

AC 100 AND AC200 SERIES DYNAMIC BRAKING OPTION (FOR USE WITH EXTERNAL RESISTORS)

INSTALLATION AND OPERATION INSTRUCTIONS Manual Number: 250-0308

The AC200 Series Dynamic Braking option can be used with all AC100 & AC200 models.



Warning

DO NOT use the Dynamic Braking Module with AC200 drives of Parameter Version 305 and lower! The Dynamic Braking module may operate with some AC200 drives prior to parameter version 306, but these drives do not provide the necessary thermal protection for the Dynamic Braking module.

PROGRAMMING THE SC SERIES DRIVE FOR DYNAMIC BRAKING

AC100 Series: Set Parameter 06 (TB-14 OUTPUT) to DB BRAKE (11).

AC200 Series: Set Parameter 09 (TB-31 OUTPUT) to DYNAMIC BRAKING (04).

WIRING THE DB MODULE TO THE AC100 & AC200 SERIES DRIVE

The diagrams below illustrate how the DB module is wired to either the AC100 or AC200 drive.

NOTE 1: External resistors are required when using Dynamic Braking modules 840-117, 840-118, and 840-119. External resistor assemblies are available from Minarik (refer to the next page for resistor information).

NOTE 2: Use 18 gauge wire for control connections.

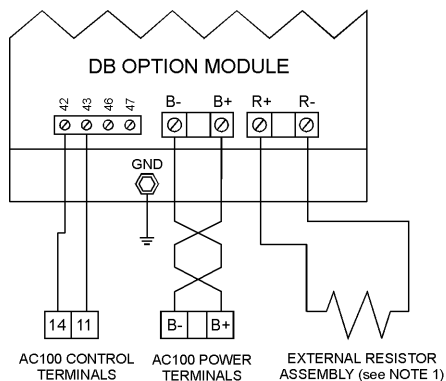
NOTE 3: Use minimum 14 gauge wire for connections B+, B-, R+, and R-. The B+ and B- wires **MUST** be twisted together and must be less than 12 inches long. Twisting the R+ and R- wires together is also recommended.



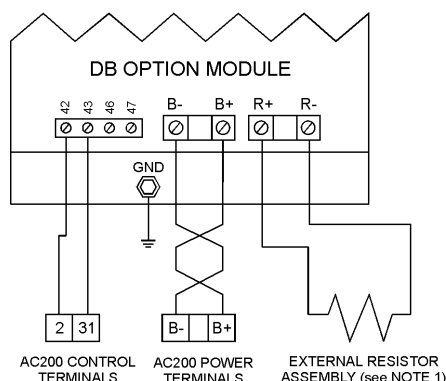
Warning

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 AC100 or AC200 drive, and the B- terminal on the DB module must be connected to the B- terminal on the AC100 or AC200 drive.

AC100 DIAGRAM



AC200 DIAGRAM



⚠ WARNING! AC100 control terminals are hot to ground! Do not touch!

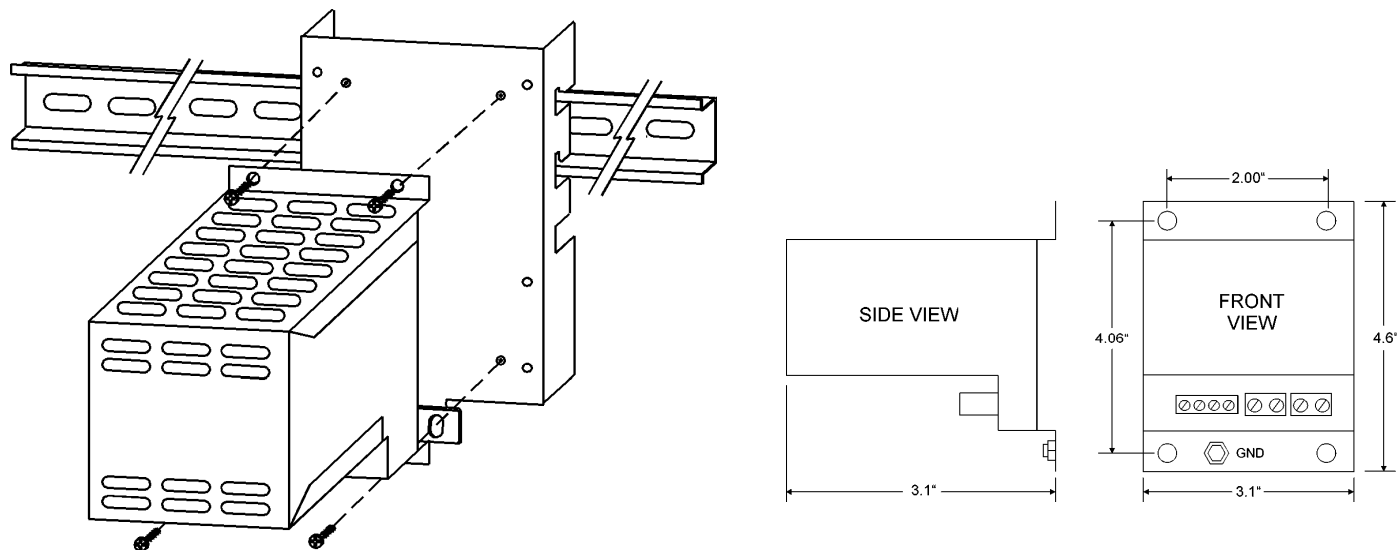
MOUNTING THE DYNAMIC BRAKING MODULE

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.



Warning

DO NOT mount the resistors below the AC100 or AC200 Series drive! The resistors generate heat, and must be mounted above or to the side of the drive.



SELECTING EXTERNAL RESISTORS

Use the chart below to select the proper external resistor assembly:



Warning

Hazard of electric shock! External resistors are connected to the drive's DC bus, which can read 950 VDC. Connections to external resistors must be electrically insulated and mechanically shielded for safety. High Voltage warning signs are also recommended.

EXTERNAL RESISTOR ASSEMBLIES			
HP	240 / 200 Vac	480 / 400 Vac	590 / 480 Vac
0.25 - 0.5	841-100	841-101	N/A
1 - 1.5	841-101	841-101	841-100
2	841-102	841-102	841-101
3	841-104	841-104	841-103
5	841-105	841-105	841-104
7.5 - 10	841-106	841-106	841-107
15 - 20	841-108	841-108	841-109
25	N/A	841-110	841-111

NOTE: These resistor assemblies are the same as those used with the AC300 and AC400 Series drives. The DB Module does not include short-circuit protection for the external resistors. If short-circuit protection is desired, fusing must be supplied by the customer. Consult Minarik.