

# Rheostat Variable Power Resistors

BC1series Variable Rheostats called varistors or potentiometers, used as two connections terminals of varistors or as a potentiometer with three connection terminals. When single rheostat cannot meet its power, which can be increased by connection of multiple rheostats, max up to 6 connected rheostats.

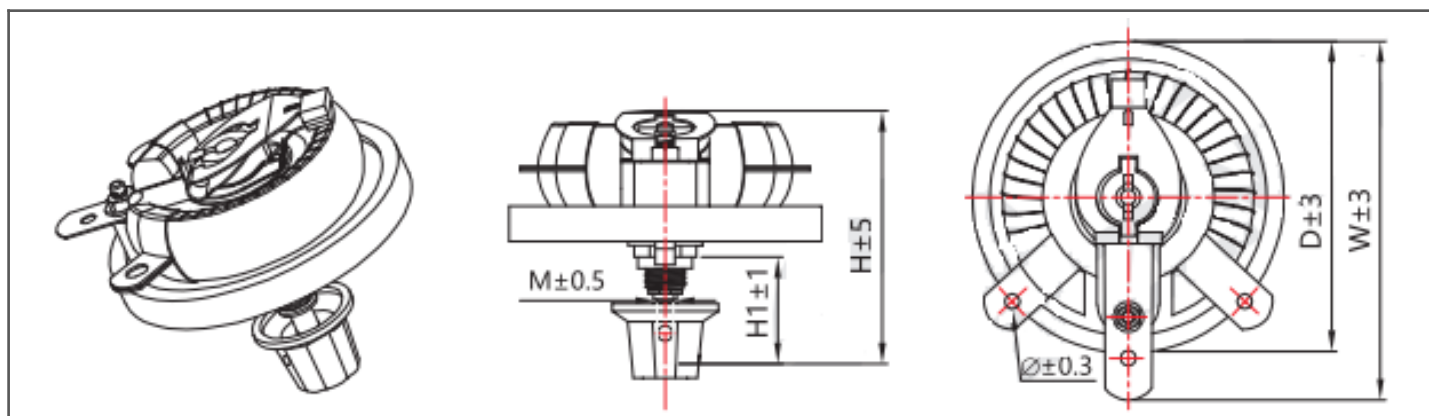
Use : Widely used in blenders, mixers, fans, power tools, educational modeling, load simulations, industrial machinery RPM adjustment, voltage and current adjustment, instruments, and automated control installations, etc.



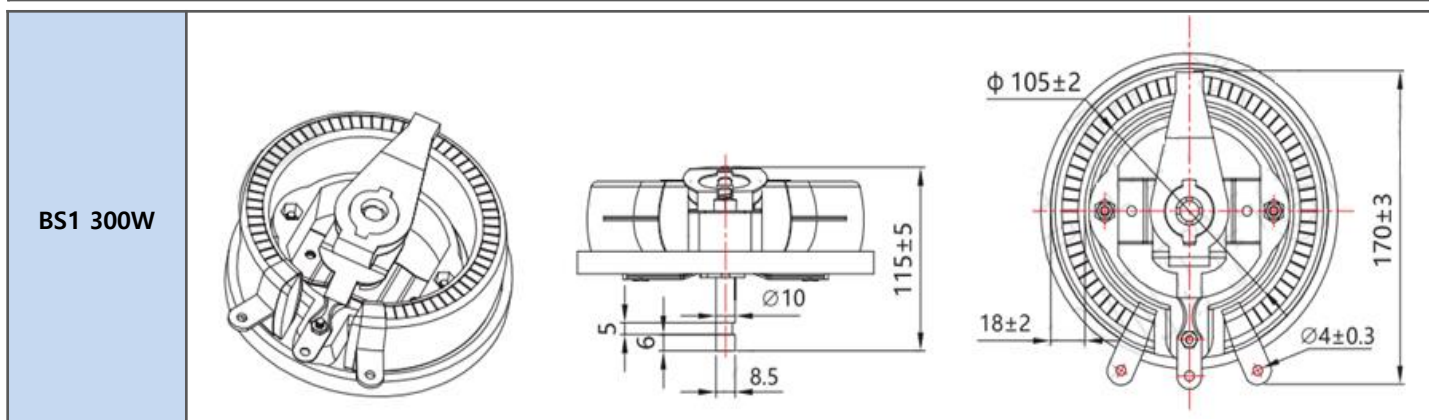
## GENERAL SPECIFICATIONS

Model	Power rating	Resistance value	Resistance Tolerance	T.C.R
BC1	12.5 W	0.5Ω - 1KΩ	J [ $\pm 5\%$ ]	$\pm 200\text{PPM}$ ~ $\pm 400\text{PPM}$
	25 W	0.5Ω - 3.3KΩ		
	50 W	0.5Ω - 3.3KΩ	K [ $\pm 10\%$ ]	
	100 W	1.5Ω - 4.7KΩ		
	150 W	1.5Ω - 5.1KΩ		

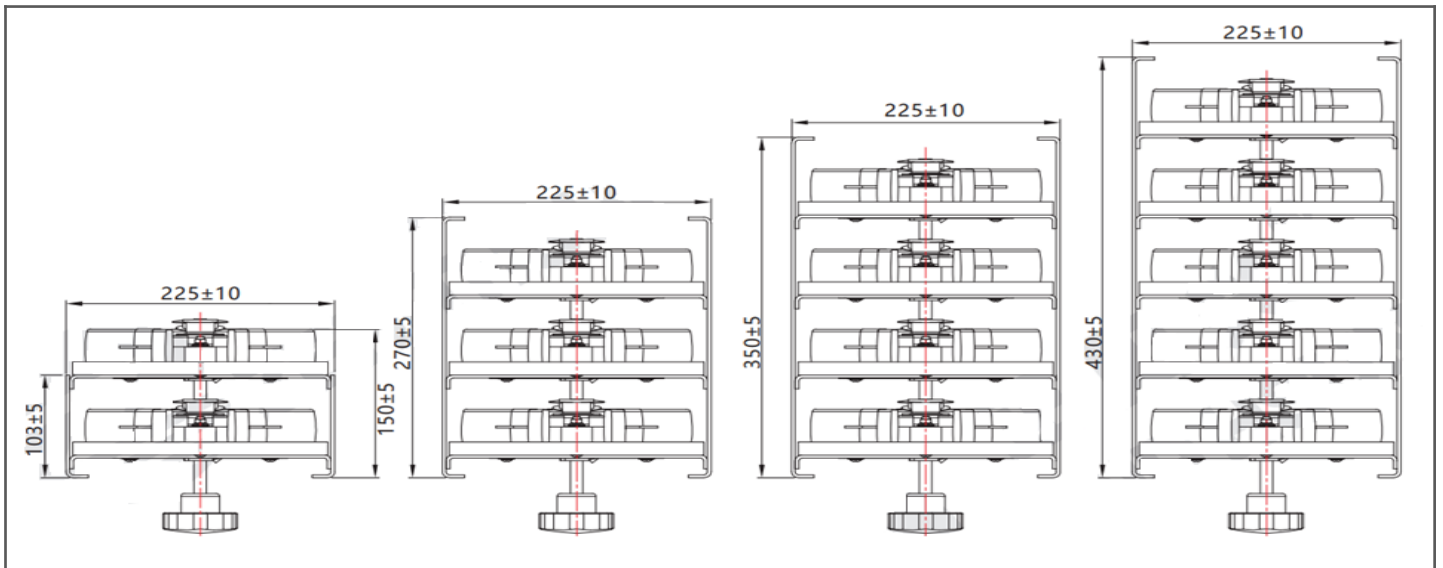
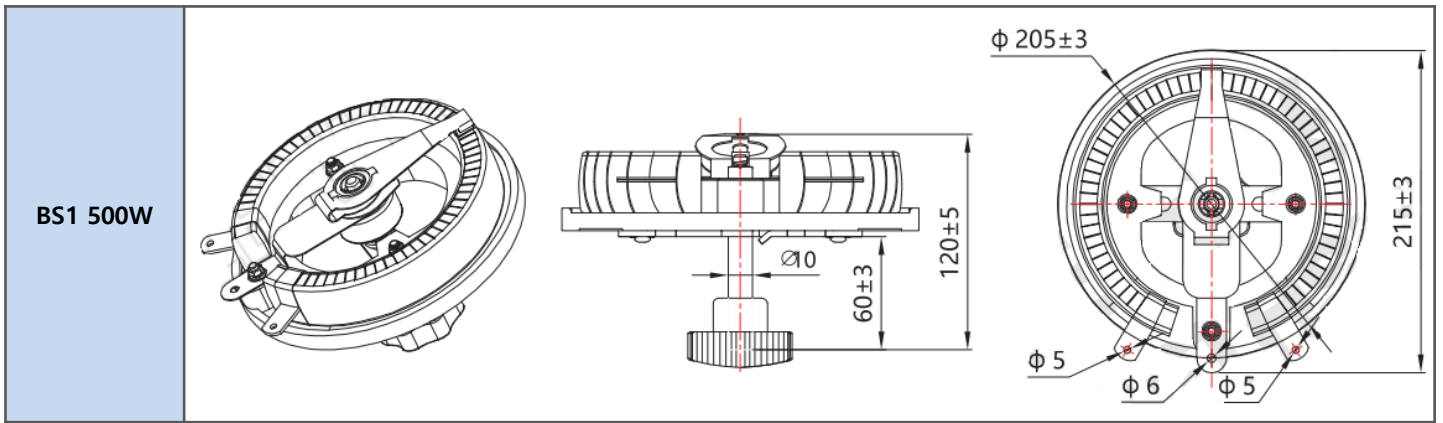
## DIMENSIONS



Power	Dimensions [mm]						Weight
	$D \pm 3$	$W \pm 3$	$\phi \pm 0.5$	$H \pm 3$	$H1 \pm 3$	$M \pm 0.5$	
12.5 W	22	27	1.5	38	23	3	25
25 W	45	50	2	60	25	6	80
50 W	65	70	4	65	25	6	170
100 W	80	92	4	65	25	6	252
150 W	105	120	4	70	30	6	480



**DIMENSIONS**

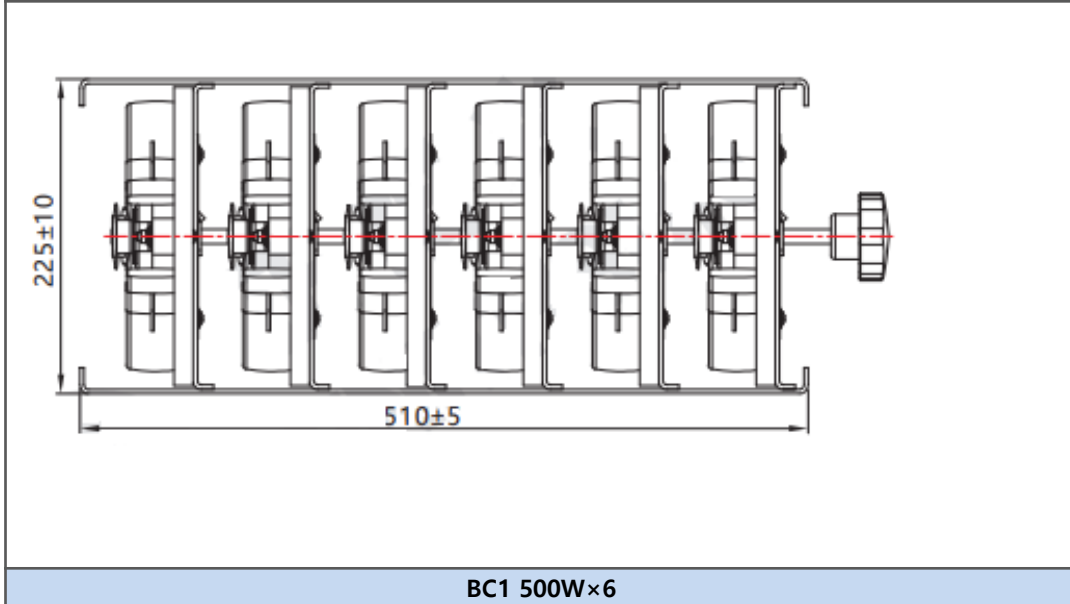


**BC1 500W×2**

**BC1 500W×3**

**BC1 500W×4**

**BC1 500W×5**



**BC1 500W×6**

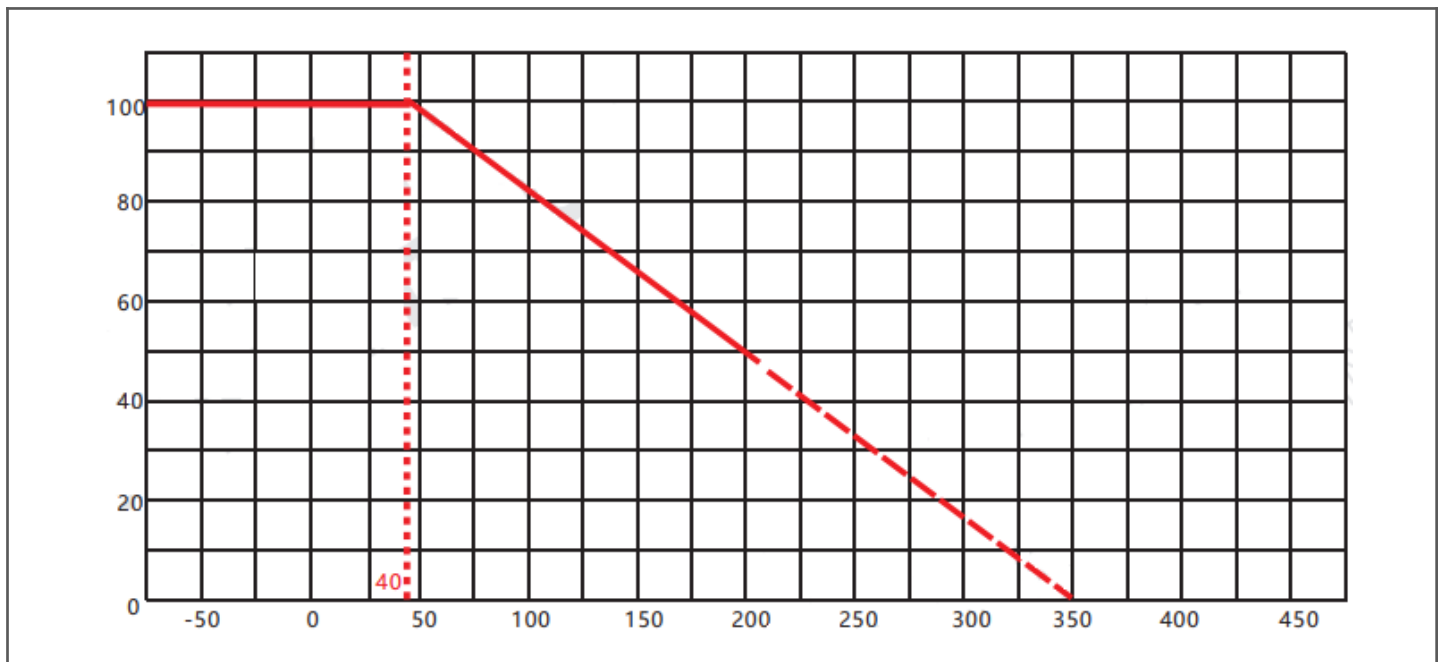
Note:

1. Single Rheostat with Rated power 500W
2. 1,000W (2pcs 500W Rheostats in series or parallel)
3. 1,500W (3pcs 500W Rheostats in series or parallel)
4. 2,000W (4pcs 500W Rheostats in series or parallel)
5. 2,500W (5pcs 500W Rheostats in series or parallel)
6. 3,000W (6pcs 500W Rheostats in series or parallel)
7. Black knob in the bottom

**CHARACTERISTICS**

TEST	CONDITIONS OF TEST		TESTING RESULTS
T.C.R	$\frac{R1-R0}{R0(T1-T0)} \times 10^6$ (PPM/°C)	R0 : Room Temperature (T0) Resistance R1 : Room Temperature (T1) Resistance	±200PPM~±400PPM
Rated Load	40°C, rated voltage, 1hour.		$\Delta R \leq \pm(3\%R+0.1\Omega)$
Short Time Overload	5 times rated power for 10seconds. 10times rated power for 5seconds. 25times rated power for 1second.		$\Delta R \leq \pm(2\%R+0.1\Omega)$
Dielectric Withstand Voltage	1kV-10kVac 60seconds, Leakage current 2.5mA.		$\Delta R \leq \pm(0.1\%R+0.1\Omega)$
Insulation Resistance	1000Vdc.		50-1,000MΩ, 1minutes.
Terminal Tensile Strength	40N.		No off
Vibration resistance	1.5mm, 10Hz-55Hz-10Hz, each 2hours.		No damage, No off
Load Life	At rated voltage, 90minutes "On", 30minutes "Off", total 500hours.		$\Delta R \leq \pm(3\%R+0.1\Omega)$
Low Temp. Resistance	Store at -55°C±2°C for 16hours.		$\Delta R \leq \pm(1\%R+0.1\Omega)$
High Temp. Resistance	Store at 70°C±2°C for 16hours.		$\Delta R \leq \pm(1\%R+0.1\Omega)$
Non-flammability	10times rated power, power on for 5minutes.		Without combustion

**DERATING CURVE**



**ODERING PROCEDURE EXAMPLE**

