VU Metal Cylinder Single-Phase Filters

Overview

The KEMET VU compact aluminum metal cylinder filters cover single-phase requirements with a wide variety of characteristics. These filters are optimized for conduction noise. Their input/output terminals are Faston® type.

Applications

- Industrial equipment
- Electronic equipment

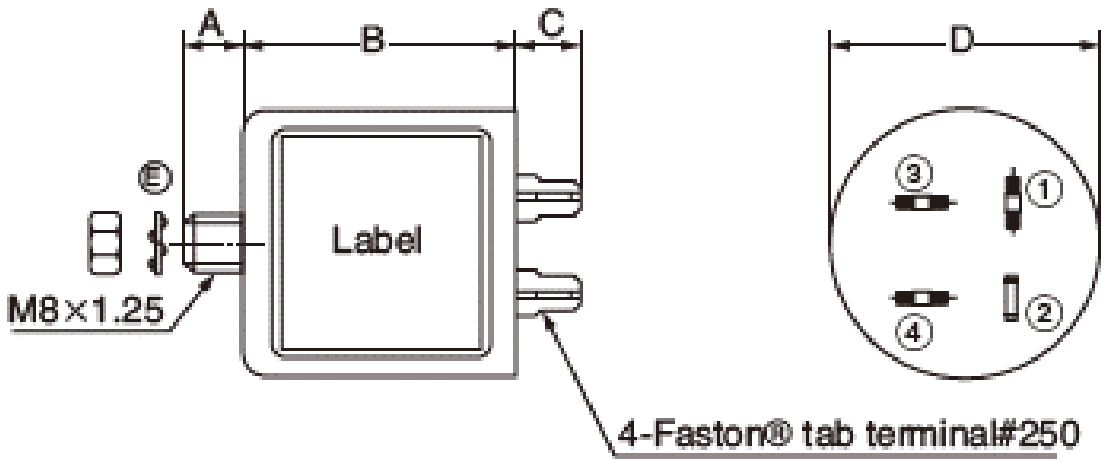
Benefits

- Single-phase 250 VAC
- Current range from 15 to 20 A
- Operating temperature range from −25°C to +55°C
- UL and CSA or UL, CSA, and TÜV approved versions available
- RoHS compliant

Part Number System

VU-	2	20	F
Series	Phase	Rated Current (A)	Specification
VU	2 = Single-phase	0x = 0x A xx = xx A	F = Standard F3 = Low height

Dimensions – Millimeters



Recommended torque (N-m) maximum
- *Earth terminal (M4: 4.41)*

Faston® is a registered trademark of Tyco Electronics AMP.

Part Number	A	B	C	D
VU-215F	12	50	12	38
VU-215F3		40	13	45
VU-220F		50	12	50

Environmental Compliance

KEMET VU EMI-RFI Filters comply with EU RoHS Directive 2011/65/EU and (EU) 2015/863. Products that fall under the exemptions listed in below table are also included.

Part Number	RoHS Compliant	RoHS Exemption Code
VU-215F	Yes	7(c)-I
VU-215F3	Yes	7(c)-I
VU-220F	Yes	7(c)-I

Code	Exemption
7(c)-I	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound

Approvals

Certification Body	File Number	Part Number
UL	E59551	VU-215F, VU-215F3 and VU-220F
CSA	LR50413	VU-215F, VU-215F3 and VU-220F
TÜV Rheinland Japan Ltd.	R50015793	VU-220F

Performance Characteristics

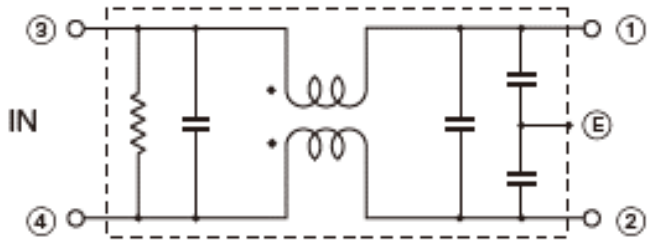
Item	Performance Characteristics
Rated Voltage	250 V
Rated Current Range	15 – 20 A
Withstanding Voltage	1,500 VAC (1 minute, line to ground)
Insulation Resistance	300 MΩ minimum at 500 VDC (1 minute, line to ground)
Leakage Current	1 mA maximum at 250 V/60 Hz
Input/Output Terminal Type	Faston®
Operating Temperature Range	–25°C to +55°C (not including self temperature rise)

Table 1 – Ratings & Part Number Reference

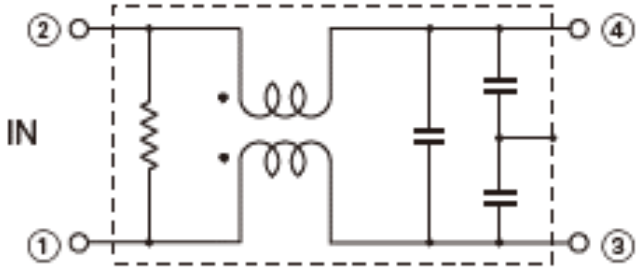
Part Number	Phase	Rated Voltage AC/DC (V)	Rated Current AC/DC (A)	Leakage Current at 250 V/60 Hz (mA) Maximum	Temperature Rise (K) Maximum	Operating Temperature Range	Terminal Type	Approval	Weight (g)
VU-215F	Single-phase	250	15	1	40	-25°C to +55°C	Faston®	UL and CSA	130
VU-215F3	Single-phase	250	15	1	40	-25°C to +55°C	Faston®	UL and CSA	105
VU-220F	Single-phase	250	20	1	40	-25°C to +55°C	Faston®	UL, CSA and TÜV	240

Circuit Diagram

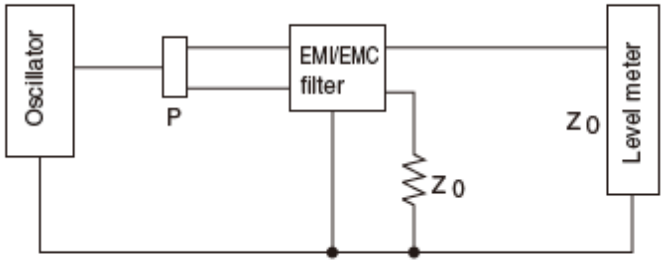
VU-215F, VU-220F



VU-215F3



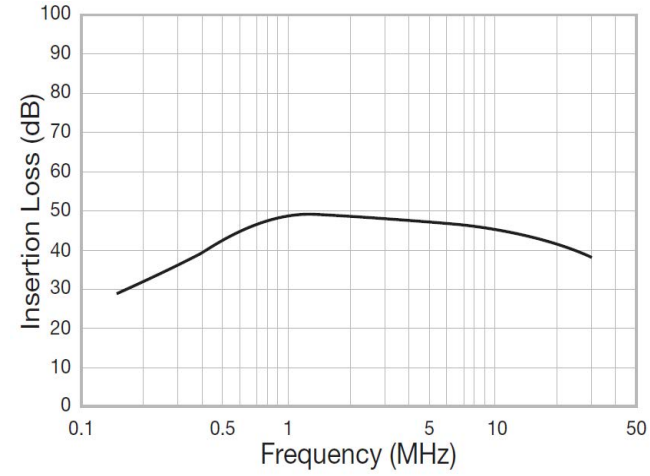
Measuring Circuit - Common Mode



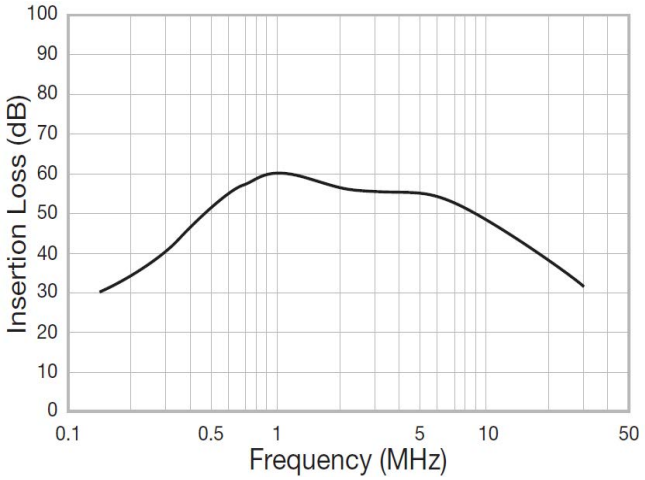
P: Power divider Z 0 : 50Ω

Attenuation (Static Characteristics)

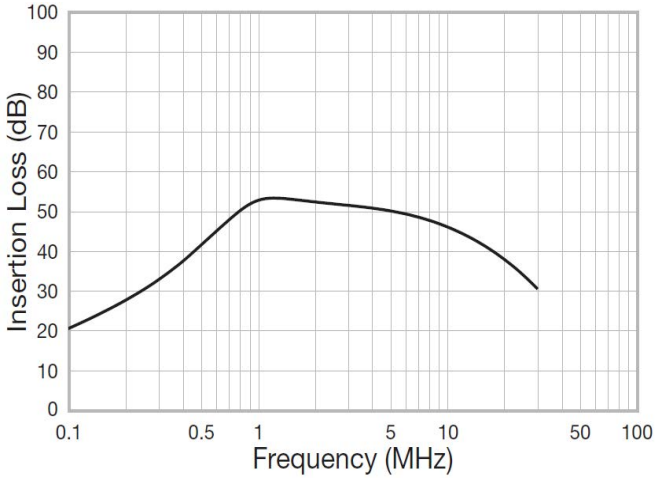
VU-215F3



VU-220F



VU-215F



Packaging

Part Type	Packaging Type	Pieces per Box
VU-215F	Tray	30
VU-215F3		60
VU-220F		25

Handling Precautions

Precautions for product storage
EMI-RFI Filters should be stored in normal working environments. While the filters themselves are quite robust in other environments, solderability will be degraded by exposure to high temperatures, high humidity, corrosive atmospheres, and long term storage.

KEMET recommends that maximum storage temperature not exceed 40°C, maximum storage humidity not exceed 70% relative humidity, and atmospheres should be free of chlorine and sulfur bearing compounds. Temperature fluctuations should be minimized to avoid condensation on the parts. Also, avoid storage near strong magnetic fields as this might magnetize the product.

EMI-RFI Filters' stock should be used promptly, preferably within 12 months of receipt.

KEMET Electronics Corporation Sales Offices

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Although all product–related warnings, cautions and notes must be observed, the customer should not assume that all safety measures are indicated or that other measures may not be required.

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