

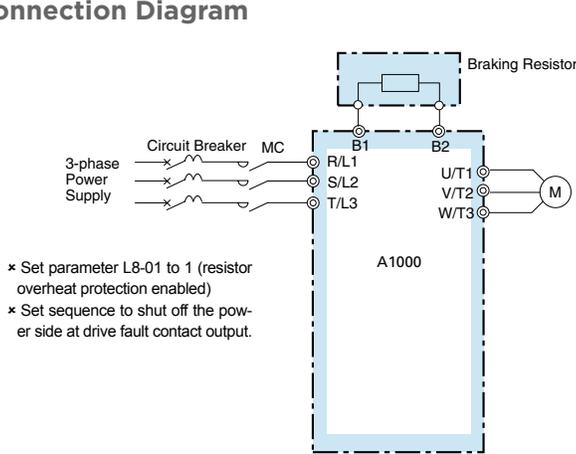
Power Accessories Selection

Dynamic Braking Options

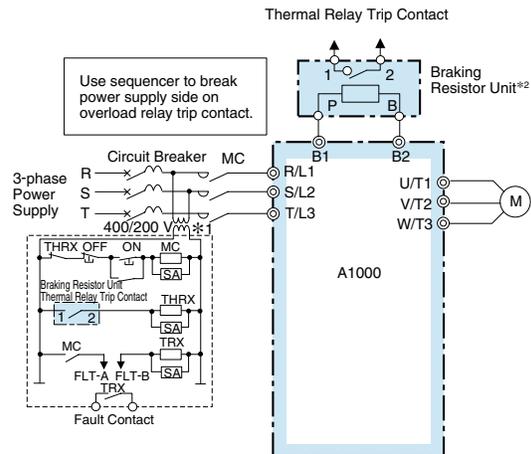
Dynamic braking provides a method to dissipate energy from regenerative events such as high inertia, fast decelerations or overhauling applications (e.g. downhill conveyors or eccentric loads). A dynamic braking system consists of a brake transistor and a brake resistor. A1000 drives through 50HP (normal duty) have built-in brake chopper transistors. A separately mounted Braking Unit (separate brake transistor) is available for larger drives.

A drive mounted 3% duty cycle resistor is available for 240V and 480V A1000 drives through 7.5HP normal duty (and 5HP heavy duty). For larger drives, higher duty cycles, and 600V applications, separately mounted resistor assemblies are available.

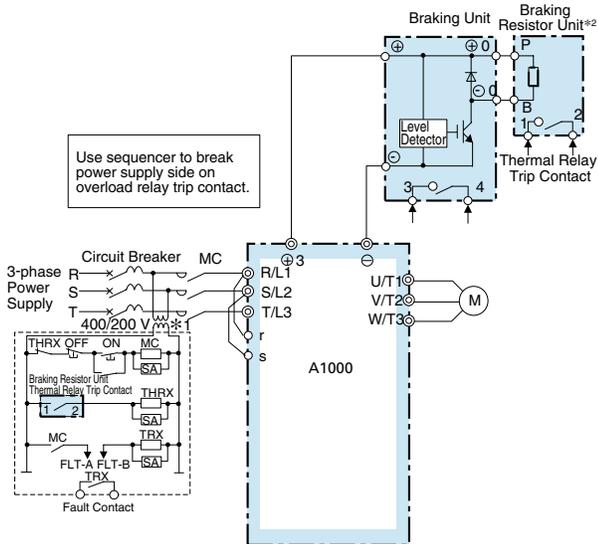
Connection Diagram



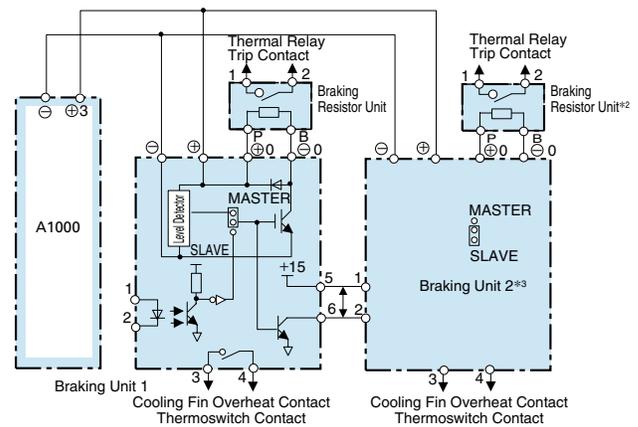
Connection Diagram A



Connection Diagram B



Connection Diagram C



Connection Diagram D

*1: 240V class drives do not require control circuit transformer.

*2: Disable stall prevention during deceleration by setting L3-04 = 0 when using a Braking Resistor Unit. The motor may not stop within the deceleration time if this setting is not changed.

*3: When using more than one parallel-connected braking unit, connect and select connectors: Braking units have a MASTER/SLAVE selection connector. Select MASTER side only for braking unit1 and select SLAVE sides for other braking units.

Note: When connecting a separately-installed type braking unit (model CDBR) to drives with built-in braking transistor (240V/480V 50HP or less), connect the B1 terminal of the drive to the positive terminal of the braking resistor unit and connect the negative terminal of the drive to the negative terminal of the braking resistor unit. The B2 terminal is not used in this case.

Dynamic Braking Options (continued)

Braking Unit

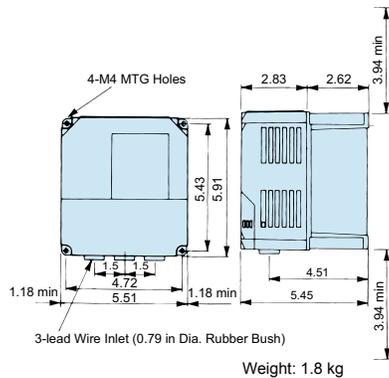


Braking Unit [CDBR series]

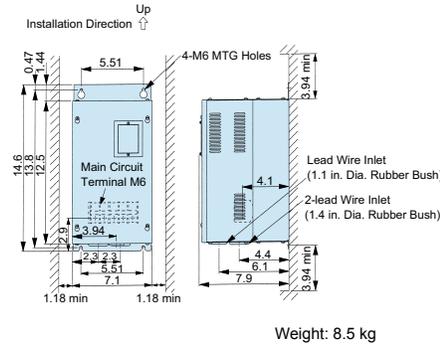
CDBR-.....	Heat Loss (W)
2015B	32
2022B	38
2110B	64
4030B	54
4045B	59
4220B	71

Dimensions

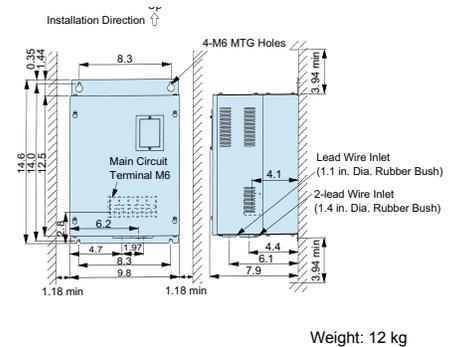
CDBR-2015B, -2022B, -4030B, -4045B



CDBR-2110B



CDBR-4220B



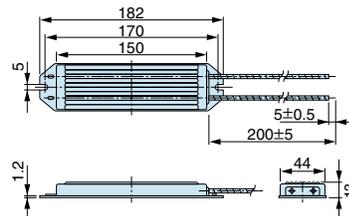
Braking Resistor



3% Braking Resistor (R75XX)

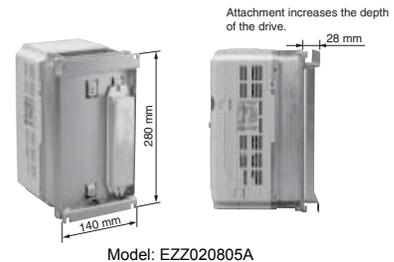
An attachment (option) is required for installation of the braking resistor.

Dimensions (in.)



Weight: 0.2 kg (All R75XX Series models)

Attachment for Braking Resistor

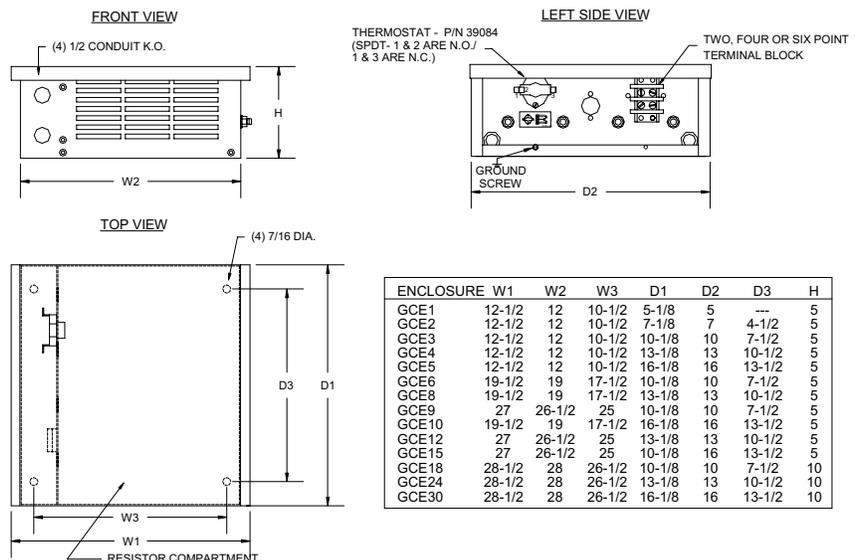


Braking Resistor Unit (Stand-alone)



Stand-alone

Dimensions (in.)



Dynamic Braking Options (continued)

480V Class

Max. Motor (HP)	ND/HD	A1000 Model CIMR-AU4A	Braking Unit		Braking Resistor (Duty Factor: 3% ED, 10 s max)						Braking Resistor Unit (Duty Factor: 10% ED, 10 s max)					Min.* Connection Resistance (Ω)							
					No Fuse																		
					Yaskawa Part Number	Resistance (Ω)	Qty.	Diag.	Braking Torque (%)	Yaskawa Part Number	Resistor Specs (Ω)	Qty.	Diag.	Braking Torque (%)									
0.75	HD	0002	Built-in		R7508	750	1	A	230	URS000252	500	1	B	150	96								
	ND	0002								130	URS000240	750	1	B	100	96							
2	HD	0004				R7508	750	1	A	130	URS000253	250	1	B	150	96							
	ND	0004				R7508	750						URS000241	375	1	B	100	96					
3	HD	0005				R7507	400	1	A	125	URS000254	170	1	B	150	64							
	ND	0005									115	URS000242	250	1	B	100	64						
	HD	0007				R7506	300						URS000254	170	1	B		150					
	ND	0007				R7505	200					100	URS000243	150	1	B	100	64					
5	HD	0009						1	A	100	URS000255	100	1	B	150	32							
	ND	0009				R7505	200					83	URS000243	150	1	B	100	32					
	HD	0011											URS000255	100	1	B	150						
7.5	ND	0011				R7505	200	2	A	135	URS000244	100	1	B	100	32							
	HD	0018				-	-	-	-	-	URS000256	67	1	B	150								
10	ND	0018				-	-	-	-	-	URS000245	75	1	B	100	32							
	HD	0023				-	-	-	-	-	URS000257	50	1	B	150								
15	ND	0023				-	-	-	-	-	URS000246	50	1	B	100	32							
	HD	0031				-	-	-	-	-	URS000258	34	1	B	150	20							
20	ND	0031				-	-	-	-	-	URS000247	38	1	B	100	20							
	HD	0038				-	-	-	-	-	URS000259	25	1	B	150								
25	ND	0038				-	-	-	-	-	URS000248	30	1	B	100	20							
	HD	0044				-	-	-	-	-	URS000259	25	1	B	150	19.2							
30	ND	0044				-	-	-	-	-	URS000249	25	1	B	100	19.2							
	HD	0058				-	-	-	-	-	URS000260	17	1	B	150								
40	ND	0058				-	-	-	-	-	URS000250	19	1	B	100	19.2							
	HD	0072				-	-	-	-	-	URS000261	12.6	1	B	150								
50	ND	0072				-	-	-	-	-	URS000251	15	1	B	100	19.2							
	HD	0088		4045B	2	-	-	-	-	-	URS000151	18	1	D	150	12.8							
60	ND	0088		4045B	1	-	-	-	-	-	URS000144	13.6	1	D	150	12.8							
	HD	0103		4045B	2	-	-	-	-	-	URS000151	18											
75	ND	0103		4045B	2	-	-	-	-	-	URS000143	13.6	1	D	150	12.8							
	HD	0139			-	-	-	-	-														
100	ND	0139	4220B	1	-	-	-	-	-	URS000119	4.2	1	D	150	3.2								
	HD	0165			-	-	-	-	-														
125	ND	0165	4220B	1	-	-	-	-	-	URS000119	4.2	1	D	150	3.2								
	HD	0208			-	-	-	-	-														
150	ND	0208	4220B	1	-	-	-	-	-	URS000165	3.2	1	D	150	3.2								
	HD	0250			-	-	-	-	-														
200	ND	0250	4220B & 4045B	1 Each	-	-	-	-	-	URS000165 & URS000142	3.2 & 13.6	1 each	D	150	3.2 & 12.8								
	HD	0296			-	-	-	-	-														
250	ND	0296	4220B & 4045B	1 & 2	-	-	-	-	-	URS000165 & URS000143	3.2 & 13.6	1 each	D	150	3.2 & 12.8								
	HD	0362			-	-	-	-	-														
300	ND	0362	4220B	2	-	-	-	-	-	URS000166	3.2	1	D	150	3.2								
	HD	0414			-	-	-	-	-														
350	ND	0414	4220B	2	-	-	-	-	-	URS000166	3.2	1	D	150	3.2								
	HD	0515			-	-	-	-	-														
400	ND	0515	4220B	3	-	-	-	-	-	URS000167	3.2	1	D	150	3.2								
	HD	0675			-	-	-	-	-														
450	ND	0515	4220B	3	-	-	-	-	-	URS000167	3.2	1	D	150	3.2								
	HD	0675			-	-	-	-	-														
500	ND	0675	4220B	3	-	-	-	-	-	URS000167	3.2	1	D	150	3.2								
	HD	0675			-	-	-	-	-														
550	ND	0675	4220B	4	-	-	-	-	-	URS000166	3.2	2	D	150	3.2								
	HD	0930			-	-	-	-	-														
600	ND	0930	4220B	4	-	-	-	-	-	URS000166	3.2	2	D	150	3.2								
	HD	0930			-	-	-	-	-														
700	ND	0930	4220B	4	-	-	-	-	-	URS000166	3.2	2	D	150	3.2								
	HD	1200			-	-	-	-	-														
750	ND	0930	4220B	5	-	-	-	-	-	URS000166 & URS000167	3.2 each	1 each	D	150	3.2								
	HD	1200			-	-	-	-	-														
800	ND	1200	4220B	6	-	-	-	-	-	URS000167	3.2	2	D	150	3.2								
	HD	1200			-	-	-	-	-														
900	ND	1200					-	-	-							-	-						
	HD	1200					-	-	-							-	-						
1000	ND	1200					-	-	-							-	-						

* The value shown for the minimum connection resistance is that for a single braking unit. Select a resistance value higher than the connectable resistance value and enough to generate the required braking torque.

Note: 1. The rated output current of the drive output amps should be equal to or greater than the motor rated current.
 2. An attachment (option) is required for installation of the braking resistor (Part Number R75XX). Contact Yaskawa for details.