

Install the AC Line Filter

Mount the line filter to the cabinet panel with hardware as specified in the table below.

AC Line Filter Cat. No.		Mounting Bolts	Torque Value N-m (lb-in)
2198-DBR20-F	2198-DB08-F	M5 (#10-32)	2.0 (17.7)
	2198-DB20-F		
2198-DBR40-F	2198-DB42-F	M6 (1/4x20)	4.5 (39.8)
2198-DBR90-F	2198-DB80-F		
2198-DBR200-F	—		
—	2198-DB290-F	M10 (3/8x16)	30 (266)

See the System Design for Control of Electrical Noise Reference Manual, publication [GMC-RM001](#), for proper high-frequency (HF) bonding techniques to improve overall system performance.

Wire the AC Line Filter

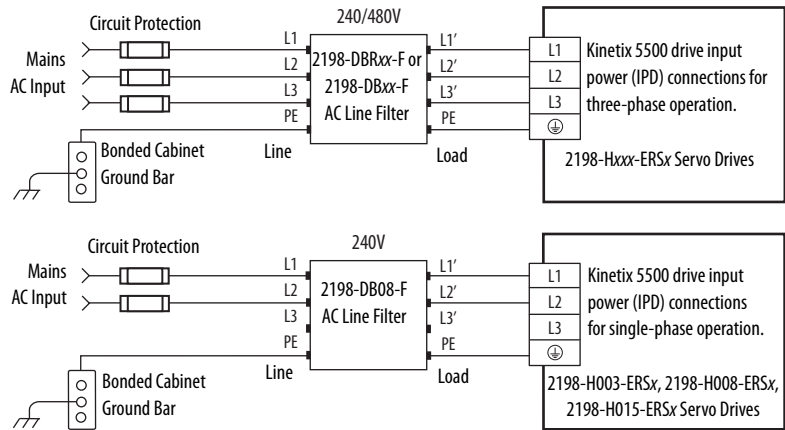
Wire must be copper with 75 °C (167 °F) minimum rating. Phasing of main AC power is arbitrary and earth ground connection is required to improve safety and proper operation.

IMPORTANT

The National Electrical Code and local electrical codes take precedence over the values and methods provided.

When wiring the line filter for single-phase operation (Kinetix 5500 drives only), do not make connections to the L3 terminals. Line and load designations must be observed to meet product specifications.

AC Line Filter Wiring Examples (Kinetix 5500 drives)



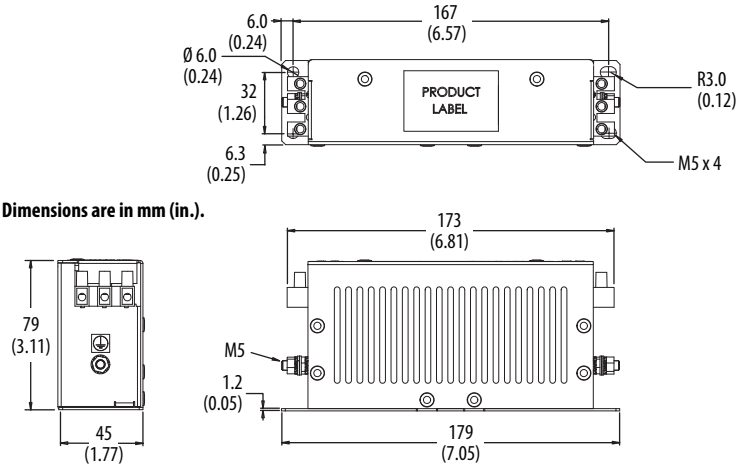
AC Line Filter Wiring Specifications

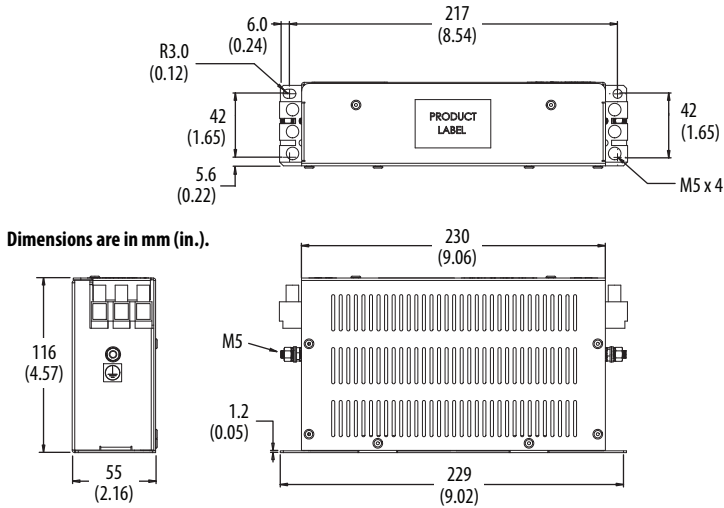
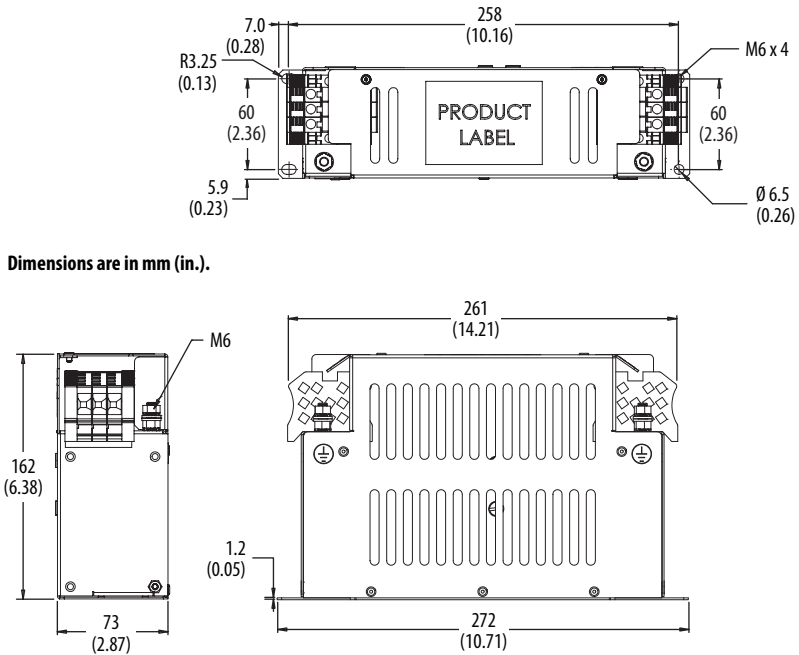
AC Line Filter Cat. No.	Signal	Recommended ⁽¹⁾ Wire Size mm ² , AWG	AC Line Filter Strip Length mm (in.)	Terminal Torque Values N·m (lb·in)
2198-DB08-F ⁽²⁾	L1, L1' L2, L2' L3, L3'	0.5...6 (20...10)	7.5 (0.30)	0.8 (7.1)
2198-DBR20-F 2198-DB20-F		2.5...10 (14...8)	9.0 (0.35)	2.0 (17.7)
2198-DBR40-F 2198-DB42-F			12.0 (0.47)	1.9 (16.8)
2198-DBR90-F 2198-DB80-F		2.5...35 (14...0)	18.0 (0.71)	4.5 (39.8)
2198-DBR200-F		21.1...120 (4...250 kcmil)	27.0 (1.06)	12 (106)
2198-DB290-F		Bus-bar ⁽³⁾	N/A	30 (266)

- (1) The wire size of the input power wiring depends on the system configuration. Consult your machine builder, the NEC, and applicable local codes.
(2) Applies to installations with single-phase or three-phase input power.
(3) Apply crimp eyelet terminals to lug connections by using the supplier-recommended tooling.

AC Line Filter Dimensions

AC Line Filter Dimensions (catalog number 2198-DB08-F)



AC Line Filter Dimensions (catalog number 2198-DB20-F)**AC Line Filter Dimensions (catalog number 2198-DB42-F)**

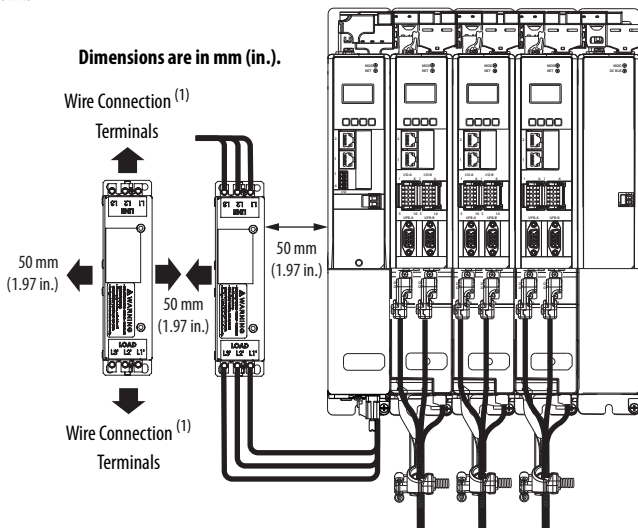
AC Line Filter Specifications

AC Line Filter Cat. No.	Voltage ⁽¹⁾ Rating, max	Current Rating A @ 50 °C (122 °F)	Power Loss @ Rated Current W	Leakage Current, typ mA	Weight, approx kg (lb)	Operating Temperature
2198-DBR20-F	528V AC single and three-phase 50/60 Hz	20	4.2	30	1.0 (2.20)	0...50 °C (32...122 °F)
2198-DBR40-F		40	9.6		3.3 (7.28)	
2198-DBR90-F		90	16.8		4.1 (9.04)	
2198-DBR200-F		200	34.5		7.2 (15.87)	
2198-DB08-F	528V AC single and three-phase 50/60 Hz	7.5	3.6	2.5	0.77 (1.70)	0...50 °C (32...122 °F)
2198-DB20-F		20	5.1	5.2	1.63 (3.59)	
2198-DB42-F		42	14.7	4.0	2.70 (5.95)	
2198-DB80-F		80	18.3	13.0	3.95 (8.71)	
2198-DB290-F		290	32.7	19.4	4.20 (9.26)	

(1) SCCR rating = 200 kA.

Mounting Clearance Specifications

Minimum clearance on either side of the Bulletin 2198 AC line filters is 50 mm (1.97 in.). When line filter units are positioned side-by-side on the panel, only 50 mm (1.97 in.) is required between them.



(1) Clearance required at the terminals for NEC specified bend radius depending on the wire size in use.