'SURE' MAKE ALUMINUM HOUSED DYNAMIC BRAKING RESISTORS - SBV

FEATURES

- Custom built resistors to meet your requirements.
- High Power and Excellent load life stability.
- Excellent short time over load.
- Strongly resistant to moisture & solvent.
- Self-extinguish material is used in moldings.
- Non-inductive type also available.
- High-surge- resistant items are also available.

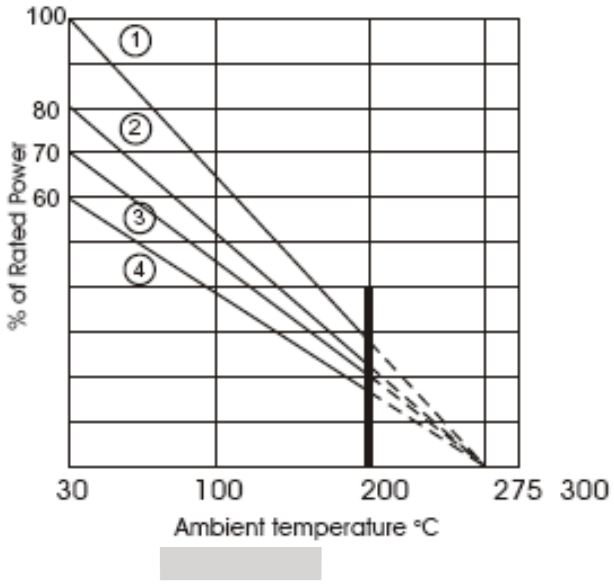
QUICK REFERENCE DATA

Operating Temp.	-55°C - +275°C
Insulation Resistance	20 Meg ohms Minimum
Dielectric Strength	AC 1500V for 1 min
Temp. Coefficient	50 ppm/°C
Short Time Over Load	10 X Wattage Rating, 5 sec
Moisture resistance	Temp 40°C moisture 95% DC100V500H
Thermal Shock	Wattage Rating 30min. -25°C, 15min
Vibration	10c/c ~ 50 c/s ~ 10 c/s (1min) -2h each of paralleled and right angle.
Load Life	Wattage Rating 1.5 h On, 30min off, 1000h
De-rate to zero	at 275°C

TECHNOLOGY

SBV: The resistive element is a low ppm resistance wire that is wound on a special grade porcelain tube. The terminals have fully welded construction to provide a good mechanical and electrical contact. The assembly is embedded in the aluminum casing. The aluminum casing is made from high quality heat sink grade material, which helps to dissipate the heat from the resistor at the faster rate resulting low change of resistance with respect to temperature, as resistance varies in direct proportion to temperature. The casing is filled with high purity and special silica sand to extract the heat from the resistor body at the slower rate. The conduction of heat thorough the sand brings uniform heat to the aluminum casing for further dissipation. This protects the panels from being heated internally. Terminal contacts are provided with the screw arrangement for easy wiring.

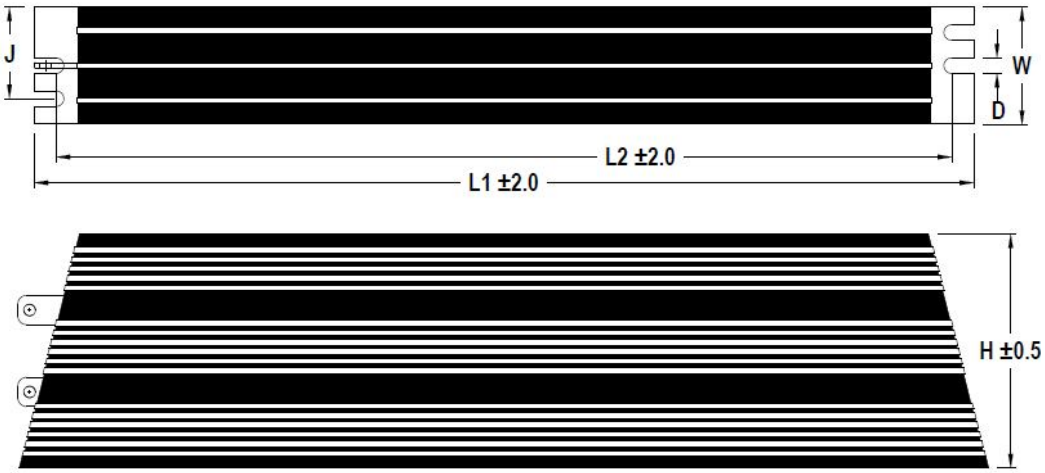
ELECTRICAL CHARACTERISTICS



1. On Chassis Mount 60W~1500W
2. Free Air 60W~150W
3. Free Air 200W~300W
4. Free Air 400W~3KW

Fig - Maximum dissipation (Pmax) in percentage of rated power as a function of the ambient temperature (Tamb)

MECHANICAL DATA



Type	Free Air	Chassis Mount			DIMENSIONS (MM)						Approx. Weight (g)
	Watts@ 20°c	Watts@ 20°c	Peak Power in 40s each 180s ***P40*** (Watt @ 20°c)	Peak Power in 10s each 180s ***P10*** (KW @ 20°c)	L1	L2	W	H	D	J	
SBV – 200	140	200	900	3.60	165	150	60	30	5.3	0	500
SBV – 300	210	300	1350	5.40	215	200	60	30	5.3	0	700
SBV – 500	360	500	2250	9.00	330	315	60	30	5.3	0	1000
SBV – 750	450	750	3375	13.50	330	315	80	40	6.3	0	1900
SBV – 1000	600	1000	4500	18.00	400	385	80	40	6.3	0	2300
SBV – 1250	750	1250	5625	22.50	495	480	80	40	6.3	0	2900
SBV – 1500	900	1500	6750	27.00	550	535	80	40	6.3	0	3200
SBV – 2000	1200	2000	9000	36.00	400	380	60	85	7	22.5	5000
SBV – 2500	1500	2500	11250	45.00	470	450	60	85	7	22.5	6000
SBV – 3000	1800	3000	13500	54.00	540	520	60	85	7	22.5	6500

Recommended Chassis Size for optimum performance:

150W-300W: 300 x 300 x 3 mm
400W-600W: 450 x 450 x 3 mm
750W–1500W: 600 x 600 x 3 mm
2KW – 3KW: 600 x 600 x 5 mm

If finned heat-sink is used, surface area should be equal to the above heat sink area.

Thermal Watch - OPTIONAL

** All Data related to thermal Sensor are as specified by vendor

Thermal watch embedded inside the aluminum casing:	130°C, NC Contact
Make	Microtherm
Version	T11A
Nom. Current (Amp)	2.5 A

Lead Version	Flexible Leads
Temp Class	F (max 155°C)
Cross Section	0.48 mm² (AWG20)
Coating	Polyolefin
Colour	White
Length	100 mm
Approval	UL 3398

APPLICATION INFORMATION

Braking resistors are used with inverters, driving motors with a dynamic load that requires to be stopped quickly, such as lifts, cranes, or high-speed mechanisms. The braking resistor is connected in the DC link, between the rectifiers and the switching semi-conductors. When the DC voltage rises, to a pre selected limit, a chopper circuit switches in the braking resistor thereby allowing excess energy to be "dumped" in the form of heat, instead of causing damage to the inverter. When the DC level drops to a lower preset minimum limit the braking resistor is switched out of circuit until it is required again.

SURE RESISTORS
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