacity as well as excellent accuracy. Isolated voltage and current connections making them suitable for very precise current measurements. The simple four port Kelvin design ensures easy installation on large current bus bars. Units have a low inductance, heavy copper terminals. Applications include: battery testing, current detection in precise power sources, constant current sources, industrial power conversion circuits, HEVs, fuel cells and constant electronic loads.



CERTIFICATIONS

BN ES ISO 9001: 2008

ISO/TS 16949: 2009

SERIES SPECIFICATIONS

| Series | Rated Current (A) | Rated Voltage (mV) | Resistance (mΩ) |
|--------|-------------------|--------------------|-----------------|
| SH2 | 100 | 100 | 1.0000 |
| | 150 | 100 | 0.6666 |
| | 200 | 100 | 0.5000 |
| SH3 | 250 | 100 | 0.4000 |
| | 300 | 100 | 0.3333 |

CHARACTERISTICS

| Test | Method | Maximum ΔR | Temp. Range | -55°C ~ +110°C |
|----------------------------|---|------------|--|-----------------------------------|
| Short Time Overload | 5x Power rating 5 sec. | ±0.3% | Insulation Resist. | 100MΩ min. |
| Moisture Resistance | 40°C, 95% RH, DC100V case to terminal, 500 hours | ±0.5% | Dielectric Withstanding Voltage | AC 500V for 1 minute |
| Thermal Shock | -65°C 30 minutes, +90°C 30 minutes 25 cycles | ±0.2% | Temp. Coefficient | Max. 30ppm/°C [20°C and 60°C] |
| Vibration | 10Hz-55Hz-10Hz (1min.), 2 hours each direction | ±0.2% | Lead Wire | UL1331 AWG 16 with red insulation |
| Moisture Load Life | 40°C, 95% RH, 0.1X Power rating 1.5 hours on, 30 minutes off, 500 hours | ±0.5% | | |
| Load Life | Power rating 1.5 hours on, 30 min. off, 500 hours | ±0.5% | | |

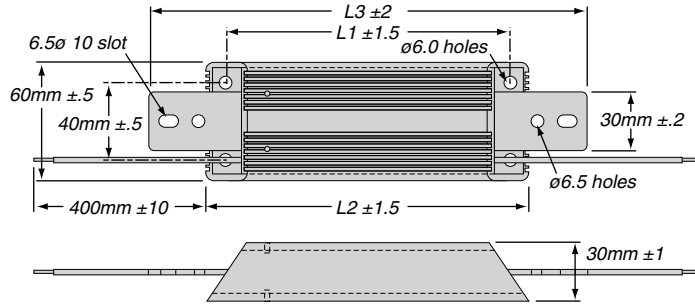
(continued)

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DIMENSIONS

(mm)



| Series | Current (A) | Mass (g) | L1 ±1.5 | L2 ±2 | L3 ±2 |
|--------|-------------|----------|---------|-------|-------|
| SH2 | 100 | 650 | 146 | 165 | 225 |
| | 150 | 650 | 146 | 165 | 225 |
| | 200 | 650 | 146 | 165 | 225 |
| SH3 | 250 | 1100 | 196 | 215 | 275 |
| | 300 | 1100 | 196 | 215 | 275 |

ORDERING INFORMATION

RoHS Compliant

S H 2 - 2 0 0 R 0 0 0 5 D E

Series Size Current Resistance Tolerance
see table B = ±0.1%
D = ±0.5%

Standard part numbers

| Part | Rated Current (A) | Rated Voltage (mV) | Resistance (mΩ) | Resistance Tolerance |
|----------------|-------------------|--------------------|-----------------|----------------------|
| SH2-100R0010DE | 100 | 100 | 1.0000 | 0.5% |
| SH2-150R0006DE | 150 | 100 | 0.6666 | 0.5% |
| SH2-200R0005DE | 200 | 100 | 0.5000 | 0.5% |
| SH3-250R0004DE | 250 | 100 | 0.4000 | 0.5% |
| SH3-300R0003DE | 300 | 100 | 0.3333 | 0.5% |