Single Phase Power Line Filter for Frequency Converters

FC Series

UL Recognized

FC Series

- Designed for frequency inverters and variable speed motor drives
- Suitable for electronically noisy environments
- Protects programmable logic controllers from RF noise on the AC power line
- Side flanges for easy mounting
- Touch safe terminals provide easy connections and prevent inadvertent contact for safety in the most demanding applications

Ordering Information

36 FC 10 B

- **Suffix**
  - B – Single stage
  - Omit for dual stage
- **Input / Output Style**
  - 10 – DIN type terminal block
- **FC Series**
- **Current Rating**
  - 6, 12, 16, 25, 36 or 50A

Available Part Numbers

6FC10	
12FC10	12FC10B
16FC10	16FC10B
25FC10	25FC10B
36FC10	36FC10B
50FC10	50FC10B

Specifications

Maximum leakage current each Line to Ground:

	B suffix	no suffix
@ 120 VAC 60 Hz:	3.9 mA	3.8 mA
@250 VAC 50 Hz:	7.0 mA	6.7 mA

Hipot rating (one minute):

Line to Ground:	2250 VDC
Line to Line:	1450 VDC

Rated Voltage (max): 250 VAC

Operating Frequency: 50/60 Hz

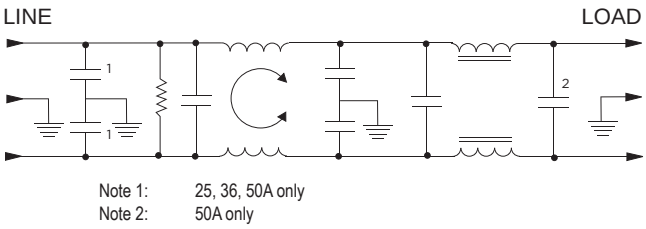
Rated Current: 6 to 50A

Operating Ambient Temperature Range (at rated current I_r): -10°C to +40°C

In an ambient temperature (T_a) higher than +40°C the maximum operating current (I_o) is calculated as follows: $I_o = I_r \sqrt{(85-Ta)/45}$

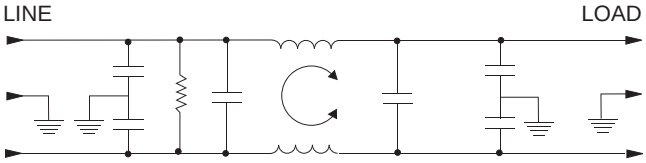
Electrical Schematics

FC10



Note 1: 25, 36, 50A only
Note 2: 50A only

FC10B



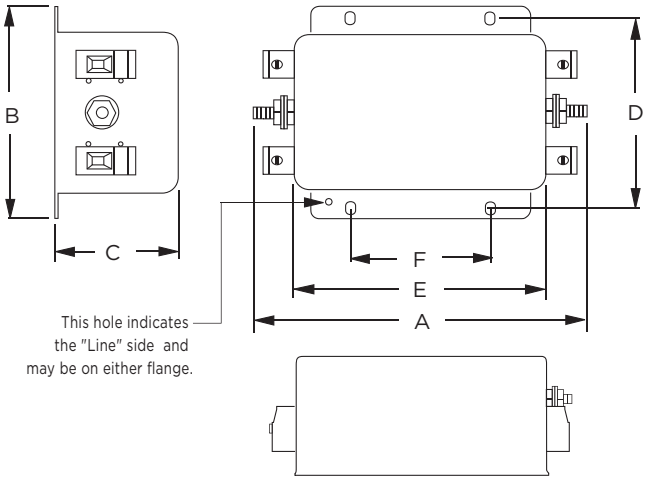
Dimensions are in inches and millimeters unless otherwise specified. Values in italics are metric equivalents. Dimensions are shown for reference purposes only. Specifications subject to change.

For email, phone or live chat, please go to **te.com/help**
corcom.com

FC Series

Case Styles

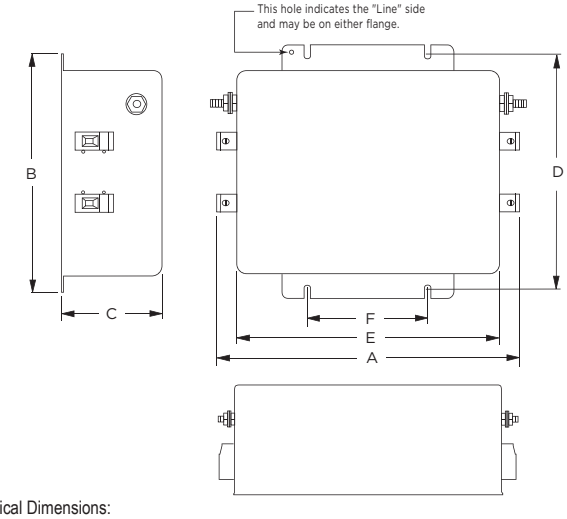
FC10 / FC10B (6, 12, 16A)



Typical Dimensions:

Line/Load Terminals (4):	DIN type accepts 10AWG solid / 12AWG stranded
Ground Terminals (2):	8-32 screw terminals
Mounting Holes (4):	.203 x .156 [*5.16 x 3.96*]

FC10 / FC10B (25, 36, 50A)



Typical Dimensions:

Line/Load Terminals (4):	DIN type accepts 8AWG solid / 10AWG stranded
Ground Terminals (2):	8-32 screw terminals
Mounting Slots (4):	.260 [*6.6*] wide

Case Dimensions

Part No.	A (max)	B (max)	C (max)	D ± .020 / ± .510	E (max)	F ± .010 / ± .254
6FC10	**4.60**	**3.10**	**1.78**	**2.677**	**3.70**	**2.0**
	116.8	*78.7*	*45.21*	*67.8*	*94.0*	*50.8*
12FC10/10B	**5.47**	**3.96**	**2.18**	**3.50**	**4.53**	**2.0**
16FC10/10B	*139.0*	*100.6*	*55.4*	*88.9*	*114.8*	*5.08*
25, 36, 50	**6.90**	**5.48**	**2.55**	**4.90**	**5.94**	**2.756**
FC10/10B	*175.3*	*139.2*	*64.77*	*124.5*	*150.9*	*70.0*

Dimensions are in inches and millimeters unless otherwise specified. Values in italics are metric equivalents. Dimensions are shown for reference purposes only. Specifications subject to change.

FC Series

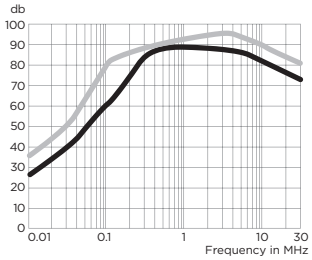
Performance Data

Typical Insertion Loss

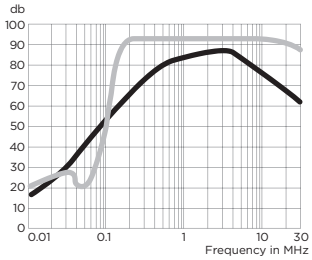
Measured in closed 50 Ohm system

Common Mode / Asymmetrical (L-G)
Differential Mode / Symmetrical (L-L)

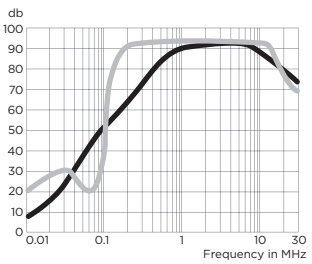
6FC10



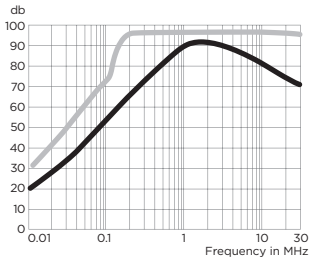
12FC10



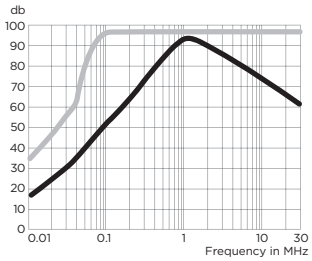
16FC10



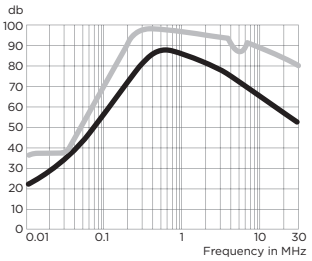
25FC10



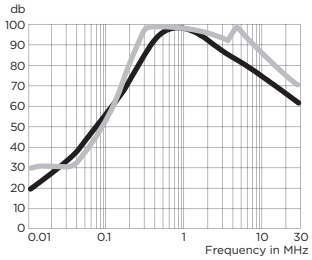
36, 50FC10



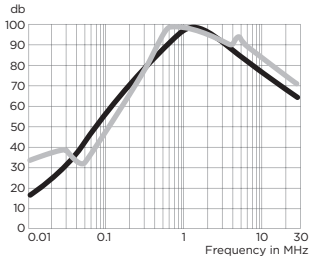
12, 16FC10B



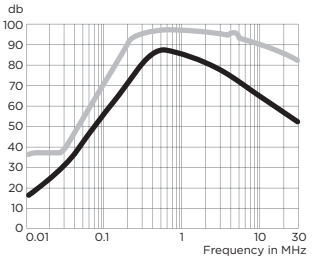
25FC10B



36FC10B



50FC10B



Minimum Insertion Loss

Common Mode / Asymmetrical (Line to Ground)

	Frequency – MHz								
Part No.	**.01**	**.03**	**.05**	**.1**	**.5**	**1**	**5**	**10**	**30**
6FC10	9	19	26	37	65	65	50	40	35
12FC10	5	17	25	37	65	65	65	60	35
16FC10	4	15	22	36	65	65	70	70	35
25FC10	2	14	22	36	75	75	70	70	48
36, 50FC10	-	6	14	27	68	75	70	70	50
12, 16FC10B	16	28	37	50	81	76	63	55	38
25FC10B	14	25	36	49	91	88	71	64	46
36FC10B	11	25	37	50	81	87	73	66	49
50FC10B	11	24	36	49	81	75	62	54	37

Differential Mode / Symmetrical (Line to Line)

	Frequency – MHz								
Part No.	**.01**	**.03**	**.05**	**.1**	**.5**	**1**	**5**	**10**	**30**
6FC10	10	10	35	60	75	75	60	50	45
12FC10	14	14	30	51	75	75	75	70	45
16FC10	14	14	29	55	75	75	75	70	45
25FC10	14	14	17	42	75	75	70	70	50
36, 50FC10	14	14	17	42	75	75	70	70	50
12, 16FC10B	30	32	46	64	91	86	77	78	65
25FC10B	24	24	31	46	92	87	86	75	55
36FC10B	27	33	27	41	89	88	82	74	55
50FC10B	30	32	48	64	91	87	82	79	67