



# 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.

## Contents

Typical Power Schematic Diagram ..... 2

Inductor/Connection Point Locations ..... 3

Typical Control Power Scheme ..... 6

Typical Control Logic Scheme ..... 7

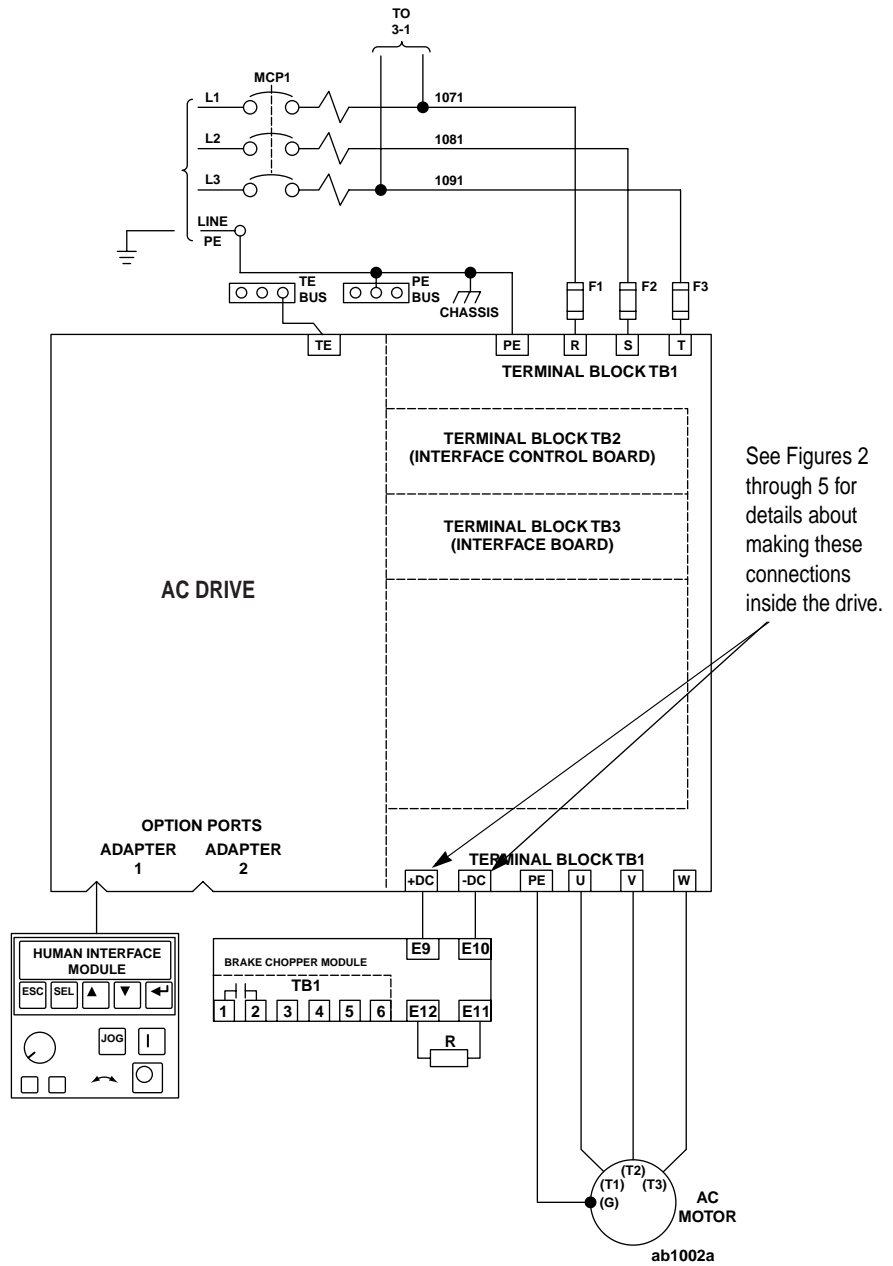
Typical Parameter Programming..... 8

## Frame Ratings

**Table A Three-Phase Drive Rating<sup>(1)</sup>**

Frame Reference	380 – 480V	500 – 600V
G	187 – 448 kW	224 – 448 kW
	250 – 600 HP	300 – 600 HP
Frame Reference	380 – 480V	575 – 600V
H	293 – 384 kW	489 – 590 kW
	700 – 800 HP	700 – 800 HP

Typical Power Schematic Diagram Figure 1



## Inductor/Connection Point Locations

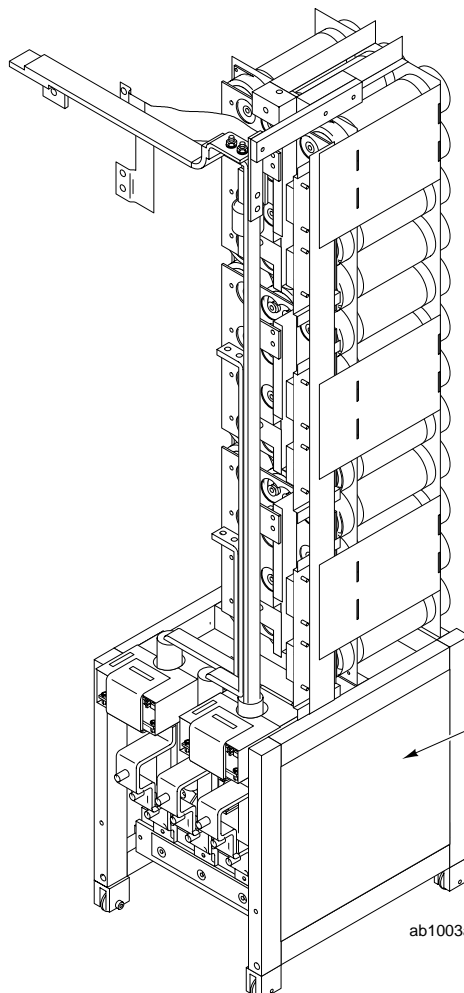
During power up, there can be a racing condition between the time the drive control board comes alive and verifies all input status and the time the Chopper control board comes alive and closes its AUX contact. To correct this condition, Rockwell recommends connecting a programmable CR4 NC contact at 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.

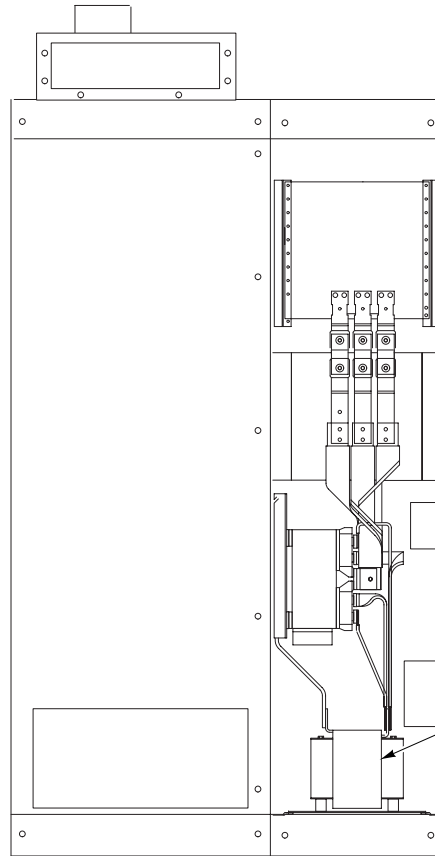
**Figure 2**  
G Frame Drives



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.

ab1003a

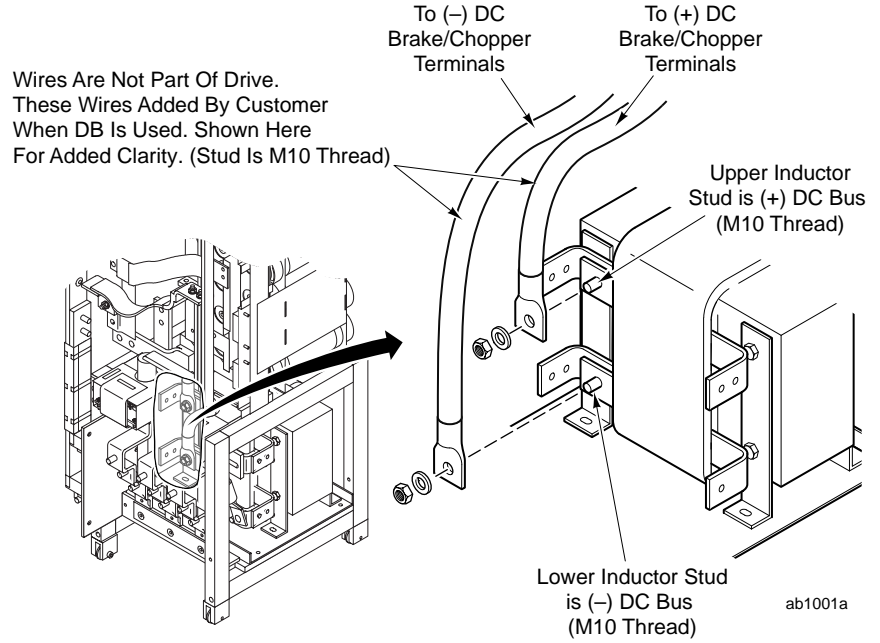
**Figure 3**  
**H Frame Drives**



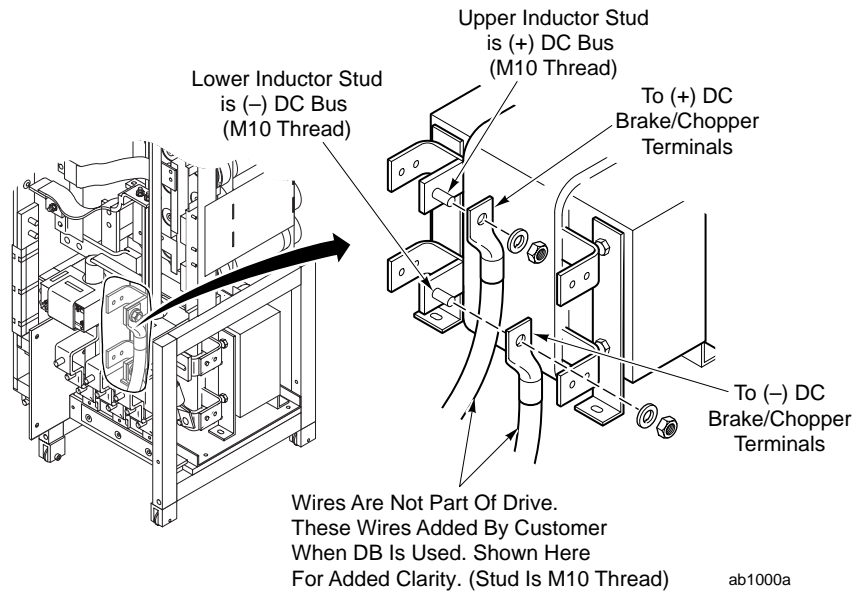
The inductor terminals to connect DC braking or DC Chopper braking onto the DC Bus are located in this area. Refer to additional details on following pages.

ab1081

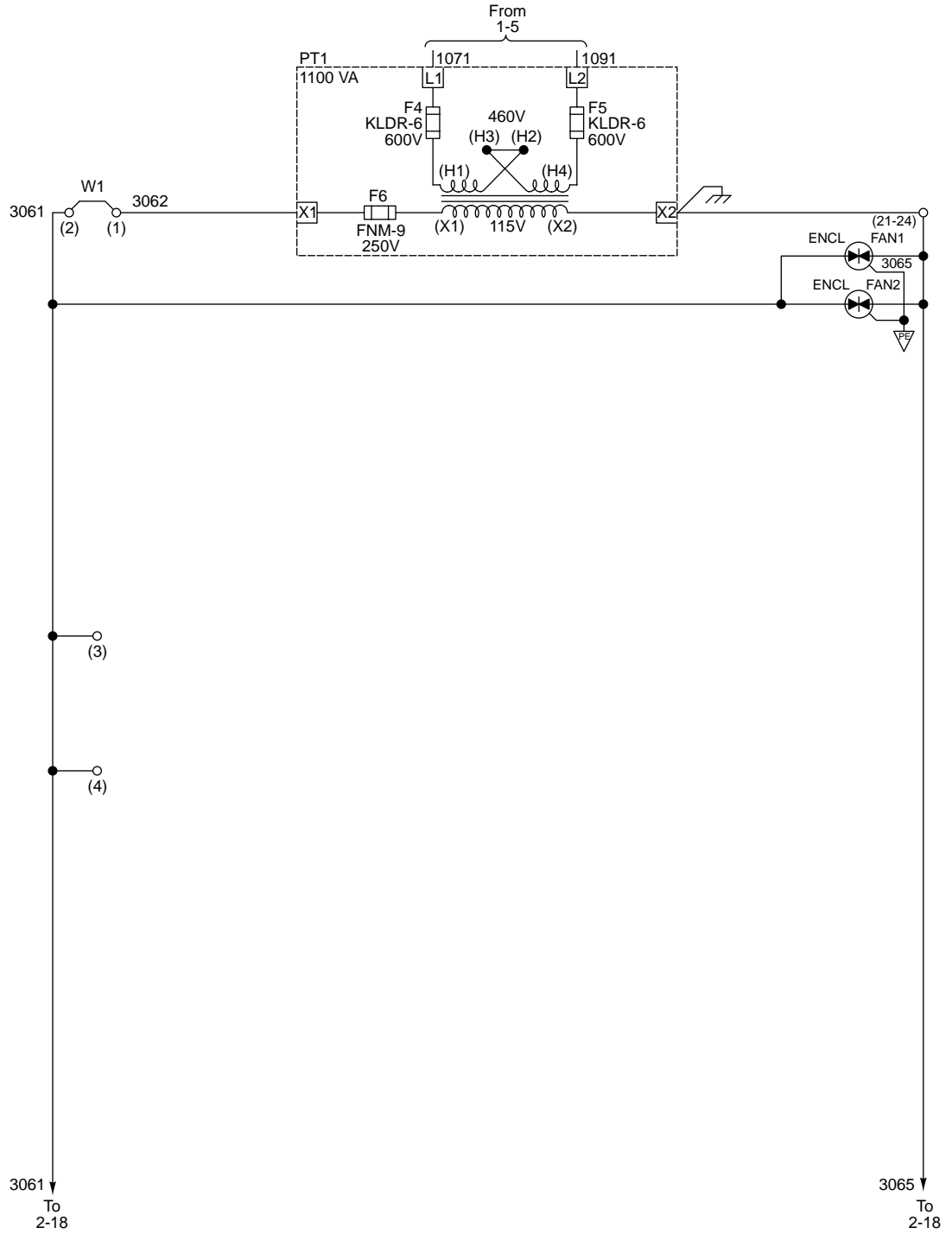
**Figure 4 DC Bus Inductor Style A Connection Points for Dynamic Brakes (G Frame Drive shown, H Frame Drive similar)**



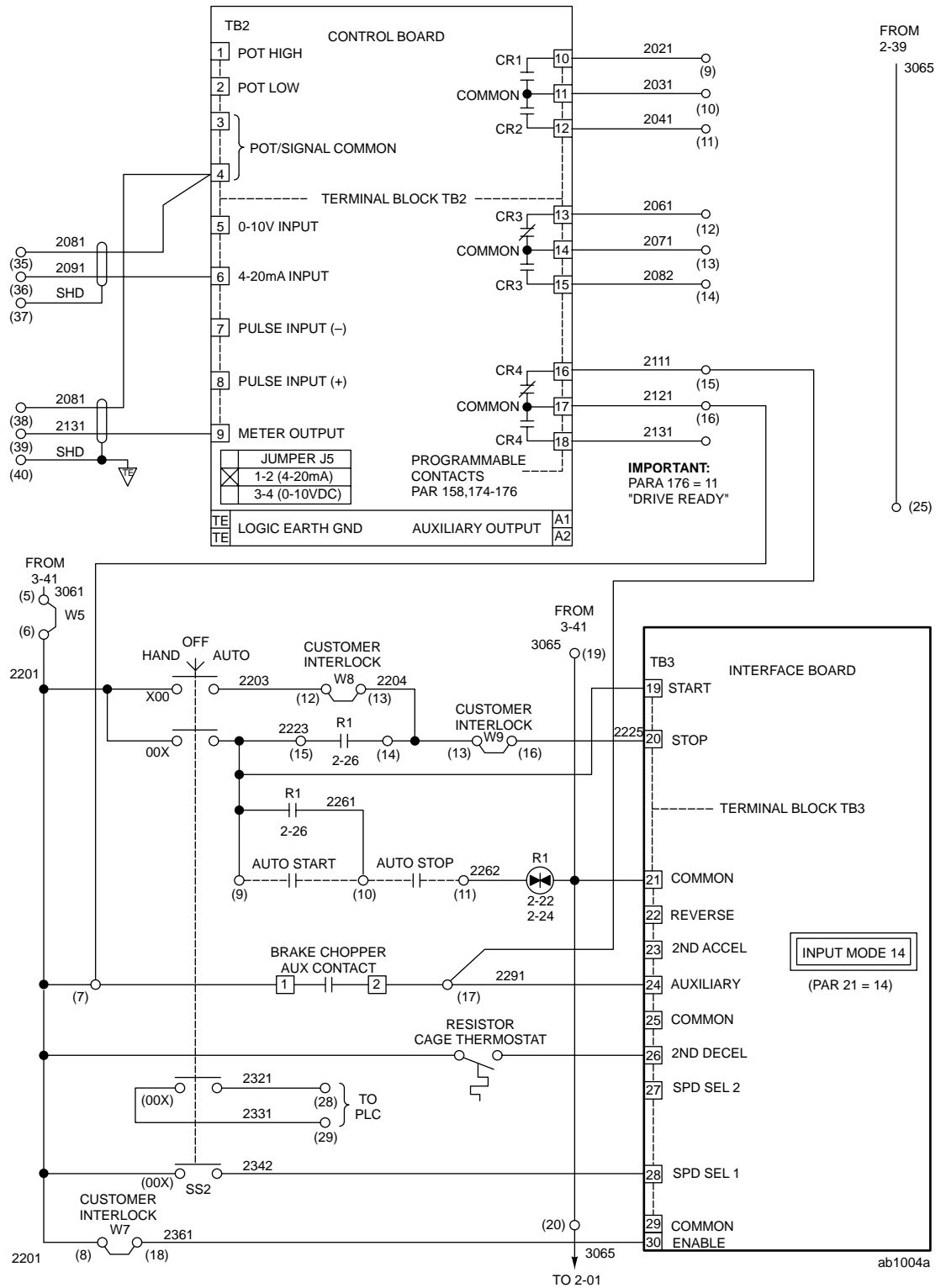
**Figure 5 DC Bus Inductor Style B Connection Points for Dynamic Brakes (G Frame Drive shown, H Frame Drive similar)**



### Typical Control Power Scheme



# Typical Control Logic Scheme



---

## Typical Parameter Programming

Table B

Parameter	Description	Standard Default	Shipped setting	Installed Setting
9	Control Select			Full Custom
21	Input Mode	1	14	
49	Break Frequency	0	Default	0%
176	CR4 Out Select	Alarm		Drive Ready

[www.rockwellautomation.com](http://www.rockwellautomation.com)

---

### Power, Control and Information Solutions Headquarters

Americas: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204-2496 USA, Tel: (1) 414.382.2000, Fax: (1) 414.382.4444

Europe/Middle East/Africa: Rockwell Automation, Vorstlaan/Boulevard du Souverain 36, 1170 Brussels, Belgium, Tel: (32) 2 663 0600, Fax: (32) 2 663 0640

Asia Pacific: Rockwell Automation, Level 14, Core F, Cyberport 3, 100 Cyberport Road, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846