

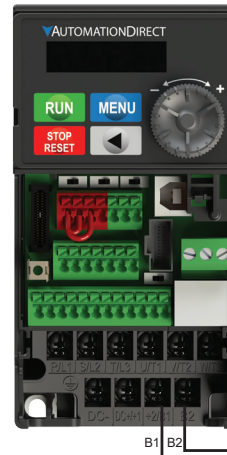
# GS30 DURAPULSE Drives Accessories – Dynamic Braking Component Selection

## Dynamic Braking Components

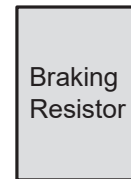
Use the table below to find the appropriate braking resistor and braking unit (if applicable) for your GS30 series AC drive. For more information and installation instructions, please see the GS30 User Manual. All listed resistors are available for purchase at [www.automationdirect.com](http://www.automationdirect.com).



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	<a href="#">GS31-20P5</a>	95.0	4	-	n/a	<a href="#">GS-BR-080W200</a>	1	A	0.3	1.9	<a href="#">BR-N1-240W150</a>	1	A	2.6	
	1	<a href="#">GS31-21P0</a>	63.3	6			<a href="#">GS-BR-200W091</a>	1		0.5		<a href="#">BR-N1-280W50</a>	1			
	2	<a href="#">GS31-22P0</a>	47.5	8			<a href="#">GS-BR-300W070</a>	1		1	4.2	<a href="#">BR-N1-240W150</a>	1		7.8	
	3	<a href="#">GS31-23P0</a>	38.0	10			<a href="#">GS-BR-080W200</a>	1		1.5	5.4	<a href="#">BR-N1-280W50</a>	1			
	1/2	<a href="#">GS33-20P5</a>	95.0	4			<a href="#">GS-BR-200W091</a>	1		0.3	1.9	<a href="#">BR-N1-800W25</a>	1		15.6	
	1	<a href="#">GS33-21P0</a>	63.3	6			<a href="#">GS-BR-300W070</a>	1		0.5		<a href="#">BR-N1-800W18P0</a>	1			21.7
	2	<a href="#">GS33-22P0</a>	47.5	8			<a href="#">GS-BR-400W040</a>	1		1	4.2	<a href="#">BR-N1-1K1W15P0</a>	1		26.0	
	3	<a href="#">GS33-23P0</a>	38.0	10			<a href="#">GS-BR-1K0W020</a>	1		1.5	5.4	<a href="#">BR-N1-1K5W14P0</a>	1			27.9
	5	<a href="#">GS33-25P0</a>	19.0	20			<a href="#">GS-BR-1K5W013</a>	1		2.5	9.5	<a href="#">BR-N1-2K2W08P6</a>	1		45.3	
	7 1/2	<a href="#">GS33-27P5</a>	16.5	23			<a href="#">GS-BR-1K0W016</a>	2S		3.7	19	<a href="#">BR-N1-3K0W05P8</a>	1			67.2
	10	<a href="#">GS33-2010</a>	14.6	26			<a href="#">GS-BR-1K0W016</a>	2P		5.1		<a href="#">BR-N1-1K6W10P0</a>	2 (1/DBU)		E	
	15	<a href="#">GS33-2015</a>	12.6	29			<a href="#">GS-BR-1K5W3P3</a>	2S		7.4	29	<a href="#">BR-N1-2K2W06P8</a>	2 (1/DBU)			57.4
	20	<a href="#">GS33-2020</a>	8.3	46			Not offered				<a href="#">BR-N1-250W400</a>	1	A		2.0	
	25	<a href="#">GS33-2025</a>	8.3	46			<a href="#">GS-BR-080W750</a>	1		0.3	1	<a href="#">BR-N1-240W200</a>				1
	30	<a href="#">GS33-2030</a>	5.8	66			<a href="#">GS-BR-200W360</a>	1		0.5		<a href="#">BR-N1-240W150</a>	1		5.2	
	40	<a href="#">GS33-2040</a>	4.8	79			<a href="#">GS-BR-300W250</a>	1		1	2.1	<a href="#">BR-N1-500W200</a>	1			3.9
	50	<a href="#">GS33-2050</a>	3.2	119			<a href="#">GS-BR-400W150</a>	1		1.5	3	<a href="#">BR-N1-500W130</a>	1		6.0	
460V	1/2	<a href="#">GS33-40P5</a>	380.0	2	-	n/a	<a href="#">GS-BR-1K0W075</a>	1	A	3.7	10.2	<a href="#">BR-N1-720W85</a>	1	A		9.2
	1	<a href="#">GS33-41P0</a>	190.0	4			<a href="#">GS-BR-1K5W043</a>	1		5.1		<a href="#">BR-N1-1K2W50</a>	1		15.6	
	2	<a href="#">GS33-42P0</a>	126.7	6			<a href="#">GS-BR-1K0W016</a>	2S		7.4	17.6	<a href="#">BR-N1-1K5W40</a>	1			19.5
	3	<a href="#">GS33-43P0</a>	108.6	7			<a href="#">GS-BR-1K0W016</a>	2S		10.2	24	<a href="#">BR-N1-1K7W30</a>	1		26.0	
	5	<a href="#">GS33-45P0</a>	84.4	9			<a href="#">GS-BR-1K5W013</a>	2S		12.2		29	<a href="#">BR-N1-2K3W26</a>			1
	7 1/2	<a href="#">GS33-47P5</a>	50.7	15			<a href="#">GS-BR-1K5W013</a>	2S		14.9	29		<a href="#">BR-N1-2K8W25</a>		1	31.2
	10	<a href="#">GS33-4010</a>	40.0	19			<a href="#">GS-BR-1K5W040</a>	2P		24.4		38.0	<a href="#">BR-N1-4K0W16P0</a>		1	
	15	<a href="#">GS33-4015</a>	33.0	23			Not offered				<a href="#">BR-N1-4K7W14P7</a>	1	E		53.1	
	20	<a href="#">GS33-4020</a>	26.2	29			<a href="#">BR-N1-3K6W20</a>	2 (1/DBU)								<a href="#">BR-N1-6K9W13P6</a>
	25	<a href="#">GS33-4025</a>	26.2	29			<a href="#">BR-N1-4K7W14P7</a>	2 (1/DBU)					<a href="#">BR-N1-3K6W20</a>		2 (1/DBU)	39.0
30	<a href="#">GS33-4030</a>	23.0	33	<a href="#">BR-N1-4K7W14P7</a>	2 (1/DBU)				<a href="#">BR-N1-4K7W14P7</a>	2 (1/DBU)	53.1					
40	<a href="#">GS33-4040</a>	15.2	50	Not offered												
50	<a href="#">GS33-4050</a>	12.7	60	Not offered												
60	<a href="#">GS33-4060</a>	12.7	60	Not offered												
75	<a href="#">GS33-4075</a>	9.5	80	Not offered												
100	<a href="#">GS33-4100</a>	6.3	121	Not offered												

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

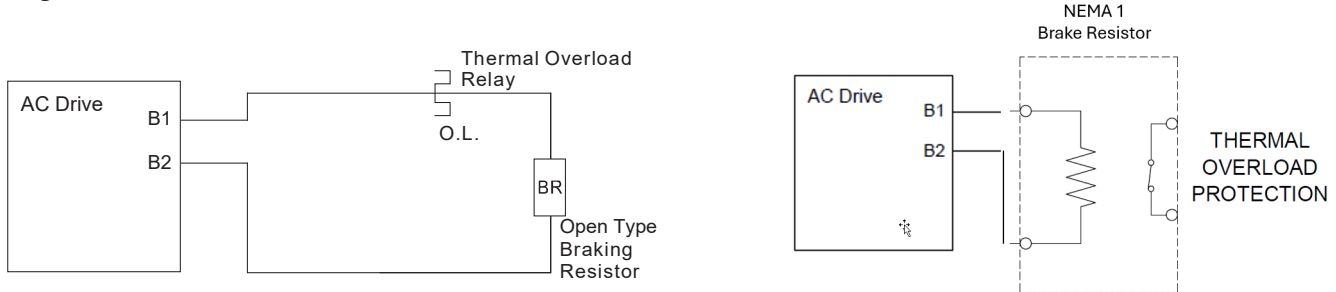
\*\* S= series wiring, P= parallel wiring.

# GSxx DURAPULSE Drives Accessories – Dynamic Braking Component Selection

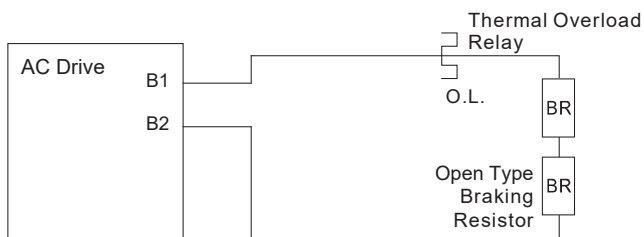
## Brake Wiring

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):**



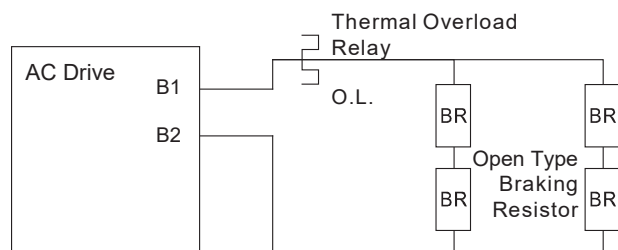
**Diagram B (Drive + 2 Series Resistors):**



**Diagram C (Drive + 2 Parallel Resistors):**



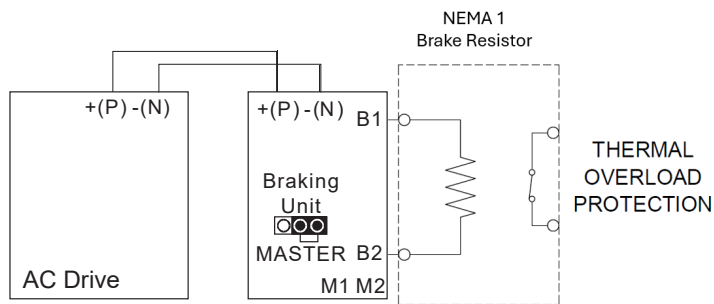
**Diagram D (drive + 2 Series and 2 Parallel Resistors):**



# GSxx DURAPULSE Drives Accessories – Dynamic Braking Component Selection

## Brake Wiring, *continued*

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



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

