

GS30 DURAPULSE Drives Accessories – Dynamic Braking Component Selection

Dynamic Braking Components

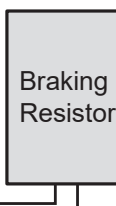
Use the table below to find the appropriate braking resistor and braking unit (if applicable) for your GS30 series AC drive. For more information and installation instructions, please see the GS30 User Manual. All listed resistors are available for purchase at www.automationdirect.com.



For drive models GS33-2040, GS33-2050, GS33-4050, GS33-4060, GS33-4075, and GS33-4100, a dynamic braking unit must be used in conjunction with the braking resistor, as shown in the GS30 AC Drive Braking Component Selection table.



GS30 braking resistor connection;
Refer to user **Dynamic Braking** user manual **GS-DB_UMP** for **DURAPULSE** resistor connection information.



GS30 AC Drive Braking Component Selection

Drive Voltage	Motor Power (hp)	Drive Model	Drive Brake Capacity - Max Torque		Braking Unit		125% Braking Torque @ 10% Duty Cycle*					NEMA1 Resistors with Thermal Switch			
			Min Resistor Value (Ω)	Max Total Brake Current (A)	Qty.	Part #	Open Type Braking Resistor					NEMA1 Resistors with Thermal Switch			
							Part #	Qty. **	Wiring Diagram	Brake Torque (kg-m)	Total Brake Current (A)	Part #	Qty.	Wiring Diagram	Total Brake Current (A)
230V	1/2	GS31-20P5	95.0	4	-	n/a	GS-BR-080W200	1	A	0.3	1.9	BR-N1-240W150	1	A	2.6
	1	GS31-21P0	63.3	6			GS-BR-200W091	1		0.5	4.2	BR-N1-280W50	1		7.8
	2	GS31-22P0	47.5	8			GS-BR-300W070	1		1.5	5.4	BR-N1-240W150	1		2.6
	3	GS31-23P0	38.0	10			GS-BR-080W200	1		0.3	1.9	BR-N1-280W50	1		7.8
	1/2	GS33-20P5	95.0	4			GS-BR-200W091	1		0.5	4.2	BR-N1-800W25	1		15.6
	1	GS33-21P0	63.3	6			GS-BR-300W070	1		1.5	5.4	BR-N1-800W18P0	1		21.7
	2	GS33-22P0	47.5	8			GS-BR-400W040	1		2.5	9.5	BR-N1-1K1W15P0	1		26.0
	3	GS33-23P0	38.0	10			GS-BR-1K0W020	1		3.7	19	BR-N1-1K5W14P0	1		27.9
	5	GS33-25P0	19.0	20			GS-BR-1K5W013	1		7.4	29	BR-N1-2K2W08P6	1		45.3
	7 1/2	GS33-27P5	16.5	23			GS-BR-1K0W4P3	2S		10.2	44	BR-N1-3K0W05P8	1		67.2
	10	GS33-2010	14.6	26			GS-BR-1K0W016	2P		14.6	47.5	BR-N1-1K6W10P0	2 (1/DBU)		39.0
	15	GS33-2015	12.6	29			GS-BR-1K5W3P3	2S		17.9	57.6	BR-N1-2K2W06P8	2 (1/DBU)		57.4
	20	GS33-2020	8.3	46			Not offered	-	-	-	-	BR-N1-250W400	1		2.0
	25	GS33-2025	8.3	46			GS-BR-080W750	1	A	0.3	1	BR-N1-240W200	1		3.9
	30	GS33-2030	5.8	66			GS-BR-200W360	1		0.5	2.1	BR-N1-240W150	1		5.2
	40	GS33-2040	4.8	79			GS-BR-300W250	1		1	3	BR-N1-500W200	1		3.9
	50	GS33-2050	3.2	119			GS-BR-400W150	1		1.5	5.1	BR-N1-500W130	1		6.0
460V	1/2	GS33-40P5	380.0	2	-	n/a	GS-BR-1K0W075	1	A	3.7	10.2	BR-N1-720W85	1	A	9.2
	1	GS33-41P0	190.0	4			GS-BR-1K5W043	1		5.1	17.6	BR-N1-1K2W50	1		15.6
	2	GS33-42P0	126.7	6			GS-BR-1K0W016	2S		10.2	24	BR-N1-1K5W40	1		19.5
	3	GS33-43P0	108.6	7			GS-BR-1K5W013	2S		14.9	29	BR-N1-1K7W30	1		26.0
	5	GS33-45P0	84.4	9			GS-BR-1K5W040	2P		24.4	38.0	BR-N1-2K3W26	1		30.0
	7 1/2	GS33-47P5	50.7	15			Not offered	-	B	12.2	24	BR-N1-2K8W25	1		31.2
	10	GS33-4010	40.0	19			GS-BR-1K0W075	1		10.2	24	BR-N1-4K0W16P0	1		48.8
	15	GS33-4015	33.0	23			GS-BR-1K5W043	1		14.9	29	BR-N1-4K7W14P7	1		53.1
	20	GS33-4020	26.2	29			GS-BR-1K0W016	2S		10.2	24	BR-N1-6K9W13P6	1		57.4
	25	GS33-4025	26.2	29			GS-BR-1K5W013	2S		14.9	29	BR-N1-3K6W20	2 (1/DBU)		39.0
	30	GS33-4030	23.0	33			GS-BR-1K5W040	2P		24.4	38.0	BR-N1-4K7W14P7	2 (1/DBU)		53.1
	40	GS33-4040	15.2	50			Not offered	-		-	-				
	50	GS33-4050	12.7	60											
	60	GS33-4060	12.7	60											
	75	GS33-4075	9.5	80											
	100	GS33-4100	6.3	121											

* 10% Duty Cycle with maximum ON (braking) time for 10 seconds.

** S= series wiring, P= parallel wiring.

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Brake Wiring

Use your drive's Braking Component Selection table to determine the appropriate brake resistor model and configuration for your drive. Refer to the diagrams below for examples on how to wire each possible configuration

Diagram A (Drive + 1 Resistor or NEMA1 Resistor):

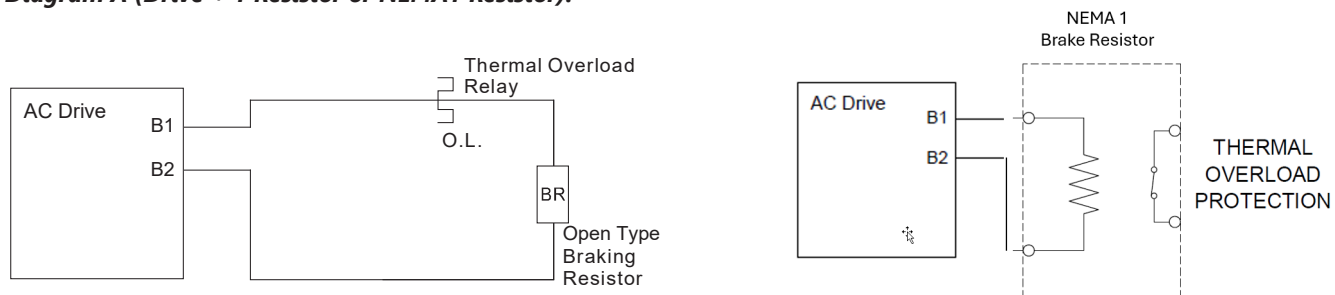


Diagram B (Drive + 2 Series Resistors):

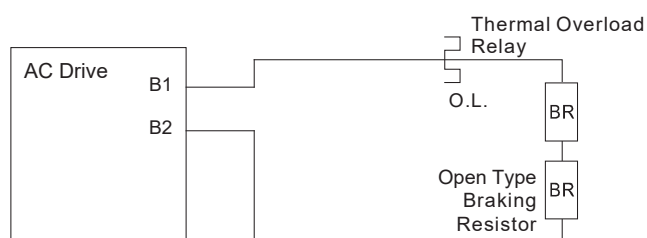


Diagram C (Drive + 2 Parallel Resistors):

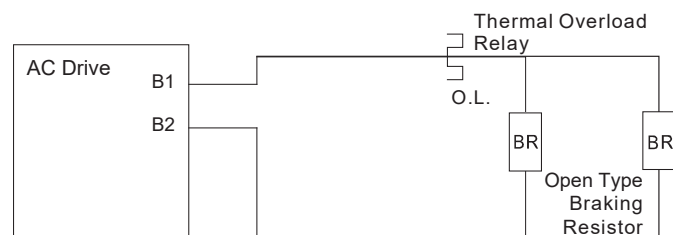
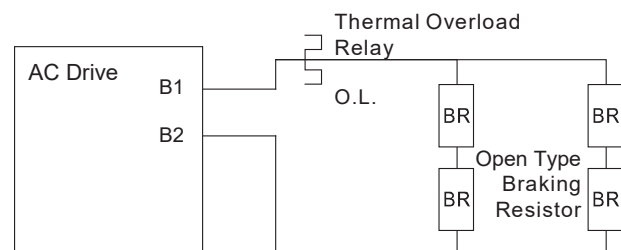


Diagram D (drive + 2 Series and 2 Parallel Resistors):



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Brake Wiring, *continued*

Diagram E (Drive + 1 DBU with 1 NEMA1 Resistor):

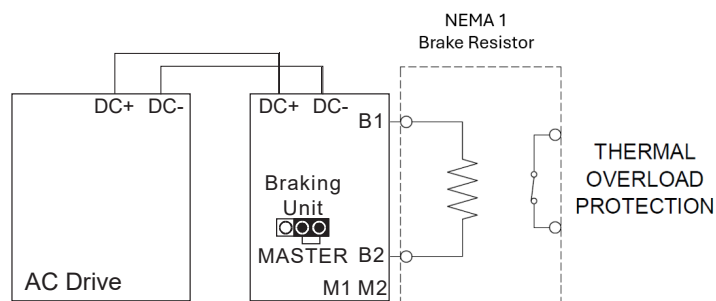


Diagram F (Drive + DBUs with 1 Resistor or NEMA1 Resistor per DBU):

