

GS30 DURAPULSE Drives Accessories – Dynamic Braking Component Selection

Dynamic Braking Components

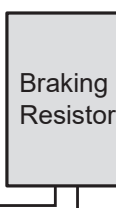
Use the table below to find the appropriate braking resistor and braking unit (if applicable) for your GS30 series AC drive. For more information and installation instructions, please see the GS30 User Manual. All listed resistors are available for purchase at www.automationdirect.com.



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*										
			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		B	10.2	44	BR-N1-3K0W05P8		1	67.2	
	10	GS33-2010	14.6	26			GS-BR-1K0W016	2P		C	14.6	47.5	BR-N1-1K6W10P0		2 (1/DBU)		39.0
	15	GS33-2015	12.6	29			GS-BR-1K5W3P3	2S		B	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	
	40	GS33-2040	4.8	79			GS-BR-300W250	1			1.5	3	BR-N1-500W200		1	3.9	
	50	GS33-2050	3.2	119			GS-BR-400W150	1			2.5	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-1K0W075	1			5.1		15.6	BR-N1-1K2W50			1
	2	GS33-42P0	126.7	6			GS-BR-1K5W043	1			7.4	17.6	BR-N1-1K5W40	1		26.0	
	3	GS33-43P0	108.6	7			GS-BR-1K0W016	2S			B	10.2	24	BR-N1-1K7W30			1
	5	GS33-45P0	84.4	9			GS-BR-1K5W013	2S				12.2		29		BR-N1-2K3W26	1
	7 1/2	GS33-47P5	50.7	15			GS-BR-1K5W040	2P			C	24.4	38.0	BR-N1-2K8W25		1	48.8
	10	GS33-4010	40.0	19			Not offered					BR-N1-4K0W16P0	1	53.1			
	15	GS33-4015	33.0	23			Not offered					BR-N1-4K7W14P7	1		57.4		
	20	GS33-4020	26.2	29			Not offered					BR-N1-6K9W13P6	1	39.0			
	25	GS33-4025	26.2	29			Not offered					BR-N1-3K6W20	2 (1/DBU)		53.1		
	30	GS33-4030	23.0	33			Not offered					BR-N1-4K7W14P7	2 (1/DBU)	53.1			
	40	GS33-4040	15.2	50			Not offered										
	50	GS33-4050	12.7	60			Not offered										
	60	GS33-4060	12.7	60			Not offered										
	75	GS33-4075	9.5	80			Not offered										
	100	GS33-4100	6.3	121			Not offered										

* 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):

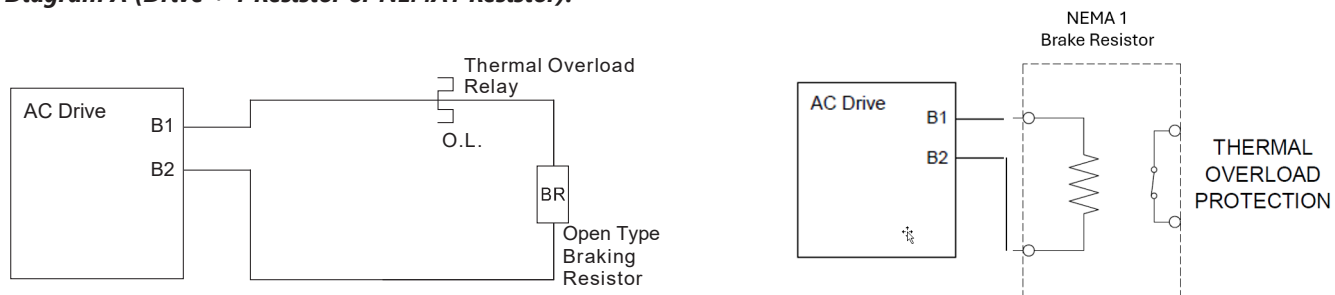


Diagram B (Drive + 2 Series Resistors):

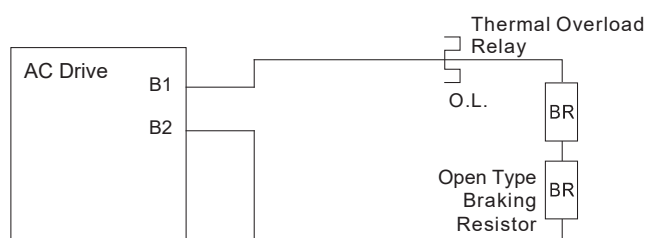


Diagram C (Drive + 2 Parallel Resistors):

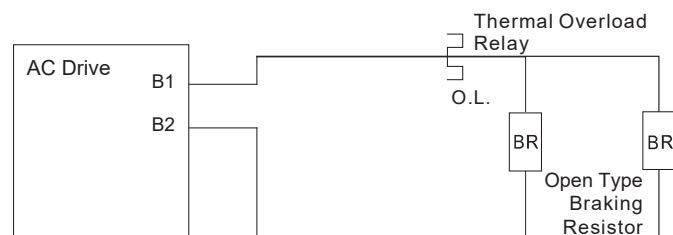
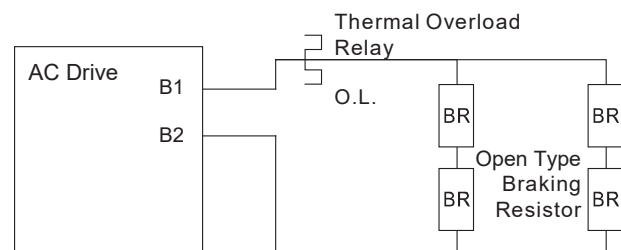


Diagram D (drive + 2 Series and 2 Parallel Resistors):



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Brake Wiring, *continued*

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

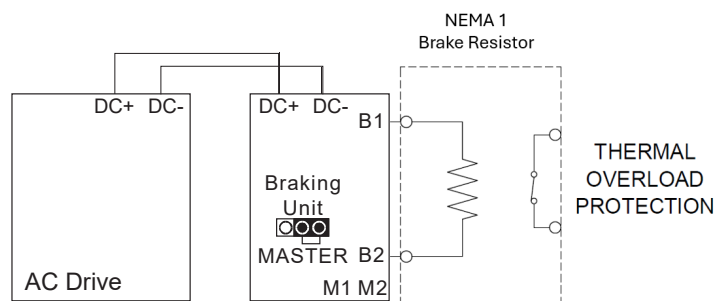


Diagram F (Drive + DBUs with 1 Resistor or NEMA1 Resistor per DBU):

