

Shunts

Series PCS

Precision Current Sense Resistors

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
- Four-terminal Kelvin connection
- 100% QC measurement
- Non-Inductive design
- ROHS compliant

Model Specifications

PCS-100

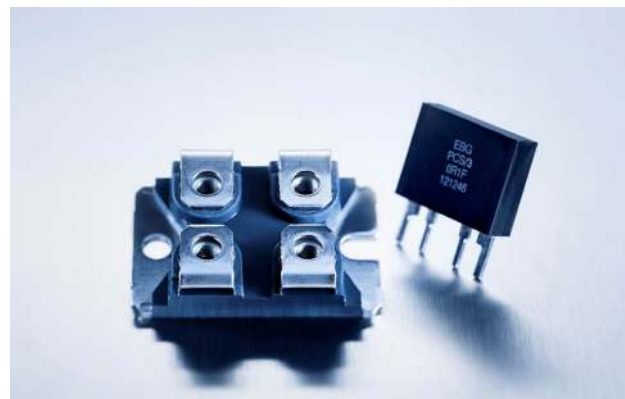
Resistance value	0.5 mΩ ≤ 1 Ω (other values on special request)
Resistance tolerance	±5 % to ±1 % (0.5 % on special request for limited ohmic values)
Temperature coefficient	< 60 ppm/°C (< 500 ppm/°C 27 mΩ to 49 mΩ) referenced to 25°C, ΔR taken at 15° and +105°C
Power rating	100 W (at 70°C case temperature) 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 k/W
Protection class	acc. to IEC 950/CSA22.2 950/M – 89 and EN 60950.88:2
Mounting – max. torque for contacts	1.3 Nm 8 (static)
Mounting – max. torque for base plate	1.5 Nm (static)
Operating temperature	-55°C to +150°C
Storage temperature	-40°C to +85°C
Weight	~30 g

PCS-3

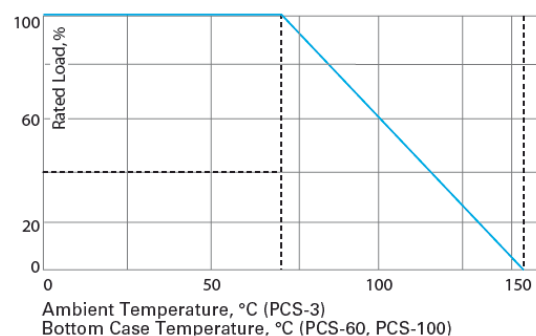
Resistance value	1 mΩ ≤ 60 mΩ (60 mΩ - 1 Ω on special request)
Resistance tolerance	±5 % to ±1 % (0.5 % on special request for limited ohmic values)
Temperature coefficient	60 ppm/°C (typical) referenced to 25°C, ΔR taken at -15°C and +105°C; for values > 60 mΩ (ask for details)
Power rating	3 W at 70°C 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-60 The resistor equals PCS-100 except:

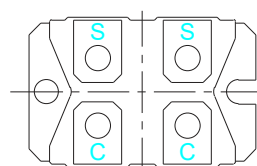
Temperature coefficient	< 60 ppm/°C (< 500 ppm/°C; 20 mΩ to 49 mΩ) referenced to 25°C, ΔR taken at -15°C and +105°C
Power rating	60 W (at 70°C case temperature)
Dielectric strength voltage	up to 4,000 V DC or 2,800 V AC (higher other on special request)
Operating temperature	-55°C to +150°C
Storage temperature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



Power Rating (for all models)



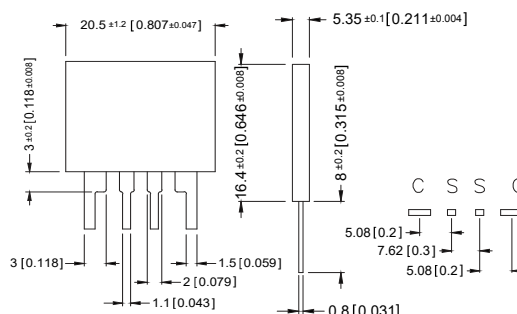
PCS-100 / PCS-60



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

For dimensions, please see our HXP data sheet.

PCS-3 Dimensions in mm [inches]



How to make a request

PCS-100 or PCS-60 or PCS-3_Ohmic Value_Tolerance

For example:

PCS-100 0R08 1% or PCS-60 0R001 2%