

Single Phase External Power Line Filter for Frequency Converters

# FC Series



UL Recognized



FC10

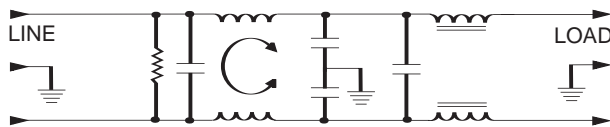
## FC Series

The FC filters provide filtering for frequency inverters and variable speed motor drives. Designed for very noisy applications, they attenuate conducted interference at low and high frequency ranges and protect programmable logic controllers from RF noise on the AC power line. These filters perform best when installed on the line side of the motor drive. The FC filters better prevent noise from returning to the line, enabling equipment to meet strict European regulations on RFI.

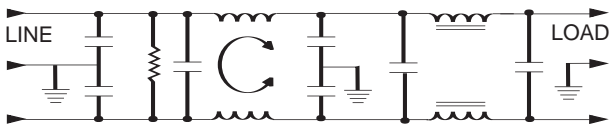
Suited for field wiring applications, these filters are ideal for EMC troubleshooting and field refurbishing. The FC filters feature side flanges for easy mounting and DIN type terminals which eliminate live metal parts, allowing safer and easier connection. The filters could also be sold as an accessory to motor drives marketed into Europe.

## Electrical Schematics

### 6 & 12 Amps



### 16, 25 & 36 Amps



Resistor location for reference only.

## Specifications

<b>Maximum leakage current, each line-to-ground</b>	
@ 120 VAC 60 Hz:	3.8 mA
@ 250 VAC 50 Hz:	6.7 mA
<b>Hipot rating (one minute):</b>	
line-to-ground	2250 VDC
line-to-line	1450 VDC
<b>Operating frequency:</b>	50/60 Hz
<b>Rated voltage (max.):</b>	250 VAC

### Minimum insertion loss in dB:

Line-to-ground in 50 ohm circuit

Current Rating	Frequency—MHz								
	.01	.03	.05	.1	.5	1	5	10	30
6A	9	19	26	37	65	65	50	40	35
12A	5	17	25	37	65	65	65	60	35
16A	4	15	22	36	65	65	70	70	35
25A	2	14	22	36	75	75	70	70	48
36A	0	6	14	27	68	75	70	70	50

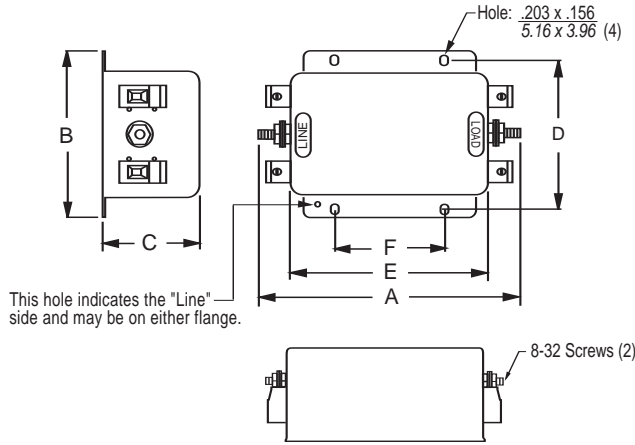
Line-to-line in 50 ohm circuit

Current Rating	Frequency—MHz								
	.01	.03	.05	.1	.5	1	5	10	30
6A	10	10	35	60	75	75	60	50	45
12A	14	14	30	51	75	75	75	70	45
16A	14	14	29	55	75	75	75	70	45
25A	14	14	17	42	75	75	70	70	50
36A	14	14	17	42	75	75	70	70	50

# FC Series

## Case Styles

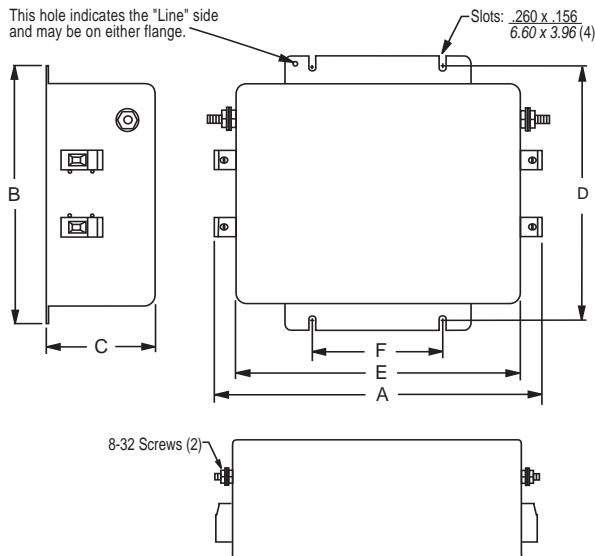
### 6, 12, 16FC10



### 6FC10, 12FC10, 16FC10

Phoenix contact VDFK4  
 Accepts 10 AWG solid wire, 12 AWG stranded wire  
 Torque Spec: 5.5 - 7.0 in.lb

### 25, 36FC10



### 25FC10, 36FC10

Phoenix contact VDFK6  
 Accepts 8 AWG solid wire, 10 AWG stranded wire  
 Torque Spec: 13.5 - 16 in.lb

## Case Dimensions

Part No.	A (max)	B (max)	C (max)	D $\frac{\pm .020}{\pm .51}$	E (max)	F $\frac{\pm .010}{\pm .254}$
6FC10	<b>4.60</b> 116.8	<b>3.10</b> 78.7	<b>1.78</b> 45.21	<b>2.677</b> 67.8	<b>3.70</b> 94.0	<b>2.00</b> 50.8
12FC10	<b>5.95</b> 151.3	<b>3.96</b> 100.6	<b>2.18</b> 55.4	<b>3.50</b> 88.9	<b>4.53</b> 114.8	<b>2.00</b> 50.8
16FC10	<b>5.95</b> 151.3	<b>3.96</b> 100.6	<b>2.18</b> 55.4	<b>3.50</b> 88.9	<b>4.53</b> 114.8	<b>2.00</b> 50.8
25FC10	<b>6.90</b> 175.3	<b>5.48</b> 139.2	<b>2.55</b> 64.77	<b>4.90</b> 124.5	<b>5.94</b> 150.9	<b>2.756</b> 70.0
36FC10	<b>6.90</b> 175.3	<b>5.48</b> 139.2	<b>2.55</b> 64.77	<b>4.90</b> 124.5	<b>5.94</b> 150.9	<b>2.756</b> 70.0

## Part Numbers

6FC10	25FC10
12FC10	36FC10
16FC10	