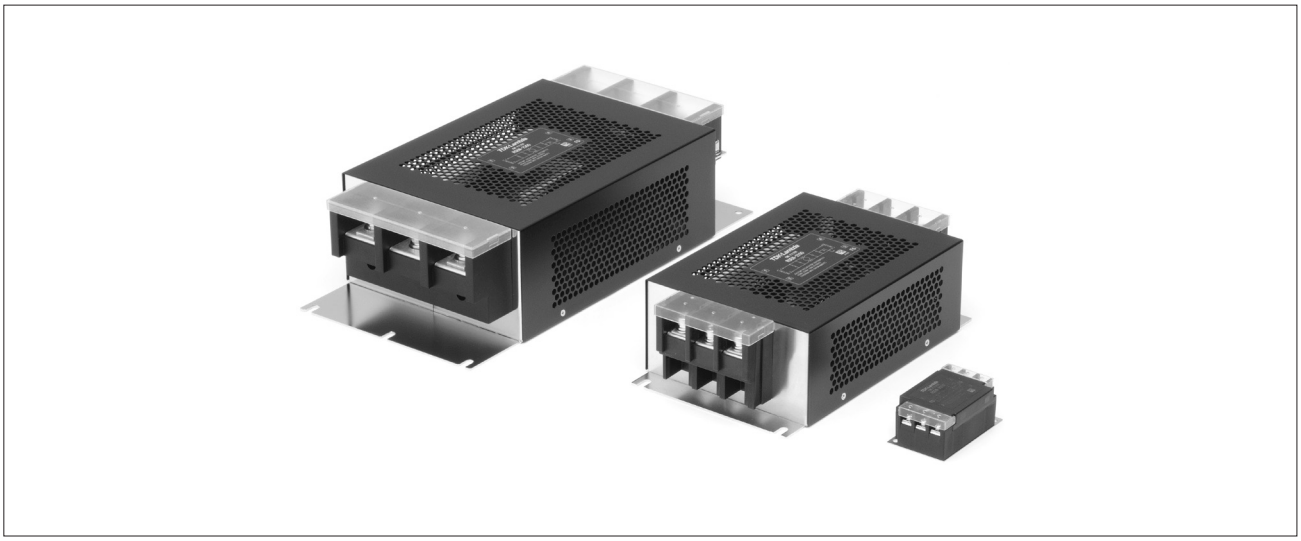
# RSEN SERIES

## Multipurpose Single-Phase Filter with Various Variations and Functions



## ■ FEATURES

- Self-tightening screws and an open/close type cover make wiring work easier.
- 3 to 300A wide range lineup.
- Optional low-leakage current characteristic type and DIN rail installation compatible type are also available.

## ■ SAFETY STANDARDS

| | |
|---|---|
| UL1283 | UL File No. E62388 (Up to 60A) |
| CSA C22.2 No.8 | CSA File No. LR76849 (Up to 60A) |
| EN60939-1/-2 (ENEC14) | Licence Ref. No. SE/07115-2 (Up to 60A) |

## ■ PRODUCT IDENTIFICATION

RSEN –2 ∗∗∗ □

- N/A：Standard Type
- D ：DIN rail installation compatible type (Up to 30A)
- L ：Low-leakage current characteristic type (Up to 30A)
- LD ：Low-leakage current characteristic and DIN rail installation compatible type (Up to 30A)

∗∗∗ : Rated current

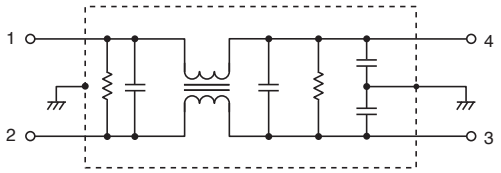
2 : Number indicating the rated voltage

RSEN : Series name

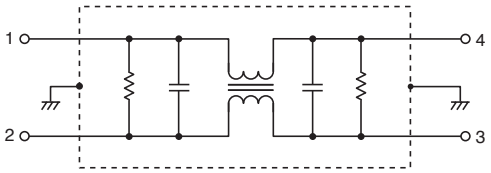
## ■ CONFORMITY TO RoHS Directive

## ■ CIRCUIT DIAGRAMS

RSEN-2 ∗∗∗
RSEN-2 ∗∗∗ D




RSEN-2 ∗∗∗ L



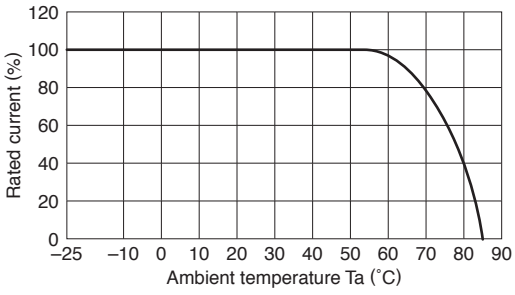
## ■ ELECTRICAL CHARACTERISTICS

| Part No. | Rated voltage (AC/DC) | Rated current (AC/DC) | Withstand voltage | Insulation resistance | Leakage current | Operating temperature range | With derating over | DC resistance (mΩ) | Attenuation frequency range (MHz) | | | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Common mode | | Differential mode | |
| | | | | | | | | | at 25dB | at 10dB | at 25dB | |
| RSEN-2003 | 250V | 3A | AC.2500V 60s [Between line to ground] | 100MΩ min. [DC.500V/1min] | 1.0mA max. [250V/60Hz] | -25 to +85℃ | 55℃ | 250 max. | 0.1 to 20 | - | 0.2 to 30 | 0.17 |
| RSEN-2006 | | 6A | | | | | | 110 max. | 0.1 to 10 | - | 0.2 to 30 | 0.23 |
| RSEN-2010 | | 10A | | | | | | 40 max. | 0.2 to 20 | - | 0.2 to 30 | 0.23 |
| RSEN-2016 | | 16A | | | | | | 20 max. | 0.3 to 20 | - | 0.3 to 30 | 0.23 |
| RSEN-2020 | | 20A | | | | | | 10 max. | 0.4 to 30 | - | 0.3 to 30 | 0.23 |
| RSEN-2030 | | 30A | | | | | | 6 max. | 2 to 30 | - | 0.4 to 30 | 0.23 |
| RSEN-2040 | | 40A | | | | | | 6 max. | 2 to 10 | - | 0.2 to 30 | 0.87 |
| RSEN-2050 | | 50A | | | | | | 4 max. | 2 to 10 | - | 0.2 to 30 | 0.87 |
| RSEN-2060 | | 60A | | | | | | 3 max. | 2 to 10 | - | 0.2 to 30 | 0.87 |
| RSEN-2080 | | 80A | | | | | 50℃ | 3.4 max. | 2 to 10 | - | 0.1 to 30 | 3.60 |
| RSEN-2100 | | 100A | | | | | | 2.7 max. | 2 to 10 | - | 0.1 to 30 | 3.80 |
| RSEN-2150 | | 150A | | | | | | 2 max. | 2 to 10 | - | 0.1 to 30 | 5.80 |
| RSEN-2200 | | 200A | | | | | | 1.4 max. | - | 0.4 to 30 | 0.1 to 30 | 8.40 |
| RSEN-2250 | | 250A | | | | | | 1 max. | - | 1 to 20 | 0.1 to 30 | 8.10 |
| RSEN-2300 | | 300A | | | | | | 0.7 max. | - | 2 to 20 | 0.1 to 30 | 7.80 |

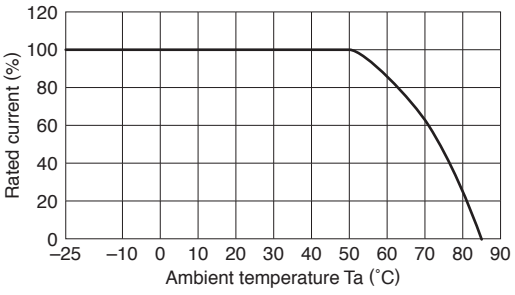
| Part No. | Rated voltage (AC/DC) | Rated current (AC/DC) | Withstand voltage | Insulation resistance | Leakage current | Operating temperature range | With derating over | DC resistance (mΩ) | Attenuation frequency range (MHz) | | | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Common mode | | Differential mode | |
| | | | | | | | | | at 25dB | at 10dB | at 25dB | |
| RSEN-2003L | 250V | 3A | AC.2500V 60s [Between line to ground] | 100MΩ min. [DC.500V/1min] | 10μA max. [250V/60Hz] | -25 to +85℃ | 55℃ | 250 max. | 0.1 to 2 | - | 0.2 to 30 | 0.17 |
| RSEN-2006L | | 6A | | | | | | 110 max. | 0.1 to 2 | - | 0.2 to 30 | 0.22 |
| RSEN-2010L | | 10A | | | | | | 40 max. | - | 0.1 to 10 | 0.2 to 30 | 0.23 |
| RSEN-2016L | | 16A | | | | | | 20 max. | - | 0.1 to 10 | 0.2 to 30 | 0.23 |
| RSEN-2020L | | 20A | | | | | | 10 max. | - | 0.2 to 10 | 0.3 to 30 | 0.23 |
| RSEN-2030L | | 30A | | | | | | 6 max. | - | 0.3 to 5 | 0.3 to 30 | 0.23 |

## ■ DERATING GRAPHS

RSEN-2003/2006/2010/2016/2020/2030/2040/2050/2060

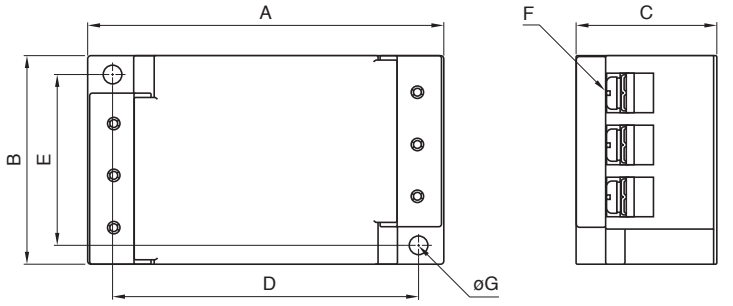



RSEN-2080/2100/2150/2200/2250/2300

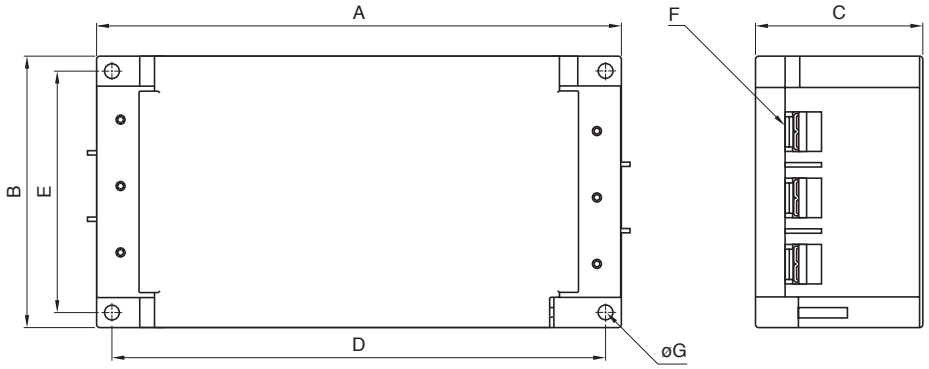


## ■ MECHANICAL

RSEN-2003/2006/2010/2016/2020/2030



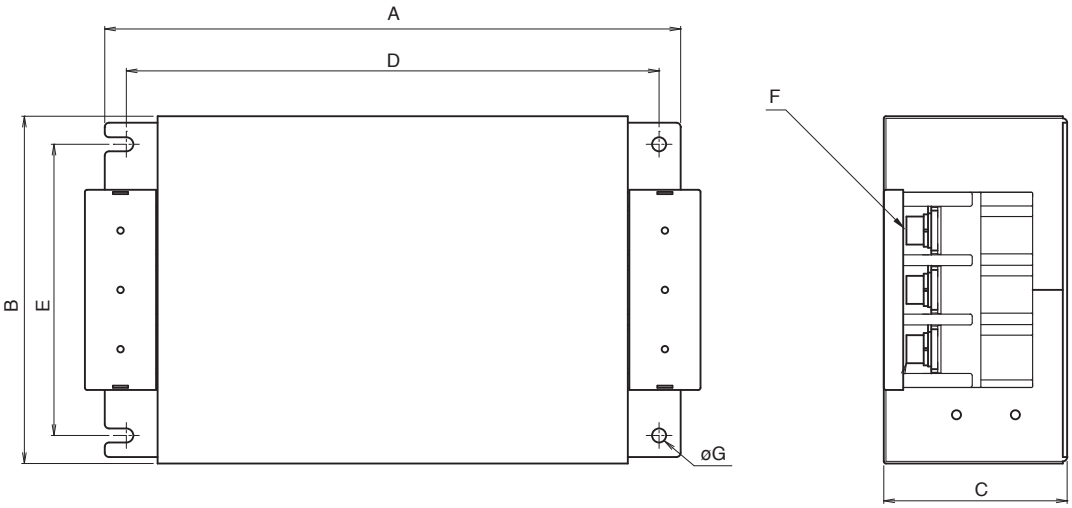

RSEN-2040/2050/2060



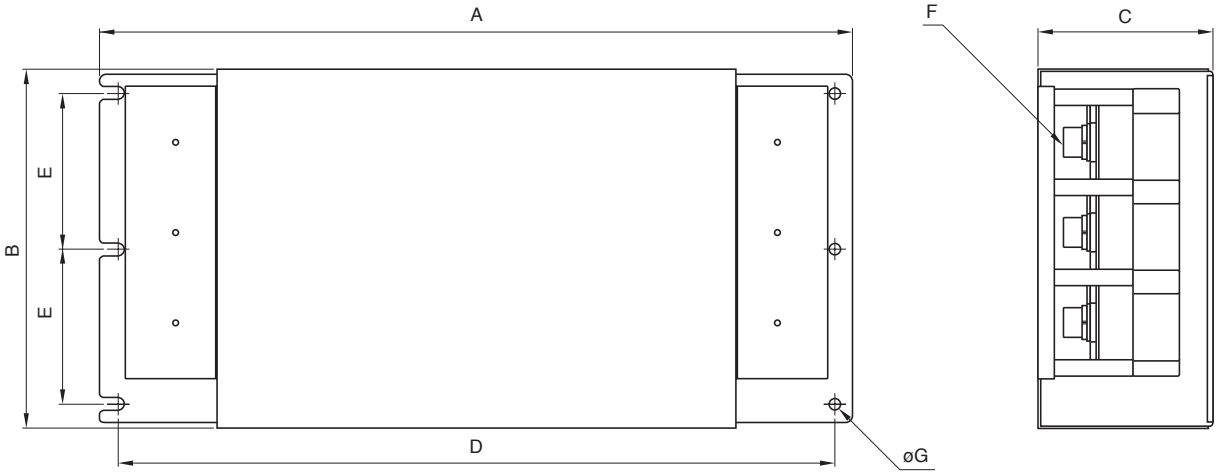

Dimensions in mm

| Part No. | A | B | C | D | E | F | ϕG | Recommended clamping torque |
|---|---|---|---|---|---|---|---|---|
| RSEN-2003 | 87 | 52 | 35 | 75 | 43 | M4 | 4.5 | 1.27N・m |
| RSEN-2006 | | | | | | | | |
| RSEN-2010 | | | | | | | | |
| RSEN-2016 | | | | | | | | |
| RSEN-2020 | | | | | | | | |
| RSEN-2030 | | | | | | | | |
| RSEN-2040 | 170 | 90 | 54 | 160 | 80 | M5 | 4.5 | 2.5N・m |
| RSEN-2050 | | | | | | | | |
| RSEN-2060 | | | | | | | | |

RSEN-2080/2100/2150



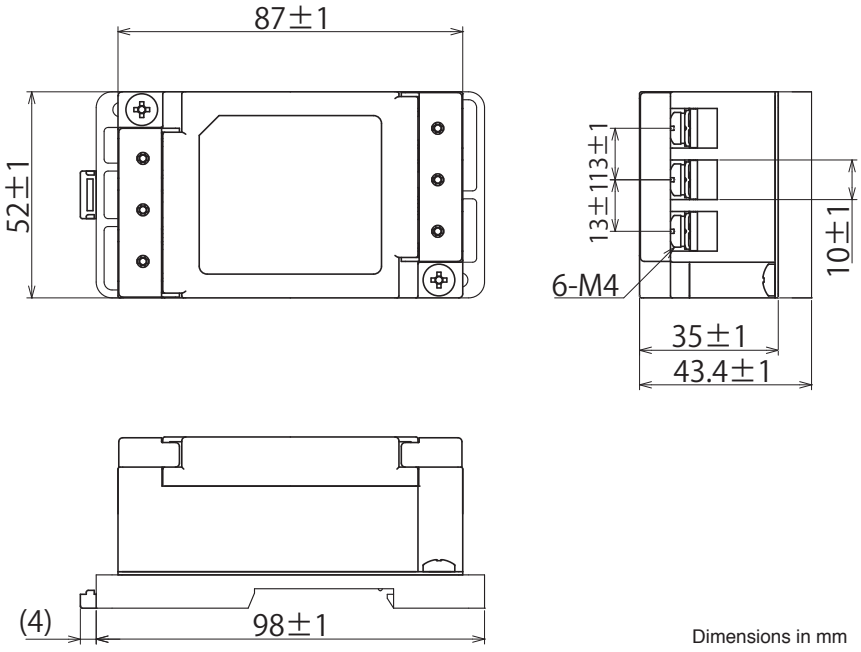

RSEN-2200/2250/2300




Dimensions in mm

| Part No. | A | B | C | D | E | F | ϕG | Recommended clamping torque |
|---|---|---|---|---|---|---|---|---|
| RSEN-2080 | 267 | 161 | 85 | 247 | 135 | M8 | 6.5 | 7.64N・m |
| RSEN-2100 | | | | | | | | |
| RSEN-2150 | 290 | 190 | 88 | 270 | 164 | M8 | 6.5 | |
| RSEN-2200 | 390 | 195 | 103 | 370 | 84.5 | M10 | 6.5 | 11.8N・m |
| RSEN-2250 | | | | | | | | |
| RSEN-2300 | | | | | | | | |

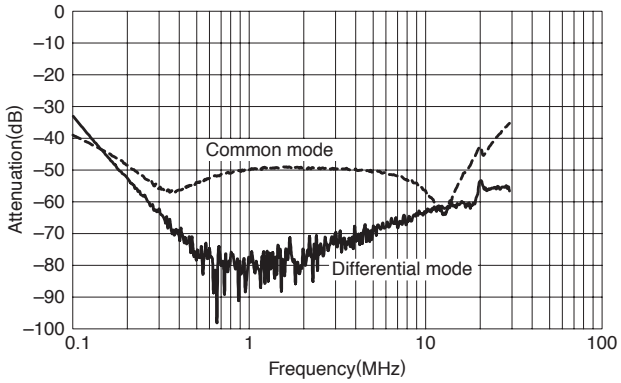
RSEN-2003D/2006D/2010D/2016D/2020D/2030D



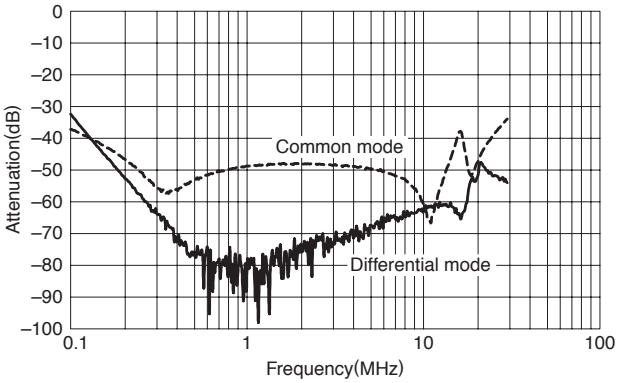

Dimensions in mm

## ■ ATTENUATION vs. FREQUENCY CHARACTERISTICS

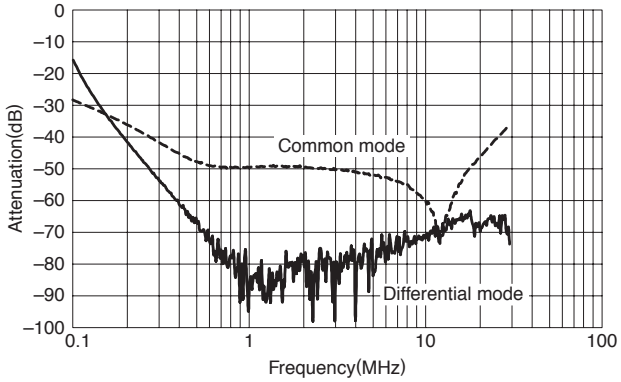
RSEN-2003



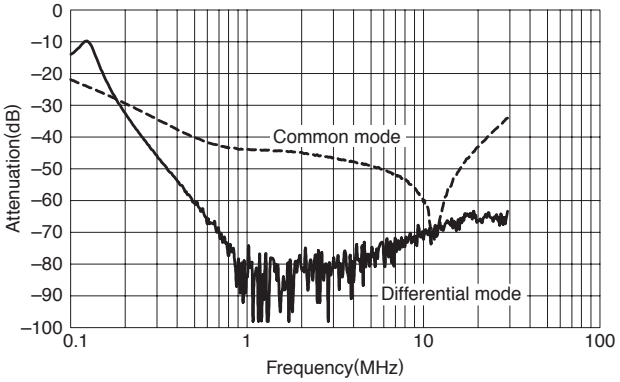

RSEN-2006



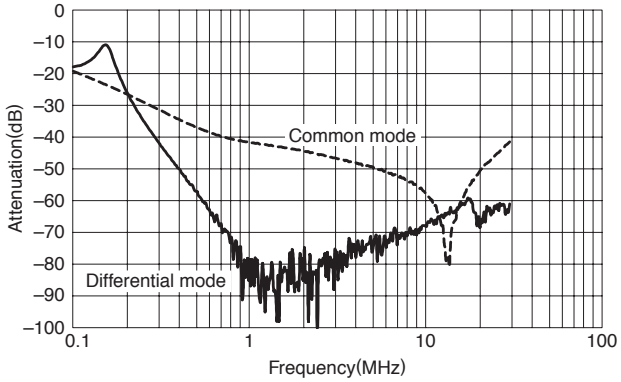

RSEN-2010



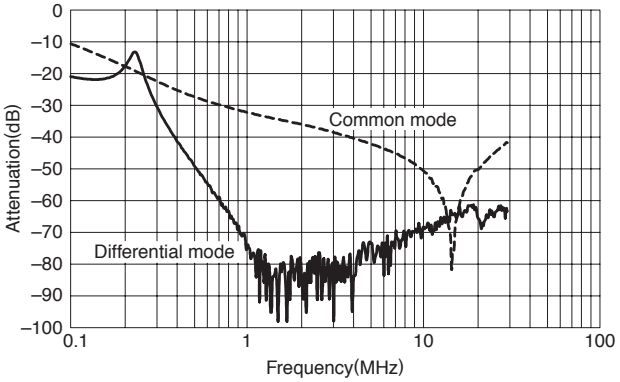

RSEN-2016



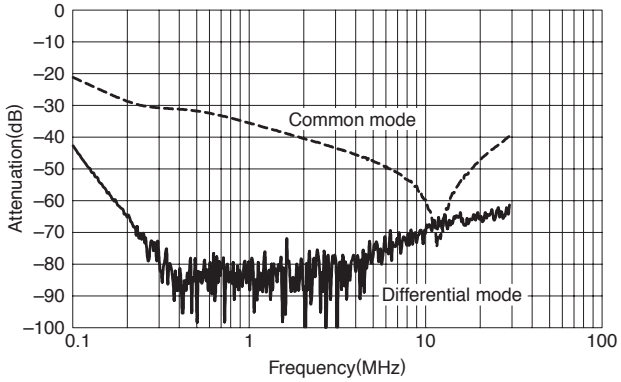

RSEN-2020



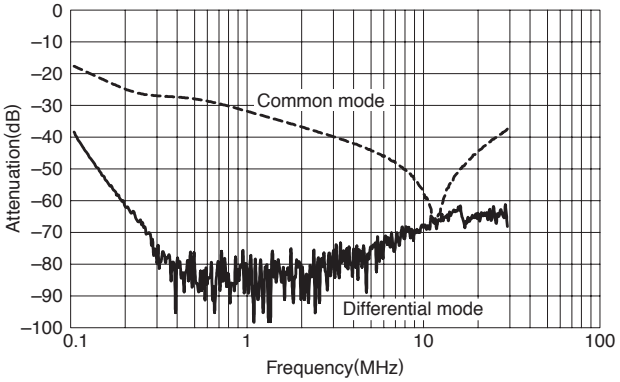

RSEN-2030



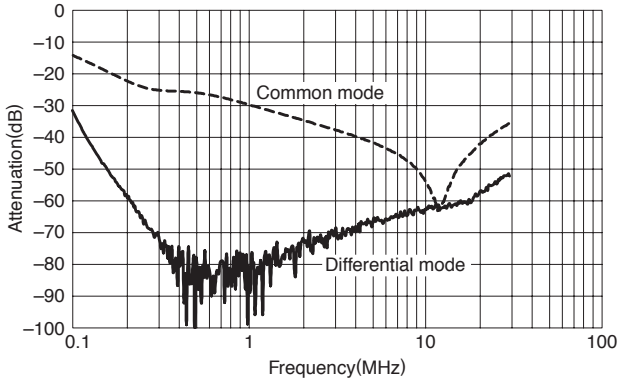

RSEN-2040



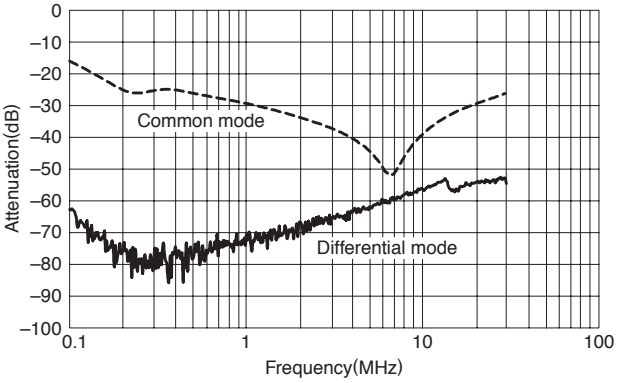

RSEN-2050



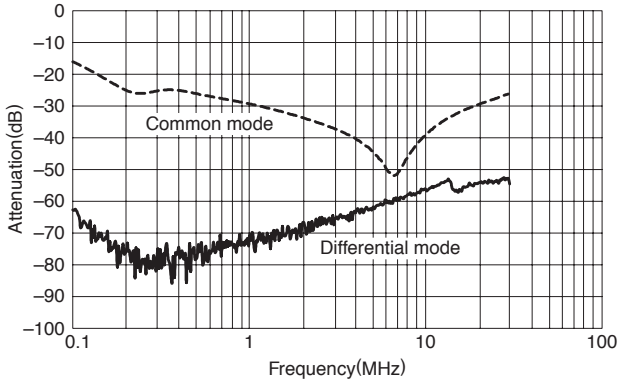
RSEN-2060



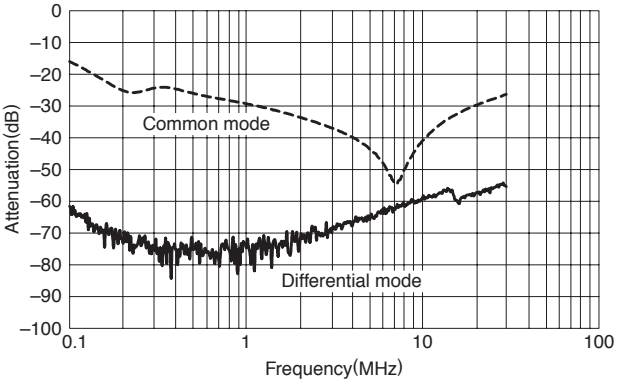

RSEN-2080



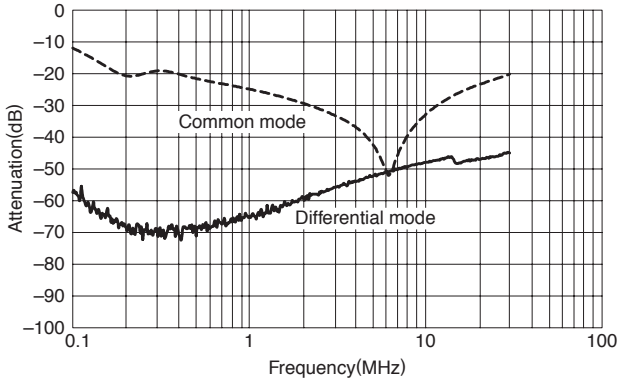

RSEN-2100



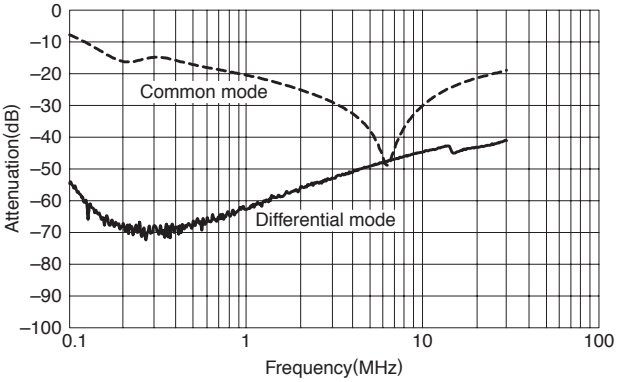

RSEN-2150



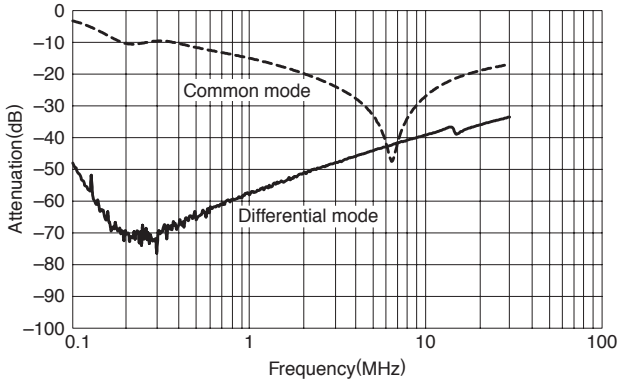

RSEN-2200



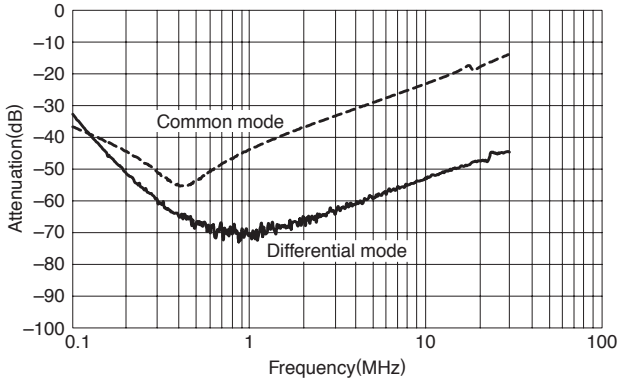

RSEN-2250



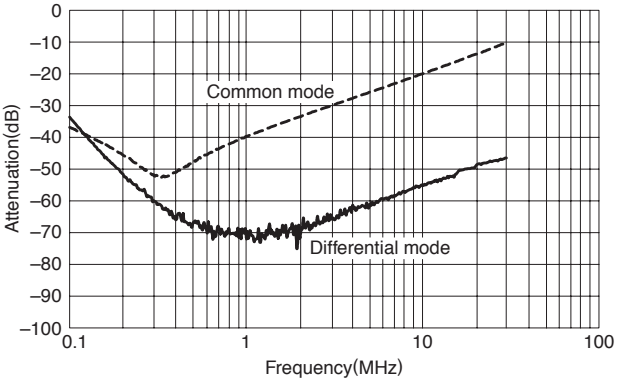

RSEN-2300



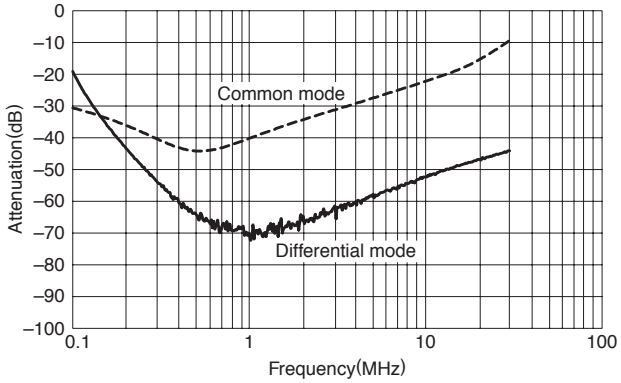
RSEN-2003L



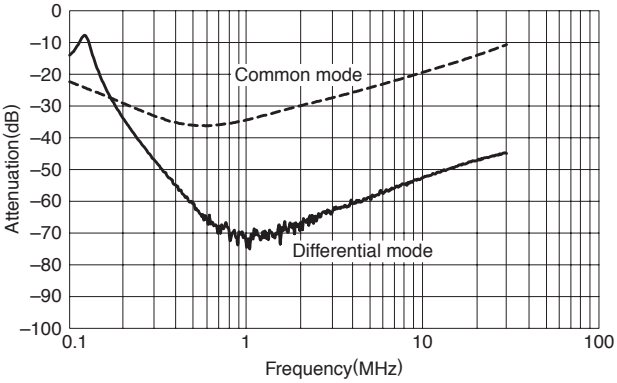

RSEN-2006L



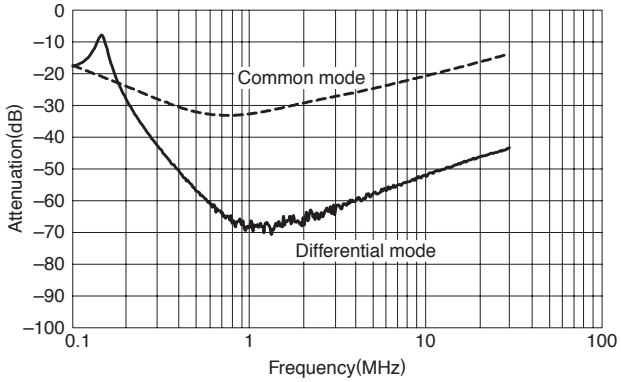

RSEN-2010L




RSEN-2016L




RSEN-2020L




RSEN-2030L

