

# F1500 RFI Filters

High Performance

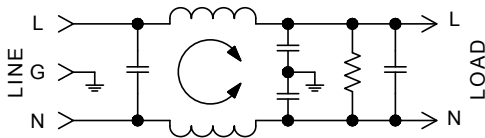
SINGLE PHASE FILTERS



## Features:

- IEC Connector Plus Common and Differential Mode Performance in Compact Case
- "L" Circuit Configuration — Cost-Effective in Many Linear and Switching Power Supply Applications
- High-Inductance Design for Greater Attenuation
- Available with 0.250" Quick Connect Terminals or Wire Leads on the Load Side

## F1500AX/F1500CX Simplified Schematic



## Specifications:

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

**Rated Current:**

| 115VAC | 250VAC |
|--------|--------|
| 3A     | 1.5A   |
| 6A     | 3A     |
| 10A    | 6A     |
| 15A    | 8A     |

**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
- B: Wire
- C: IEC Receptacle
- F: IEC Receptacle with Fuse Holder

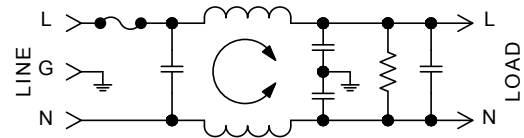
**Maximum Leakage Current:**

| Each Line to Ground | F1500  |
|---------------------|--------|
| 115VAC, 60Hz:       | 0.25mA |
| 250VAC, 50Hz:       | 0.40mA |

**Agency Approvals:**



## F1500FX Simplified Schematic



| Nominal Current Rating | Part Number | Termination Line/Load | MINIMUM INSERTION LOSS - dB (50 ohm Circuit) |                 |          |          |          |          |          |
|------------------------|-------------|-----------------------|----------------------------------------------|-----------------|----------|----------|----------|----------|----------|
|                        |             |                       | MODE                                         | Frequency - MHz |          |          |          |          |          |
|                        |             |                       |                                              | .15             | .50      | 1.0      | 5.0      | 10       | 30       |
| 3A                     | F1500AA03   | QC/QC                 | Common<br>Differential                       | 32<br>35        | 43<br>60 | 50<br>65 | 50<br>60 | 50<br>55 | 50<br>40 |
|                        | F1500CA03   | IEC/QC                |                                              |                 |          |          |          |          |          |
|                        | F1500FA03   | Fused IEC/QC          |                                              |                 |          |          |          |          |          |
|                        | F1500CB03   | QC/Wire               |                                              |                 |          |          |          |          |          |
| 6A                     | F1500AA06   | IEC/QC                | Common<br>Differential                       | 32<br>30        | 42<br>60 | 45<br>65 | 45<br>65 | 45<br>60 | 45<br>50 |
|                        | F1500CA06   | Fused IEC/QC          |                                              |                 |          |          |          |          |          |
|                        | F1500FA06   | QC/Wire               |                                              |                 |          |          |          |          |          |
|                        | F1500CB06   |                       |                                              |                 |          |          |          |          |          |
| 10A                    | F1500AA10   | QC/QC                 | Common<br>Differential                       | 29<br>15        | 36<br>50 | 39<br>65 | 45<br>65 | 45<br>60 | 45<br>50 |
|                        | F1500CA10   | IEC/QC                |                                              |                 |          |          |          |          |          |
|                        | F1500FA10   | Fused IEC/QC          |                                              |                 |          |          |          |          |          |
|                        | F1500CB10   |                       |                                              |                 |          |          |          |          |          |
| 15A                    | F1500CA15   | IEC/QC                | Common<br>Differential                       | 26<br>35        | 32<br>60 | 36<br>65 | 44<br>65 | 46<br>65 | 52<br>65 |
|                        | F1500CB15   | IEC/Wire              |                                              |                 |          |          |          |          |          |

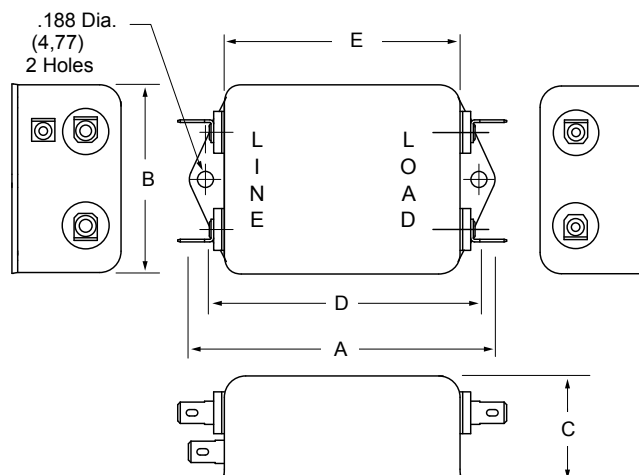
NOTE: Other combinations of terminals may be specified on special order.



## F1500AA (3 and 10Amp) Dimensions

Refer to Page 40  
for Standard  
Mounting Cutouts

| Amps | A              | B               | C              | D               | E              |
|------|----------------|-----------------|----------------|-----------------|----------------|
| 3A   | 3.31<br>(84,1) | 2.000<br>(50,8) | 1.13<br>(28,7) | 2.938<br>(74,6) | 2.50<br>(63,5) |
| 10A  | 3.31<br>(84,1) | 2.000<br>(50,8) | 1.50<br>(38,1) | 2.938<br>(74,6) | 2.50<br>(63,5) |

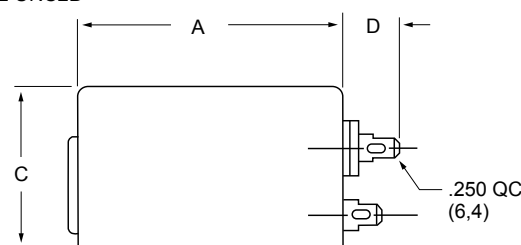
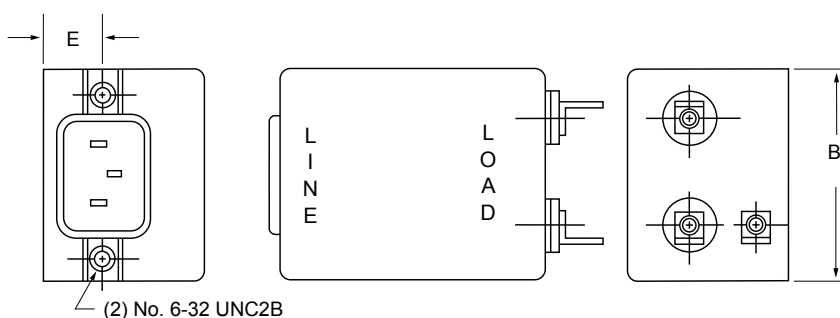


## F1500CA (3, 6, 10 and 15Amp) Dimensions

## F1500CB (3, 6, 10 and 15Amp) Dimensions

Refer to Page 40  
for Standard  
Mounting Cutouts

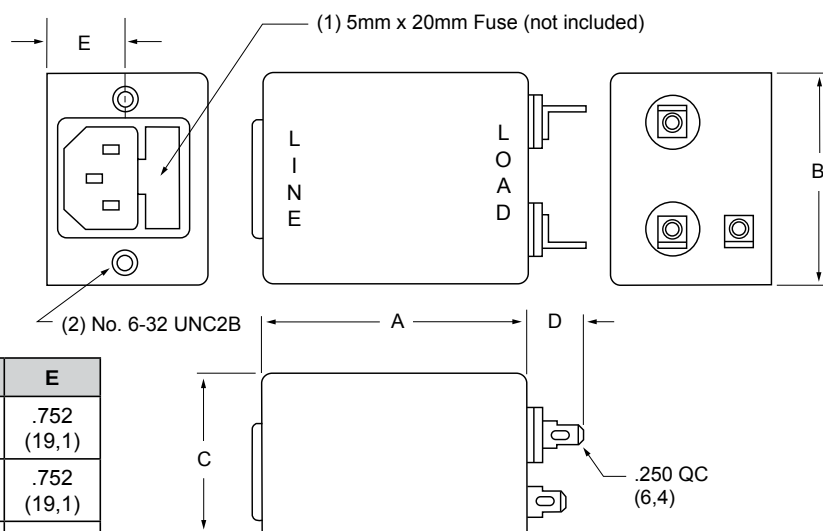
| Amps | A               | B               | C               | D              | E              |
|------|-----------------|-----------------|-----------------|----------------|----------------|
| 3A   | 2.000<br>(50,8) | 2.000<br>(50,8) | 1.500<br>(38,1) | .550<br>(14,0) | .565<br>(14,3) |
| 6A   | 2.500<br>(63,5) | 2.000<br>(50,8) | 1.500<br>(38,1) | .550<br>(14,0) | .565<br>(14,3) |
| 10A  | 2.500<br>(63,5) | 2.000<br>(50,8) | 1.500<br>(38,1) | .550<br>(14,0) | .565<br>(14,3) |
| 15A  | 3.25<br>(82,6)  | 2.25<br>(57,2)  | 1.75<br>(44,5)  | .550<br>(14,0) | .705<br>(17,9) |



## F1500FA (3, 6 and 10Amp) Dimensions

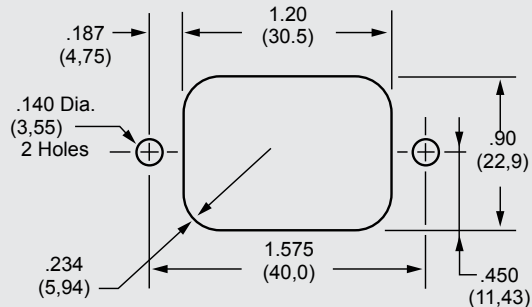
Refer to Page 40  
for Standard  
Mounting Cutouts

| Amps | A               | B               | C               | D              | E              |
|------|-----------------|-----------------|-----------------|----------------|----------------|
| 3A   | 2.000<br>(50,8) | 2.000<br>(50,8) | 1.500<br>(38,1) | .550<br>(14,0) | .752<br>(19,1) |
| 6A   | 2.500<br>(63,5) | 2.000<br>(50,8) | 1.500<br>(38,1) | .550<br>(14,0) | .752<br>(19,1) |
| 10A  | 2.500<br>(63,5) | 2.000<br>(50,8) | 1.500<br>(38,1) | .550<br>(14,0) | .752<br>(19,1) |

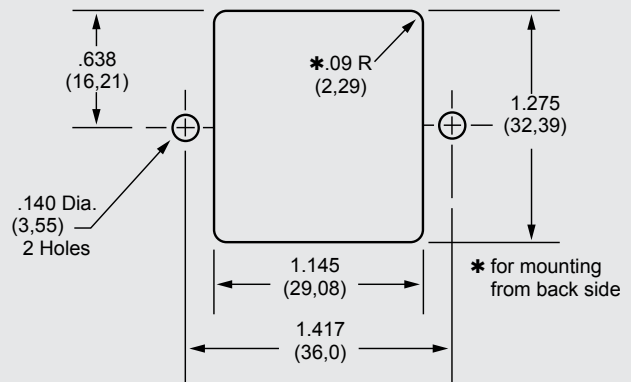


# Standard Mounting Cutouts

## 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.

### F1100

### X

### X

### X

SERIES  
PE = Power Entry  
PM = Medical  
Power Entry

LINE TERMINATION  
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

LOAD TERMINATION  
A = Quick Connects  
B = Wire Leads  
D = Screw Terminals  
(20 & 30 amp only)  
P = Printed Circuit Pins  
S = Solder Tab

CURRENT RATING  
01 = 1 Amp  
03 = 3 Amps  
06 = 6 Amps  
10 = 10 Amps  
15 = 15 Amps  
20 = 20 Amps  
30 = 30 Amps

## F5500/5600/5700 SERIES

