GL Inlet Single-Phase Filters

Overview

The KEMET GL compact inlet filters cover single-phase requirements with a wide variety of characteristics. These filters are optimized for both common and normal mode noise.

Applications

- Industrial equipment
- Electronic equipment
- Audiovisual system

Benefits

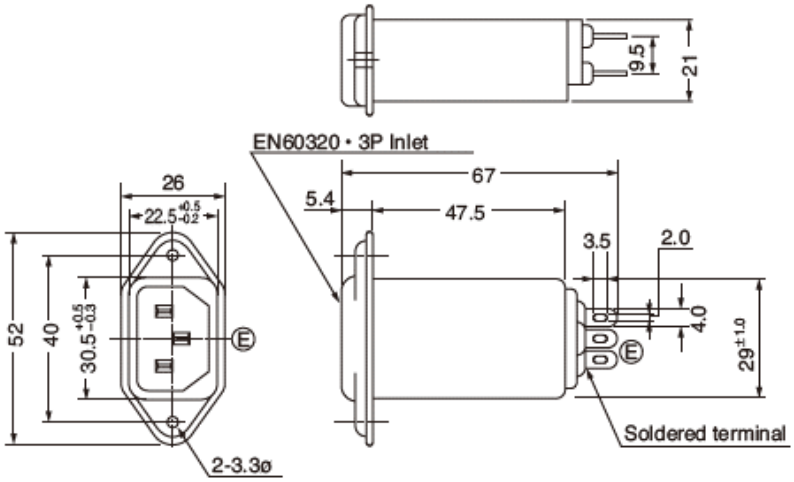
- Single-phase
- Operating temperature range from −25°C to +55°C
- UL and CAS or UL, CSA, and TÜV, or TÜV approved versions available
- RoHS compliant

Part Number System

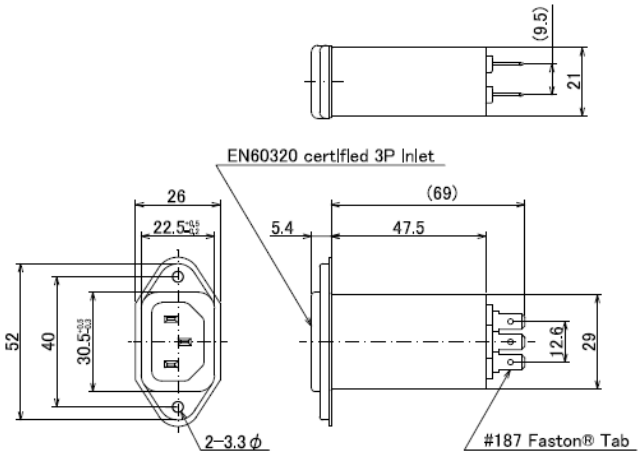
GL-	2	03	0C	-10
Series	Phase	Rated Current (A)	Specification	Terminal Type
GL	2 = Single-phase	0x = 0x A xx = xx A	0C = Standard 0C1 = Without Cy capacitor 0C2 = High performance at low frequency 0C3 = High performance at high frequency 0C4 = with Cx capacitor 0.082 µF 0E = Downward terminal 0ET = Downward terminal, without Cy capacitor 0F = Compact 0FV = Squeeze case 0H2 = With fuse 0M = High performance at low frequency	Blank = Solder terminal -10 = Solder terminal -20 = Faston terminal #187 -30 = Faston terminal #250

Dimensions – Millimeters

GL-***0C* (expcept GL-2150C-20, GL-2060C-30)



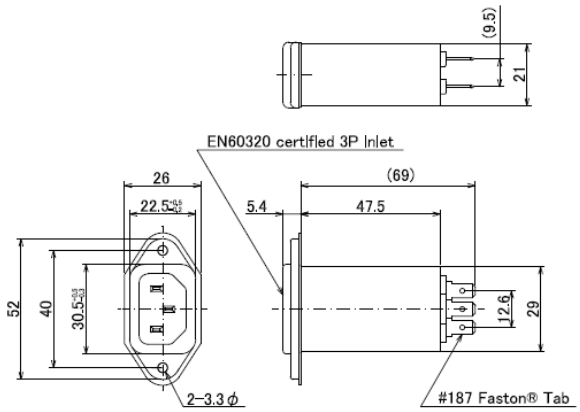
GL-2150C-20



Faston® is a registered trademark of Tyco Electronics AMP.

Dimensions – Millimeters cont.

GL-2150C-20



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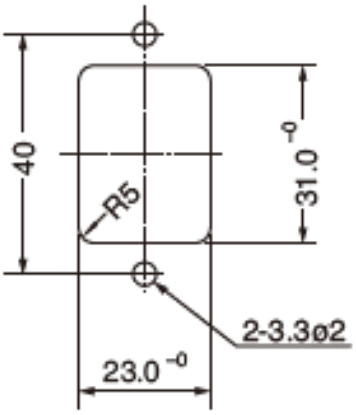
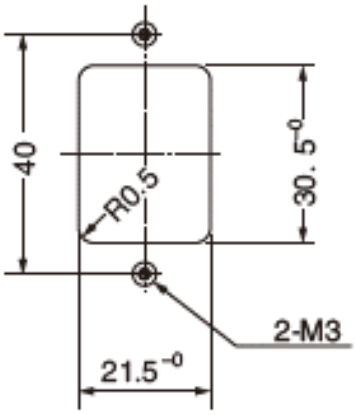
GL-2060C-30 Installation Reference

1) For rear panel installation



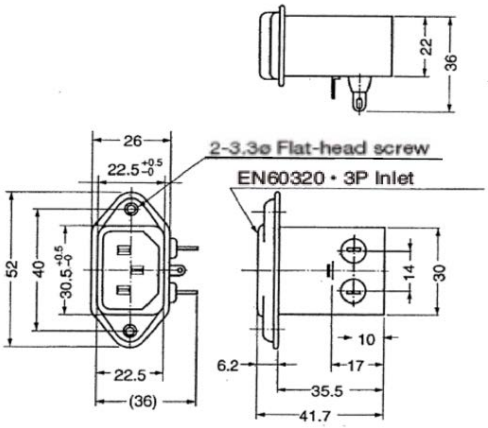
2) For front panel installation



Recommended torque (N-m) maximum
• Panel installation (M3: 0.78)

Dimensions – Millimeters cont.

GL-2**0E*



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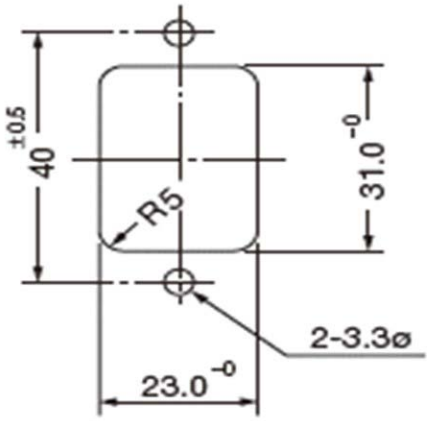
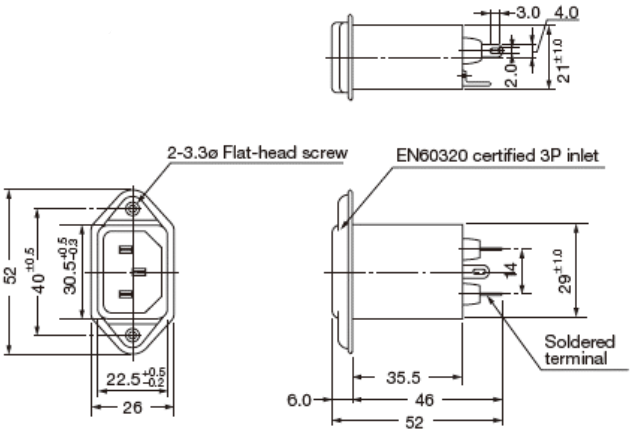
GL-2**0E* Installation Reference
1) For rear panel installation



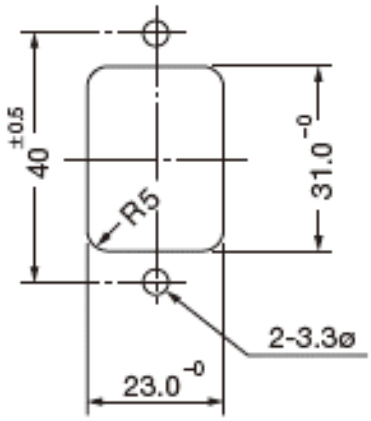
Dimensions – Millimeters cont.

GL-2**0F

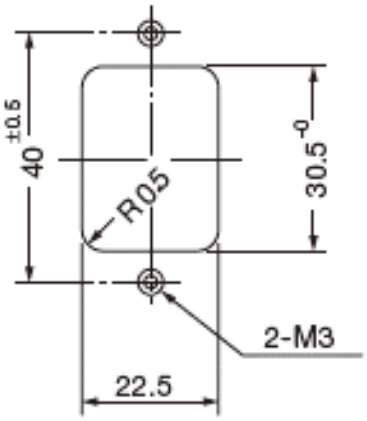


GL-2**0F Installation Reference

1) For rear panel installation



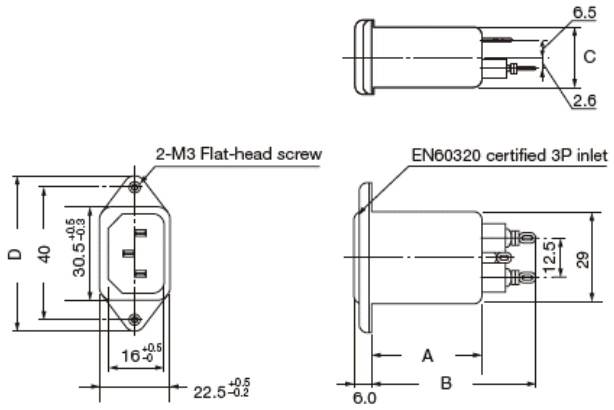
2) For front panel installation



Recommended torque (N-m) maximum
• Panel installation (M3: 0.78)

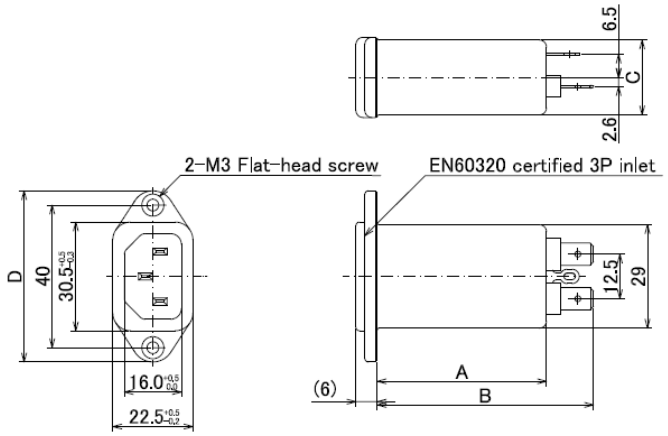
Dimensions – Millimeters cont.

GL-2**0FV-10



Part Number	A	B	C	D
GL-2**0FV-10	35.5	50.0	21.0	50.0

GL-2**0FV-30

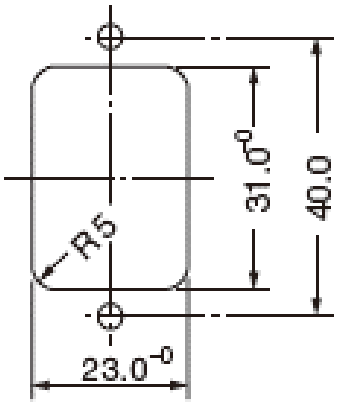


Part Number	A	B	C	D
GL-2**0FV-30	35.5	50.0	21.0	50.0

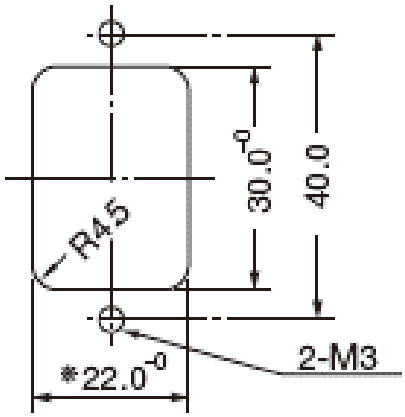
Dimensions – Millimeters cont.

GL-2**0FV-30 Installation Reference

1) For rear panel installation

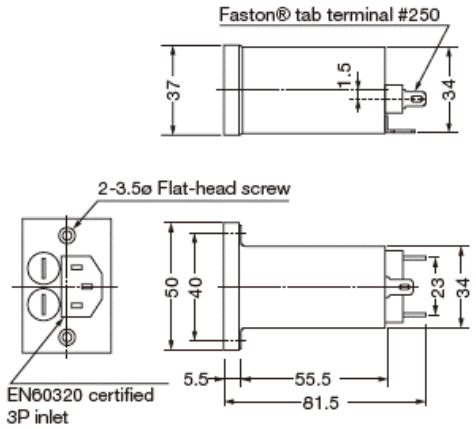


2) For front panel installation



Recommended torque (N-m) maximum
• Panel installation (M3: 0.78)

GL-2**0H2



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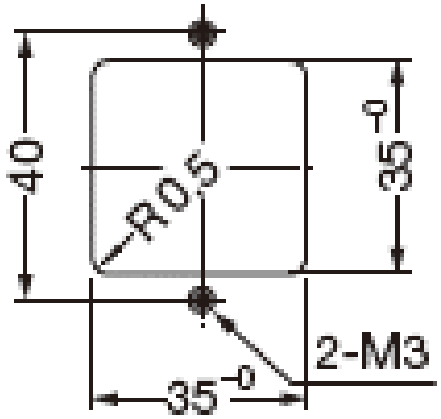
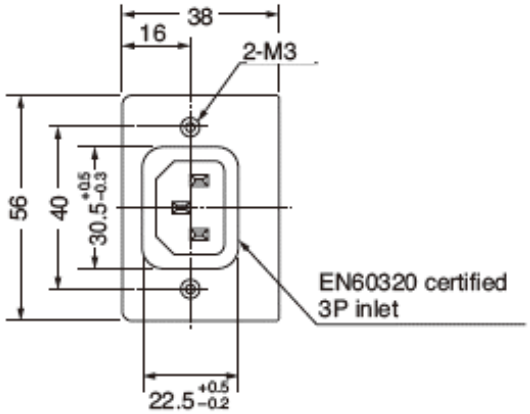
Dimensions – Millimeters cont.

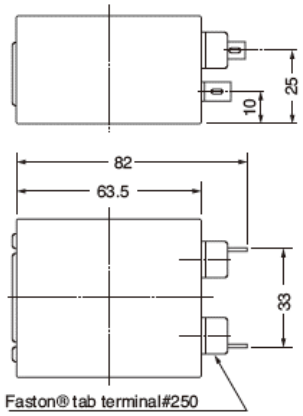
GL-2**0H2 Installation Reference
1) For front panel installation



Recommended torque (N-m) maximum
• Panel installation (M3: 0.50)

GL-2**0M





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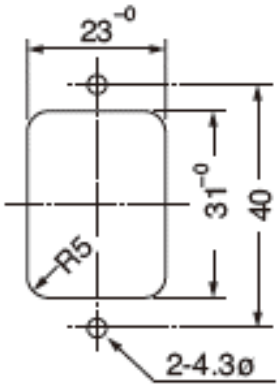
Dimensions – Millimeters cont.

GL-20M Installation Reference**
1) For rear panel installation



Recommended torque (N-m) maximum
• Panel installation (M3: 0.735)

Environmental Compliance

All KEMET EMI-RFI Filters are RoHS compliant.

Performance Characteristics

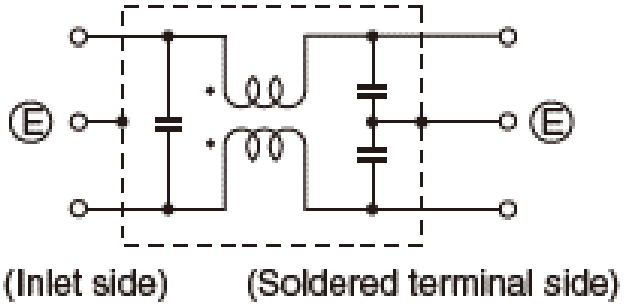
Item	Performance Characteristics
Rated Voltage	250 V
Rated Current Range	3 – 15 A
Withstanding Voltage	1,500 VAC (1 minute, line to ground)
Insulation Resistance	300 MΩ minimum at 500 VDC (1 minute, line to ground)
Leakage Current Range	0.005 – 0.500 mA at 250 V/60 Hz maximum
Input/Output Terminal Type	Inlet Solder terminal and Inlet Faston
Operating Temperature Range	–25°C to +55°C (not including self temperature rise)

Table 1 – Ratings & Part Number Reference

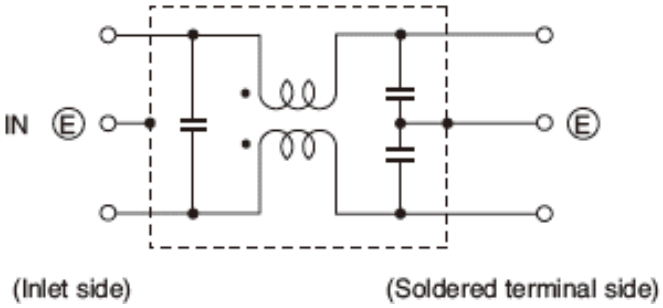
Part Number	Phase	Rated Voltage AC/DC (V)	Rated Current AC/DC (A)	Leakage Current at 250 V/60 Hz (mA) Maximum	Temperature Rise (K) Maximum	Operating Temperature Range	Terminal Type	Approval	Weight (g)
GL-2030C-10	Single-phase	250	3	0.500	30	−25°C to +55°C	Solder terminal	UL, CSA, and TÜV	55
GL-2030C2	Single-phase	250	3	0.500	30	−25°C to +55°C	Solder terminal	UL, CSA, and TÜV	55
GL-2030C3	Single-phase	250	3	0.500	30	−25°C to +55°C	Solder terminal	UL, CSA, and TÜV	55
GL-2060C-10	Single-phase	250	6	0.500	30	−25°C to +55°C	Solder terminal	UL, CSA, and TÜV	55
GL-2060C-20	Single-phase	250	6	0.500	30	−25°C to +55°C	Faston (#187)	UL, CSA, and TÜV	50
GL-2060C3	Single-phase	250	6	0.500	30	−25°C to +55°C	Solder terminal	UL, CSA, and TÜV	55
GL-2080C4	Single-phase	250	8	0.500	30	−25°C to +55°C	Solder terminal	UL, CSA, and TÜV	55
GL-2100C	Single-phase	250	10	0.500	30	−25°C to +55°C	Solder terminal	UL, CSA, and TÜV	55
GL-2100C1	Single-phase	250	10	0.500	30	−25°C to +55°C	Solder terminal	UL, CSA, and TÜV	53
GL-2150C-10	Single-phase	250	15	0.500	30	−25°C to +55°C	Solder terminal	UL, CSA, and TÜV	55
GL-2150C-30	Single-phase	250	15	0.500	30	−25°C to +55°C	Faston (#250)	UL, CSA, and TÜV	55
GL-2030E	Single-phase	250	3	0.500	30	−25°C to +55°C	Solder terminal	UL, CSA, and TÜV	40
GL-2030ET	Single-phase	250	3	0.005	30	−25°C to +55°C	Solder terminal	UL and CSA	35
GL-2030F	Single-phase	250	3	0.500	30	−25°C to +55°C	Solder terminal	UL, CSA, and TÜV	40
GL-2060F	Single-phase	250	6	0.500	30	−25°C to +55°C	Solder terminal	UL, CSA, and TÜV	40
GL-2030FV-10	Single-phase	250	3	0.500	30	−25°C to +55°C	Solder terminal	UL, CSA, and TÜV	40
GL-2060FV-10	Single-phase	250	6	0.500	30	−25°C to +55°C	Solder terminal	UL, CSA, and TÜV	40
GL-2030FV-30	Single-phase	250	3	0.500	30	−25°C to +55°C	Faston (#250)	UL, CSA, and TÜV	42
GL-2030H2	Single-phase	250	3	0.500	30	−25°C to +55°C	Faston (#250)	TÜV	90
GL-2060H2	Single-phase	250	6	0.500	30	−25°C to +55°C	Faston (#250)	TÜV	90
GL-2030M	Single-phase	250	3	0.500	30	−25°C to +55°C	Faston (#250)	UL, CSA, and TÜV	200
GL-2060M	Single-phase	250	6	0.500	30	−25°C to +55°C	Faston (#250)	UL, CSA, and TÜV	205
GL-2100M	Single-phase	250	10	0.500	30	−25°C to +55°C	Faston (#250)	UL, CSA, and TÜV	210

Circuit Diagram

GL-20C***

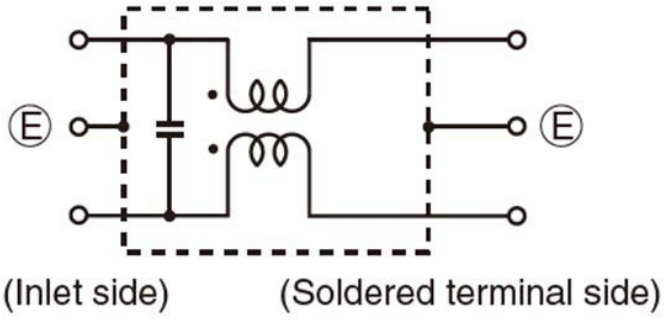


GL-20E**

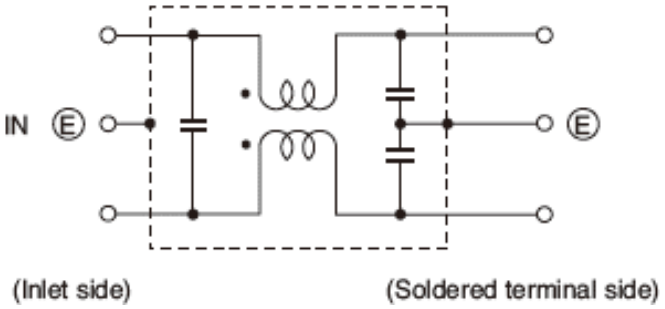


Circuit Diagram cont.

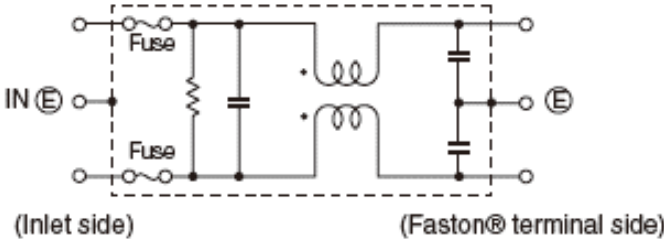
GL-2**0ET



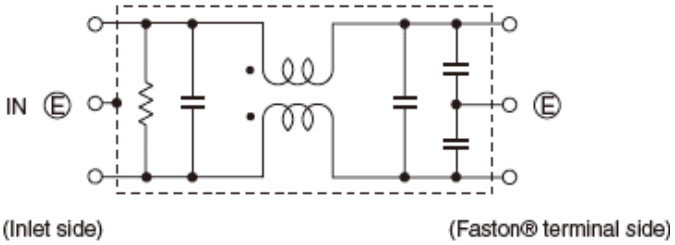
GL-2**0F*



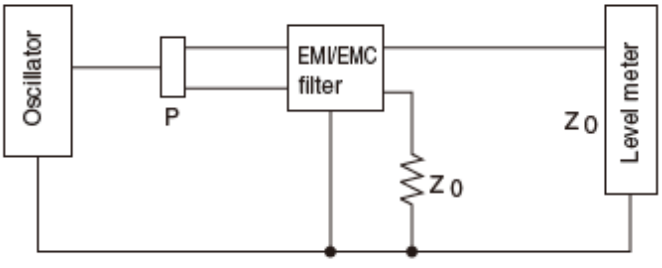
GL-2**0H2



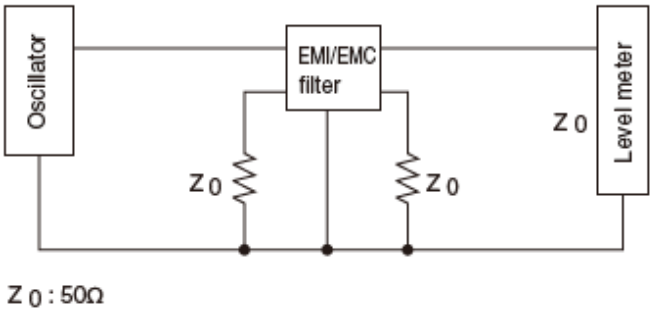
GL-2**0M



Measuring Circuit - Common Mode

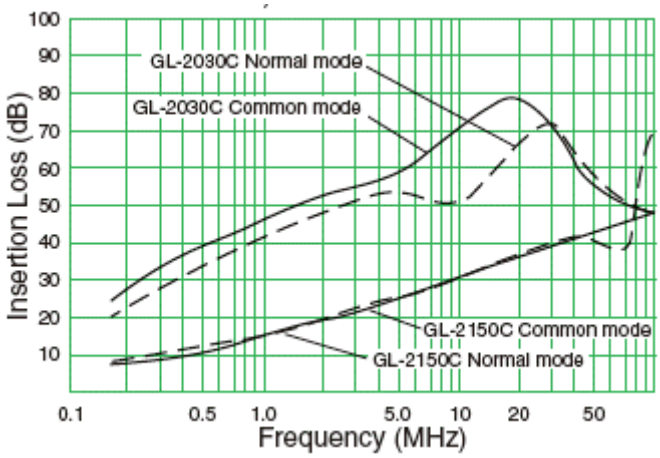


Measuring Circuit - Normal Mode

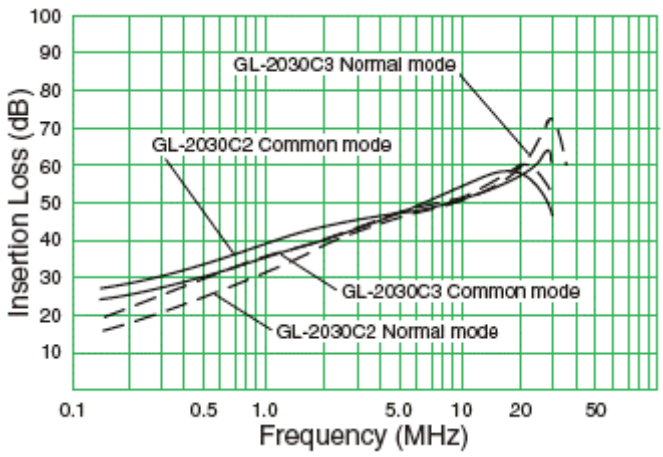


Attenuation (Static Characteristics)

GL-2030C-10, GL-2150C-10, GL-2150C-30



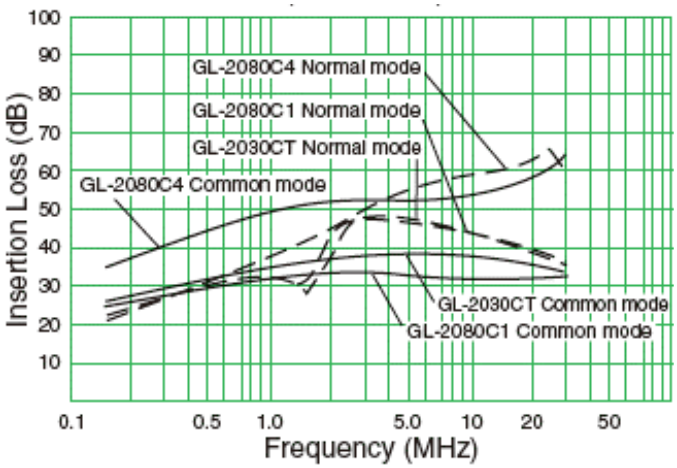
GL-2030C2, GL-2030C3



GL-2060C-10, GL-2060C-20

GL-2060C3

GL-2080C4



GL-2100C

Attenuation (Static Characteristics) cont.

GL-2100C1

GL-2030E

TÜV Rheinland Japan Ltd. Certification Numbers

Part Number	File Number
GL-2030C-10	N° R50013357
GL-2030C2	N° R50013357
GL-2030C3	N° R50013357
GL-2060C-10	N° R50013357
GL-2060C-20	N° R50013357
GL-2060C3	N° R50013357
GL-2080C4	N° R50014166
GL-2100C	N° R50014260
GL-2100C1	N° R50014260
GL-2150C-10	N° R50014261
GL-2150C-30	N° R50014261
GL-2030E	N° R50013349
GL-2030F	N° R50013360
GL-2060F	N° R50013360
GL-2030FV-10	N° R50015850
GL-2030FV-30	N° R50015850
GL-2060FV-10	N° R50015850
GL-2030H2	N° R50015796
GL-2060H2	N° R50015796
GL-2030M	N° R50013384
GL-2060M	N° R50013384
GL-2100M	N° R50013384

Packaging

Part Type	Packaging Type	Pieces per Box
GL-2**0C*	Tray	25
GL-2**0E*		40
GL-2**0F		25
GL-2**0FV*		25
GL-2**0H2		20
GL-2**0M		16

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.

KEMET Electronics Corporation Sales Offices

For a complete list of our global sales offices, please visit www.kemet.com/sales.

Disclaimer

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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.