

CERMET RESISTRONICS PVT. LTD

This slim and compact design not only saves space but also streamlines drives and motor systems, making them less bulky. Ideal for applications with space limitations, the main application of this resistor is dynamic braking/motor stopping for Variable Frequency Drives and Frequency Convertors which are specifically crafted for use in cranes, elevators, conveyors, industrial automation, heavy-duty machines, and more.



Features

- Very flat, compact construction form.
- Degree of protection IP 54, IP 67
- Resistor Value Standard Tolerance 5%, 10% Available.
- Technology: Wire wound.
- Customized wire terminals available on request.
- Mounting Type: T-Slot/Panel Mount.

Dimensions in mm



	Power Rating: continuous dissipation in W at 40°C with heat sink	Dimensions in mm									
Туре		L1±2	L2±1	A±1	B±1	C± 0.3	Resistance Range (in Ω)	Min. Current (A)	Max. Current (A)	Min. Voltage (V)	Max. Voltage (V)
CDBRAS - 100	100W	110	98	80	60	15	2R7 – 3k	0.18	6.0	16.43	500.00
CDBRAS - 150	150W	160	148	80	60	15	4R7 - 5k	0.17	5.0	26.55	600.00
CDBRAS - 200	200W	216	204	80	60	15	6R8 – 8k	0.16	5.0	36.88	600.00
CDBRAS - 300	300W	320	2 x 154	80	60	15	10R - 10k	0.17	5.0	54.77	600.00
CDBRAS - 400	400W	420	2 x 204	80	60	15	12R – 15K	0.16	5.0	69.28	600.00
CDBRAS - 500	500W	520	4 x 127	80	60	15	18R – 20K	0.16	5.0	94.87	600.00

Characteristics	Test Methods	Limits		
Visual	Visual inspection of resistor to check plating/painting, engraving, printing & mounting.	Should be visually defect free as per customer specifications.		
Dimensions	Resistor dimensions are checked as per specified catalogue or customer specifications.	The Resistors shall be within the Specified dimensions as per test method.		
DC resistance	Resistors are tested with standard specified voltages for its Ohmic values to check the specified tolerance.	The Resistors shall be within Specified tolerance limits.		
Short time overload	To perform this test, refer below short time power calculation and table.	ΔR%= ± 3.0% (+ 0.05 Ώ)		
Rated Load	The resistor is tested by applying 100% of its rated power continuously for a duration of 2 hours with a heatsink.	Δ R % = ± 2 % Max		
Dielectric strength	A foil is wrapped around the specimen body. A voltage of 2 KV @0.5 ma shall be applied between both the terminals of the specimen for a duration of 1 min.			
Insulation Resistance	Should be > than 10000 Mega ohms at 500V.	>10000 Mega ohm		
The resistors value shall be checked at 2Temp-Coefficienttemperatures. i.e. one at ambient (25 to 35°C) & thefinal at Ambient + 100°C		+/- 200 PPM/°C		

Short-time power

Continuous power =

The continuous and the short-time power can be calculated as follows:

Short-time power

Overload Factor (OF)

Example: Required – Continuous power

Known – Resistor with a short-time power of 840W for 18 s and a total cycle time of 120 s.

Duty Cycle Factor (DC): 18 s /120 s x 100% = 15%

Overload Factor (OF) at 15% Duty Cycle Factor acc. to table = 4.2

Continuous power = 840 W/4.2 = 200 W

A resistor with a continuous power of at least 200 W is required.

For short time operation you will find the values in the following table.

DC (Duty Cycle Factor)	60%	40%	25%	15%	6%	3%	1%
OF (Overload Factor)	1.5	2.2	3.0	4.2	8.2	13	22

These overload factors are valid for a total cycle time of maximum 120 s.

Example:

Item Description: - CDBRAS 200W 5% 200E

Item Number: - CDBRAS0200WJ200EXX

CDBRAS	XXXXW	J	XXX	E	ХХ
Туре	Wattage	Tolerance	Resistance Value	Unit	Special Instructions
Slim Type Dynamic Breaking Resistor	XXXXW (Numeric value followed by 'W')	X - 0%	XXXX (Numeric value)	E - ohms	XX - special instructions not applicable
		F - 1%		K - Kilo Ohms	SI - Special Instructions applicable
		G - 2%		M - Mega Ohms	
		J - 5%			
		K - 10%			

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