Dynamic Brake or Chopper Connection
(1336 PLUS, PLUS II, FORCE, IMPACT G & H Frame Drives)

This publication will provide connection and drive programming information for a Dynamic Brake or Chopper connection to a G or H Frame Drive. Refer to Frame Ratings to match your drive nameplate data with a frame letter.

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Frame Ratings

Table A  Three-Phase Drive Rating(1)

<table>
<thead>
<tr>
<th>Frame Reference</th>
<th>380 – 480V</th>
<th>500 – 600V</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>187 – 448 kW</td>
<td>224 – 448 kW</td>
</tr>
<tr>
<td></td>
<td>250 – 600 HP</td>
<td>300 – 600 HP</td>
</tr>
<tr>
<td>Frame Reference</td>
<td>380 – 480V</td>
<td>575 – 600V</td>
</tr>
<tr>
<td>H</td>
<td>293 – 384 kW</td>
<td>489 – 590 kW</td>
</tr>
<tr>
<td></td>
<td>700 – 800 HP</td>
<td>700 – 800 HP</td>
</tr>
</tbody>
</table>

(1) kW and HP are constant torque (CT) ratings.
Dynamic Brake or Chopper Connection

Typical Power Schematic Diagram

Figure 1

See Figures 2 through 5 for details about making these connections inside the drive.
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Inductor/Connection Point Locations

During power up, there can be a racing condition between the time the drive control board comes alive and verifies all input status and the time the Chopper control board comes alive and closes its AUX contact. To correct this condition, Rockwell recommends connecting a programmable CR4 NC contact at TB2-16 and TB2-17 across the Brake Chopper AUX Contact to shunt the contact until the BUS is fully charged and the logic inputs are satisfied. See Table B for recommended programming to provide enough time for the Chopper AUX contact to close, thus preventing AUX fault in the drive at power up.

**ATTENTION:** To avoid a shock hazard, assure that all power to the drive has been removed before proceeding. In addition, verify that the DC bus has discharged by measuring across the “+DC” and “–DC” terminals of TB1 with a voltmeter. The voltage should be 0.0VDC.

**Important:** Two different inductors were used — use appropriate drawing for inductor style in drive to have DB added.

Figure 2
G Frame Drives

The inductor terminals to connect DC braking or DC Chopper braking onto the DC Bus are located in this area. Refer to additional details on following pages.
The inductor terminals to connect DC braking or DC Chopper braking onto the DC Bus are located in this area. Refer to additional details on following pages.
Figure 4  DC Bus Inductor Style A Connection Points for Dynamic Brakes (G Frame Drive shown, H Frame Drive similar)

Wires Are Not Part Of Drive. These Wires Added By Customer When DB Is Used. Shown Here For Added Clarity. (Stud Is M10 Thread)

Figure 5  DC Bus Inductor Style B Connection Points for Dynamic Brakes (G Frame Drive shown, H Frame Drive similar)

Wires Are Not Part Of Drive. These Wires Added By Customer When DB Is Used. Shown Here For Added Clarity. (Stud Is M10 Thread)
Typical Control Power Scheme
Typical Control Logic

Scheme
## Table B

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Standard Default</th>
<th>Shipped Setting</th>
<th>Installed Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Control Select</td>
<td></td>
<td></td>
<td>Full Custom</td>
</tr>
<tr>
<td>21</td>
<td>Input Mode</td>
<td>1</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>49</td>
<td>Break Frequency</td>
<td>0</td>
<td>Default</td>
<td>0%</td>
</tr>
<tr>
<td>176</td>
<td>CR4 Out Select</td>
<td>Alarm</td>
<td></td>
<td>Drive Ready</td>
</tr>
</tbody>
</table>