

Three Phase External Power Line Filter for Frequency Converters

# FCD Series



UL Recognized



FCD10

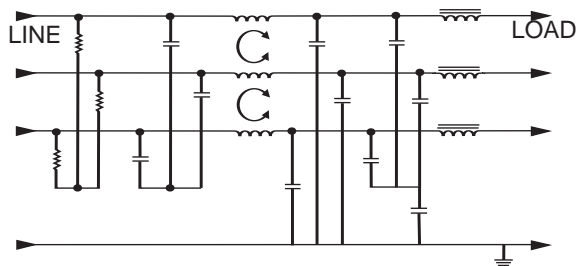
## FCD Series

The FCD filters provide three phase filtering for frequency inverters and variable speed motor drives. Designed for very noisy Delta applications, they attenuate conducted interference at low and high frequency ranges and better 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 FCD filters better prevent noise from returning to the line, enabling equipment to meet strict European regulations on RFI.

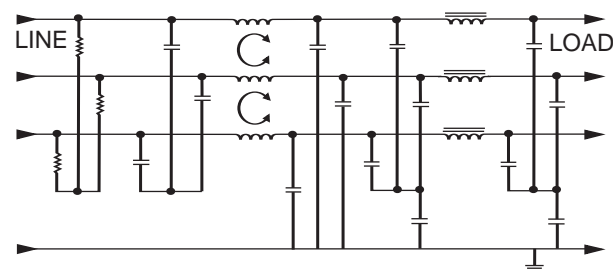
Suited for field wiring applications, these filters are ideal for EMC troubleshooting and field refurbishing. The FCD filters feature side flanges for easy mounting and DIN type terminals which eliminate live metal parts, allowing safer and easier connection. They could also be sold as an accessory to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

## Electrical Schematics

### 6 Amp



### 16, 25, 36 & 50 Amps



Resistor location for reference only.

## Specifications

### Maximum leakage current, each line-to-ground

	6 Amps	16 Amps	25-50 Amps
@ 120 VAC 60 Hz:	2.9 mA	4.9 mA	5.7 mA
@ 250 VAC 50 Hz:	4.9 mA	7.7 mA	9.8 mA

### Hipot rating (one minute):

line-to-ground	2250 VDC
line-to-line	1450 VDC

### Operating frequency:

50/60 Hz

### Rated voltage (max.):

480 VAC phase-to-phase  
277 VAC phase-to-neutral/ground

### Rated current:

6FCD	6A
16FCD	16A
25FCD	25A
36FCD	36A
50FCD	50A

### Minimum insertion loss in dB:

Line-to-ground in 50 ohm circuit

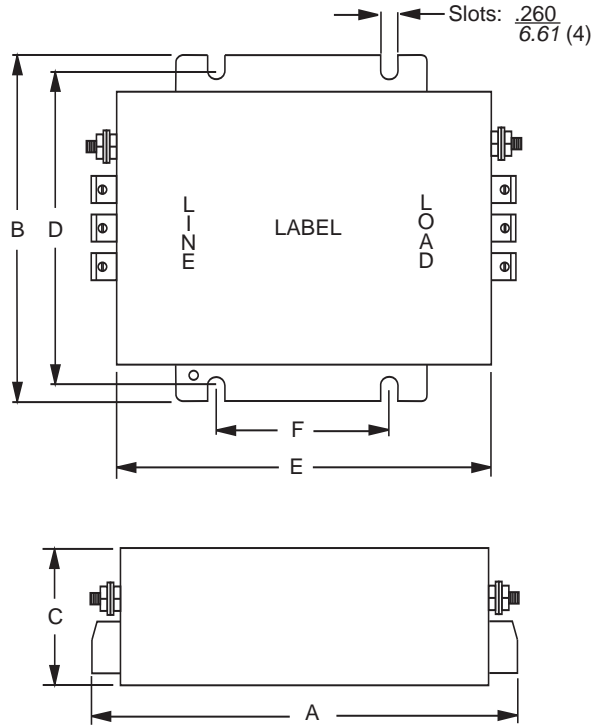
Current Rating	Frequency-MHz								
	.01	.03	.05	.1	.5	1	5	10	30
6A	2	14	23	39	56	52	48	45	33
16A	13	30	36	45	75	75	52	45	35
25A	13	30	36	45	75	75	52	45	35
36A	9	26	32	40	75	75	52	45	35
50A	9	26	32	40	75	75	52	45	35

Line-to-line in 50 ohm circuit

Current Rating	Frequency-MHz								
	.01	.03	.05	.1	.5	1	5	10	30
6A	9	8	24	40	62	57	50	48	38
16A	9	13	24	55	75	75	75	65	60
25A	9	13	26	55	75	75	75	65	60
36A	9	13	26	46	75	75	75	65	60
50A	9	13	26	46	75	75	75	65	60

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## Case Style



Note: Terminals No. 8-32 (2)

	Type (qty.)	Torque in. lb.
<b>6FCD10, 16FCD10</b>		
Phoenix contacts	VDFK4 (6)	5.31 min.
Accepts 12 AWG stranded wire. Strip length 0.315		
<b>25FCD10, 36FCD10</b>		
Phoenix contacts	VDFK6 (6)	13.28 min.
Accepts 10 AWG stranded wire. Strip length 0.354		
<b>50FCD10</b>		
Phoenix contacts	HDFK10-VP (6)	13.28 min
Accepts 8 AWG stranded wire. Strip length 0.433		

## Case Dimensions

Part No.	A (max)	B (max)	C (max)	D (max)	E (max)	F (max)
6FCD10	<b>6.00</b> <i>152.4</i>	<b>4.30</b> <i>109.2</i>	<b>2.30</b> <i>58.4</i>	<b>3.74</b> <i>95.0</i>	<b>5.15</b> <i>128.3</i>	<b>2.756</b> <i>70.0</i>
16FCD10	<b>7.20</b> <i>182.9</i>	<b>5.48</b> <i>139.2</i>	<b>2.55</b> <i>64.8</i>	<b>4.92</b> <i>124.97</i>	<b>5.94</b> <i>150.9</i>	<b>2.756</b> <i>70.0</i>
25FCD10	<b>9.69</b> <i>246.1</i>	<b>6.30</b> <i>160.0</i>	<b>2.55</b> <i>64.8</i>	<b>5.71</b> <i>145.0</i>	<b>8.46</b> <i>215.0</i>	<b>4.528</b> <i>115.01</i>
36FCD10	<b>9.69</b> <i>246.1</i>	<b>6.30</b> <i>160.0</i>	<b>2.55</b> <i>64.8</i>	<b>5.71</b> <i>145.0</i>	<b>8.46</b> <i>215.0</i>	<b>4.528</b> <i>115.01</i>
50FCD10	<b>10.5</b> <i>266.7</i>	<b>6.30</b> <i>160.0</i>	<b>2.54</b> <i>64.52</i>	<b>5.71</b> <i>145.0</i>	<b>8.46</b> <i>215.0</i>	<b>4.528</b> <i>115.01</i>

## Part Numbers

6FCD10  
16FCD10  
25FCD10  
36FCD10  
50FCD10