EMC Filters FLLE2 – S, Single Phase General Purpose Chassis Mount Filters



Overview

The FLLE2-S is a general purpose, single phase filter series with high/very high attenuation. They have a chassis mount for fast mounting and a metal case filled with selfextinguishing resin. Fast-on or screw terminals, and options with flexible wire connections are available. In addition, medical versions are available without Y-capacitors for no leakage current.

Applications

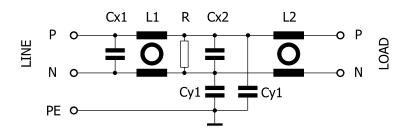
Typical applications include industrial power supplies, office and business equipment, tele- and datacom equipment, household and consumer goods, and medical equipment.



Technical Specifications

| ltem | Parameters/ Characteristics | | | |
|-------------------|--|--|--|--|
| Rated Voltage | 300 VAC/VDC | | | |
| Rated Frequency | 50 – 60 Hz | | | |
| Rated Current | 1 – 32 A | | | |
| Rated Temperature | 40°C | | | |
| Temperature Range | -25°C to 100°C | | | |
| Climate Category | 25/100/21 | | | |
| Voltage Test | $P \rightarrow N 1,300 VDC$ P/N $\rightarrow E 2,250 VDC$ | | | |

Typical Electrical Schematic





Technical Specifications cont.

| Part Number | Rated Current at 40°C (A) | Leakage Current* (mA) | C _x 1 (μF) | R (MΩ) | L1 (mH) | C _y 1 (nF) | C _x 2 (μF) | L2 (mH) |
|------------------|------------------------------|--------------------------|--------------------------|-----------|------------|--------------------------|--------------------------|------------|
| FLLE2001AS(1)(2) | 1 | 0.37 | 0.33 | 0.68 | 22 | 4.7 | 0.33 | 22 |
| FLLE2003AS(1)(2) | 3 | 0.37 | 0.47 | 0.47 | 14 | 4.7 | 0.47 | 14 |
| FLLE2006AS(1)(2) | 6 | 0.37 | 1 | 0.22 | 8 | 4.7 | 1 | 8 |
| FLLE2010AS(1)(2) | 10 | 0.37 | 1 | 0.22 | 5 | 4.7 | 1 | 5 |
| FLLE2013AS(1)(2) | 13 | 0.37 | 1 | 0.22 | 4 | 4.7 | 1 | 4 |
| FLLE2016AS(1)(2) | 16 | 0.37 | 1 | 0.22 | 4 | 4.7 | 1 | 4 |
| FLLE2020AS(1)(2) | 20 | 0.37 | 2.2 | 0.15 | 2 | 4.7 | 2.2 | 2 |
| FLLE2025AS(1)(2) | 25 | 0.37 | 2.2 | 0.15 | 2 | 4.7 | 2.2 | 2 |
| FLLE2032AS(1)(2) | 32 | 0.37 | 2.2 | 0.15 | 1.3 | 4.7 | 2.2 | 1.3 |

(1) D = Standard, M = Medical

(2) B = Fast-on (1-16A), I = Threaded (20-32A), D = Wire (1-32A)

* Leakage current at 250 VAC/50 Hz according to IEC60939-3. Medical version without C_v-capacitors, no leakage current.

Approvals

| Standard | Certification Body | File Number |
|------------------------|--------------------|-------------|
| IEC/EN 60939-3 | UL-Demko | E490803 |
| ANSI/UL 60939-3-2017 | UL | E490803 |
| CAN/CSA C22.2 No. 8-13 | UL | E490803 |

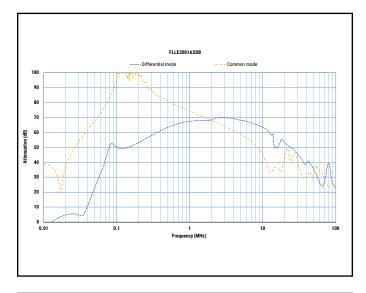
Environmental Compliance

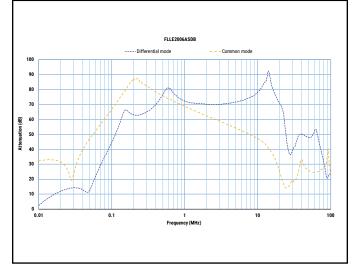
KEMET EMI filters are RoHS Compliant.

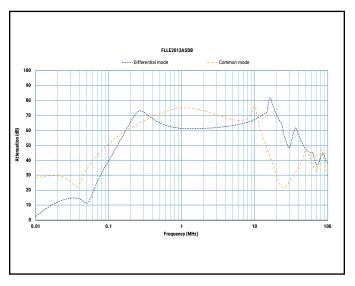


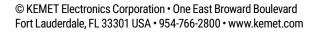


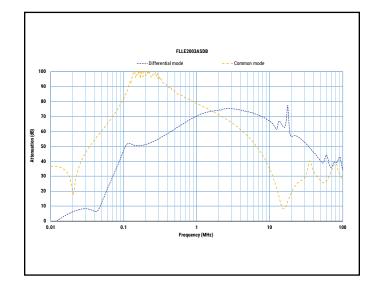
Typical Insertion Loss

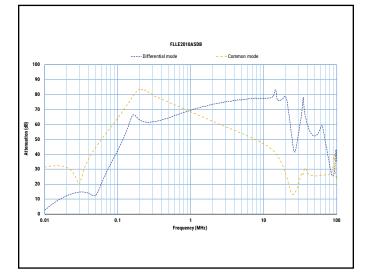






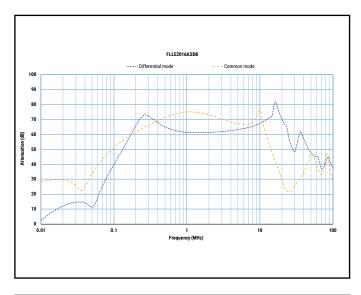


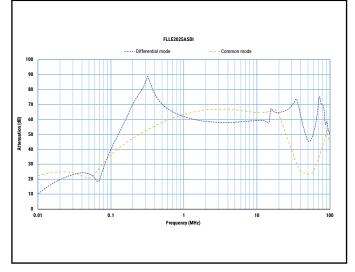


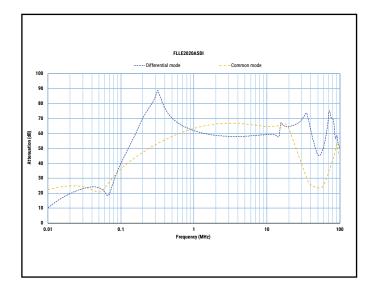


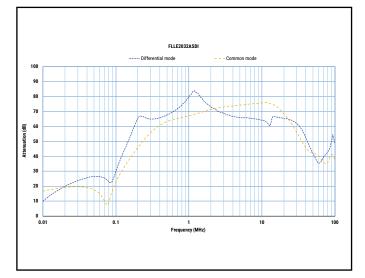


Typical Insertion Loss cont.



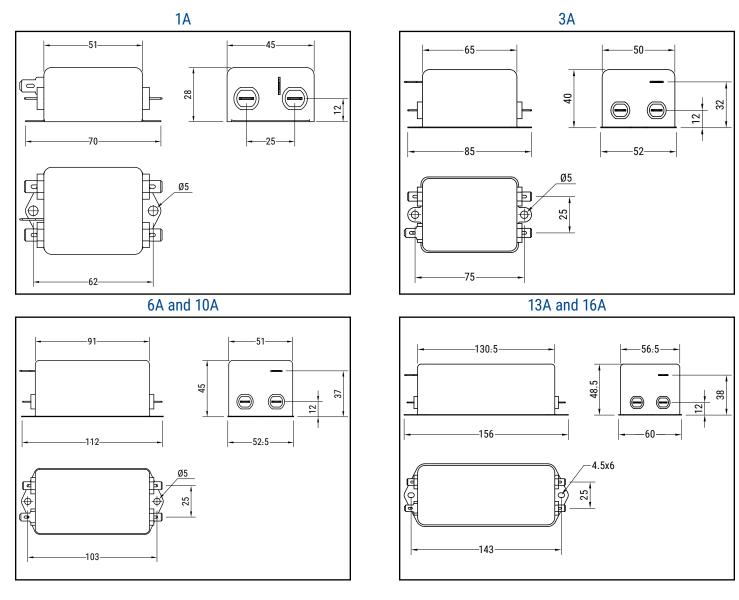








Mechanical Dimensions – Millimeters



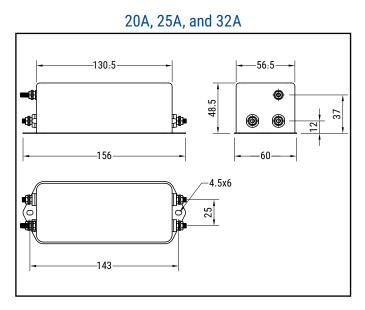
| Part Number | L (mm) | W (mm) | H (mm) | Weight (g) | Fast-on Terminal | Threaded Terminal | Flexible Wire (mm²) |
|------------------|-----------|-----------|-----------|---------------|---------------------|----------------------|------------------------|
| FLLE2001AS(1)(2) | 51 | 45 | 28 | 130 | 6.3 x 0.8 | | 0.75 |
| FLLE2003AS(1)(2) | 65 | 50 | 40 | 280 | 6.3 x 0.8 | | 0.75 |
| FLLE2006AS(1)(2) | 91 | 51 | 45 | 410 | 6.3 x 0.8 | | 1.5 |
| FLLE2010AS(1)(2) | 91 | 51 | 45 | 410 | 6.3 x 0.8 | | 1.5 |
| FLLE2013AS(1)(2) | 130.5 | 56.5 | 48.5 | 690 | 6.3 x 0.8 | | 1.5 |
| FLLE2016AS(1)(2) | 130.5 | 56.5 | 48.5 | 690 | 6.3 x 0.8 | | 2.5 |

(1) D = Standard, M = Medical

(2) B = Fast-on (1-16A), I = Threaded (20-32A), D = Wire (1-32A)



Mechanical Dimensions – Millimeters cont.



| Part Number | L (mm) | W (mm) | H (mm) | Weight (g) | Fast-on Terminal | Threaded Terminal | Flexible Wire (mm²) |
|------------------|-----------|-----------|-----------|---------------|---------------------|----------------------|------------------------|
| FLLE2020AS(1)(2) | 130.5 | 56.5 | 48.5 | 720 | | M4 x 0.7 | 2.5 |
| FLLE2025AS(1)(2) | 130.5 | 56.5 | 48.5 | 720 | | M4 x 0.7 | 2.5 |
| FLLE2032AS(1)(2) | 130.5 | 56.5 | 48.5 | 800 | | M4 x 0.7 | 4 |

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