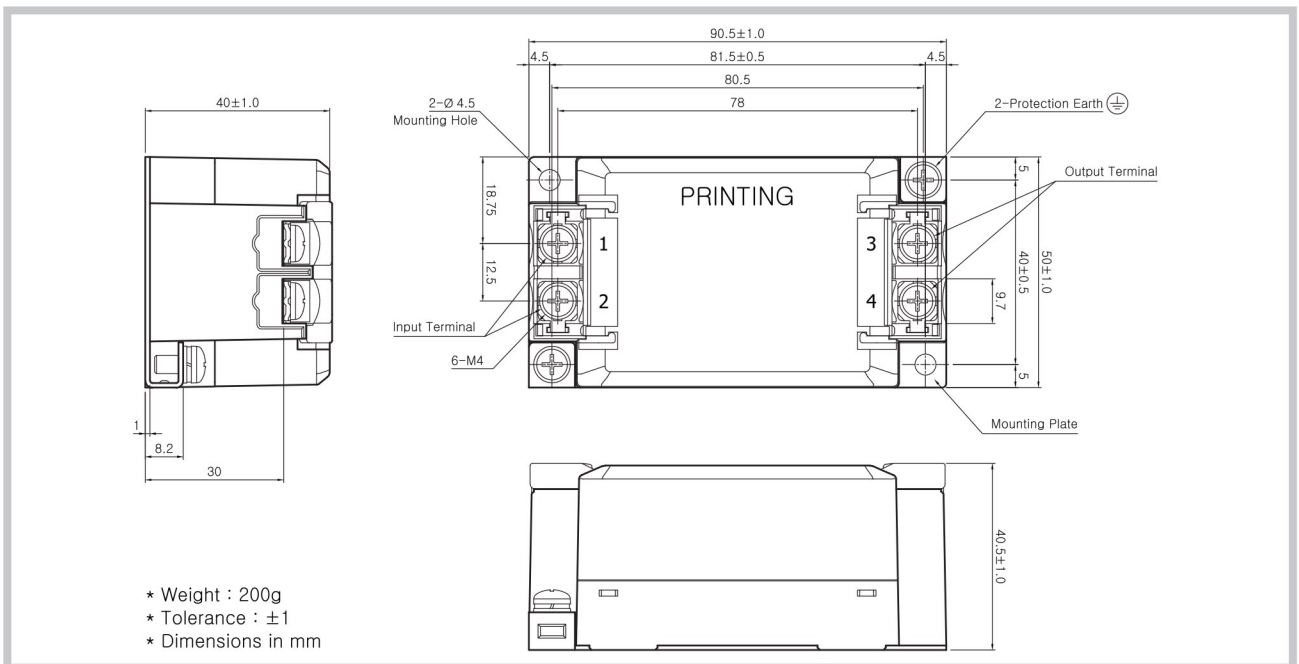


RMS-Series_Single Phase Noise Filter



Feature

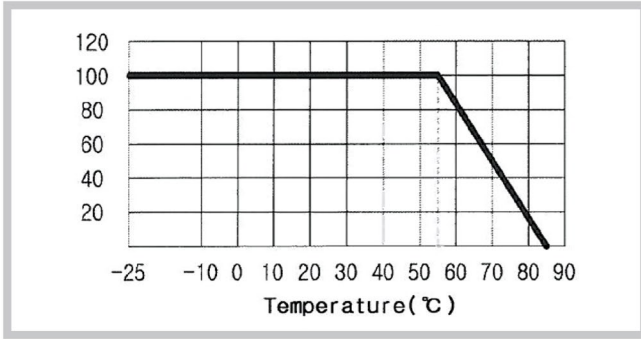
- Single Phase
- High Attenuation Characteristics (150KHz ~ 1MHz)
- 2-Stage Filter
- Low Leakage / Safety Cover
- Easy Push-Down Terminal Block
- Din Rail Mountable (Option)



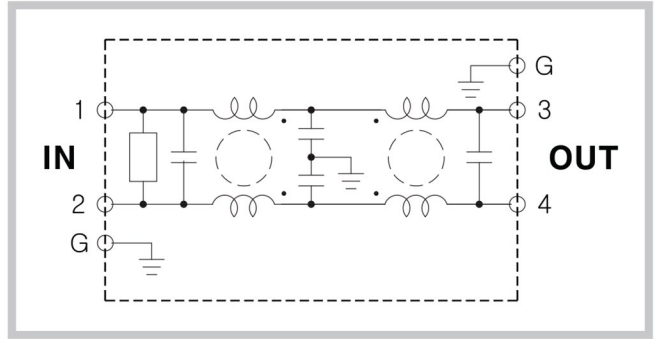
MODEL	Rated Voltage (AC/DC)	Rated Current	Laekage Current (60Hz)	Naximum Air Temperature	Operating Temperature
RMS-2006(-DIN)	250V MAX	6A	1.0mA Max	55°C Max	-25°C ~ +85°C
RMS-2010(-DIN)	250V MAX	10A	1.0mA Max	55°C Max	-25°C ~ +85°C
RMS-2016(-DIN)	250V MAX	16A	1.0mA Max	55°C Max	-25°C ~ +85°C
RMS-2020(-DIN)	250V MAX	20A	1.0mA Max	55°C Max	-25°C ~ +85°C
RMS-2030(-DIN)	250V MAX	30A	1.0mA Max	55°C Max	-25°C ~ +85°C

RMS-Series

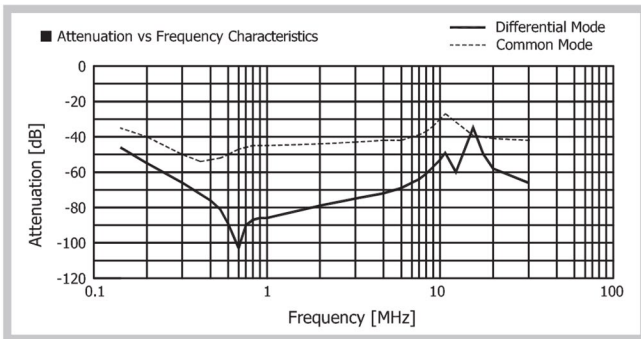
RMS-Series Derating Curve



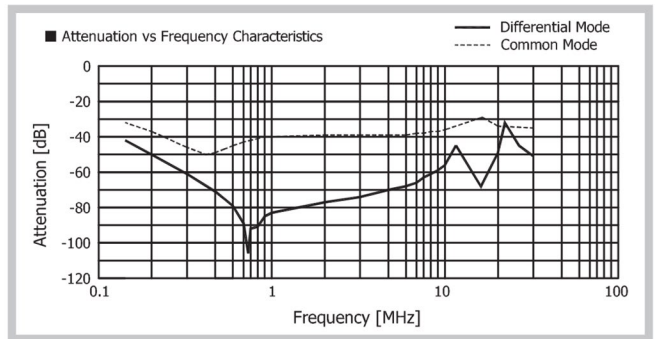
RMS-Series Circuit Diagram



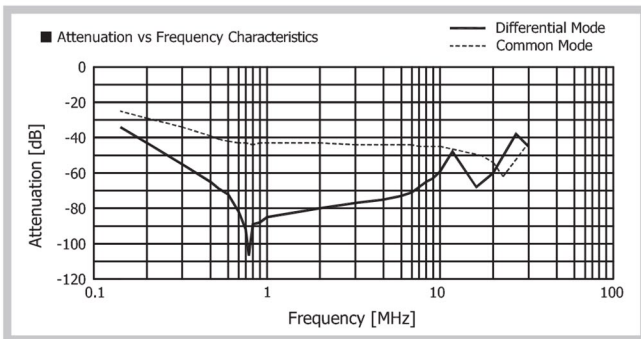
RMS-2006 Attenuation Characteristics



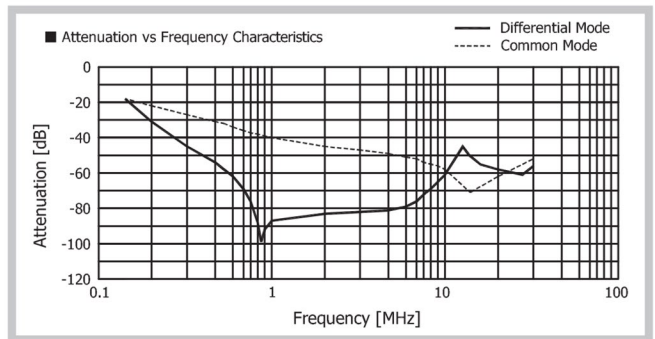
RMS-2010 A Attenuation Characteristics



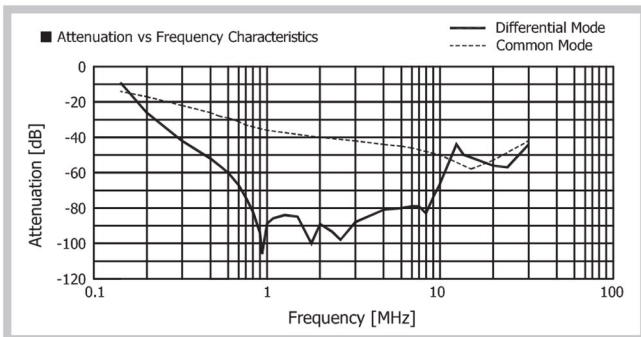
RMS-2016 Attenuation Characteristics



RMS-2020 Attenuation Characteristics



RMS-2030 A Attenuation Characteristics

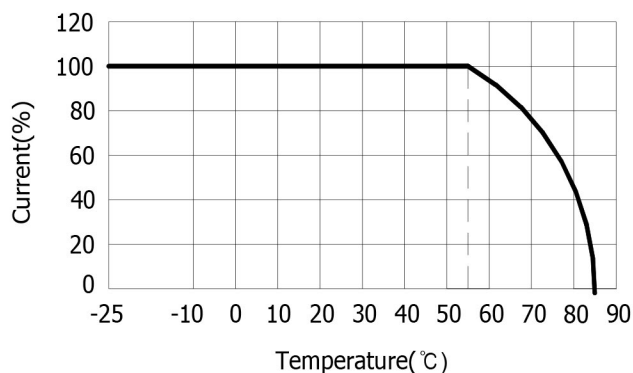


Specifications

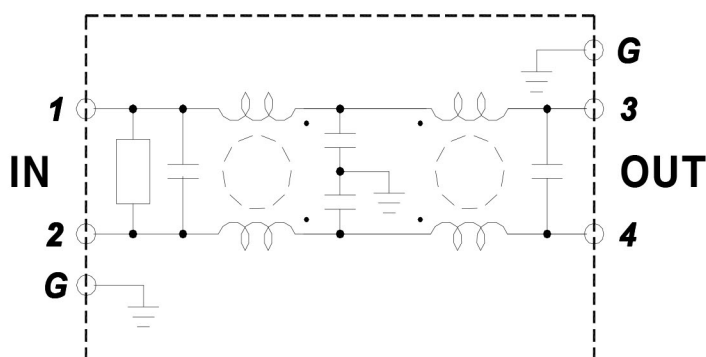
Product.	Noise Filter	Date.	2012. 09. 19
Model.	RMS- 2S/RMS- 2S- DIN	Rev.	A
Customer.	STANDARD	Page.	1 / 1

MODEL		Unit.	RMS- 2006	RMS- 2010	RMS- 2016	RMS- 2020	RMS- 2030
			RMS- 2006- DIN	RMS- 2010- DIN	RMS- 2016- DIN	RMS- 2020- DIN	RMS- 2030- DIN
INPUT	Voltage	[V]	1Φ, AC 250 or DC 250				
	Frequency	[Hz]	50 / 60				
	Rated Current *1)	[A]	6	10	16	20	30
Voltage Drop		[V]	0.3V / Phase Max				
Test voltage		[V]	2,500VAC (at cut off current 20mA / 1Min)				
Isolation Resistance		[MΩ]	100MΩ Min (500VDC / 1Min)				
Leakage Current (60Hz)	125V	[mA]	0.5mA Max				
	250V	[mA]	1.0mA Max				
DC Resistance (Max)		[mΩ]	130	65	20	14	7
Temperature Rise		[℃]	55℃ Max				
Environment	Operating temp. & Humidity	-	-25 ~ +85℃, 20 ~ 95% RH (Refer to Derating Curve)				
	Storage temp. & Humidity	-	-40 ~ +85℃, 20 ~ 95% RH (Non Condensing)				
	Vibration	-	10~55Hz at 2G 3minutes period, 1hour each X,Y and Z				
Dimension	Size(WxHxD)	[mm]	90.5 x 40 x 50 (without projection)				
Weight(Typ)	Normal Type	[g]	240g				
	Din- Rail Type		250g				
Safety Standards		-	Approved by standard UL1283, CSA C22.2 No.8(C-UL), IEC/EN60939-2				

- Derating Curve



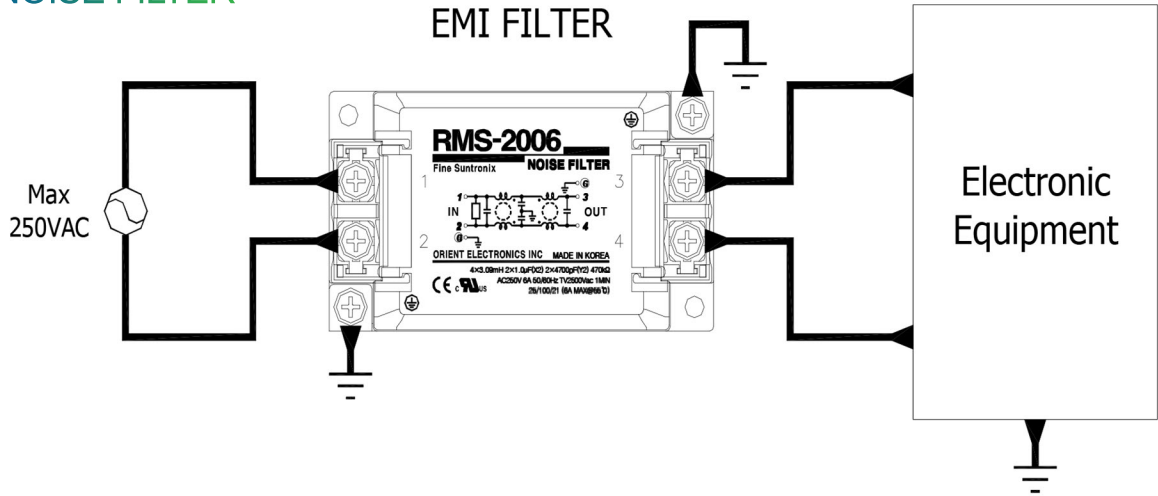
- Circuit Diagram



= NOTES = *1. Value for Ta less than 55℃
For Ta more than 55℃, According to the derating curve as above

User Guide

1-1. NOISE FILTER



1-2. Terminal Connection

Marking	Pin Connection		Function
1	INPUT	AC L	Noise Filter AC Terminal
2		AC N	
3	OUTPUT	AC L	Noise Filter AC Terminal
4		AC N	
G	Flame ground		CASE

1-3. Applicable Electric Cable

Rated Current (A)	최소 선경	
	단면적 (mm ²)	AWG SIZE
6	0.75	18
10	1.0	16
16	1.5	14
20	2.5	12
30	4.0	10

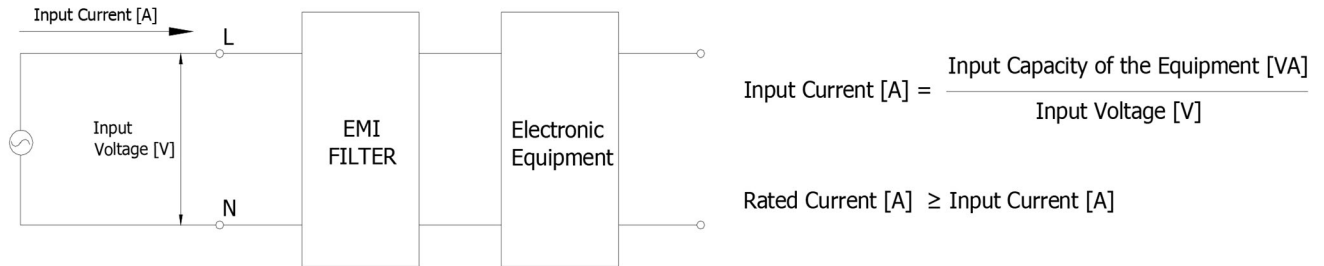
1-4. Recommended Clamping Torque

Screw	Torque	비고
M4	1.27N·m	
M5	2.50N·m	

2. Electrical Characteristics

2-1. Rated Voltage : 250VAC

2-2. Rated Current :



2-3. Withstand Voltage Test

The insulation voltage between AC input/output and ground is less than 20mA for 1 minute at AC 2500V.

2-4. Isolation Resistance Test

between AC input/output and ground is more than 100MΩ at DC 500V for 1 minute.

2-5. Leakage Current Test

Input Voltage	Leakage Current	Note
0 ~ 250VAC	1.0mA Max	When input voltage is applied The maximum leakage current between LINE and GND

3. Environment Condition

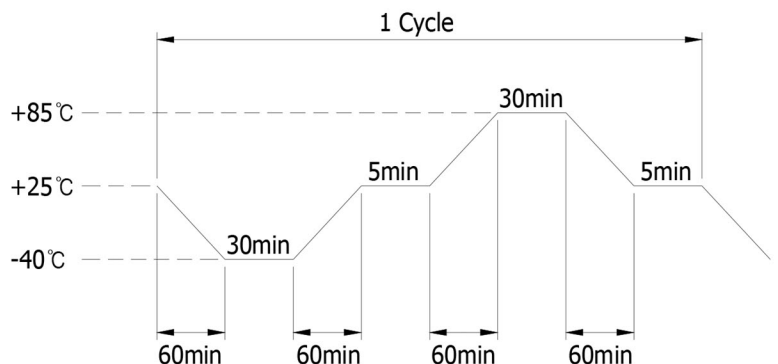
3-1. Operating Temperature Test

The electrical and mechanical characteristics must be satisfied in an 8-hour operation test at the rated input/output conditions under the temperature and humidity below.

- (1) Temperature: -25℃ to +85℃
- (2) Relative humidity: 20 to 90% RH

3-2. Heat Cycle Test

After 50 cycles based on the cycle below at an ambient temperature of -40℃ to +85℃, the electrical and mechanical characteristics must be satisfied.

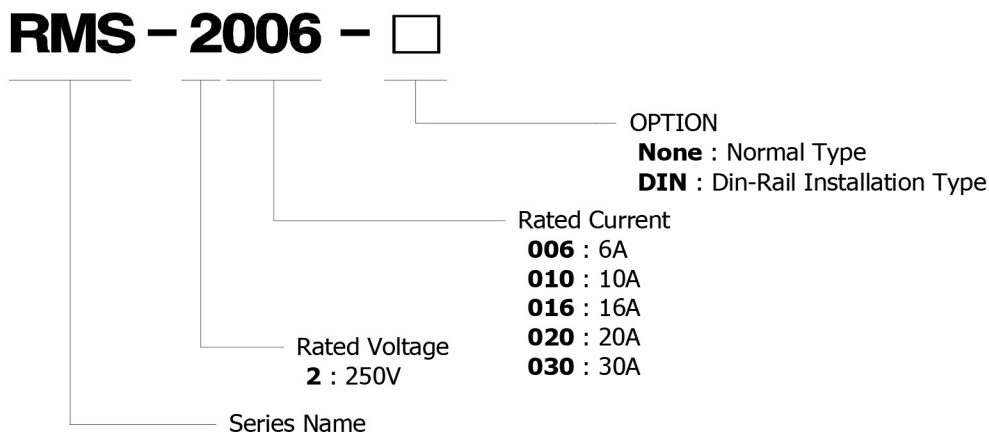


3-3. Heat Cycle Test

After a 1-hour vibration test under the vibration conditions below, all electrical and mechanical characteristics must be satisfied.

- (1) Vibration Frequency : 10~ 55Hz, 2G
- (2) Vibration Period : 3minutes

4. Ordering Information



5. Precautions for use

- 5-1. Use in accordance with the allowable voltage, allowable current, and operating temperature conditions specified on the product.
- 5-2. The terminals and cables connecting to the product use voltage/current that exceeds the product's allowable voltage/current.
- 5-3. When grounding, use the cable as thick and short as possible.
- 5-4. When connecting the input/output terminals of the product, be careful not to damage them by applying excessive force.
- 5-5. When installing and using the product, be careful not to cause a short circuit between phases.
- 5-6. Be careful not to touch the terminals with your hands or other body parts while the power is on.

6. Quality Quality Assurance

- 6-1. The contractor may test and inspect all performances and characteristics specified in this specification, unless otherwise specified in the contract, using the testing facilities of its own or an authorized testing agency.
- 6-2. In addition to the verification tests for the requirements specified in this specification, other tests may be conducted to confirm the quality of the product.

7. Note

Anything not specified in this specification is permitted only to the extent that it does not affect the reliability, compatibility, and performance of this product.

Attenuation Characteristics

1. METHOD OF MEASURING ATTENUATION

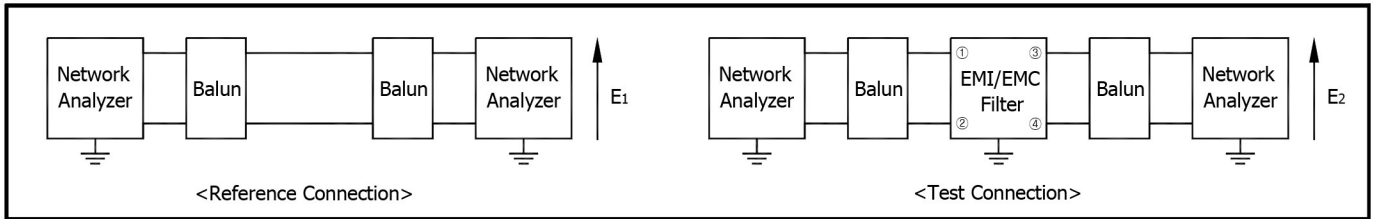


Fig.3.1 Differential Mode Attenuation Measurement Diagram

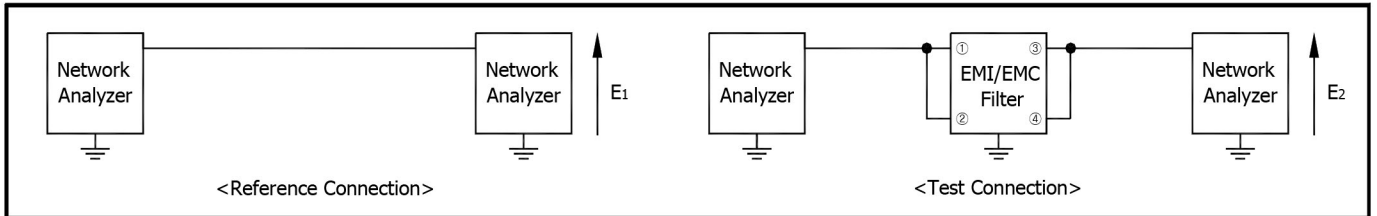
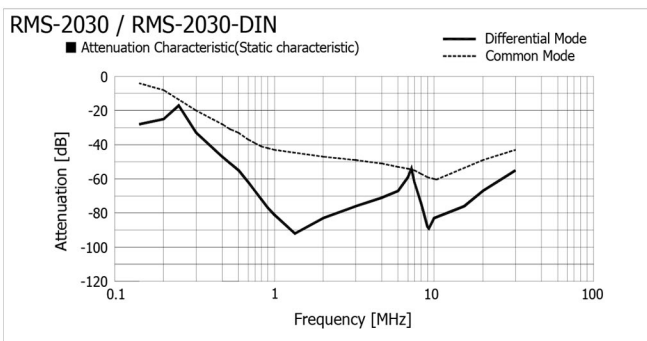
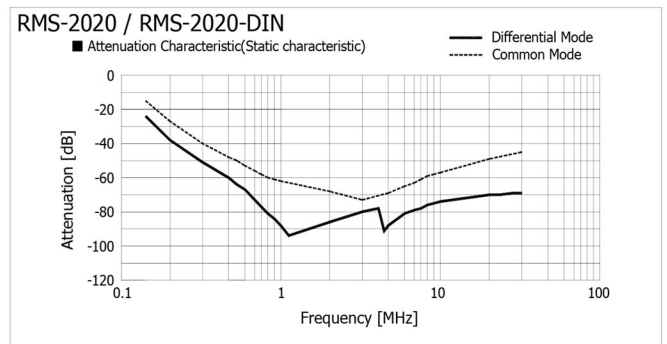
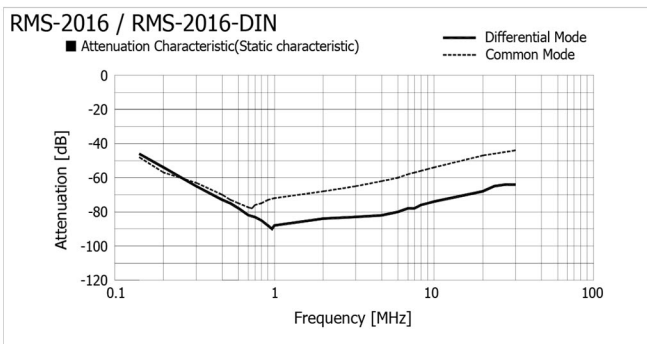
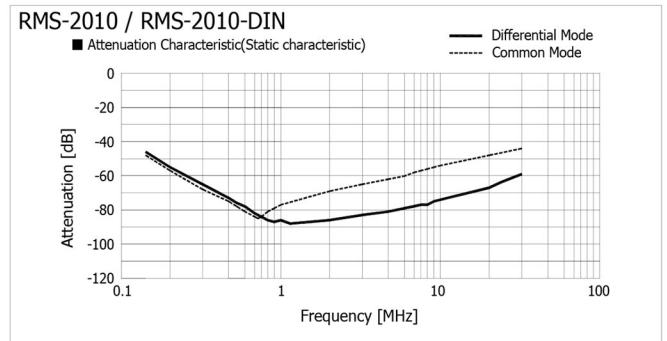
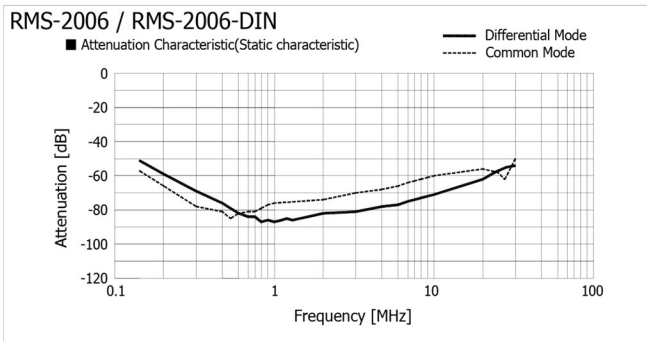


Fig.3.2 Common Mode Attenuation Measurement Diagram

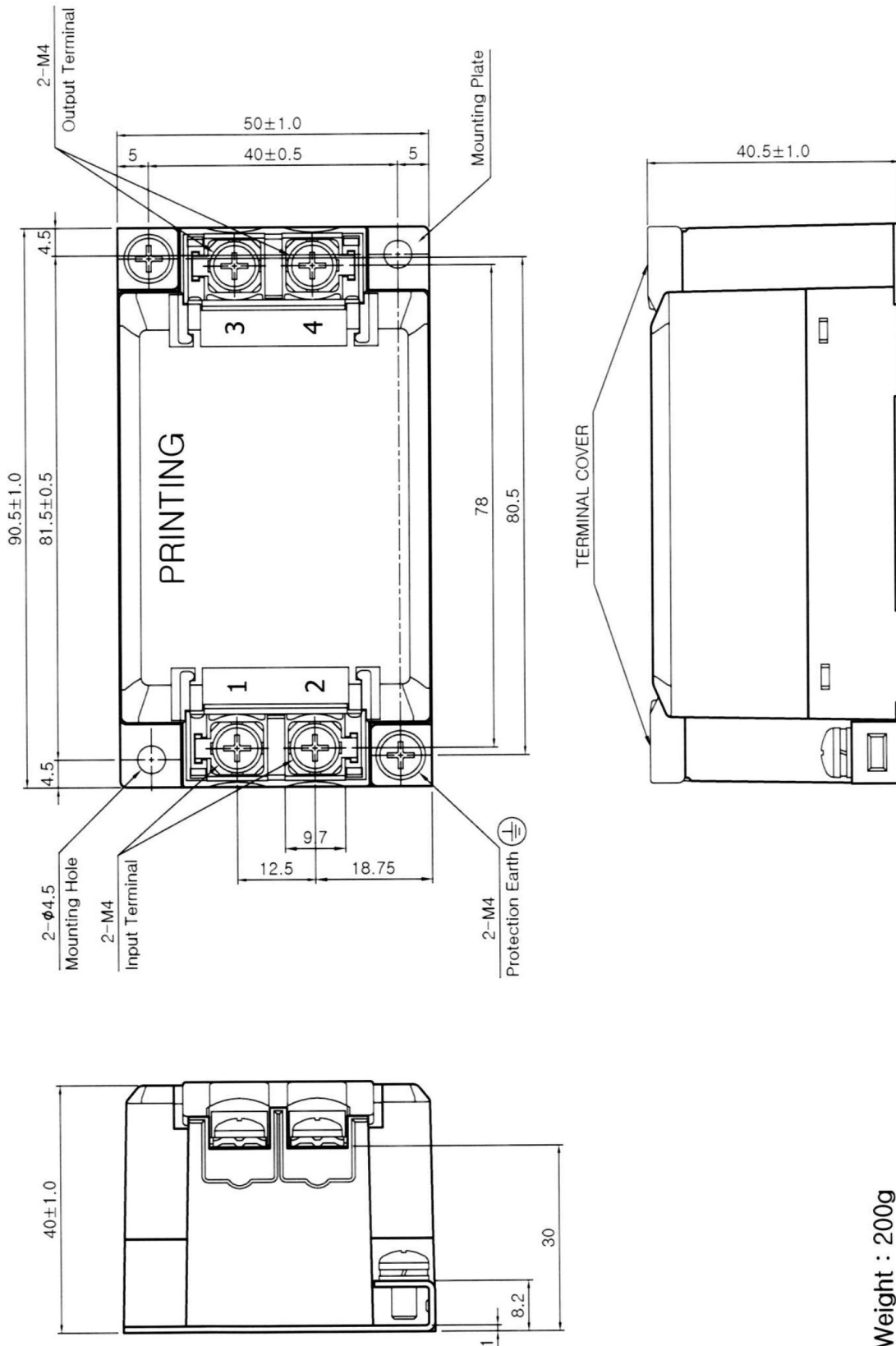
2. ATTENUATION CHARACTERISTICS



$$\blacksquare \text{ Attenuation [dB]} = -20 \log(E_1/E_2)$$

E_1 = Voltage in state without filter

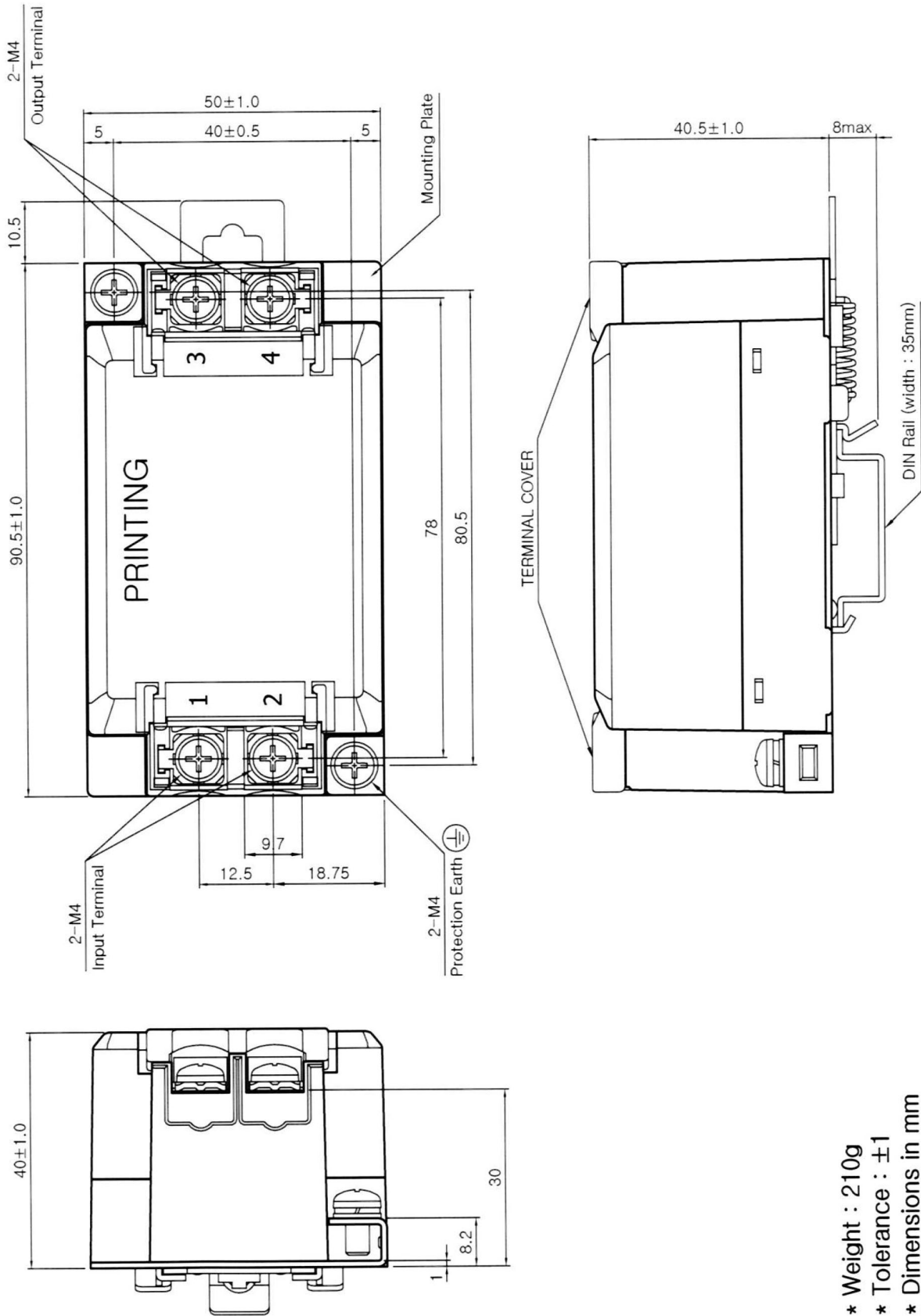
E_2 = Voltage in state with filters



- * Weight : 200g
- * Tolerance : ± 1
- * Dimensions in mm

Dimension

RMS-2S-DIN



- * Weight : 210g
- * Tolerance : ± 1
- * Dimensions in mm