AC Tech
member of the Lenze Group
Drive for Global Excellence

SC & TC SERIES DYNAMIC BRAKING OPTION (FOR MODELS RATED 0.25 - 10 HP)

INSTALLATION AND OPERATION INSTRUCTIONS
Manual Number: DF01C-e1

The SC & TC Series Dynamic Braking option can be used with all SCD, SCL, SCM, SCN and TCF models, and SCF models with parameter version 306 or higher. The parameter version is displayed momentarily when power is applied, and also appears on a label on the heatsink (For example: PV312).

⚠ WARNING!

Remove power from the drive and wait three minutes before wiring the DB module. Incorrect wiring of the B+ and B- terminals **will result in equipment damage!** The B+ terminal on the DB module must be connected to the B+ terminal on the drive, and the B- terminal on the DB module must be connected to the B- terminal on the drive.

DO NOT make connections to R+ and R- without consulting AC Tech. Damage to the Dynamic Braking module and/or drive may result.

SCD & SCF SERIES DRIVES

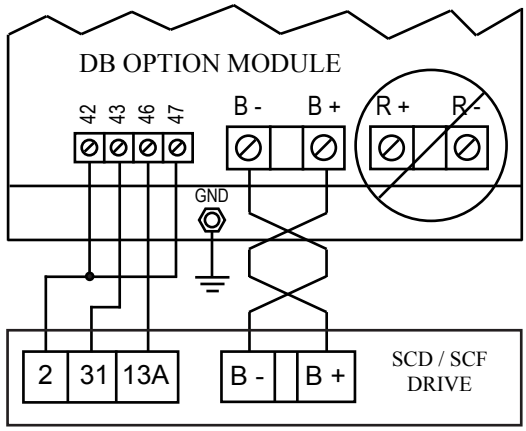
PROGRAMMING

1. Set Parameter 09 (TB-31 OUTPUT) to DYNAMIC BRAKING (04).
2. Set Parameter 10 (TB-13A FUNCTION) to DB FAULT (09), or set Parameter 12 (TB-13C FUNCTION) to DB FAULT (08).

WIRING

The diagram to the right illustrates how the DB module is wired to the SCD & SCF Series drive. In this diagram, TB-13A is used as the DB FAULT input, but TB-13C could be used instead if TB-13A is required for another function.

See important wiring NOTES below.



SCL & SCM SERIES DRIVES

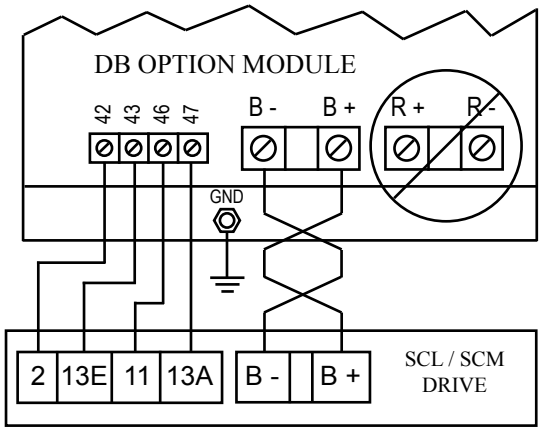
PROGRAMMING

1. Set Parameter 12 (TB-13E FUNCTION) to DYNAMIC BRAKING (20).
2. Set Parameter 10 (TB-13A FUNCTION) to INVERSE EXT. FAULT (09), or set Parameter 11 (TB-13B FUNCTION) to INVERSE EXT. FAULT (10).

WIRING

The diagram to the right illustrates how the DB module is wired to the SCL and SCM Series drive. In this diagram, TB-13A is programmed for INVERSE EXTERNAL FAULT, but TB-13B could be used instead if TB-13A is required for another function.

See important wiring NOTES below.



NOTE 1: Use 18 AWG wire for control connections. Tighten DB module and drive control terminals to a torque of 2 lb-in (0.2 Nm). Overtorque of terminals can result in damage.

NOTE 2: Use minimum 14 AWG wire for connections to B+ and B-. Tighten the DB module terminals to a torque of 2 lb-in (0.2 Nm), and tighten the drive terminals to 4.5 lb-in (0.5 Nm). The B+ and B- wires MUST be twisted together and must be less than 12 inches long.

TCF SERIES DRIVES

PROGRAMMING

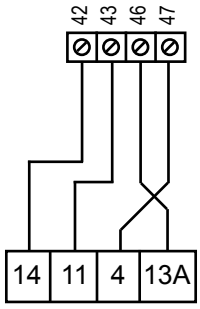
1. Set Parameter 06 (TB-14 OUTPUT) to DYNAMIC BRAKING (11).
2. Set Parameter 10 (TB-13A FUNCTION) to DB FAULT (10), or set Parameter 12 (TB-13C FUNCTION) to DB FAULT (08), or set Parameter 49 (TB-13D FUNCTION) to DB FAULT (08).

WIRING

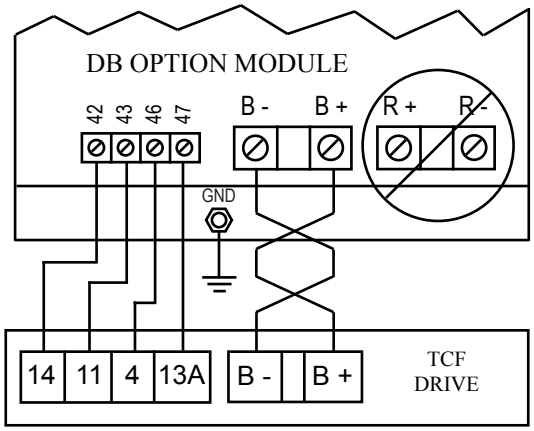
The diagrams to the right illustrate how the DB module is wired to the TCF Series drive, depending on the setting of Parameter 79 (INPUT ASSERTION LEVEL). In these diagrams, TB-13A is programmed for DB FAULT, but TB-13C or TB-13D could be used instead if TB-13A is required for another function.

Be sure to follow the correct wiring diagram based on the setting of P79!

See important wiring NOTES below.



ACTIVE LOW
P79 set to LOW (02)



ACTIVE HIGH (default)
P79 set to HIGH (01)

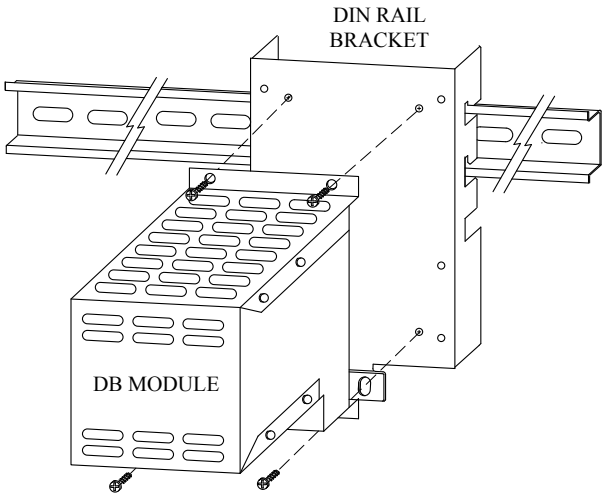
NOTE 1: Use 18 AWG wire for control connections. Tighten DB module and drive control terminals to a torque of 2 lb-in (0.2 Nm). Overtorque of terminals can result in damage.

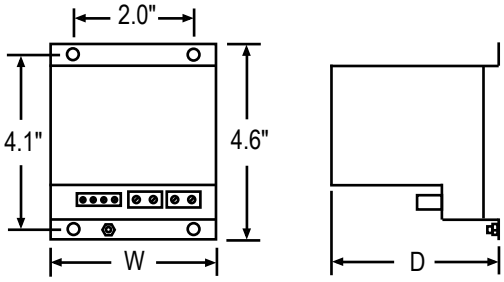
NOTE 2: Use minimum 14 AWG wire for connections to B+ and B-. Tighten the DB module terminals to a torque of 2 lb-in (0.2 Nm), and tighten the drive terminals to 4.5 lb-in (0.5 Nm). The B+ and B- wires MUST be twisted together and must be less than 12 inches long.

MOUNTING THE DYNAMIC BRAKING MODULE

The diagram below illustrates how to mount the DB Module. The DB Module is compatible with the DIN Rail Mounting Kit option, or can simply be mounted to a flat surface such as an electrical panel.

The DB module is a heat producing device; **DO NOT** mount the DB module below the drive! The DB module must be mounted above or to the side of the drive.





DIMENSIONS (inches)			
MODEL 845-	**HP**	**W**	**D**
206, 209, 406, 409, 509	0.25 - 1.5	3.1	3.1
211, 411, 511	2 - 3	3.1	4.3
213, 413, 513	5	3.1	5.6
214, 215, 414, 415, 514, 515	7.5 - 10	4.2	6.7