POWER WIRE RESISTOR PWR-H

This 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

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	< 120 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

Overview

	Power without Heatsink		Resistance Range		Operating Voltage	Dimensions L1	Weight
	$P_{NED = 30\%}$	$P_{NED = 100\%}$					
Type	W	W	Min. Ω	Max. Ω	V	mm	g
PWR-H 90	120	90	1.0	180	1000	80	170
PWR-H 120	160	120	1.3	240	1000	95	198
PWR-H 140	240	140	2.7	430	1500	145	300
PWR-H 160	320	160	3.6	620	2000	190	390
PWR-H 200	400	200	5.1	910	2300	250	505
PWR-H 240	480	240	6.8	1200	2800	310	625

Mechanical tolerances acc. to ISO 2768-m

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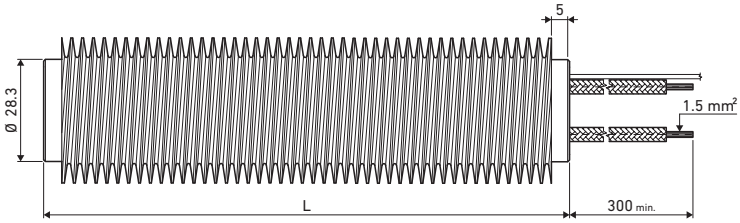
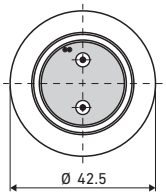
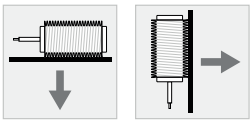


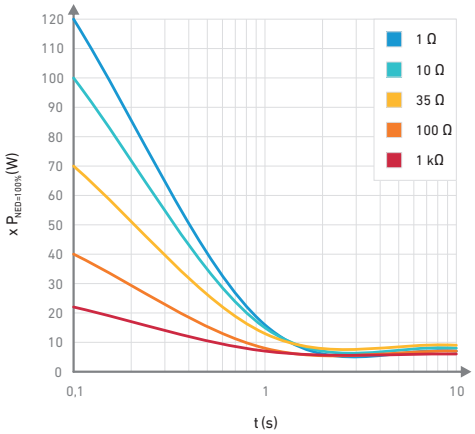


Mounting positions

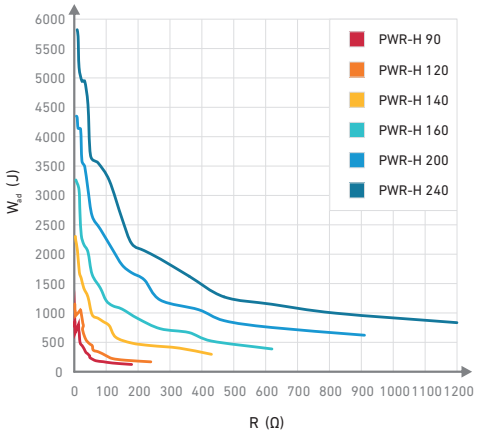


Mounting on a heatsink further improves heat dissipation and increases power of the resistors.

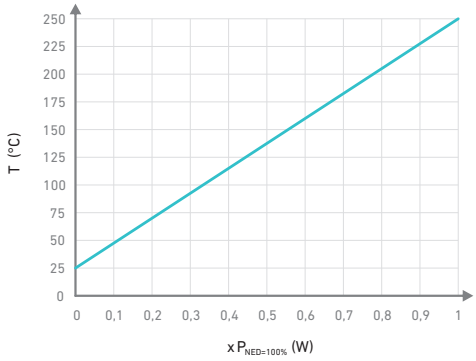
Pulse load – Depending on time and resistance value



Adiabatic pulse – Depending on resistance value and time



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-H 90	T	Please specify	±5 % (J)	Please specify
PWR-H 120	–		±10 % (K)	
PWR-H 140			±20 % (M)	
PWR-H 160				
PWR-H 200				
PWR-H 240				

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).