EMC Series

UL Recognized
CSA Certified
VDE Approved

EMC6

EMC1

EMC Series

- Compact dual stage filter series
- Cost-effective design
- Current rating up to 30A
- High differential mode attenuation in the lower frequency range
- High common mode performance
- Suitable for switching mode power supplies

Ordering Information

10 EMC 1

- 1 – Case Styles
  - 1 – .250 [6.3] spade terminals
  - 3 – Wire leads
  - 6 – Threaded bolt
- EMC Series
- 10 – Current Rating
  - 3, 6, 10, 15, 20 or 30A

Specifications

Maximum leakage current each Line to Ground:

	3, 6, 10A	15, 20, 30A
@ 120 VAC 60 Hz:	.21 mA	.73 mA
@250 VAC 50 Hz:	.43 mA	1.52 mA

Hipot rating (one minute):

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

Rated Voltage (max): 250 VAC

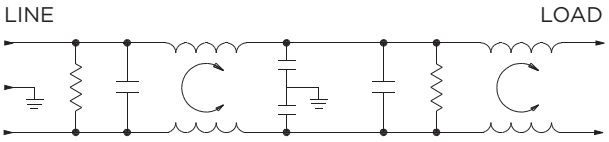
Operating Frequency: 50/60 Hz

Rated Current: 3 to 30A

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 Schematic



Available Part Numbers

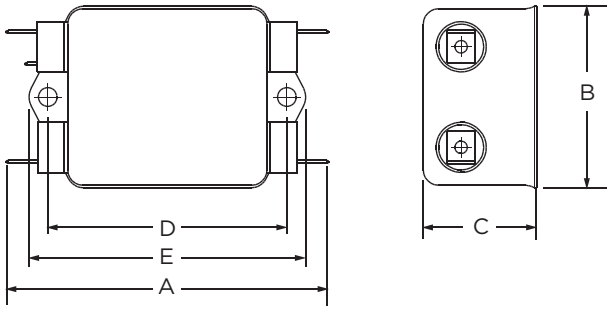
3EMC1	10EMC3
6EMC1	15EMC3
10EMC1	10EMC6
15EMC1	15EMC6
20EMC1	20EMC6
3EMC3	30EMC6
6EMC3	

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.

EMC Series

Case Styles

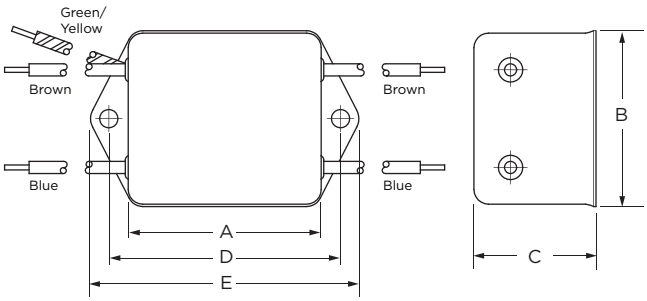
EMC1



Typical Dimensions:

Line/Load Terminals (4):	.250 [*6.3*] with .07 [*1.8*] Dia. hole
Ground Terminal (1):	.250 [*6.3*] with .07 x .16 [*1.8 x 3.8*] slot
Mounting Holes (2):	.187 ±.008 [*4.75 ±.20*] Dia.

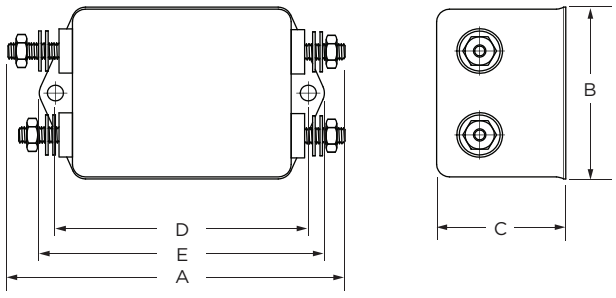
EMC3



Typical Dimensions:

Wire leads (5):	4.0 [*101.6*] Min., AWG18 (AWG16 for 15A)
Mounting Holes (2):	.187 ±.008 [*4.75 ±.20*] Dia.

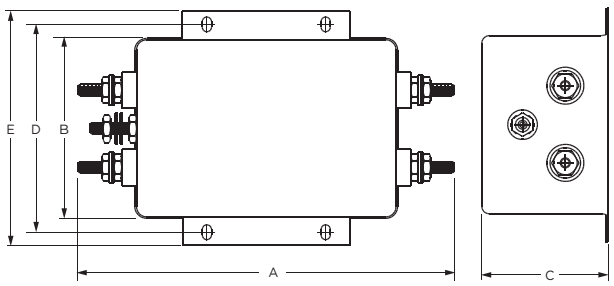
EMC6



Typical Dimensions:

Terminals (5):	8-32, Torque 18 lbf-in. [*2.03* N-m] max. ± 2 [*.22*]
Mounting Holes (4):	.187 ±.008 [*4.75 ±.20*] Dia.

30EMC6



Typical Dimensions:

Terminals (5):	10-32, Torque 27 lbf-in. [*3.05* N-m] max. ± 3 [*.34*]
Mounting Slots (4):	.203 x .156 [5.16 x 3.96]

Case Dimensions

Part No.	A (max)	B (max)	C (max)	D (max)	E (max)
3EMC1	**3.35** *85.1*	**1.81** *46*	**1.16** *29.5*	**2.375** *60.3*	**2.78** *70.6*
6EMC1	**3.85** *97.8*	**2.07** *52.6*	**1.16** *29.5*	**2.938** *74.6*	**3.35** *85.1*
10EMC1	**3.85** *97.8*	**2.07** *52.6*	**1.53** *38.91*	**2.938** *74.6*	**3.35** *85.1*
15EMC1 20EMC1	**4.97** *126.2*	**2.25** *57.2*	**1.78** *45.2*	**4.063** *103.2*	**4.46** *113.3*
3EMC3	**2.07** *52.6*	**1.81** *46*	**1.16** *29.5*	**2.375** *60.3*	**2.78** *70.6*
6EMC3	**2.56** *65*	**2.07** *52.6*	**1.16** *29.5*	**2.938** *74.6*	**3.35** *85.1*
10EMC3	**2.56** *65*	**2.07** *52.6*	**1.53** *38.9*	**2.938** *74.6*	**3.35** *85.1*
15EMC3	**3.69** *93.7*	**2.25** *57.2*	**1.78** *45.2*	**4.063** *103.2*	**4.47** *113.5*
10EMC6	**3.94** *99.9*	**2.07** *52.6*	**1.53** *38.9*	**2.938** *74.6*	**3.35** *85.1*
15EMC6 20EMC6	**5.09** *129.3*	**2.25** *57.2*	**1.78** *45.2*	**4.063** *103.2*	**4.47** *113.5*
30EMC6	**6.05** *153.7*	**3.12** *79.2*	**2.18** *55.4*	**3.5** *88.9*	**3.96** *100.6*

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.

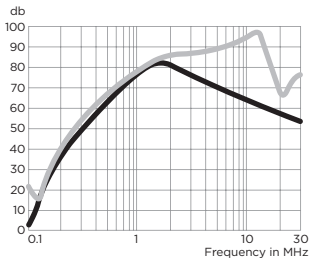
EMC Series

Performance Data

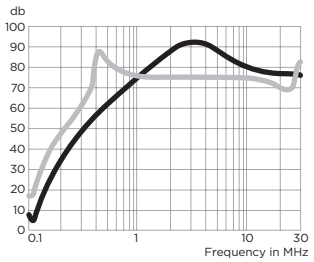
Typical Insertion Loss

Measured in closed 50 Ohm system

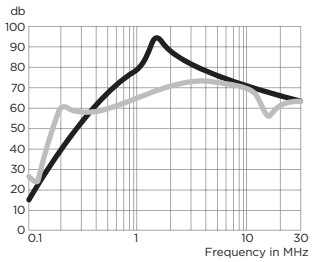
3EMC



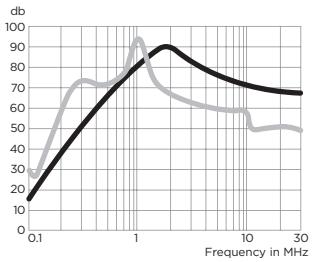
6EMC



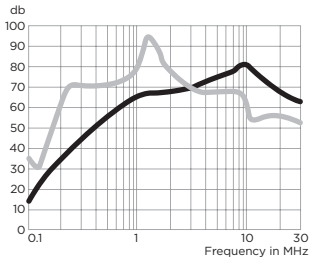
10EMC



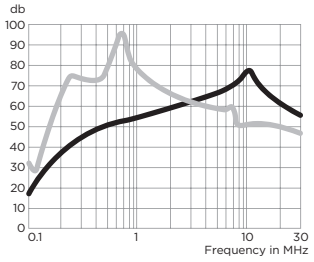
15EMC



20EMC



30EMC



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

Minimum Insertion Loss

Common Mode / Asymmetrical (Line to Ground)

Current Rating	Frequency – MHz								
	.05	.07	.11	.15	1	2	10	20	30
3A	6	6	3	16	65	66	62	60	59
6A	6	6	2	15	65	67	65	62	63
10A	5	2	13	24	72	72	56	50	48
15A	3	1	12	22	70	68	57	54	53
20A	2	2	11	21	58	57	63	55	52
30A	2	2	14	22	47	52	60	48	43

Differential Mode / Symmetrical (Line to Line)

Current Rating	Frequency – MHz								
	.05	.07	.11	.15	1	2	10	20	30
3A	12	13	7	18	64	69	65	60	52
6A	12	12	8	27	61	61	59	56	54
10A	14	15	12	33	54	58	47	34	36
15A	16	16	13	34	61	52	36	36	23
20A	17	19	15	37	67	62	36	32	30
30A	17	18	14	40	62	53	30	28	26