

EMC Filters for AC Power Line

For Triple-phase, Large-size Box Cased ZRGT-M Series

Conformity to RoHS Directive

FEATURES

- The ZRGT-M series EMC filters 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.
- Withstand voltage is AC.1250V between the lines and AC.2000V between line and ground.
- Single-direction block terminal design simplifies wiring requirements, thereby improving workflow.
- Leakage current is maintained at less than 1mA.
- It is a product conforming to RoHS directive.

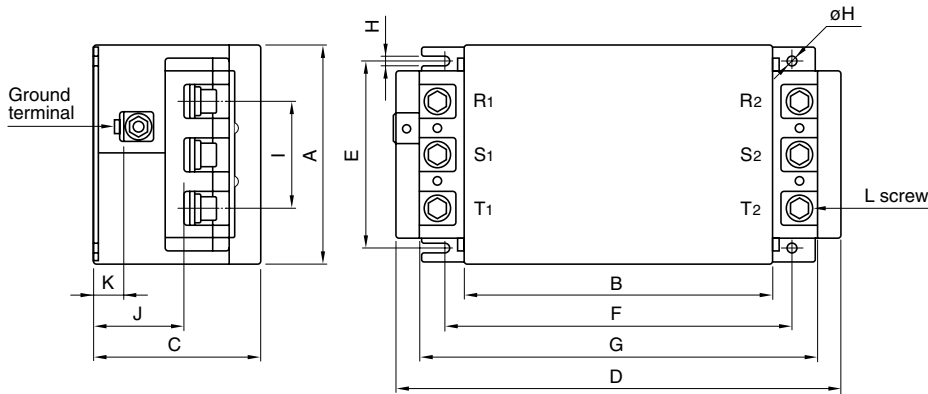
SAFETY STANDARDS

Part No.	Standard and standard No.		
	U.S.A.	Canada	Europe
	UL	CSA	NEMKO
	UL1283	CSA C22.2 No.8	EN60939
ZRGT2210-M	E62388	LR76849C	P08208999
ZRGT2230-M	E62388	LR76849C	P08208999
ZRGT2250-M	E62388	LR76849C	P08208999

APPLICATIONS

Computers, hard disk drives, electronic exchange devices, NC control devices, inverters for motors, etc.

SHAPES AND DIMENSIONS



Dimensions in mm

Part No.	A	B	C	D	E	F	G	H	I	J	K	L
ZRGT2210-M	90	120	40	164	72	136	150	4.5	32	—	(25)*1	M4
ZRGT2230-M	105	120	80	186	90	140	160	ø5.5*2	55	44.8	13.5	M6
ZRGT2250-M	110	150	80	216	90	170	190	5.5	55	44.8	13.5	M8

*1 (): Reference value

*2 For ZRGT2230-M, four places have ø5.5mm punching hole ø5.5.

• Case: metal, terminal : bolt with hexagonal hole, terminal cover : chloride vinyl plastic plate

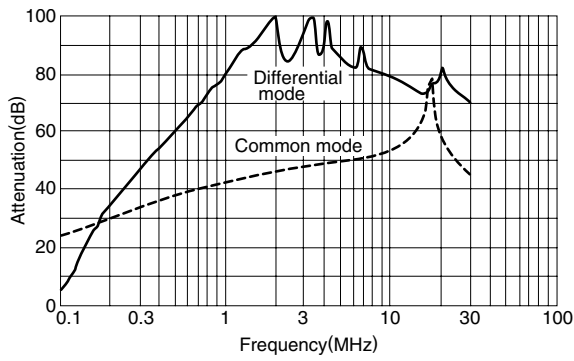
ELECTRICAL CHARACTERISTICS

Part No.	ZRGT2210-M	ZRGT2230-M	ZRGT2250-M
Rated voltage Eac(V)	250	250	250
Rated current(A)	10	30	50
Test voltage Eac(V)[Between terminal and case]	2000	2000	2000
Insulation resistance(MΩ) [DC. 500V, 1min/between terminal and case]	100min.	100min.	100min.
Leakage current(mA)[250V • 60Hz]	1max.	1max.	1max.
DC resistance(mΩ)	90max.	10max.	6max.
Operating temperature range(°C)[Including self-temperature rise]	-25 to +85	-25 to +85	-25 to +85
With derating over(°C)	55	55	55
Temperature rise(°C)	30max.	30max.	30max.
Attenuation frequency range (MHz)[+5 to +35°C]	Differential mode	0.3 to 10[30dB]	0.3 to 10[30dB]
	Common mode	1 to 30[30dB]	0.3[25dB], 1[25dB] 10[35dB], 30[20dB]
Weight(kg)	0.7	1.8	2.2

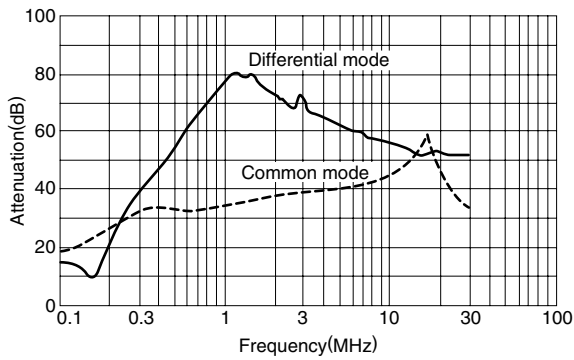
• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

• All specifications are subject to change without notice.

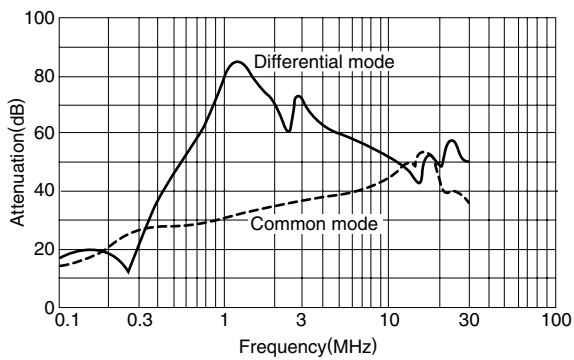
TYPICAL ELECTRICAL CHARACTERISTICS
ATTENUATION vs. FREQUENCY CHARACTERISTICS
ZRGT2210-M



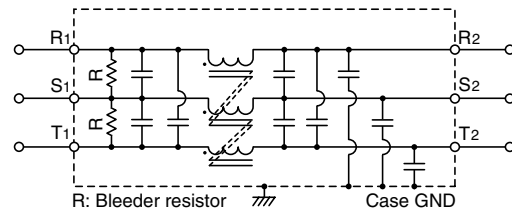
ZRGT2230-M



ZRGT2250-M



CIRCUIT DIAGRAM



CAUTIONS

- When there is a danger of a high energy pulse voltage (over 2kV for over 1μs), use a surge absorbing element such as a varistor, or arrester on the EMC filter power supply input side.

