

## Power Resistor

### PWR-S



#### Features

- high adiabatic impulses
- robust construction
- high level of protection

#### Applications

- Brake resistor
- Capacity discharge
- Heating resistor
- Snubber resistor

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# Power Resistor

## PWR-S



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technology matters

Electrical characteristics	S 45	S 60	S 90
Nominal load @ 25°C *)	45 W	60 W	90 W
Nominal load (without cooling)	15 W	20 W	30 W
Nominal load (ED 30 %, without cooling) *)	30 W	40 W	60 W
Resistance range **)	0,9 - 56 Ω	1,5 - 110 Ω	2,2 - 160 Ω
Resistance tolerance **)	± 10 % (J = 5 %)		
Max. working voltage	400 VAC	600 VAC	700 VAC
Operating voltage	√PR		
Pulse load	5 x P <sub>Nenn</sub> , 5s		
Inductance	< 0,2 mH at 1 KHz		
Thermal time constant	4,8 - 5,8 min.		
Stability	5 %		
Isolation resistance	10G Ω at 500 V <sub>dc</sub>		
Dielectric withstanding voltage	4000 VAC, 50 Hz, 60 s		
Temperature coefficient	± 150 ppm/°C		

Electrical characteristics	S 100	S 125	S 150
Nominal load @ 25°C *)	100 W	125 W	150 W
Nominal load (without cooling)	30 W	40 W	45 W
Nominal load (ED 30 %, without cooling) *)	70 W	85 W	100 W
Resistance range **)	0,9 - 270 Ω	3 - 330 Ω	3 - 390 Ω
Resistance range UL	2,4 - 180 Ω	3,9 - 300 Ω	4,3 - 300 Ω
Resistance range UL for cable connection Form B	2 - 13 Ω	3 - 220 Ω	3,3 - 240 Ω
Resistance tolerance	± 10 % (J = 5 %)		
Max. working voltage	700 VAC	800 VAC	1000 VAC
Operating voltage	√PR		
Pulse load	8 x P <sub>Nenn</sub> , 5s		
Inductance	< 0,2 mH at 1 KHz		
Thermal time constant	6,6 - 7,1 min.		
Stability	5 %		
Isolation resistance	10G Ω at 500 V <sub>dc</sub>		
Dielectric withstanding voltage	4000 VAC, 50 Hz, 60 s		
Temperature coefficient	± 150 ppm/°C		

Specifications subject to change without notice

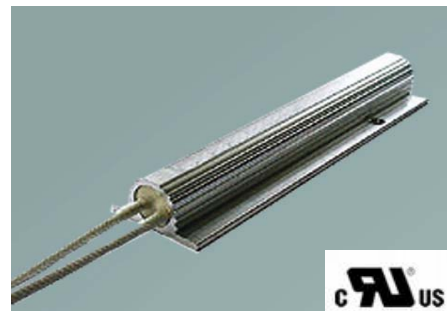
\*) surface temperature 250°C at heat sink

\*\*) other values on request

\*\*) thermal time constant to reach operating temperature at nominal load

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Mechanical characteristics	S 45	S 60	S 90	S 100	S 125	S 150
Weight	35 g	52 g	73 g	86 g	115 g	120 g
Protection class	IP55					

## Environmental characteristics

Storage temperature	- 10°C ... + 50°C
Operating temperature	- 50°C ... + 200°C
Climatic class	50/200/56

## Material

Housing	Aluminium
Cable standard	UL SIFGL single core AWG16 style 3071, 200°C 600 V *)
Cable optional	UL PTFE single core AWG16 style 1199, 200°C 600 V
Cable optional	UL FEP single core AWG16 style 10203, 200°C 1000 V
Cable length	300 mm **)

Specifications subject to change without notice

\*) other values on request

\*\*) other length on request

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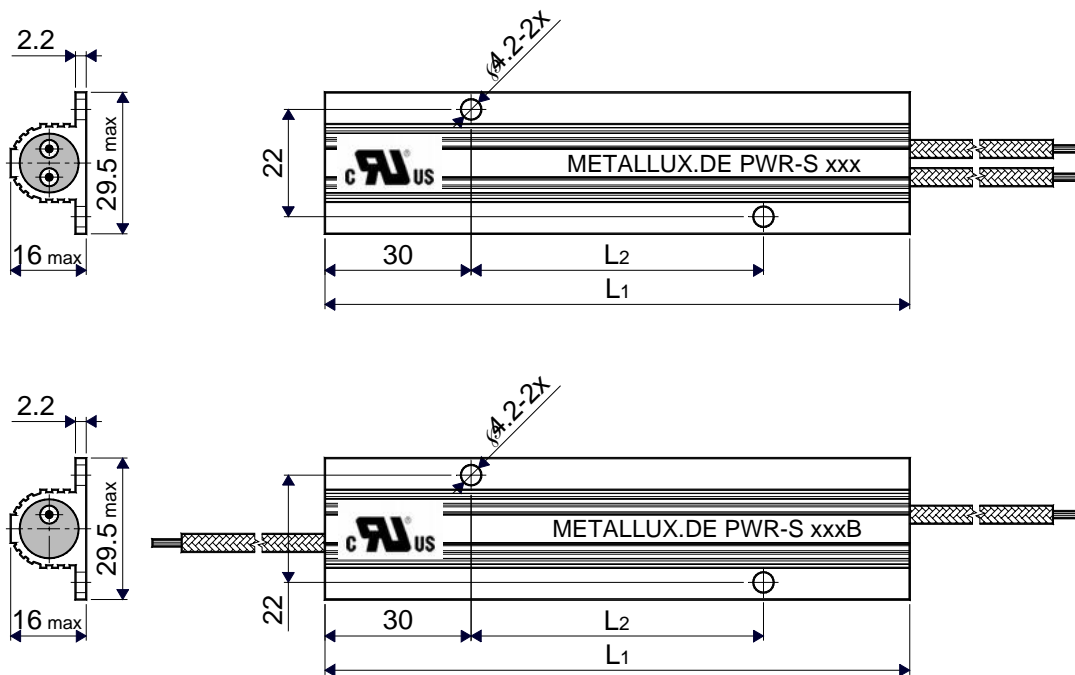
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## Drawing



Drawing	S 45	S 60	S 90	S 100	S 125	S 150
Length L1	55 mm	77 mm	104 mm	120 mm	165 mm	180 mm
Centre distance L2	25 mm	47 mm	64 mm	60 mm	105 mm	120 mm
Distance L3	15 mm	15 mm	20 mm			

## How to order

Type	Design	Power	One cable on each side	Resistance value	Resistance tolerance	Standard or cable type and length
PWR	S	100	B	100 Ω	10 %	UL-Cable type 300 mm

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