

GS/DURAPULSE Accessories – Braking Resistors for GS2/GS3/GS4/GS20(X) AC Drives

Overview

Braking resistors are used to increase the control torque of the AC drive, for frequently repeated ON-OFF cycles of the AC drive, or for decelerating a load with large inertia.



FOR GS3 DURAPULSE DRIVE MODELS 20 HP AND ABOVE, A DYNAMIC BRAKING UNIT MUST BE USED IN CONJUNCTION WITH THE BRAKING RESISTOR, AS SHOWN IN THE DURAPULSE AC DRIVE BRAKING UNITS TABLE.

For additional information, please refer to the dynamic braking manual, GS-DB_UMP.



GS-25P0-BR



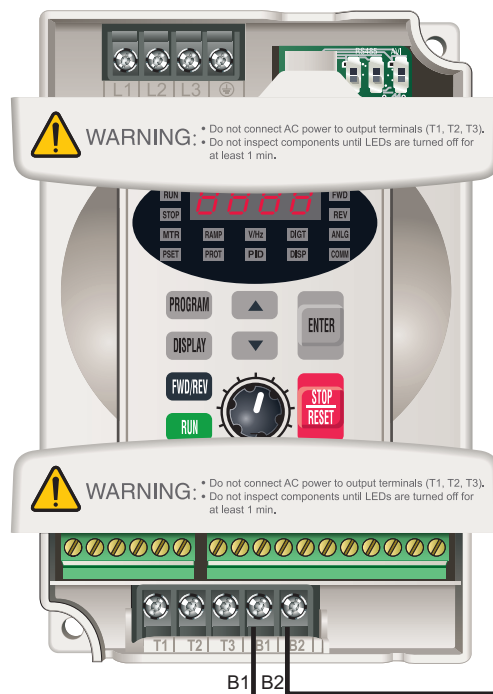
GS-27P5-BR



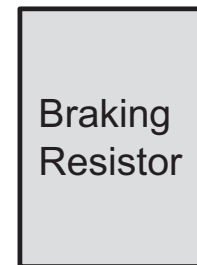
GS-2020-BR-ENC



GS-2020-BR-ENC without Cover



GS2 braking resistor connection;
Refer to user Dynamic Braking user manual GS-DB_UMP for DURAPULSE resistor connection information.



GS/DURAPULSE Drives Accessories –

Braking Resistor Specs for GS2/GS3/GS4/GS20(X) AC Drives

Braking Resistor Specifications				
Part Number	Price	Power (W)	Resistance (Ω)	Type
GS-20P5-BR		80	200	open
GS-21P0-BR		80	200	
GS-22P0-BR		300	100	
GS-23P0-BR		300	70	
GS-25P0-BR		400	40	
GS-27P5-BR		500	30	
GS-2010-BR-ENC		1000	20	enclosed
GS-2015-BR-ENC		2400	13.6	
GS-2020-BR-ENC		3000	10	
GS-2025-BR-ENC		4800	8	
GS-2030-BR-ENC		4800	6.8	
GS-2040-BR-ENC		3000	10	
GS-2050-BR-ENC		4800	8	open
GS-41P0-BR		80	750	
GS-42P0-BR		300	400	
GS-43P0-BR		300	250	
GS-45P0-BR		400	150	
GS-47P5-BR		500	100	
GS-4010-BR		1000	75	enclosed
GS-4015-BR-ENC		1000	50	
GS-4020-BR-ENC		1500	40	
GS-4025-BR-ENC		4800	32	
GS-4030-BR-ENC		4800	27.2	
GS-4040-BR-ENC		6000	20	
GS-4050-BR-ENC		9600	16	open
GS-4060-BR-ENC		9600	13.6	
GS-4075-BR-ENC		6000	20	
GS-4100-BR-ENC		9600	13.6	
GS-BR-080W200		80	200	
GS-BR-080W750		80	750	
GS-BR-200W091		200	91	
GS-BR-200W360		200	360	
GS-BR-300W070		300	70	
GS-BR-300W250		300	250	
GS-BR-400W040		400	40	
GS-BR-400W150		400	150	
GS-BR-1K0W4P3		1000	4.3	
GS-BR-1K0W5P1		1000	5.1	
GS-BR-1K0W016		1000	16	
GS-BR-1K0W020		1000	20	
GS-BR-1K0W075		1000	75	
GS-BR-1K2W3P9		1200	3.9	
GS-BR-1K2W015		1200	15	
GS-BR-1K5W3P3		1500	3.3	
GS-BR-1K5W012		1500	12	
GS-BR-1K5W013		1500	13	
GS-BR-1K5W043		1500	43	

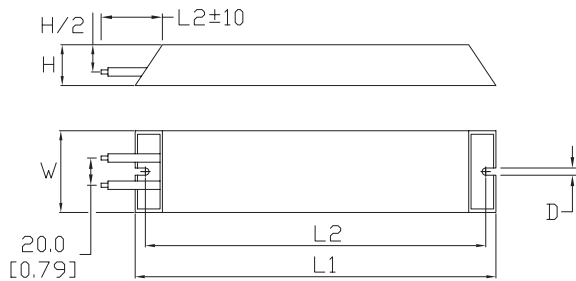
GS/DURAPULSE Drives Accessories – Braking Resistor Dimensions for GS3 & GS4 DURAPULSE AC Drives

Braking Resistor Dimensions (Dimensions = mm [in])

See our website: _____ for complete engineering drawings.

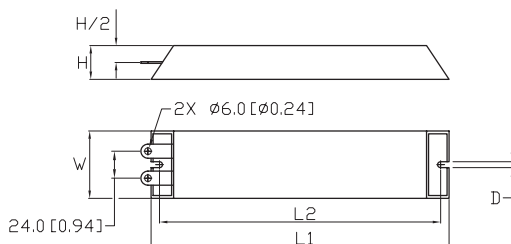
Braking Resistor Dimension Drawing Index							
Resistor	Drawing #	Resistor	Drawing #	Resistor	Drawing #	Resistor	Drawing #
GS-20P5-BR	1	GS-41P0-BR	1	GS-BR-080W200	10	GS-BR-1K0W4P3	11
GS-21P0-BR	1	GS-42P0-BR	1	GS-BR-080W750	10	GS-BR-1K0W5P1	11
GS-22P0-BR	1	GS-43P0-BR	1	GS-BR-200W091	10	GS-BR-1K0W016	11
GS-23P0-BR	1	GS-45P0-BR	1	GS-BR-200W360	10	GS-BR-1K0W020	11
GS-25P0-BR	1	GS-47P5-BR	2	GS-BR-300W070	10	GS-BR-1K0W075	11
GS-27P5-BR	2	GS-4010-BR	3	GS-BR-300W250	10	GS-BR-1K2W3P9	11
GS-2010-BR-ENC	4	GS-4015-BR-ENC	4	GS-BR-400W040	10	GS-BR-1K2W015	11
GS-2015-BR-ENC	5	GS-4020-BR-ENC	7	GS-BR-400W150	10	GS-BR-1K5W3P3	11
GS-2020-BR-ENC	5	GS-4025-BR-ENC	8			GS-BR-1K5W012	11
GS-2025-BR-ENC	6	GS-4030-BR-ENC	8			GS-BR-1K5W013	11
GS-2030-BR-ENC	6	GS-4040-BR-ENC	8			GS-BR-1K5W043	11
GS-2040-BR-ENC	5	GS-4050-BR-ENC	9				
GS-2050-BR-ENC	6	GS-4060-BR-ENC	9				
		GS-4075-BR-ENC	8				
		GS-4100-BR-ENC	9				

#1) GS-20P5-BR, GS-21P0-BR, GS-22P0-BR, GS-23P0-BR, GS-25P0-BR, GS-41P0-BR, GS-42P0-BR, GS-43P0-BR, GS-45P0-BR



Resistor #	L1	L2	H	D	W	
GS-20P5-BR	140 [5.51]	125 [4.92]	20 [0.79]	5.3 [0.21]	40 [1.57]	
GS-21P0-BR			30 [1.18]		60 [2.36]	
GS-22P0-BR	215 [8.46]	200 [7.87]	30 [1.18]		40 [1.57]	
GS-23P0-BR			30 [1.18]		60 [2.36]	
GS-25P0-BR	265 [10.43]	250 [9.84]	20 [0.79]			
GS-41P0-BR	140 [5.51]	125 [4.92]	20 [0.79]			
GS-42P0-BR	215 [8.46]	200 [7.87]	30 [1.18]			
GS-43P0-BR			30 [1.18]		60 [2.36]	
GS-45P0-BR	265 [10.43]	250 [9.84]				

#2) GS-27P5-BR, GS-47P5-BR



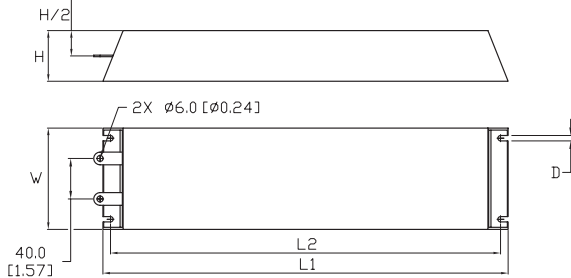
Resistor #	L1	L2	H	D	W
GS-27P5-BR	335 [13.19]	320 [12.60]	30 [1.18]	5.3 [0.21]	60 [2.36]
GS-47P5-BR					

GS/DURAPULSE Drives Accessories – Braking Resistor Dimensions for GS3 & GS4 DURAPULSE AC Drives

Braking Resistor Dimensions (Dimensions = mm [in])

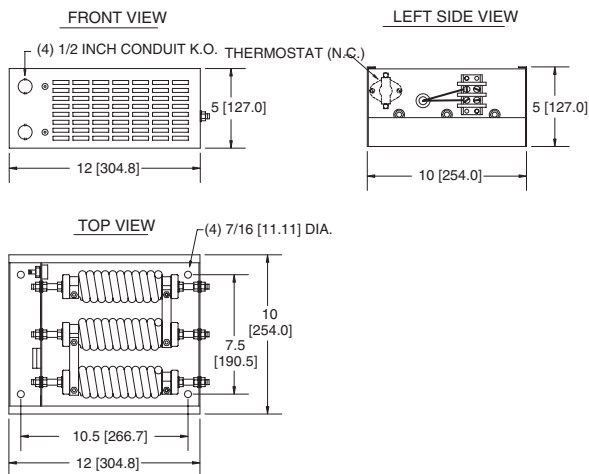
See our website: [www.toshiba-automation.com](#) for complete engineering drawings.

#3) GS-4010-BR

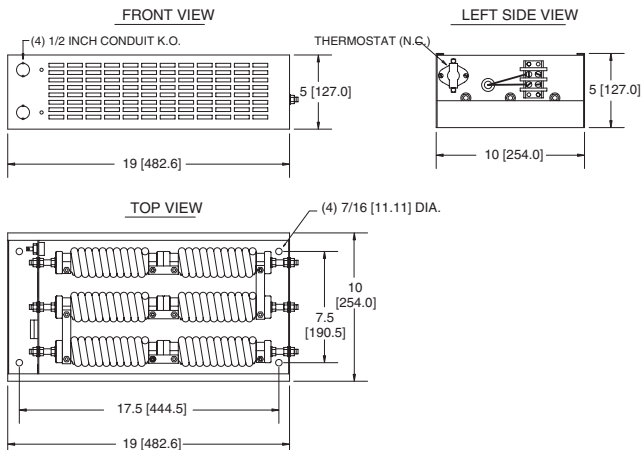


Resistor #	L1	L2	H	D	W
GS-4010-BR	400 [15.75]	385 [15.16]	50 [1.97]	5.3 [0.21]	100 [3.94]

#4) GS-2010-BR-ENC, GS-4015-BR-ENC



#5) GS-2015-BR-ENC, GS-2020-BR-ENC, GS-2040-BR-ENC

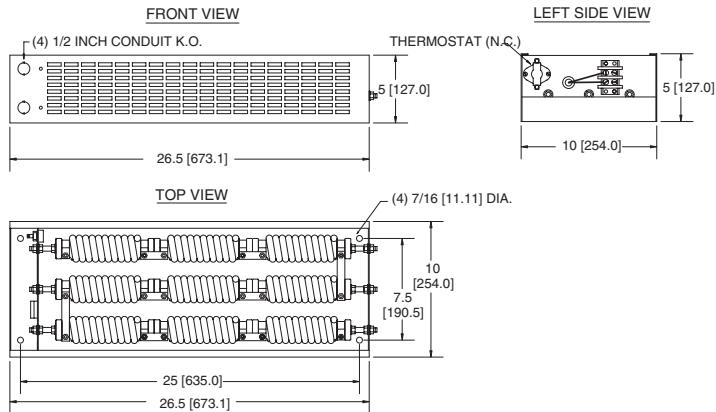


GS/DURAPULSE Drives Accessories – Braking Resistor Dimensions for GS3 & GS4 DURAPULSE AC Drives

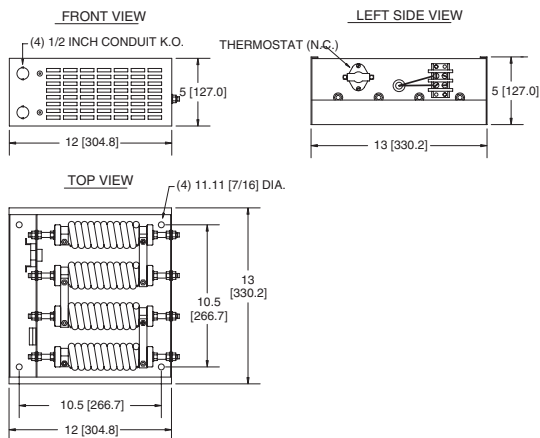
Braking Resistor Dimensions (Dimensions = mm [in])

See our website: [www.toshiba-automation.com](#) for complete engineering drawings.

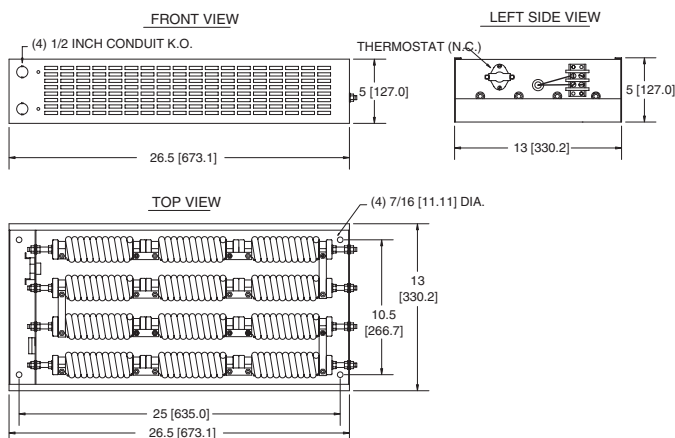
#6) GS-2025-BR-ENC, GS-2030-BR-ENC, GS-2050-BR-ENC



#7) GS-4020-BR-ENC



#8) GS-4025-BR-ENC, GS-4030-BR-ENC, GS-4040-BR-ENC, GS-4075-BR-ENC

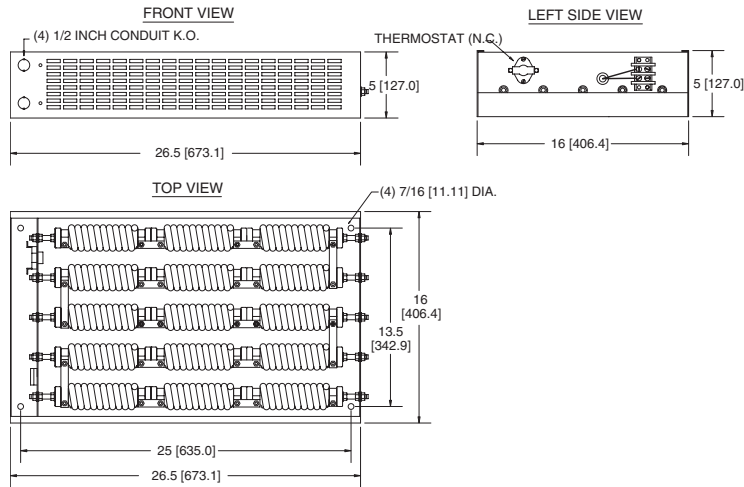


GS/DURAPULSE Drives Accessories – Braking Resistor Dimensions for GS3 & GS4 DURAPULSE AC Drives

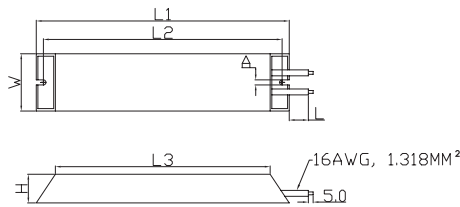
Braking Resistor Dimensions (Dimensions = mm [in])

See our website: [www.tgsx.com](#) for complete engineering drawings.

#9) GS-4050-BR-ENC, GS-4060-BR-ENC, GS-4100-BR-ENC

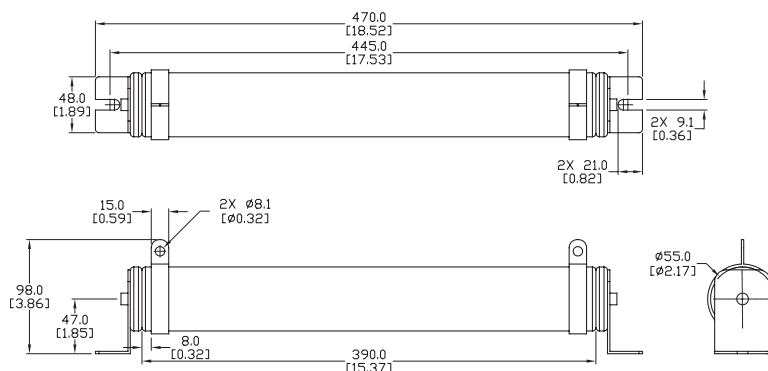


#10) GS-BR-080W200, GS-BR-080W750, GS-BR-200W091, GS-BR-200W360, GS-BR-300W070, GS-BR-300W250, GS-BR-400W040, GS-BR-400W150



Resistor #	L1	L2	L3	W	H	A	L
GS-BR-080W200	140 [5.46]	125 [4.92]	100 [3.94]	40.0 [1.57]	20.0 [0.79]	5.3 [0.21]	200 [7.87]
GS-BR-080W750							
GS-BR-200W091	165 [6.50]	150 [5.91]	125 [4.92]	60.0 [2.36]	30.0 [1.18]		
GS-BR-200W360							
GS-BR-300W070	215 [8.46]	200 [7.87]	175 [6.89]				
GS-BR-300W250							
GS-BR-400W040	265.34 [10.43]	250 [9.84]	225 [8.86]				
GS-BR-400W150							

#11) GS-BR-1K0W4P3, GS-BR-1K0W5P1, GS-BR-1K0W016, GS-BR-1K0W020, GS-BR-1K0W075, GS-BR-1K2W3P9, GS-BR-1K2W015, GS-BR-1K5W3P3, GS-BR-1K5W012, GS-BR-1K5W013, GS-BR-1K5W043



GS/DURAPULSE Drives Accessories – Braking Unit Basic Wiring for GS3 & GS4 DURAPULSE AC Drives

Basic Dynamic Braking Wiring Diagram for GS3 & GS4 DURAPULSE AC Drives



Note: GS2 series AC Drives can connect directly to braking resistors, and do not require Dynamic Braking Units for braking.



Note: Smaller-capacity DURApulse AC Drives can connect directly to braking resistors, and do not require Dynamic Braking Units for braking. Other applications require multiple Resistors and/or multiple Dynamic Braking Units. Refer to “Dynamic Braking Component Selection” to determine which braking components are required for your application(s), and to the DURApulse Drives Dynamic Braking User Manual for complete wiring diagrams.

