EMI-RFI Filters **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 both common and normal mode noise. Their input/output terminals are Faston type.

Applications

- Industrial equipment
- Electronic equipment

Benefits

- Single-phase
- Operating temperature range from -25°C to +55°C
- UL and CAS 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	Α	В	С	D
VU-215F		50	12	38
VU-215F3	12	40	13	45
VU-220F		50	12	50

Environmental Compliance

All KEMET EMI-RFI Filters are RoHS compliant.



Performance Characteristics

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Rated Voltage	250 V
Rated Current Range	15 – 20 A
Withstanding Voltage	1,500 VAC (1 minute, line to ground)
Insulation Resistance	$300 \text{ M}\Omega$ minimum at 500 VDC (1 minute, line to ground)
Leakage Current	1 mA at 250 V/60 Hz maximum
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

Measuring Circuit - Normal Mode





Attenuation (Static Characteristics)



VU-215F



TÜV Rheinland Japan Ltd. Certification Numbers

Part Number	File Number	
VU-220F	N° R50015793	

Packaging

Part Type	Packaging Type	Pieces per Box
VU-215F		30
VU-215F3	Tray	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 and 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.

For optimized solderability, EMI-RFI Filters' stock should be used promptly, preferably within 6 months of receipt.

Export Control

For customers in Japan

For products which are controlled items subject to the "Foreign Exchange and Foreign Trade Law" of Japan, the export license specified by the law is required for export.

For customers outside Japan

EMI-RFI Filters should not be used or sold for use in the development, production, stockpiling, or utilization of any conventional weapons or mass-destructive weapons (nuclear weapons, chemical or biological weapons, or missiles), or any other weapons.



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Although KEMET designs and manufactures its products to the most stringent quality and safety standards, given the current state of the art, isolated component failures may still occur. Accordingly, customer applications which require a high degree of reliability or safety should employ suitable designs or other safeguards (such as installation of protective circuitry or redundancies) in order to ensure that the failure of an electrical component does not result in a risk of personal injury or property damage.

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

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