

Noise Filters

Open Frame

ME Series for Harmonic Distortion	274
---	-----

Casing Type

Metal box

LF Series Small Current Type	275
LF Series Small Current Type with Screw Terminal.....	276
LF Series Screw Terminal Type	278
LF Series Large Current Type	280
LF Series Three-Phase Type.....	281
LF Series Inverter-Use Type.....	283
LF Series for Compliance with CE Marking – LF-3000 Series	286
LH Series Low-Frequency Inverters	288
LH Series Three-Phase Large Current Type	290
LH Series for Compliance with CE Marking– LH-4 Series.....	292
HFP Series	293
GT Series Screw Terminal.....	295
GT Series Faston Terminal.....	297
GT Series for VCCI.....	299
GF Series.....	300

Metal cylinder

VU Series.....	301
VC Series.....	303
VG-FPZ Series for Home Electronics Inverters Surge	304
RG Series	305

Plastic box

MR Series	307
MA Series	309

Inlet Type

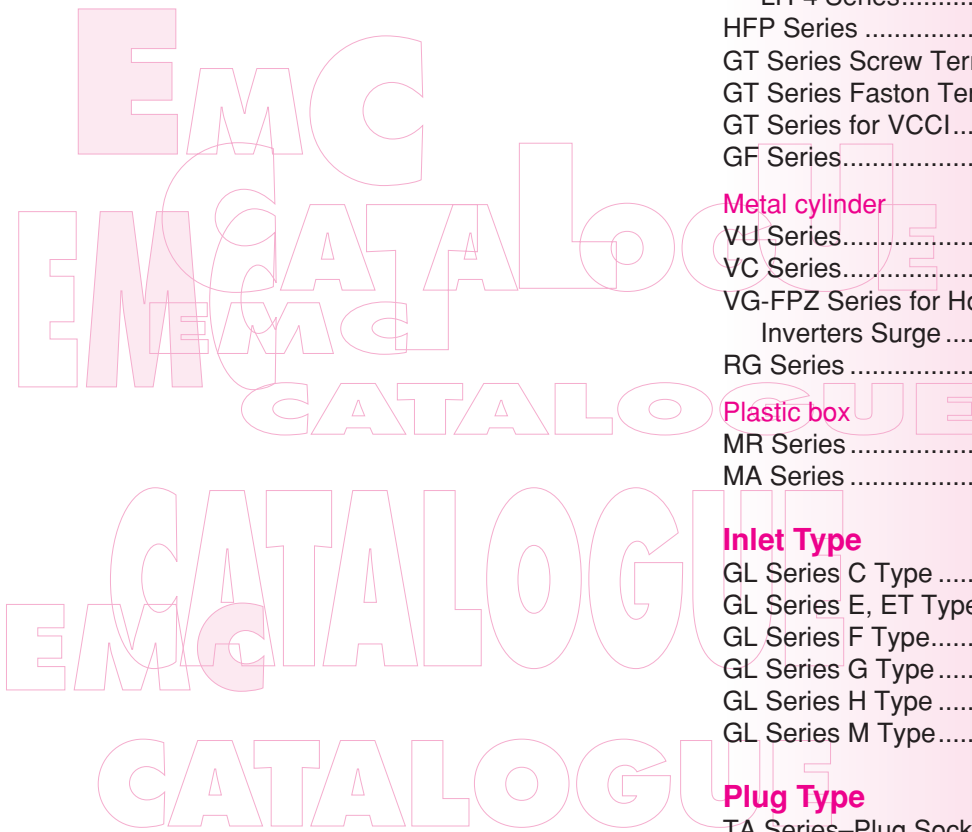
GL Series C Type	310
GL Series E, ET Types	312
GL Series F Type.....	313
GL Series G Type	315
GL Series H Type	316
GL Series M Type.....	318

Plug Type

TA Series–Plug Socket Type.....	319
---------------------------------	-----

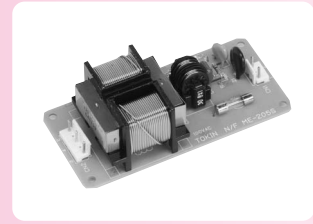
TÜV Rheinland Japan Ltd.

Certification Numbers	321
-----------------------------	-----



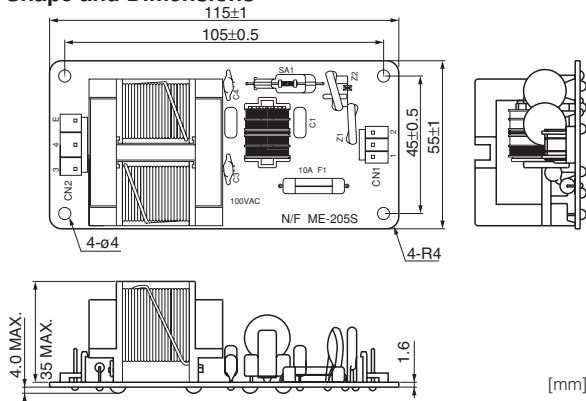
Open Frame

ME Series For Harmonic Distortion

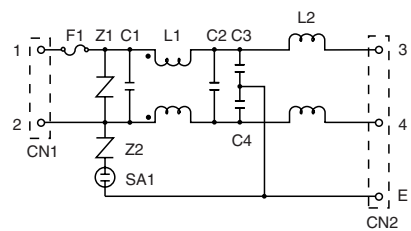


Model	Rated voltage (VAC)	Rated current (A)	Reactor (mH)	High harmonic wave processing class	Leakage current	Operating temperature range (°C)	Insulation class	Weight (g)
ME-205S1	125	3	4	Class D	≦1mA	-25 to +65°C	E	220
ME-205S2	250	1.5	12	Class D	≦1mA	-25 to +65°C	E	220

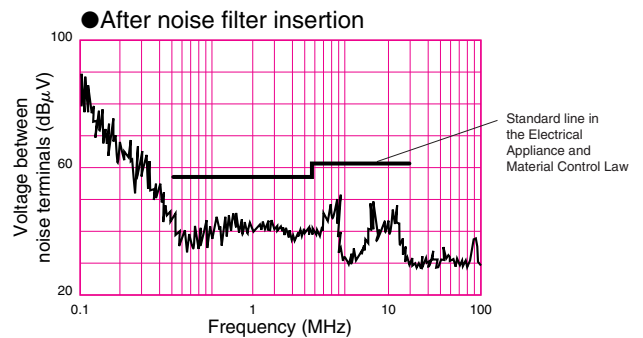
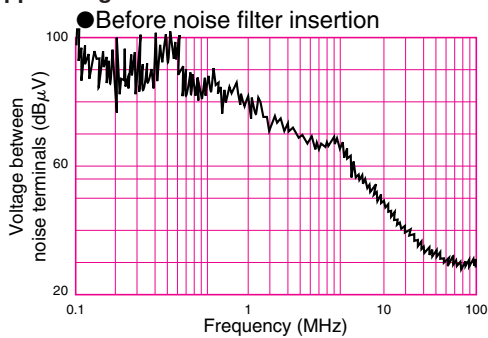
Shape and Dimensions



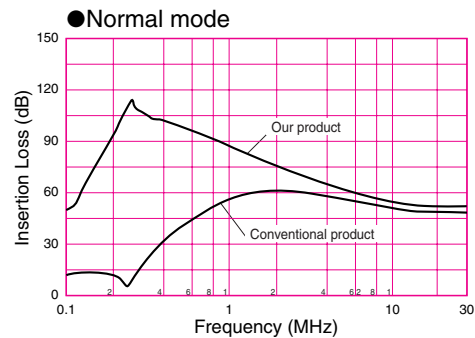
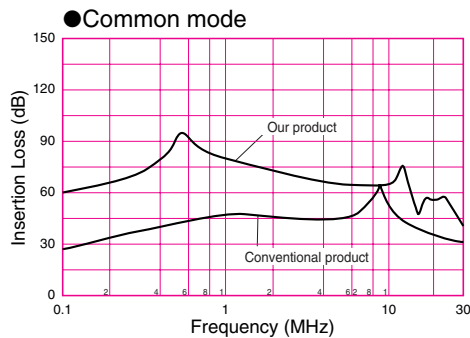
Circuit Diagram



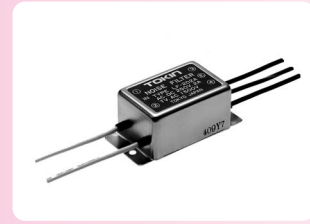
EMI Suppressing Effect



Attenuation Characteristics



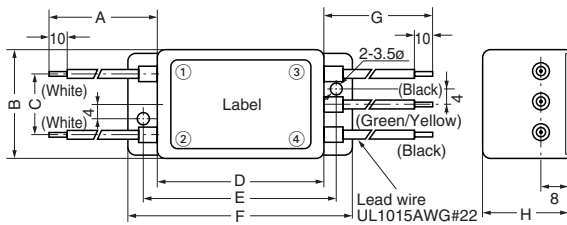
LF Series Small Current Type



Model	Rated voltage AC/DC (V)	Rated current AC/DC (A)	Withstanding voltage 1 min., line to ground AC (V)	Insulation resistance 500VDC 1 min., line to ground (MΩ) min.	Leakage current 250V/60Hz, (mA) max.	Voltage drop 50Hz, (V) max.	Self-temperature rise (K) max.	Operating temperature range (°C)	Certified standard	Weight (g)
LF-202A	250	2	1500	300	1	1.5	30	-20 to +55		95
LF-202U-1	250	2	1500	300	1	1.5	30	-20 to +55	UL	95

Shape and Dimensions

●LF-202A, LF-202U-1

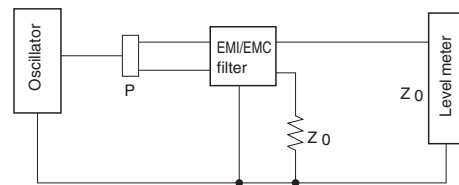


Model	A	B	C	D	E	F	G	H
LF-202A	100	32	17	48	56	64	100	25
LF-202U-1	200	32	17	48	56	64	200	25

[mm]

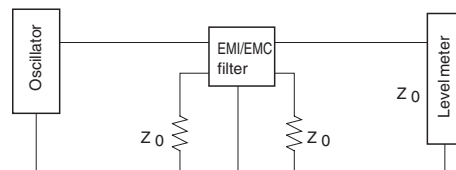
Measuring Circuit

●Common mode



P: Power divider Z₀: 50Ω

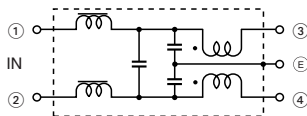
●Normal mode



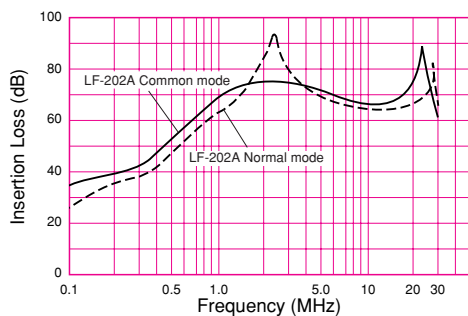
Z₀: 50Ω

Circuit Diagram

●LF-200 Series



Attenuation (Static Characteristics)



LF Series

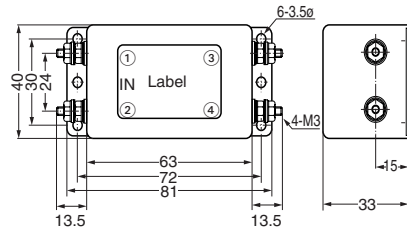
Small Current Type with Screw Terminal



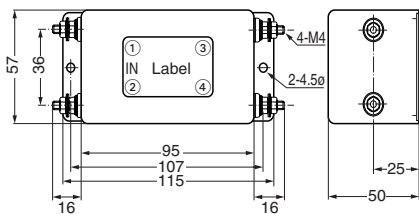
Model	Rated voltage AC/DC (V)	Rated current AC/DC (A)	Withstanding voltage 1 min., line to ground AC (V)	Insulation resistance 500VDC 1 min., line to ground (MΩ) min.	Leakage current 250V/60Hz, (mA) max.	Voltage drop 50Hz, (V) max.	Self-temperature rise (K) max.	Operating temperature range (°C)	Certified standard	Weight (g)
LF-205A	250	5	1500	300	1	1.5	30	-20 to +55		170
LF-205P	250	5	2000	300	1	1.5	30	-20 to +55		170
LF-210	250	10	1500	300	1	1.5	30	-20 to +55	UL	590
LF-215	250	15	1500	300	1	1.5	30	-20 to +55		620
LF-215U	250	15	1500	300	1	1.5	30	-20 to +55	UL	620
LF-210N	250	10	1500	300	1	1.5	30	-20 to +55		650
LF-210P	250	10	2000	300	1	1.5	30	-20 to +55		590
LF-215N	250	15	1500	300	1	1.5	30	-20 to +55		650
LF-215P	250	15	2000	300	1	1.5	30	-20 to +55		620

Shape and Dimensions

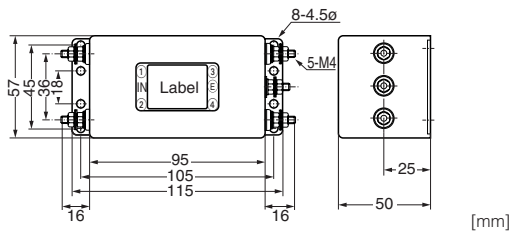
●LF-205A, LF-205P



●LF-215U

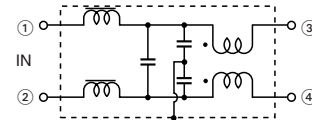


●LF-210, 210N, 210P, LF-215, 215N, 215P

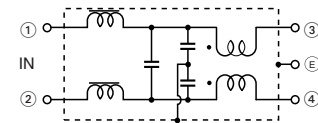


Circuit Diagram

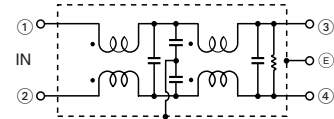
●LF-205A, 205P, 215U



●LF-210, 215, 210P, 215P

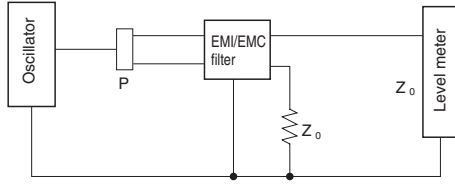


●LF-210N, 215N



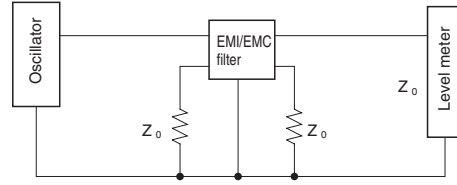
Measuring Circuit

●Common mode



P: Power divider Z₀: 50Ω

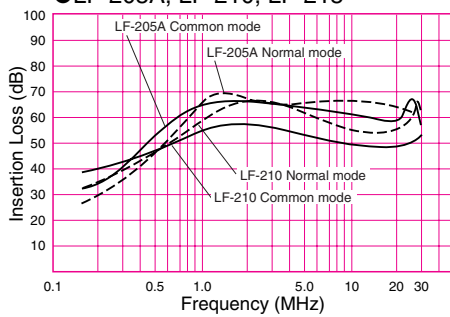
●Normal mode



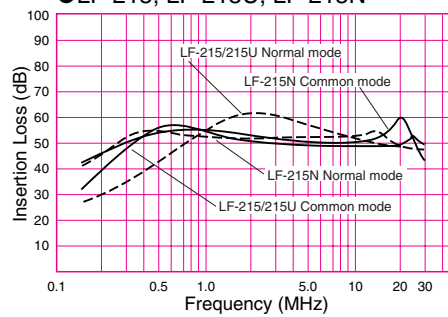
Z₀: 50Ω

Attenuation (Static Characteristics)

●LF-205A, LF-210, LF-215



●LF-215, LF-215U, LF-215N



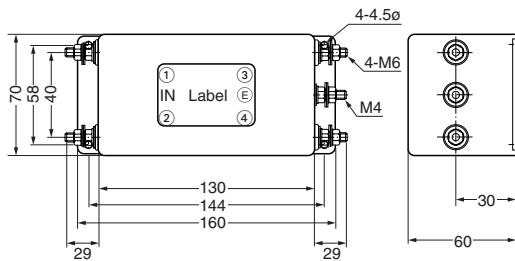
LF Series Screw Terminal Type



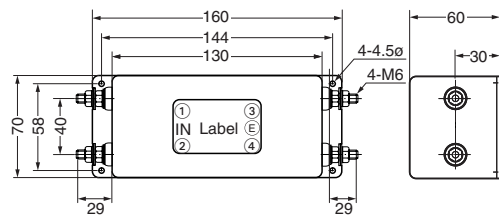
Model	Rated voltage AC/DC (V)	Rated current AC/DC (A)	Withstanding voltage 1 min., line to ground AC (V)	Insulation resistance 500VDC 1 min., line to ground (MΩ) min.	Leakage current 250V/60Hz, (mA) max.	Voltage drop 50Hz, (V) max.	Self-temperature rise (K) max.	Operating temperature range (°C)	Certified standard	Weight (g)
LF-220	250	20	1500	300	1	1.5	30	-20 to +55		1.2
LF-230	250	30	1500	300	1	1.5	30	-20 to +55		1.2
LF-230FU	250	30	1500	300	1	1.5	30	-20 to +55	UL	1.2
LF-220N	250	20	1500	300	1	1.5	30	-20 to +55		1.2
LF-220P	250	20	2000	300	1	1.5	30	-20 to +55		1.2
LF-230N	250	30	1500	300	1	1.5	30	-20 to +55		1.2
LF-230P	250	30	2000	300	1	1.5	30	-20 to +55		1.2

Shape and Dimensions

●LF-220, 220N, 220P, LF-230, 230N, 230P



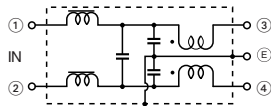
●LF-230FU



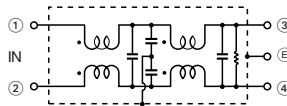
[mm]

Circuit Diagram

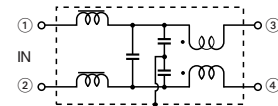
●LF-220, 220P, 230, 230P



●LF-220N, 230N Series

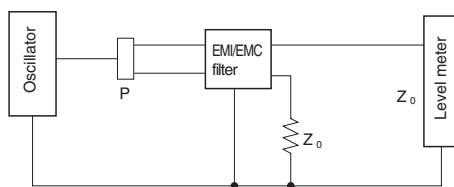


●LF-230FU



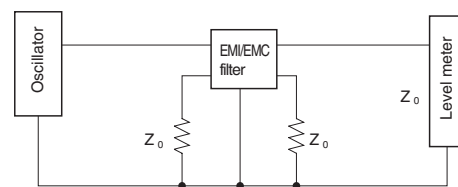
Measuring Circuit

●Common mode



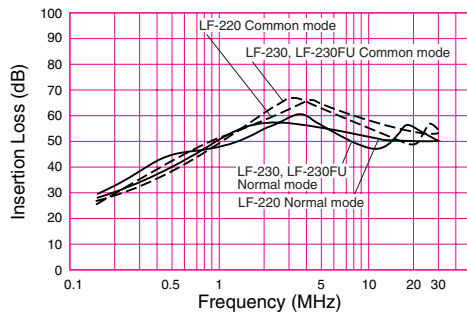
P: Power divider Z₀: 50Ω

●Normal mode



Z₀: 50Ω

Attenuation (Static Characteristics)



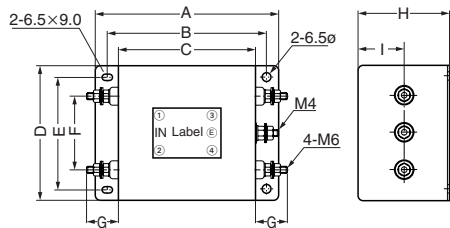
LF Series Large Current Type



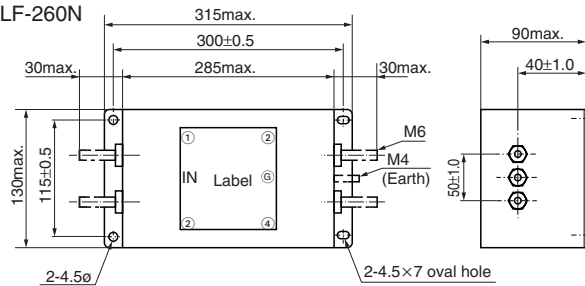
Model	Rated voltage AC/DC (V)	Rated current AC/DC (A)	Withstanding voltage 1 min., line to ground AC (V)	Insulation resistance 500VDC 1 min., line to ground (MΩ) min.	Leakage current 250V/60Hz, (mA) max.	Voltage drop 50Hz, (V) max.	Self-temperature rise (K) max.	Operating temperature range (°C)	Certified standard	Weight (g)
LF-240	250	40	1500	300	1	1.5	40	-20 to +45		3.2
LF-240P	250	40	2000	300	1	1.5	40	-20 to +45		3.2
LF-250	250	50	1500	300	1	1.5	40	-20 to +45		4.0
LF-250P	250	50	2000	300	1	1.5	40	-20 to +45		4.0
LF-260N	250	60	1500	300	1	1.5	30	-20 to +45		6.5
LF-240U	250	40	1500	300	1	1.5	40	-20 to +45	UL	3.2

Shape and Dimensions

● LF-240/240P, LF-250/250P



● LF-260N

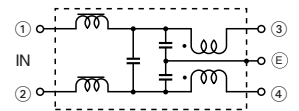


Model	A	B	C	D	E	F	G	H	I
LF-240/240P	210	190	170	120	100	60	29	75	40
LF-240U	240	220	200	90	70	40	30	80	40
LF-250/250P	240	220	200	90	70	40	30	80	40
LF-260N	315	300	285	130	115	50	30	90	50

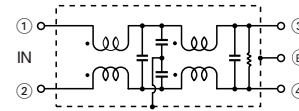
[mm]

Circuit Diagram

● LF-240, 240P, 240U, 250, 250P

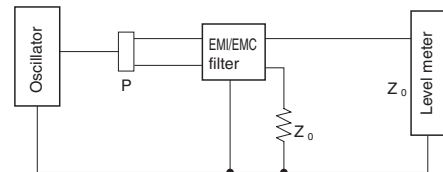


● LF-260N Series



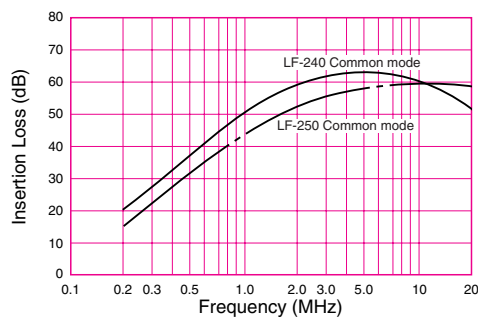
Measuring Circuit

Common mode



P: Power divider Z₀: 50Ω

Attenuation (Static Characteristics)



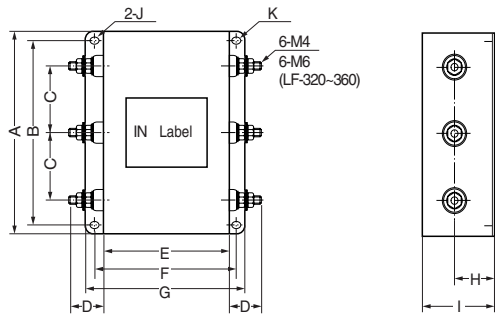
LF Series

Three-Phase Type



Model	Rated voltage AC/DC (V)	Rated current AC/DC (A)	Withstanding voltage 1 min., line to ground AC (V)	Insulation resistance 500VDC 1 min., line to ground (MΩ) min.	Leakage current 250V/60Hz, (mA) max.	Voltage drop 50Hz, (V) max.	Self-temperature rise (K) max.	Operating temperature range (°C)	Certified standard	Weight (g)
LF-305	250	5	1500	300	1	1.5	30	-20 to +55		0.65
LF-310	250	10	1500	300	1	1.5	30	-20 to +55	UL	1.9
LF-315	250	15	1500	300	1	1.5	30	-20 to +55		1.9
LF-320	250	20	1500	300	1	1.5	30	-20 to +55		2.3
LF-320U	250	20	1500	300	1	1.5	30	-20 to +60	UL, CSA	2.4
LF-330	250	30	1500	300	1	1.5	30	-20 to +55	UL	2.4
LF-340	250	40	1500	300	1	1.5	40	-20 to +45	UL	5.3
LF-350	250	50	1500	300	1	1.5	40	-20 to +45	UL	5.3
LF-360	250	60	1500	300	1	1.5	40	-20 to +45		8.0
LF-305A	450	5	2000	300	2	1.5	40	-20 to +45		0.65
LF-310A	450	10	2000	300	2	1.5	40	-20 to +45		1.9
LF-315A	450	15	2000	300	2	1.5	40	-20 to +45		1.9
LF-320A	450	20	2000	300	2	1.5	40	-20 to +45	UL	2.3
LF-330A	450	30	2000	300	2	1.5	40	-20 to +45		2.4
LF-340A	450	40	2000	300	2	1.5	40	-20 to +45		5.3
LF-350A	450	50	2000	300	2	1.5	40	-20 to +45		5.3

Shape and Dimensions

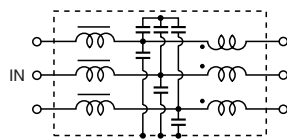


Model	A	B	C	D	E	F	G	H	I	J	K
LF-305, 305A	120	110	40	25	80	95	110	25	45	4.5×7	4.5ø
LF-310, 310A	180	170	60	25	120	135	150	35	65	4.5×7	4.5ø
LF-315, 315A	180	170	60	25	120	135	150	35	65	4.5×7	4.5ø
LF-320, 320A	180	170	60	29	120	135	150	35	65	4.5×7	4.5ø
LF-320U	180	170	60	29	120	135	150	35	65	4.5×7	4.5ø
LF-330, 330A	180	170	60	29	120	135	150	35	65	4.5×7	4.5ø
LF-340, 340A	180	160	50	30	200	220	240	40	80	6.5×9	6.5ø
LF-350, 350A	180	160	50	30	200	220	240	40	80	6.5×9	6.5ø
LF-360	200	180	60	30	300	320	340	50	100	6.5×9	6.5ø

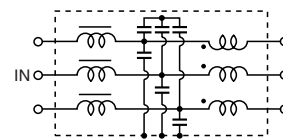
[mm]

Circuit Diagram

●LF-300 Series, 320U

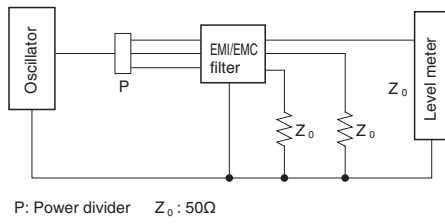


●LF-300A Series

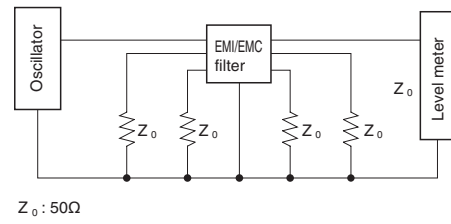


Measuring Circuit

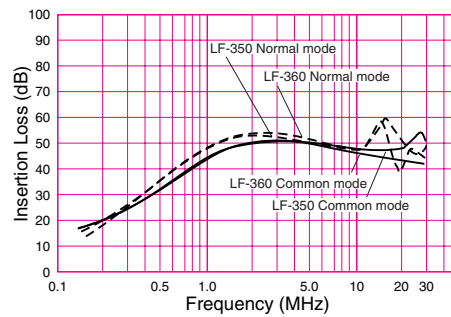
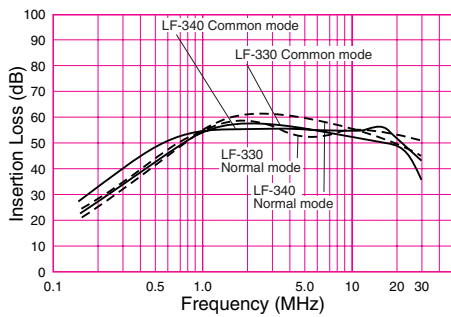
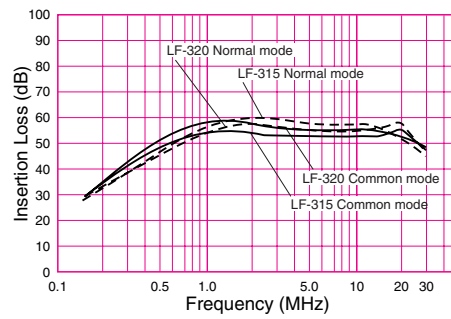
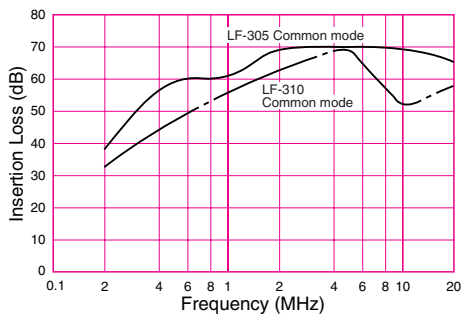
● Common mode



● Normal mode



Attenuation (Static Characteristics)

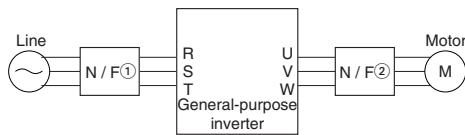


LF Series Inverter-Use Type



Model	Rated voltage AC/DC (V)	Rated current AC/DC (A)	Withstanding voltage 1 min., line to ground AC (V)	Insulation resistance 500VDC 1 min., line to ground (MΩ) min.	Leakage current 250V/60Hz, (mA) max.	Operating temperature range (°C)	Certified standard	Installation position
LF-305	250	5	1500	300	1	-20 to +55		① (input side)
LF-310	250	10	1500	300	1	-20 to +55	UL	① (input side)
LF-315	250	15	1500	300	1	-20 to +55		① (input side)
LF-320	250	20	1500	300	1	-20 to +55		① (input side)
LF-330	250	30	1500	300	1	-20 to +55	UL	① (input side)
LF-340	250	40	1500	300	1	-20 to +45	UL	① (input side)
LF-350	250	50	1500	300	1	-20 to +45	UL	① (input side)
LF-360	250	60	1500	300	1	-20 to +45		① (input side)
LF-305G	250	5	1500	300	1	-25 to +55		① (input side)
LF-310G	250	10	1500	300	1	-25 to +55		① (input side)
LF-320G	250	20	1500	300	1	-25 to +55		① (input side)
LF-315K	250	15	2000	300	5	-25 to +55		① (input side)
LF-325K	250	25	2000	300	5	-25 to +55		① (input side)
LF-335K	250	35	2000	300	5	-25 to +55		① (input side)
LF-380K	250	80	2000	300	5	-25 to +55		① (input side)
LF-314K4	506	14	2500	300	10 (500V, 60Hz)	-25 to +55		① (input side)
LF-330K4	506	30	2500	300	10 (500V, 60Hz)	-25 to +55		① (input side)
LF-355K4	506	55	2500	300	10 (500V, 60Hz)	-25 to +55		① (input side)
LF-380K4	506	80	2500	300	10 (500V, 60Hz)	-25 to +55		① (input side)
LF-310KA	250	10	2000	300	—	-25 to +55		② (output side)
LF-320KA	250	20	2000	300	—	-25 to +55		② (output side)
LF-350KA	250	50	2000	300	—	-25 to +55		② (output side)
LF-310KB	450	10	2500	300	—	-25 to +55		② (output side)
LF-320KB	450	20	2500	300	—	-25 to +55		② (output side)
LF-335KB	450	35	2500	300	—	-25 to +55		② (output side)
LF-345KB	450	45	2500	300	—	-25 to +55		② (output side)
LF-375KB	450	75	2500	300	—	-25 to +55		② (output side)
LF-3110KB	450	110	2500	300	—	-25 to +55		② (output side)

Installation Diagram



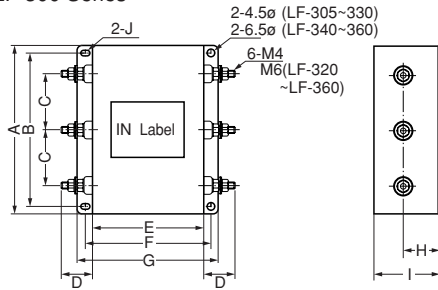
- N/F ① LF-K Series (conforms to CISPR Pub 14)
LF Series (conforms to FCC P15-J and JTTC)
LF-G Series (conforms to FCC P15-J and JTTC)
- N/F ② LF-KA Series (200V line)
LF-KB Series (400V line)



Only LF-KA and KB can be used in N/F②.

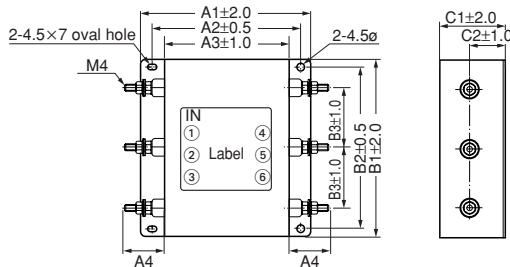
Shape and Dimensions

●LF-300 Series



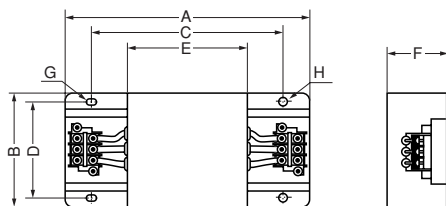
Model	A	B	C	D	E	F	G	H	I	J
LF-305	120	110	40	25	80	95	110	25	45	4.5×7
LF-310	180	170	60	25	120	135	150	35	65	4.5×7
LF-315	180	170	60	25	120	135	150	35	65	4.5×7
LF-320	180	170	60	29	120	135	150	35	65	4.5×7
LF-330	180	170	60	29	120	135	150	35	65	4.5×7
LF-340	180	160	50	30	200	220	240	40	80	6.5×9
LF-350	180	160	50	30	200	220	240	40	80	6.5×9
LF-360	200	180	60	30	300	320	340	40	100	6.5×9

●LF-G Series



Model	A1	A2	A3	A4	B1	B2	B3	C1	C2
LF-305G	110	95	80	25	120	110	40	45	25
LF-310G	150	135	120	25	120	110	40	65	35
LF-320G	150	135	120	25	120	110	40	65	35

●LF-K Series

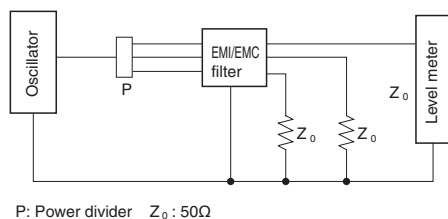


Model	Terminal board	A	B	C	D	E	F	G	H	
200V line	LF-315K	TE-K5.5 M4	260	180	180	160	120	65	7×4.5φ	4.5φ
LF-325K	TE-K22 M6	340	180	260	160	200	80	9×6.5φ	6.5φ	
LF-335K	TE-K22 M6	440	200	360	180	300	100	9×6.5φ	6.5φ	
LF-380K	TE-K22 M6	670	400	560	380	500	170	9×6.5φ	6.5φ	
400V line	LF-314K4	TE-K5.5 M4	260	180	180	160	120	65	7×4.5φ	4.5φ
LF-330K4	TE-K22 M6	440	200	360	180	300	100	9×6.5φ	6.5φ	
LF-355K4	TE-K22 M6	540	300	470	270	400	130	9×6.5φ	6.5φ	
LF-380K4	TE-K22 M6	672	400	560	380	500	170	9×6.5φ	6.5φ	

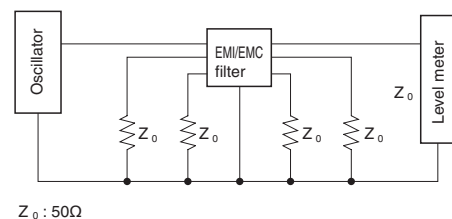
Model	Terminal board	A	B	C	D	E	F	G	H	
200V line	LF-310KA	TE-K5.5 M4	140	100	100	90	70	45	7×4.5φ	4.5φ
LF-320KA	TE-K5.5 M4	140	100	100	90	70	45	7×4.5φ	4.5φ	
LF-350KA	TE-K22 M6	260	180	180	160	120	65	7×4.5φ	4.5φ	
LF-310KB	TE-K5.5 M4	140	100	100	90	70	45	7×4.5φ	4.5φ	
400V line	LF-320KB	TE-K5.5 M4	140	100	100	90	70	45	7×4.5φ	4.5φ
LF-335KB	TE-K5.5 M4	140	100	100	90	70	45	7×4.5φ	4.5φ	
LF-345KB	TE-K22 M6	260	180	180	160	120	65	7×4.5φ	4.5φ	
LF-375KB	TE-K22 M6	540	320	480	300	340	240	9×6.5φ	6.5φ	
LF-3110KB	TE-K60 M8	540	320	480	300	340	240	9×6.5φ	6.5φ	

Measuring Circuit

●Common mode

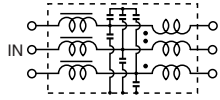


●Normal mode

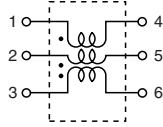


Circuit Diagram

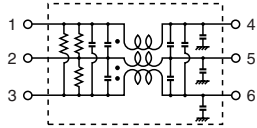
●LF-300 Series



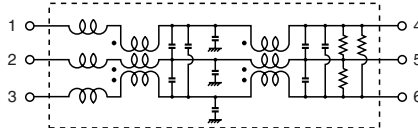
●KA, KB Series



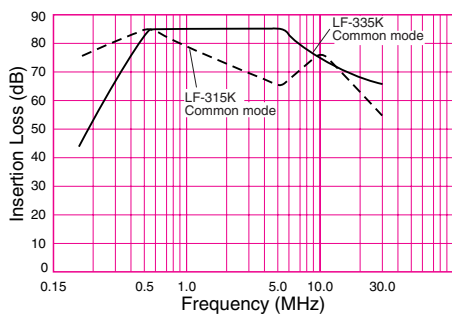
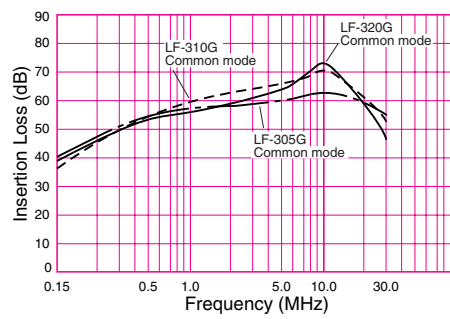
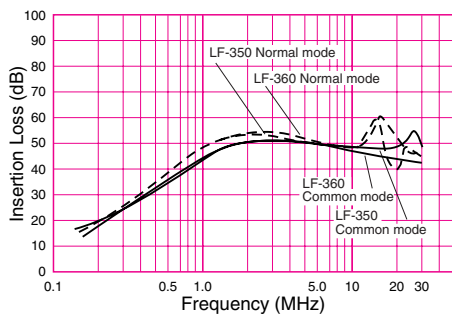
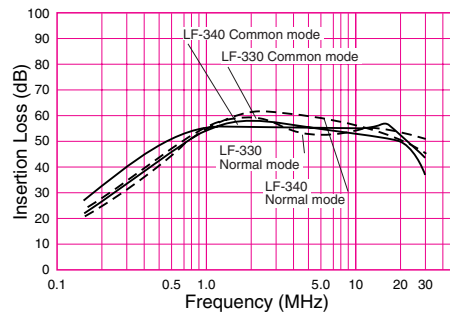
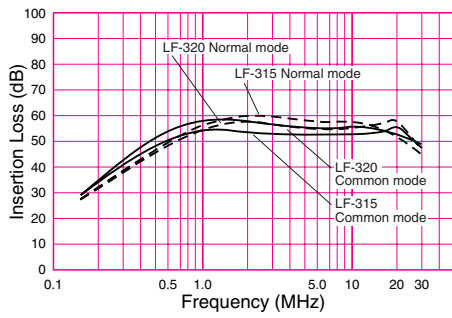
●LF-G Series



●K, K4 Series



Attenuation (Static Characteristics)



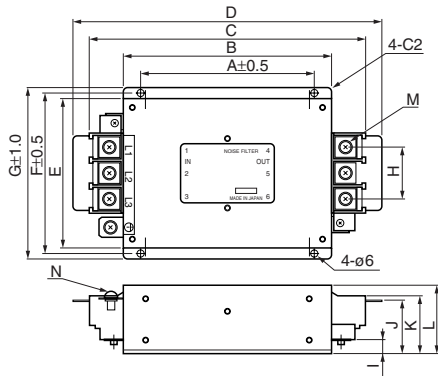
LF Series

For Compliance with CE Marking—LF-3000 Series



Model	Rated voltage AC/DC (V)	Rated current AC/DC (A)	Withstanding voltage 1 min., line to ground AC (V)	Insulation resistance 500VDC 1 min., line to ground (MΩ) min.	Leakage current 250V/60Hz, (mA) max.	Voltage drop 50Hz, (V) max.	Self-temperature rise (K) max.	Operating temperature range (°C)	Certified standard
LF-3200	250	20	2000	300	1.2	1.5	30	-25 to +55	TÜV
LF-3300	250	30	2000	300	1.2	1.5	30	-25 to +55	TÜV
LF-3400	250	40	2000	300	1.2	1.5	30	-25 to +55	TÜV
LF-3500	250	50	2000	300	1.2	1.5	30	-25 to +55	TÜV
LF-3600	250	60	2000	300	1.2	1.5	30	-25 to +55	TÜV

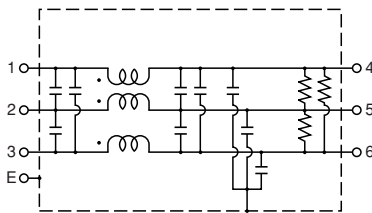
Shape and Dimensions



Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N
LF-3200	150	180	219	247	90	100	110	32	17	45.5	47.5	60	M5	M5
LF-3300	150	180	219	247	90	100	110	32	17	45.5	47.5	60	M5	M5
LF-3400	150	180	237	264	129	139	149	46	24	58.5	63	75	M6	M6
LF-3500	150	180	237	264	129	139	149	46	14	48.5	53	60	M6	M6
LF-3600	300	330	387	414	180	200	220	46	55	89.5	94	115	M6	M6

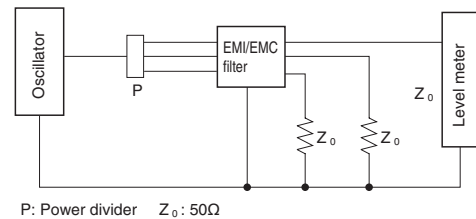
[mm]

Circuit Diagram

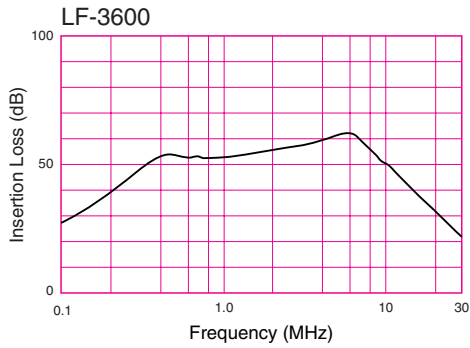
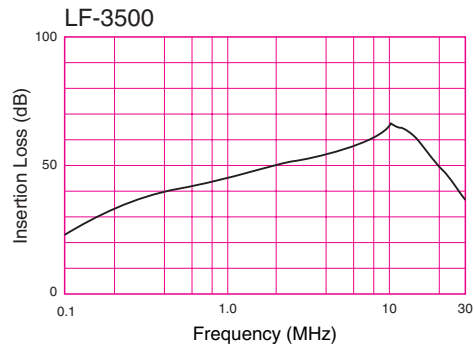
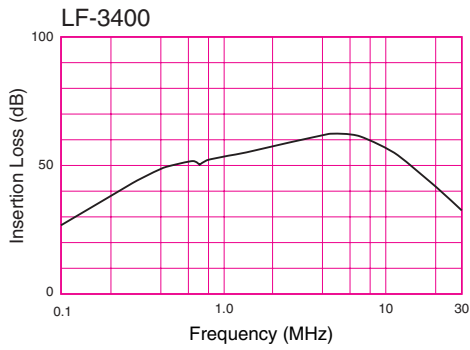
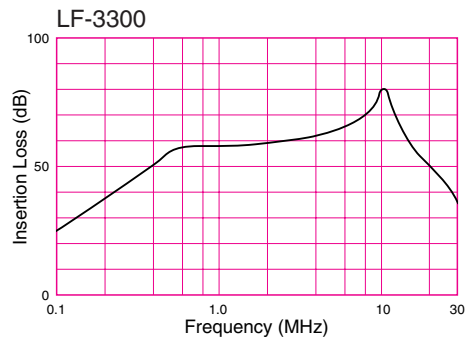
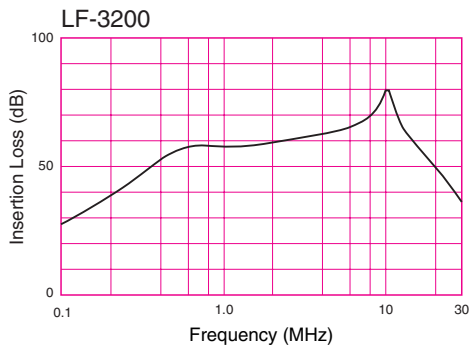


Measuring Circuit

● Common mode



Attenuation (Static Characteristics)



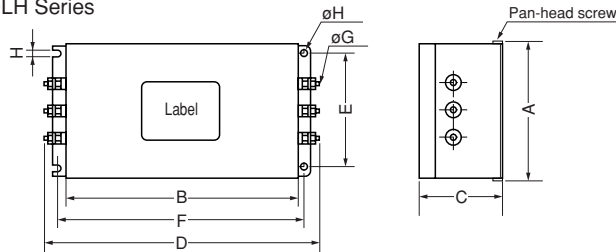
LH Series Low-Frequency Inverters



Model	Rated voltage AC/DC (V)	Rated current AC/DC (A)	Withstanding voltage 1 min., line to ground AC (V)	Insulation resistance 500VDC 1 min., line to ground (MΩ) min.	Leakage current 250V/60Hz, (mA) max.	Self-temperature rise (K) max.	Operating temperature range (°C)
LH-3102	250	10	2000	300	1	40	-20 to +45
LH-3152	250	15	2000	300	1	40	-20 to +45
LH-3202	250	20	2000	300	1	40	-20 to +45
LH-3302	250	30	2000	300	1	40	-20 to +45
LH-3402	250	40	2000	300	1	40	-20 to +45
LH-3502	250	50	2000	300	1	40	-20 to +45
LH-3602	250	60	2000	300	1	40	-20 to +45
LH-3702	250	70	2000	300	1	40	-20 to +45
LH-3802	250	80	2000	300	1	40	-20 to +45

Shape and Dimensions

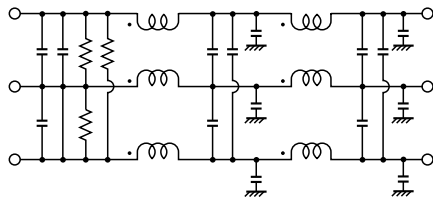
● LH Series



Model	A	B	C	D	E	F	G	H
LH-3102	105	182	70	230 max.	80	200	M4	4.5
LH-3152	105	182	70	230 max.	80	200	M4	4.5
LH-3202	105	182	70	230 max.	80	200	M4	4.5
LH-3302	115	203	85	250 max.	75	220	M6	5.5
LH-3402	115	203	85	250 max.	75	220	M6	5.5
LH-3502	190	300	125	355 max.	150	320	M6	5.5
LH-3602	190	300	125	355 max.	150	320	M6	5.5
LH-3702	190	335	155	430 max.	150	360	M8	5.5
LH-3802	190	335	155	430 max.	150	360	M8	5.5

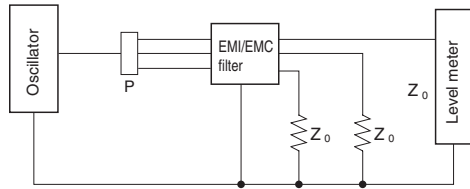
[mm]

Circuit Diagram



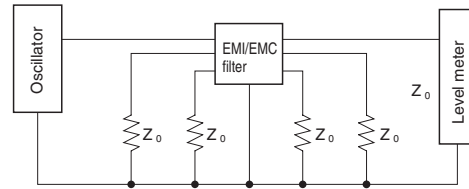
Measuring Circuit

● Common mode



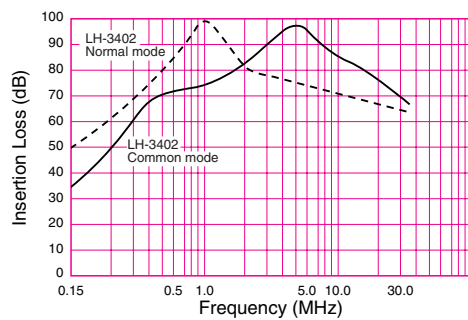
P: Power divider $Z_0 : 50\Omega$

● Normal mode



$Z_0 : 50\Omega$

Attenuation (Static Characteristics)



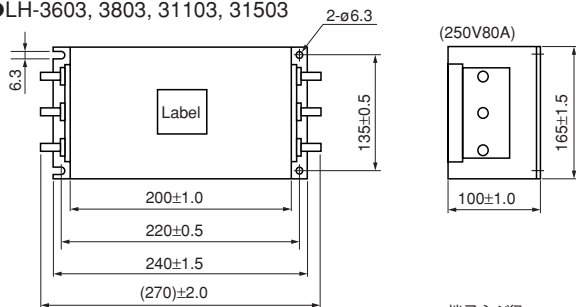
LH Series Three-Phase Large Current Type



Model	Rated voltage AC/DC (V)	Rated current AC/DC (A)	Withstanding voltage 1 min., line to ground AC (V)	Insulation resistance 500VDC 1 min., line to ground (MΩ) min.	Leakage current 250V/60Hz, (mA) max.	Voltage drop 50Hz, (V) max.	Self-temperature rise (K) max.	Operating temperature range (°C)
LH-3603	250	60	2000	300	1.0	1.5	30	-25 to +55
LH-3803	250	80	2000	300	1.0	1.5	30	-25 to +55
LH-31103	250	110	2000	300	1.0	1.5	30	-25 to +55
LH-31503	250	150	2000	300	1.0	1.5	30	-25 to +55
LH-3803K	250	50 to 80	2000	300	—	1.5	30	-25 to +55
LH-31103K	250	90 to 110	2000	300	—	1.5	30	-25 to +55
LH-31503K	250	120 to 150	2000	300	—	1.5	30	-25 to +55

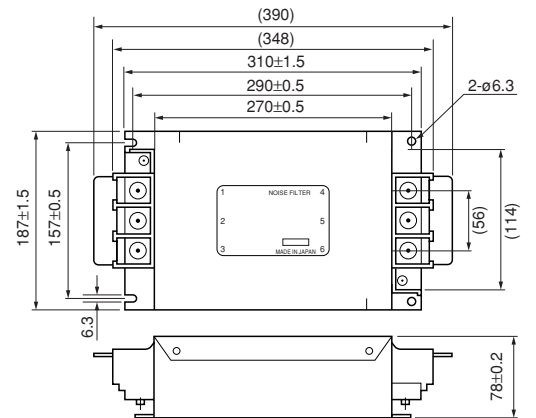
Shape and Dimensions

●LH-3603, 3803, 31103, 31503



端子ネジ径
 LH-3603 : M8
 LH-3803 : M8
 LH-31103 : M10
 LH-31503 : M12

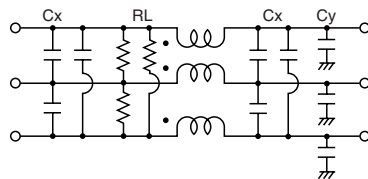
●LH-3803K, LH-31103K, LH-31503K



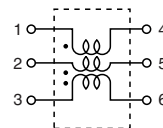
[mm]

Circuit Diagram

●LF-3 Series

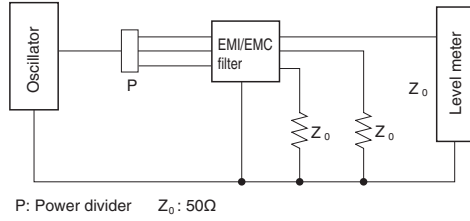


●LF-3K Series



Measuring Circuit

● Common mode

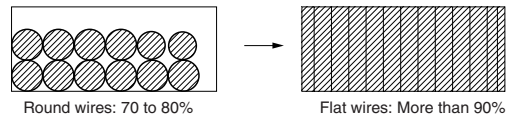


Inductor Appearance

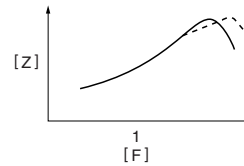


● Advantages of vertically winding flat wires compared with round wires

1) Allows miniaturization through winding density



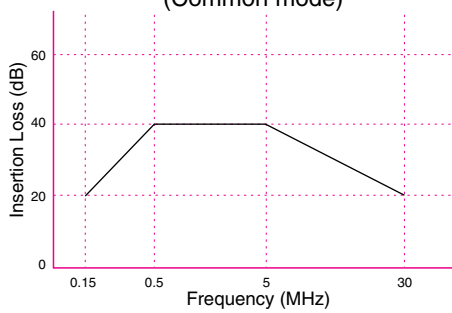
2) Improved impedance characteristics of high-frequency range due to lower stray capacitance



Attenuation Characteristics (Example)

● LH-3603

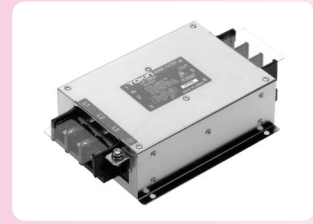
(Common mode)



LH Series

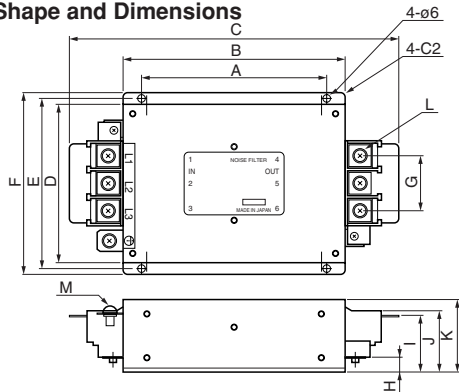
For Compliance with CE Marking—

LH-4 Series



Model	Rated voltage AC/DC (V)	Rated current AC/DC (A)	Withstanding voltage 1 min., line to ground AC (V)	Insulation resistance 500VDC 1 min., line to ground (MΩ) min.	Leakage current 250V/60Hz, (mA) max.	Voltage drop 50Hz, (V) max.	Self-temperature rise (K) max.	Operating temperature range (°C)	Certified standard
LH-3304	250	30	2000	300	1.2	1.5	30	-25 to +55	TÜV PS
LH-3404	250	40	2000	300	1.2	1.5	30	-25 to +55	TÜV PS
LH-3604	250	60	2000	300	1.2	1.5	30	-25 to +55	TÜV PS
LH-3804	250	80	2000	300	1.2	1.5	30	-25 to +55	TÜV PS
LH-31204	250	120	2000	300	1.2	1.5	30	-25 to +55	TÜV PS
LH-31504	250	150	2000	300	1.2	1.5	30	-25 to +55	TÜV PS

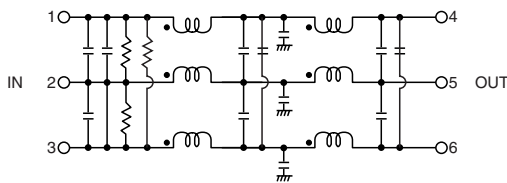
Shape and Dimensions



Model	A	B	C	D	E	F	G	H	I	J	K	L	M
LH-3304	250	280	349	90	100	110	32	17	45.5	47.5	85	M5	M5
LH-3404	250	280	366	129	139	149	46	23	58	62	85	M6	M6
LH-3604	306	336	422	160	170	180	46	55	90	94	160	M6	M6
LH-3804	450	480	600	210	230	250	56	60	103	107	170	M8	M8
LH-31204	480	510	630	222	242	262	56	60	103	107	170	M8	M8
LH-31504	630	660	788	250	270	290	76	70	126	130	200	M10	M10

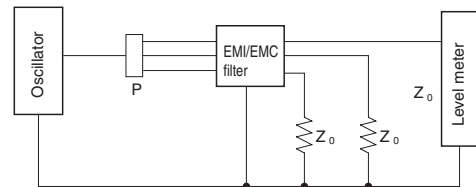
[mm]

Circuit Diagram



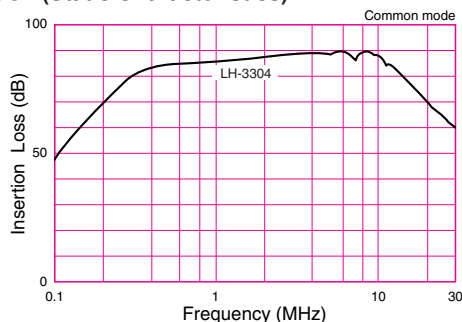
Measuring Circuit

● Common mode



P: Power divider $Z_0 : 50\Omega$

Attenuation (Static Characteristics)



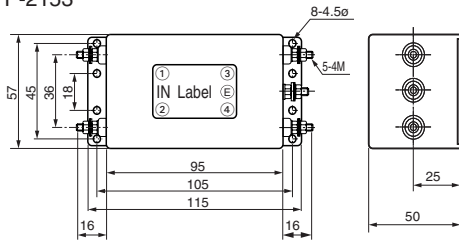
HFP Series



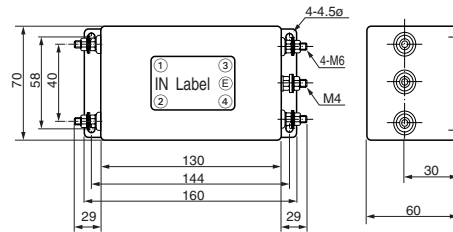
Model	Rated voltage AC/DC (V)	Rated current AC/DC (A)	Withstanding voltage 1 min., line to ground (V)	Insulation resistance 500VDC 1 min., line to ground (MΩ) min.	Leakage current (mA) max.	Self-temperature rise (K) max.	Operating temperature range (°C)	Certified standard	Weight (kg)
HFP-2153	250	15	AC1500	10	1.5 (250V, 60Hz)	30	-20 to +55	UL,CSA,TÜV	0.64
HFP-2303	250	30	AC1500	10	1.5 (250V, 60Hz)	30	-20 to +55	UL,CSA,TÜV	1.3
HFP-2303A1	250	30	AC1500	10	1.5 (250V, 60Hz)	30	-20 to +55	UL,CSA,TÜV	3.9
HFP-4153A	420	15	DC2600	10	3.5 (420V, 60Hz)	30	-20 to +55	UL,CSA,TÜV	6.5
HFP-4503A	420	50	DC2600	10	3.5 (420V, 60Hz)	35	-20 to +55	UL,CSA,TÜV	14.0

Shape and Dimensions

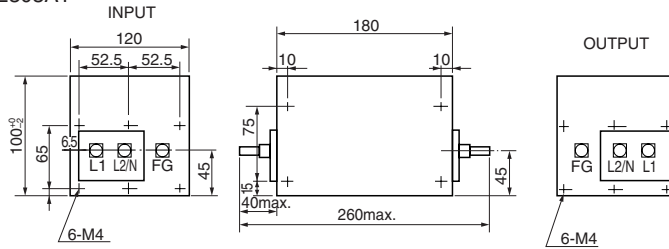
●HFP-2153



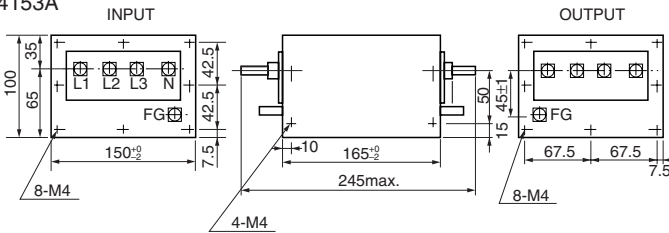
●HFP-2303



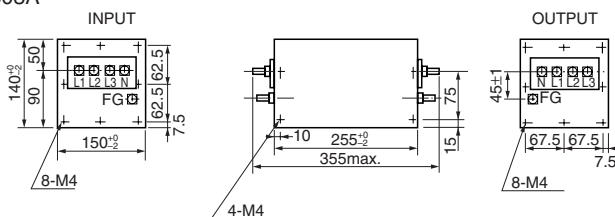
●HFP-2303A1



●HFP-4153A



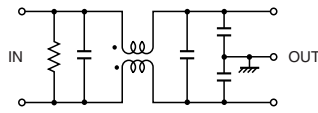
●HFP-4503A



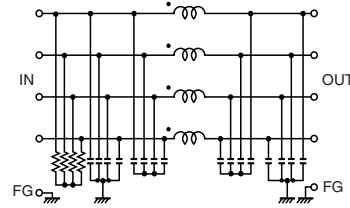
[mm]

Circuit Diagram

●HFP-2153, 2303, 2303A1

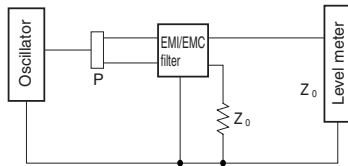


●HFP-4153A, 4503A



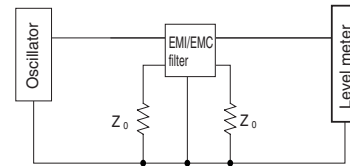
Measuring Circuit

●Common mode



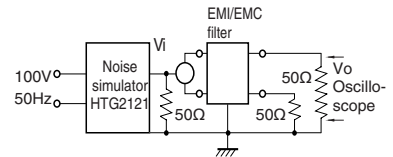
P : Power divider Z₀ : 50Ω

●Normal mode

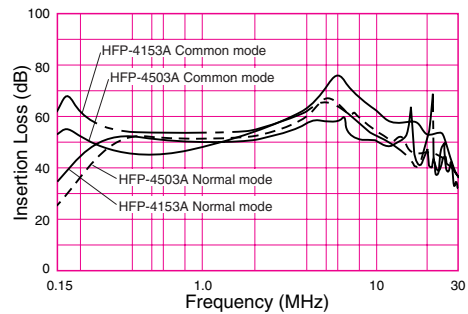
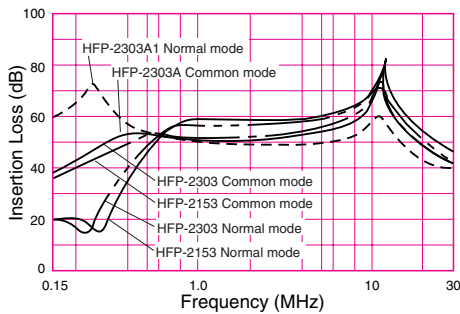


Z₀ : 50Ω

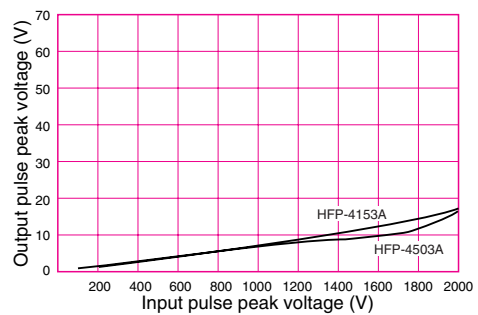
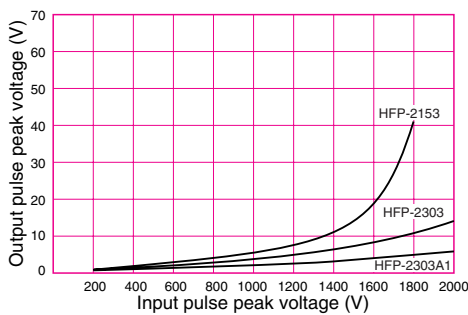
●Pulse characteristic measuring circuit



Attenuation (Static Characteristics)



Pulse Attenuation Example



GT Series

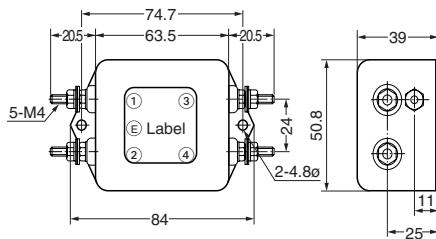
Screw Terminal



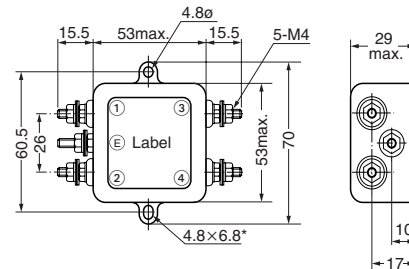
Model	Rated voltage AC/DC (V)	Rated current AC/DC (A)	Withstanding voltage 1 min., line to ground AC (V)	Insulation resistance 500VDC 1 min., line to ground (MΩ) min.	Leakage current 250V/60Hz, (mA) max.	Voltage drop 50Hz, (V) max.	Self-temperature rise (K) max.	Operating temperature range (°C)	Certified standard	Weight (g)
GT-2050	250	5	1500	300	0.5	1	35	-20 to +55		173
GT-2100	250	10	1500	300	0.5	1	35	-20 to +55		260
GT-2150	250	15	1500	300	0.5	1	35	-20 to +55		274
GT-2200	250	20	1500	300	0.5	1	35	-20 to +55		300
GT-205U	250	5	1500	300	0.5	1	35	-20 to +55	UL, TÜV, VDE, CSA	170
GT-210U	250	10	1500	300	0.5	1	35	-20 to +55	UL, TÜV, VDE, CSA	260
GT-215U	250	15	1500	300	0.5	1	35	-20 to +55	UL	270
GT-220U	250	20	1500	300	0.5	1	35	-20 to +55	UL, TÜV	270
GT-2050R	250	5	1500	300	0.5	1	35	-20 to +55		160
GT-2100R	250	10	1500	300	0.5	1	35	-20 to +55		270
GT-2150R	250	15	1500	300	0.5	1	35	-20 to +55		280
GT-2200R	250	20	1500	300	0.5	1	35	-20 to +55		305

Shape and Dimensions

●GT-2100, GT-210U, GT-2150, GT-215U, GT-2200
GT-220U, GT-2150R, GT-2100R, GT-2200R



●GT-2050, GT-205U, GT-2050R

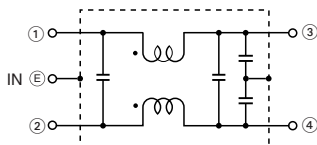


*4.8φ for UL products.

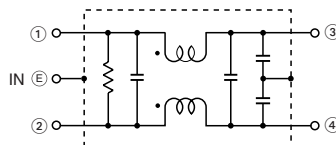
[mm]

Circuit Diagram

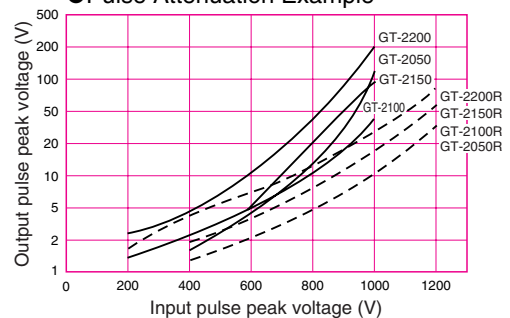
●GT-2000 Series
GT-2000R Series



●GT-200U Series

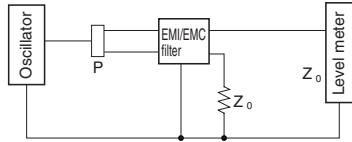


Pulse Attenuation Example



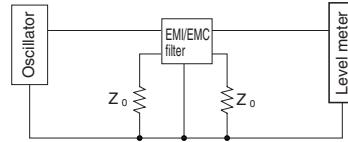
Measuring Circuit

●Common mode



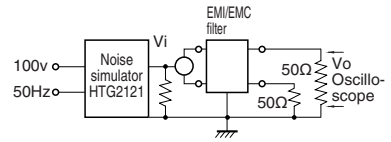
P: Power divider Z₀: 50Ω

●Normal mode



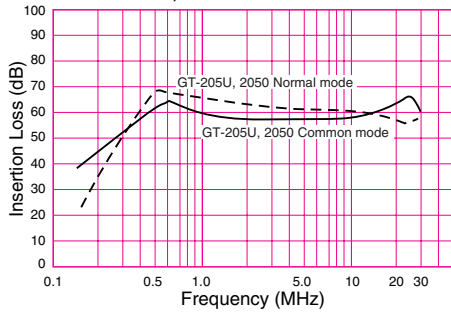
Z₀: 50Ω

●Pulse-characteristic measuring circuit

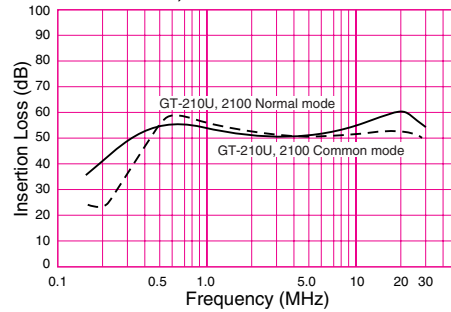


Attenuation (Static Characteristics)

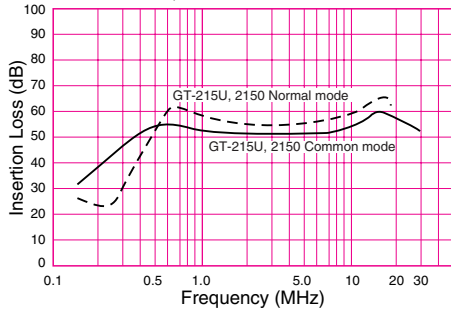
●GT-205U, GT-2050



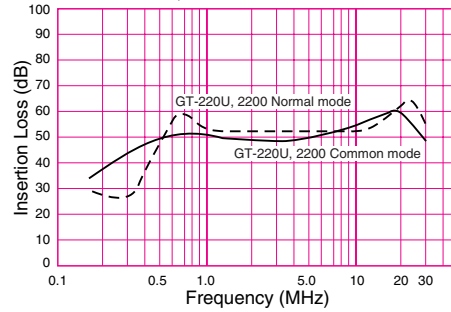
●GT-210U, GT-2100



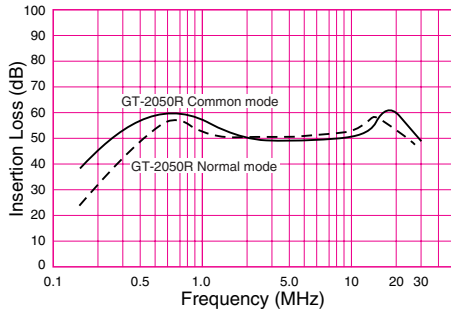
●GT-215U, GT-2150



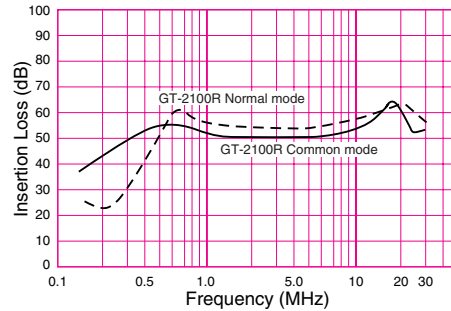
●GT-220U, GT-2200



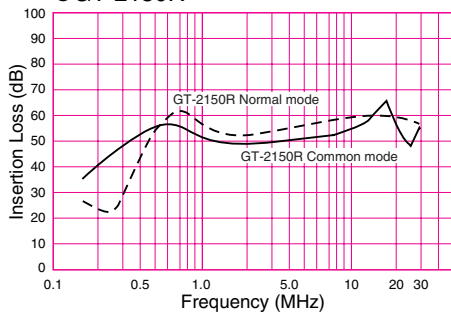
●GT-2050R



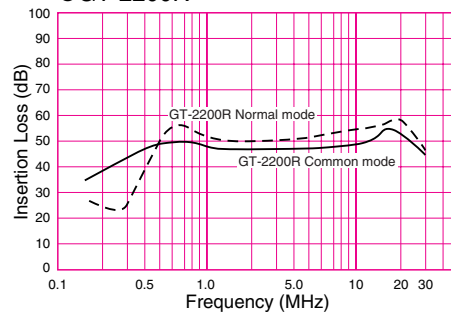
●GT-2100R



●GT-2150R



●GT-2200R



GT Series

Faston Terminal

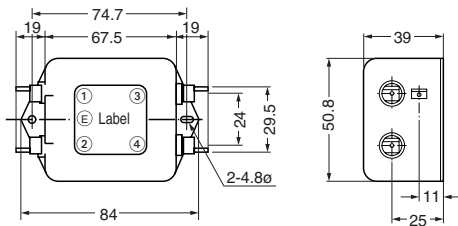


Faston® is a registered trademark of AMP Incorporated.

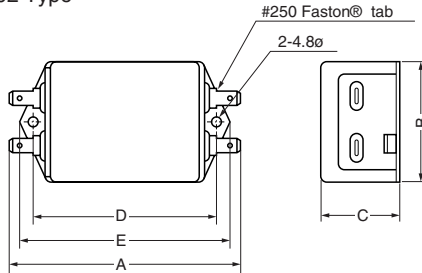
Model	Rated voltage AC/DC (V)	Rated current AC/DC (A)	Withstanding voltage 1 min., line to ground AC (V)	Insulation resistance 500VDC 1 min., line to ground (MΩ) min.	Leakage current 250V/60Hz, (mA) max.	Voltage drop 50Hz, (V) max.	Self-temperature rise (K) max.	Operating temperature range (°C)	Certified standard	Weight (g)
GT-205J	250	5	1500	300	0.5	1	35	-20 to +55	UL, CSA, TÜV, VDE	135
GT-210J	250	10	1500	300	0.5	1	35	-20 to +55	UL, CSA, TÜV, VDE	240
GT-215J	250	15	1500	300	0.5	1	35	-20 to +50	UL, CSA, TÜV, VDE	255
GT-20301	250	3	1500	300	1.0	1	35	-20 to +50	UL, CSA, TÜV	160
GT-20601	250	6	1500	300	1.0	1	35	-20 to +55	UL, CSA, TÜV	190
GT-21001	250	10	1500	300	1.0	1	35	-20 to +55	UL, CSA, TÜV	300
GT-20302	250	3	1500	300	1.0	1	35	-20 to +55	UL, CSA, TÜV	215

Shape and Dimensions

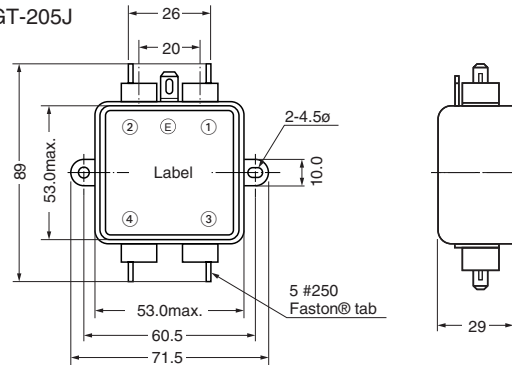
●GT-210J, GT-215J



●GT-01, 02 Type



●GT-205J



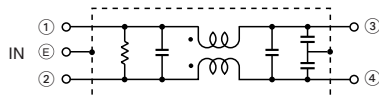
Model	A	B	C	D	E
GT-20301	91.5	52.0	30.0	74.7	84.3
GT-20601	105.7	57.5	32.0	87.1	96.5
GT-21001	105.7	57.5	44.5	87.1	96.5
GT-20302	91.5	52.0	45.0	74.7	84.3

*Faston® is a registered trademark of AMP Incorporated.

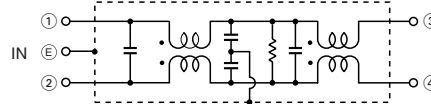
[mm]

Circuit Diagram

●GT-J, 01 Type

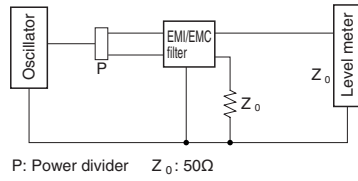


●GT-02 Type

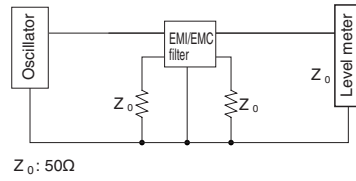


Measuring Circuit

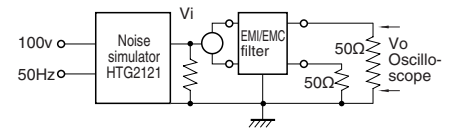
● Common mode



● Normal mode

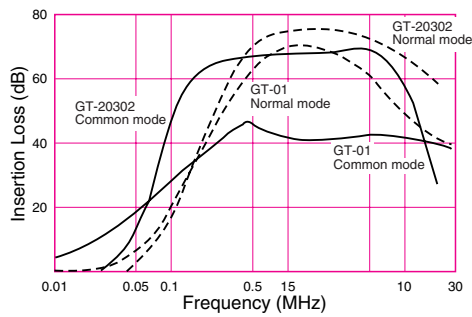
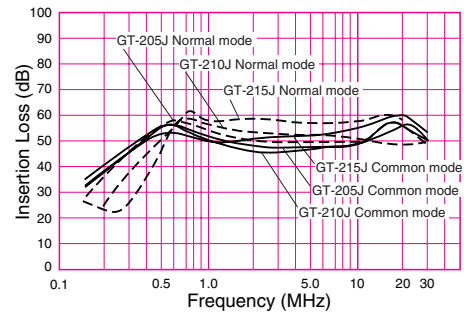
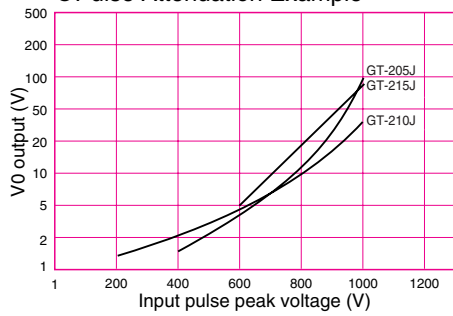


● Pulse characteristic measuring circuit



Attenuation (Static Characteristics)

● Pulse Attenuation Example



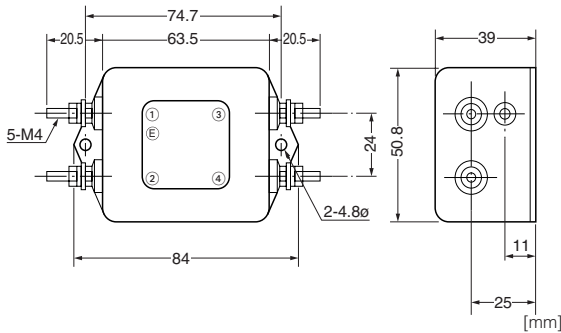
GT Series

For VCCI

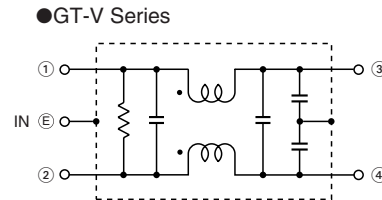


Model	Rated voltage AC/DC (V)	Rated current AC/DC (A)	Withstanding voltage 1 min., line to ground AC (V)	Insulation resistance 500VDC 1 min., line to ground (MΩ) min.	Leakage current 250V/60Hz, (mA) max.	Voltage drop 50Hz, (V) max.	Self-temperature rise (K) max.	Operating temperature range (°C)	Certified standard	Weight (kg)
GT-20501V	250	5	1500	300	0.5	1	35	-20 to +55		218
GT-21001V	250	10	1500	300	0.5	1	35	-20 to +55	UL, CSA, TÜV	281
GT-22001V	250	20	1500	300	0.5	1	35	-20 to +55		284

Shape and Dimensions

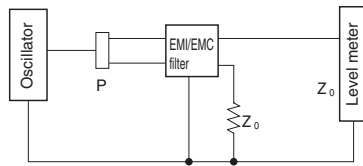


Circuit Diagram



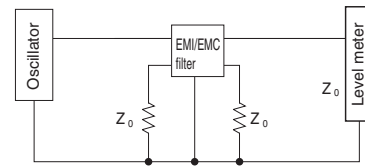
Measuring Circuit

Common mode



P: Power divider Z₀: 50Ω

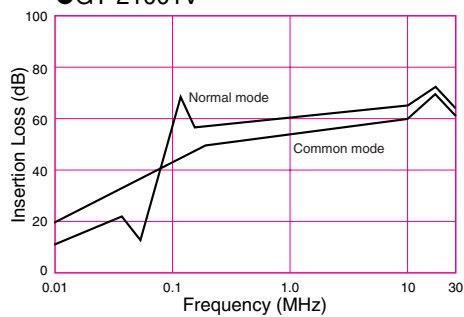
Normal mode



Z₀: 50Ω

Attenuation (Static Characteristics)

GT-21001V



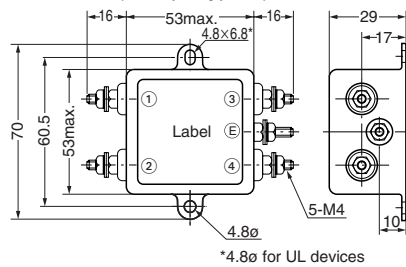
GF Series



Model	Rated voltage AC/DC (V)	Rated current AC/DC (A)	Withstanding voltage 1 min., line to ground AC (V)	Insulation resistance 500VDC 1 min., line to ground (M Ω) min.	Leakage current 250V/60Hz, (mA) max.	Voltage drop 50Hz, (V) max.	Self-temperature rise (K) max.	Operating temperature range (°C)	Certified standard	Weight (g)
GF-2050	250	5	1500	300	1	1.5	30	-20 to +60		130
GF-205U	250	5	1500	300	1	1.5	30	-20 to +60	UL	130
GF-2100	250	10	1500	300	1	1.5	30	-20 to +60		140
GF-210U	250	10	1500	300	1	1.5	30	-20 to +60	UL	140
GF-2150	250	15	1500	300	1	1.5	30	-20 to +60		140
GF-2200	250	20	1500	300	1	1.5	30	-20 to +60		150
GF-220U	250	20	1500	300	1	1.5	30	-20 to +60	UL	150
GF-205E	250	5	1500	300	1	1.5	30	-20 to +55	UL, CSA	130

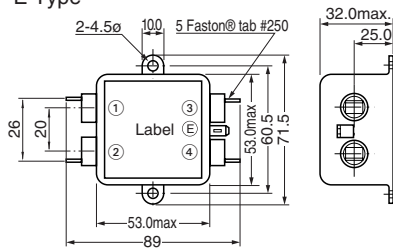
Shape and Dimensions

●GE Series (Except Type E)



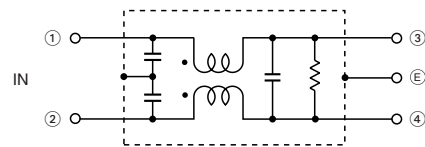
*4.8 ϕ for UL devices

●GF-E Type



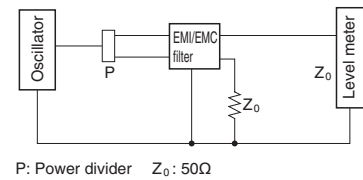
[mm]

Circuit Diagram



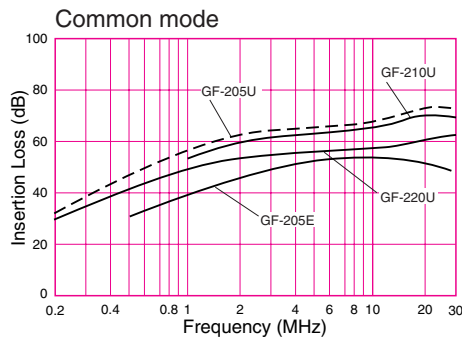
Measuring Circuit

●Common mode



P: Power divider Z₀: 50 Ω

Attenuation (Static Characteristics)



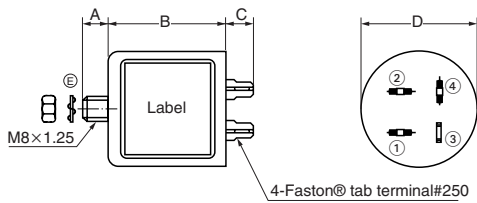
VU Series   



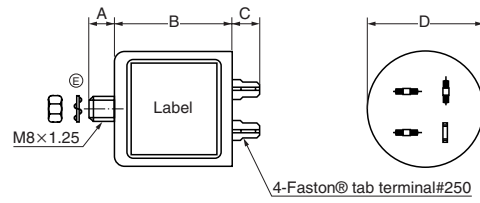
Model	Rated voltage AC/DC (V)	Rated current AC/DC (A)	Withstanding voltage 1 min., line to ground AC (V)	Insulation resistance 500VDC 1 min., line to ground (MΩ) min.	Leakage current 250V/60Hz, (mA) max.	Voltage drop 50Hz, (V) max.	Self-temperature rise (K) max.	Operating temperature range (°C)	Certified standard	Weight (g)
VU-210FA	250	10	1500	300	1	1.5	40	-25 to +55	UL, CSA	130
VU-215F	250	15	1500	300	1	1.5	40	-25 to +55	UL, CSA	130
VU-215F3	250	15	1500	300	1	1.5	40	-25 to +55	UL, CSA	130
VU-215FE	250	15	1500	300	1	1.5	40	-25 to +55	UL, CSA	130
VU-220F	250	20	1500	300	1	1.5	40	-25 to +55	UL, CSA, TÜV	240

Shape and Dimensions

●VU-215F, VU-215F3, VU-220F, 210FA



●VU-215FE



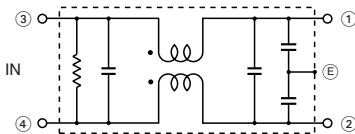
*Faston® is a registered trademark of AMP Incorporated.

Model	A	B	C	D
VU-215F	12	50	12	38
VU-215F3	12	40	13	45
VU-215FE	12	50	12	38
VU-220F, 210FA	12	50	12	50

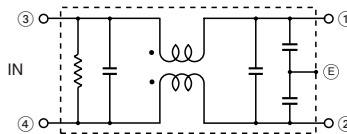
[mm]

Circuit Diagram

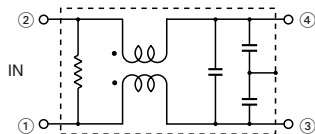
●VU-210FA, 215F, 220F



●VU-215FE



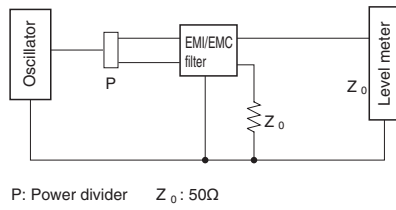
●VU-215F3



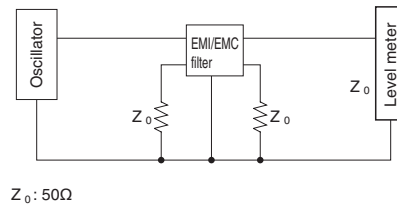
Caution: (E) represents a screw installation portion (M8).

Measuring Circuit

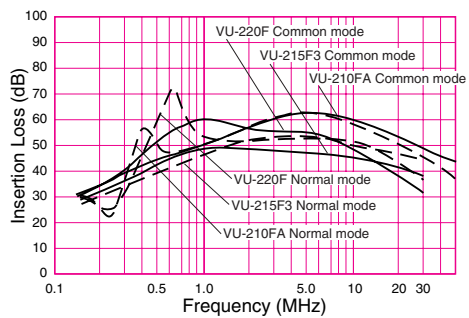
● Common mode



● Normal mode



Attenuation (Static Characteristics)



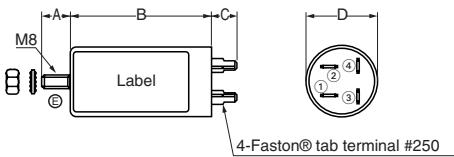
VC Series



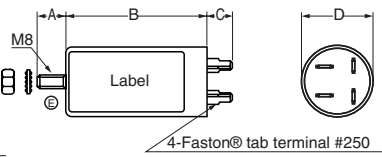
Model	Rated voltage AC/DC (V)	Rated current AC/DC (A)	Withstanding voltage 1 min., line to ground AC (V)	Insulation resistance 500VDC 1 min., line to ground (MΩ) min.	Leakage current 250V/60Hz, (mA) max.	Voltage drop 50Hz, (V) max.	Self-temperature rise (K) max.	Operating temperature range (°C)	Certified standard	Weight (g)
VC-210FA	250	10	1500	300	1.5	1	40	-20 to +55	VDE	130
VC-215F3V	250	15	1500	300	1.5	1	40	-20 to +55	TÜV	110

Shape and Dimensions

●VC-210FA



●VC-215F3V

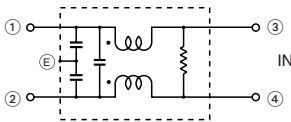


Model	A	B	C	D
VC-210FA	12	70	12	38
VC-215F3V	12	60	12	38

*Faston® is a registered trademark of AMP Incorporated. [mm]

Circuit Diagram

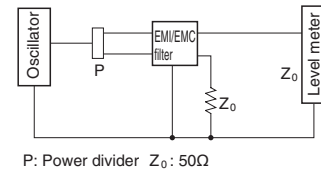
●VC Series



Caution: (E) represents a case.

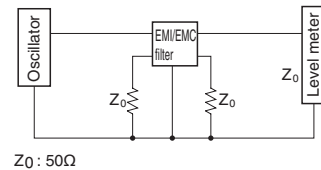
Measuring Circuit

●Common mode



P: Power divider Z₀: 50Ω

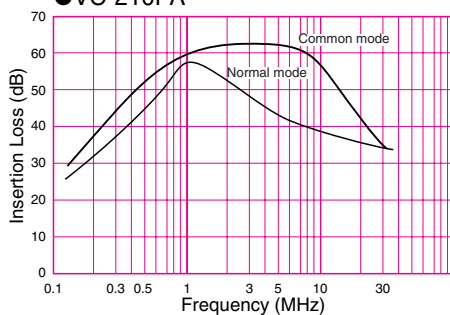
●Normal mode



Z₀: 50Ω

Attenuation (Static Characteristics)

●VC-210FA

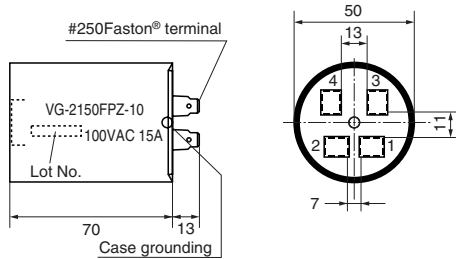


VG-FPZ Series for Home-Electronics Inverters Surge



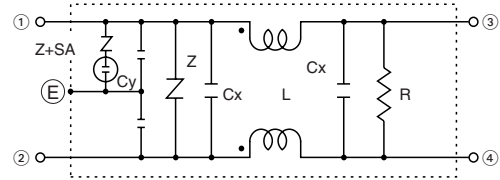
Model	Rated voltage AC/DC (V)	Rated current AC/DC (A)	Withstanding voltage 1 min., line to ground AC (V)	Insulation resistance 500VDC 1 min., line to ground (MΩ) min.	Leakage current 250V/60Hz, (mA) max.	Operating temperature range (°C)	Weight (g)
VG-2150FPZ-10	100	15	1000	300	0.5 (125V)	-25 to +55	200
VG-2150FPZ-20	200	15	1500	300	1.0 (250V)	-25 to +55	200
VG-2200FPZ-10	100	20	1000	300	0.5 (125V)	-25 to +55	220

Shape and Dimensions



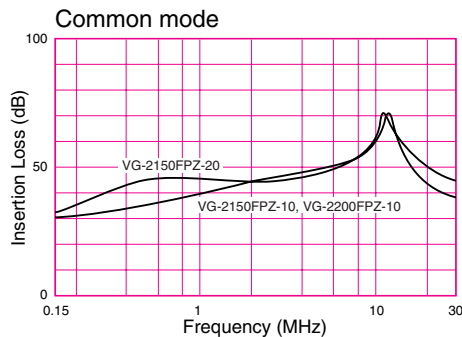
*Faston® is a registered trademark of AMP Incorporated. [mm]

Circuit Diagram



Caution: (E) represents a case.

Attenuation Characteristics



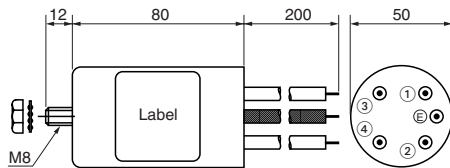
RG Series



Model	Rated voltage AC/DC (V)	Rated current AC/DC (A)	Withstanding voltage 1 min., line to ground AC (V)	Insulation resistance 500VDC 1 min., line to ground (MΩ) min.	Leakage current 250V/60Hz, (mA) max.	Voltage drop 50Hz, (V) max.	Self-temperature rise (K) max.	Operating temperature range (°C)	Certified standard	Weight (g)
RG-208F	250	8	1500	100	1	2	55	-20 to +50	TÜV	320
RG-208F1	250	8	1500	100	1	2	55	-20 to +50	UL, TÜV	320
RG-208F2	250	8	1500	100	1	2	55	-20 to +50	UL, TÜV	220
RG-208V-A	250	8	1500	100	1	2	55	-20 to +50	TÜV	370

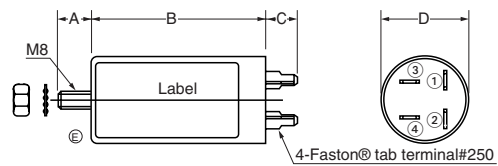
Shape and Dimensions

●RG-208V-A



Lead: UL1015AWG#16

●RG-208F, 208F1, 208F2



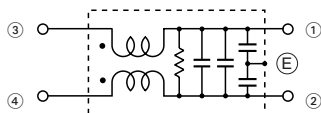
*Faston® is a registered trademark of AMP Incorporated.

Model	A	B	C	D
RG-208F/F1	12	90	13	50
RG-208F2	12	60	13	50

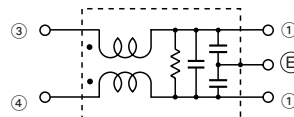
[mm]

Circuit Diagram

●RG-208F2



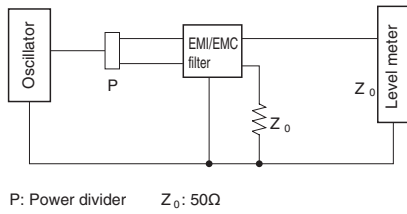
●RG-208F, 208F1, 208V-A



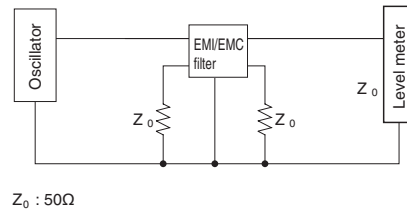
Caution: (E) represents a screw installation portion (M8) in modelRG-208F.

Measuring Circuit

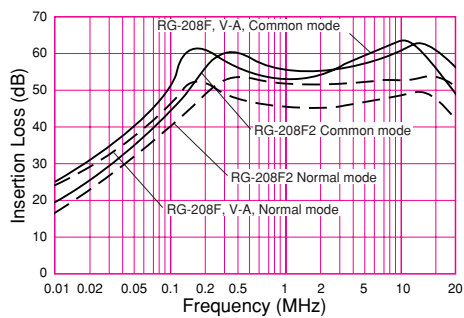
● Common mode



● Normal mode



Attenuation (Static Characteristics)

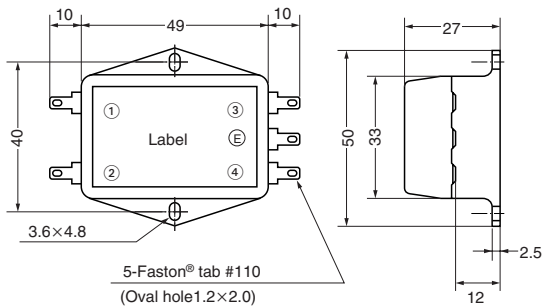


MR Series




Model	Rated voltage AC/DC (V)	Rated current AC/DC (A)	Withstanding voltage 1 min., line to ground AC (V)	Insulation resistance 500VDC 1 min., line to ground (MΩ) min.	Leakage current 250V/60Hz, (mA) max.	Voltage drop 50Hz, (V) max.	Self-temperature rise (K) max.	Operating temperature rise (°C)	Certified standard	Weight (g)
MR-2021	250	2	1500	300	0.75	1.5	30	-20 to +60	UL, CSA, VDE	33
MR-2032	250	3	1500	300	—	1.5	30	-20 to +60	UL, CSA	33
MR-2043	250	4	1500	300	0.75	1.5	30	-20 to +60	UL, CSA, VDE	39
MR-2053	250	5	1500	300	0.75	1.5	30	-20 to +60		41
MR-2054	250	5	1500	300	0.75	1.5	30	-20 to +60		41
MR-2029	250	2	1500	300	0.5	1.5	30	-20 to +60		33
MR-2059	250	5	1500	300	0.5	1.5	30	-20 to +60		33

Shape and Dimensions

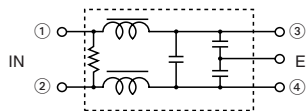


Caution: No (E) terminals on MR-2032.
*Faston® is a registered trademark of AMP Incorporated.

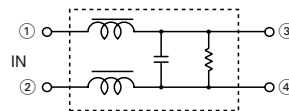
[mm]

Circuit Diagram

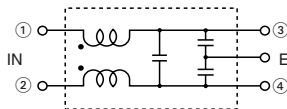
●MR-2021



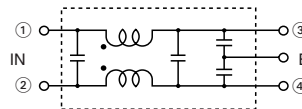
●MR-2032



●MR-2043, MR-2053 ●MR-2029, MR-2059

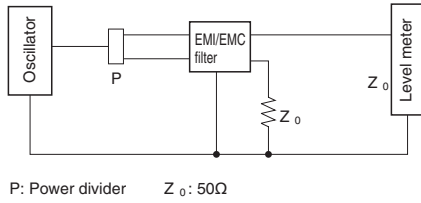


●MR-2054

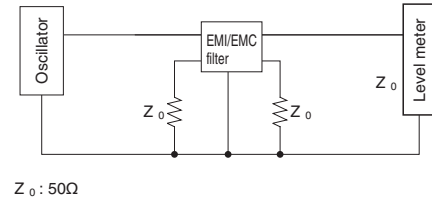


Measuring Circuit

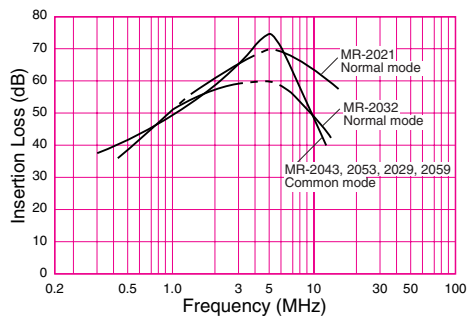
● Common mode



● Normal mode



Attenuation (Static Characteristics)

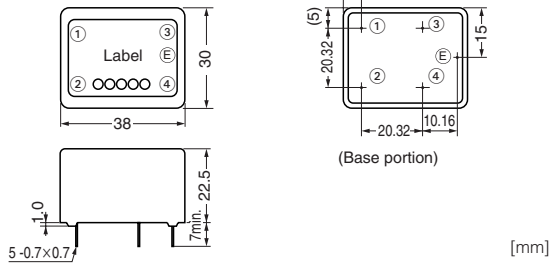


MA Series

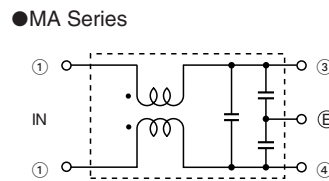



Model	Rated voltage AC/DC (V)	Rated current AC/DC (A)	Withstanding voltage 1 min., line to ground AC (V)	Insulation resistance 500VDC 1 min., line to ground (MΩ) min.	Leakage current 250V/60Hz, (mA) max.	Voltage drop 50Hz, (V) max.	Self-temperature rise (K) max.	Operating temperature range (°C)	Certified standard	Weight (g)
MA-2013	250	1	1500	300	0.75	1	30	-25 to +55	UL, CSA, TÜV	27
MA-2023	250	2	1500	300	0.75	1	30	-25 to +55	UL, CSA, TÜV	29
MA-2033	250	3	1500	300	0.75	1	30	-25 to +55	UL, CSA, TÜV	30
MA-2043	250	4	1500	300	0.75	1	30	-25 to +55	UL, CSA, TÜV	31
MA-2053	250	5	1500	300	0.75	1	30	-25 to +55	UL, CSA, TÜV	31

Shape and Dimensions

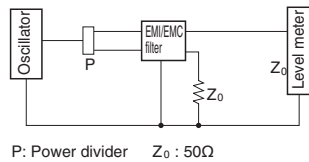


Circuit Diagram

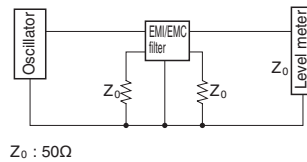


Measuring Circuit

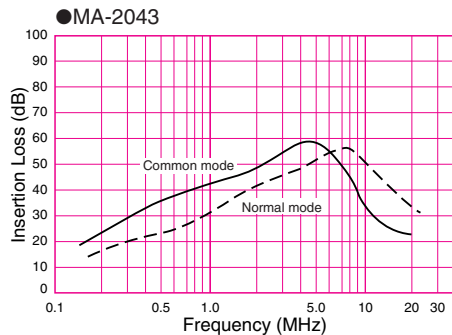
● Common mode



● Normal mode



Attenuation (Static Characteristics)



Inlet Type

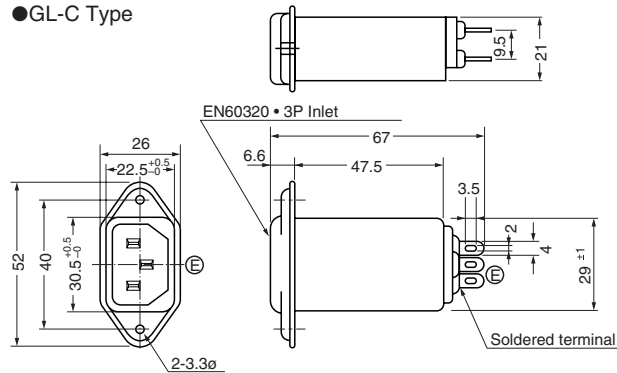
GL Series C Type



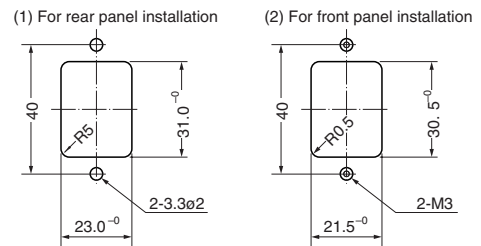
Model	Rated voltage AC/DC (V)	Rated current AC/DC (A)	Withstanding voltage 1 min., line to ground AC (V)	Insulation resistance 500VDC 1 min., line to ground (MΩ) min.	Leakage current 250V/60Hz, (μA) max.	Voltage drop 50Hz, (V) max.	Self-temperature rise (K) max.	Operating temperature range (°C)	Certified standard	Weight (g)
GL-2030C	250	3	1500	300	500	1	30	-25 to +55	UL, CSA, TÜV, VDE	54
GL-2060C	250	6	1500	300	500	1	30	-25 to +55	UL, CSA, TÜV, VDE	54
GL-2100C	250	10	1500	300	500	1	30	-25 to +55	UL, CSA, TÜV	55
GL-2150C	250	15	1500	300	500	1	30	-25 to +55	UL, CSA, TÜV	55
GL-2030C2	250	3	1500	300	500	1	30	-25 to +55	UL, CSA, TÜV	54
GL-2030C3	250	3	1500	300	500	1	30	-25 to +55	UL, CSA, TÜV, SEV	52
GL-2060C3	250	6	1500	300	500	1	30	-25 to +55	UL, CSA, TÜV, SEV	52
GL-2060C1	250	6	1500	300	5	1	30	-25 to +55	UL, CSA	52
GL-2080C1	250	8	1500	300	5	1	30	-25 to +55	UL, CSA, TÜV	55
GL-2080C4	250	8	1500	300	500	1	30	-25 to +55	UL, CSA, TÜV	55
GL-2030CT	250	3	1500	300	5	1	30	-25 to +55	UL	53
GL-2060C4	250	6	1500	300	500	1	30	-25 to +55	UL, CSA, TÜV	53

Shape and Dimensions

●GL-C Type



Reference Installation Dimensions



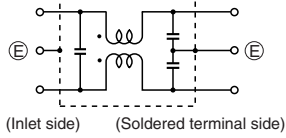
[mm]



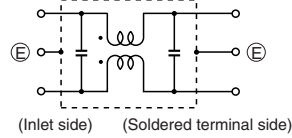
Inlet Type

Circuit Diagram

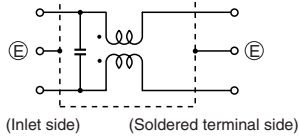
●GL-C, C2, C3, C4 Type



●GL-C1

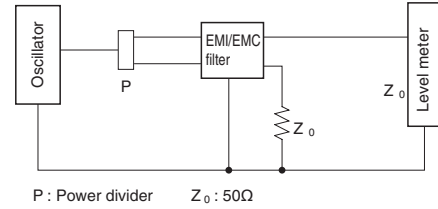


●GL-CT

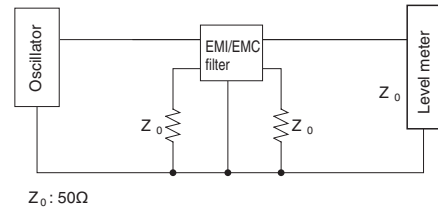


Measuring Circuit

●Common mode

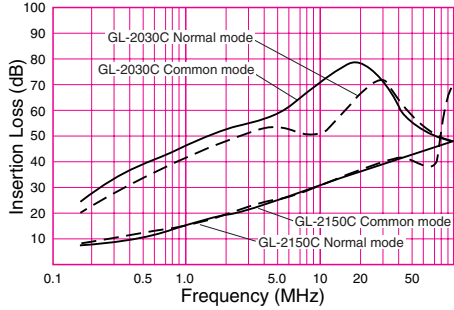


●Normal mode

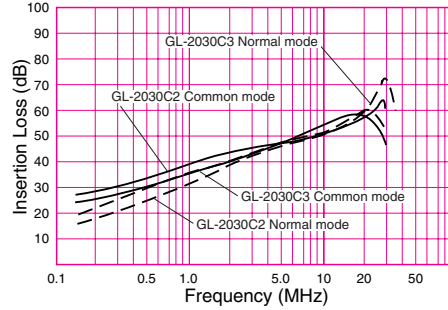


Attenuation (Static Characteristics)

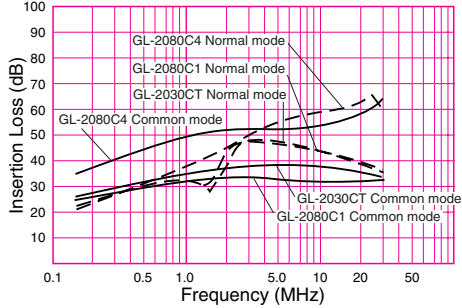
●GL-2030C, 2150C



●GL-2030C2, 2030C3



●GL-2080C1, 2080C4, 2030CT



Inlet Type

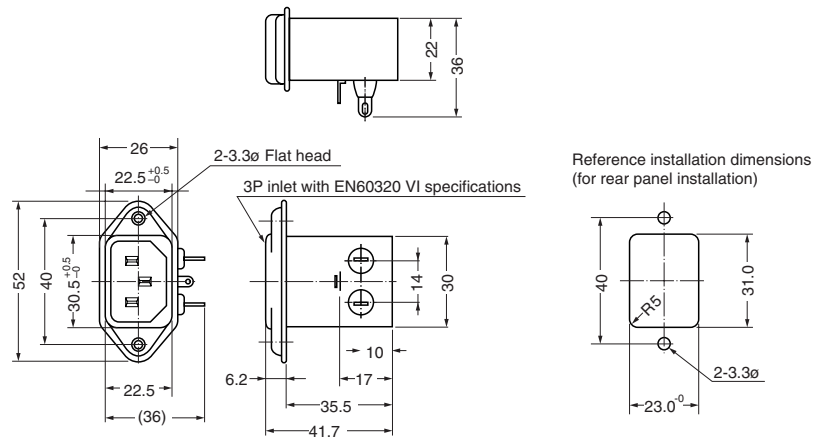
GL Series E, ET Types



Model	Rated voltage AC/DC (V)	Rated current AC/DC (A)	Withstanding voltage 1 min., line to ground AC (V)	Insulation resistance 500VDC 1 min., line to ground (MΩ) min.	Leakage current 250V/60Hz, 50Hz, (μA) max.	Voltage drop 50Hz, (V) max.	Self-temperature rise (K) max.	Operating temperature range (°C)	Certified standard	Weight (g)
GL-2030E	250	3	1500	300	500	1	30	-25 to +55	UL, CSA, TÜV, VDE	40
GL-2060E	250	6	1500	300	500	1	30	-25 to +55	UL, CSA, TÜV, VDE	40
GL-2030ET	250	3	1500	300	8	1	30	-25 to +55	UL, CSA	35
GL-2060ET	250	6	1500	300	5	1	30	-25 to +55	UL	35

Shape and Dimensions

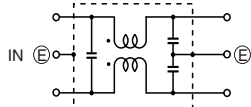
●GL-E, ET Type



[mm]

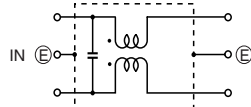
Circuit Diagram

●GL-E Type



(Inlet side) (Soldered terminal side)

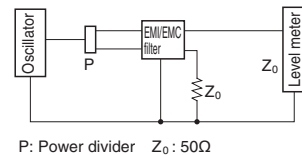
●GL-ET Type



(Inlet side) (Soldered terminal side)

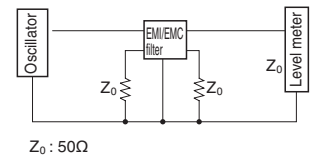
Measuring Circuit

●Common mode



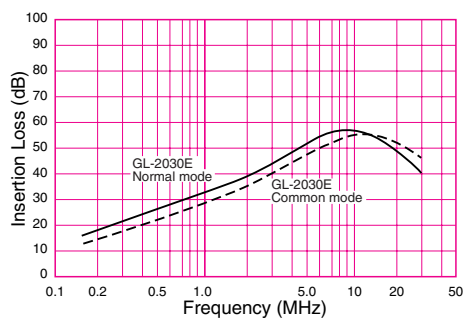
P: Power divider $Z_0: 50\Omega$

●Normal mode



$Z_0: 50\Omega$

Attenuation (Static Characteristics)



Inlet Type

GL Series

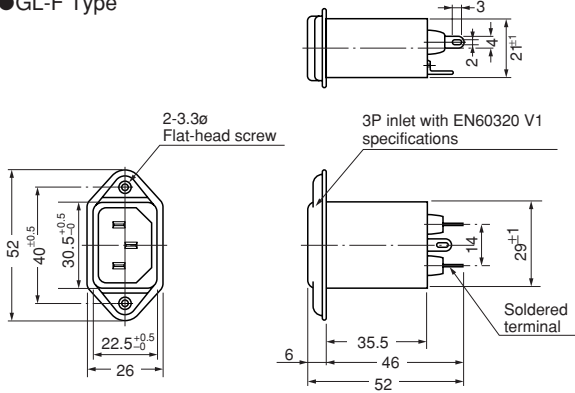
F Type 



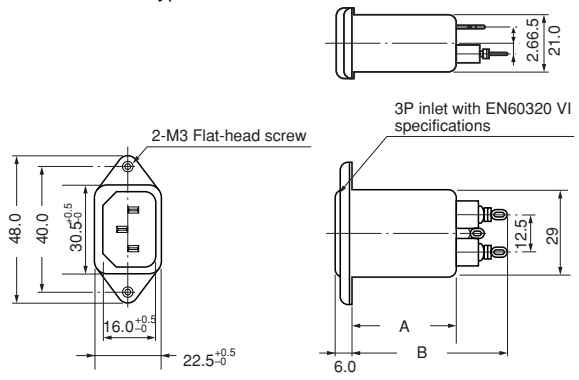
Model	Rated voltage AC/DC (V)	Rated current AC/DC (A)	Withstanding voltage 1 min., line to ground AC (V)	Insulation resistance 500VDC 1 min., line to ground (MΩ) min.	Leakage current 250V/60Hz, (mA) max.	Voltage drop 50Hz, (V) max.	Self-temperature rise (K) max.	Operating temperature range (°C)	Certified standard	Weight (g)
GL-2030F	250	3	1500	300	0.5	1	30	-25 to +55	UL,CSA,TÜV,VDE	39
GL-2060F	250	6	1500	300	0.5	1	30	-25 to +55	UL,CSA,TÜV,VDE	39
GL-2030FV	250	3	1500	300	0.5	1	30	-25 to +55	UL,CSA,TÜV,SEMKO,FIMKO,NEMKO,VDE	39
GL-2060FV	250	6	1500	300	0.5	1	30	-25 to +55	UL,CSA,TÜV,SEMKO,FIMKO,NEMKO,VDE	39
GL-208FVP	250	8	1500	300	0.2	1	30	-25 to +55	UL,CSA,TÜV,SEMKO,FIMKO,NEMKO,VDE	50

Shape and Dimensions

●GL-F Type

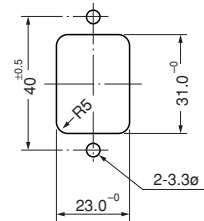


●GL-FV/FVP Type

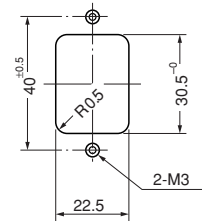


Reference installation dimensions

(1) For rear panel installation



(2) For front panel installation

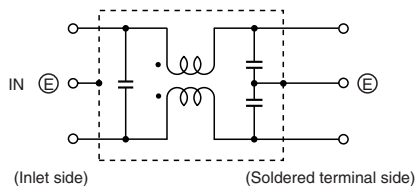


model	A	B
GL-FV	35.5	50.0
GL-FVP	47.5	61.0

[mm]

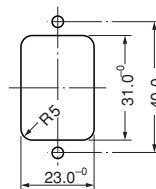
Circuit Diagram

●GL-F FV Type

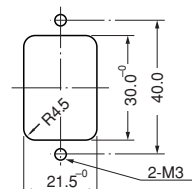


Reference installation dimensions

(1) For rear panel installation



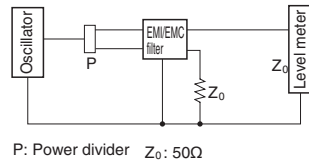
(2) For front panel installation



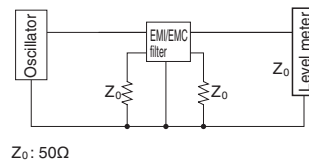
Inlet Type

Measuring Circuit

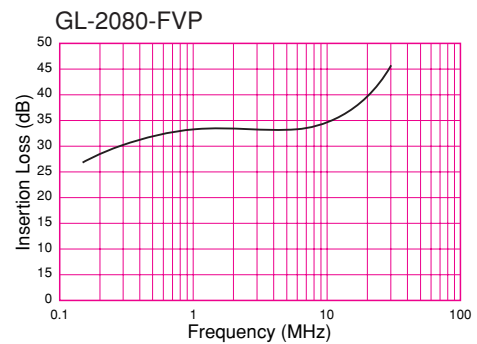
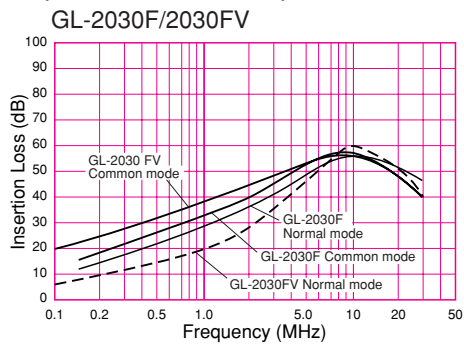
● Common mode



● Normal mode



Attenuation (Static Characteristics)



Inlet Type

GL Series

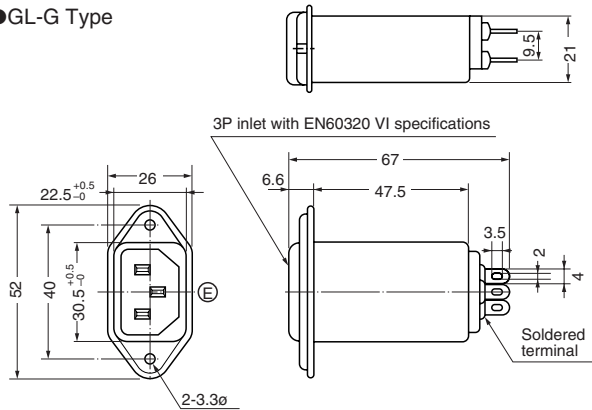
G Type



Model	Rated voltage AC/DC (V)	Rated current AC/DC (A)	Withstanding voltage 1 min., line to ground AC (V)	Insulation resistance 500VDC 1 min., line to ground (MΩ) min.	Leakage current 250V/60Hz, (mA) max.	Voltage drop 50Hz, (V) max.	Self-temperature rise (K) max.	Operating temperature range (°C)	Certified standard	Weight (g)
GL-2030G	250	3	1500	300	0.5	1	30	-25 to +55	UL, CSA, TÜV	52
GL-2060G	250	6	1500	300	0.5	1	30	-25 to +55	UL, CSA, TÜV	52

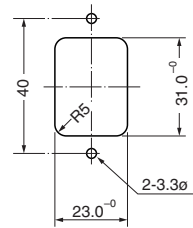
Shape and Dimensions

●GL-G Type

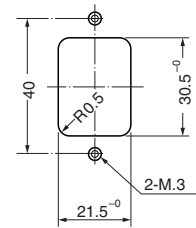


Reference Installation Dimensions

(1) For rear panel installation



(2) For front panel installation

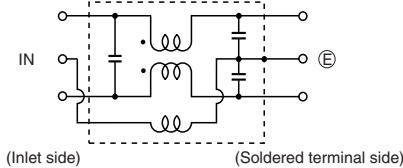


*Faston® is a registered trademark of AMP Incorporated.

[mm]

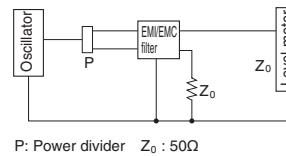
Circuit Diagram

●GL-G Type

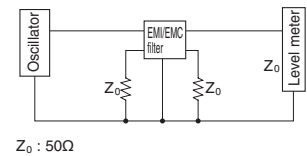


Measuring Circuit

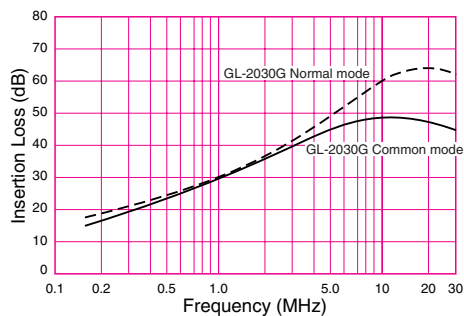
●Common mode



●Normal mode



Attenuation (Static Characteristics)



Inlet Type

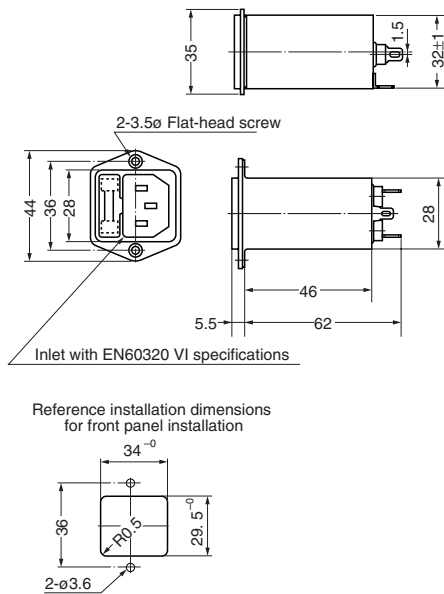
GL Series H Type



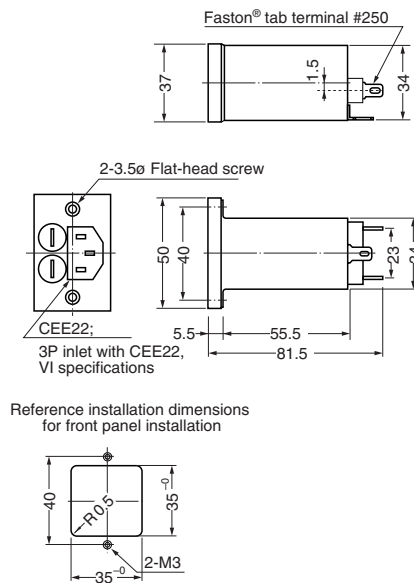
Model	Rated voltage AC/DC (V)	Rated current AC/DC (A)	Withstanding voltage 1 min., line to ground AC (V)	Insulation resistance 500VDC 1 min., line to ground (MΩ) min.	Leakage current 250V/60Hz, (mA) max.	Voltage drop 50Hz, (V) max.	Self-temperature rise (K) max.	Operating temperature range (°C)	Certified standard	Weight (g)
GL-2030H1	250	3	1500	300	0.5	1	30	-25 to +55	UL, CSA, TÜV	68
GL-2060H1	250	6	1500	300	0.5	1	30	-25 to +55	UL, CSA, TÜV	68
GL-2030H2	250	3	1500	300	0.5	1	30	-25 to +55	TÜV	88
GL-2060H2	250	6	1500	300	0.5	1	30	-25 to +55	TÜV	88

Shape and Dimensions

●GL-H1 Type (1-fuse type)



●GL-H2 Type (2-fuse type)

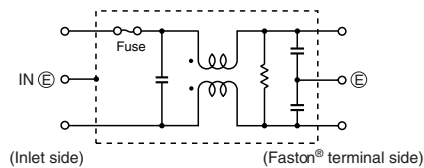


*Faston® is a registered trademark of AMP Incorporated.

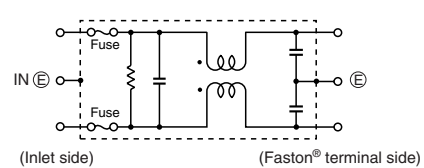
[mm]

Circuit Diagram

●GL-H1 Type



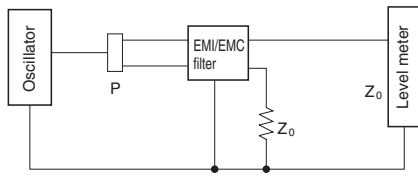
●GL-H2 Type



Inlet Type

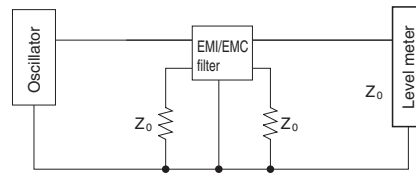
Measuring Circuit

● Common mode



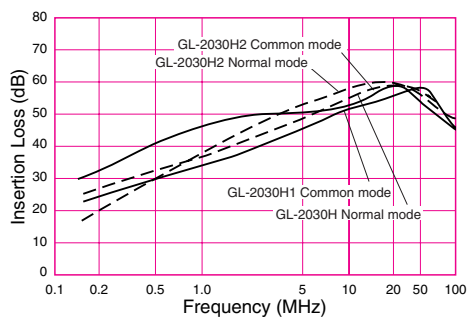
P: Power divider $Z_0 : 50\Omega$

● Normal mode



$Z_0 : 50\Omega$

Attenuation (Static Characteristics)



Inlet Type

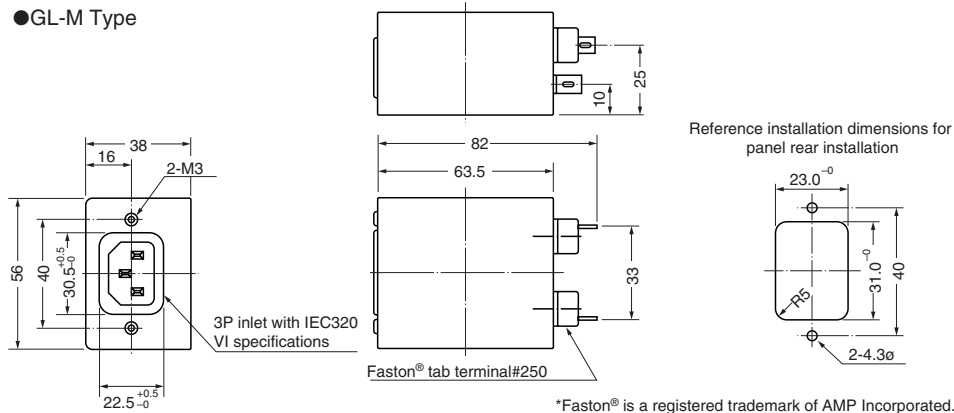
GL Series M Type



Model	Rated voltage AC/DC (V)	Rated current AC/DC (A)	Withstanding voltage 1 min., line to ground AC (V)	Insulation resistance 500VDC 1 min., line to ground (MΩ) min.	Leakage current 250V/60Hz, 50Hz, (mA) max.	Voltage drop 50Hz, (V) max.	Self-temperature rise (K) max.	Operating temperature range (°C)	Certified standard	Weight (g)
GL-2030M	250	3	1500	300	0.5	1	30	-25 to +55	UL, CSA, TÜV	200
GL-2060M	250	6	1500	300	0.5	1	30	-25 to +55	UL, CSA, TÜV	205
GL-2100M	250	10	1500	300	0.5	1	30	-25 to +55	UL, CSA, TÜV	210

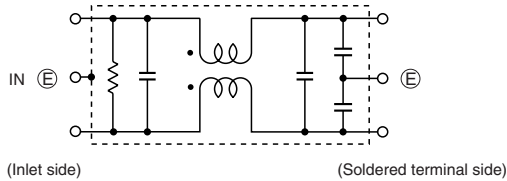
Shape and Dimensions

●GL-M Type



Circuit Diagram

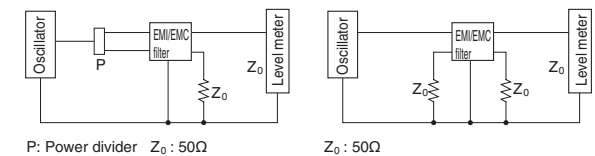
●GL-M Type



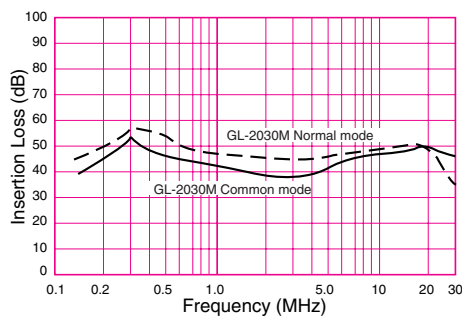
Measuring Circuit

●Common mode

●Normal mode



Attenuation (Static Characteristics)



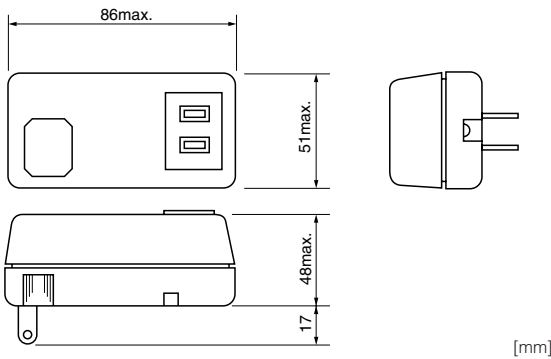
Plug Type

TA Series—Plug Socket Type



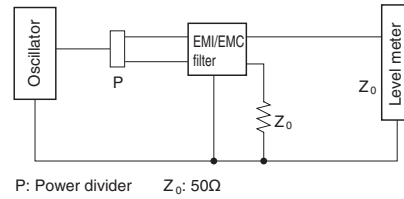
Model	Rated voltage AC/DC (V)	Rated current AC/DC (A)	Withstanding voltage 1 min., line to ground AC (V)	Insulation resistance 500VDC 1 min., line to ground (MΩ) min.	Leakage current 250V/60Hz, (mA) max.	Voltage drop 50Hz, (V) max.	Self-temperature rise (K) max.	Operating temperature range (°C)	Certified standard	Weight (g)
TA-2060	125	6	1500	300	0.5	1.5	30	0 to +40	DENTORI	230
TA-2150N	125	14.8	1500	300	—	1.5	40	0 to +40	DENTORI	246
TA-2151	125	14.8	1500	300	—	1.5	40	0 to +40	DENTORI	250

Shape and Dimensions

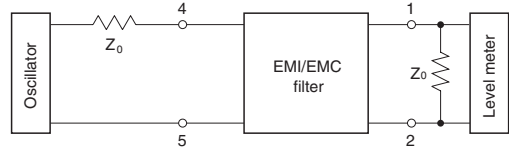


Measuring Circuit

● Common mode



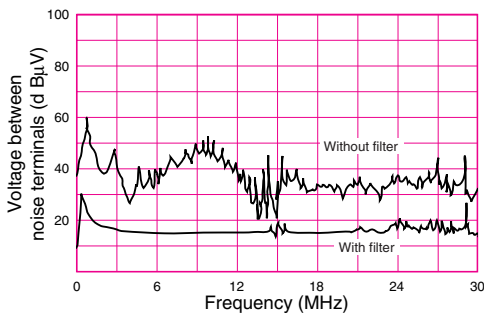
● Normal mode



Z0: Input/output impedance
 Measured impedance 50W or 75W
 Input condition: 100dB mV

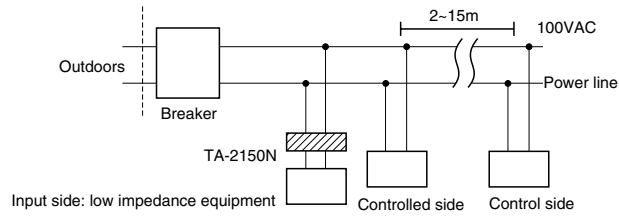
Installation Results

When the TA-2060 is installed in a personal computer



Plug Type

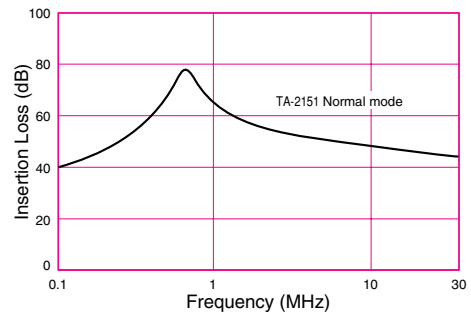
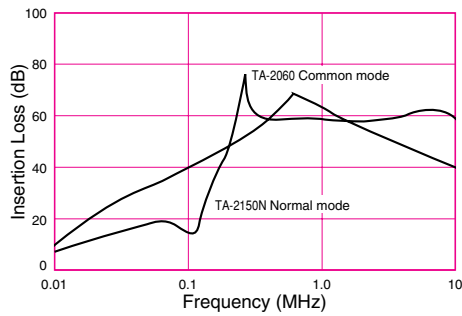
How to Use (TA-2150N/TA-2151 for HBS applications)



Input impedance (Ω) at 125kHz	Filter presence	Distance (m)	HBS action
0.8	No	15	NG
	Yes	15	OK
0.3	No	2	NG
	Yes	2	OK
	Yes	15	OK

When power line HBS is used as shown above, the low input impedance adversely affects communication. The TA-2150N/TA-2151 works effectively in such a case.

Attenuation (Static Characteristics)



**TÜV Rheinland Japan Ltd.
Certification Numbers**

Page	Item	File No.			
286	LF-3000 Series	LF-3200	No.R50014468		
		LF-3300			
		LF-3400	No.R50014560		
		LF-3500	No.R5008093		
		LF-3600	No.R50014465		
292	LH Series	LH-3304	No. B 9908 27029 004		
		LH-3404			
		LH-3604			
		LH-3804			
		LH-31204			
		LH-31504			
293	HFP Series	HFP-2153	No.R50014217		
		HFP-2303	No.R50013926		
		HFP-2303A1	No.R50014219		
		HFP-4153A	No.R85055		
		HFP-4503A	No.J8830914		
295	GT Series Screw Terminal	GT-220U	No. R9651191		
		GT-205U	No.R60057		
		GT-210U			
297	GT Series Faston® Terminal	GT-20301	No.R60057		
		GT-20601			
		GT-21001			
		GT-20302	No.R50014761		
		GT-205J			
		GT-210J			
299	GT Series for VCCI	GT-21001V	No.R2-50004761		
		301	VU Series	VU-220F	No.R40023
		303	VC Series	VC-215F3V	No.R50013342
305	RG Series	RG-208F	No.R2-50006637		
		RG-208F1			
		RG-208F2	No.R50013629		
		RG-208V-A	No.R2-50006637		

Page	Item	File No.	
309	MA Series	MA-2013	No.R50092
		MA-2023	
		MA-2033	
		MA-2043	
		MA-2053	
310	GL Series C Type	GL-2030C	No.R50013357
		GL-2060C	No.R50014260
		GL-2100C	No.R50014261
		GL-2150C	No.R50013357
		GL-2030C2	
		GL-2030C3	
		GL-2060C3	No.R50014166
		GL-2080C1	
		GL-2080C4	
		GL-2060C4	No.R50013357
312	GL Series E Type	GL-2030E	No.R50013349
		GL-2060E	
313	GL Series F Type	GL-2030F	No.R50013360
		GL-2060F	
		GL-2030FV	No.R95113
GL-2060FV			
315	GL Series G Type	GL-2030G	No.R50013627
		GL-2060G	
316	GL Series H Type	GL-2030H1	No.R60058
		GL-2060H1	
		GL-2030H2	
		GL-2060H2	
318	GL Series M Type	GL-2030M	No.R50013384
		GL-2060M	
		GL-2100M	

