

# F1700/F1799 RFI Filters

High Performance

## Features:

- General Purpose — Designed for Applications with Higher Differential Mode Noise
- Higher Line-to-Line Capacitance for Protection from Pulsed, Intermittent or Continuous RFI
- A Cost-Effective Replacement for Independent Coil Design in Many SMPS Applications
- Available with Integral IEC Connector



## Specifications:

**Rated Voltage:** 250VAC Maximum - 50/60 Hz

<b>Rated Current:</b>	115VAC	250VAC
	3A	2.5A
	6A	4A
	10A	6A
	20A	10A
	30A	15A

**Current Overload:** 6X for 8 seconds

### Hi-Pot Test (1 min):

Line to Ground	1500VAC
Line to Line	1768VDC

**Insulation Resistance:**  $9 \times 10^9 \Omega$  at 100VDC

**Ambient Temperature:** 40°C Max. at rated current

**Humidity Range:** 0% to 95% R.H.

### Termination:

A: QC – Quick Connect	C: IEC Receptacle
B: Wire	D: Screw

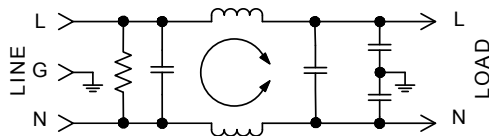
### Maximum Leakage Current:

Each Line to Ground	F1700	F1710	F1720	F1740	F1799
115VAC, 60Hz:	0.40mA	.15mA	.002mA	.060mA	0.25mA
250VAC, 50Hz:	0.75mA	.25mA	.005mA	.120mA	0.45mA

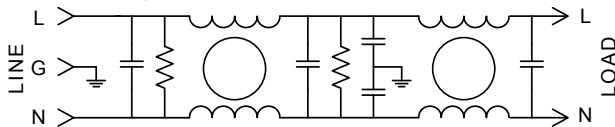
### Agency Approvals:



## F1700 Simplified Schematic



## F1799 Simplified Schematic



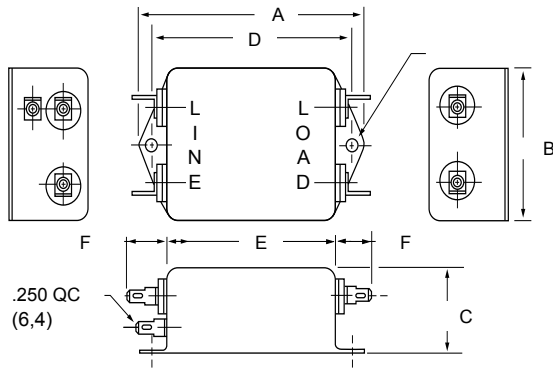
SINGLE PHASE FILTERS

Nominal Current Rating	Part Number	Termination Line/Load	MINIMUM INSERTION LOSS - dB (50 ohm Circuit)						
			MODE	.15	.50	1.0	5.0	10	30
3A	F1700AA03	QC/QC	Common	20	35	43	52	55	50
	F1700BB03	Wire/Wire	Differential	25	60	65	65	50	50
	F1700CA03	IEC/QC							
	F1710AA03	QC/QC	Common	20	34	40	45	45	40
6A	F1720AA03	QC/QC	Differential	35	60	65	60	55	40
	F1740AA03	QC/QC	Common	20	30	35	35	35	40
			Differential	35	60	65	60	55	40
	F1700AA06	QC/QC	Common	10	22	30	46	50	45
10A	F1700BB06	Wire/Wire	Differential	15	50	65	60	60	60
	F1700CA06	IEC/QC							
	F1700AA10	QC/QC	Common	10	22	30	46	50	45
	F1700BB10	Wire/Wire	Differential	20	45	60	65	60	55
20A	F1700CA10	IEC/QC							
	F1700AA20	QC/QC	Common	10	22	30	42	47	40
		Screw/Screw	Differential	15	45	60	65	60	55
	F1700DD20	Screw/Screw	Common	10	22	30	42	47	52
30A	F1720DD20	Screw/Screw	Differential	15	45	60	65	60	55
	F1700DD30	Screw/Screw	Common	7	15	20	34	42	40
			Differential	15	45	60	65	60	55
	F1799DD30	Screw/Screw	Common	10	45	55	60	60	50
			Differential	15	65	65	65	60	55

NOTE: Other combinations of terminals may be specified on special order.



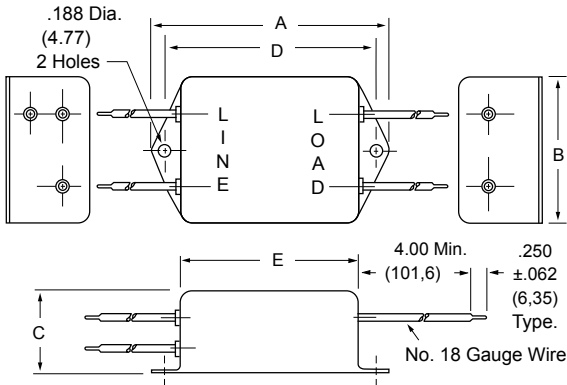
**F1700AA, 1710, 1720, 1740 (3, 6 and 10Amp) Dimensions**



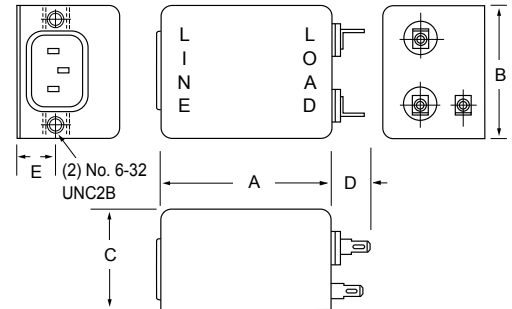
Amps	A	B	C	D	E	F
3A	2.750 (69,8)	1.750 (44,4)	1.125 (28,5)	2.375 (60,3)	2.000 (50,8)	.550 (14,0)
6A	3.312 (84,1)	2.000 (50,8)	1.125 (28,5)	2.940 (74,7)	2.500 (63,5)	.550 (14,0)
10A	3.312 (84,1)	2.000 (50,8)	1.500 (38,2)	2.940 (74,7)	2.500 (63,5)	.550 (14,0)
20A	See 1700DD20 for Case Dimensions					

**F1700BB (3, 6 and 10Amp) Dimensions**

Amps	A	B	C	D	E
3A	2.750 (69,8)	1.750 (44,4)	1.125 (28,5)	2.375 (60,3)	2.000 (50,8)
6A	3.312 (84,1)	2.000 (50,8)	1.125 (28,5)	2.940 (74,7)	2.500 (63,5)
10A	3.312 (84,1)	2.000 (50,8)	1.500 (38,1)	2.940 (74,7)	2.500 (63,5)



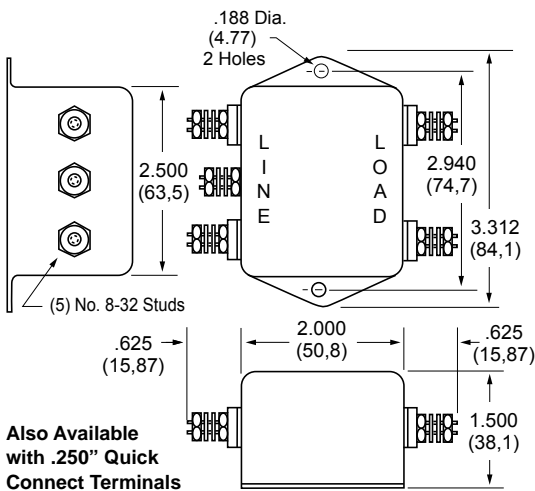
**F1700CA (3, 6 and 10Amp) Dimensions**



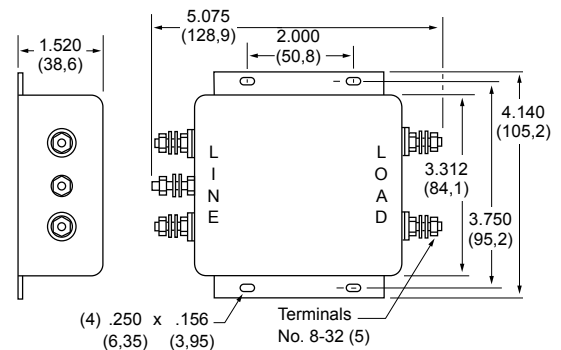
Refer to Page 40 for Standard Mounting Cutouts

Amps	A	B	C	D	E
3A	2.000 (50,8)	2.000 (50,8)	1.500 (38,1)	.550 (14,0)	.565 (14,3)
6A	2.500 (63,5)	2.000 (50,8)	1.500 (38,1)	.550 (14,0)	.565 (14,3)
10A	2.500 (63,5)	2.000 (50,8)	1.500 (38,1)	.550 (14,0)	.565 (14,3)

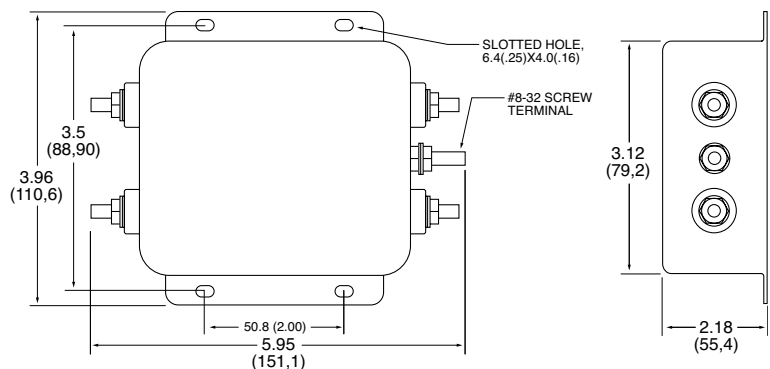
**F1700DD20 (20Amp) Dimensions**



**F1700DD30 (30Amp) Dimensions**



**F1799DD (30Amp) Dimensions**

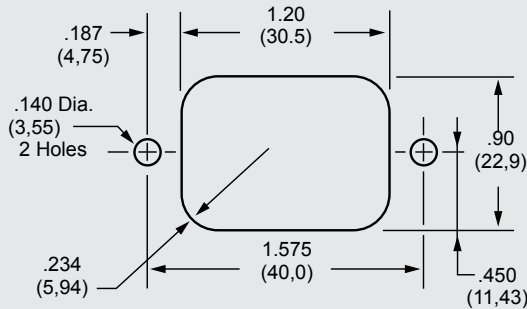


Dimensions are in inches and millimeters unless otherwise specified. Values in parentheses are metric equivalents.

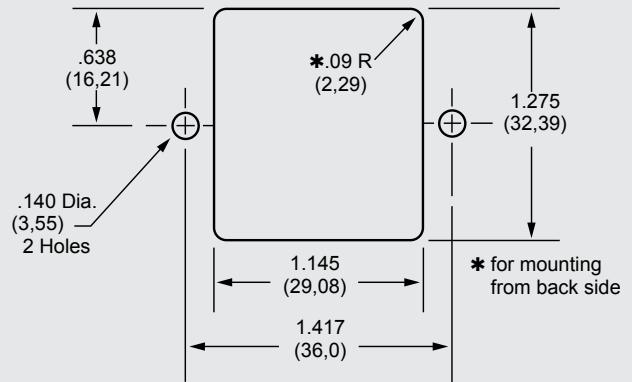


# Standard Mounting Cutouts

## F1200CA, F1300CA, F1400CA, F1500CA, F1600CA, F1700CA



## F1500FA, F1600FA,



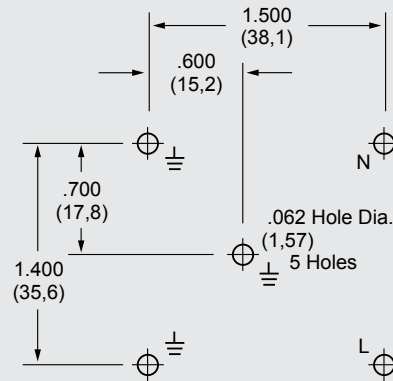
### How to Order

The Curtis part numbering system is made up of four elements. Each element denotes a specific requirement (mechanical or electrical) which, when properly sequenced, fully identifies the required catalog filter. As shown, the first five alpha/numeric characters denote the series type; the sixth character (alpha) denotes the type of line termination; the seventh character (alpha) denotes the type of load termination; the last two characters (numeric) denote the current rating.

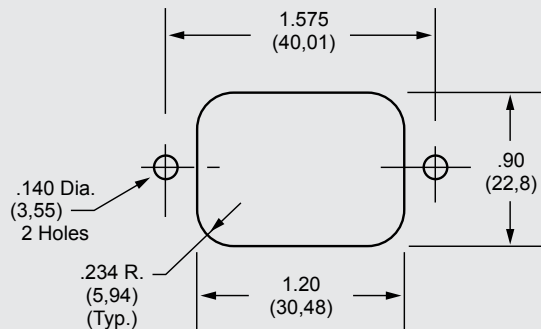
Compose your part number as follows: Select the series required, add two alpha character for the line and load termination, followed by two numeric characters for the required current rating. For example, F1100AB06 completely identifies an F1100 series filter with quick connects on line side and wire leads on load side, with a 6-amp rating.

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## F1300CP, F1600CP



## F5500/5600/5700 SERIES



F1100	X	X	X
SERIES	LINE TERMINATION	LOAD TERMINATION	CURRENT RATING
PE = Power Entry PM = Medical Power Entry	A = Quick Connects B = Wire Leads C = IEC Connector D = Screw Terminals (20 & 30 amp only) F = Fused IEC P = Printed Circuit Pins W = Dual Fused IEC J = Switched IEC	A = Quick Connects B = Wire Leads D = Screw Terminals (20 & 30 amp only) P = Printed Circuit Pins S = Solder Tab	01 = 1 Amp 03 = 3 Amps 06 = 6 Amps 10 = 10 Amps 15 = 15 Amps 20 = 20 Amps 30 = 30 Amps

