

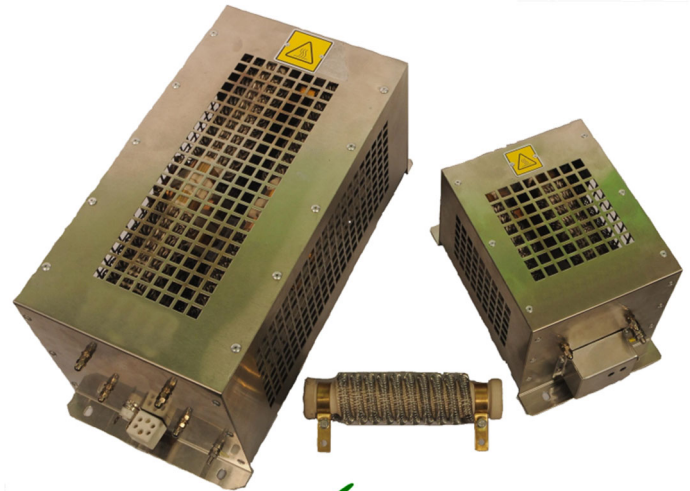
## SBG SERIES - DYNAMIC BRAKING RESISTOR

The SBG is a high quality, high stability Dynamic Braking Resistor series, designed to suit inverter drives of various makes. A wide range of resistance values are available in 0.5kW to 12kW Braking Resistors.

The specially designed Helical Coil type resistor elements are used for high efficiency and faster cooling.

### Features:

- Medium to High resistance values with high overload capacity.
- Stainless Steel enclosure with separate terminals compartment.
- IP20 enclosure with necessary vents are provided for natural cooling.
- Easy to install and use - base or wall mountable.
- Thermal switch included



## ELECTRICAL SPECIFICATIONS

Characteristics	Condition	Compliance
Rated Power	0.5kW to 120kW	Continuous power
Peak Power	5 x Rated power	For up to 12% Duty cycle (of 120sec cycle max)
Resistance Tolerance	±10%	
Insulation Resistance	Dry/Normal @500V DC	>500MΩ
Hipot Test	2000V AC	For 1 minute
Environmental Protection	IP20	

## POWER DERATING CURVE

The Peak power at different duty cycles is given as below:

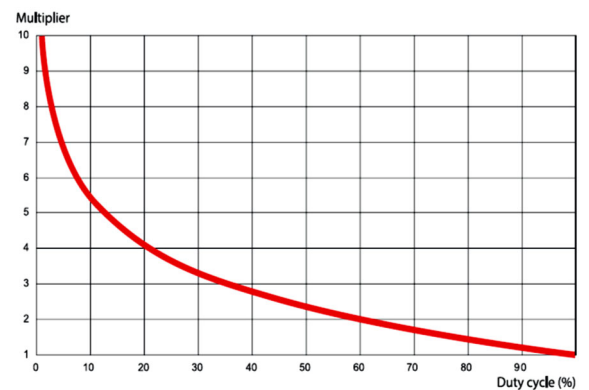
$$\text{Peak Power@ duty cycle} = \text{Rated Continuous power} \times \text{Multiplier}$$

The Multiplier is decided as the point of intersection between Duty cycle and power curves.

### Example:

Consider SBG10,

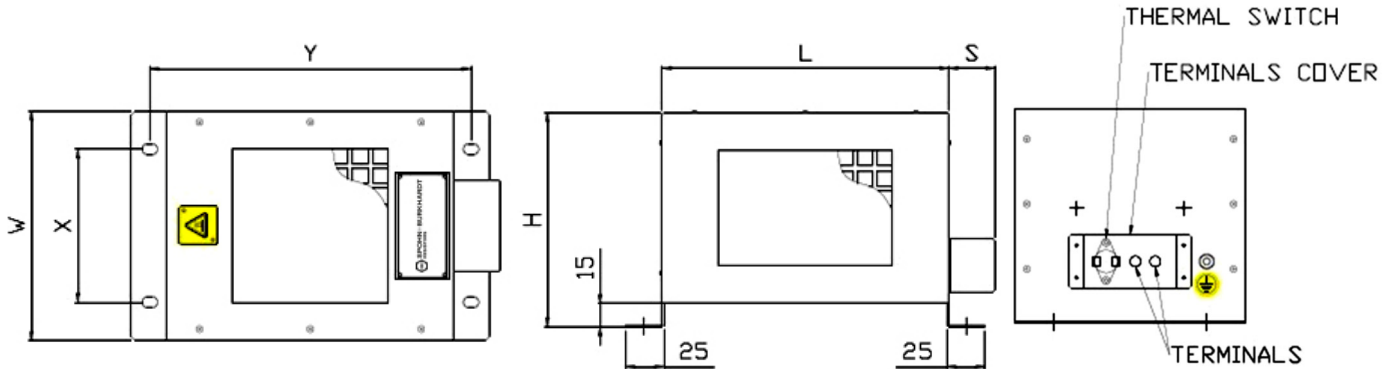
1. Rated Power is 1000 W
2. At a 10% Duty Cycle, Multiplier is 5.5
3. So Peak Power is 1000W x 5.5 = 5500W for 12 secs max
4. Similarly,
  - @40% duty cycle Peak power will be 2750W for 48sec.
  - @80% duty cycle Peak power will be 1500W for 96sec.



Maximum Duty considered as 120secs

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### RESISTANCE RANGE AND DIMENSIONAL DETAILS



Note: All dimension are in mm.

Series	Rated Power (W)	Resistance Range*	L ±3	W ±3	H ±3	X ±1	Y ±1	S
SBG 05	500	14Ω - 250Ω	187	125	115	95	210	30
SBG 10	1000	14Ω - 120Ω	187	150	140	100	210	30
SBG 15	1500	14Ω - 160Ω	187	220	140	170	210	30
SBG 20	2000	8Ω - 100Ω	187	200	185	150	210	30
SBG 30	3000	8Ω - 100Ω	187	250	225	200	210	35
SBG 40	4000	6Ω - 80Ω	372	200	185	150	395	35
SBG 50	5000	4Ω - 80Ω	372	250	225	200	395	40
SBG 60	6000	3Ω - 60Ω	372	250	225	200	395	40
SBG 90	9000	2.8Ω - 45Ω	372	410	365	310	395	40
SBG 120	12000	2.8Ω - 28Ω	372	510	365	410	395	40

\* Values according to E12 series.

### ORDERING DETAILS

SBG Series - Series Model #  
 R - Resistance Value  
 S - Thermal Switch

Example: SBG 10 20R ± 10%

A suitable cooling system may be required to use the full power.

*Disclaimer: Product specifications, data and dimensions are subject to change without any prior notice to improve performance, reliability and design.*

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