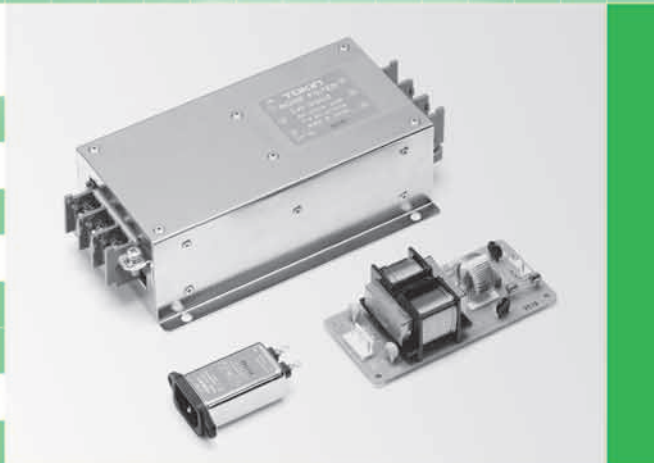




Noise Filters

NOISE FILTERS



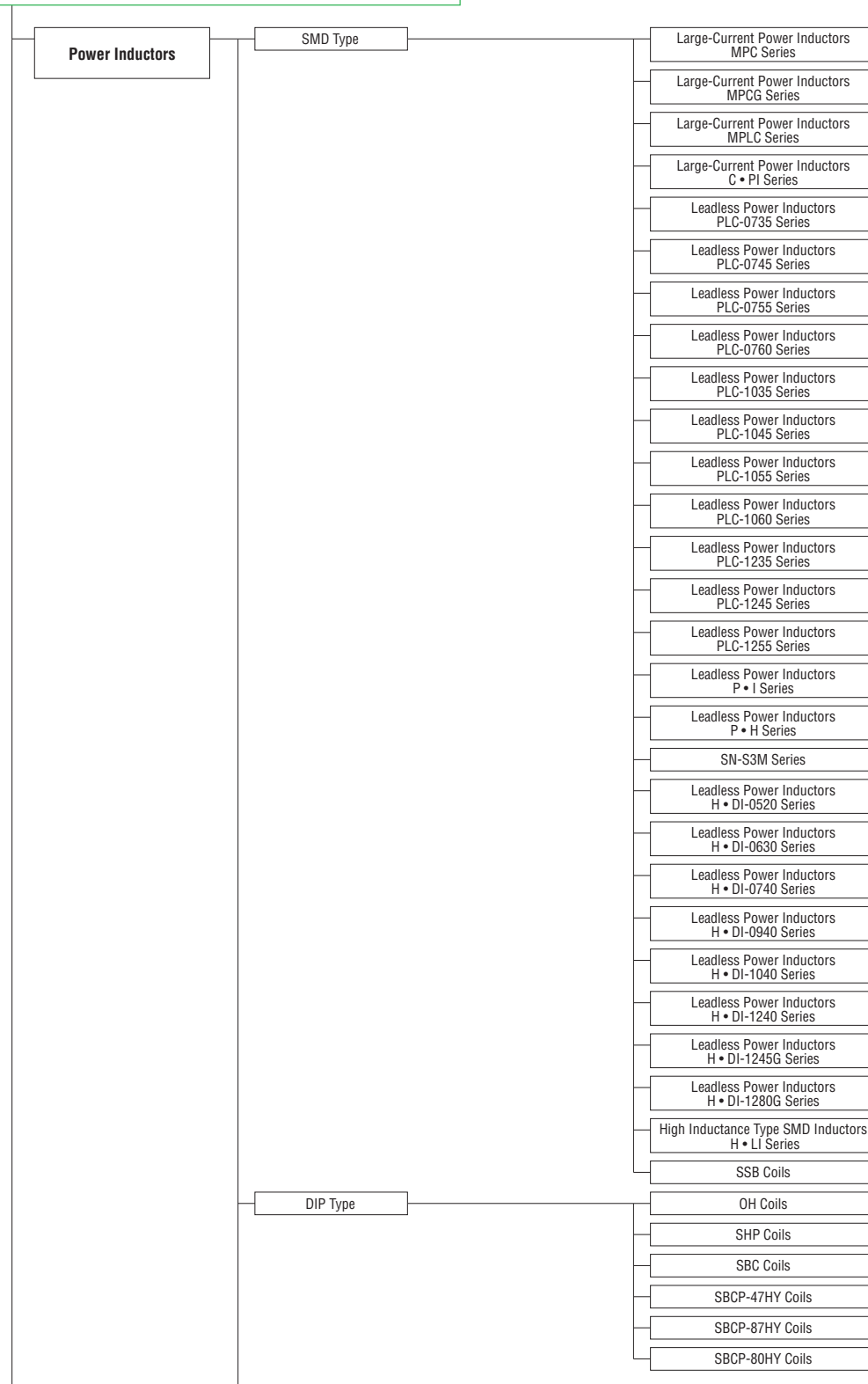
- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

Contents

| | |
|--|----|
| Classification of NEC TOKIN's EMI suppression parts | 3 |
| Casing Type | |
| New Products | |
| LF-SF Series Three-Phase Type | 8 |
| GT-SF Series Single-Phase Type | 9 |
| Metal box | |
| LF Series Small Current Type | 10 |
| LF Series Small Current Type with Screw Terminal | 11 |
| LF Series Screw Terminal Type | 13 |
| LF Series Large Current Type | 15 |
| LF Series Three-Phase Type | 16 |
| LF Series For Inverters | 18 |
| LF Series Compliance with CE Marking (LF-3000 Series) .. | 21 |
| LH Series Low-Frequency Inverters | 23 |
| LH Series Compliance with CE Marking (LH-4 Series) | 25 |
| HFP Series | 26 |
| GT Series Screw Terminal | 28 |
| GT Series Faston Terminal | 30 |
| GT Series For VCCI | 32 |
| GF Series | 33 |
| Metal cylinder | |
| VU Series | 34 |
| VC Series | 36 |
| VG-FPZ Series for inverter installed home appliances' surge control .. | 37 |
| RG Series | 38 |
| Plastic box | |
| MR Series | 40 |
| MA Series | 42 |
| Inlet Type | |
| GL Series C Type | 43 |
| GL Series F, FV, FVP Type | 45 |
| GL Series H Type | 47 |
| GL Series M Type | 49 |
| | |
| TÜV Rheinland Japan Ltd. Certification Numbers | 50 |



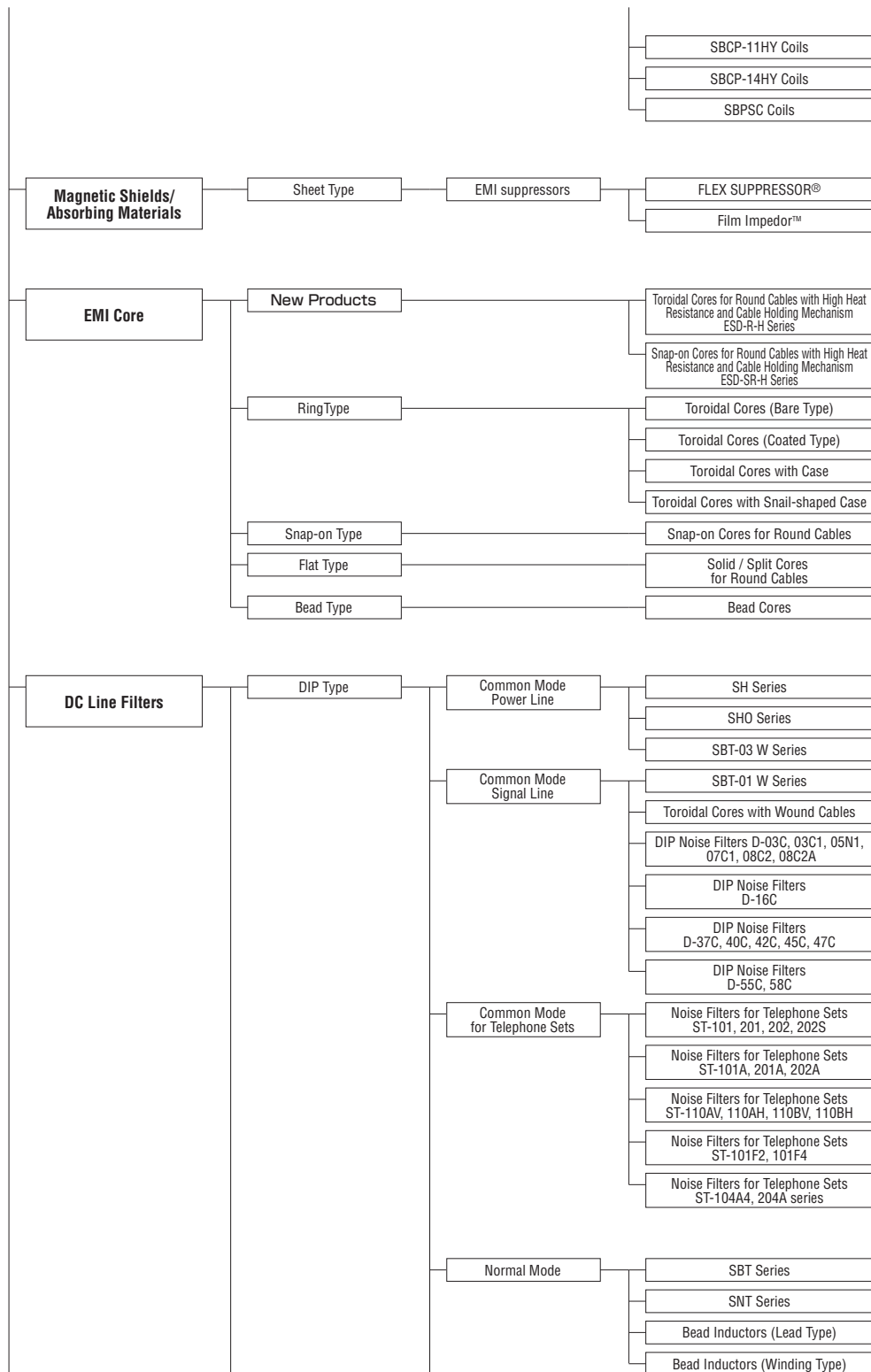
- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.



(Continued)



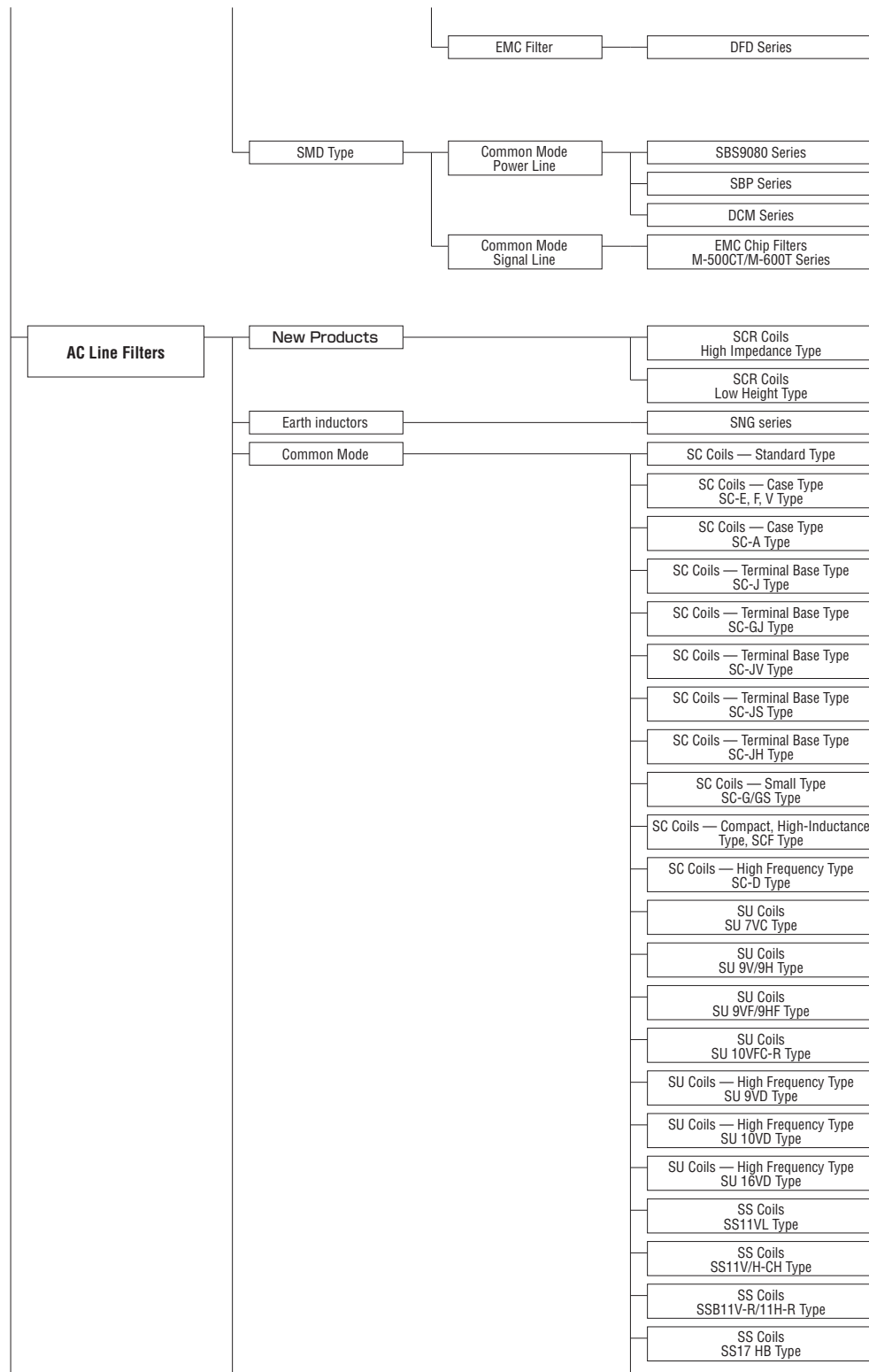
- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.



(Continued)



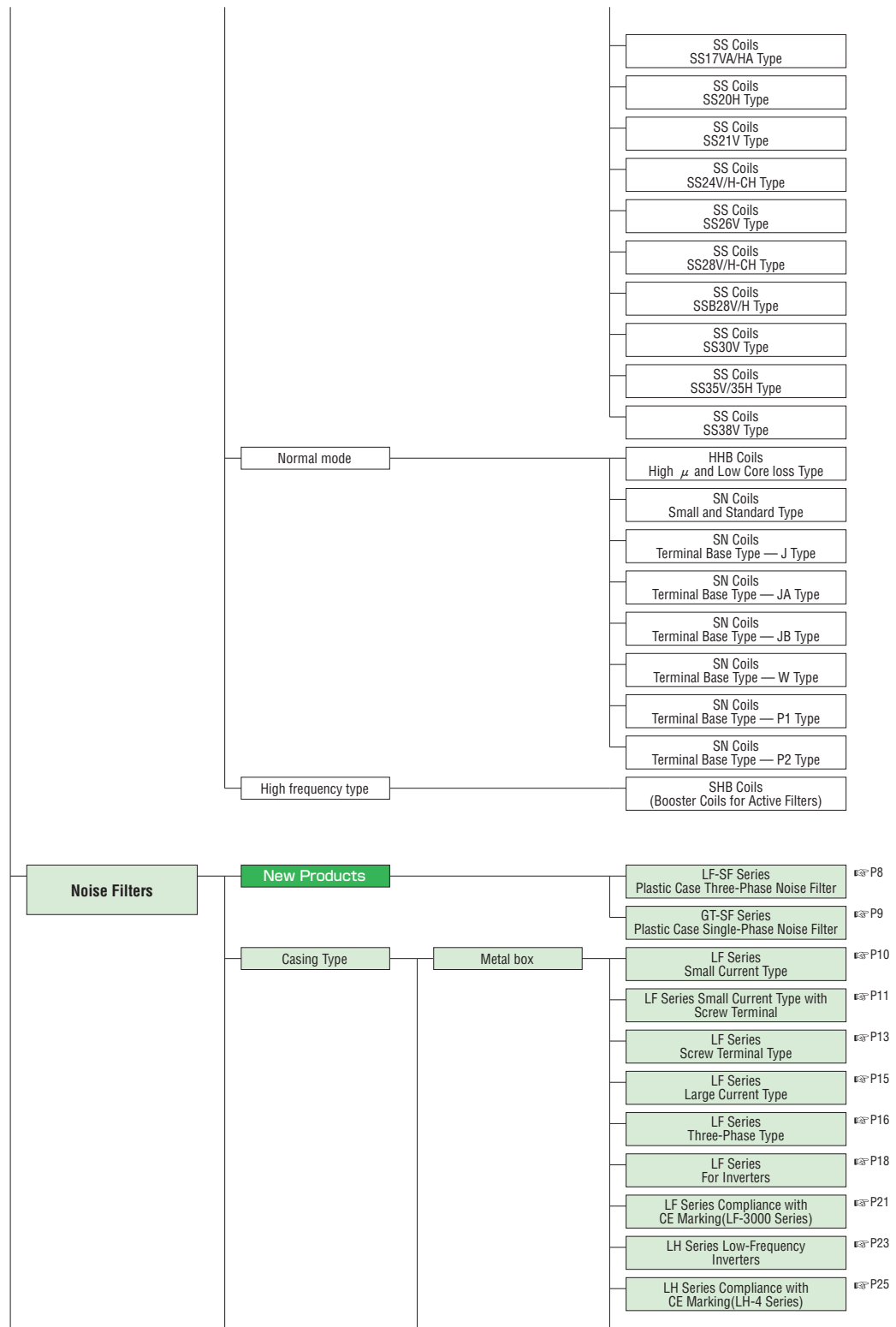
- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.



(Continued)



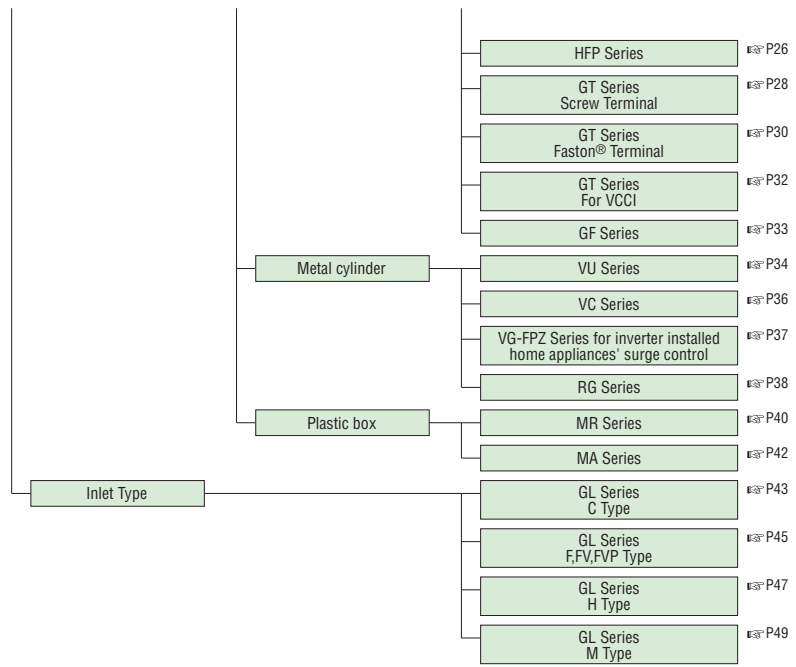
- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.



(Continued)



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

Plastic Case Three-Phase Noise Filter

LF-SF Series

[RoHS Compliant]



Features

- Plastic shell of the product eliminates resin filling (weight reduction)
- DIN rail installation types available
- Featuring mechanism of self-jump-up to prevent loss of screw (easy to install)
- Safety cover integrating contact terminal

Applications

- Industrial equipment, machine tools

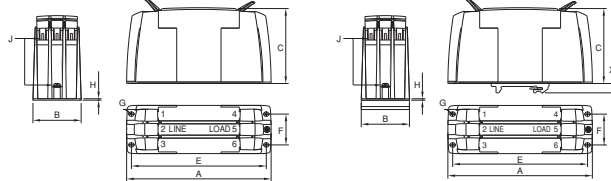
| Model ※1 | Rated voltage AC/DC(V) | Rated current AC/DC(A) | Withstanding voltage 2 sec., line to ground AC(V) | Insulation resistance 500VDC 1 min., line to ground (MΩ)min. | Leakage current 380V/50Hz, (mA)max. | Self-temperature rise (K)max. | Operating temperature range (°C) | Certified standard | Weight (g) ※2 |
|-----------------|---------------------------|---------------------------|---|---|---|-------------------------------------|---|-----------------------|---------------------|
| LF-3100SF-10/20 | 520 | 10 | 3000 | 6000 | 0.48 | 50 | -25~+100 | UL, CSA, ENEC14 | 520 / 540 |
| LF-3200SF-10/20 | 520 | 20 | 3000 | 6000 | 0.48 | 50 | -25~+100 | UL, CSA, ENEC14 | 520 / 540 |
| LF-3300SF-10/20 | 520 | 30 | 3000 | 6000 | 0.48 | 50 | -25~+100 | UL, CSA, ENEC14 | 520 / 540 |
| LF-3500SF-10/20 | 520 | 50 | 3000 | 6000 | 0.48 | 50 | -25~+100 | UL, CSA, ENEC14 | 950 / 960 |

※1: Model names ending with "10" indicate normal types, and those ending with "20" indicate DIN rail types. ※2: Normal type / DIN rail type (DIN rails not included in the products)

Shape and Dimensions

● LF-3**0SF-10(Normal type)

● LF-3**0SF-20(DIN rail type)

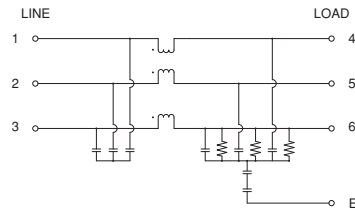


*Recommended torque (N·m) max. ◆Line terminal (M4: 1.20, M5: 2.20) ◆Earth terminal (M4: 1.20, M5: 2.20)

| Model | A | B | C | E | F | G | H | J | X |
|-------------------------|-----|----|----|-----|----|---------|-----|----|-----|
| Normal type 10,20,30A | 150 | 50 | 78 | 140 | 32 | 4.3x5.5 | 1.5 | M4 | |
| Normal type 50A | 177 | 65 | 84 | 162 | 44 | 5.3x6.5 | 1.5 | M5 | |
| DIN rail type 10,20,30A | 150 | 50 | 78 | 140 | 32 | 4.3x5.5 | 1.5 | M4 | 9.7 |
| DIN rail type 50A | 177 | 65 | 84 | 162 | 44 | 5.3x6.5 | 1.5 | M5 | 9.7 |

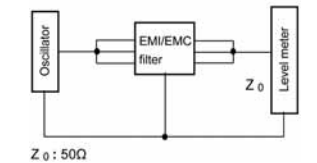
[mm]

Circuit Diagram

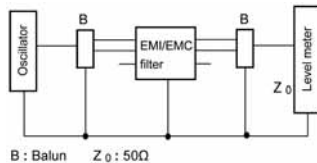


Measuring Circuit

● Common mode

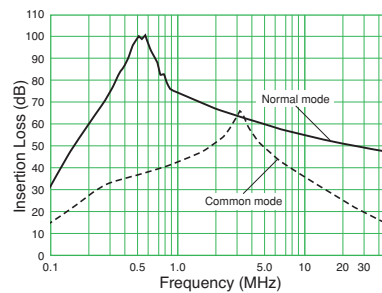


● Normal mode



Attenuation(Static Characteristics)

Representative example: 50A



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

Plastic Case Single-Phase Noise Filter

GT-SF Series

[RoHS Compliant]



Features

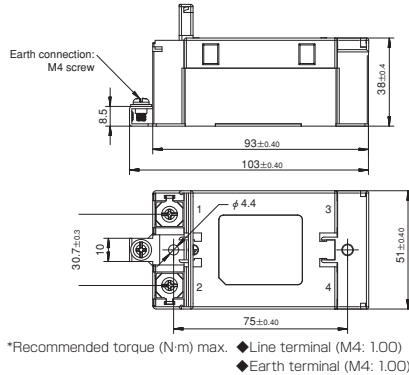
- Plastic shell of the product eliminates resin filling (weight reduction)
- DIN rail installation types available
- Featuring mechanism of self-jump-up to prevent loss of screw (easy to install)
- Safety cover integrating contact terminal

Applications

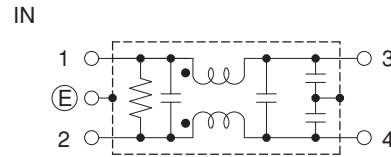
- Industrial equipment, electronic devices

| Model ※1 | Rated voltage AC/DC(V) | Rated current AC/DC(A) | Withstanding voltage 2 sec., line to ground AC(V) | Insulation resistance 500VDC 1 min., line to ground (MΩ)min. | Leakage current 250V/50Hz, (mA)max. | Self-temperature rise (K)max. | Operating temperature range (°C) | Certified standard | Weight (g) ※2 |
|--------------|---------------------------|---------------------------|---|---|---|----------------------------------|-------------------------------------|--------------------|------------------|
| GT-2060SF-10 | 250 | 6 | 2500 | 6000 | 0.56 | 45 | -25~+100 | cCSAus,ENEC14 | 210 |
| GT-2100SF-10 | 250 | 10 | 2500 | 6000 | 0.56 | 45 | -25~+100 | cCSAus,ENEC14 | 220 |
| GT-2160SF-10 | 250 | 16 | 2500 | 6000 | 0.56 | 45 | -25~+100 | cCSAus,ENEC14 | 220 |
| GT-2200SF-10 | 250 | 20 | 2500 | 6000 | 0.56 | 45 | -25~+100 | cCSAus,ENEC14 | 220 |

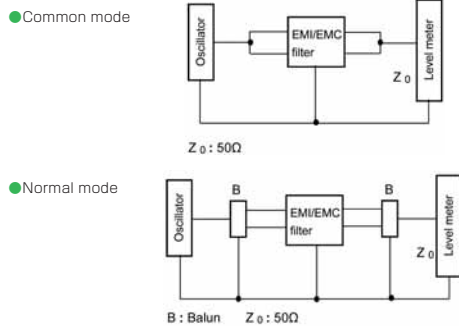
Shape and Dimensions



Circuit Diagram

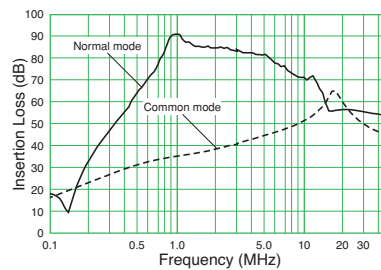


Measuring Circuit



Attenuation(Static Characteristics)

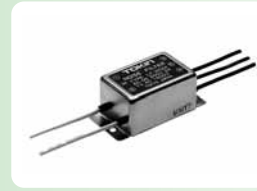
Representative example: 20A



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

LF Series Small Current Type

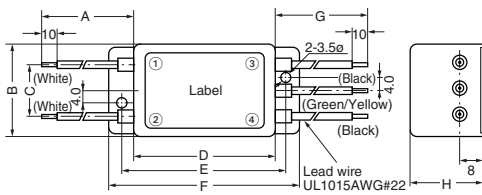
[RoHS Compliant]



| Model | Rated voltage AC/DC (V) | Rated current AC/DC (A) | Withstanding voltage 1 min., line to ground AC (V) | Insulation resistance 500VDC 1 min., line to ground (MΩ) min. | Leakage current 250V/60Hz, (mA) max. | Voltage drop 50Hz, (V) max. | Self-temperature rise (K) max. | Operating temperature range (°C) | Certified standard | Weight (g) |
|-----------|-------------------------|-------------------------|--|---|--------------------------------------|-----------------------------|--------------------------------|----------------------------------|--------------------|------------|
| LF-202A | 250 | 2 | 1500 | 300 | 1 | 1.5 | 30 | -20 to +55 | | 95 |
| LF-202U-1 | 250 | 2 | 1500 | 300 | 1 | 1.5 | 30 | -20 to +55 | UL | 95 |

Shape and Dimensions

●LF-202A, LF-202U-1

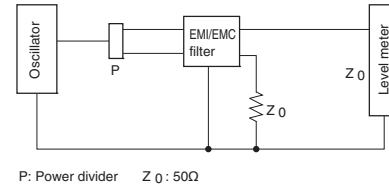


| Model | A | B | C | D | E | F | G | H |
|-----------|-----|----|----|----|----|----|-----|----|
| LF-202A | 100 | 32 | 17 | 48 | 56 | 64 | 100 | 25 |
| LF-202U-1 | 200 | 32 | 17 | 48 | 56 | 64 | 200 | 25 |

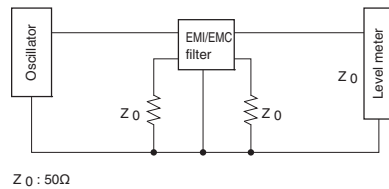
[mm]

Measuring Circuit

●Common mode

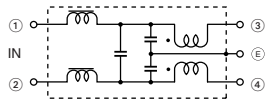


●Normal mode

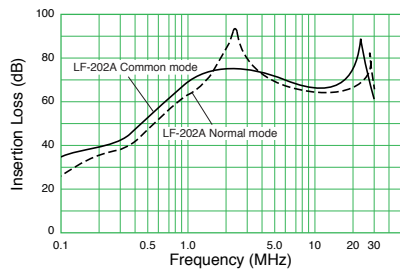


Circuit Diagram

●LF-200 Series



Attenuation (Static Characteristics)



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

LF Series Small Current Type with Screw Terminal

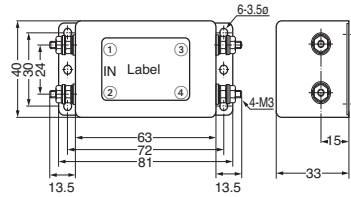
[RoHS Compliant]



| Model | Rated voltage AC/DC (V) | Rated current AC/DC (A) | Withstanding voltage 1 min., line to ground AC (V) | Insulation resistance 500VDC 1 min., line to ground (MΩ) min. | Leakage current 250V/60Hz, (mA) max. | Voltage drop 50Hz, (V) max. | Self-temperature rise (K) max. | Operating temperature range (°C) | Certified standard | Weight (g) |
|---------|-------------------------|-------------------------|--|---|--------------------------------------|-----------------------------|--------------------------------|----------------------------------|--------------------|------------|
| LF-205A | 250 | 5 | 1500 | 300 | 1 | 1.5 | 30 | -20 to +55 | | 170 |
| LF-205P | 250 | 5 | 2000 | 300 | 1 | 1.5 | 30 | -20 to +55 | | 170 |
| LF-210 | 250 | 10 | 1500 | 300 | 1 | 1.5 | 30 | -20 to +55 | UL | 590 |
| LF-215 | 250 | 15 | 1500 | 300 | 1 | 1.5 | 30 | -20 to +55 | | 620 |
| LF-215U | 250 | 15 | 1500 | 300 | 1 | 1.5 | 30 | -20 to +55 | UL | 620 |
| LF-210N | 250 | 10 | 1500 | 300 | 1 | 1.5 | 30 | -20 to +55 | | 650 |
| LF-210P | 250 | 10 | 2000 | 300 | 1 | 1.5 | 30 | -20 to +55 | | 590 |
| LF-215N | 250 | 15 | 1500 | 300 | 1 | 1.5 | 30 | -20 to +55 | | 650 |
| LF-215P | 250 | 15 | 2000 | 300 | 1 | 1.5 | 30 | -20 to +55 | | 620 |

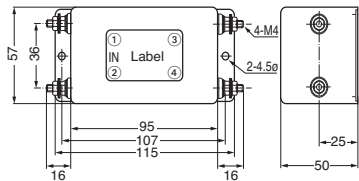
Shape and Dimensions

●LF-205A, LF-205P



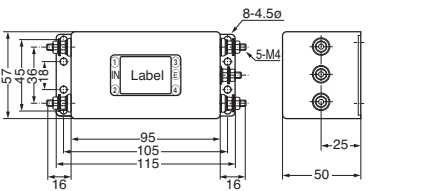
*Recommended torque (N·m) max. ◆Line terminal (M3: 0.49)

●LF-215U



*Recommended torque (N·m) max. ◆Line terminal (M4: 0.78)

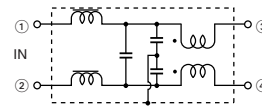
●LF-210, 210N, 210P, LF-215, 215N, 215P



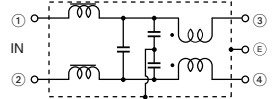
*Recommended torque (N·m) max. ◆Line terminal (M4: 0.78) ◆Earth terminal (M4: 1.18) [mm]

Circuit Diagram

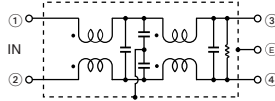
●LF-205A, 205P, 215U



●LF-210, 215, 210P, 215P



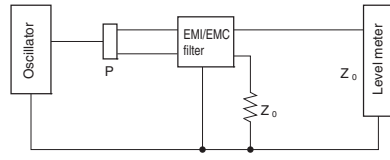
●LF-210N, 215N



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

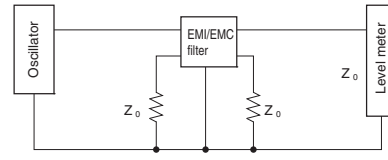
Measuring Circuit

● Common mode



P: Power divider $Z_0: 50\Omega$

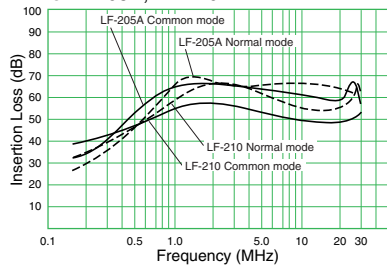
● Normal mode



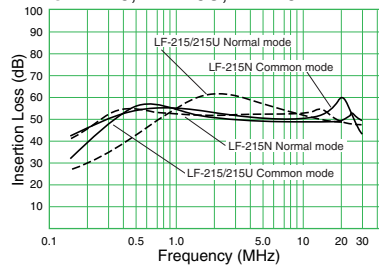
$Z_0: 50\Omega$

Attenuation (Static Characteristics)

● LF-205A, LF-210



● LF-215, LF-215U, LF-215N



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

LF Series

Screw Terminal Type

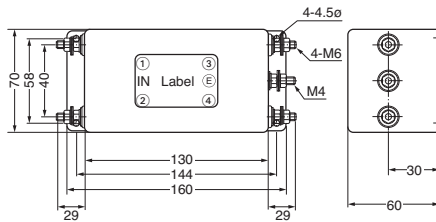
[RoHS Compliant]



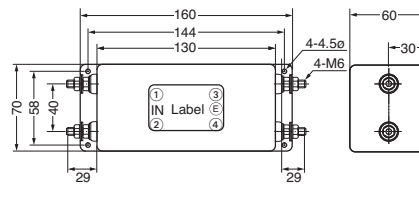
| Model | Rated voltage AC/DC (V) | Rated current AC/DC (A) | Withstanding voltage 1 min., line to ground AC (V) | Insulation resistance 500VDC 1 min., line to ground (MΩ) min. | Leakage current 250V/60Hz, (mA) max. | Voltage drop 50Hz, (V) max. | Self-temperature rise (K) max. | Operating temperature range (°C) | Certified standard | Weight (kg) |
|----------|-------------------------|-------------------------|--|---|--------------------------------------|-----------------------------|--------------------------------|----------------------------------|--------------------|-------------|
| LF-220 | 250 | 20 | 1500 | 300 | 1 | 1.5 | 30 | -20 to +55 | | 1.2 |
| LF-230 | 250 | 30 | 1500 | 300 | 1 | 1.5 | 30 | -20 to +55 | | 1.2 |
| LF-230FU | 250 | 30 | 1500 | 300 | 1 | 1.5 | 30 | -20 to +55 | UL | 1.2 |
| LF-220N | 250 | 20 | 1500 | 300 | 1 | 1.5 | 30 | -20 to +55 | | 1.2 |
| LF-220P | 250 | 20 | 2000 | 300 | 1 | 1.5 | 30 | -20 to +55 | | 1.2 |
| LF-230N | 250 | 30 | 1500 | 300 | 1 | 1.5 | 30 | -20 to +55 | | 1.2 |
| LF-230P | 250 | 30 | 2000 | 300 | 1 | 1.5 | 30 | -20 to +55 | | 1.2 |

Shape and Dimensions

●LF-220, 220N, 220P, LF-230, 230N, 230P



●LF-230FU

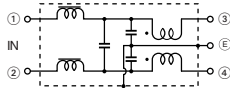


*Recommended torque (N·m) max. ◆Line terminal (M6: 1.1B) ◆Earth terminal (M4: 1.1B)

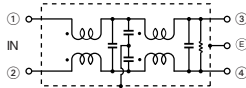
[mm]

Circuit Diagram

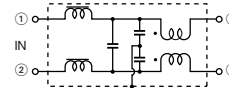
●LF-220, 220P, 230, 230P



●LF-220N, 230N Series

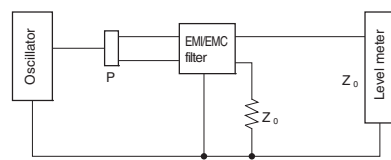


●LF-230FU



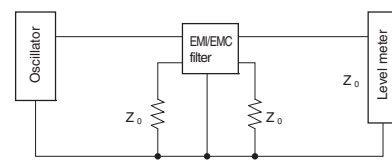
Measuring Circuit

●Common mode



P: Power divider Z₀: 50Ω

●Normal mode

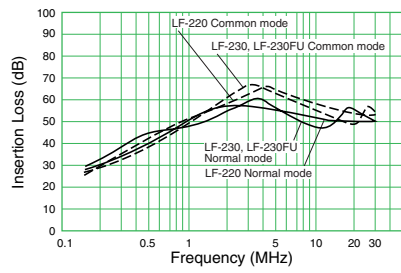


Z₀: 50Ω



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

Attenuation (Static Characteristics)



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

LF Series

Large Current Type

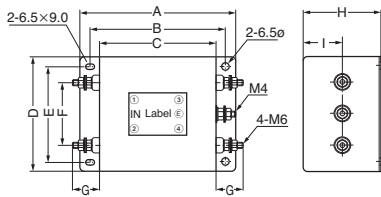
[RoHS Compliant]



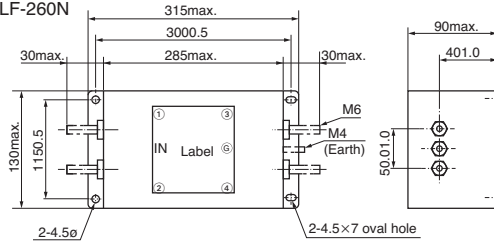
| Model | Rated voltage AC/DC (V) | Rated current AC/DC (A) | Withstanding voltage 1 min., line to ground AC (V) | Insulation resistance 500VDC 1 min., line to ground (MΩ) min. | Leakage current 250V/60Hz, (mA) max. | Voltage drop 50Hz, (V) max. | Self-temperature rise (K) max. | Operating temperature range (°C) | Certified standard | Weight (kg) |
|---------|-------------------------|-------------------------|--|---|--------------------------------------|-----------------------------|--------------------------------|----------------------------------|--------------------|-------------|
| LF-240 | 250 | 40 | 1500 | 300 | 1 | 1.5 | 40 | -20 to +45 | | 3.2 |
| LF-240P | 250 | 40 | 2000 | 300 | 1 | 1.5 | 40 | -20 to +45 | | 3.2 |
| LF-250 | 250 | 50 | 1500 | 300 | 1 | 1.5 | 40 | -20 to +45 | | 4.0 |
| LF-250P | 250 | 50 | 2000 | 300 | 1 | 1.5 | 40 | -20 to +45 | | 4.0 |
| LF-260N | 250 | 60 | 1500 | 300 | 1 | 1.5 | 30 | -20 to +55 | | 6.5 |
| LF-240U | 250 | 40 | 1500 | 300 | 1 | 1.5 | 40 | -20 to +45 | UL | 3.2 |

Shape and Dimensions

● LF-240/240P/240U, LF-250/250P



● LF-260N



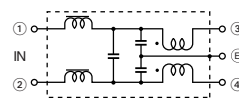
*Recommended torque (N·m) max. ◆Line terminal (M6: 1.18) ◆Earth terminal (M4: 1.18)

| Model | A | B | C | D | E | F | G | H | I |
|-------------|-----|-----|-----|-----|-----|----|----|----|----|
| LF-240/240P | 210 | 190 | 170 | 120 | 100 | 60 | 29 | 75 | 40 |
| LF-240U | 240 | 220 | 200 | 90 | 70 | 40 | 30 | 80 | 40 |
| LF-250/250P | 240 | 220 | 200 | 90 | 70 | 40 | 30 | 80 | 40 |
| LF-260N | 315 | 300 | 285 | 130 | 115 | 50 | 30 | 90 | 50 |

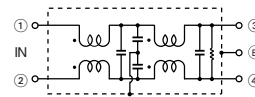
[mm]

Circuit Diagram

● LF-240, 240P, 240U, 250, 250P

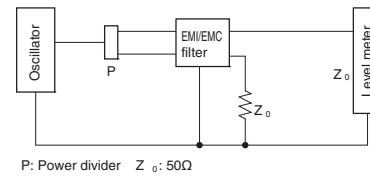


● LF-260N Series



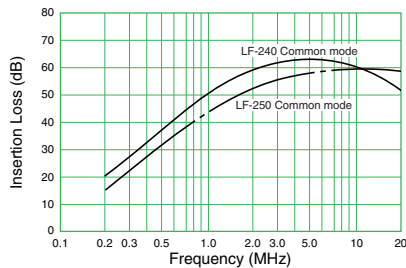
Measuring Circuit

Common mode



P: Power divider Z₀: 50Ω

Attenuation (Static Characteristics)



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

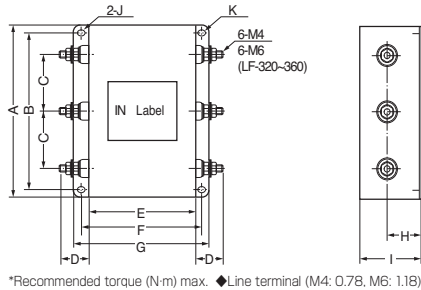
LF Series Three-Phase Type

[RoHS Compliant]



| Model | Rated voltage AC/DC (V) | Rated current AC/DC (A) | Withstanding voltage 1 min., line to ground AC (V) | Insulation resistance 500VDC 1 min., line to ground (MΩ) min. | Leakage current 250V/60Hz, (mA) max. | Voltage drop 50Hz, (V) max. | Self-temperature rise (K) max. | Operating temperature range (°C) | Certified standard | Weight (kg) |
|---------|-------------------------|-------------------------|--|---|--------------------------------------|-----------------------------|--------------------------------|----------------------------------|--------------------|-------------|
| LF-305 | 250 | 5 | 1500 | 300 | 1 | 1.5 | 30 | -20 to +55 | | 0.65 |
| LF-310 | 250 | 10 | 1500 | 300 | 1 | 1.5 | 30 | -20 to +55 | UL | 1.9 |
| LF-315 | 250 | 15 | 1500 | 300 | 1 | 1.5 | 30 | -20 to +55 | | 1.9 |
| LF-320 | 250 | 20 | 1500 | 300 | 1 | 1.5 | 30 | -20 to +55 | | 2.3 |
| LF-320U | 250 | 20 | 1500 | 300 | 1 | 1.5 | 30 | -20 to +55 | UL, CSA | 2.4 |
| LF-330 | 250 | 30 | 1500 | 300 | 1 | 1.5 | 30 | -20 to +55 | UL | 2.4 |
| LF-340 | 250 | 40 | 1500 | 300 | 1 | 1.5 | 40 | -20 to +45 | UL | 5.3 |
| LF-350 | 250 | 50 | 1500 | 300 | 1 | 1.5 | 40 | -20 to +45 | UL | 5.3 |
| LF-360 | 250 | 60 | 1500 | 300 | 1 | 1.5 | 40 | -20 to +45 | | 8.0 |
| LF-305A | 450 | 5 | 2000 | 300 | 2 | 1.5 | 40 | -20 to +45 | | 0.65 |
| LF-310A | 450 | 10 | 2000 | 300 | 2 | 1.5 | 40 | -20 to +45 | | 1.9 |
| LF-315A | 450 | 15 | 2000 | 300 | 2 | 1.5 | 40 | -20 to +45 | | 1.9 |
| LF-320A | 450 | 20 | 2000 | 300 | 2 | 1.5 | 40 | -20 to +45 | UL | 2.3 |
| LF-330A | 450 | 30 | 2000 | 300 | 2 | 1.5 | 40 | -20 to +45 | | 2.4 |
| LF-340A | 450 | 40 | 2000 | 300 | 2 | 1.5 | 40 | -20 to +45 | | 5.3 |
| LF-350A | 450 | 50 | 2000 | 300 | 2 | 1.5 | 40 | -20 to +45 | | 5.3 |

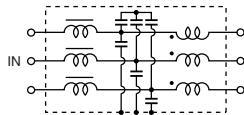
Shape and Dimensions



| Model | A | B | C | D | E | F | G | H | I | J | K |
|--------------|-----|-----|----|----|-----|-----|-----|----|-----|-------|------|
| LF-305, 305A | 120 | 110 | 40 | 25 | 80 | 95 | 110 | 25 | 45 | 4.5×7 | 4.5ø |
| LF-310, 310A | 180 | 170 | 60 | 25 | 120 | 135 | 150 | 35 | 65 | 4.5×7 | 4.5ø |
| LF-315, 315A | 180 | 170 | 60 | 25 | 120 | 135 | 150 | 35 | 65 | 4.5×7 | 4.5ø |
| LF-320, 320A | 180 | 170 | 60 | 29 | 120 | 135 | 150 | 35 | 65 | 4.5×7 | 4.5ø |
| LF-320U | 180 | 170 | 60 | 29 | 120 | 135 | 150 | 35 | 65 | 4.5×7 | 4.5ø |
| LF-330, 330A | 180 | 170 | 60 | 29 | 120 | 135 | 150 | 35 | 65 | 4.5×7 | 4.5ø |
| LF-340, 340A | 180 | 160 | 50 | 30 | 200 | 220 | 240 | 40 | 80 | 6.5×9 | 6.5ø |
| LF-350, 350A | 180 | 160 | 50 | 30 | 200 | 220 | 240 | 40 | 80 | 6.5×9 | 6.5ø |
| LF-360 | 200 | 180 | 60 | 30 | 300 | 320 | 340 | 50 | 100 | 6.5×9 | 6.5ø |

[mm]

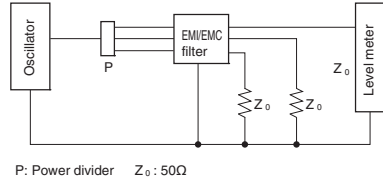
Circuit Diagram



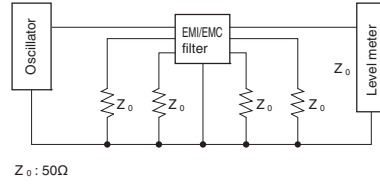
- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

Measuring Circuit

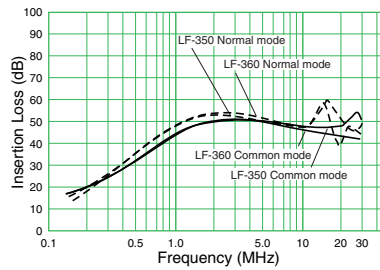
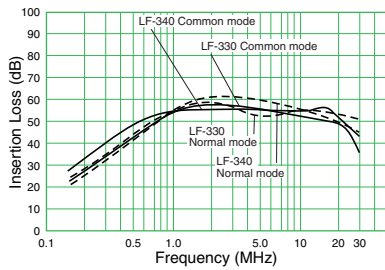
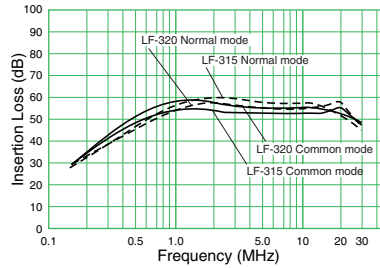
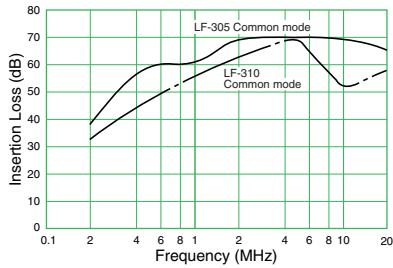
● Common mode



● Normal mode



Attenuation (Static Characteristics)



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

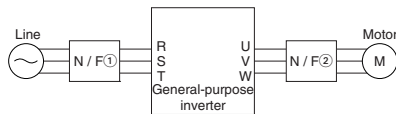
LF Series For Inverters

[RoHS Compliant]




| Model | Rated voltage AC/DC (V) | Rated current AC/DC (A) | Withstanding voltage 1 min., line to ground AC (V) | Insulation resistance 500VDC 1 min., line to ground (MΩ) min. | Leakage current 250V/60Hz, (mA) max. | Operating temperature range (°C) | Certified standard | Installation position |
|-----------|-------------------------|-------------------------|--|---|--------------------------------------|----------------------------------|--------------------|-----------------------|
| LF-305 | 250 | 5 | 1500 | 300 | 1 | -20 to +55 | | ① (input side) |
| LF-310 | 250 | 10 | 1500 | 300 | 1 | -20 to +55 | UL | ① (input side) |
| LF-315 | 250 | 15 | 1500 | 300 | 1 | -20 to +55 | | ① (input side) |
| LF-320 | 250 | 20 | 1500 | 300 | 1 | -20 to +55 | | ① (input side) |
| LF-330 | 250 | 30 | 1500 | 300 | 1 | -20 to +55 | UL | ① (input side) |
| LF-340 | 250 | 40 | 1500 | 300 | 1 | -20 to +45 | UL | ① (input side) |
| LF-350 | 250 | 50 | 1500 | 300 | 1 | -20 to +45 | UL | ① (input side) |
| LF-360 | 250 | 60 | 1500 | 300 | 1 | -20 to +45 | | ① (input side) |
| LF-305G | 250 | 5 | 1500 | 300 | 1 | -25 to +55 | | ① (input side) |
| LF-310G | 250 | 10 | 1500 | 300 | 1 | -25 to +55 | | ① (input side) |
| LF-320G | 250 | 20 | 1500 | 300 | 1 | -25 to +55 | | ① (input side) |
| LF-315K | 250 | 15 | 2000 | 300 | 5 | -25 to +55 | | ① (input side) |
| LF-325K | 250 | 25 | 2000 | 300 | 5 | -25 to +55 | | ① (input side) |
| LF-335K | 250 | 35 | 2000 | 300 | 5 | -25 to +55 | | ① (input side) |
| LF-380K | 250 | 80 | 2000 | 300 | 5 | -25 to +55 | | ① (input side) |
| LF-314K4 | 506 | 14 | 2500 | 300 | 10 (500V, 60Hz) | -25 to +55 | | ① (input side) |
| LF-330K4 | 506 | 30 | 2500 | 300 | 10 (500V, 60Hz) | -25 to +55 | | ① (input side) |
| LF-355K4 | 506 | 55 | 2500 | 300 | 10 (500V, 60Hz) | -25 to +55 | | ① (input side) |
| LF-380K4 | 506 | 80 | 2500 | 300 | 10 (500V, 60Hz) | -25 to +55 | | ① (input side) |
| LF-310KA | 250 | 10 | 2000 | 300 | — | -25 to +55 | | ② (output side) |
| LF-320KA | 250 | 20 | 2000 | 300 | — | -25 to +55 | | ② (output side) |
| LF-350KA | 250 | 50 | 2000 | 300 | — | -25 to +55 | | ② (output side) |
| LF-310KB | 440 | 10 | 2500 | 300 | — | -25 to +55 | | ② (output side) |
| LF-320KB | 440 | 20 | 2500 | 300 | — | -25 to +55 | | ② (output side) |
| LF-335KB | 440 | 35 | 2500 | 300 | — | -25 to +55 | | ② (output side) |
| LF-345KB | 440 | 45 | 2500 | 300 | — | -25 to +55 | | ② (output side) |
| LF-375KB | 440 | 75 | 2500 | 300 | — | -25 to +55 | | ② (output side) |
| LF-3110KB | 440 | 110 | 2500 | 300 | — | -25 to +55 | | ② (output side) |

Installation Diagram



- N/F ① LF-K Series (conforms to CISPR Pub 14)
LF Series (conforms to FCC P15-J and JTTC)
LF-G Series (conforms to FCC P15-J and JTTC)
- N/F ② LF-KA Series (200V line)
LF-KB Series (400V line)

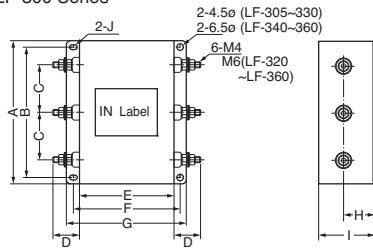
 Only LF-KA and KB can be used in N/F②.
Caution



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

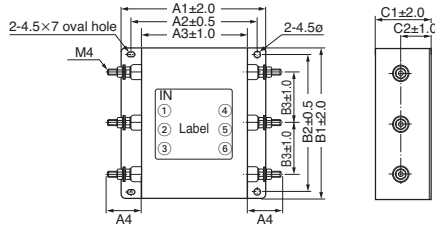
Shape and Dimensions

●LF-300 Series



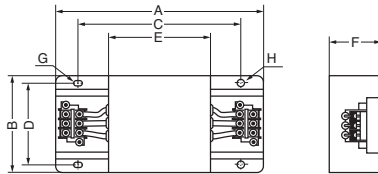
| Model | A | B | C | D | E | F | G | H | I | J |
|--------|-----|-----|----|----|-----|-----|-----|----|-----|-------|
| LF-305 | 120 | 110 | 40 | 25 | 80 | 95 | 110 | 25 | 45 | 4.5×7 |
| LF-310 | 180 | 170 | 60 | 25 | 120 | 135 | 150 | 35 | 65 | 4.5×7 |
| LF-315 | 180 | 170 | 60 | 25 | 120 | 135 | 150 | 35 | 65 | 4.5×7 |
| LF-320 | 180 | 170 | 60 | 29 | 120 | 135 | 150 | 35 | 65 | 4.5×7 |
| LF-330 | 180 | 170 | 60 | 29 | 120 | 135 | 150 | 35 | 65 | 4.5×7 |
| LF-340 | 180 | 160 | 50 | 30 | 200 | 220 | 240 | 40 | 80 | 6.5×9 |
| LF-350 | 180 | 160 | 50 | 35 | 200 | 220 | 240 | 40 | 80 | 6.5×9 |
| LF-360 | 200 | 180 | 60 | 30 | 300 | 320 | 340 | 40 | 100 | 6.5×9 |

●LF-G Series



| Model | A1 | A2 | A3 | A4 | B1 | B2 | B3 | C1 | C2 |
|---------|-----|-----|-----|----|-----|-----|----|----|----|
| LF-305G | 110 | 95 | 80 | 25 | 120 | 110 | 40 | 45 | 25 |
| LF-310G | 150 | 135 | 120 | 25 | 120 | 110 | 40 | 65 | 35 |
| LF-320G | 150 | 135 | 120 | 25 | 120 | 110 | 40 | 65 | 35 |

●LF-K Series



| Model | Terminal board | A | B | C | D | E | F | G | H | |
|-----------|----------------|------------|-----|-----|-----|-----|-----|-----|--------|------|
| 200V line | LF-315K | TE-K5.5 M4 | 260 | 180 | 180 | 160 | 120 | 65 | 7×4.5φ | 4.5φ |
| | LF-325K | TE-K22 M6 | 340 | 180 | 260 | 160 | 200 | 80 | 9×6.5φ | 6.5φ |
| | LF-335K | TE-K22 M6 | 440 | 200 | 360 | 180 | 300 | 100 | 9×6.5φ | 6.5φ |
| | LF-380K | TE-K22 M6 | 670 | 400 | 560 | 380 | 500 | 170 | 9×6.5φ | 6.5φ |
| 400V line | LF-314K4 | TE-K5.5 M4 | 260 | 180 | 180 | 160 | 120 | 65 | 7×4.5φ | 4.5φ |
| | LF-330K4 | TE-K22 M6 | 440 | 200 | 360 | 180 | 300 | 100 | 9×6.5φ | 6.5φ |
| | LF-355K4 | TE-K22 M6 | 540 | 300 | 470 | 270 | 400 | 130 | 9×6.5φ | 6.5φ |
| | LF-380K4 | TE-K22 M6 | 672 | 400 | 560 | 380 | 500 | 170 | 9×6.5φ | 6.5φ |

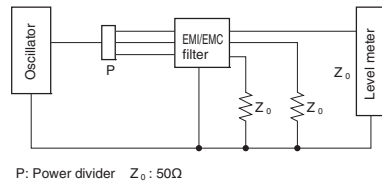
*Recommended torque (N·m) max.

◆Line terminal (M4: 1.86, M6: 5.78, M8: 10.29)

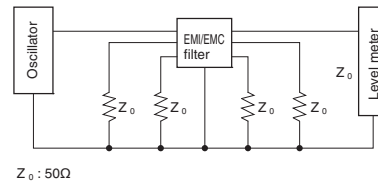
| Model | Terminal board | A | B | C | D | E | F | G | H | |
|-----------|----------------|------------|-----|-----|-----|-----|-----|-----|--------|------|
| 200V line | LF-310KA | TE-K5.5 M4 | 140 | 100 | 100 | 90 | 70 | 45 | 7×4.5φ | 4.5φ |
| | LF-320KA | TE-K5.5 M4 | 140 | 100 | 100 | 90 | 70 | 45 | 7×4.5φ | 4.5φ |
| | LF-350KA | TE-K22 M6 | 260 | 180 | 180 | 160 | 120 | 65 | 7×4.5φ | 4.5φ |
| | LF-310KB | TE-K5.5 M4 | 140 | 100 | 100 | 90 | 70 | 45 | 7×4.5φ | 4.5φ |
| | LF-320KB | TE-K5.5 M4 | 140 | 100 | 100 | 90 | 70 | 45 | 7×4.5φ | 4.5φ |
| | LF-335KB | TE-K5.5 M4 | 140 | 100 | 100 | 90 | 70 | 45 | 7×4.5φ | 4.5φ |
| 400V line | LF-345KB | TE-K22 M6 | 260 | 180 | 180 | 160 | 120 | 65 | 7×4.5φ | 4.5φ |
| | LF-375KB | TE-K22 M6 | 540 | 320 | 480 | 300 | 340 | 240 | 9×6.5φ | 6.5φ |
| | LF-3110KB | TE-K60 M8 | 540 | 320 | 480 | 300 | 340 | 240 | 9×6.5φ | 6.5φ |

Measuring Circuit

●Common mode



●Normal mode



P: Power divider Z₀: 50Ω

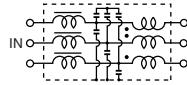
Z₀: 50Ω



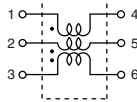
- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

Circuit Diagram

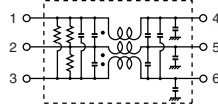
●LF-300 Series



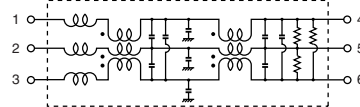
●KA, KB Series



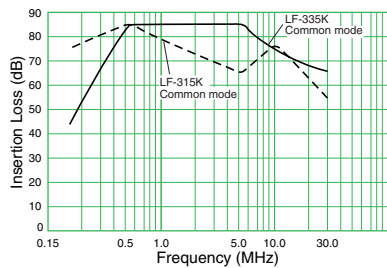
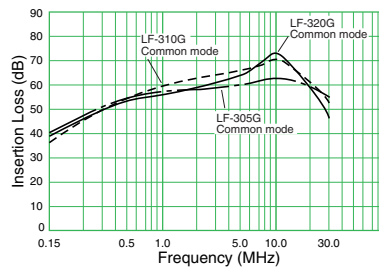
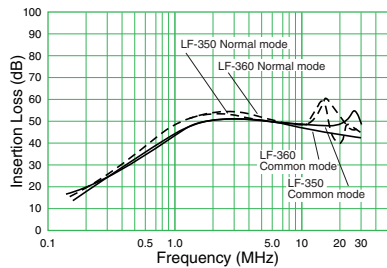
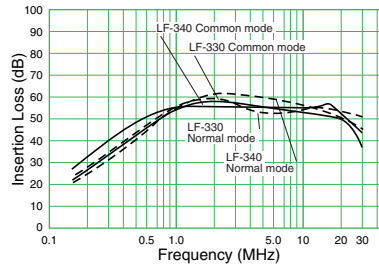
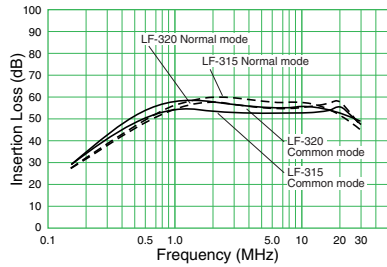
●LF-G Series



●K, K4 Series



Attenuation (Static Characteristics)



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

LF Series

Compliance with CE Marking

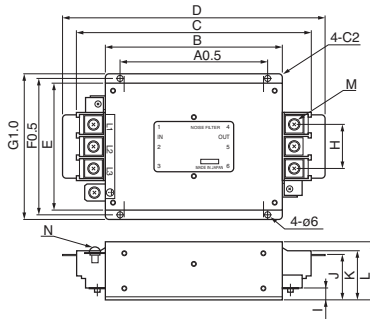
(LF-3000 Series)

[RoHS Compliant]



| Model | Rated voltage AC/DC (V) | Rated current AC/DC (A) | Withstanding voltage 1 min., line to ground AC (V) | Insulation resistance 500VDC 1 min., line to ground (MΩ) min. | Leakage current 250V/60Hz, (mA) max. | Voltage drop 50Hz, (V) max. | Self-temperature rise (K) max. | Operating temperature range (°C) | Certified standard |
|---------|-------------------------|-------------------------|--|---|--------------------------------------|-----------------------------|--------------------------------|----------------------------------|--------------------|
| LF-3200 | 250 | 20 | 2000 | 300 | 1.2 | 1.5 | 30 | -25 to +55 | TÜV |
| LF-3300 | 250 | 30 | 2000 | 300 | 1.2 | 1.5 | 30 | -25 to +55 | TÜV |
| LF-3400 | 250 | 40 | 2000 | 300 | 1.2 | 1.5 | 30 | -25 to +55 | TÜV |
| LF-3500 | 250 | 50 | 2000 | 300 | 1.2 | 1.5 | 30 | -25 to +55 | TÜV |
| LF-3600 | 250 | 60 | 2000 | 300 | 1.2 | 1.5 | 30 | -25 to +55 | TÜV |

Shape and Dimensions

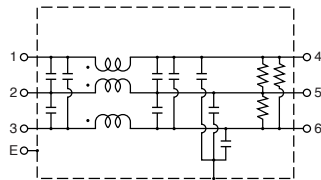


| Model | A | B | C | D | E | F | G | H | I | J | K | L | M | N |
|---------|-----|-----|-----|-----|-----|-----|-----|----|----|------|------|-----|----|----|
| LF-3200 | 150 | 180 | 219 | 247 | 90 | 100 | 110 | 32 | 17 | 45.5 | 47.5 | 60 | M5 | M5 |
| LF-3300 | 150 | 180 | 219 | 247 | 90 | 100 | 110 | 32 | 17 | 45.5 | 47.5 | 60 | M5 | M5 |
| LF-3400 | 150 | 180 | 237 | 264 | 129 | 139 | 149 | 46 | 24 | 58.5 | 63 | 75 | M6 | M6 |
| LF-3500 | 150 | 180 | 237 | 264 | 129 | 139 | 149 | 46 | 14 | 48.5 | 53 | 60 | M6 | M6 |
| LF-3600 | 300 | 330 | 387 | 414 | 180 | 200 | 220 | 46 | 55 | 89.5 | 94 | 115 | M6 | M6 |

[mm]

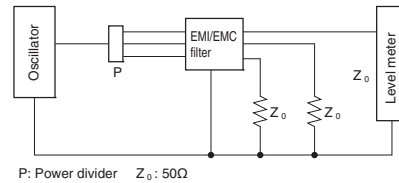
*Recommended torque (N·m) max. ◆Line terminal (M5: 3.33, M6: 5.78)
◆Earth terminal (M5: 3.33, M6: 5.78)

Circuit Diagram



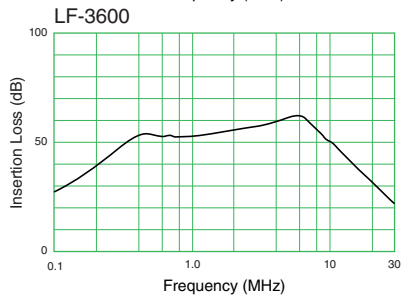
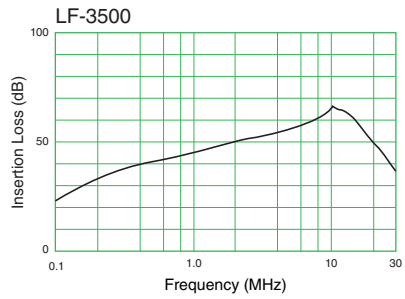
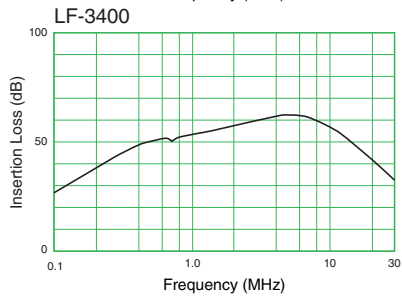
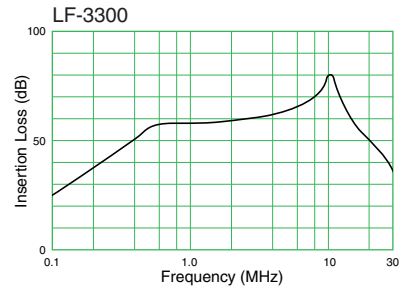
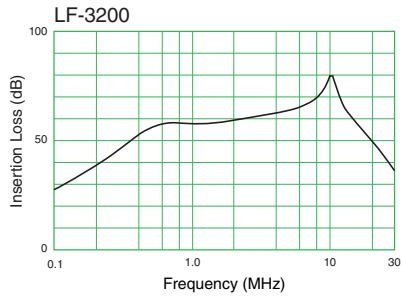
Measuring Circuit

●Common mode



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

Attenuation (Static Characteristics)



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

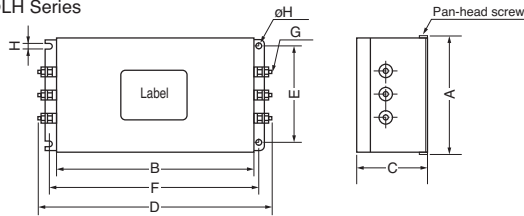
LH Series Low-Frequency Inverters [RoHS Compliant]



| Model | Rated voltage AC/DC (V) | Rated current AC/DC (A) | Withstanding voltage 1 min., line to ground AC (V) | Insulation resistance 500VDC 1 min., line to ground (MΩ) min. | Leakage current 250V/60Hz, (mA) max. | Self-temperature rise (K) max. | Operating temperature range (°C) |
|---------|-------------------------|-------------------------|--|---|--------------------------------------|--------------------------------|----------------------------------|
| LH-3102 | 250 | 10 | 2000 | 300 | 1 | 40 | -20 to +45 |
| LH-3152 | 250 | 15 | 2000 | 300 | 1 | 40 | -20 to +45 |
| LH-3202 | 250 | 20 | 2000 | 300 | 1 | 40 | -20 to +45 |
| LH-3302 | 250 | 30 | 2000 | 300 | 1 | 40 | -20 to +45 |
| LH-3402 | 250 | 40 | 2000 | 300 | 1 | 40 | -20 to +45 |
| LH-3502 | 250 | 50 | 2000 | 300 | 1 | 40 | -20 to +45 |
| LH-3602 | 250 | 60 | 2000 | 300 | 1 | 40 | -20 to +45 |
| LH-3702 | 250 | 70 | 2000 | 300 | 1 | 40 | -20 to +45 |
| LH-3802 | 250 | 80 | 2000 | 300 | 1 | 40 | -20 to +45 |

Shape and Dimensions

● LH Series

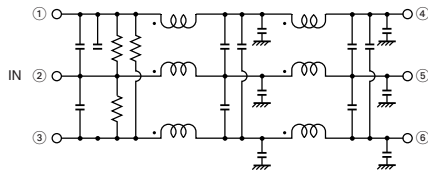


*Recommended torque (N-m) max. ◆Line terminal (M4: 0.78, M6: 1.18, M8: 2.65)

| Model | A | B | C | D | E | F | G | H |
|---------|-----|-----|-----|----------|-----|-----|----|-----|
| LH-3102 | 105 | 182 | 70 | 230 max. | 80 | 200 | M4 | 4.5 |
| LH-3152 | 105 | 182 | 70 | 230 max. | 80 | 200 | M4 | 4.5 |
| LH-3202 | 105 | 182 | 70 | 230 max. | 80 | 200 | M4 | 4.5 |
| LH-3302 | 115 | 203 | 85 | 250 max. | 75 | 220 | M6 | 5.5 |
| LH-3402 | 115 | 203 | 85 | 250 max. | 75 | 220 | M6 | 5.5 |
| LH-3502 | 190 | 300 | 125 | 355 max. | 150 | 320 | M6 | 5.5 |
| LH-3602 | 190 | 300 | 125 | 355 max. | 150 | 320 | M6 | 5.5 |
| LH-3702 | 190 | 335 | 155 | 430 max. | 150 | 360 | M8 | 5.5 |
| LH-3802 | 190 | 335 | 155 | 430 max. | 150 | 360 | M8 | 5.5 |

[mm]

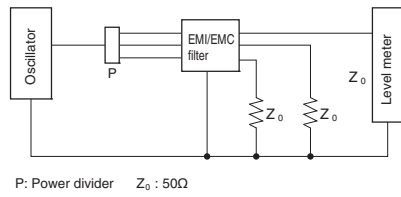
Circuit Diagram



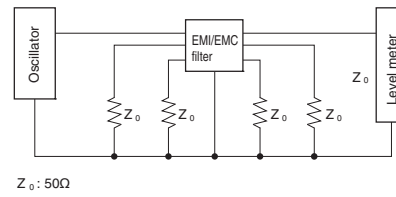
- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

Measuring Circuit

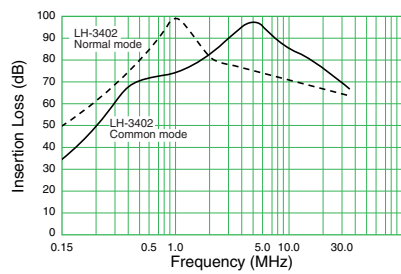
● Common mode



● Normal mode



Attenuation (Static Characteristics)



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

LH Series Compliance with CE Marking



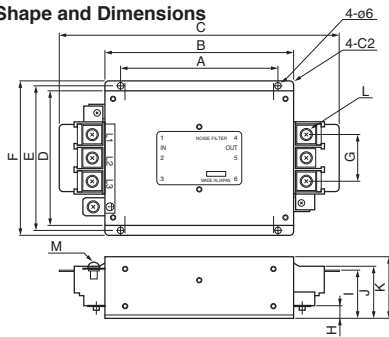
(LH-4 Series)

[RoHS Compliant]



| Model | Rated voltage AC/DC (V) | Rated current AC/DC (A) | Withstanding voltage 1 min., line to ground AC (V) | Insulation resistance 500VDC 1 min., line to ground (MΩ) min. | Leakage current 250V/60Hz, (mA) max. | Voltage drop 50Hz, (V) max. | Self-temperature rise (K) max. | Operating temperature range (°C) | Certified standard |
|----------|-------------------------|-------------------------|--|---|--------------------------------------|-----------------------------|--------------------------------|----------------------------------|--------------------|
| LH-3304 | 250 | 30 | 2000 | 300 | 1.2 | 1.5 | 30 | -25 to +55 | TÜV |
| LH-3404 | 250 | 40 | 2000 | 300 | 1.2 | 1.5 | 30 | -25 to +55 | TÜV |
| LH-3604 | 250 | 60 | 2000 | 300 | 1.2 | 1.5 | 30 | -25 to +55 | TÜV |
| LH-3804 | 250 | 80 | 2000 | 300 | 1.2 | 1.5 | 30 | -25 to +55 | TÜV |
| LH-31204 | 250 | 120 | 2000 | 300 | 1.2 | 1.5 | 30 | -25 to +55 | TÜV |
| LH-31504 | 250 | 150 | 2000 | 300 | 1.2 | 1.5 | 30 | -25 to +55 | TÜV |

Shape and Dimensions



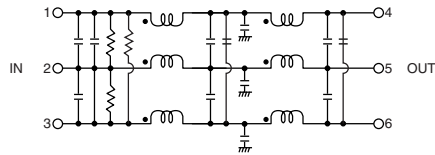
| Model | A | B | C | D | E | F | G | H | I | J | K | L | M |
|----------|-----|-----|-----|-----|-----|-----|----|----|------|------|-----|-----|-----|
| LH-3304 | 250 | 280 | 349 | 90 | 100 | 110 | 32 | 17 | 45.5 | 47.5 | 85 | M5 | M5 |
| LH-3404 | 250 | 280 | 366 | 129 | 139 | 149 | 46 | 23 | 58 | 62 | 85 | M6 | M6 |
| LH-3604 | 306 | 336 | 422 | 160 | 170 | 180 | 46 | 55 | 90 | 94 | 160 | M6 | M6 |
| LH-3804 | 450 | 480 | 600 | 210 | 230 | 250 | 56 | 60 | 103 | 107 | 170 | M8 | M8 |
| LH-31204 | 480 | 510 | 630 | 222 | 242 | 262 | 56 | 60 | 103 | 107 | 170 | M8 | M8 |
| LH-31504 | 630 | 660 | 788 | 250 | 270 | 290 | 76 | 70 | 126 | 130 | 200 | M10 | M10 |

[mm]

*Recommended torque (N·m) max.

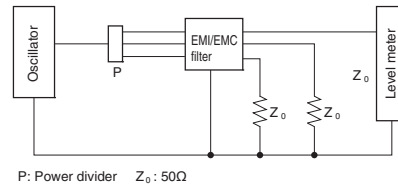
- ◆ Line terminal (M5: 3.33, M6: 5.78, M8: 10.29, M10: 19.1)
- ◆ Earth terminal (M5: 3.33, M6: 5.78, M8: 10.29, M10: 19.1)

Circuit Diagram

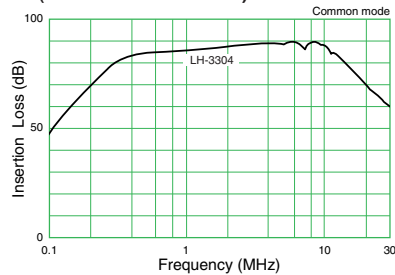


Measuring Circuit

● Common mode



Attenuation (Static Characteristics)



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

HFP Series

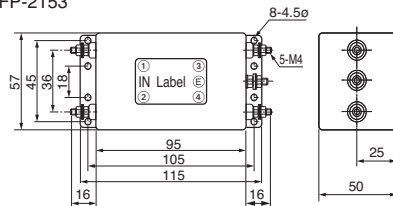
[RoHS Compliant]



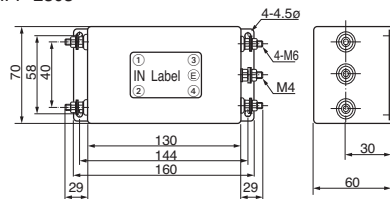
| Model | Rated voltage AC/DC (V) | Rated current AC/DC (A) | Withstanding voltage 1 min., line to ground (V) | Insulation resistance 500VDC 1 min., line to ground (MΩ) min. | Leakage current (mA) max. | Self-temperature rise (K) max. | Operating temperature range (°C) | Certified standard | Weight (kg) |
|------------|-------------------------|-------------------------|---|---|---------------------------|--------------------------------|----------------------------------|--------------------|-------------|
| HFP-2153 | 250 | 15 | AC1500 | 10 | 1.5 (250V, 60Hz) | 30 | -20 to +55 | UL, CSA, TÜV | 0.64 |
| HFP-2303 | 250 | 30 | AC1500 | 10 | 1.5 (250V, 60Hz) | 30 | -20 to +55 | UL, CSA, TÜV | 1.3 |
| HFP-2303A1 | 250 | 30 | AC1500 | 10 | 1.5 (250V, 60Hz) | 30 | -20 to +55 | UL, CSA, TÜV | 3.9 |
| HFP-4153A | 420 | 15 | DC2600 | 10 | 3.5 (420V, 60Hz) | 30 | -20 to +55 | UL, CSA, TÜV | 6.5 |
| HFP-4503A | 420 | 50 | DC2600 | 10 | 3.5 (420V, 60Hz) | 35 | -20 to +55 | UL, CSA, TÜV | 14.0 |

Shape and Dimensions

●HFP-2153

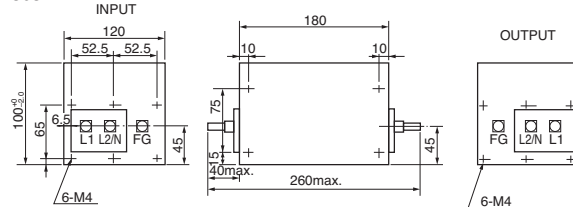


●HFP-2303



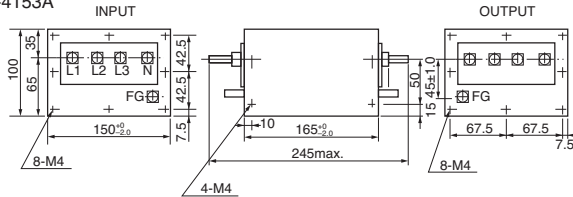
*Recommended torque (N·m) max. ◆Line terminal (M4: 0.78, M6: 1.18) ◆Earth terminal (M4: 1.18)

●HFP-2303A1



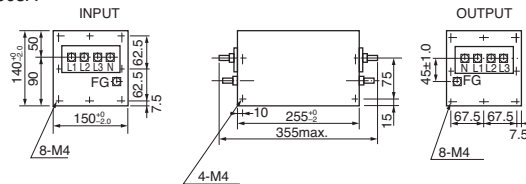
*Recommended torque (N·m) max. ◆Panel installation (M4: 1.18)

●HFP-4153A



*Recommended torque (N·m) max. ◆Panel installation (M4: 1.18)

●HFP-4503A



*Recommended torque (N·m) max. ◆Panel installation (M4: 1.18)

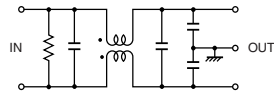
[mm]



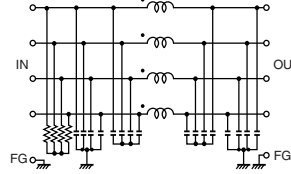
- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

Circuit Diagram

●HFP-2153, 2303, 2303A1

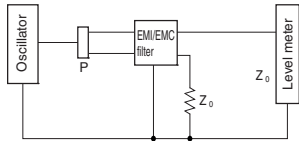


●HFP-4153A, 4503A



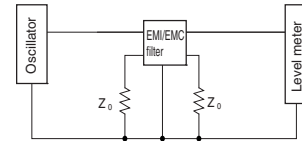
Measuring Circuit

●Common mode



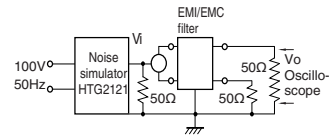
P : Power divider Z₀: 50Ω

●Normal mode

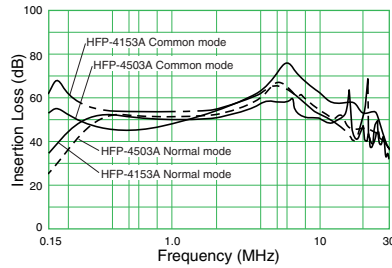
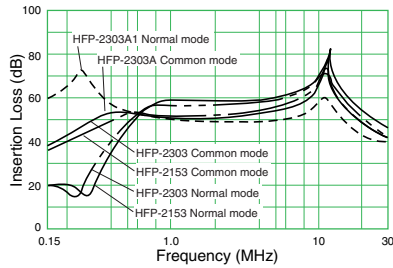


Z₀: 50Ω

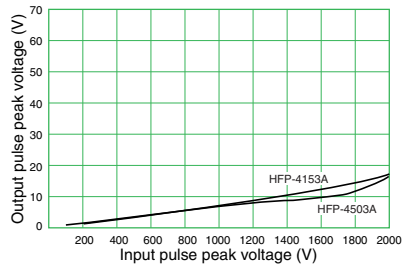
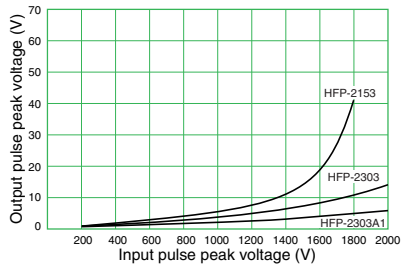
●Pulse characteristic measuring circuit



Attenuation (Static Characteristics)



Pulse Attenuation Example



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

GT Series

Screw Terminal

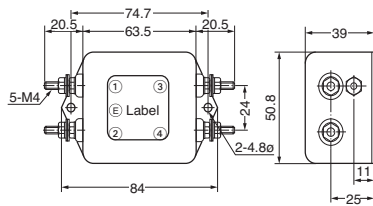
[RoHS Compliant]



| Model | Rated voltage AC/DC (V) | Rated current AC/DC (A) | Withstanding voltage 1 min., line to ground AC (V) | Insulation resistance 500VDC 1 min., line to ground (MΩ) min. | Leakage current 250V/60Hz, (mA) max. | Voltage drop 50Hz, (V) max. | Self-temperature rise (K) max. | Operating temperature range (°C) | Certified standard | Weight (g) |
|----------|-------------------------|-------------------------|--|---|--------------------------------------|-----------------------------|--------------------------------|----------------------------------|--------------------|------------|
| GT-2050 | 250 | 5 | 1500 | 300 | 0.5 | 1 | 35 | -20 to +55 | | 150 |
| GT-2100 | 250 | 10 | 1500 | 300 | 0.5 | 1 | 35 | -20 to +55 | | 260 |
| GT-2150 | 250 | 15 | 1500 | 300 | 0.5 | 1 | 35 | -20 to +55 | | 270 |
| GT-2200 | 250 | 20 | 1500 | 300 | 0.5 | 1 | 35 | -20 to +55 | | 270 |
| GT-205U | 250 | 5 | 1500 | 300 | 0.5 | 1 | 35 | -20 to +55 | UL, TÜV, VDE, CSA | 170 |
| GT-210U | 250 | 10 | 1500 | 300 | 0.5 | 1 | 35 | -20 to +55 | UL, TÜV, VDE, CSA | 260 |
| GT-215U | 250 | 15 | 1500 | 300 | 0.5 | 1 | 35 | -20 to +55 | UL | 270 |
| GT-220U | 250 | 20 | 1500 | 300 | 0.5 | 1 | 35 | -20 to +55 | UL, TÜV | 270 |
| GT-2050R | 250 | 5 | 1500 | 300 | 0.5 | 1 | 35 | -20 to +55 | | 160 |
| GT-2100R | 250 | 10 | 1500 | 300 | 0.5 | 1 | 35 | -20 to +55 | | 270 |
| GT-2150R | 250 | 15 | 1500 | 300 | 0.5 | 1 | 35 | -20 to +55 | | 280 |
| GT-2200R | 250 | 20 | 1500 | 300 | 0.5 | 1 | 35 | -20 to +55 | | 285 |

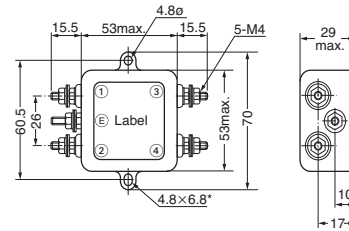
Shape and Dimensions

●GT-2100, GT-210U, GT-2150, GT-215U, GT-2200
GT-220U, GT-2150R, GT-2100R, GT-2200R



*Recommended torque (N·m) max. ◆Line terminal (M4: 0.7B) ◆Earth terminal (M4: 1.1B)

●GT-2050, GT-205U, GT-2050R

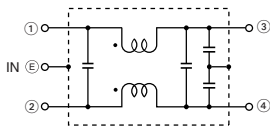


*ø4.8 for GT-205U

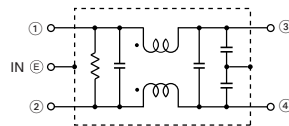
[mm]

Circuit Diagram

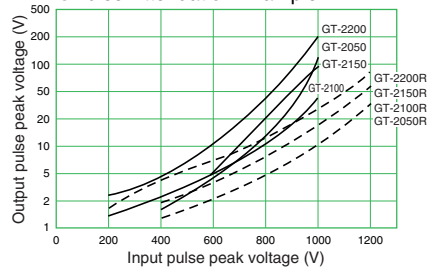
●GT-2000 Series
GT-2000R Series



●GT-200U Series



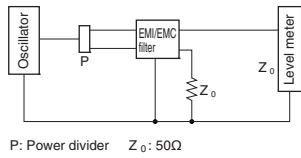
●Pulse Attenuation Example



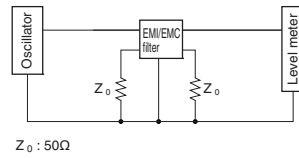
- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

Measuring Circuit

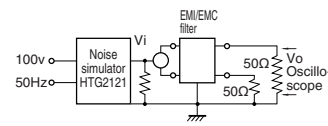
●Common mode



●Normal mode

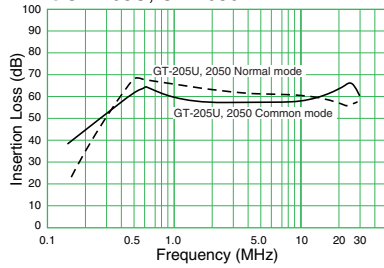


●Pulse-characteristic measuring circuit

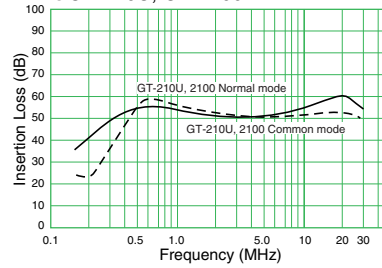


Attenuation (Static Characteristics)

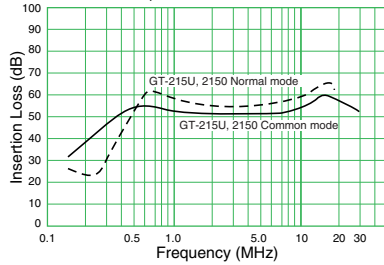
●GT-205U, GT-2050



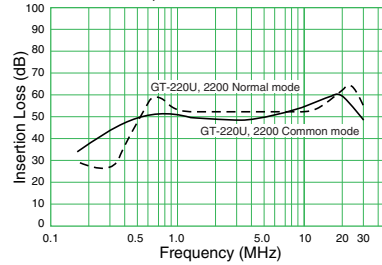
●GT-210U, GT-2100



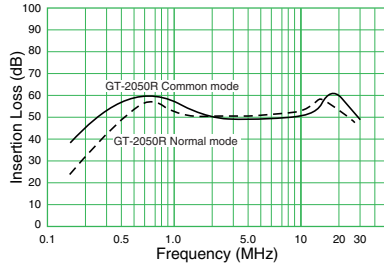
●GT-215U, GT-2150



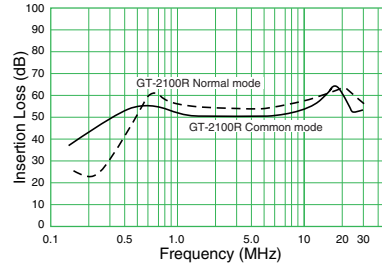
●GT-220U, GT-2200



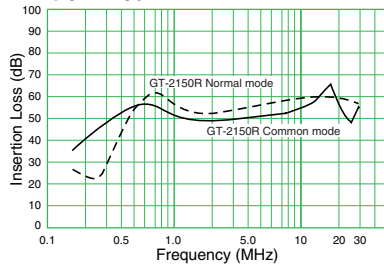
●GT-2050R



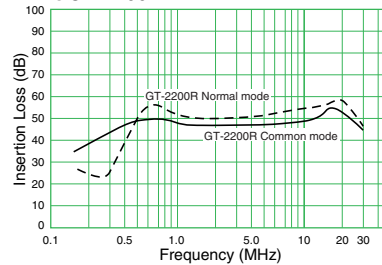
●GT-2100R



●GT-2150R



●GT-2200R



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

GT Series

Faston Terminal

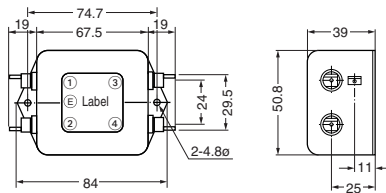
[RoHS Compliant]



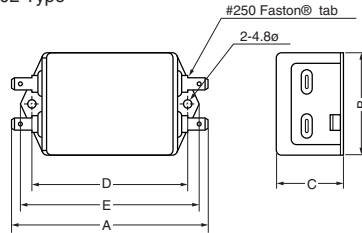
| Model | Rated voltage AC/DC (V) | Rated current AC/DC (A) | Withstanding voltage 1 min., line to ground AC (V) | Insulation resistance 500VDC 1 min., line to ground (MΩ) min. | Leakage current 250V/60Hz, (mA) max. | Voltage drop 50Hz, (V) max. | Self-temperature rise (K) max. | Operating temperature range (°C) | Certified standard | Weight (g) |
|----------|-------------------------|-------------------------|--|---|--------------------------------------|-----------------------------|--------------------------------|----------------------------------|--------------------|------------|
| GT-205J | 250 | 5 | 1500 | 300 | 0.5 | 1 | 35 | -20 to +55 | UL, CSA, TÜV, VDE | 135 |
| GT-210J | 250 | 10 | 1500 | 300 | 0.5 | 1 | 35 | -20 to +55 | UL, CSA, TÜV, VDE | 240 |
| GT-215J | 250 | 15 | 1500 | 300 | 0.5 | 1 | 35 | -20 to +50 | UL, CSA, TÜV, VDE | 255 |
| GT-20301 | 250 | 3 | 1500 | 300 | 1.0 | 1 | 35 | -20 to +50 | UL, CSA, TÜV | 160 |
| GT-20601 | 250 | 6 | 1500 | 300 | 1.0 | 1 | 35 | -20 to +55 | UL, CSA, TÜV | 190 |
| GT-21001 | 250 | 10 | 1500 | 300 | 1.0 | 1 | 35 | -20 to +55 | UL, CSA, TÜV | 300 |
| GT-20302 | 250 | 3 | 1500 | 300 | 1.0 | 1 | 35 | -20 to +55 | UL, CSA, TÜV | 215 |

Shape and Dimensions

●GT-210J, GT-215J

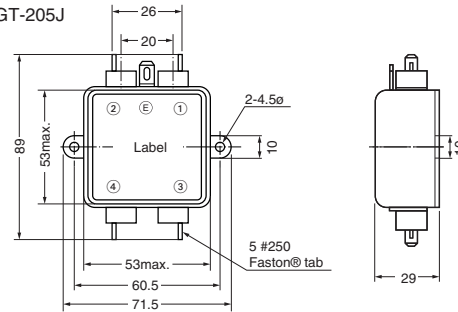


●GT-01, 02 Type



*Faston® is a registered trademark of Tyco Electronics AMP.

●GT-205J

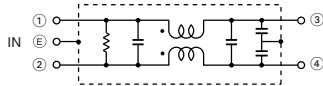


| Model | A | B | C | D | E |
|----------|-------|------|------|------|------|
| GT-20301 | 91.5 | 52.0 | 30.0 | 74.7 | 84.3 |
| GT-20601 | 105.7 | 57.5 | 32.0 | 87.1 | 96.5 |
| GT-21001 | 105.7 | 57.5 | 44.5 | 87.1 | 96.5 |
| GT-20302 | 91.5 | 52.0 | 45.0 | 74.7 | 84.3 |

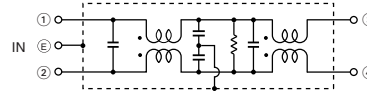
[mm]

Circuit Diagram

●GT-J, 01 Type



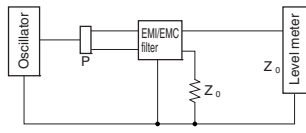
●GT-02 Type



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

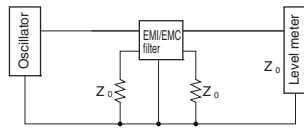
Measuring Circuit

● Common mode



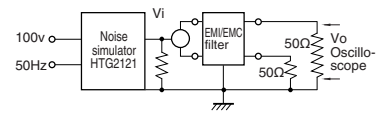
P: Power divider $Z_0: 50\Omega$

● Normal mode



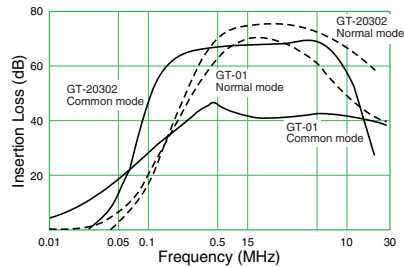
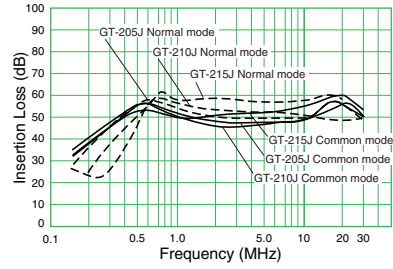
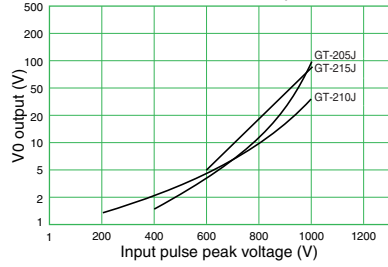
$Z_0: 50\Omega$

● Pulse characteristic measuring circuit



Attenuation (Static Characteristics)

● Pulse Attenuation Example



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

GT Series

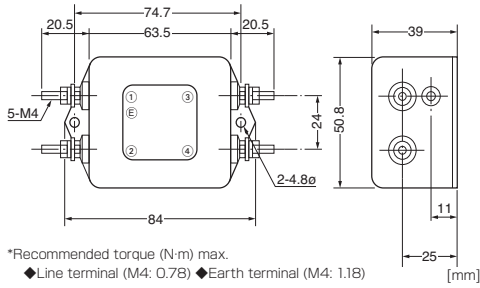
For VCCI   

[RoHS Compliant]

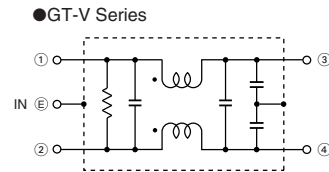


| Model | Rated voltage AC/DC (V) | Rated current AC/DC (A) | Withstanding voltage 1 min., line to ground AC (V) | Insulation resistance 500VDC 1 min., line to ground (MΩ) min. | Leakage current 250V/60Hz, (mA) max. | Voltage drop 50Hz, (V) max. | Self-temperature rise (K) max. | Operating temperature range (°C) | Certified standard | Weight (kg) |
|-----------|-------------------------|-------------------------|--|---|--------------------------------------|-----------------------------|--------------------------------|----------------------------------|--------------------|-------------|
| GT-20501V | 250 | 5 | 1500 | 300 | 0.5 | 1 | 35 | -20 to +55 | | 220 |
| GT-21001V | 250 | 10 | 1500 | 300 | 0.5 | 1 | 35 | -20 to +55 | UL, CSA, TÜV | 280 |
| GT-22001V | 250 | 20 | 1500 | 300 | 0.5 | 1 | 35 | -20 to +55 | | 285 |

Shape and Dimensions

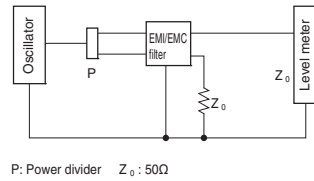


Circuit Diagram

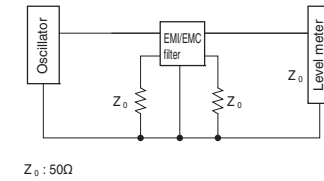


Measuring Circuit

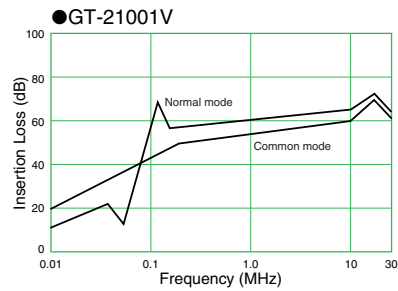
Common mode



Normal mode



Attenuation (Static Characteristics)



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

GF Series

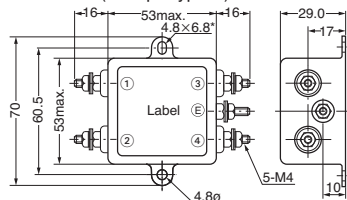
[RoHS Compliant]



| Model | Rated voltage AC/DC (V) | Rated current AC/DC (A) | Withstanding voltage 1 min., line to ground AC (V) | Insulation resistance 500VDC 1 min., line to ground (MΩ) min. | Leakage current 250V/60Hz, (mA) max. | Voltage drop 50Hz, (V) max. | Self-temperature rise (K) max. | Operating temperature range (°C) | Certified standard | Weight (g) |
|---------|-------------------------|-------------------------|--|---|--------------------------------------|-----------------------------|--------------------------------|----------------------------------|--------------------|------------|
| GF-2050 | 250 | 5 | 1500 | 300 | 1 | 1.5 | 30 | -20 to +60 | | 130 |
| GF-205U | 250 | 5 | 1500 | 300 | 1 | 1.5 | 30 | -20 to +60 | UL | 130 |
| GF-2100 | 250 | 10 | 1500 | 300 | 1 | 1.5 | 30 | -20 to +60 | | 140 |
| GF-210U | 250 | 10 | 1500 | 300 | 1 | 1.5 | 30 | -20 to +60 | UL | 140 |
| GF-2150 | 250 | 15 | 1500 | 300 | 1 | 1.5 | 30 | -20 to +60 | | 140 |
| GF-2200 | 250 | 20 | 1500 | 300 | 1 | 1.5 | 30 | -20 to +60 | | 150 |
| GF-220U | 250 | 20 | 1500 | 300 | 1 | 1.5 | 30 | -20 to +60 | UL | 150 |
| GF-205E | 250 | 5 | 1500 | 300 | 1 | 1.5 | 30 | -20 to +55 | UL, CSA | 130 |

Shape and Dimensions

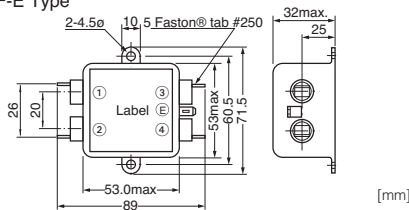
●GE Series (Except Type E)



*4.8φ for UL devices

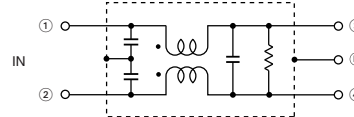
*Recommended torque (N·m) max. ◆ Line terminal (M4: 0.78)
◆ Earth terminal (M4: 1.18)

●GF-E Type



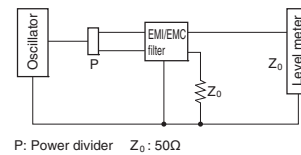
[mm]

Circuit Diagram

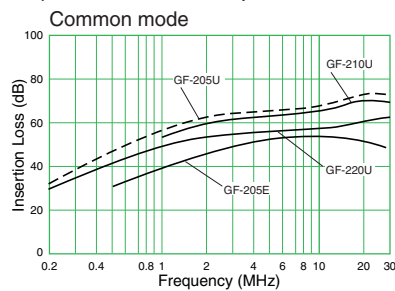


Measuring Circuit

●Common mode



Attenuation (Static Characteristics)



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

VU Series

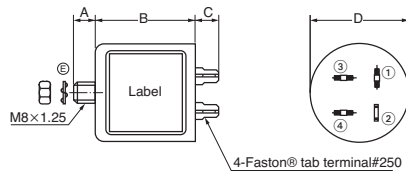
[RoHS Compliant]



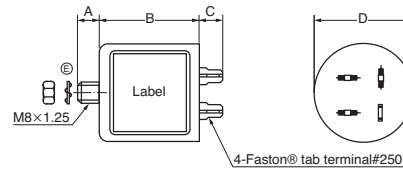
| Model | Rated voltage AC/DC (V) | Rated current AC/DC (A) | Withstanding voltage 1 min., line to ground AC (V) | Insulation resistance 500VDC 1 min., line to ground (MΩ) min. | Leakage current 250V/60Hz, (mA) max. | Voltage drop 50Hz, (V) max. | Self-temperature rise (K) max. | Operating temperature range (°C) | Certified standard | Weight (g) |
|----------|-------------------------|-------------------------|--|---|--------------------------------------|-----------------------------|--------------------------------|----------------------------------|--------------------|------------|
| VU-210FA | 250 | 10 | 1500 | 300 | 1 | 1.5 | 40 | -25 to +55 | UL, CSA | 130 |
| VU-215F | 250 | 15 | 1500 | 300 | 1 | 1.5 | 40 | -25 to +55 | UL, CSA | 130 |
| VU-215F3 | 250 | 15 | 1500 | 300 | 1 | 1.5 | 40 | -25 to +55 | UL, CSA | 105 |
| VU-215FE | 250 | 15 | 1500 | 300 | 1 | 1.5 | 40 | -25 to +55 | UL, CSA | 130 |
| VU-220F | 250 | 20 | 1500 | 300 | 1 | 1.5 | 40 | -25 to +55 | UL, CSA, TÜV | 240 |

Shape and Dimensions

●VU-215F, VU-215F3, VU-220F, 210FA



●VU-215FE



*Faston® is a registered trademark of Tyco Electronics AMP.

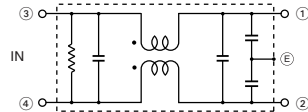
| Model | A | B | C | D |
|----------------|----|----|----|----|
| VU-215F | 12 | 50 | 12 | 38 |
| VU-215F3 | 12 | 40 | 13 | 45 |
| VU-215FE | 12 | 50 | 12 | 38 |
| VU-220F, 210FA | 12 | 50 | 12 | 50 |

*Recommended torque (N-m) max. ◆Earth terminal (M8: 4.41)

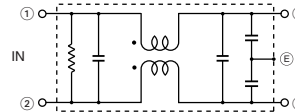
[mm]

Circuit Diagram

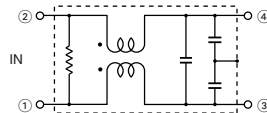
●VU-210FA, 215F, 220F



●VU-215FE



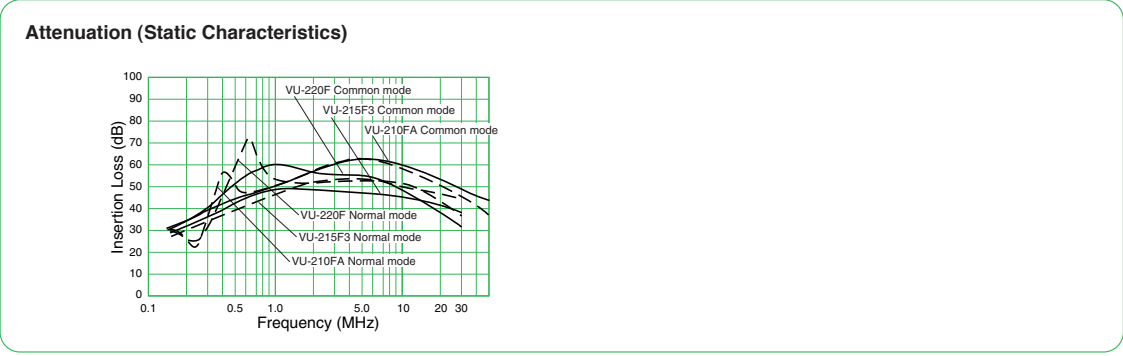
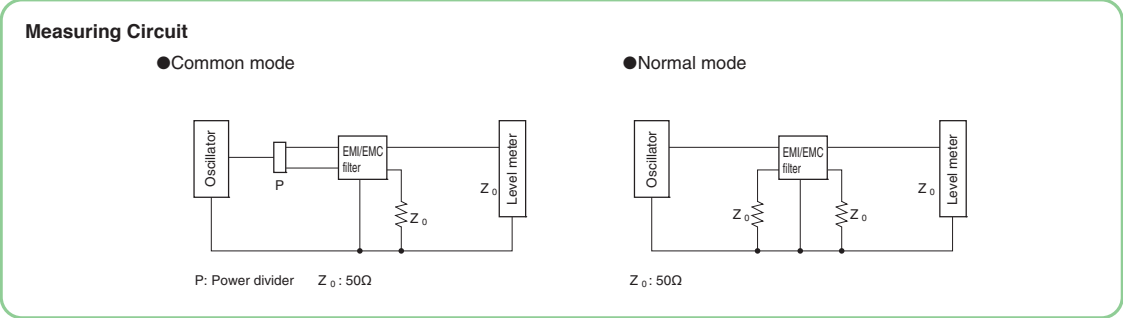
●VU-215F3



Caution: (E) represents a screw installation portion (M8).




- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

VC Series

TUV Rheinland 

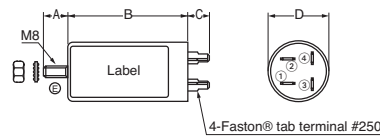
[RoHS Compliant]



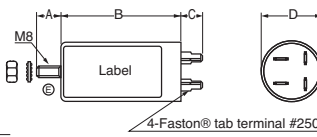
| Model | Rated voltage AC/DC (V) | Rated current AC/DC (A) | Withstanding voltage 1 min., line to ground AC (V) | Insulation resistance 500VDC 1 min., line to ground (MΩ) min. | Leakage current 250V/60Hz, (mA) max. | Voltage drop 50Hz, (V) max. | Self-temperature rise (K) max. | Operating temperature range (°C) | Certified standard | Weight (g) |
|-----------|-------------------------|-------------------------|--|---|--------------------------------------|-----------------------------|--------------------------------|----------------------------------|--------------------|------------|
| VC-210FA | 250 | 10 | 1500 | 300 | 1.5 | 1 | 40 | -20 to +55 | VDE | 130 |
| VC-215F3V | 250 | 15 | 1500 | 300 | 1.5 | 1 | 40 | -20 to +55 | TÜV | 110 |

Shape and Dimensions

●VC-210FA



●VC-215F3V



| Model | A | B | C | D |
|-----------|----|----|----|----|
| VC-210FA | 12 | 70 | 12 | 38 |
| VC-215F3V | 12 | 60 | 12 | 38 |

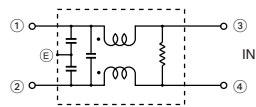
*Recommended torque (N·m) max. ◆Earth terminal (MB: 4.41)

*Faston® is a registered trademark of Tyco Electronics AMP.

[mm]

Circuit Diagram

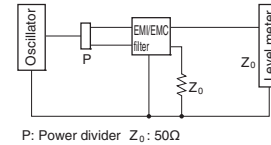
●VC Series



Caution: (E) represents a case.

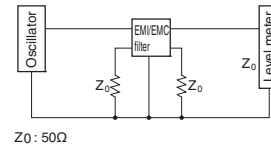
Measuring Circuit

●Common mode



P: Power divider $Z_0: 50\Omega$

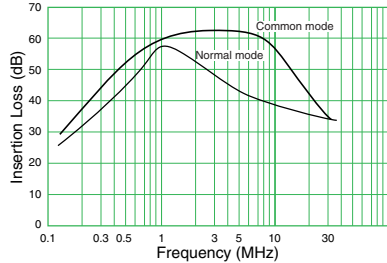
●Normal mode



$Z_0: 50\Omega$

Attenuation (Static Characteristics)

●VC-210FA



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

VG-FPZ Series

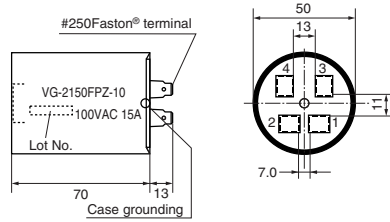
for inverter installed home appliances' surge control

[RoHS Compliant]



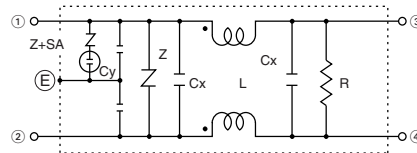
| Model | Rated voltage AC/DC (V) | Rated current AC/DC (A) | Withstanding voltage 1 min., line to ground AC (V) | Insulation resistance 500VDC 1 min., line to ground (MΩ) min. | Leakage current 250V/60Hz, (mA) max. | Operating temperature range (°C) | Weight (g) |
|---------------|-------------------------|-------------------------|--|---|--------------------------------------|----------------------------------|------------|
| VG-2150FPZ-10 | 100 | 15 | 1000 | 300 | 0.5 (125V) | -25 to +55 | 200 |
| VG-2150FPZ-20 | 200 | 15 | 1500 | 300 | 1.0 (250V) | -25 to +55 | 200 |
| VG-2200FPZ-10 | 100 | 20 | 1000 | 300 | 0.5 (125V) | -25 to +55 | 220 |

Shape and Dimensions



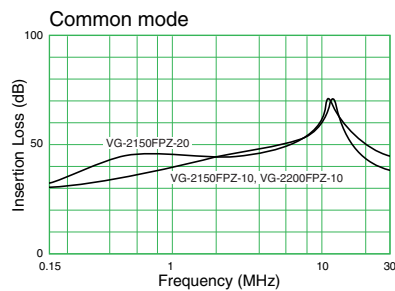
*Faston® is a registered trademark of Tyco Electronics AMP. [mm]

Circuit Diagram



Caution: (E) represents a case.

Attenuation Characteristics



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

RG Series

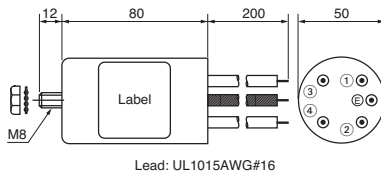
[RoHS Compliant]



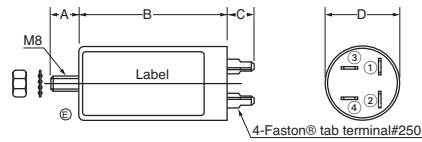
| Model | Rated voltage AC/DC (V) | Rated current AC/DC (A) | Withstanding voltage 1 min., line to ground AC (V) | Insulation resistance 500VDC 1 min., line to ground (MΩ) min. | Leakage current 250V/60Hz, (mA) max. | Voltage drop 50Hz, (V) max. | Self-temperature rise (K) max. | Operating temperature range (°C) | Certified standard | Weight (g) |
|------------------|-------------------------|-------------------------|--|---|--------------------------------------|-----------------------------|--------------------------------|----------------------------------|--------------------|------------|
| RG-208F | 250 | 8 | 1500 | 100 | 1 | 2 | 55 | -20 to +50 | TÜV | 320 |
| RG-208F1 | 250 | 8 | 1500 | 100 | 1 | 2 | 55 | -20 to +50 | UL, TÜV | 320 |
| RG-208F2 | 250 | 8 | 1500 | 100 | 1 | 2 | 55 | -20 to +50 | UL, TÜV | 220 |
| RG-208V-A | 250 | 8 | 1500 | 100 | 1 | 2 | 55 | -20 to +50 | TÜV | 370 |

Shape and Dimensions

●RG-208V-A



●RG-208F, 208F1, 208F2



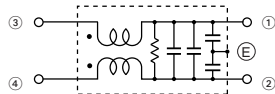
*Recommended torque (N·m) max. ◆Earth terminal (M8: 4.41)

| Model | A | B | C | D |
|-------------------|----|----|----|----|
| RG-208F/F1 | 12 | 90 | 13 | 50 |
| RG-208F2 | 12 | 60 | 13 | 50 |

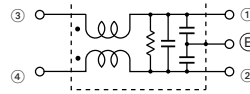
[mm]

Circuit Diagram

●RG-208F2



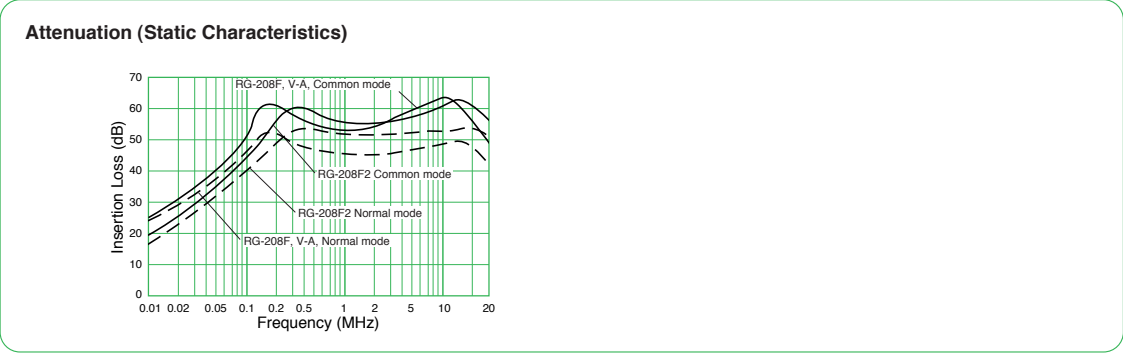
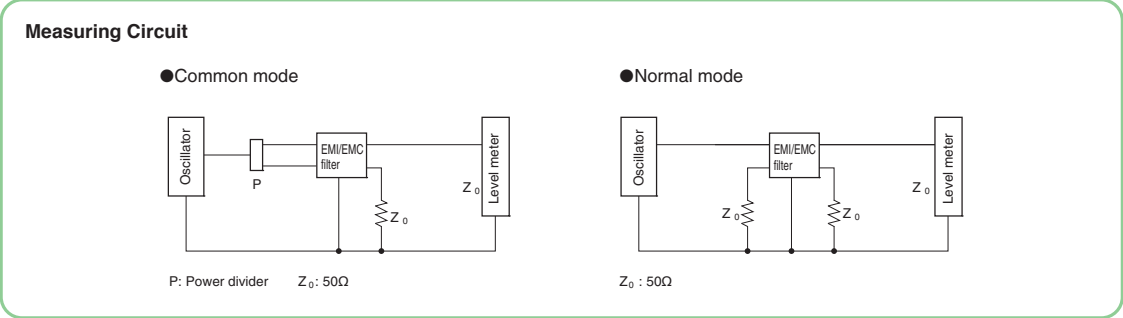
●RG-208F, 208F1, 208V-A



Caution: (E) represents a screw installation portion (M8) in modelRG-208F.



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

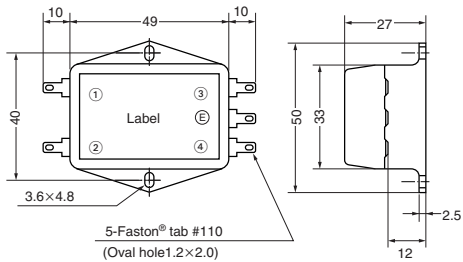
MR Series

[RoHS Compliant]



| Model | Rated voltage AC/DC (V) | Rated current AC/DC (A) | Withstanding voltage 1 min., line to ground AC (V) | Insulation resistance 500VDC 1 min., line to ground (MΩ) min. | Leakage current 250V/60Hz, (mA) max. | Voltage drop 50Hz, (V) max. | Self-temperature rise (K) max. | Operating temperature rise (°C) | Certified standard | Weight (g) |
|---------|-------------------------|-------------------------|--|---|--------------------------------------|-----------------------------|--------------------------------|---------------------------------|--------------------|------------|
| MR-2021 | 250 | 2 | 1500 | 300 | 0.75 | 1.5 | 30 | -20 to +60 | UL, CSA, VDE | 35 |
| MR-2032 | 250 | 3 | 1500 | 300 | — | 1.5 | 30 | -20 to +60 | UL, CSA | 35 |
| MR-2043 | 250 | 4 | 1500 | 300 | 0.75 | 1.5 | 30 | -20 to +60 | UL, CSA, VDE | 40 |
| MR-2053 | 250 | 5 | 1500 | 300 | 0.75 | 1.5 | 30 | -20 to +60 | | 40 |
| MR-2054 | 250 | 5 | 1500 | 300 | 0.75 | 1.5 | 30 | -20 to +60 | | 40 |
| MR-2029 | 250 | 2 | 1500 | 300 | 0.5 | 1.5 | 30 | -20 to +60 | | 35 |
| MR-2059 | 250 | 5 | 1500 | 300 | 0.5 | 1.5 | 30 | -20 to +60 | | 35 |

Shape and Dimensions



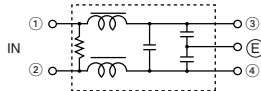
Caution: No (E) terminals on MR-2032.

*Faston® is a registered trademark of Tyco Electronics AMP.

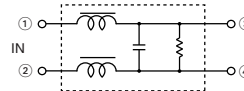
[mm]

Circuit Diagram

●MR-2021

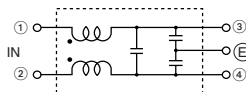


●MR-2032

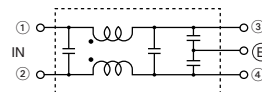


●MR-2043, MR-2053

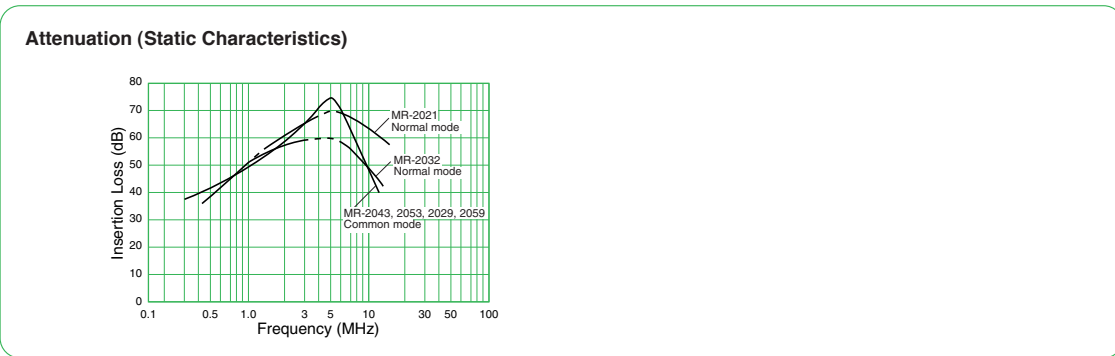
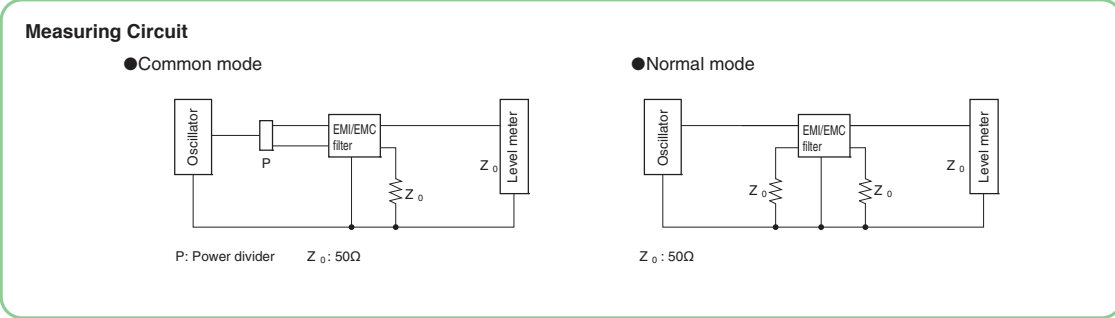
●MR-2029, MR-2059



●MR-2054



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

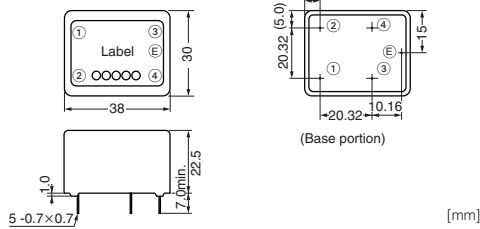
MA Series

[RoHS Compliant]



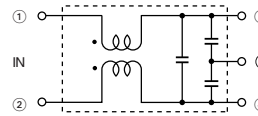
| Model | Rated voltage AC/DC (V) | Rated current AC/DC (A) | Withstanding voltage 1 min., line to ground AC (V) | Insulation resistance 500VDC 1 min., line to ground (MΩ) min. | Leakage current 250V/60Hz, (mA) max. | Voltage drop 50Hz, (V) max. | Self-temperature rise (K) max. | Operating temperature range (°C) | Certified standard | Weight (g) |
|---------|-------------------------|-------------------------|--|---|--------------------------------------|-----------------------------|--------------------------------|----------------------------------|--------------------|------------|
| MA-2013 | 250 | 1 | 1500 | 300 | 0.75 | 1 | 30 | -25 to +55 | UL, CSA, TÜV | 30 |
| MA-2023 | 250 | 2 | 1500 | 300 | 0.75 | 1 | 30 | -25 to +55 | UL, CSA, TÜV | 30 |
| MA-2033 | 250 | 3 | 1500 | 300 | 0.75 | 1 | 30 | -25 to +55 | UL, CSA, TÜV | 30 |
| MA-2043 | 250 | 4 | 1500 | 300 | 0.75 | 1 | 30 | -25 to +55 | UL, CSA, TÜV | 30 |
| MA-2053 | 250 | 5 | 1500 | 300 | 0.75 | 1 | 30 | -25 to +55 | UL, CSA, TÜV | 30 |

Shape and Dimensions



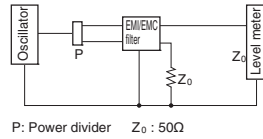
Circuit Diagram

● MA Series

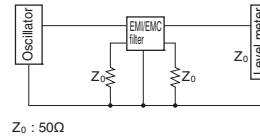


Measuring Circuit

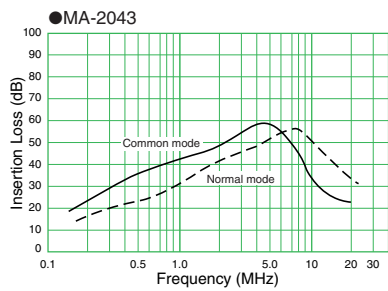
● Common mode



● Normal mode



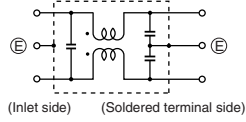
Attenuation (Static Characteristics)



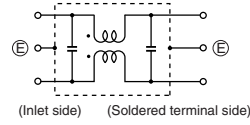
- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

Circuit Diagram

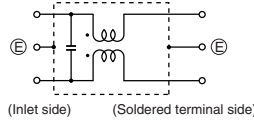
●GL-C, C2, C3, C4 Type



●GL-C1

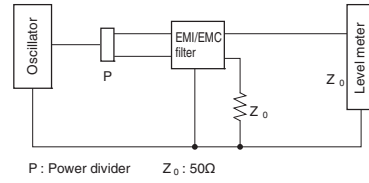


●GL-CT

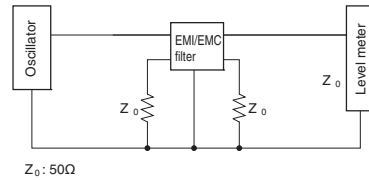


Measuring Circuit

●Common mode

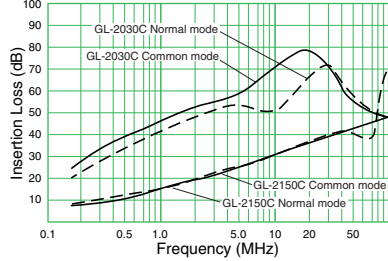


●Normal mode

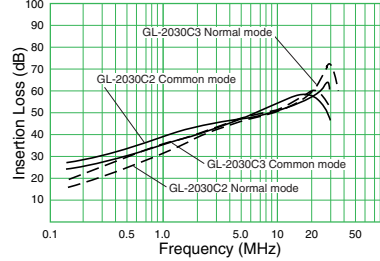


Attenuation (Static Characteristics)

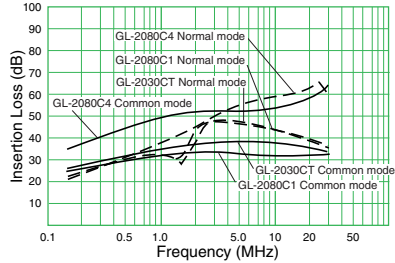
●GL-2030C, 2150C



●GL-2030C2, 2030C3



●GL-2080C1, 2080C4, 2030CT



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

GL Series

F, FV, FVP Type     

[RoHS Compliant]

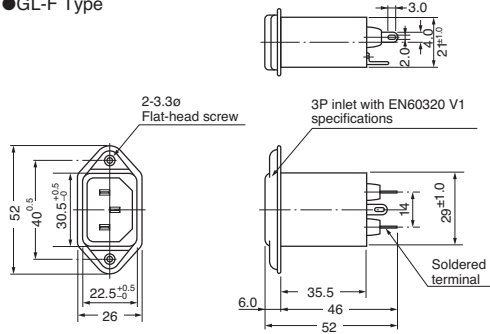


| Model | Rated voltage AC/DC (V) | Rated current AC/DC (A) | Withstanding voltage 1 min., line to ground AC (V) | Insulation resistance 500VDC 1 min., line to ground (MΩ) min. | Leakage current 250V/60Hz (mA) max. | Voltage drop 50Hz (V) max. | Self-temperature rise (K) max. | Operating temperature range (°C) | Certified standard | Weight (g) |
|---------------|-------------------------|-------------------------|--|---|-------------------------------------|----------------------------|--------------------------------|----------------------------------|--------------------|------------|
| GL-2030F | 250 | 3 | 1500 | 300 | 0.5 | 1 | 30 | -25 to +55 | UL,CSA,TÜV,VDE | 40 |
| GL-2060F | 250 | 6 | 1500 | 300 | 0.5 | 1 | 30 | -25 to +55 | UL,CSA,TÜV,VDE | 40 |
| GL-2030FV | 250 | 3 | 1500 | 300 | 0.5 | 1 | 30 | -25 to +55 | UL,CSA,TÜV,VDE | 40 |
| GL-2060FV | 250 | 6 | 1500 | 300 | 0.5 | 1 | 30 | -25 to +55 | UL,CSA,TÜV,VDE | 40 |
| GL-2080FVP | 250 | 8 | 1500 | 300 | 0.2 | 1 | 30 | -25 to +55 | cULus | 50 |
| GL-2060FVP-XL | 250 | 6 | 1500 | 300 | 0.1 | 1 | 30 | -25 to +55 | — | 90 |

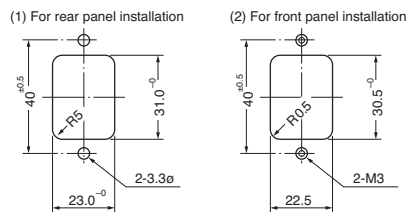
*FV and FVP types are also available with Faston® terminal.
 *Faston® is a registered trademark of Tyco Electronics AMP.

Shape and Dimensions

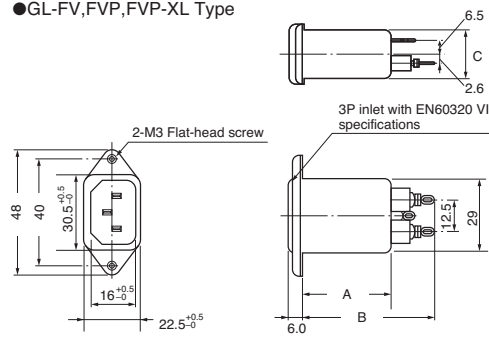
●GL-F Type



Reference installation dimensions



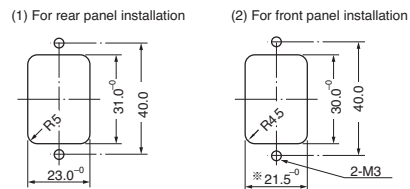
●GL-FV,FVP,FVP-XL Type



| Model | A | B | C |
|-----------|------|------|------|
| GL-FV | 35.5 | 50.0 | 21.0 |
| GL-FVP | 47.5 | 61.0 | 21.0 |
| GL-FVP-XL | 69.5 | 82.8 | 22.0 |

[mm]

Reference installation dimensions



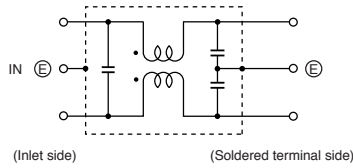
※22.5 for GL-2060FVP-XL
 *Recommended torque (N·m) max. ◆Panel installation (M3: 0.7B)



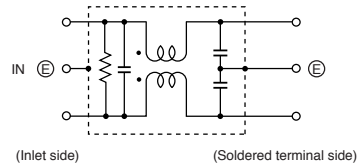
- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

Circuit Diagram

●GL-F FV FVP Type

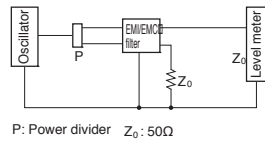


●GL-FVP-XL

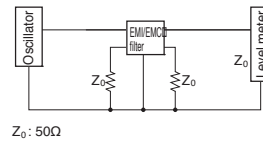


Measuring Circuit

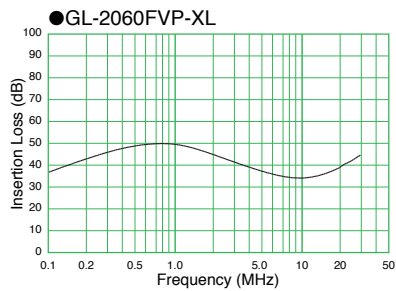
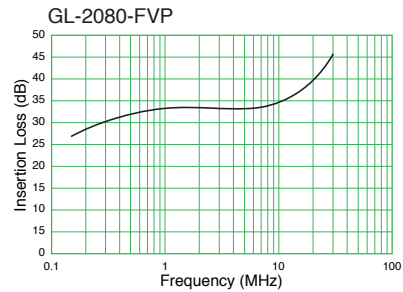
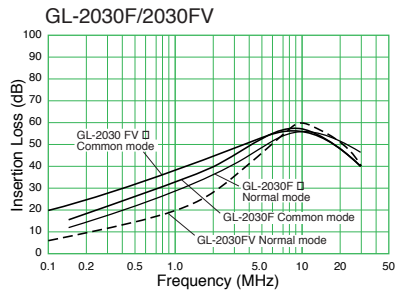
●Common mode



●Normal mode



Attenuation (Static Characteristics)



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

GL Series

H Type

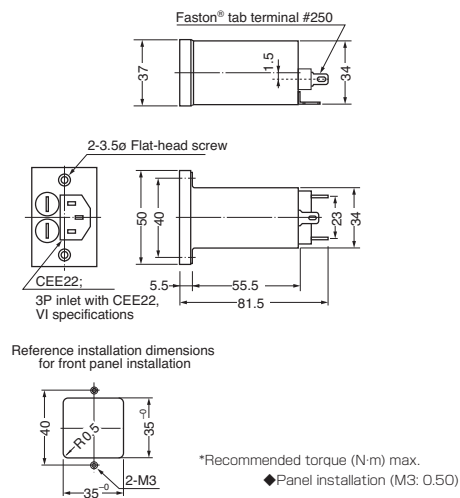
[RoHS Compliant]



| Model | Rated voltage AC/DC (V) | Rated current AC/DC (A) | Withstanding voltage 1 min., line to ground AC (V) | Insulation resistance 500VDC 1 min., line to ground (MΩ) min. | Leakage current 250V/60Hz, (mA) max. | Voltage drop 50Hz, (V) max. | Self-temperature rise (K) max. | Operating temperature range (°C) | Certified standard | Weight (g) |
|-----------|-------------------------|-------------------------|--|---|--------------------------------------|-----------------------------|--------------------------------|----------------------------------|--------------------|------------|
| GL-2030H2 | 250 | 3 | 1500 | 300 | 0.5 | 1 | 30 | -25 to +55 | TÜV | 90 |
| GL-2060H2 | 250 | 6 | 1500 | 300 | 0.5 | 1 | 30 | -25 to +55 | TÜV | 90 |

Shape and Dimensions

●GL-H2 Type (2-fuse type)

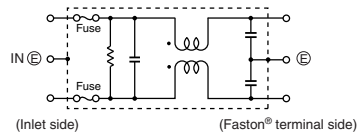


*Faston® is a registered trademark of Tyco Electronics AMP.

[mm]

Circuit Diagram

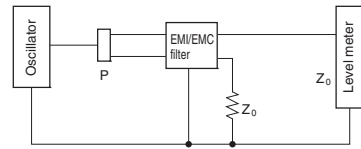
●GL-H2 Type



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

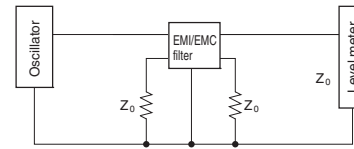
Measuring Circuit

●Common mode



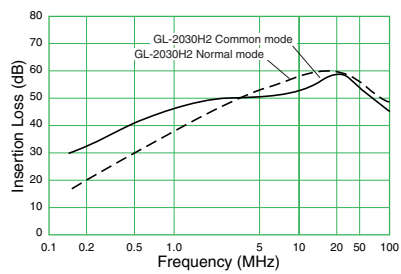
P: Power divider $Z_0 : 50\Omega$

●Normal mode



$Z_0 : 50\Omega$

Attenuation (Static Characteristics)



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

GL Series

M Type   

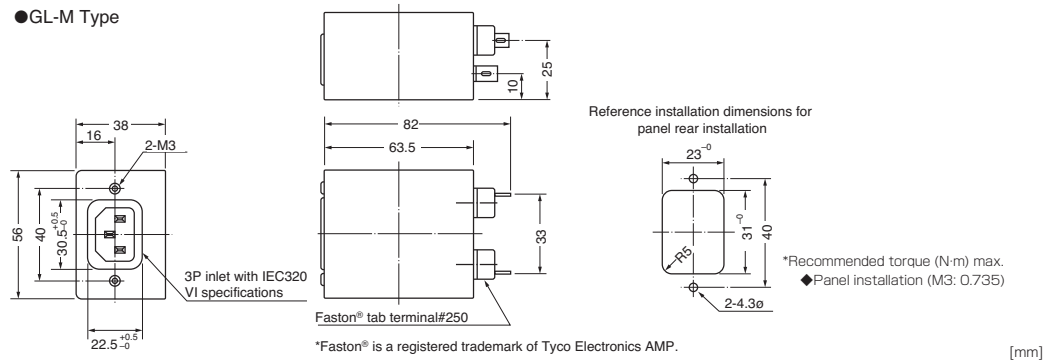
[RoHS Compliant]



| Model | Rated voltage AC/DC (V) | Rated current AC/DC (A) | Withstanding voltage 1 min., line to ground AC (V) | Insulation resistance 500VDC 1 min., line to ground (M Ω) min. | Leakage current 250V/60Hz, (mA) max. | Voltage drop 50Hz, (V) max. | Self-temperature rise (K) max. | Operating temperature range (°C) | Certified standard | Weight (g) |
|----------|-------------------------|-------------------------|--|--|--------------------------------------|-----------------------------|--------------------------------|----------------------------------|--------------------|------------|
| GL-2030M | 250 | 3 | 1500 | 300 | 0.5 | 1 | 30 | -25 to +55 | UL, CSA, TÜV | 200 |
| GL-2060M | 250 | 6 | 1500 | 300 | 0.5 | 1 | 30 | -25 to +55 | UL, CSA, TÜV | 205 |
| GL-2100M | 250 | 10 | 1500 | 300 | 0.5 | 1 | 30 | -25 to +55 | UL, CSA, TÜV | 210 |

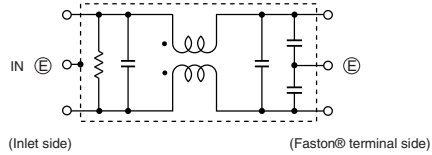
Shape and Dimensions

●GL-M Type



Circuit Diagram

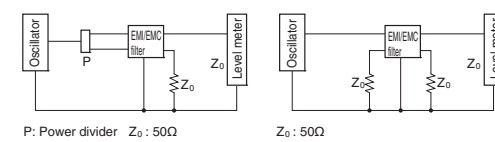
●GL-M Type



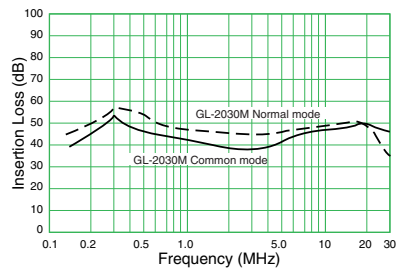
Measuring Circuit

●Common mode

●Normal mode



Attenuation (Static Characteristics)



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

TÜV Rheinland Japan Ltd.
Certification Numbers

| Page | Item | File No. | Page | Item | File No. | | | |
|---------|----------------------------|------------|----------------|------------------|------------------|------------------|------------------|------------------|
| 21 | LF-3000 Series | LF-3200 | 42 | MA Series | MA-2013 | | | |
| | | LF-3300 | | | No.R50014468 | MA-2023 | | |
| | | LF-3400 | | | No.R50014560 | MA-2033 | | |
| | | LF-3500 | | | No.R5008093 | MA-2043 | | |
| | | LF-3600 | | | No.R50014465 | MA-2053 | | |
| 25 | LH Series | LH-3304 | 43 | GL Series C Type | GL-2030C | | | |
| | | LH-3404 | | | No.R50013357 | GL-2060C | | |
| | | LH-3604 | | | No.R50014260 | GL-2100C | | |
| | | LH-3804 | | | No.R50014261 | GL-2150C | | |
| | | LH-31204 | | | No.R50013357 | GL-2030C2 | | |
| | | LH-31504 | | | | GL-2030C3 | | |
| 26 | HFP Series | HFP-2153 | No.R50014217 | 45 | GL Series F Type | GL-2030F | | |
| | | HFP-2303 | No.R50013926 | | | GL-2060F | | |
| | | HFP-2303A1 | No.R50014219 | | | GL-2030FV | | |
| | | HFP-4153A | No.R50015970 | | | GL-2060FV | | |
| | | HFP-4503A | No.J8830914 | | | No.R50013360 | GL-2060C3 | |
| 28 | GT Series Screw Terminal | GT-220U | No. R9651191 | 47 | GL Series H Type | | GL-2030H2 | |
| | | GT-205U | No.R50015833 | | | 49 | GL Series M Type | GL-2060H2 |
| 30 | GT Series Faston® Terminal | GT-210U | | No.R50014761 | 49 | | | GL Series M Type |
| | | GT-20301 | No.R50013384 | | | GL-2060M | | |
| | | GT-20601 | | | No.R50014761 | 49 | GL Series M Type | GL-2100M |
| | | GT-21001 | No.R50014761 | | | | | 49 |
| | | GT-20302 | | | | No.R50014761 | 49 | |
| | | GT-205J | No.R50014761 | | | | | 49 |
| GT-210J | No.R50014761 | 49 | | GL Series M Type | GL-2100M | | | |
| GT-215J | | | No.R50014761 | | 49 | GL Series M Type | GL-2100M | |
| 32 | GT Series for VCCI | GT-21001V | | No.R2-50004761 | | | | |
| 34 | VU Series | VU-220F | No.R50015793 | | | | | |
| 36 | VC Series | VC-215F3V | No.R50013342 | | | | | |
| 38 | RG Series | RG-208F | No.R2-50006637 | | | | | |
| | | RG-208F1 | | No.R50013629 | | | | |
| | | RG-208F2 | No.R2-50006637 | | | | | |
| | | RG-208V-A | | No.R2-50006637 | | | | |



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.

Precautions



- The names of the products and the specifications in this catalog are subject to change without notice for the sake of improvement. The manufacturer also reserves the right to discontinue any of these products. At the time of delivery, please ask for specifications sheets to check the contents in order to use the products properly and safely.
- Descriptions in this catalog regarding product characteristics and quality are based solely on discrete components. When using these components, be sure to check the specifications with the component in question mounted on the products.
- The manufacturer's warranty will not cover any disadvantage or damage caused by improper use of the products that deviates from the characteristics, specifications, or conditions for use described in this catalog.
- The products in this catalog are intended for use in ordinary electronic products. If any of these products are to be used in special applications requiring extremely high reliability, such as in aviation equipment and nuclear power controllers where product defects might pose a safety risk, please consult your NEC TOKIN sales representatives.
- Though the manufacturer has taken all possible precautions to ensure the quality and reliability of its products, improper use of products may result in bodily injury, fire, or similar accident. If you have any questions regarding the use of the products in question, please consult your NEC TOKIN sales representatives.
- Please be advised that the manufacturer accepts no responsibility for any infraction by users of the manufacturer's products on third party patents or industrial copyrights. The manufacturer is responsible only when such infractions are attributable to the structural design of the product and its manufacturing process.
- Export Control
For customers outside Japan
NEC TOKIN products 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.
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.
- This catalog is current as of June 2011.



- All specifications in this catalog and production status of products are subject to change without notice. Prior to the purchase, please contact NEC TOKIN for updated product data.
- Please request for a specification sheet for detailed product data prior to the purchase.
- Before using the product in this catalog, please read "Precautions" and other safety precautions listed in the printed version catalog.