

Power Resistors

Series AXP-50

50 W Power Resistor with four wire terminals

The new design with its non-inductive thick film Metal Oxide Technology prevents potential problems with clearance and creeping distance from terminal to base plate by means of flexible connecting leads.

This unique design allows you to use this elements in the following areas: variable speed drives, power supplies, control devices, telecommunications, robotics, motor controls and other switching devices.

Features

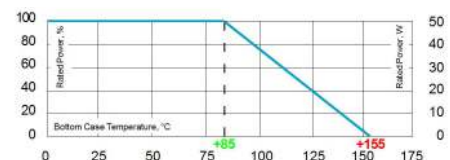
- 1x 50 W / 2x 20 W / 3x 10 W operating power
- Non-Inductive design
- ROHS compliant
- Materials in accordance with UL 94 V-0



Technical Specifications

Resistance value	1 Ω ≤ 1 MΩ
Resistance tolerance	±10 % to ±1 %
Temperature coefficient	±50 ppm/°C to ±250 ppm/°C (at +85°C ref. to +25°C)
Power rating	up to 50 W at 85°C bottom case temperature (see configurations)
Maximum working voltage	500 V (up to 1,000 V DC on special request = "S"-version)
Electric strength voltage	5 kV DC (3 kV AC, higher values on special request) terminal and case
Internal electric strength between R1 & R2	5 kV DC
Isolation voltage between R1 & R2	500 V (higher on special request)
Working temperature range	-55°C to +155°C
Mounting - max. torque	1.2 Nm
Standard cable length	100 mm (other lengths on special request)
Standard cable type	4GKW, 0,5 mm², black
Weight	~22 g

Power Rating



Derating (thermal resist.) AXP-50:

0.995 W/K (1.005 K/W) (for conf. 1, 2 and 3)

Best results can be reached 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 µm.

How to make a request

AXP-50-Configuration_Ohmic Value_
Tolerance

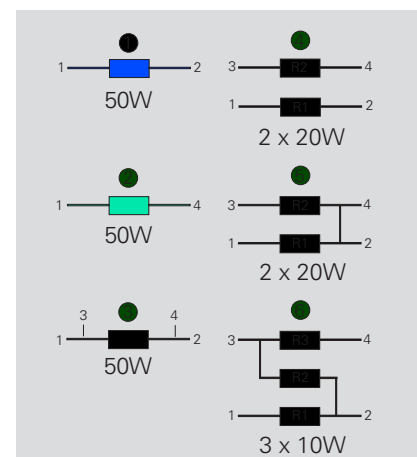
For example:

AXP-50-1 1K 10% or AXP-50-4 2x50R 5%

Example for higher working voltage:

AXP-50-1-S 55K 5%

Configurations (P / package)



Version 5: ohmic value between contact 2 and 4 = 3mΩ

Suggested Mounting Procedure:

- 1.) Position component and press down by hand
- 2.) Fix both mounting screws (M3) with 0.1 to 0.2 Nm torque
- 3.) Apply final torque to mounting screws of 1.0 to 1.2 Nm max.

Dimensions in mm [inches]

