

Catalog: 1654001 Issue Date: 06.2011

Compact and Cost-effective Dual Stage RFI Power Line Filters

EMC Series



UL Recognized CSA Certified VDE Approved

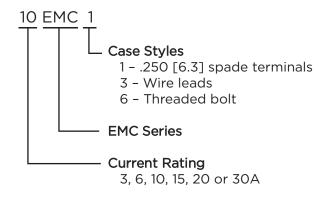




EMC Series

- 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



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

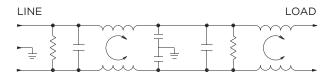
Hipot rating (one minute):

Line to Ground: Line to Line:	2250 VDC 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: $I_o = I_r \sqrt{(85-T_a)/45}$

Electrical Schematic



Available Part Numbers

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

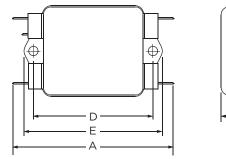


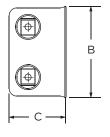
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Case Styles

EMC1

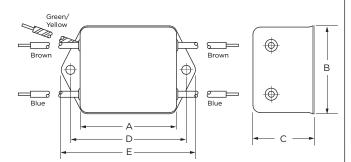




Typical Dimensions:

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

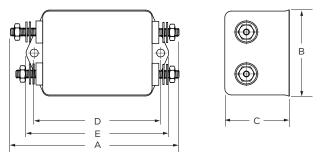
EMC3



Typical Dimensions:

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

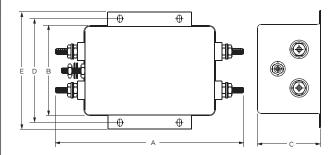
EMC6



Typical Dimensions:

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

30EMC6



Typical Dimensions:

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

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Case Dimensions

Part No.	A (max)	B	C	D (may)	E
	. ,	(max)	(max)	(max)	(max)
3EMC1	3.35	1.81	1.16	2.375	2.78
	85.1	46	29.5	60.3	70.6
6EMC1	3.85	2.07	1.16	2.938	3.35
<u> </u>	97.8	52.6	29.5	74.6	85.1
10EMC1	3.85	2.07	1.53	2.938	3.35
IOLITICI	97.8	52.6	38.91	74.6	85.1
15EMC1	4.97	2.25	1.78	4.063	4.46
20EMC1	126.2	57.2	45.2	103.2	113.3
3EMC3	2.07	1.81	1.16	2.375	2.78
SEMICS	52.6	46	29.5	60.3	70.6
6EMC3	2.56	2.07	1.16	2.938	3.35
	65	52.6	29.5	74.6	85.1
10EMC3	2.56	2.07	1.53	2.938	3.35
IOEMC3	65	52.6	38.9	74.6	85.1
1EEMC7	3.69	2.25	1.78	4.063	4.47
15EMC3	93.7	57.2	45.2	103.2	113.5
10EMC6	3.94	2.07	1.53	2.938	3.35
10EMC6	99.9	52.6	38.9	74.6	85.1
15EMC6	5.09	2.25	1.78	4.063	4.47
20EMC6	129.3	57.2	45.2	103.2	113.5
70EMCC	6.05	3.12	2.18	3.5	3.96
30EMC6	153.7	79.2	55.4	88.9	100.6



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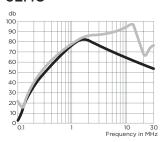
EMC Series

Performance Data

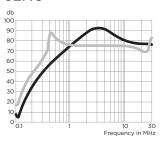
Typical Insertion Loss

Measured in closed 50 Ohm system

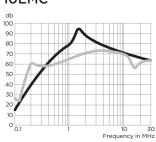




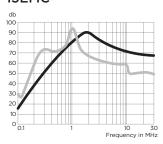
6EMC



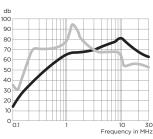
10EMC



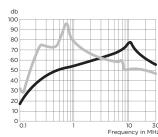
15EMC



20EMC



30EMC



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

Minimum Insertion Loss

Common Mode / Asymmetrical (Line to Ground)

Current	Frequency – MHz								
Rating	.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	Frequency – MHz								
Rating	.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