

## **EMC Filters for AC Power Line Conformity to RoHS Directive** For Single-phase, Mid-size Box Cased ZAC-00U Series

#### **FEATURES**

- The ZAC-00U series is a highly compact, large current EMC filter.
- They exhibit outstanding attenuation characteristics with respect to both differential mode and common mode noise components.
- · Leakage current is maintained at less than 1mA.
- These filters are highly reliable and provide stable attenuation performance even in harsh environments, where the filters may be subjected to humidity, vibration, and shock.
- It is a product conforming to RoHS directive.

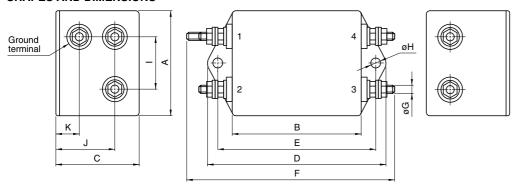
#### **SAFETY STANDARDS**

| Standard and standard No. |   |                       |  |  |  |  |  |
|---------------------------|---|-----------------------|--|--|--|--|--|
| U.S.A.                    | Canada  | Europe                |  |  |  |  |  |
| <b>91</b> UL              | <b>⑤</b> CSA                                  | N NEMKO               |  |  |  |  |  |
| UL1283                    | CSA C22.2 No.8                                | EN133200              |  |  |  |  |  |
| E62388                    | LR76849C                                      | P04203380             |  |  |  |  |  |
| E62388                    | LR76849C                                      | P04203380             |  |  |  |  |  |
| E62388                    | LR76849C                                      | P04203380             |  |  |  |  |  |
| E62388                    | LR76849C                                      | P04203380             |  |  |  |  |  |
|                           | U.S.A.  91 UL  UL1283  E62388  E62388  E62388 | U.S.A. Canada  **N UL |  |  |  |  |  |

#### **APPLICATIONS**

Computers and peripheral terminals, general control devices, office automation equipment, and other industrial devices.

#### **SHAPES AND DIMENSIONS**



|   |      |      |    |    |      |    |    |     |      | Dillielis | 510115 111 111111 |
|---|------|------|----|----|------|----|----|-----|------|-----------|-------------------|
| Part No.                                  | Α    | В    | С  | D  | Е    | F  | øG | øΗ  | I    | J         | K                 |
| ZAC2205-00U, 2210-00U, 2215-00U, 2220-00U | 50.8 | 63.5 | 38 | 85 | 74.7 | 95 | M4 | 4.8 | 25.4 | 25.3      | 9.3               |

<sup>•</sup> Case: metal, terminal: stud

#### **ELECTRICAL CHARACTERISTICS**

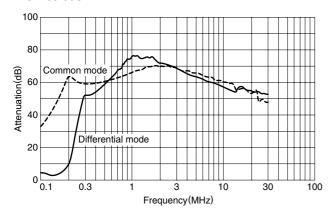
| Part No.                         |                                     | ZAC2205-00U | ZAC2210-00U | ZAC2215-00U | ZAC2220-00U |
|----------------------------------|-------------------------------------|-------------|-------------|-------------|-------------|
| Rated voltage Eac(V)             |                                     | 250         | 250         | 250         | 250         |
| Rated current(A)                 |                                     | 5           | 10          | 15          | 20          |
| Test voltage Eac(V)[Between terr | minal and case]                     | 1500        | 1500        | 1500        | 1500        |
| Insulation resistance(MΩ)[DC. 50 | 0V, 1min/between terminal and case] | 100min.     | 100min.     | 100min.     | 100min.     |
| Leakage current(mA)[250V • 60H   | lz]                                 | 1max.       | 1max.       | 1max.       | 1max.       |
| DC resistance(mΩ)                |                                     | 300max.     | 40max.      | 40max.      | 10max.      |
| Operating temperature range(°C)  | [Including self-temperature rise]   | -10 to +85  | -10 to +85  | -10 to +85  | -10 to +85  |
| With derating over(°C)           |                                     | 55          | 55          | 55          | 55          |
| Temperature rise(°C)             |                                     | 30max.      | 30max.      | 30max.      | 30max.      |
| Attenuation frequency range      | Differential mode at 40dB           | 0.5 to 30   | 0.7 to 30   | 1.5 to 30   | 1.5 to 30   |
| (MHz)[+5 to +35°C]               | Common mode at 40dB                 | 0.15 to 30  | 0.5 to 30   | 1.5 to 30   | 5 to 30     |
| Weight(g)                        |                                     | 240         | 250         | 260         | 260         |



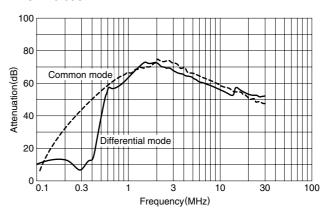
· Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.



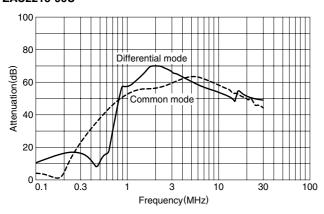
# TYPICAL ELECTRICAL CHARACTERISTICS ATTENUATION vs. FREQUENCY CHARACTERISTICS ZAC2205-00U



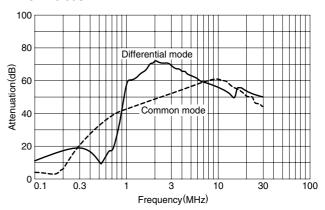
#### ZAC2210-00U



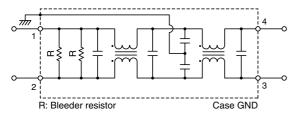
#### ZAC2215-00U



#### ZAC2220-00U



### **CIRCUIT DIAGRAM**



<sup>•</sup> All specifications are subject to change without notice.