

EMC Filters for AC Power Line

For Triple-phase, Large-size Box Cased(Square Wire Winding Type) ZRCT-MF Series

Conformity to RoHS Directive

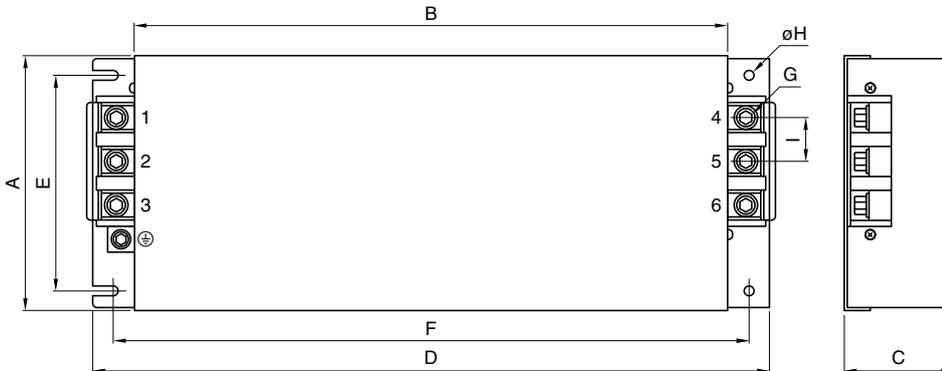
FEATURES

- The ZRCT-MF series employ a highly efficient thermal design, which ensures high current handling capacity in a compact package with superior EMC suppression characteristics.
- They are highly effective at preventing both the radiation and penetration of EMC noise. The parts are, therefore, highly immune to externally generated noise and do not, themselves, serve as sources of radiated noise.
- For the CISPR frequency band, this product provides superior attenuation for both differential mode and common mode noise components.
- The withstand voltage between line and ground is AC.2500V.
- Single-direction block terminal design simplifies wiring requirements, thereby improving workflow.
- It is a product conforming to RoHS directive.

APPLICATIONS

Computers, general purpose inverters, UPE(uninterruptible power equipment), computer control devices, NC control devices, etc. Highly recommended for large equipment destined for CE countries, where compliance with EMC radiation standards is required as part of CE marking certification.

SHAPES AND DIMENSIONS



Dimensions in mm

| Part No. | A | B | C | D | E | F | G | øH | I |
|-------------|-------|-----|-----|-----|-----|-----|-----|-----|------|
| ZRCT5050-MF | 164 | 344 | 68 | 396 | 135 | 369 | M6 | 6.5 | 25.5 |
| ZRCT5080-MF | 169 | 391 | 72 | 445 | 141 | 418 | M8 | 6.5 | 29 |
| ZRCT5100-MF | 170 | 425 | 79 | 477 | 135 | 450 | M8 | 6.5 | 29 |
| ZRCT5150-MF | 190 | 465 | 87 | 517 | 160 | 490 | M8 | 6.5 | 29 |
| ZRCT5200-MF | 197.5 | 499 | 107 | 605 | 152 | 590 | M10 | 6.5 | 49 |
| ZRCT5250-MF | 197.5 | 499 | 107 | 605 | 152 | 590 | M10 | 6.5 | 49 |
| ZRCT5300-MF | 197.5 | 499 | 107 | 605 | 152 | 590 | M10 | 6.5 | 49 |

- Case:metal, terminal cover:polycarbonate, terminal block:bolt with hexagonal hole, case and cover surface:long hole 4×20mm punching

- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

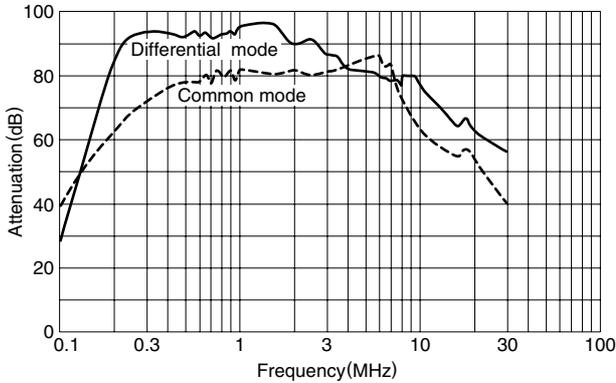
- All specifications are subject to change without notice.

ELECTRICAL CHARACTERISTICS

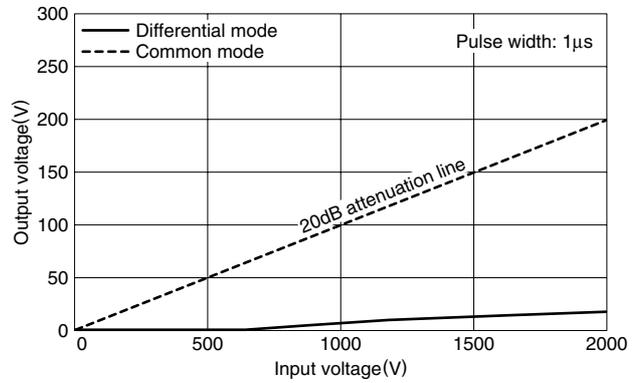
| Part No. | ZRCT5050-MF | ZRCT5080-MF | ZRCT5100-MF | ZRCT5150-MF | ZRCT5200-MF | ZRCT5250-MF | ZRCT5300-MF |
|---|---------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Rated voltage Eac(V) | 500 | 500 | 500 | 500 | 500 | 500 | 500 |
| Rated current(A) | 50 | 80 | 100 | 150 | 200 | 250 | 300 |
| Test voltage Eac(V)[Between terminal and case] | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 | 2500 |
| Insulation resistance(MΩ) [DC, 500V, 1min/between terminal and case] | 100min. | 100min. | 100min. | 100min. | 100min. | 100min. | 100min. |
| Leakage current(mA)[440V • 50Hz] | 3.5max. | 3.5max. | 3.5max. | 3.5max. | 3.5max. | 3.5max. | 3.5max. |
| DC resistance(mΩ) or Voltage down(V) | 1.5V max. | 1.5V max. | 1V max. | 1V max. | 1V max. | 1V max. | 1V max. |
| Operating temperature range(°C) [Including self-temperature rise] | -25 to +85 | -25 to +85 | -25 to +85 | -25 to +85 | -25 to +85 | -25 to +85 | -25 to +85 |
| With derating over(°C) | 45 | 45 | 45 | 45 | 45 | 45 | 45 |
| Temperature rise(°C) | 40max. | 40max. | 40max. | 40max. | 40max. | 40max. | 40max. |
| Attenuation | Differential mode at 40dB | 0.15 to 10 | 0.15 to 10 | 0.15 to 10 | 0.2 to 10 | 0.4 to 10 | 0.4 to 10 |
| frequency range (MHz)[+5 to +35°C] | Common mode | 0.2 to 10 | 0.2 to 10 | 0.2 to 10 | 0.2 to 10 | 0.6 to 10 | 0.6 to 10 |
| Weight(kg) | | [40dB] | [40dB] | [40dB] | [40dB] | [30dB] | [30dB] |
| | | 4.2 | 7.2 | 8.4 | 12.3 | 17.5 | 17 |
| | | | | | | | 16 |

TYPICAL ELECTRICAL CHARACTERISTICS

ATTENUATION vs. FREQUENCY CHARACTERISTICS ZRCT5150-MF



PULSE ATTENUATION CHARACTERISTICS ZRCT5150-MF



CIRCUIT DIAGRAM

ZRCT5XXX-MF

