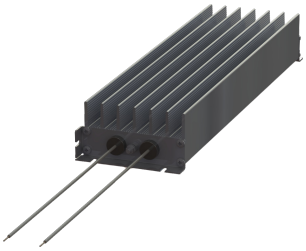
Your contact:
+49-(0)2 12-88 04-0 • info@reo.de

REOHM series 156

Max. continous power: 1.500 W



Unique Selling Point

- Compact construction despite of high power
- Easy installation
- Short-circuit proof
- Very good heat dissipation
- Highly resistive on overload
- Optionally with contact protection and temperature switch
- Optionally for aggressive environements (e.g. salt water)
- Installation also possible outside the control cabinet

Description

Resistances of REOHM Series 156 are characterized by their high power density with a small mounting area. Due to their high degree of protection up to IP66 they can be used even in particularly aggressive environmental conditions (eg salt spray). The resistors are available as braking resistors , charge-, attenuation,- and filter resistors or as UL version.

As BW (Braking resistor)

When an electric machine operates as a generator (Electromotive brake), the brake resistor protects the machine from a voltage rise in the intermediate circuit. The current reduces als the speed of the machine.

As R (Charging resistor, damping resistor, filter resistance, etc.)

The charging resistor is a current limiting resistor for the charging and discharging of capacitors and limitates for example the current flowing into the intermediate circuit capacitor inrush current. For this the device must be designed for a high single pulse energy and nominal voltage. The inductance of the resistor contributes to limit the inrush current, so wirewound resistors are the right choice.

As UL version

In addition to the high protection class IP66, the profile resistors REOHM 156 are also UL-certified and have a power of 50W up to 7.500 W (as combination).

Maximum energy with minimum space

- This unit is very compact with high power
- In case of failure of resistor, this will become highly resistive.
- Suitable for IP 66 applications
- Test voltage: 2,5 kV AC (at 900 V rated voltage)

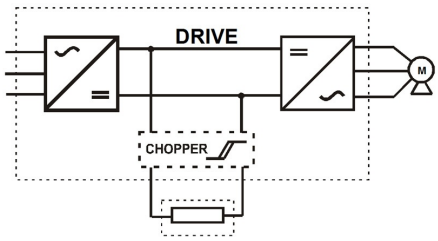
Optional

- With temperature switch
- Cover for protection against high surface temperatures

Technical Data

- Resistance values : 1 - 1000 Ohm
- Continuous power : 400 - 1500 W
- max. operating voltage : 1000 V

Circuit example



Last modified: 23.08.2018. All data is provided to the best of our knowledge and awareness and is subject to error and amendment.

Your contact:
+49-(0)2 12-88 04-0 • info@reo.de

REOHM series 156

Max. continous power: 1.500 W

Technical data

Type	Resistance [Ohm]	Continous power [W]		Max. operation voltage [V]
		<IP54 / below 1500V	>IP54 / over 1500V	
156/400	1 – 1000	400	300	900
156/600	1 – 250	600	400	900
156/800	3 – 620	800	500	900
156/1000	1 – 500	1000	600	900
156/1200	5 – 400	1200	700	900
156/1500	10 – 300	1500	800	1000

Higher power ratings on request

Note

The ratings apply for 100 % duty cycle and free access and exit of cooling air.

In general: Is the ambient temperature higher than 40 °C, the continuous power must be reduced by 5 % per 10 K temperature rise.

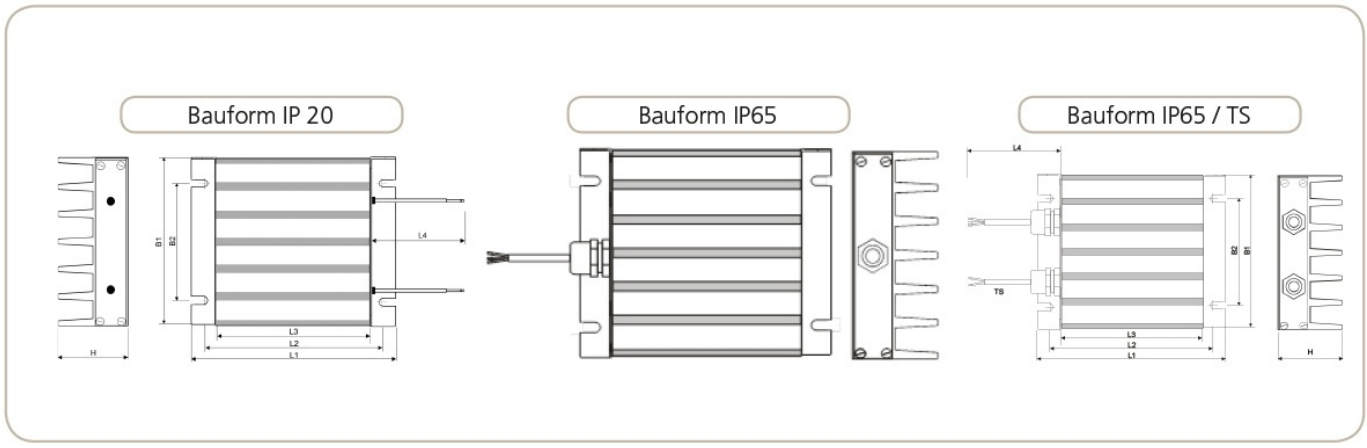
Last modified: 23.08.2018. All data is provided to the best of our knowledge and awareness and is subject to error and amendment.

Your contact:
+49-(0)2 12-88 04-0 • info@reo.de

REOHM series 156

Max. continous power: 1.500 W

Dimension drawings



Dimensions

Type	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	B1 [mm]	B2 [mm]	H [mm]	D [mm]	Connection line
156/400	170	155	140	500	104	70	53	4,5	IP20/40 PTFE AWG14
156/600	230	215	200	500	104	70	53	4,5	
156/800	300	285	270	500	104	70	53	4,5	
156/1000	370	355	340	500	104	70	53	4,5	
156/1200	450	435	420	500	104	70	53	4,5	
156/1500	600	585	570	500	104	70	53	4,5	

Type	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	B1 [mm]	B2 [mm]	H [mm]	D [mm]	Connection line
156/400	174	159	140	500	104	70	53	4,5	IP54/65 shielded connection line 3x1,5 mm²
156/600	234	219	200	500	104	70	53	4,5	
156/800	304	289	270	500	104	70	53	4,5	
156/1000	374	359	340	500	104	70	53	4,5	
156/1200	454	439	420	500	104	70	53	4,5	
156/1500	604	589	570	500	104	70	53	4,5	

Other fixing dimensions possible

Last modified: 23.08.2018. All data is provided to the best of our knowledge and awareness and is subject to error and amendment.

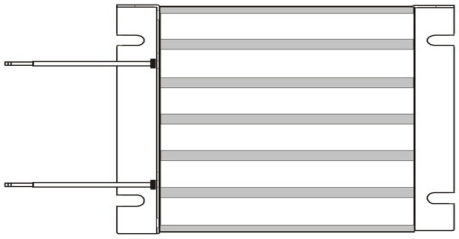
Your contact:
+49-(0)2 12-88 04-0 • info@reo.de

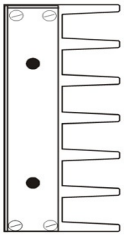
REOHM series 156

Max. continous power: 1.500 W

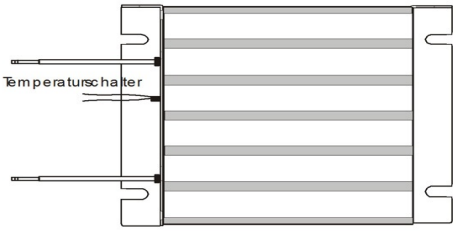
Design with diferent protection ratings

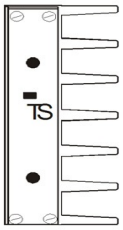
IP20 / IP40



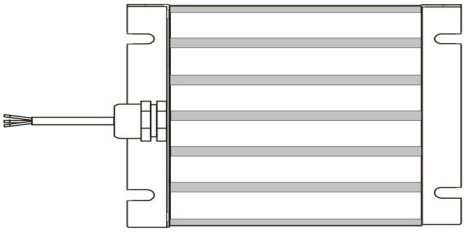


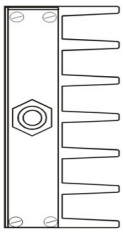
IP20 / IP40 with temperature switch



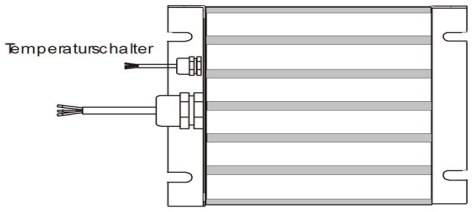


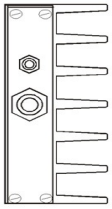
IP54 / IP65





IP54 / IP65 or higher with temperature switch





Protection ratings

Depending on the design and execution various types of protection ratings can be realized up to IP66. At protection ratings less than / equal IP40 the temperature increase must be at the surface resistance max. 300K. For a higher degree of protection (> IP40) a maximum temperature increase of 200K is allowed.

Attention! Duration overtemperature values of> 200 K could result to an impairment of protection rating.

Overvoltage protection

It is possible to control the temperature of the resistance by using a temperature switch. In case of exceeding a rated temperature the temperature switch opens and can, for example, trigger an existing signaling contact. The temperature switch is mounted externally in protection class IP20 / IP40 and provided with two connection strands.

At IP54 / IP65 or higher, the temperature switch is integrated in the resistance and provided the connection with a temperature resistant cable.

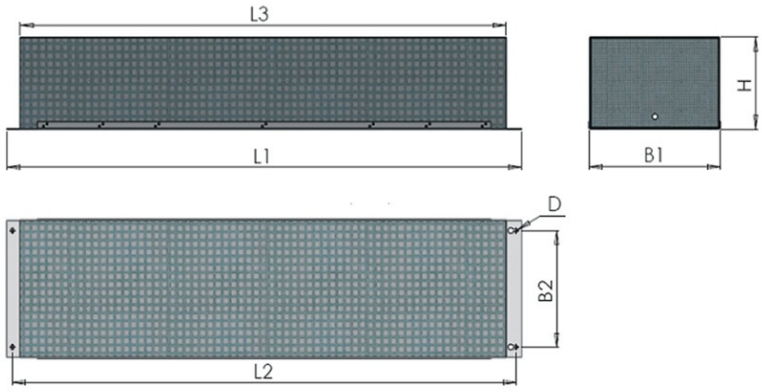
Last modified: 23.08.2018. All data is provided to the best of our knowledge and awareness and is subject to error and amendment.

Your contact:
+49-(0)2 12-88 04-0 • info@reo.de

REOHM series 156

Max. continous power: 1.500 W

Touch protection



Dimensions

Type	L1 [mm]	L2 [mm]	L3 [mm]	B1 [mm]	B2 [mm	H [mm]	D [mm]
156/400	300	270	240	200	150	140	7,0x10,0
156/600	360	330	300	200	150	140	7,0x10,0
156/800	430	400	370	200	150	140	7,0x10,0
156/1000	500	470	440	200	150	140	7,0x10,0
156/1200	580	550	520	200	150	140	7,0x10,0
156/1500	730	700	670	200	150	140	7,0x10,0

Last modified: 23.08.2018. All data is provided to the best of our knowledge and awareness and is subject to error and amendment.

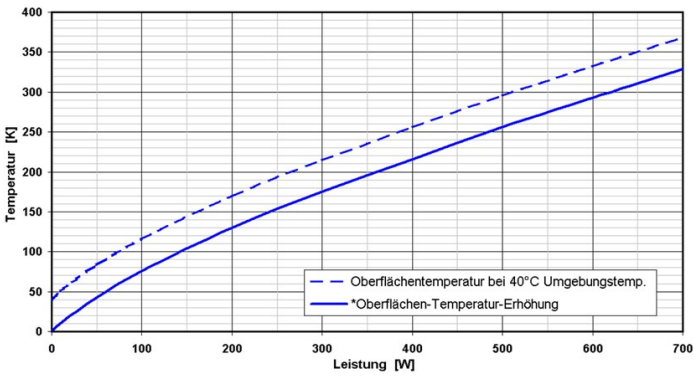
Your contact:
+49-(0)2 12-88 04-0 • info@reo.de

REOHM series 156

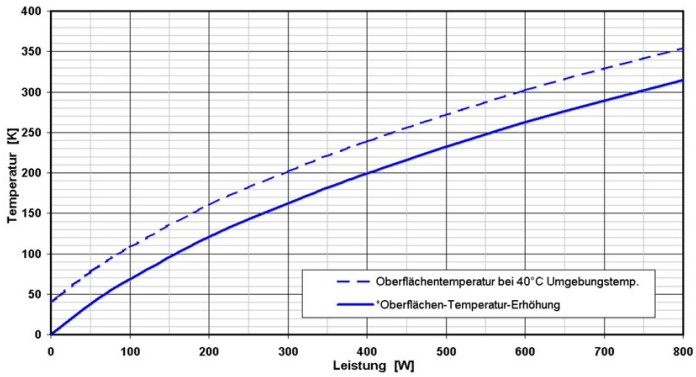
Max. continous power: 1.500 W

Surface temperature as a function of load

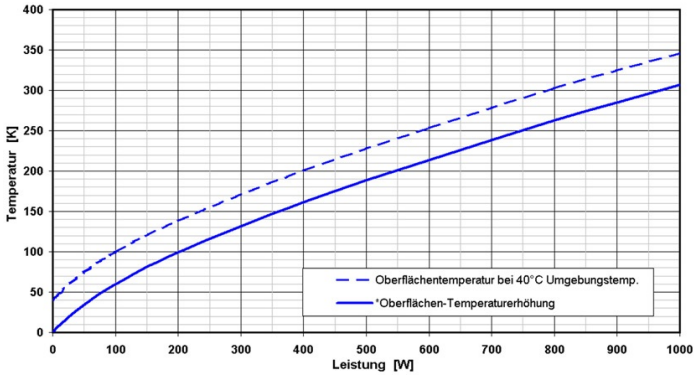
Surface temperature BW 156 / 400



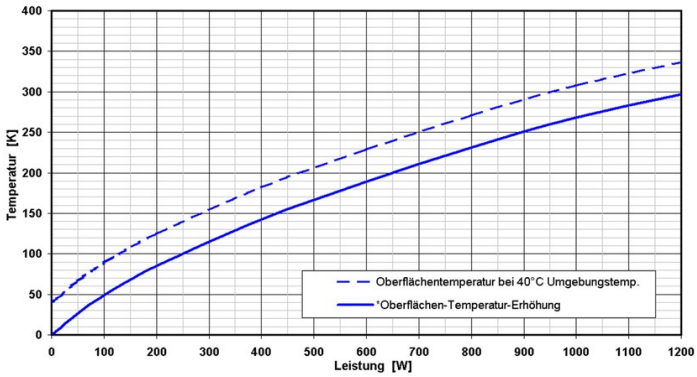
Surface temperature BW 156 / 600



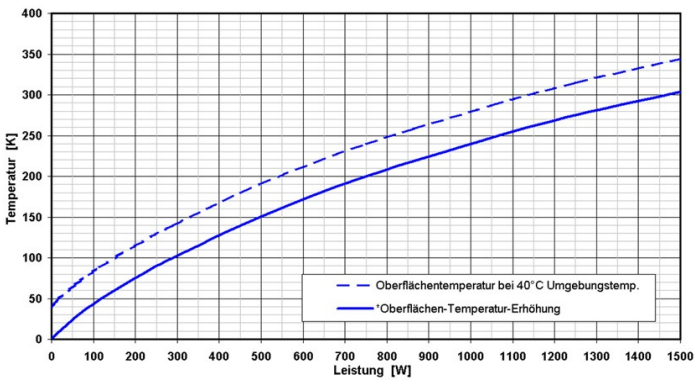
Surface temperature BW 156 / 800



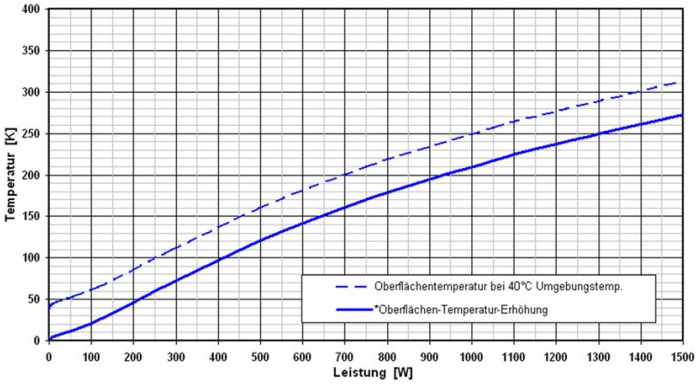
Surface temperature BW 156 / 100



Surface temperature BW 156 / 1200



Surface temperature BW 156 / 1500



Surface temperature increase, even over temperature, describes the increase in surface temperature when loaded.

Last modified: 23.08.2018. All data is provided to the best of our knowledge and awareness and is subject to error and amendment.

Your contact:
+49-(0)2 12-88 04-0 • info@reo.de

REOHM series 156

Max. continous power: 1.500 W

Load diagram

The power ratings apply for continuous duty. The power ratings can be increased in short-time operation in function of duty cycle by multiplication with the relevant factor from the diagram below or according to the formula as follows.

$$P_{max} = \frac{P * 100}{ED[\%]}$$

P_{max} = **Maximale Impulsleistung**

P = **Dauerleistung bei ED=100%**

$$ED[\%] = \frac{ED[s]}{SD[s]} * 100$$

ED = **Einschaltdauer**

SD = **Zykluszeit max 120 Sek.**

