POWER WIRE RESISTOR PWR-S 30 – 90

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

Customer-specific designs and assemblies as well as a temperature switch are available on request.

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	< 75 pF at 20 kHz

Mechanical Data	
Dimensions	See table
Mounting positions	See drawing

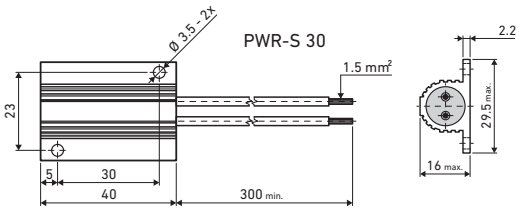
Environmental Data	
Operating temperature	-50 °C to +200 °C, max. 250 °C
Storage temperature	0 °C to +85 °C at 80 % RH max. for min. 12 months
Degree of protection acc. to IEC 60529	IP 65

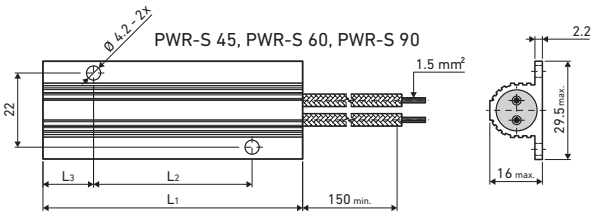
Overview

	Power without Heatsink		Power with Heatsink	Resistance Range		Operating Voltage	Dimensions		Weight
	$P_{NED\,=\,30\,\%}$	$P_{NED\,=\,100\,\%}$	P_N				L1	L2	
Type*	W	W	W	Min. Ω	Max. Ω	V	mm	mm	g
PWR-S 30	20	10	30	0.7	51	300	40	30	25
PWR-S 45	30	15	45	0.9	56	400	55	25	35
PWR-S 60	40	20	60	1.5	110	600	77	47	52
PWR-S 90	60	30	90	2.2	160	700	104	64	73

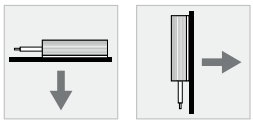
Mechanical tolerances acc. to ISO 2768-m

POWER WIRE RESISTOR PWR-S 30 – 90



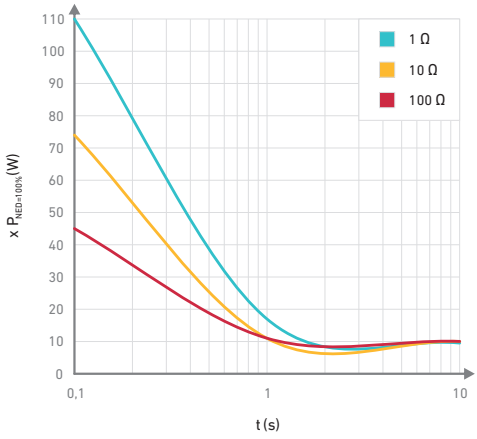


Mounting positions

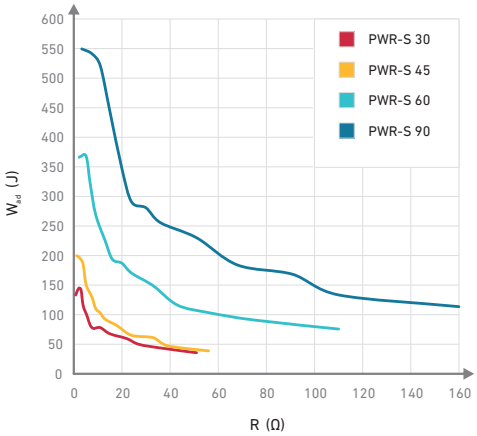


Mounting on a heatsink further improves heat dissipation and increases power of the resistors.

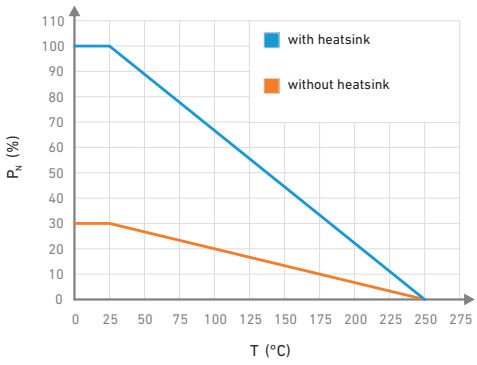
Pulse load – Depending on time and resistance value



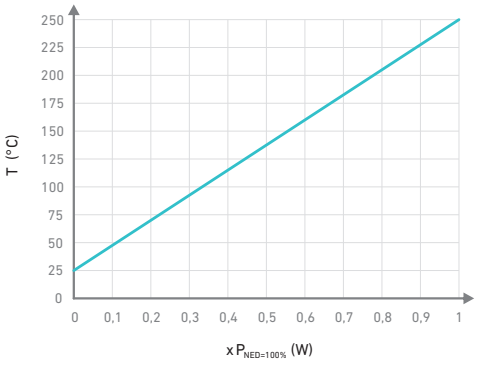
Adiabatic pulse – Depending on resistance value and time



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-S 30	T	Please specify	± 5 % (J)	Please specify
PWR-S 45	–		± 10 % (K)	
PWR-S 60			± 20 % (M)	
PWR-S 90				

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).

POWER WIRE RESISTOR PWR-S 100 – 150

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

Customer-specific designs and assemblies as well as a temperature switch are available on request.

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

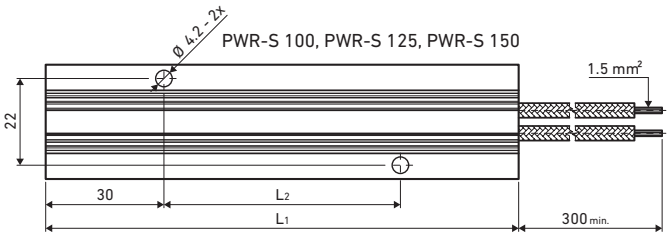
Environmental Data	
Operating temperature	-50 °C to +200 °C, max. 250 °C
Storage temperature	0 °C to +85 °C at 80 % RH max. for min. 12 months
Degree of protection acc. to IEC 60529	IP 65
Certification	UL 508 UL labeling on request

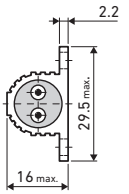
Overview

	Power without Heatsink		Power with Heatsink	Resistance Range		Operating Voltage	Dimensions		Weight
	$P_{NED = 30\%}$	$P_{NED = 100\%}$	P_N				L1	L2	
Type	W	W	W	Min. Ω	Max. Ω	V	mm	mm	g
PWR-S 100	70	30	100	2.0	180	700	120	60	86
PWR-S 125	85	40	125	3.0	300	800	165	105	115
PWR-S 150	100	45	150	3.3	300	1000	180	120	120

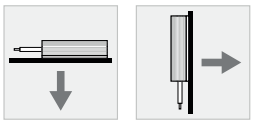
Mechanical tolerances acc. to ISO 2768-m

POWER WIRE RESISTOR PWR-S 100 – 150



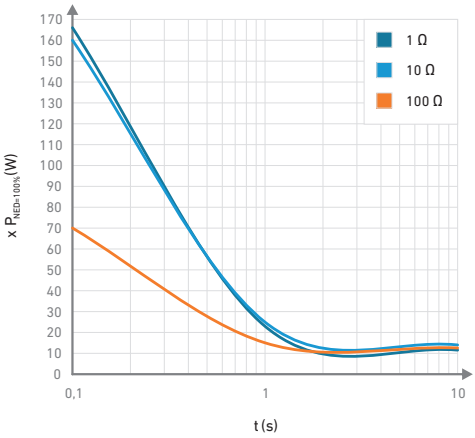


Mounting positions

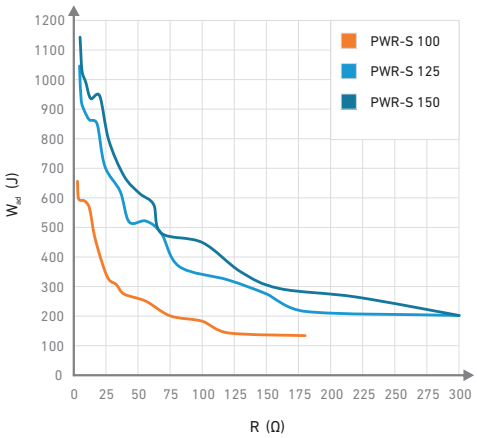


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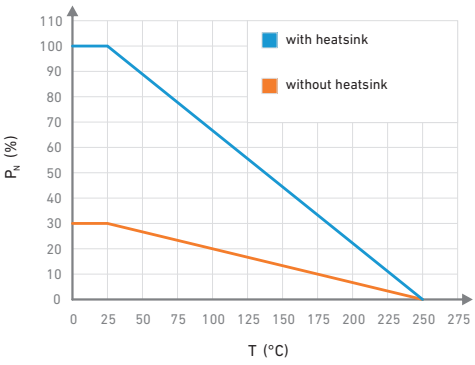
Pulse load – Depending on time and resistance value



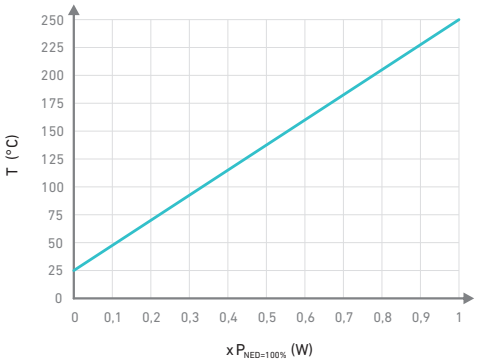
Adiabatic pulse – Depending on resistance value and time



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-S 100	T	Please specify	± 5 % (J)	Please specify
PWR-S 125	–		± 10 % (K)	
PWR-S 150			± 20 % (M)	

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