

# EMC Filters for AC Power Line

## For Single-phase, Mid-size Box Cased ZRAC-11 Series

Conformity to RoHS Directive

### FEATURES

- New 3A and 30A additions to our major product line, the ZAC-11 series, featuring block terminal type input-output. Shape and performance of 6 to 20A models are equivalent to the ZAC-11 series .
- Great attenuation of both differential mode and common mode noise.
- Withstands AC.2500V between lines and ground.
- Block terminal board makes possible single-direction wiring of EMC filter lines, thereby simplifying filter wiring. Safety is assured by attachment of a cover to the terminal board.
- It is a product conforming to RoHS directive.

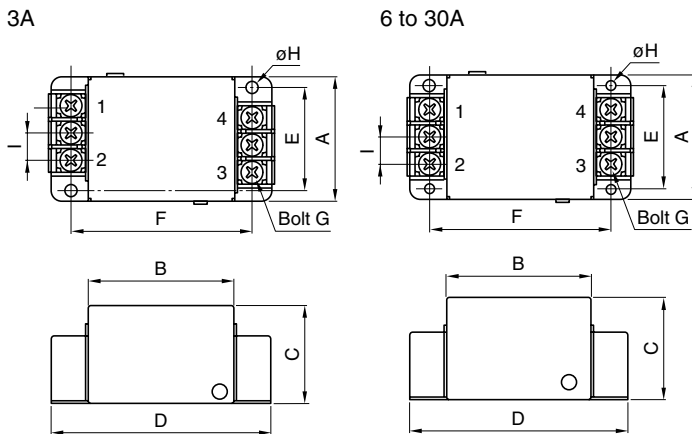
### SAFETY STANDARDS

Part No.	Standard and standard No.		
	U.S.A.	Canada	Europe
	UL	CSA	NEMKO
	UL1283	CSA C22.2 No.8	EN133200
ZRAC2203-11	E62388	LR76849C	P98101522
ZRAC2206-11	E62388	LR76849C	P98101522
ZRAC2210-11	E62388	LR76849C	P98101522
ZRAC2220-11	E62388	LR76849C	P98101522
ZRAC2230-11	E62388	LR76849C	P98101522

### APPLICATIONS

Computers and terminal devices,digital control equipment, general control equipment, office automation equipment,noise control devices,various types of electronic equipment, other industrial devices, etc.

### SHAPES AND DIMENSIONS



Dimensions in mm

Part No.	A	B	C	D	E	F	G	øH	I
ZRAC2203-11	46	49	30.5	77.5	37	63	M4	4.6	10.25
ZRAC2206-11	52	62	40.5	90.5	42	76	M4	4.6	10.25
ZRAC2210-11	52	62	40.5	90.5	42	76	M4	4.6	10.25
ZRAC2220-11	56.5	74	46.5	102.5	45	88	M4	4.6	10.25
ZRAC2230-11	56.5	90	51	119	45	105	M4	4.6	10.25

- Case:metal, block terminal: phillips head screw terminals, terminal cover:polyvinyl chloride terminal cover plate.

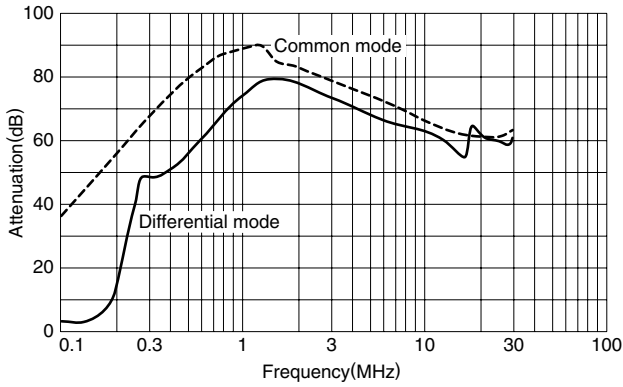
### ELECTRICAL CHARACTERISTICS

Part No.	ZRAC2203-11	ZRAC2206-11	ZRAC2210-11	ZRAC2220-11	ZRAC2230-11
Rated voltage Eac (V)	250	250	250	250	250
Rated current (A)	3	6	10	20	30
Test voltage Eac (V) [Between terminal and case]	2500	2500	2500	2500	2500
Insulation resistance (MΩ) [DC.500V,1min/between terminal and case]	100min.	100min.	100min.	100min.	100min.
Leakage current (mA) [250V • 60Hz]	1max.	1max.	1max.	1max.	1max.
DC resistance (mΩ)	360	160	60	20	8
Operating temperature range (°C) [Including self-temperature rise]	-25 to +85	-25 to +85	-25 to +85	-25 to +85	-25 to +85
With derating over(°C)	55	55	55	55	55
Temperature rise (°C)	30max.	30max.	30max.	30max.	30max.
Attenuation frequency range (MHz)[+5 to +35° C]	Differential mode at 40dB 0.3 to 30	0.4 to 30	0.4 to 30	0.7 to 30	0.8 to 30
	Common mode at 40dB 0.2 to 30	0.2 to 30	0.2 to 30	0.5 to 30	0.5 to 30
Weight (g)	140	270	310	440	540

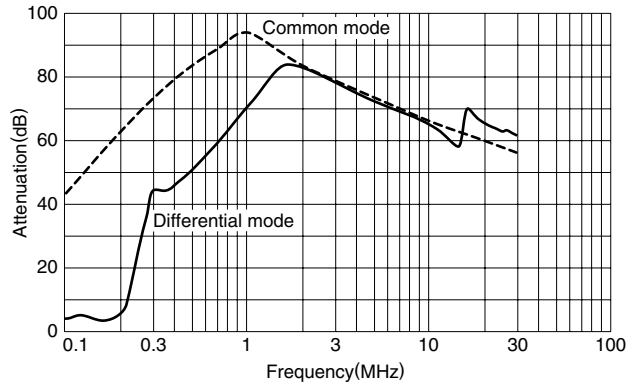
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

- All specifications are subject to change without notice.

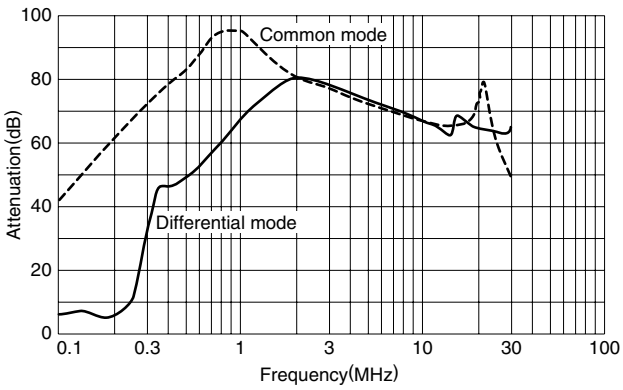
**TYPICAL ELECTRICAL CHARACTERISTICS**  
**ATTENUATION vs.FREQUENCY CHARACTERISTICS**  
**ZRAC2203-11**



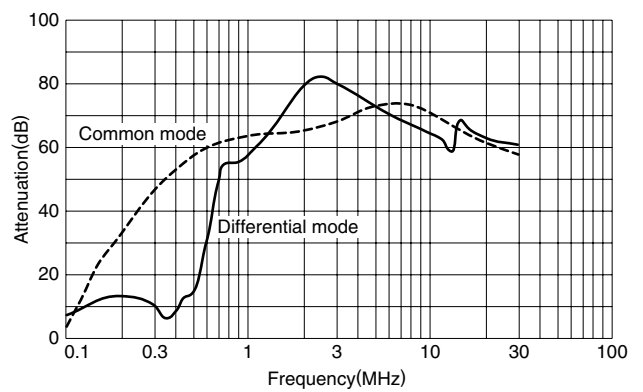
**ZRAC2206-11**



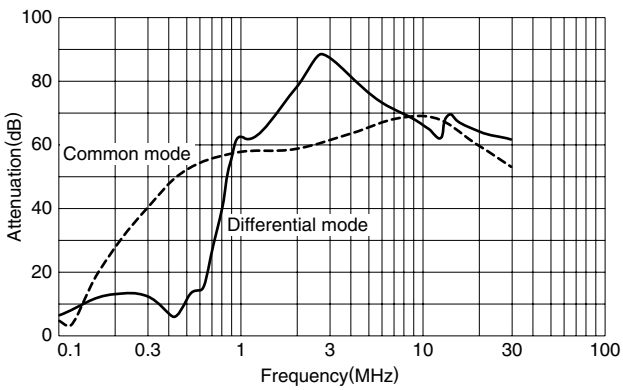
**ZRAC2210-11**



**ZRAC2220-11**



**ZRAC2230-11**



**CIRCUIT DIAGRAM**

