

Series PCS

Precision Current Sense Resistors

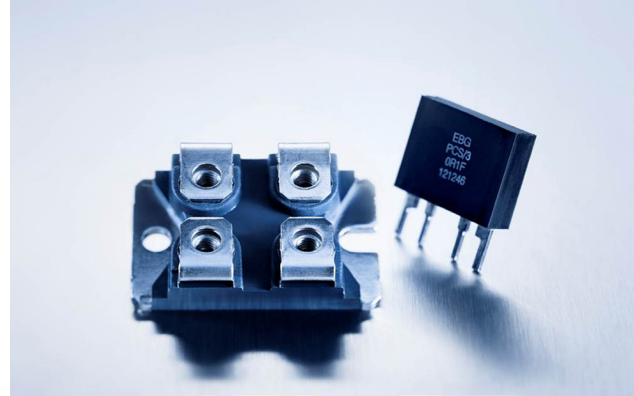


A Miba Group Company

The PCS series uses EBG's state-of-the-art technology to provide a highly reliable resistor with a Non-Inductive design. This makes the PCS resistor ideal for many current-monitoring and control applications.

Features

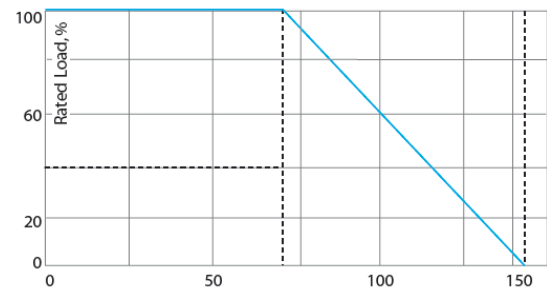
- 3 W / 60 W / 100 W current sense resistor - 2 unique packages
- Four-terminal Kelvin connection
- 100% QC measurement
- Non-Inductive design
- ROHS compliant
- Housing materials in accordance with UL 94 V-0



PCS-100

Resistance value	0.5 mΩ ≤ 1 Ω (other values on special request)
Resistance tolerance	±1 % to ±5 % (0.5 % on special request for limited ohmic values)
Temperature coefficient	< 60 ppm/°C (< 500 ppm/°C 27 mΩ to 49 mΩ) referenced to 25°C, ΔR taken at 15° and +105°C
Power rating	100 W (at 70°C case temperature) up to 150 A permanent not to exceed Ohm's Law power load
Pulse current	up to 500 A / 0.5 sec. (depending on ohmic value)
Dielectric strength voltage	1,000 V DC (higher other on special request)
Heat resistance	R _{th} < 0.56 kW
Protection class	acc. to IEC 950/CSA22.2 950/M – 89 and EN 60950.88:2
Mounting – torque for contacts	1.1 Nm to 1.3 Nm 8 (static), screw-in depth max. 5 mm
Mounting – torque for base plate	1.3 Nm to 1.5 Nm (static)
Operating temperature	-55°C to +150°C
Storage temperature	-40°C to +85°C
Weight	~30 g

Power Rating (for all models)

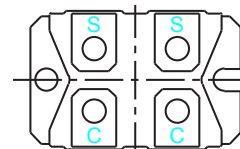


Ambient Temperature, °C (PCS-3)
Bottom Case Temperature, °C (PCS-60, PCS-100)

PCS-3

Resistance value	1 mΩ ≤ 60 mΩ (60 mΩ - 1 Ω on special request)
Resistance tolerance	±1 % to ±5 % (0.5 % on special request for limited ohmic values)
Temperature coefficient	60 ppm/°C (typical) referenced to 25°C, ΔR taken at -15°C and +105°C; for values > 60 mΩ (ask for details)
Power rating	3 W at 70°C 40 A permanent (higher on special request)
Pulse current	up to 200 A / 0.5 sec. (depending on ohmic value)
Load life	1,000 hours at rated power at +70°C, DR 0.2 % max.
Thermal shock	MIL-STD-202, method 107, Cond. A, DR 0.2 % max.
Moisture resistance	MIL-STD-202, method 106, DR 0.2 % max
Terminal material	Kelvin Terminals; tinned copper
Encapsulation	polyester over resistance element
Operating temperature	-55°C to +150°C
Storage temperature	-40°C to +85°C
Weight	~6 g

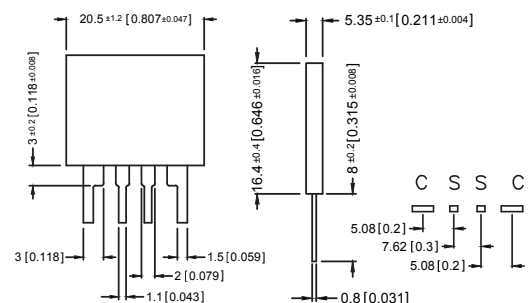
PCS-100 / PCS-60



C = current connection (source)
S = voltage connection (sense)

For dimensions, please see our HXP 200 series page 44.

PCS-3 Dimensions in mm [inches]



PCS-60 The resistor equals PCS-100 except:

Temperature coefficient	< 60 ppm/°C (< 500 ppm/°C: 20 mΩ to 49 mΩ) referenced to 25°C, ΔR taken at -15°C and +105°C
Power rating	60 W (at 70°C case temperature)
Dielectric strength voltage	up to 4,000 V DC or 2,800 V AC (higher values on special request)
Operating temperature	-55°C to +150°C
Storage temperature	-40°C to +85°C

How to make an order

Model no. _Ohmic Value_ Tolerance

For example:
PCS-100 0R08 1% or PCS-60 0R001 2%

The above spec. sheet features our standard products. For further options please contact our local EBG representative or contact us directly.