POWER WIRE RESISTOR PWR-O

This UL-certified aluminium housed resistor is suitable for a wide range of applications thanks to its compact design.

Customer-specific designs and assemblies are available on request. A temperature switch can be integrated.

Advantages
- High pulse stability
- Optimised thermal conduction
- High degree of protection
- UL 508 approval

Applications
- Charge, discharge and braking resistor for drive and automation technology
- Earthing resistor
- Protective resistor



Electrical Data	
Resistance Range	Freely selectable, see table
Tolerances	±5 % (R > 5 Ω) ±10 % (R = 1 – 5 Ω) ±20 % (R < 1 Ω) Further values on request
Temperature coefficient	±150 ppm / °C
Insulation resistance	≥10000 MΩ (500 V, 25 °C, 75 % RH)
Testing voltage	4000 VAC
Voltage limit	$\sqrt{(P \times R)}$
Stability	1000 h bei 25 °C, ΔR ±5 %
Inductance	< 0.5 mH at 1 kHz
Parasitic capacitance	< 75 pF at 20 kHz

Mechanical Data	
Dimensions	See table
Mounting positions	See drawing

Environmental Data	
Operating temperature	-50 °C to +200 °C, max. 250 °C
Storage temperature	0 °C to +85 °C at 80 % RH max. for min. 12 months
Degree of protection acc. to IEC 60529	IP 65
Certification	UL 508 UL labeling on request

Overview

	Power without Heatsink $P_{NED = 30\%}$	Power without Heatsink $P_{NED = 100\%}$	Power with Heatsink P_N	Resistance Range		Operating Voltage	Dimensions L1	Dimensions L2	Dimensions L3	Weight
Type	**W**	**W**	**W**	**Min. Ω**	**Max. Ω**	**V**	**mm**	**mm**	**mm**	**g**
PWR-O 150	120	45	150	1.0	180	1000	72	40	16	195
PWR-O 200	160	60	200	1.3	240	1000	87	55	16	235
PWR-O 300	240	70	300	2.7	430	1500	137	85	26	325
PWR-O 400	320	80	400	3.6	620	2000	182	100	41	415
PWR-O 500	400	100	500	5.1	910	2300	242	160	41	530
PWR-O 600	480	120	600	6.8	1200	2800	302	220	41	670

Mechanical tolerances acc. to ISO 2768-m

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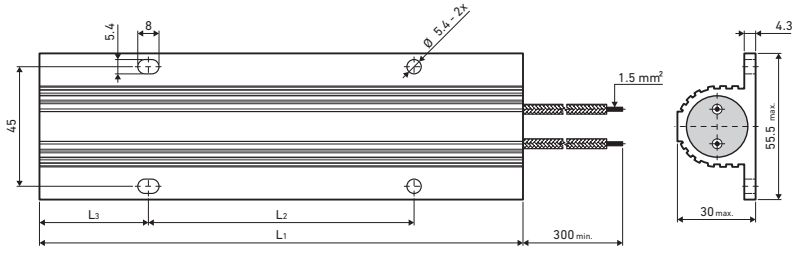
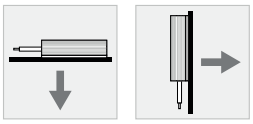
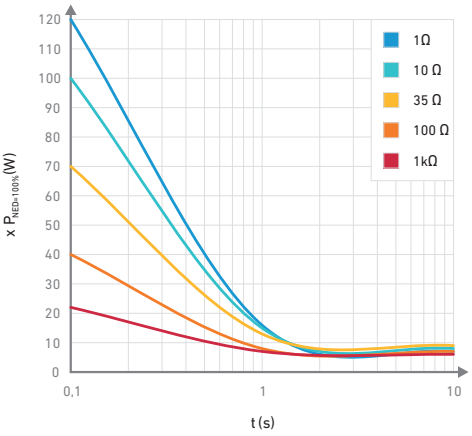


Mounting positions

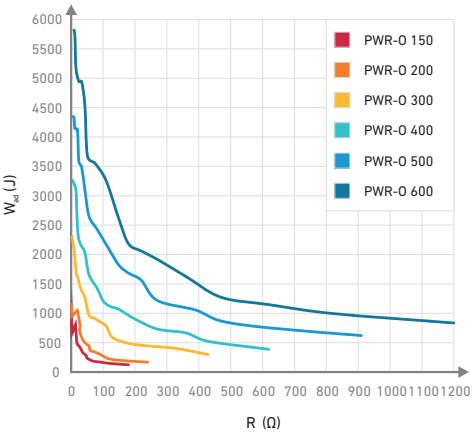


Mounting on a heatsink further improves heat dissipation and increases power of the resistors.

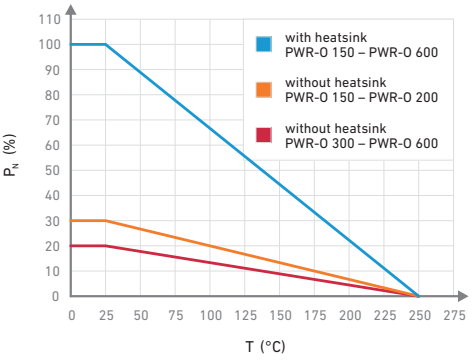
Pulse load – Depending on time and resistance value



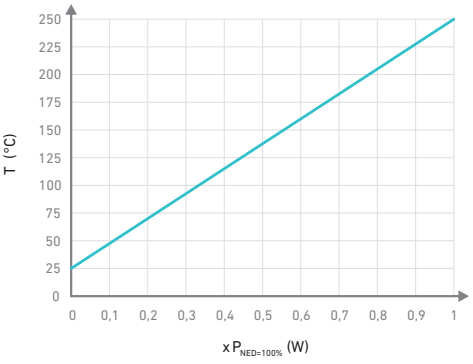
Adiabatic pulse – Depending on resistance value and time



Derating – Depending on ambient temperature



Surface temperature – Depending on load



Electrical Connection

Cable	Standard: UL3071 AWG16 600V 200 °C Cable length 300 mm Optional: UL1199 AWG16 600V 200 °C UL10203 AWG16 1000V 200 °C UL10371 AWG16 1000V 250 °C Other connections and lengths on request

Options

Available with temperature switch

Order designation

To place an order we need the following information

Type	Temperature Switch	Resistance value	Tolerance	Cable length
PWR-O 150	T	Please specify	± 5 % (J)	Please specify
PWR-O 200	–		± 10 % (K)	
PWR-O 300			± 20 % (M)	
PWR-O 400				
PWR-O 500				
PWR-O 600				

Metallux cannot picture the customer's operating and application conditions and the customer's existing environmental influences.
We therefore recommend that you carry out your own investigations into the planned use of the products under the actual operating conditions.

We continuously improve our products and also update our data sheets regularly. In this respect, there may be changes in the specification.
These changes will apply to orders received by us from the time of the update, unless otherwise agreed.

Our products comply with Directive 2011/65/EU (RoHS) including Directive 2015/863/EU and Regulation (EC) No. 1907/2006 (REACH).