TYPE LG BRAKING MODULES

AC variable frequency drives are commonly used with general purpose AC induction motors to form reliable variable speed drive systems. Problems with these drive systems can occur when an application requires a deceleration rate faster than what can be managed by the drive alone, or when motor speeds exceed the synchronous speed set by the output frequency of the drive (which is called an overhauling load condition). Both of these conditions create regenerated power which flows from the motor back into the drive, causing its DC Bus to rise. To manage the regenerated power and avoid shutting the drive down due to an overvoltage trip, this power must be dissipated by an external braking resistor. Braking Modules are used in conjunction with an AC drive to monitor the DC bus of the drive and activate external braking resistor as needed.

A typical AC Drive, Braking Module and Braking Resistor configuration.

PRODUCT OVERVIEW

- Nominal Voltage Ratings of 240, 480 and 600 volts.
- Continuous Current Ratings up to 115 amps.
- Peak Current Ratings as high as 300 amps.
- Optional Enable Control Voltages of 120VAC or 24VDC.
- Compact Frame with High Current Capacity.
- Heat sink Over-temperature Protection.
- Under Voltage Detection for Logic Supply.
- Master/Slave Configuration.
- External or Internal Brake Enable Capability.
ELECTRICAL SPECIFICATIONS AND PART DIMENSIONS

<table>
<thead>
<tr>
<th>Powerohm Part Number</th>
<th>Nominal AC Line Voltage</th>
<th>RMS Continuous Current</th>
<th>Turn ON Voltage</th>
<th>Max Peak Current</th>
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</thead>
<tbody>
<tr>
<td>BM2-50</td>
<td>240</td>
<td>50</td>
<td>390</td>
<td>200</td>
</tr>
<tr>
<td>BM2-115</td>
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<tr>
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<tr>
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<td>50</td>
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<td>BM6-150</td>
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<td>970</td>
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</tbody>
</table>

Note: Peak currents up to the maximum are allowed at intermittent duty cycles, as long as:

- The Module RMS Load Current rating is not exceeded.
- RMS Load Current = Peak Current X the square root of duty cycle.

* The cooling fan option is necessary to achieve the 115 amp rating and requires 120VAC, or optional 24VDC Control Power for fan.

ENVIRONMENTAL RATINGS

- Ambient Temperature: -10°C to 40°C
- Maximum Altitude: 3300 feet (1000m)
- Maximum Vibration: 10 to 20Hz, 32ft/sec/sec; 20 to 50Hz, 6.5 ft/sec/sec


WEIGHTS

- BM50 Amp Series without fan: 9 lbs.
- BM115, BM150 Amp Series with fan: 11 lbs.