

# GS20(X) Optional Accessories – EMC Filter & Zero Phase Reactor

## Standard Footprint EMC Filter and Zero Phase Reactor

If electromagnetic noise is harmful to your manufacturing environment, we recommend that you select an EMC filter as shown below. For some motor drive models, you need to work with zero phase reactors to be compliant with EMC regulations. Refer to the table and figure below for the recommended model, setting method, and maximum motor cable length of the EMC filter and zero phase reactor. The footprint filter allows mounting of the drive on top of the recommended filter, saving panel space and wiring. For more information and installation instructions, please see the GS20(X) User Manual.

GS20(X) EMC Filter and Zero Phase Reactor												
Frame	Drive Model	Input Current (A)	Footprint Filter Model #	Price	Recommended Zero Phase Reactor	Conducted Emission				Radiated Emission		
						C1-motor cable length-30m		C2-motor cable length-100m	C2-motor cable length- 100m			
						Position to Install a Zero Phase Reactor						
		1	2	3	n/a	1	2	3				
A	GS21-10P2	6.8	EMF11AM21A						N/A			
	GS21-20P2	3.8	EMF11AM21A			✓	✓		N/A		✓	✓
	GS21-20P5	6.7	EMF11AM21A			✓	✓		N/A		✓	✓
	GS23-20P2	2.2	EMF10AM23A			✓	✓		N/A		✓	✓
	GS23-20P5	3.8	EMF10AM23A			✓	✓		N/A		✓	✓
	GS23-21P0	6	EMF10AM23A			✓	✓		N/A		✓	✓
	GS23-40P5	2.5	EMF6A0M43A					✓	N/A			✓
	GS23-41P0	4.2	EMF6A0M43A					✓	N/A			✓
	GS23-51P0	2.4	EMF6A0M63B						N/A*			
	GS21-10P5	10.1	EMF11AM21A						N/A			
GS20X A	GS21X-20P5	8.3	EMF11AM21A				✓	✓	N/A		✓	✓
	GS21X-21P0	11.3	EMF11AM21A				✓	✓	N/A		✓	✓
	GS21X-22P0	18.5	EMF27AM21B					✓	N/A			✓
	GS23X-20P5	3.8	EMF10AM23A				✓	✓	N/A		✓	✓
	GS23X-21P0	6	EMF10AM23A				✓	✓	N/A		✓	✓
	GS23X-22P0	9.6	EMF10AM23A				✓	✓	N/A		✓	✓
	GS23X-40P5	2.5	EMF6A0M43A					✓	N/A			✓
	GS23X-41P0	4.2	EMF6A0M43A					✓	N/A			✓
	GS23X-42P0	6.4	EMF6A0M43A					✓	N/A			✓
	GS23X-43P0	7.2	EMF12AM43B						N/A			
B	GS21-21P0	10.5	EMF11AM21A				✓	✓	N/A		✓	✓
	GS23-22P0	9.6	EMF10AM23A				✓	✓	N/A		✓	✓
	GS23-52P0	4.2	EMF6A0M63B						N/A*			
	GS23-42P0	6.4	EMF6A0M43A					✓	N/A			✓
GS20X B	GS21X-23P0	27.5	EMF27AM21B					✓	N/A			✓
	GS23X-23P0	15	EMF24AM23B				✓	✓	N/A		✓	✓
	GS23X-25P0	23.4	EMF24AM23B				✓	✓	N/A		✓	✓
	GS23X-45P0	11.6	EMF12AM43B				✓	✓	N/A		✓	✓
C	GS21-11P0	20.6	EMF27AM21B						N/A			
	GS21-22P0	17.9	EMF27AM21B					✓	N/A			✓
	GS21-23P0	26.3	EMF27AM21B					✓	N/A			✓
	GS23-23P0	15	EMF24AM23B				✓	✓	N/A		✓	✓
	GS23-25P0	23.4	EMF24AM23B				✓	✓	N/A		✓	✓
	GS23-43P0	7.2	EMF12AM43B						N/A			
	GS23-53P0	5.8	EMF16AM63B						N/A*			
	GS23-55P0	9.3	EMF16AM63B						N/A			
	GS23-45P0	11.6	EMF12AM43B					✓	N/A		✓	✓
	GS23X-27P5	32.4	EMF33AM23B			✓	✓		N/A		✓	✓
GS20X C	GS23X-47P5	17.3	EMF23AM43B			✓	✓	✓	N/A		✓	✓
	GS23X-4010	22.6	EMF23AM43B			✓	✓	✓	N/A		✓	✓

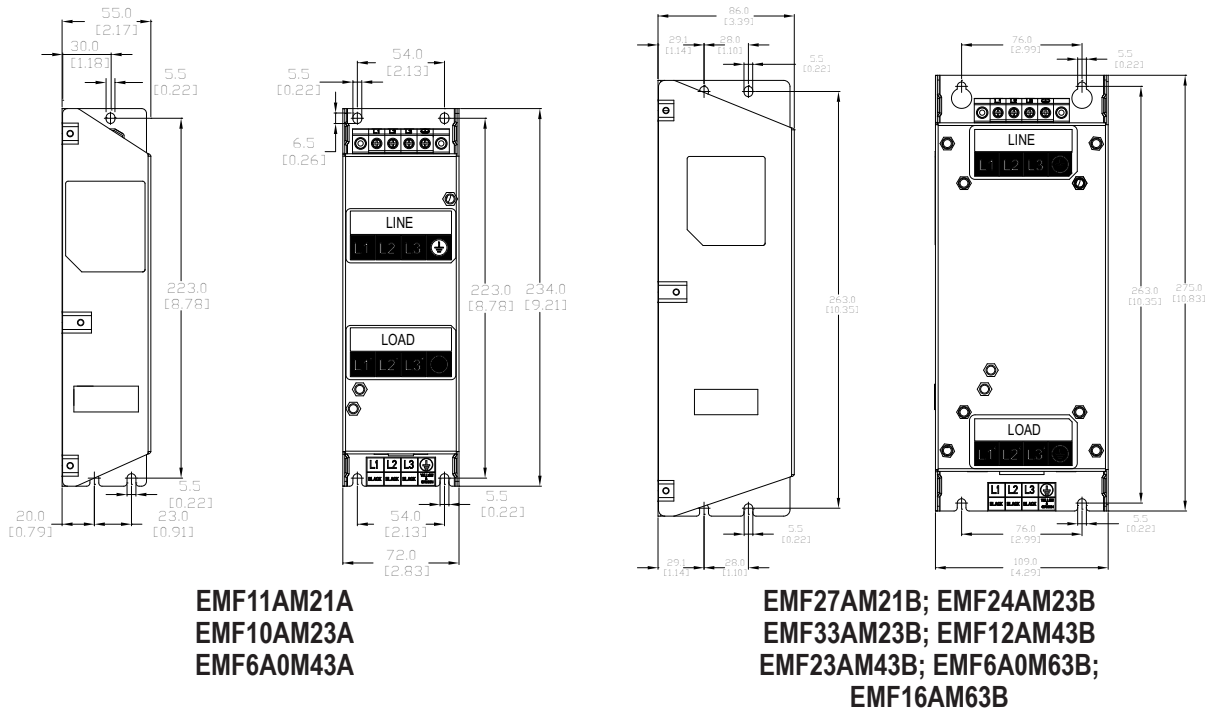
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# GS20(X) Optional Accessories – EMC Filter & Zero Phase Reactor

Standard Footprint EMC Filter and Zero Phase Reactor, continued

GS20(X) EMC Filter and Zero Phase Reactor (continued)													
Frame	Drive Model	Input Current (A)	Footprint Filter Model #	Price	Recommended Zero Phase Reactor	Conducted Emission			Radiated Emission				
						C1-motor cable length-30m			C2-motor cable length-100m				
						Position to Install a Zero Phase Reactor							
			1	2	3	n/a	1	2	3				
D	GS23-27P5	32.4	EMF33AM23B		RF008X00A Note: Not available from Automation Direct	✓	✓		N/A	✓	✓		
	GS23-47P5	17.3	EMF23AM43B			✓	✓	✓	N/A	✓	✓	✓	
	GS23-57P5	13.4	EMF16AM63B						N/A				
	GS23-5010	17.5	EMF16AM63B						N/A				
	GS23-4010	22.6	EMF23AM43B			✓	✓	✓	N/A	✓	✓	✓	
E	GS23-2010	43.2	n/a	-				✓	✓	N/A		✓	✓
	GS23-2015	61.2	n/a	-				✓	✓	N/A		✓	✓
	GS23-4015	30.8	n/a	-						N/A			
	GS23-4020	39.6	n/a	-				✓	✓	N/A		✓	✓
F	GS23-2020	82.8	n/a	-				✓	✓	N/A		✓	✓
	GS23-4025	45.7	n/a	-			✓	✓	N/A		✓	✓	
	GS23-4030	53.9	n/a	-			✓	✓	N/A		✓	✓	

Note: It is not necessary to add a zero phase reactor for passing the C2 conducted emission test.  
 \* The maximum motor cable length of the conducted emission C2 class for GS23-51P0, GS23-52P0, and GS23-53P0 is 75 meters. All others are 100 meters.  
 \*\* See diagram below for installation positions.



EMF11AM21A  
EMF10AM23A  
EMF6A0M43A

EMF27AM21B; EMF24AM23B  
EMF33AM23B; EMF12AM43B  
EMF23AM43B; EMF6A0M63B;  
EMF16AM63B