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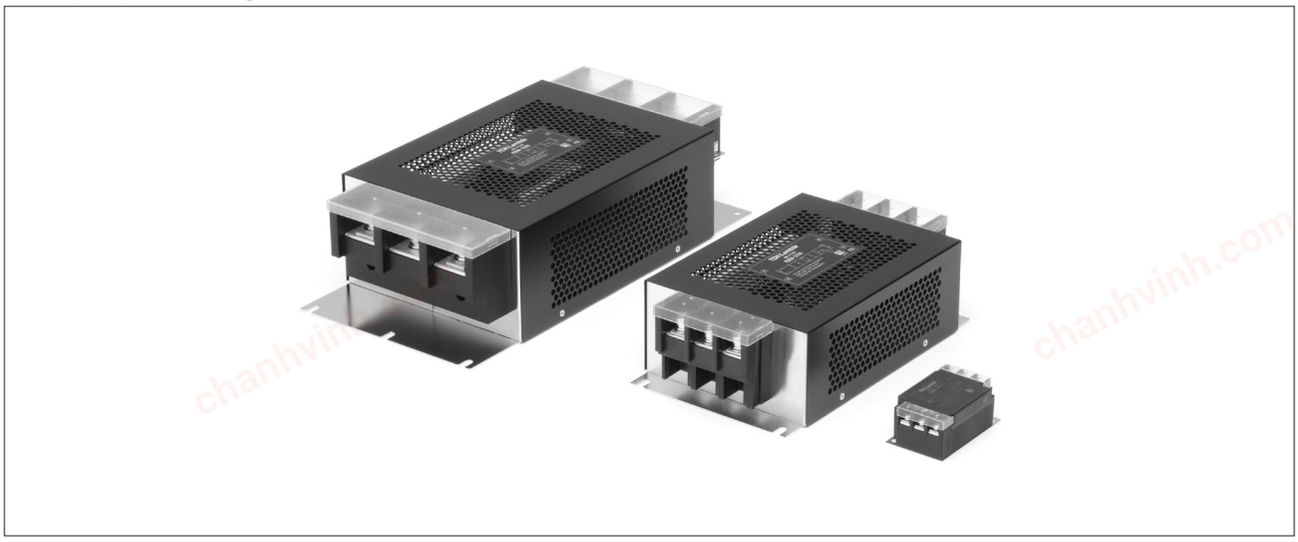
# RSEN SERIES

## 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

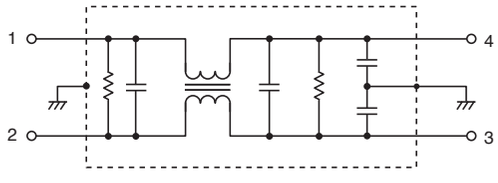
-2 : Number indicating the rated voltage

RSEN : Series name

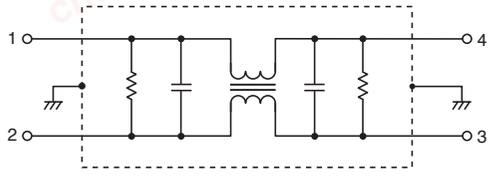
## ■ CONFORMITY TO RoHS Directive

## ■ CIRCUIT DIAGRAMS

RSEN-2 ∗∗∗
RSEN-2 ∗∗∗ D




RSEN-2 ∗∗∗ L



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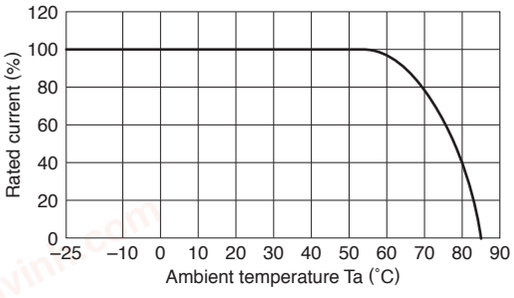
## ■ ELECTRICAL CHARACTERISTICS

| 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 |

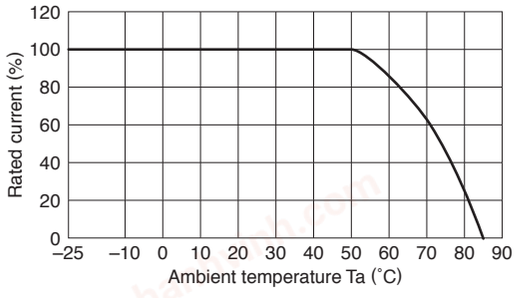
| Part No. | Rated voltage (AC/DC) | Rated current (AC/DC) | Withstand voltage | Insulation resistance | Leakage current | Operating temperature range | With derating over | DC resistance (mΩ) | Attenuation frequency range (MHz) | | | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 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



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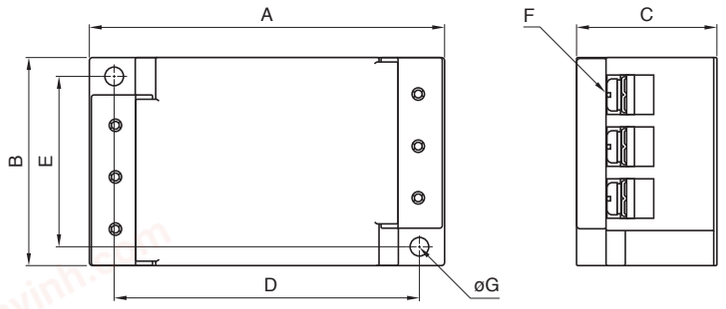
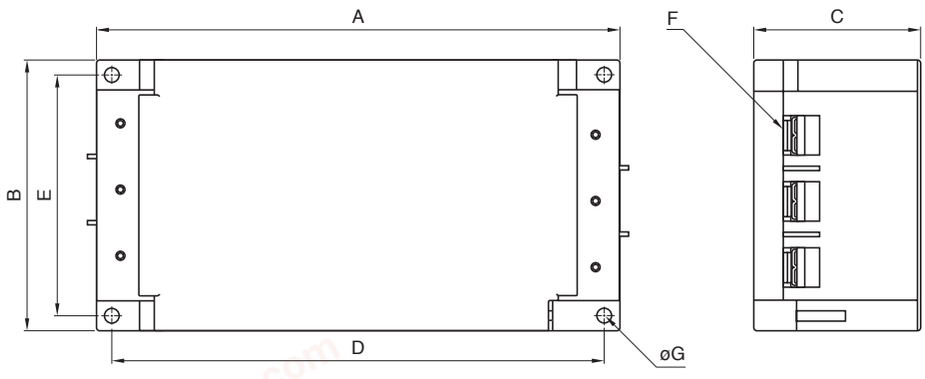
## ■ MECHANICAL

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 | | | | | | | | |

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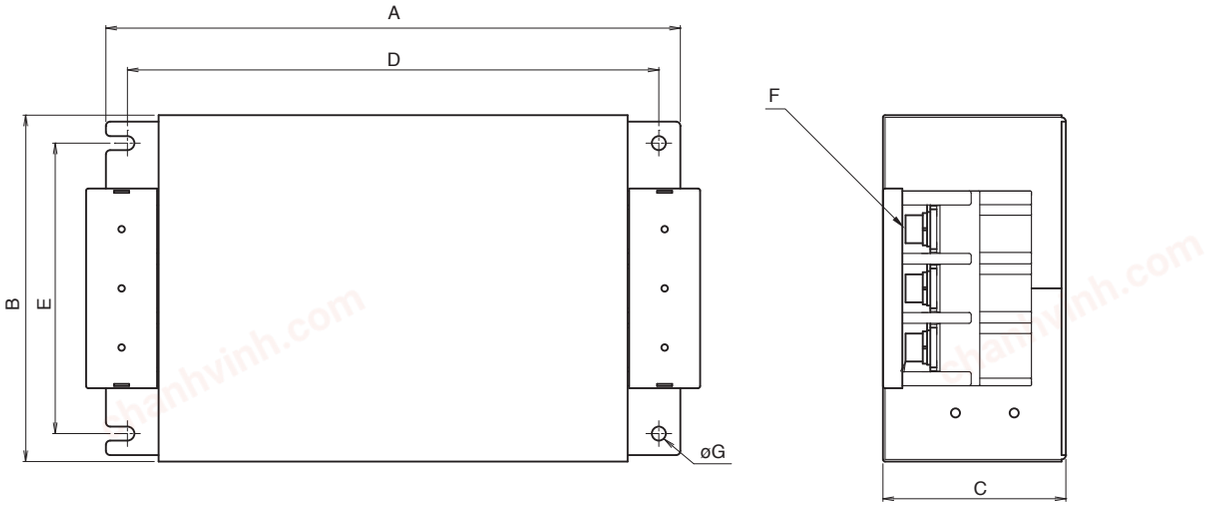
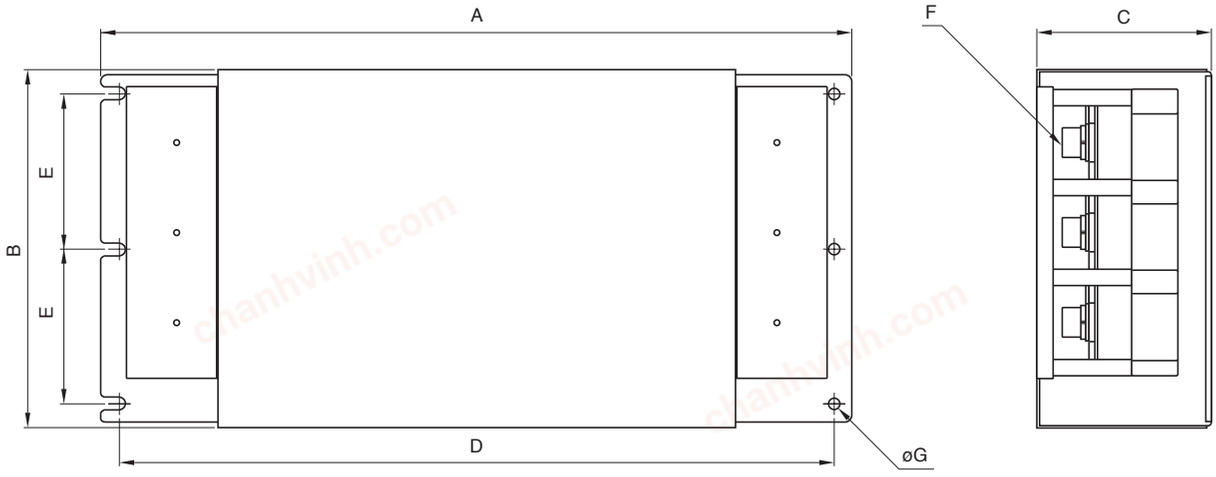
RSEN-2080/2100/2150




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 | | | | | | | | |

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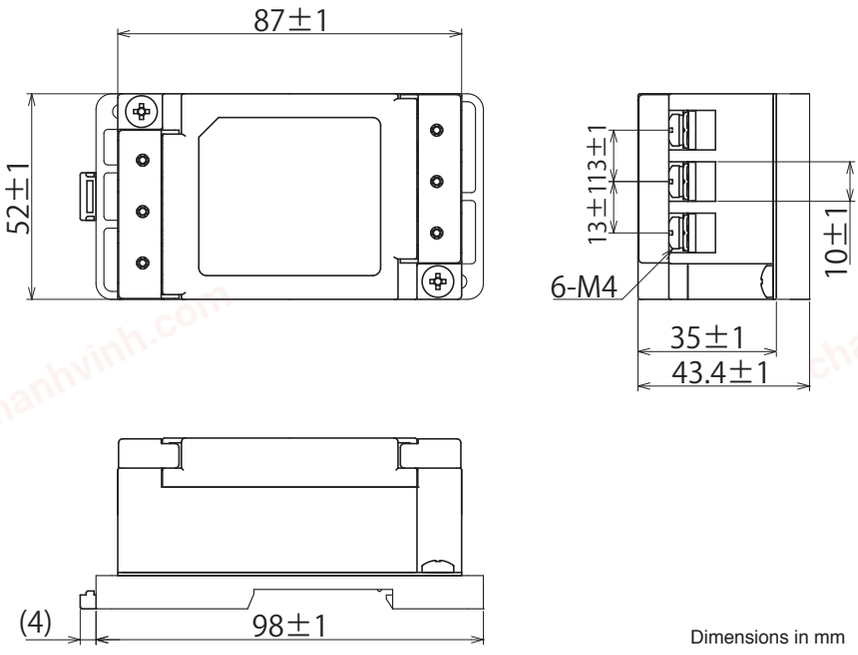
RSEN-2003D/2006D/2010D/2016D/2020D/2030D




Dimensions in mm

*Please see the next page: "Precautions of DIN rail mounting".

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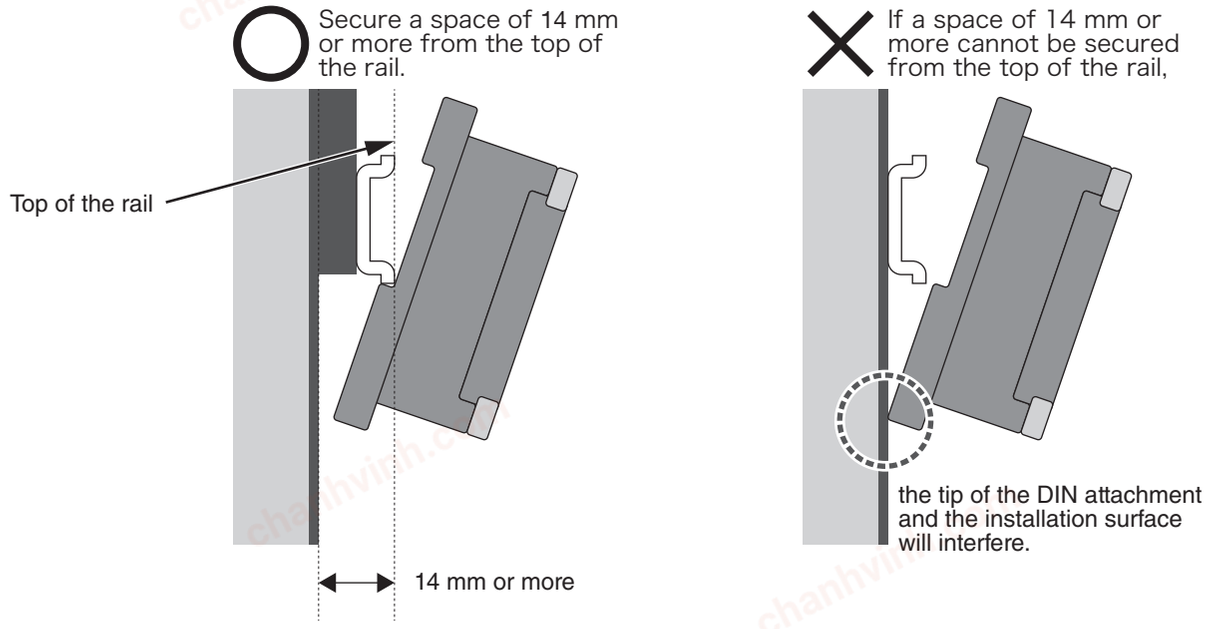
# Precautions of DIN rail mounting

When installing on a DIN rail, secure a space with a depth of 14 mm or more from the top of the rail. If there is no depth space, the tip of the DIN attachment and the installation surface may interfere and it may not be possible to install it.



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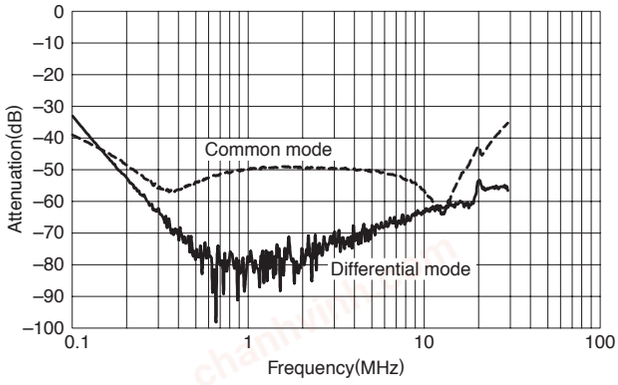
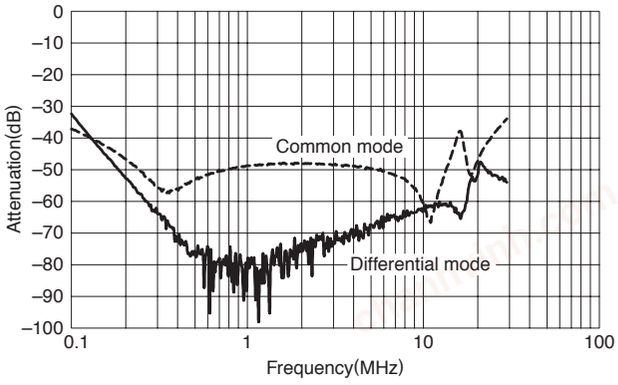
## ■ ATTENUATION vs. FREQUENCY CHARACTERISTICS

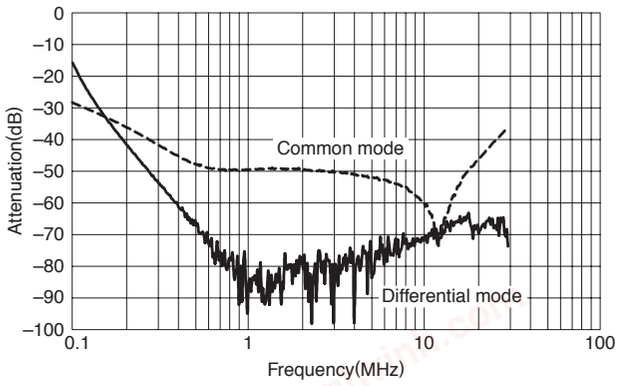
RSEN-2003



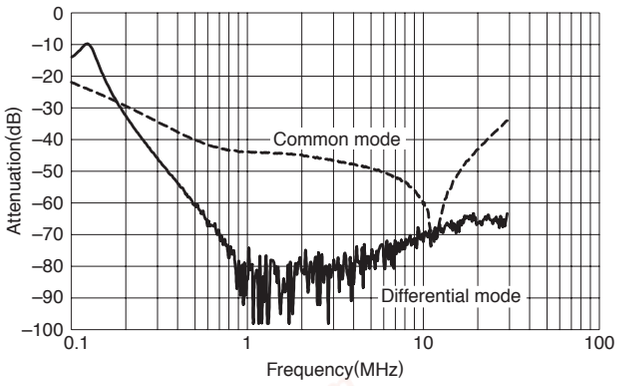

RSEN-2006



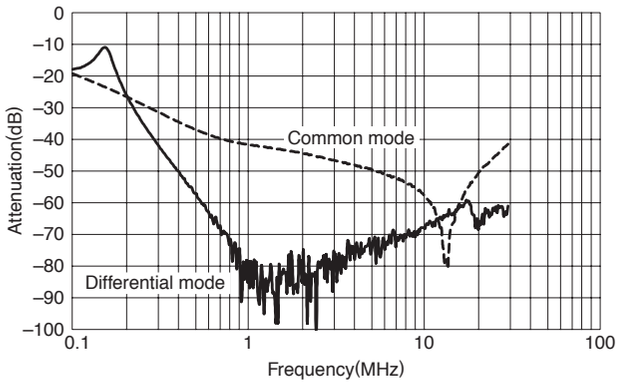

RSEN-2010



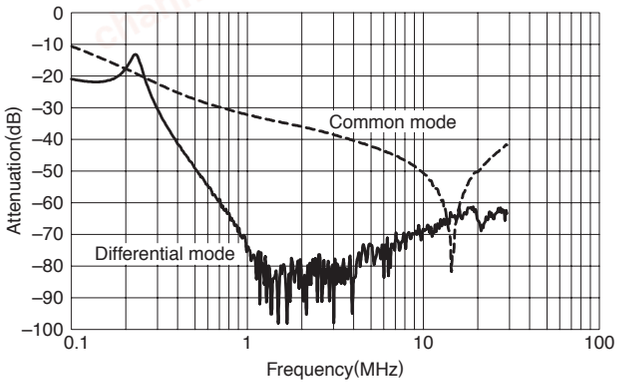

RSEN-2016



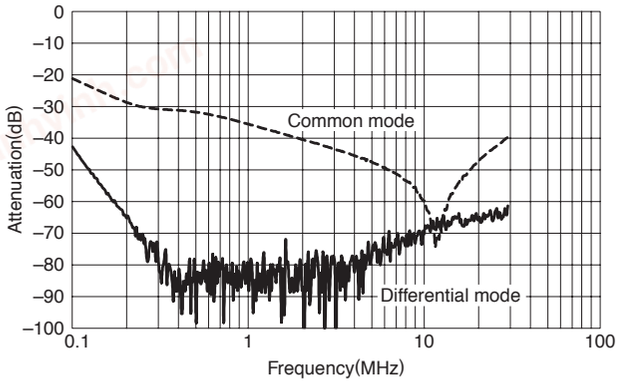

RSEN-2020



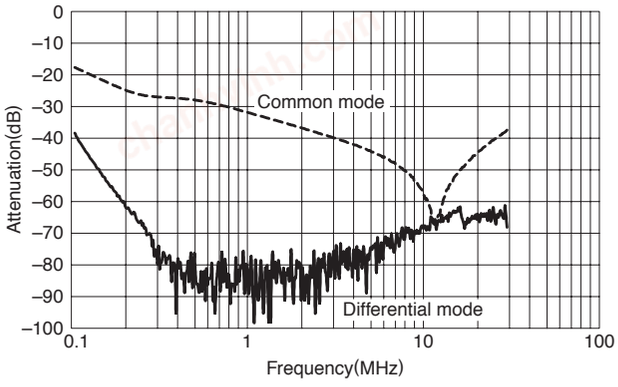

RSEN-2030




RSEN-2040




RSEN-2050



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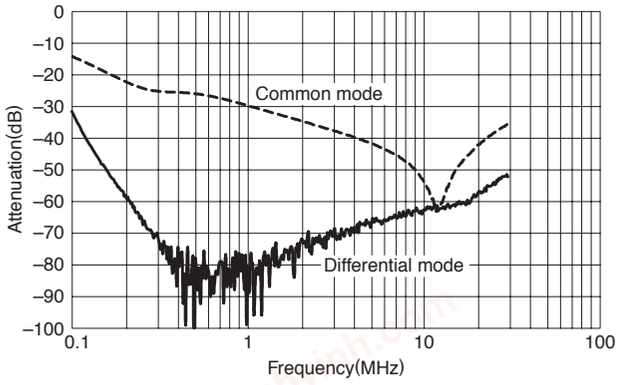
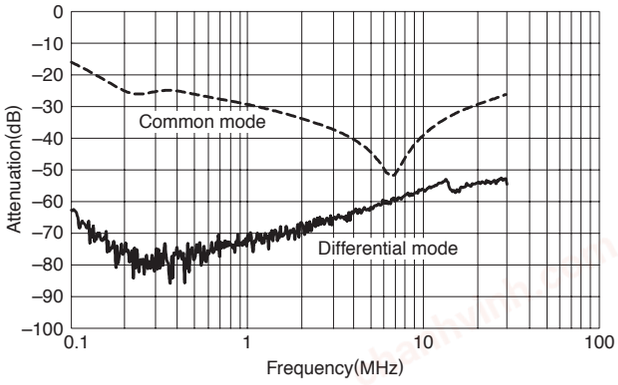
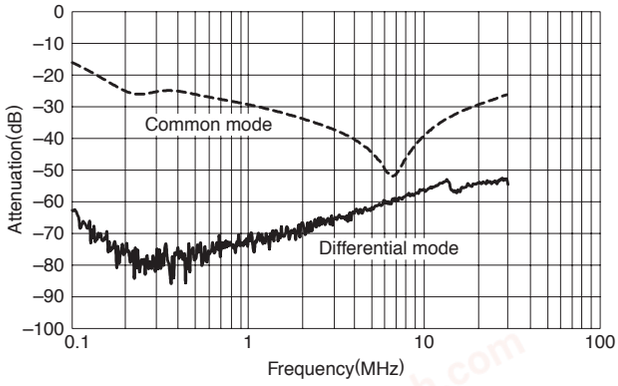
RSEN-2060



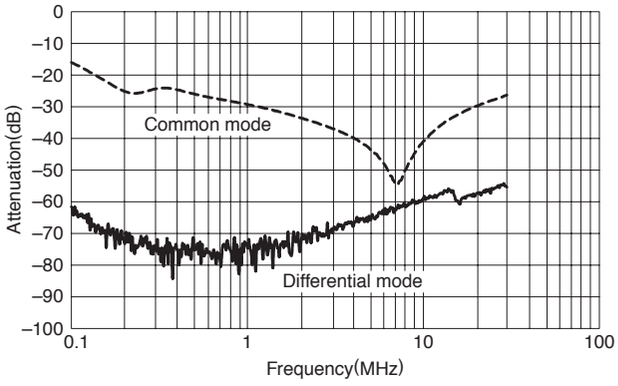

RSEN-2080



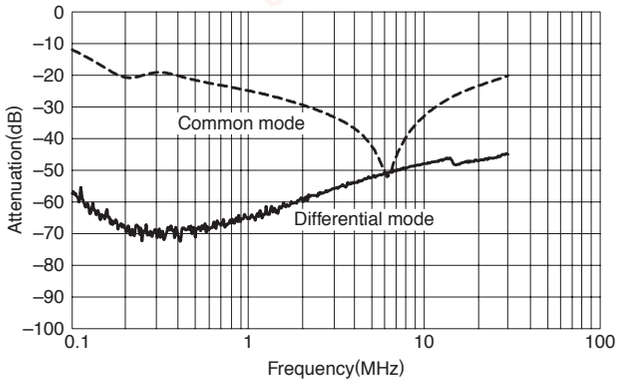

RSEN-2100



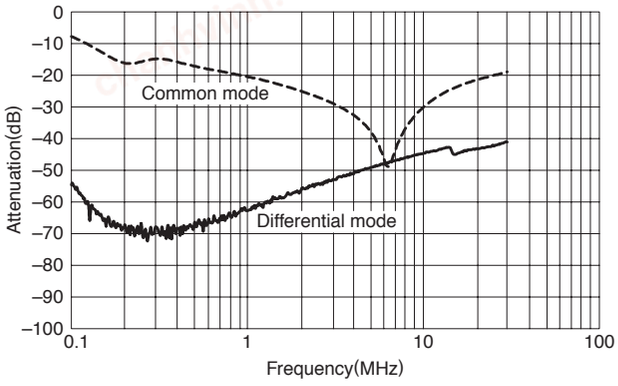

RSEN-2150



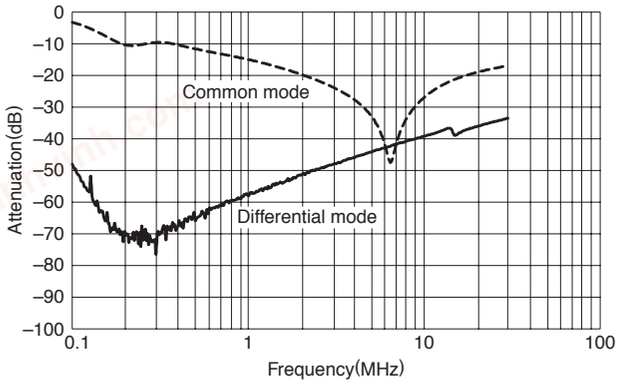

RSEN-2200




RSEN-2250




RSEN-2300



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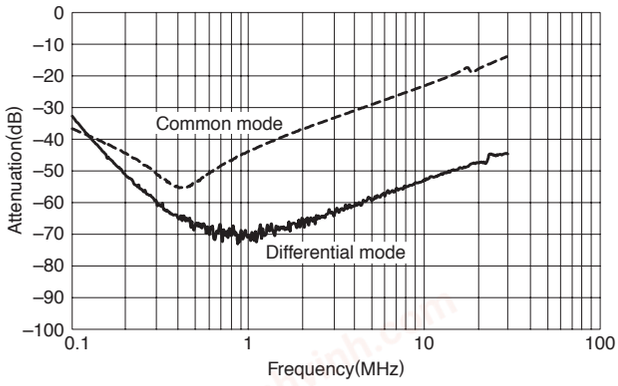
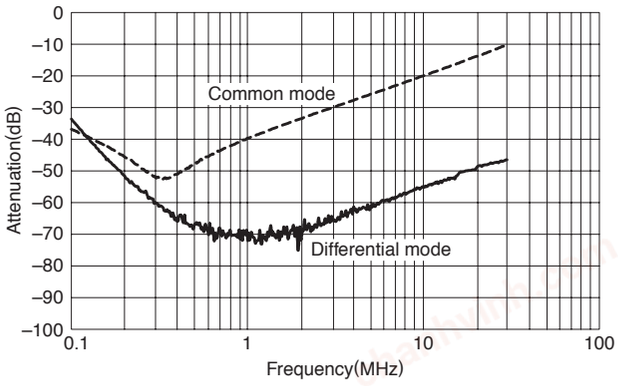
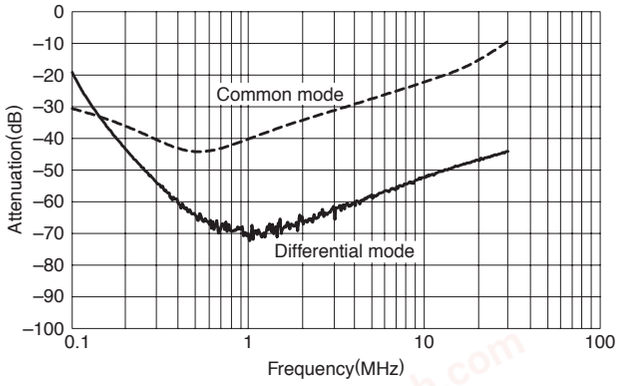
RSEN-2003L



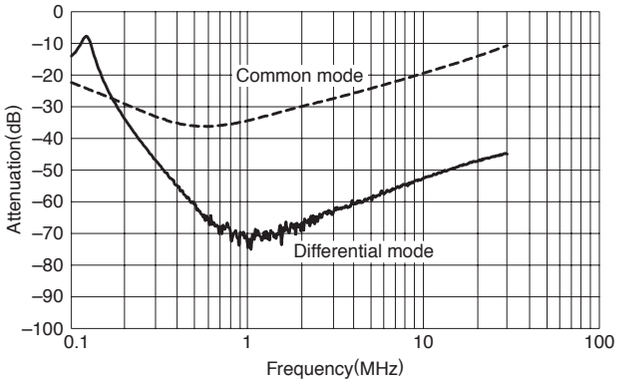

RSEN-2006L



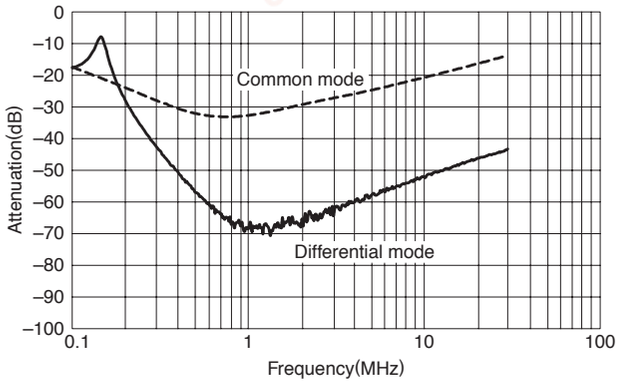

RSEN-2010L




RSEN-2016L




RSEN-2020L




RSEN-2030L

