

# PLA15F

① **PL** ② **A** ③ **15** ④ **F** ⑤ **-□** ⑥ **-□**



Recommended EM/EMC Filter  
**NAC-04-472**



High voltage pulse noise type : NAP series  
Low leakage current type : NAM series

\*The EM/EMC Filter is recommended to connect with several devices.

- ① Series name
- ② Single output
- ③ Output wattage
- ④ Universal input
- ⑤ Output voltage
- ⑥ Optional \*7
- C : with Coating
- J : Connector interface
- T : Vertical terminal block
- N1 : with DIN rail

See 5.1 in Instruction Manual.

Information the Home page is the latest.

## SPECIFICATIONS

	MODEL	PLA15F-5	PLA15F-12	PLA15F-15	PLA15F-24		
INPUT	VOLTAGE[V]	AC85 - 264 1φ (Output derating is required at AC85V - 115V. See 1.1 and 3.2 in Instruction Manual) *3					
	CURRENT[A]	ACIN 100V	0.4typ (Io=90%)				
		ACIN 115V	0.4typ (Io=100%)				
		ACIN 230V	0.25typ (Io=100%)				
	FREQUENCY[Hz]	50 / 60 (47 - 63)					
	EFFICIENCY[%]	ACIN 100V	72.5typ (Io=90%)	75.5typ (Io=90%)	77.0typ (Io=90%)	78.0typ (Io=90%)	
		ACIN 115V	73.5typ (Io=100%)	77.0typ (Io=100%)	78.5typ (Io=100%)	79.0typ (Io=100%)	
ACIN 230V		75.5typ (Io=100%)	78.5typ (Io=100%)	79.5typ (Io=100%)	80.0typ (Io=100%)		
INRUSH CURRENT[A]	ACIN 100V	16typ (Io=90%) Ta=25°C at cold start					
	ACIN 115V	16typ (Io=100%) Ta=25°C at cold start					
	ACIN 230V	32typ (Io=100%) Ta=25°C at cold start					
LEAKAGE CURRENT[ma]	0.30max (ACIN 115V / 240V, 60Hz, Io=100%, According to IEC60950-1 and DEN-AN)						
OUTPUT	VOLTAGE[V]	5	12	15	24		
	CURRENT[A]	3	1.3	1	0.7		
	WATTAGE[W]	ACIN 85-115V	Output derating is required at ACIN 115V or less (refer to instruction manual 3.2)				
		ACIN 115V-264V	15.0	15.6	15.0	16.8	
	LINE REGULATION[mV]	*4	20max	48max	60max	96max	
	LOAD REGULATION[mV]	*4	40max	100max	120max	150max	
	RIPPLE[mVp-p]	*1	0 to +50°C	80max	120max	120max	120max
		-10 to 0°C	140max	160max	160max	160max	
		Io=0 to 35%	160max	240max	240max	280max	
	RIPPLE NOISE[mVp-p]	*1	0 to +50°C	120max	150max	150max	150max
		-10 to 0°C	160max	180max	180max	180max	
		Io=0 to 35%	240max	300max	300max	320max	
	TEMPERATURE REGULATION[mV]	0 to +50°C	50max	120max	150max	240max	
		-10 to +50°C	60max	150max	180max	290max	
DRIFT[mV]	*2	20max	48max	60max	96max		
START-UP TIME[ms]	200typ (ACIN 115V, Io=100%) *Start-up time is 700 ms typ for less than 1 minute of applying input again from turning off the input voltage.						
HOLD-UP TIME[ms]	20typ (ACIN 115V, Io=100%)						
OUTPUT VOLTAGE ADJUSTMENT RANGE[V]	4.50 to 5.50						
OUTPUT VOLTAGE SETTING[V]	5.00 to 5.15						
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION	Works over 105% of rating and recovers automatically					
	OVERVOLTAGE PROTECTION[V]	5.75 to 7.00	13.80 to 16.80	17.25 to 21.00	27.60 to 33.60		
	OPERATING INDICATION	LED (Green)					
	REMOTE SENSING	Not provided					
	REMOTE ON/OFF	Not provided					
ISOLATION	INPUT-OUTPUT	AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At room temperature)					
	INPUT-FG	AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (At room temperature)					
	OUTPUT-FG	AC500V 1minute, Cutoff current = 25mA, DC500V 50MΩ min (At room temperature)					
ENVIRONMENT	OPERATING TEMP., HUMID. AND ALTITUDE *5	-20 to +70°C, 20 - 90%RH (Non condensing), 3,000m (10,000 feet) max					
	STORAGE TEMP., HUMID. AND ALTITUDE	-20 to +75°C, 20 - 90%RH (Non condensing), 9,000m (30,000 feet) max					
	VIBRATION	10 - 55Hz, 19.6m/s <sup>2</sup> (2G), 3minutes period, 60minutes each along X, Y and Z axes					
	IMPACT	196.1m/s <sup>2</sup> (20G), 11ms, once each X, Y and Z axes					
SAFETY AND NOISE REGULATIONS	AGENCY APPROVALS	UL60950-1, C-UL (CSA60950-1), EN60950-1, EN50178, UL508 (Except option -J) Complies with DEN-AN					
	CONDUCTED NOISE	Complies with FCC-B, VCCI-B, CISPR22-B, EN55011-B, EN55022-B					
	HARMONIC ATTENUATOR *8	Complies with IEC61000-3-2 class A					

**SPECIFICATIONS**

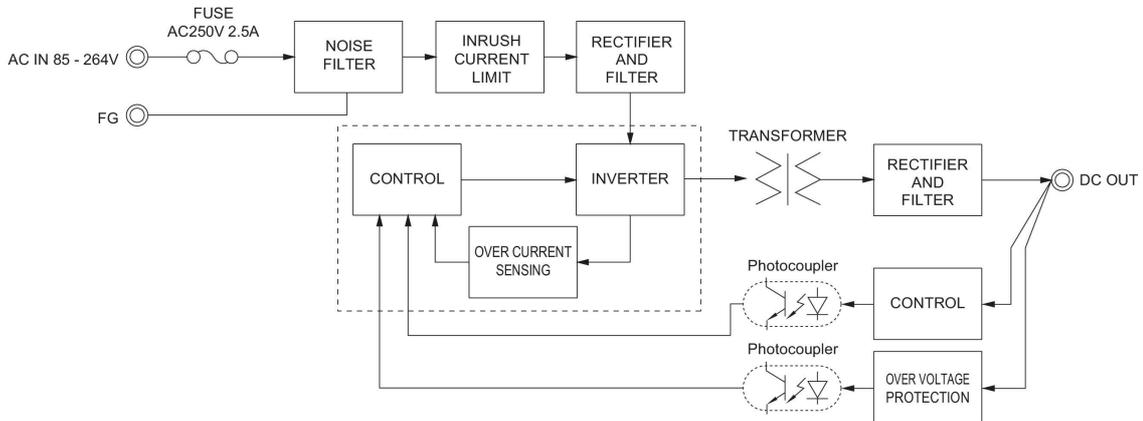
OTHERS	CASE SIZE/WEIGHT	38 X 80 X 73mm [1.50 X 3.15 X 2.87 inches] (Excluding terminal block and screw) (W X H X D) / 250g max
	COOLING METHOD	Convection
WARRANTY	WARRANTY	*6 5 years (subject to the operating conditions)

- \*1 This is the result of measurement of the testing board with capacitors of 22 μF and 0.1 μF placed at 150 mm from the output terminals by a 20 MHz oscilloscope or a ripple-noise meter equivalent to Keisoku-Giken RM103. See 1.6 of Instruction Manual for more details. When the load factor is 0 - 35%, the switching power loss is reduced by burst operation, which will cause ripple and ripple noise to go beyond the specifications.
- \*2 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25°C.
- \*3 Output power derating is required. As for DC input, consult us for advice.
- \*4 Consult us about dynamic load and input response. Measure the output voltage by using the average mode of the tester to deal with the burst operation at 35% load or less.
- \*5 Output power derating is required. See 3.2 in Instruction Manual.
- \*6 See 3.3 in Instruction Manual for more details.
- \*7 Consult us about safety agency approvals for the models with optional functions.
- \*8 Consult us about other classes.
- \* Do not use the power supply in overcurrent conditions or in unspecified input voltage ranges. Otherwise the internal components may be damaged.
- \* Parallel operation is not possible with this mode.
- \* Sound noise may be heard from the power supply when used for pulse load.

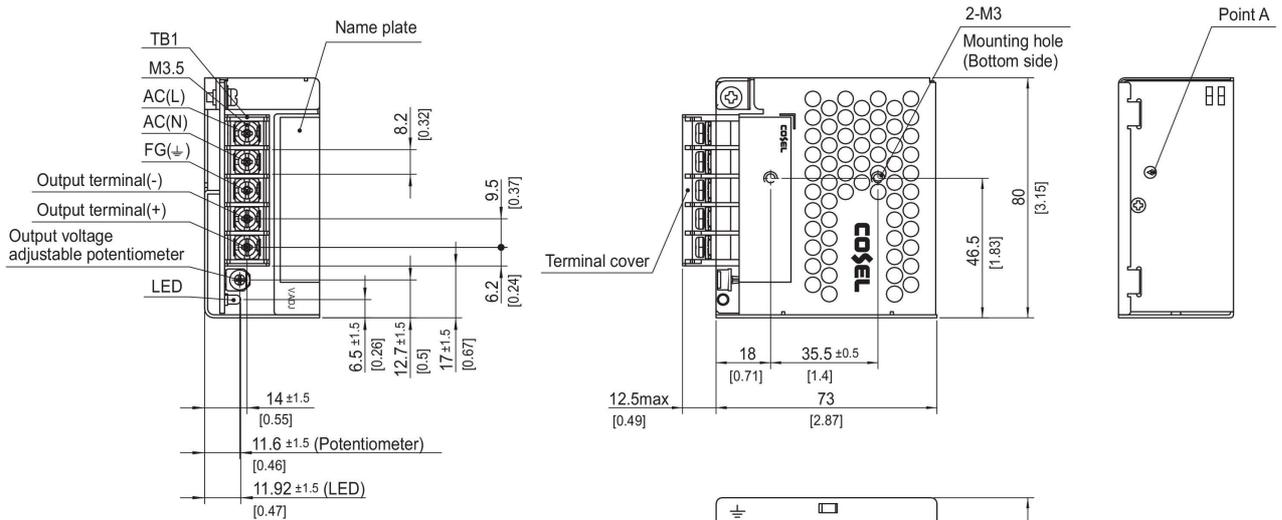
**Features**

- Compact design (Depth: 73mm 2.87inches)
- Low power consumption (1.0W typ AC240Vin, no load at standard model)
- UL508 approved (Except option -J), and complies with SEMI F47
- Various connection interface options (vertical terminal [-T], AMP connector [-J])

**Block diagram**



**External view**



- ※ Tolerance : ± 1 [± 0.04]
- ※ Weight : 250g max
- ※ PCB Material/thickness : CEM-3 / 1.6mm [0.06inches]
- ※ Chassis material : Electric galvaning steel board
- ※ Case material : Electric galvaning steel board
- ※ Dimensions in mm, [ ]=inches
- ※ Mounting torque : 0.6N · m max
- ※ Screw tightening torque : 1.0N · m max

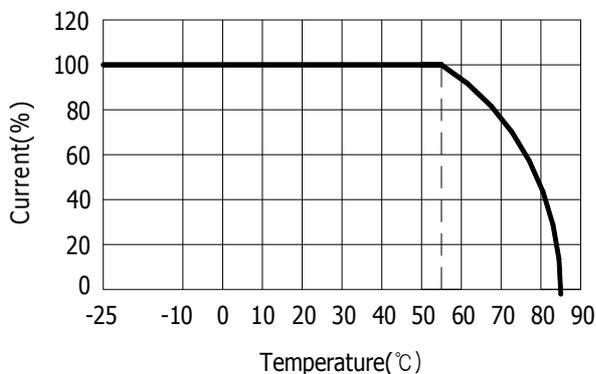
# SPECIFICATIONS

<b>Product.</b>	Noise Filter	<b>Date.</b>	2012. 9. 12
<b>Model.</b>	RNS-2S / RNS-2S-DIN	<b>Rev.</b>	A
<b>Customer.</b>	STANDARD	<b>Page.</b>	1 / 1

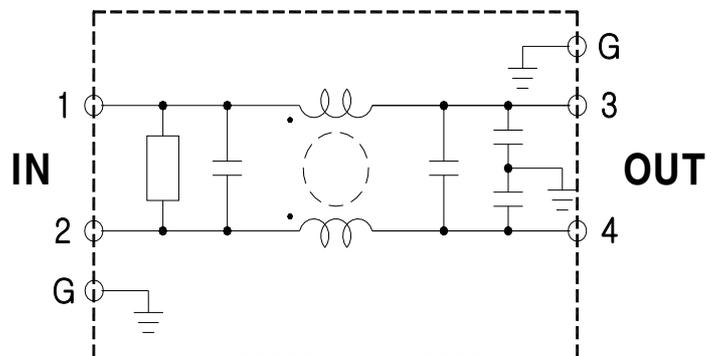
MODEL		Unit.	RNS-2006	RNS-2010	RNS-2016	RNS-2020	RNS-2030
			RNS-2006-DIN	RNS-2010-DIN	RNS-2016-DIN	RNS-2020-DIN	RNS-2030-DIN
INPUT	Voltage	[V]	1Φ, AC 250 or DC 250				
	Frequency	[Hz]	50 / 60				
	Rated Current *1)	[A]	6	10	16	20	30
Voltage Drop		[V]	0.3V Max				
Test voltage		[V]	2,500VAC (at cut off 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]	120	50	20	14	6
Maximum Air Temperature		[℃]	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 34.5 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/EN60939-22				

비 고 :

- Derating Curve



- Circuit Diagram



= NOTES =

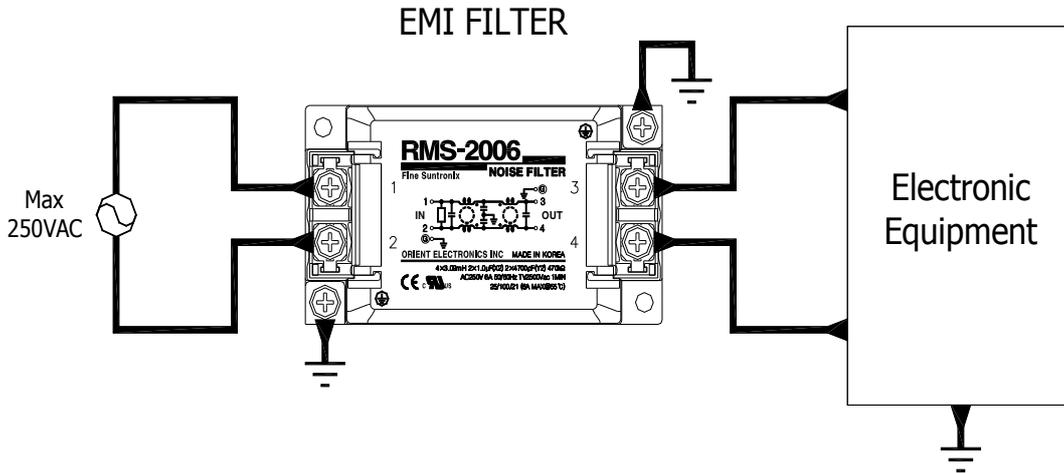
\*1. Value for Ta less than 55℃

For Ta more than 55℃, According to the derating curve as above

# User Guide

## 1. INSTALLATION CONDITION

### 1-1. NOISE FILTER wiring



### 1-2. Terminal Connection

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

### 1-3. Applicable Electric Cable

Allowable current (A)	Recommended Cable Diameter (Minimum required)	
	Diameter (mm <sup>2</sup> )	AWG SIZE
6	0.75	18
10	1.0	16
16	1.5	14
20	2.5	12
30	4.0	10

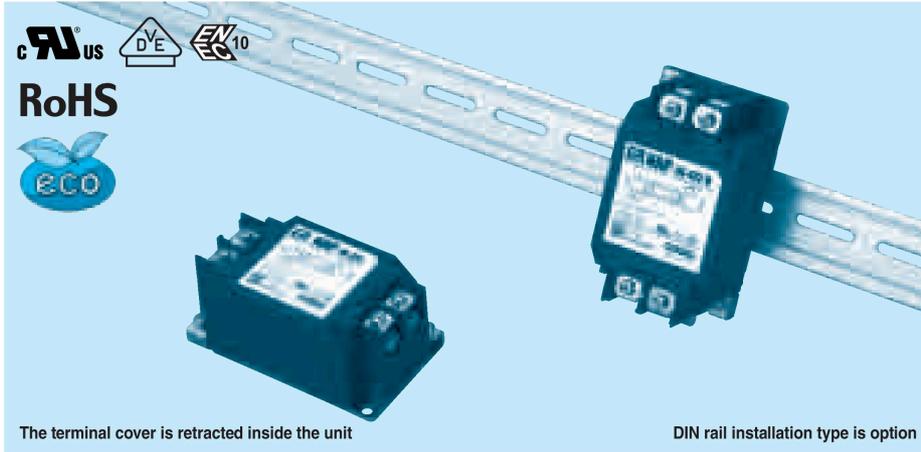
### 1-4. Recommended Clamping Torque

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

# NAP series

NAP -10 -472 -□

① ② ③ ④



The terminal cover is retracted inside the unit

DIN rail installation type is option

- ① Model Name
- ② Rated Current
- ③ Line to ground capacitor code: See table 1.1.

table 1.1 Line to ground capacitor code

Code	Leakage Current (Input 125/250V 60Hz)	Line to ground capacitor (nominal value)
000	5 $\mu$ A/ 10 $\mu$ A max	Not Provided
101	12.5 $\mu$ A/ 25 $\mu$ A max	100pF
221	25 $\mu$ A/ 50 $\mu$ A max	220pF
331	37.5 $\mu$ A/ 75 $\mu$ A max	330pF
471	50 $\mu$ A/100 $\mu$ A max	470pF
681	75.5 $\mu$ A/150 $\mu$ A max	680pF
102	0.13mA/0.25mA max	1000pF
222	0.25mA/0.5 mA max	2200pF
332	0.38mA/0.75mA max	3300pF
472	0.5 mA/1.0 mA max	4700pF

\* When the line to ground capacitor code is different, the attenuation characteristic is different.

- ④ Options
- D: DIN rail installation type

\* The dimensions change when the option is set. Refer to External view.

## Features of NAP series

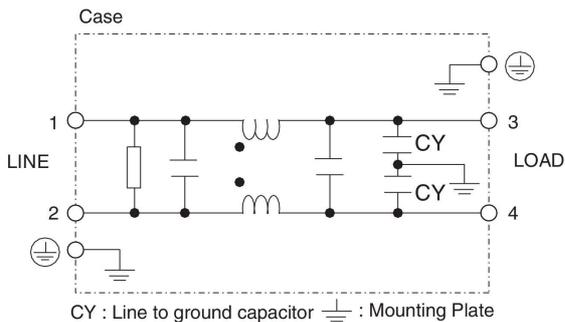
### High-voltage pulses high-attenuation type

- Single Phase 250 VAC
- Push down type terminal block

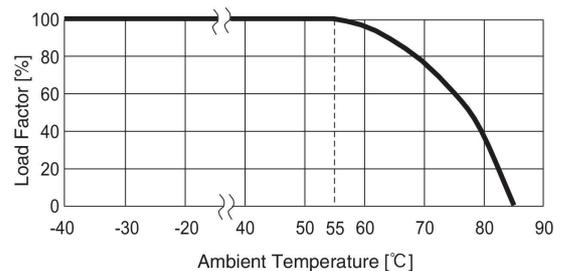
### Specifications

No.	Items	NAP-04-472	NAP-06-472	NAP-10-472	NAP-16-472	NAP-20-472	NAP-30-472
1	Rated Voltage[V]	AC 1 $\phi$ 250 / DC250					
2	Rated Current[A]	4	6	10	16	20	30
3	Test Voltage (Terminal-Mounting Plate)	2,500 VAC (Cutoff Current = 20mA), 1minute at room temperature and humidity					
4	Isolation Resistance (Terminal-Mounting Plate)	500 VDC 100M $\Omega$ min at room temperature and humidity					
5	Leakage current 125/250V 60Hz	0.5mA/1.0mA max					
6	Voltage drop	1.0V max					
7	Safety agency approval temperatures	-25 to +85°C (Refer to Derating Curve)					
8	Operating temperature	-40 to +85°C (Refer to Derating Curve)					
9	Operating humidity	20 to 95%RH (Non condensing)					
10	Storage temperature/humidity	-40 to +85°C/20 to 95%RH (Non condensing)					
11	Vibration	10 to 55Hz, 19.6m/s <sup>2</sup> (2G), 3min. Period, 1hour each X, Y and Z axis					
12	Impact	196.1m/s <sup>2</sup> (20G), 11ms Once each X, Y and Z axis					
13	Safety agency approvals	UL1283, CSA C22.2 No.8 (C-UL), DIN EN60939 VDE0565 Teil3-1, ENEC (At only AC input)					
14	Case size (without projection) /Weight	53X41X92 mm [2.09X1.61X3.62 inches] (W X H X D) /300g max (Option : -D refer to external view)					

### Circuit Diagram



### Derating Curve



# EAC series

EAC -10 -472 -□

① ② ③ ④

- ① Model Name
- ② Rated Current
- ③ Line to ground capacitor code: See table 1.1.

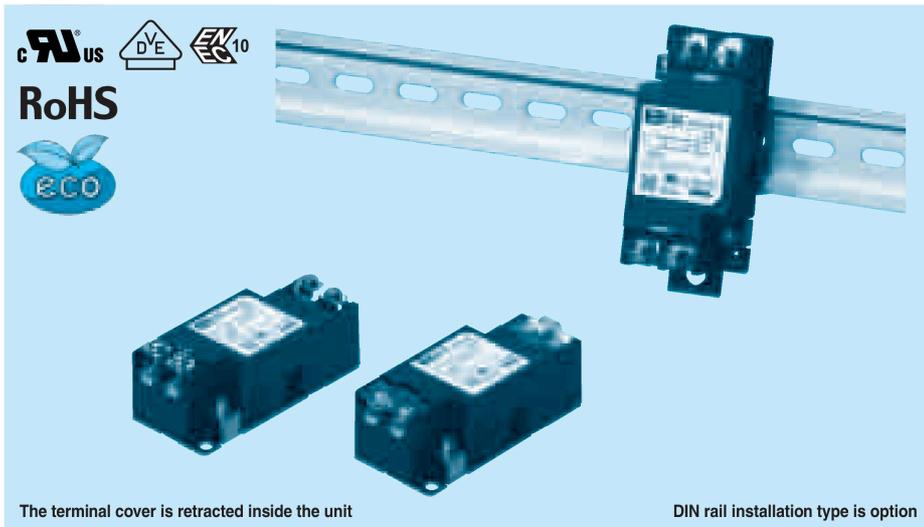
table 1.1 Line to ground capacitor code

Code	Leakage Current (Input 125/250V 60Hz)	Line to ground capacitor (nominal value)
681	75.5 $\mu$ A/150 $\mu$ A max	680pF
102	0.13mA/0.25mA max	1000pF
222	0.25mA/0.5 mA max	2200pF
332	0.38mA/0.75mA max	3300pF
472	0.5 mA/1.0 mA max	4700pF

\* When the line to ground capacitor code is different, the attenuation characteristic is different.

- ④ Options
- D: DIN rail installation type

\* The dimensions change when the option is set. Refer to External view.



## Features of EAC series

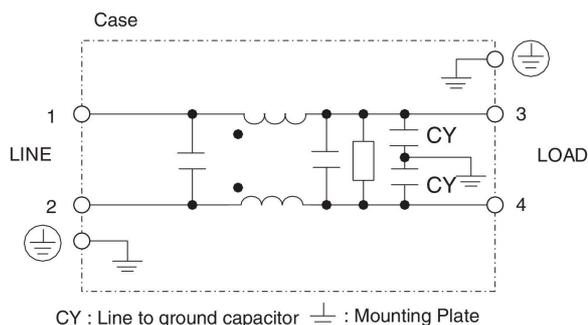
### Small, common mode EMI/EMC Filters in 150kHz to 1MHz(1-Stage filter)

- Single Phase 250 VAC
  - Small-size
  - Quick and easy push-down terminal
- Just connect the wires, push-down and tighten the screws with a screwdriver

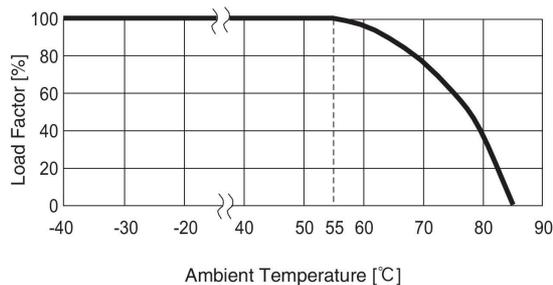
### Specifications

No.	Items	EAC-03-472	EAC-06-472	EAC-10-472	EAC-16-472	EAC-20-472	EAC-30-472
1	Rated Voltage[V]	AC 1 $\phi$ 250 / DC250					
2	Rated Current[A]	3	6	10	16	20	30
3	Test Voltage (Terminal-Mounting Plate)	2,500 VAC (Cutoff Current = 20mA), 1minute at room temperature and humidity					
4	Isolation Resistance (Terminal-Mounting Plate)	500 VDC 500M $\Omega$ min at room temperature and humidity					
5	Leakage current 125/250V 60Hz	0.5mA/1.0mA max					
6	DC resistance	180m $\Omega$ max	110m $\Omega$ max	40m $\Omega$ max	20m $\Omega$ max	10m $\Omega$ max	6m $\Omega$ max
7	Safety agency approval temperatures	-25 to +85 $^{\circ}$ C (Refer to Derating Curve)					
8	Operating temperature	-40 to +85 $^{\circ}$ C (Refer to Derating Curve)					
9	Operating humidity	20 to 95%RH (Non condensing)					
10	Storage temperature/humidity	-40 to +85 $^{\circ}$ C/20 to 95%RH (Non condensing)					
11	Vibration	10 to 55Hz, 19.6m/s $^2$ (2G), 3min. Period, 1hour each X, Y and Z axis					
12	Impact	196.1m/s $^2$ (20G), 11ms Once each X, Y and Z axis					
13	Safety agency approvals	UL1283, CSA C22.2 No.8 (C-UL), DIN EN60939 VDE0565 Teil3-1, ENEC (At only AC input)					
14	Case size (without projection) /Weight	39 X 30 X 85 mm [1.54 X 1.18 X 3.35 inches] (W X H X D) /170g max (Option : -D refer to external view)					

### Circuit Diagram



### Derating Curve

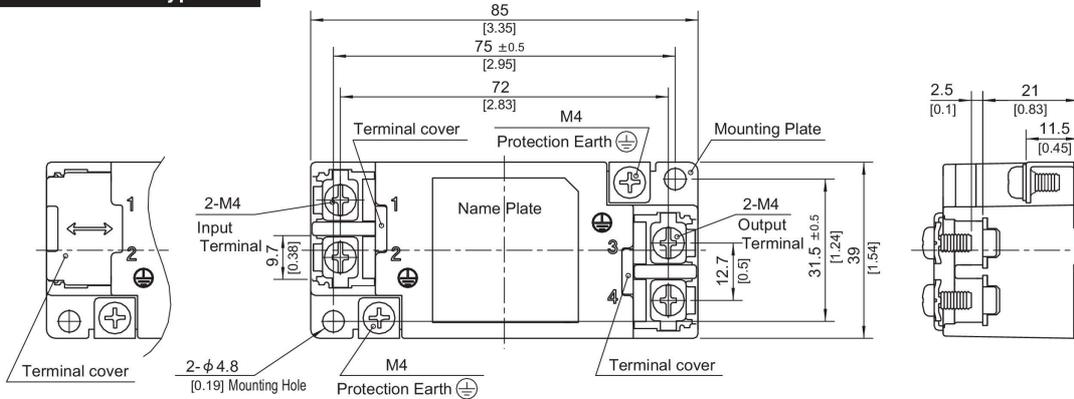


## External view

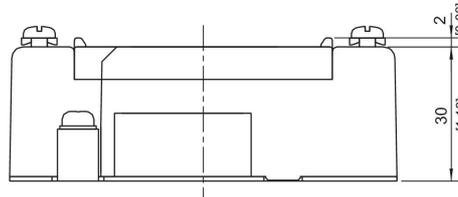
This product is shipped in the following condition, because it is equipped with push-down terminals.

- ① The terminal cover is retracted inside the unit.
- ② The screws for connecting the terminals are held in the up right position.

### Standard Type

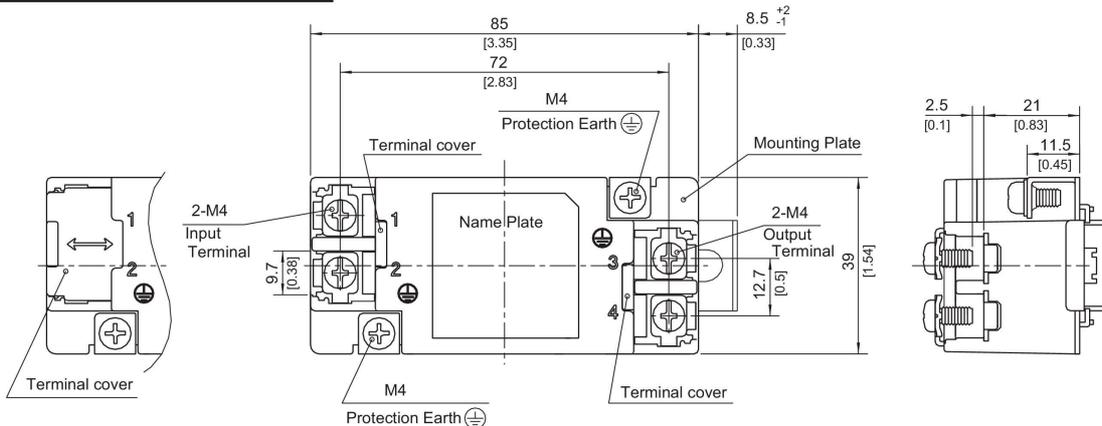


※ Closed the terminal cover

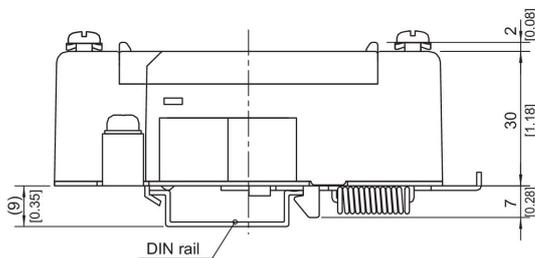


- ※ Tolerance :  $\pm 1$  [ $\pm 0.04$ ]
- ※ Weight : 170g max
- ※ Mounting Plate : Iron (surface finishing:nickel plating)  $t = 1.0$  [0.04]
- ※ Case : PBT
- ※ Dimensions in mm, [ ]=inches
- ※ Terminal block screw tightening torque M4 :  $1.6N \cdot m$  (16.9kgf · cm)max

### DIN rail installation Type



※ Closed the terminal cover

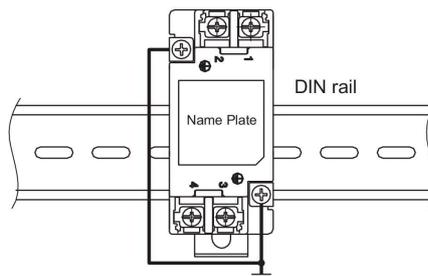


- ※ Tolerance :  $\pm 1$  [ $\pm 0.04$ ]
- ※ Weight : 170g max
- ※ Mounting Plate : Iron (surface finishing:nickel plating)  $t = 1.0$  [0.04]
- ※ Case : PBT
- ※ Dimensions in mm, [ ]=inches
- ※ Terminal block screw tightening torque M4 :  $1.6N \cdot m$  (16.9kgf · cm)max

### ■Note when installing the EMI/EMC Filter on a DIN rail.

When the EMI/EMC Filter is grounded through the DIN rail, the proper noise attenuation may not be achieved.

Be sure to connect the protection earth (PE) of the EMI/EMC Filter body to the earth.



# NBH series

NBH -10 -432 -□

① ② ③ ④

- ① Model Name
- ② Rated Current
- ③ Line to ground capacitor code: See table 1.1.

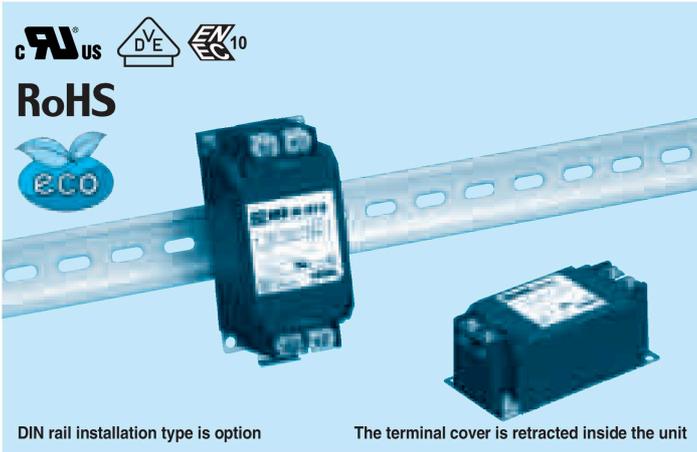
table 1.1 Line to ground capacitor code

Code	Leakage Current (Input 125/250V 60Hz)	Line to ground capacitor (nominal value)		Test voltage (Terminal- Mounting Plate)
		CY1	CY2	
000	5 $\mu$ A/ 10 $\mu$ A max	Not Provided	Not Provided	4,000VAC
101	12.5 $\mu$ A/ 25 $\mu$ A max	100pF	Not Provided	
221	25 $\mu$ A/ 50 $\mu$ A max	220pF	Not Provided	
331	37.5 $\mu$ A/ 75 $\mu$ A max	330pF	Not Provided	
471	50 $\mu$ A/100 $\mu$ A max	470pF	Not Provided	
681	75.5 $\mu$ A/150 $\mu$ A max	680pF	Not Provided	2,500VAC
102	0.13mA/0.25mA max	1000pF	Not Provided	
202	0.25mA/0.5 mA max	1000pF	1000pF	
322	0.38mA/0.75mA max	2200pF	1000pF	
432	0.5 mA/1.0 mA max	3300pF	1000pF	

\*When the line to ground capacitor code is different, the attenuation characteristic is different.

- ④ Options
- D: DIN rail installation type

\* The dimensions change when the option is set.  
Refer to External view.



DIN rail installation type is option

The terminal cover is retracted inside the unit

## Features of NBH series

### Ultra high-attenuation type of common mode noise from 10kHz to 10MHz (2-stage filter)

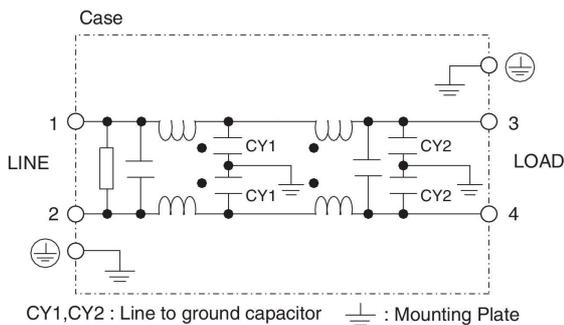
- Single Phase 250 VAC
- Withstand voltage 4,000 VAC (Line to ground capacitor code -000 to -471)
- Push down type terminal block

### Specifications

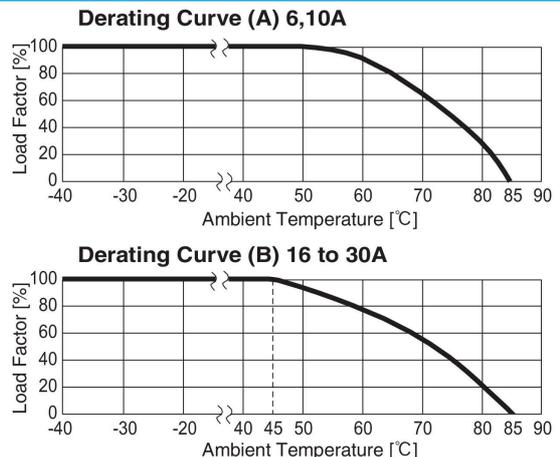
No.	Items	NBH-06-432	NBH-10-432	NBH-16-432	NBH-20-432	NBH-30-432
1	Rated Voltage[V]	AC 1 $\phi$ 250 / DC250				
2	Rated Current[A]	6	10	16	20	30
3	Test Voltage (Terminal-Mounting Plate) *1	2,500 VAC (Cutoff Current = 20mA), 1minute at room temperature and humidity				
4	Isolation Resistance (Terminal-Mounting Plate)	500 VDC 100M $\Omega$ min at room temperature and humidity				
5	Leakage current 125/250V 60Hz	0.5mA/1.0mA max				
6	Voltage drop	1.0V max				
7	Safety agency approval temperatures	-25 to +85 $^{\circ}$ C (Refer to Derating Curve A)		-25 to +85 $^{\circ}$ C (Refer to Derating Curve B)		
8	Operating temperature	-40 to +85 $^{\circ}$ C (Refer to Derating Curve A)		-40 to +85 $^{\circ}$ C (Refer to Derating Curve B)		
9	Operating humidity	20 to 95%RH (Non condensing)				
10	Storage temperature/humidity	-40 to +85 $^{\circ}$ C/20 to 95%RH (Non condensing)				
11	Vibration	10 to 55Hz, 19.6m/s <sup>2</sup> (2G), 3min. Period, 1hour each X, Y and Z axis				
12	Impact	196.1m/s <sup>2</sup> (20G), 11ms Once each X, Y and Z axis				
13	Safety agency approvals	UL1283, CSA C22.2 No.8 (C-UL), DIN EN60939 VDE0565 Teil3-1, ENEC (At only AC input)				
14	Case size (without projection) /Weight	53 X 43 X 104 mm [2.09 X 1.69 X 4.09 inches] /320g max (Option : -D refer to external view)				

\*1 When the line to ground capacitor code is different, the test voltage characteristic is different. (See table 1.1)

### Circuit Diagram



### Derating Curve

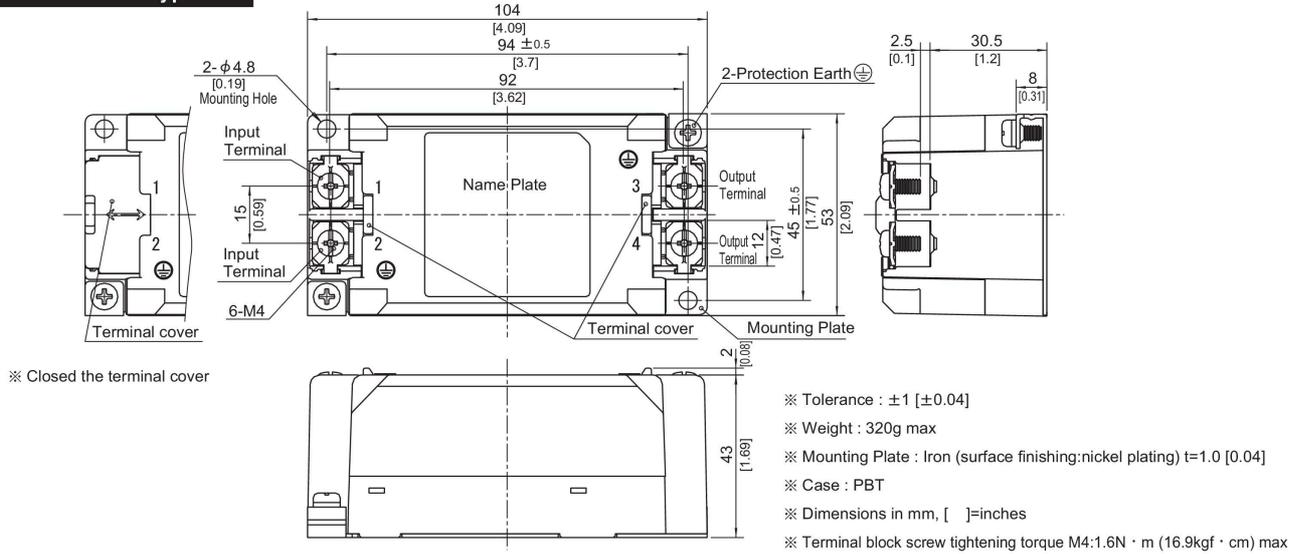


External view

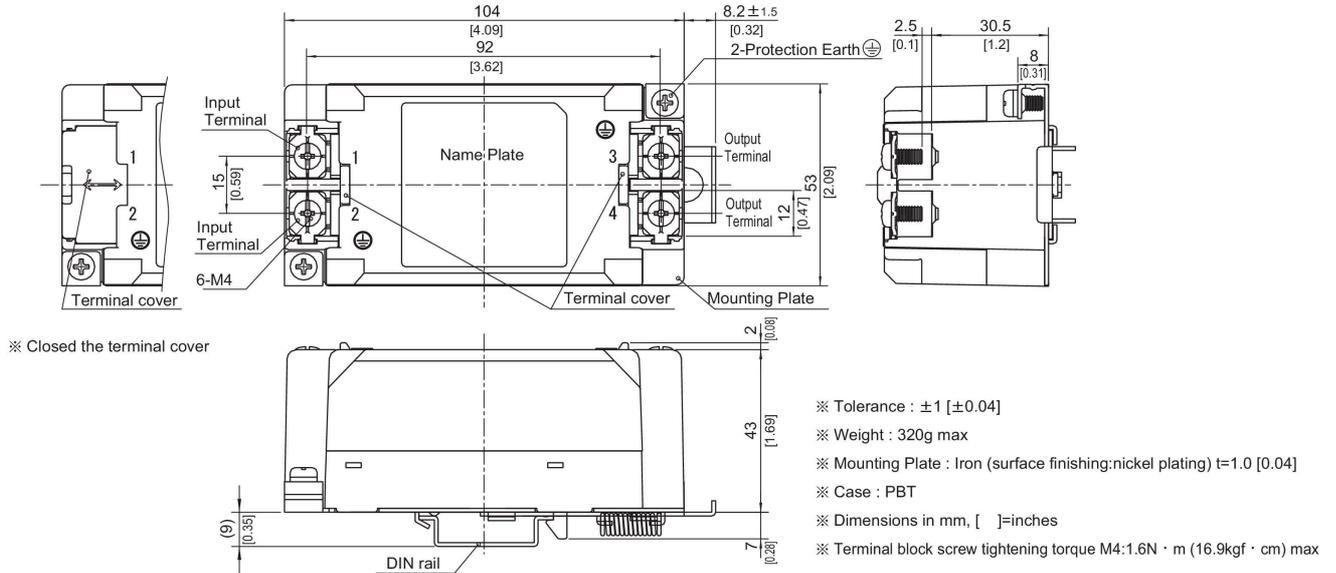
As this product is adopted push-down type terminal block, this appearance is as follows.

- ①The terminal cover is retracted inside the unit.
- ②The screws for connecting the terminals are held in the up right position.

Standard Type

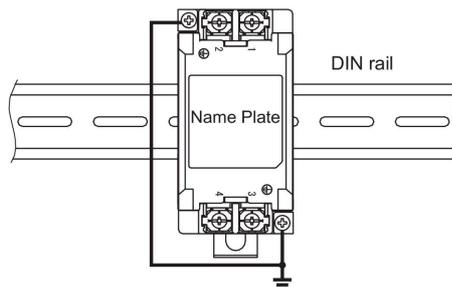


DIN rail installation Type



■Note when installing the EMI/EMC Filter on a DIN rail.

When the EMI/EMC Filter is grounded through the DIN rail, the proper noise attenuation may not be achieved.  
Be sure to connect the protection earth (PE) of the EMI/EMC Filter body to the earth.



# TAC series(4-30A)

TAC -10 -683 -□

① ② ③ ④

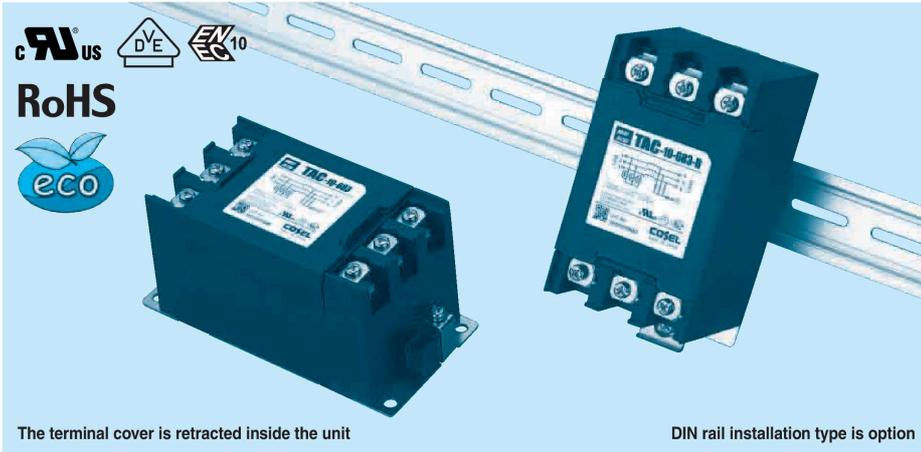
- ① Model Name
- ② Rated Current
- ③ Line to ground capacitor code: See table 1.1.

table 1.1 Line to ground capacitor code

Code	Leakage Current (Input 250/500V 60Hz)	Line to ground capacitor (nominal value)
683	2.5mA/5.0mA max	68000pF

- ④ Options
- D: DIN rail installation type

\* The dimensions change when the option is set. Refer to External view.



The terminal cover is retracted inside the unit

DIN rail installation type is option

## Features of TAC series

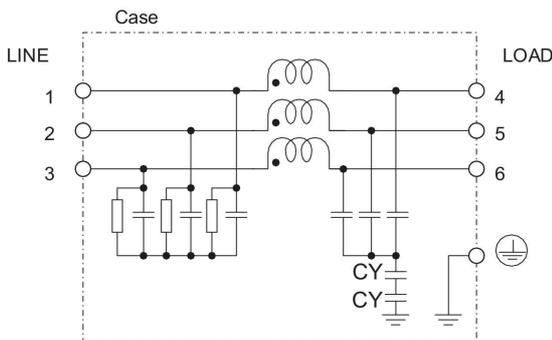
### High-attenuation type of common mode noise from 150kHz to 1MHz

- Three Phase 500 VAC
- Push down type terminal block

## Specifications

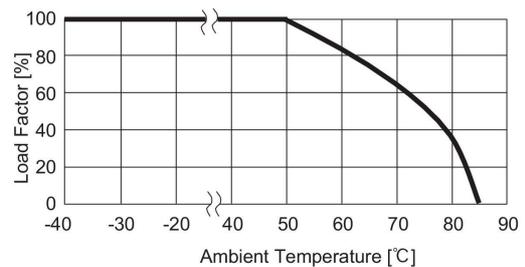
No.	Items	TAC-04-683	TAC-06-683	TAC-10-683	TAC-20-683	TAC-30-683
1	Rated Voltage[V]	AC Three Phase 500				
2	Rated Current[A]	4	6	10	20	30
3	Test Voltage (Terminal-Mounting Plate)	2,000 VAC (Cutoff Current = 100mA), 1minute at room temperature and humidity				
4	Isolation Resistance (Terminal-Mounting Plate)	500 VDC 100MΩ min at room temperature and humidity				
5	Leakage current 250/500V 60Hz	2.5mA/5.0mA max				
6	Voltage drop	1.5V max		1.0V max		
7	Safety agency approval temperatures	-25 to +85°C (Refer to Derating Curve)				
8	Operating temperature	-40 to +85°C (Refer to Derating Curve)				
9	Operating humidity	20 to 95%RH (Non condensing)				
10	Storage temperature/humidity	-40 to +85°C/20 to 95%RH (Non condensing)				
11	Vibration	10 to 55Hz, 19.6m/s <sup>2</sup> (2G), 3min. Period, 1hour each X, Y and Z axis				
12	Impact	196.1m/s <sup>2</sup> (20G), 11ms Once each X, Y and Z axis				
13	Safety agency approvals	UL1283, CSA C22.2 No.8 (C-UL) , DIN EN60939 VDE0565 Teil3-1, ENEC				
14	Case size (without projection) /Weight	63 X 64 X 128 mm [2.48 X 2.52 X 5.04 inches] (W X H X D) /620g max (Option : -D refer to external view)				

## Circuit Diagram



CY : Line to ground capacitor : Mounting Plate

## Derating Curve

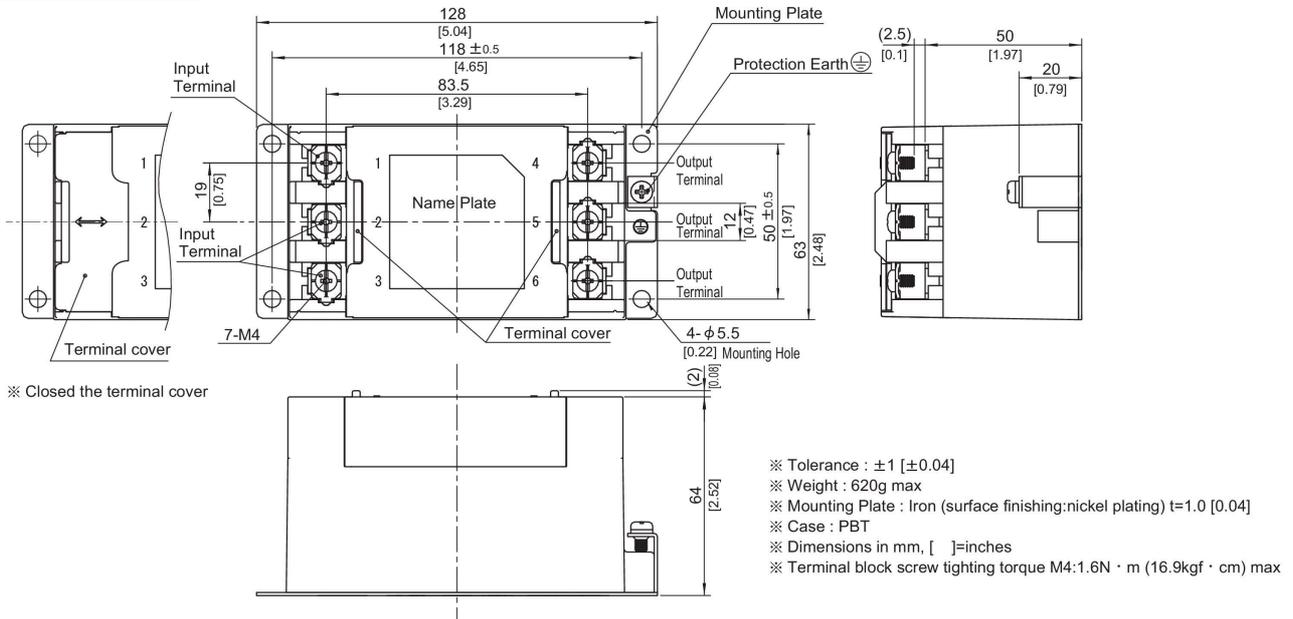


## External view

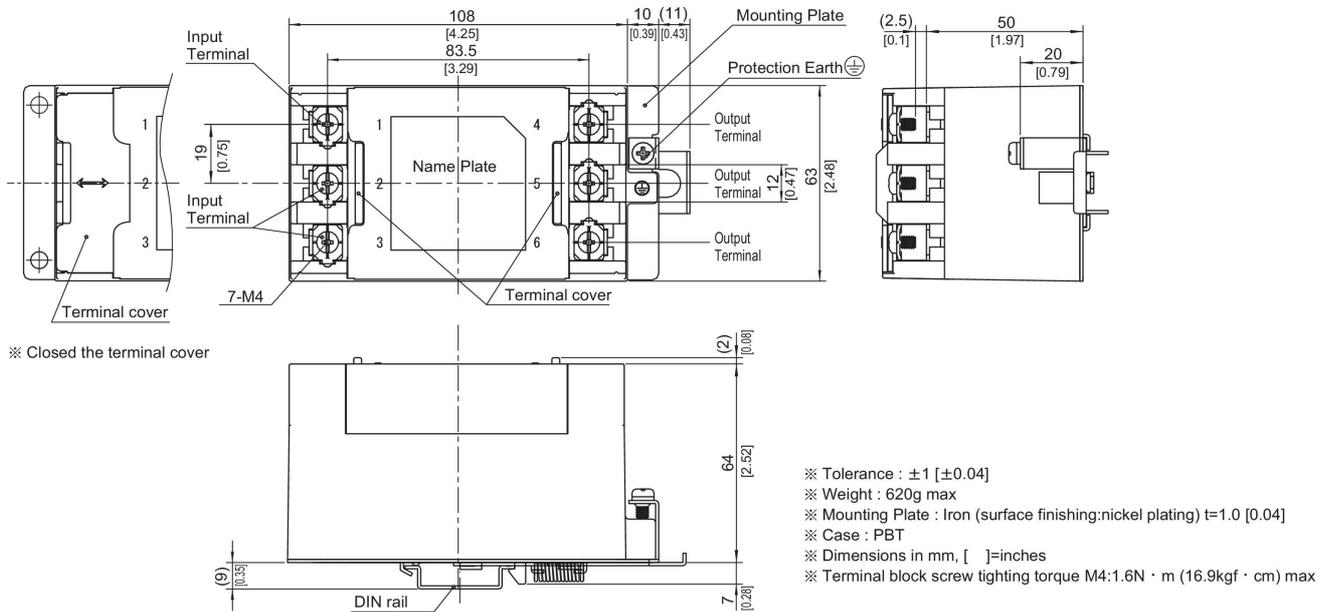
As this product is adopted push-down type terminal block, this appearance is as follows.

- ① The terminal cover is retracted inside the unit.
- ② The screws for connecting the terminals are held in the up right position.

### Standard Type



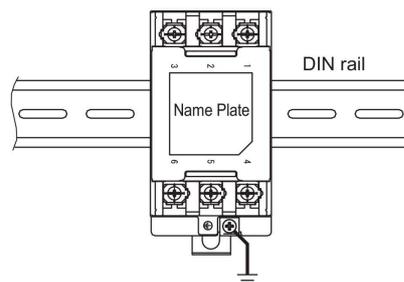
### DIN rail installation Type



### ■Note when installing the EMI/EMC Filter on a DIN rail.

When the EMI/EMC Filter is grounded through the DIN rail, the proper noise attenuation may not be achieved.

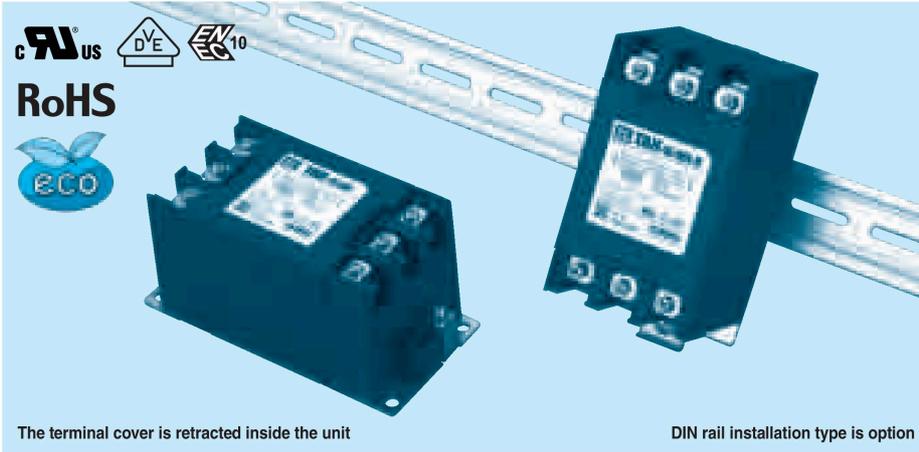
Be sure to connect the protection earth (PE) of the EMI/EMC Filter body to the earth.



# TAH series(4-30A)

TAH -10 -683 -□

① ② ③ ④



The terminal cover is retracted inside the unit

DIN rail installation type is option

- ① Model Name
- ② Rated Current
- ③ Line to ground capacitor code: See table 1.1.

table 1.1 Line to ground capacitor code

Code	Leakage Current (Input 250/500V 60Hz)	Line to ground capacitor (nominal value)
683	2.5mA/5.0mA max	68000pF

- ④ Options
- D: DIN rail installation type

\* The dimensions change when the option is set. Refer to External view.

## Features of TAH series

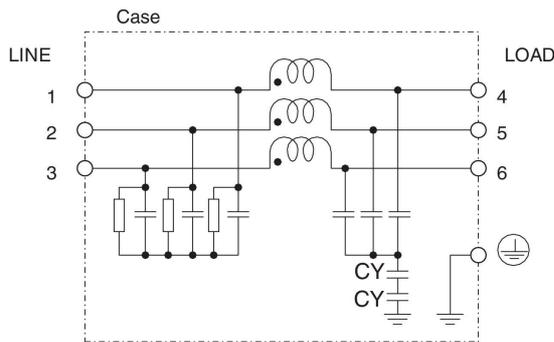
### Ultra high-attenuation type of common mode noise from 10kHz to 1MHz

- Three Phase 500 VAC
- Push down type terminal block

## Specifications

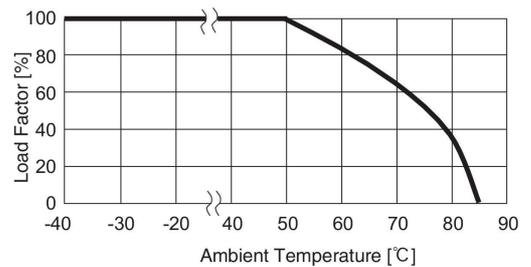
No.	Items	TAH-04-683	TAH-06-683	TAH-10-683	TAH-20-683	TAH-30-683
1	Rated Voltage[V]	AC Three Phase 500				
2	Rated Current[A]	4	6	10	20	30
3	Test Voltage (Terminal-Mounting Plate)	2,000 VAC (Cutoff Current = 100mA), 1minute at room temperature and humidity				
4	Isolation Resistance (Terminal-Mounting Plate)	500 VDC 100MΩ min at room temperature and humidity				
5	Leakage current 250/500V 60Hz	2.5mA/5.0mA max				
6	Voltage drop	1.5V max		1.0V max		
7	Safety agency approval temperatures	-25 to +85°C (Refer to Derating Curve)				
8	Operating temperature	-40 to +85°C (Refer to Derating Curve)				
9	Operating humidity	20 to 95%RH (Non condensing)				
10	Storage temperature/humidity	-40 to +85°C/20 to 95%RH (Non condensing)				
11	Vibration	10 to 55Hz, 19.6m/s <sup>2</sup> (2G), 3min. Period, 1hour each X, Y and Z axis				
12	Impact	196.1m/s <sup>2</sup> (20G), 11ms Once each X, Y and Z axis				
13	Safety agency approvals	UL1283, CSA C22.2 No.8 (C-UL) , DIN EN60939 VDE0565 Teil3-1, ENEC				
14	Case size (without projection) /Weight	63X64 X 128 mm [2.48 X 2.52 X 5.04 inches] (W X H X D) /620g max (Option : -D refer to external view)				

## Circuit Diagram

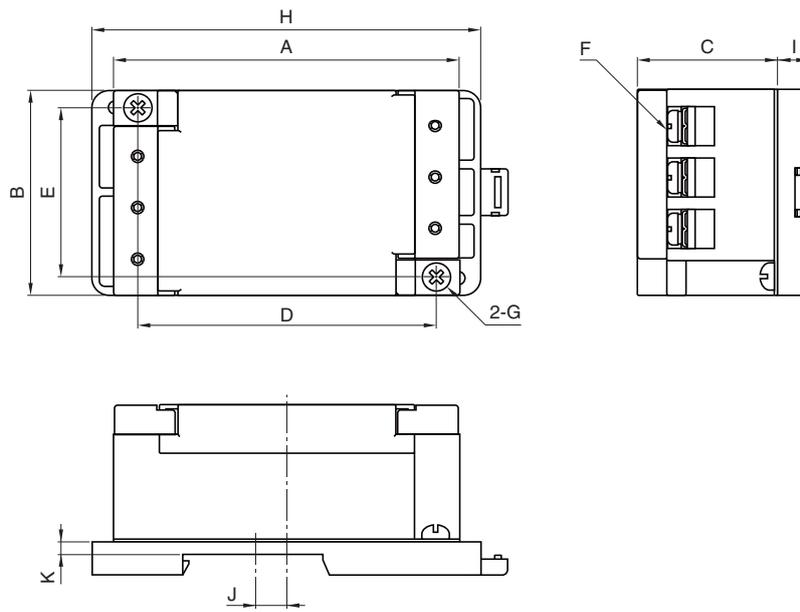


CY : Line to ground capacitor ⊥ : Mounting Plate

## Derating Curve



RSAN-2003D/2006D/2010D/2016D/2020D/2030D

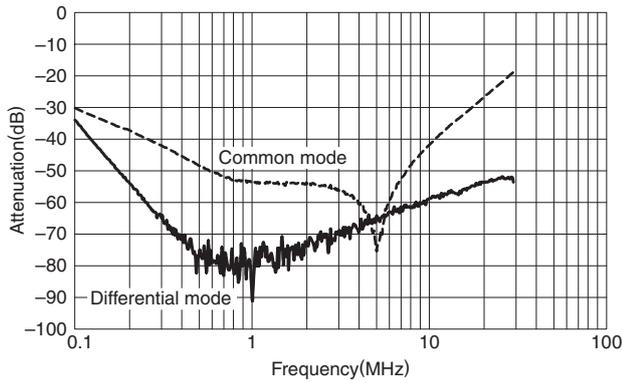


Dimensions in mm

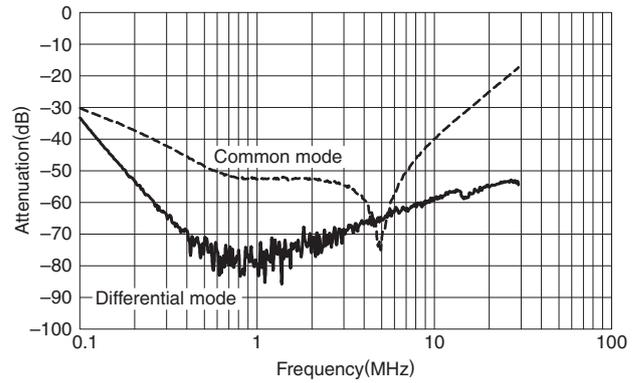
Part No.	A	B	C	D	E	F	G	H	I	J	K
RSAN-2003D	87	52	35	75	43	M4	M4	98	8.4	8.5	3.5
RSAN-2006D											
RSAN-2010D											
RSAN-2016D											
RSAN-2020D											
RSAN-2030D											

**ATTENUATION vs. FREQUENCY CHARACTERISTICS**

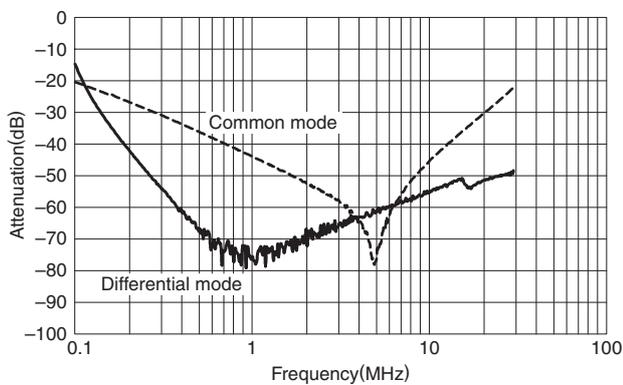
RSAN-2003



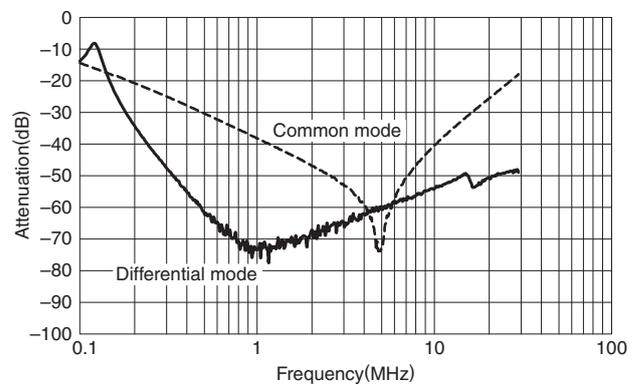
RSAN-2006



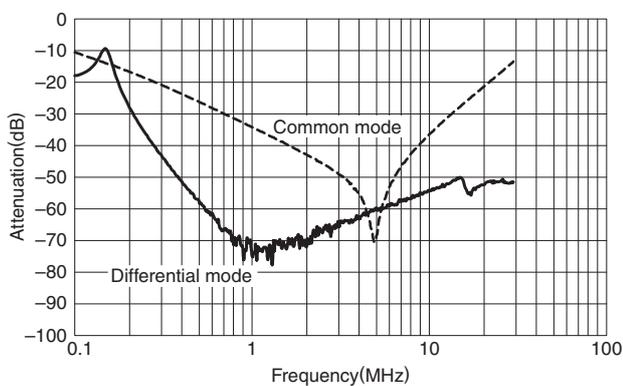
RSAN-2010



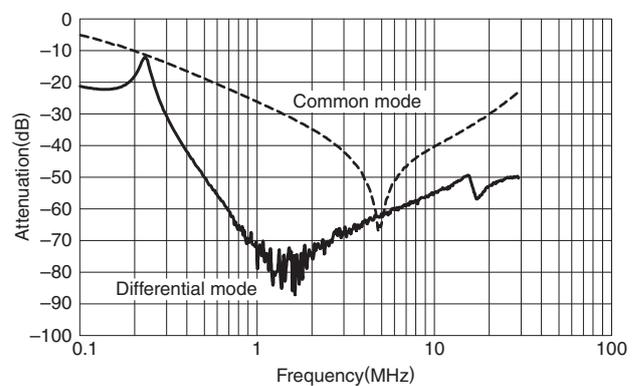
RSAN-2016



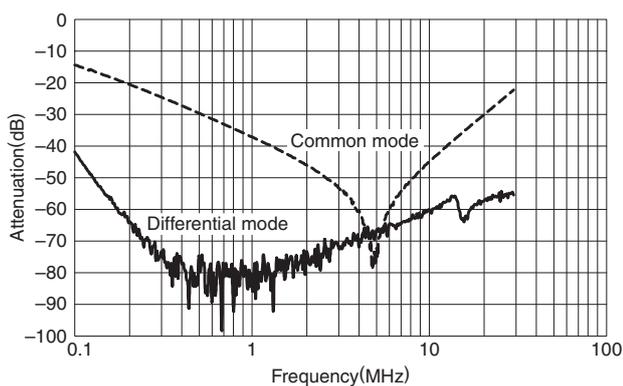
RSAN-2020



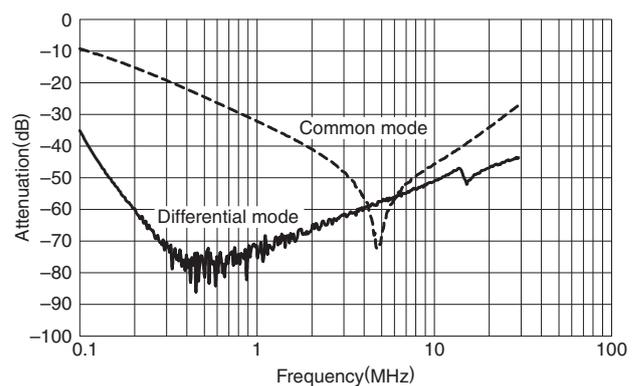
RSAN-2030



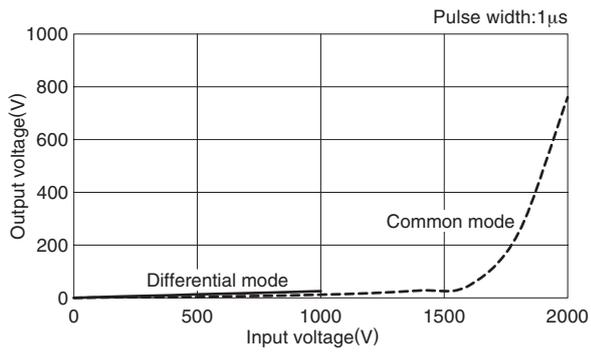
RSAN-2040



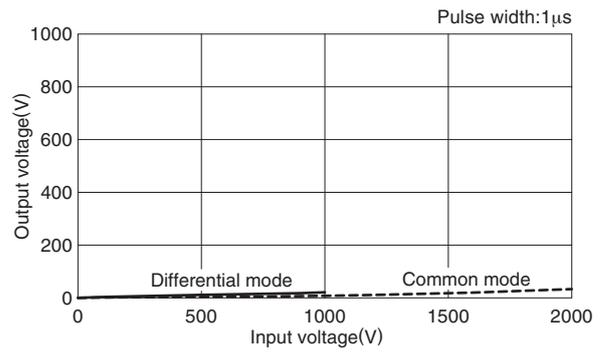
RSAN-2050



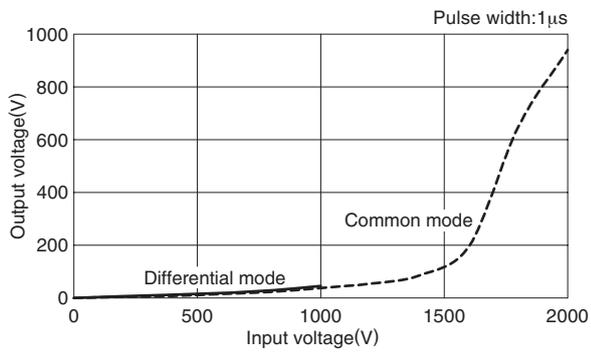
RSAN-2003L/LD



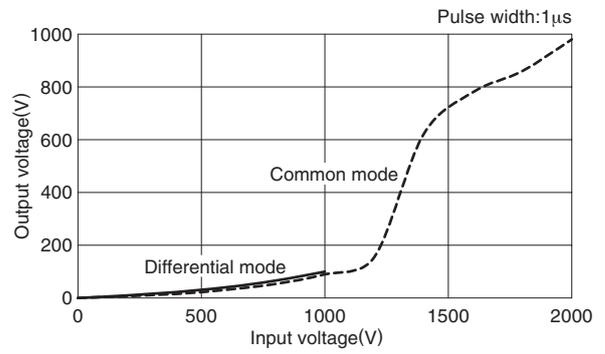
RSAN-2006L/LD



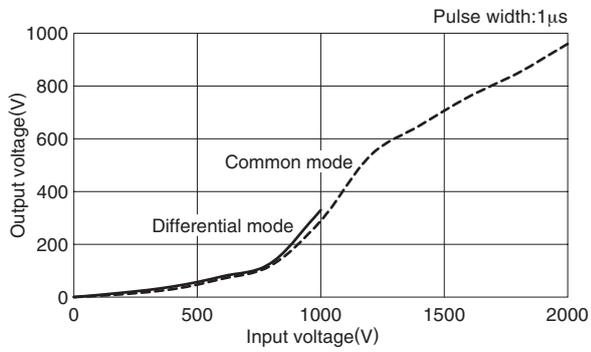
RSAN-2010L/LD



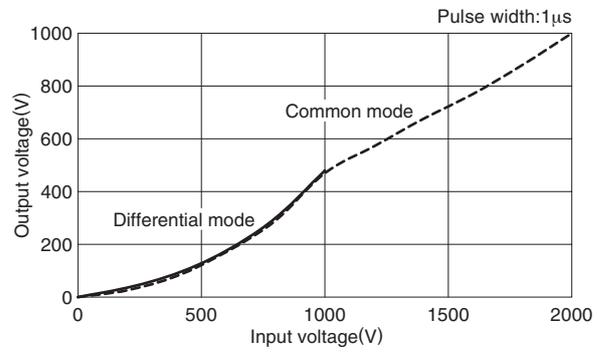
RSAN-2016L/LD



RSAN-2020L/LD



RSAN-2030L/LD



# RSEL SERIES

## Compact Multipurpose Type



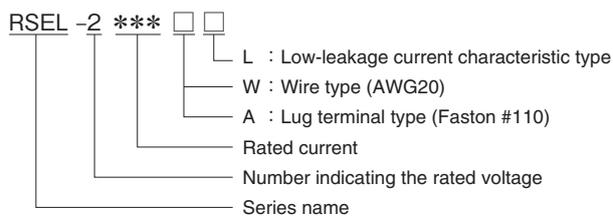
### FEATURES

- Wire type and faston terminal type are available with the same shape.
- Optional low-leakage current characteristic type is also available.
- Compliant with RoHS directives.

### SAFETY STANDARDS

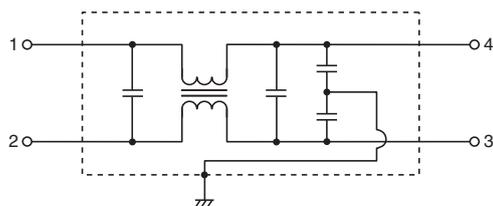
UL1283	File No. E62388
CSA C22.2 No.8	File No. 208777
EN60939	Licence Ref. No. SE/07115-1

### PRODUCT IDENTIFICATION

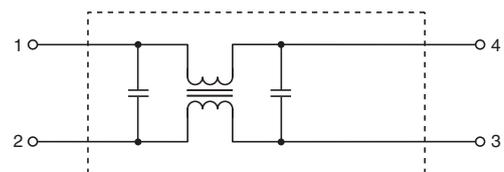


### CIRCUIT DIAGRAMS

RSEL-2 \*\*\* W  
RSEL-2 \*\*\* A



RSEL-2 \*\*\* WL  
RSEL-2 \*\*\* AL

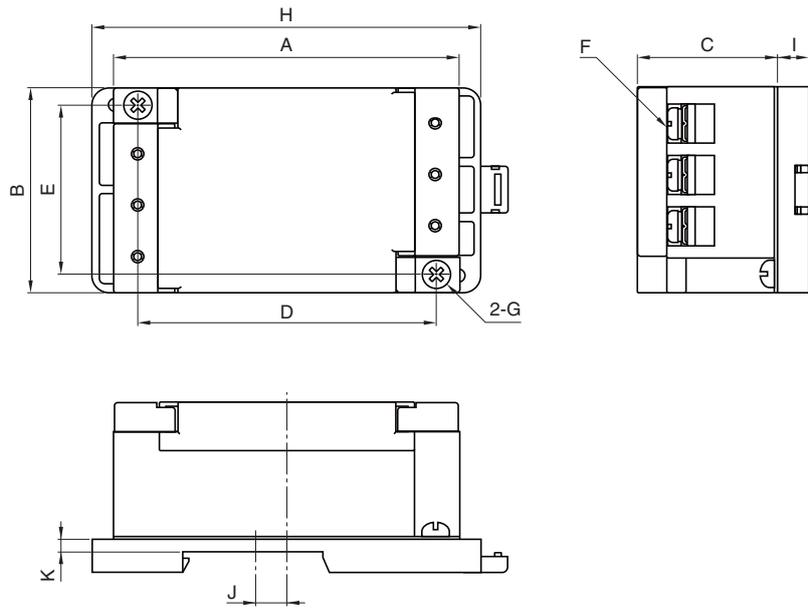


• Faston® is a registered trademark of Tyco Electronics AMP Corp. Incorporated.

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

• All specifications are subject to change without notice.

RSEN-2003D/2006D/2010D/2016D/2020D/2030D

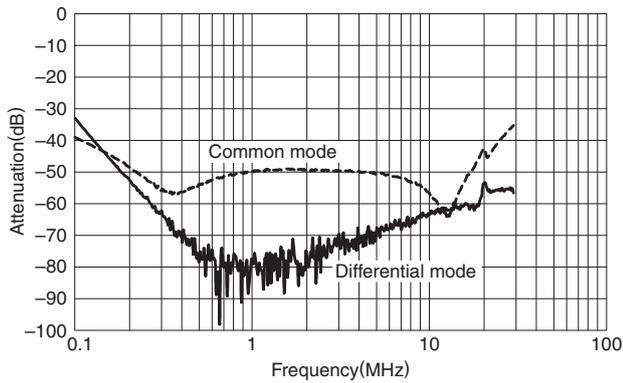


Dimensions in mm

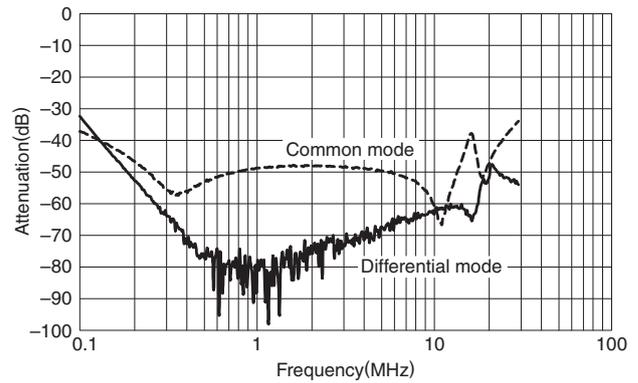
Part No.	A	B	C	D	E	F	G	H	I	J	K
RSEN-2003D	87	52	35	75	43	M4	M4	98	8.4	8.5	3.5
RSEN-2006D											
RSEN-2010D											
RSEN-2016D											
RSEN-2020D											
RSEN-2030D											

**ATTENUATION vs. FREQUENCY CHARACTERISTICS**

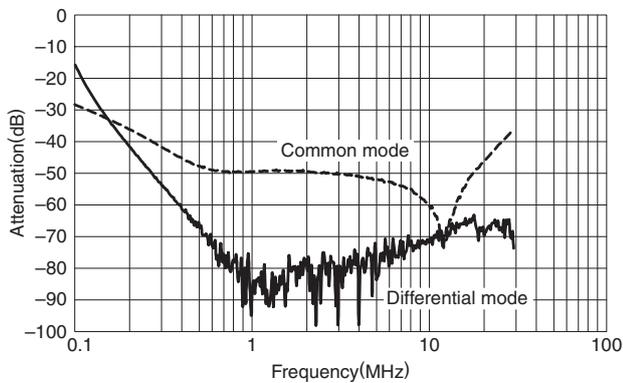
RSEN-2003



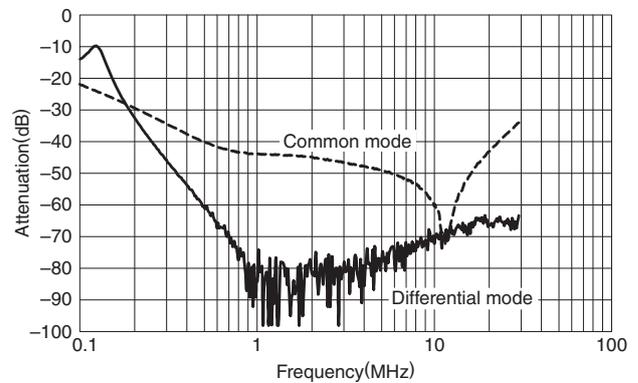
RSEN-2006



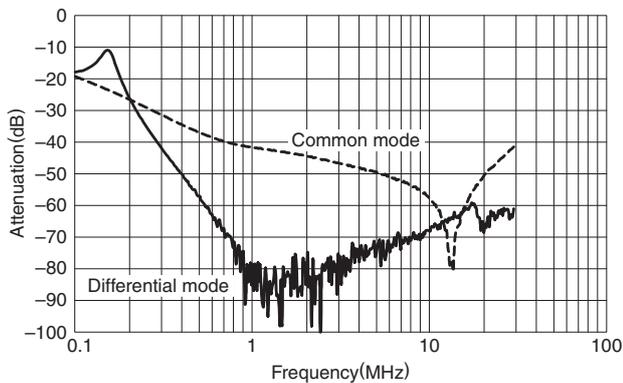
RSEN-2010



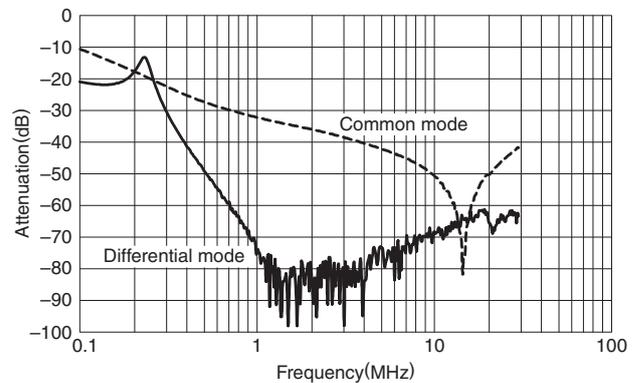
RSEN-2016



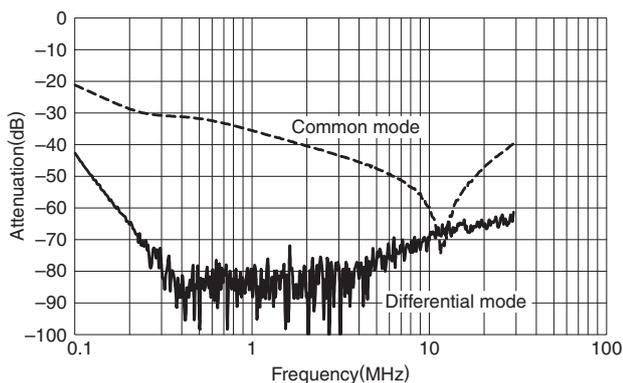
RSEN-2020



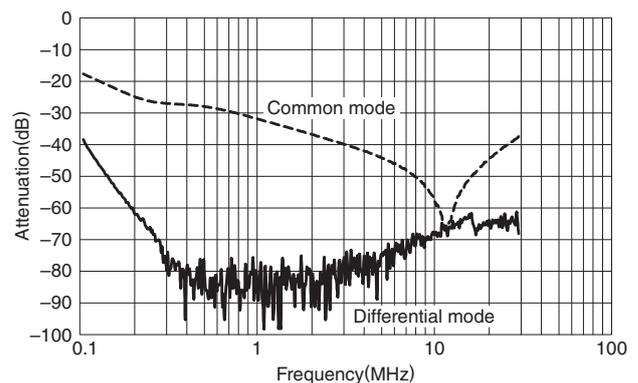
RSEN-2030



RSEN-2040



RSEN-2050



# RSHN SERIES

## High-Attenuation Type Single-Phase Filter with Various Variations and Functions



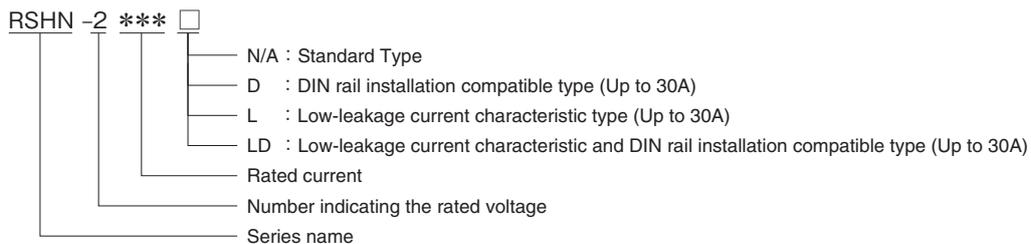
### FEATURES

- Self-tightening screws and an open/close type cover make wiring work easier.
- 3 to 300A wide range lineup.
- Optional low-leakage current characteristic type and DIN rail installation compatible type are also available.
- Compliant with RoHS directives.

### SAFETY STANDARDS

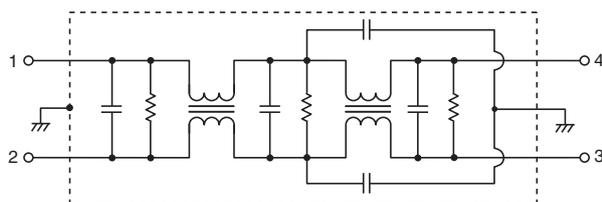
UL1283	File No. E62388 (Up to 30A)
CSA C22.2 No.8	File No. 208777 (Up to 30A)
EN60939	Licence Ref. No. SE/07115-3 (Up to 30A)

### PRODUCT IDENTIFICATION

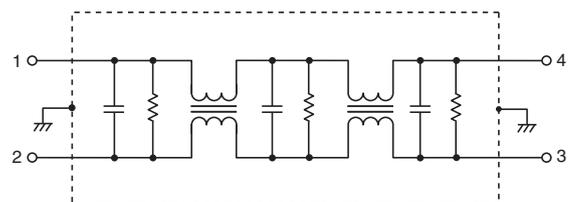


### CIRCUIT DIAGRAM

RSHN-2 \*\*\*  
RSHN-2 \*\*\*D



RSHN-2 \*\*\*L  
RSHN-2 \*\*\*LD



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

• All specifications are subject to change without notice.

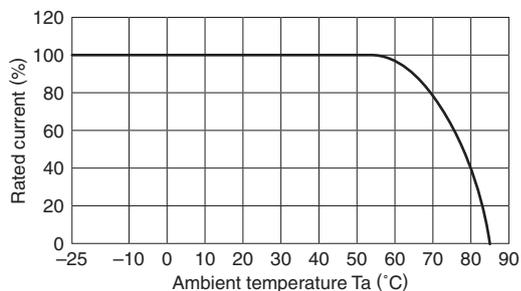
**ELECTRICAL CHARACTERISTICS**

Part No.	Rated voltage (AC/DC)	Rated current (AC/DC)	Withstand voltage	Insulation resistance	Leakage current	Operating temperature range	With derating over	DC resistance (mΩ)	Attenuation frequency range (MHz)			Weight (kg)
									Common mode		Differential mode	
									at 25dB	at 10dB	at 25dB	
RSHN-2003	250V	3A	AC.2500V 60s [Between line to ground]	100MΩ min. [DC.500V/ 1min]	1.0mA max. [250V/60Hz]	-25 to +85°C	55°C	350 max.	0.1 to 10	-	0.2 to 30	0.19
RSHN-2006		6A						140 max.	0.1 to 10	-	0.2 to 30	0.24
RSHN-2010		10A						60 max.	0.1 to 30	-	0.3 to 30	0.24
RSHN-2016		16A						35 max.	0.2 to 30	-	0.3 to 30	0.35
RSHN-2020		20A						22 max.	0.2 to 30	-	0.4 to 30	0.35
RSHN-2030		30A						12 max.	0.3 to 30	-	0.6 to 30	0.35
RSHN-2040		40A						10 max.	0.2 to 30	-	0.1 to 30	1.50
RSHN-2050		50A						8 max.	0.3 to 30	-	0.2 to 30	1.40
RSHN-2060		60A						6 max.	0.3 to 30	-	0.3 to 30	1.40
RSHN-2080		80A						7 max.	0.2 to 8	-	0.1 to 30	5.50
RSHN-2100		100A						6 max.	0.2 to 8	-	0.1 to 30	6.00
RSHN-2150		150A						4 max.	0.2 to 7	-	0.1 to 30	9.00
RSHN-2200		200A						3 max.	0.4 to 7	-	0.1 to 30	13.00
RSHN-2250		250A						2 max.	-	0.4 to 10	0.1 to 30	13.00
RSHN-2300	300A	1.5 max.	-	1 to 7	0.1 to 30	13.00						

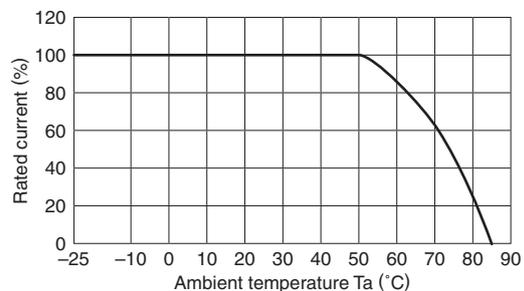
Part No.	Rated voltage (AC/DC)	Rated current (AC/DC)	Withstand voltage	Insulation resistance	Leakage current	Operating temperature range	With derating over	DC resistance (mΩ)	Attenuation frequency range (MHz)		Weight (kg)
									Common mode	Differential mode	
									at 25dB	at 25dB	
RSHN-2003L	250V	3A	AC.2500V 60s [Between line to ground]	100MΩ min. [DC.500V/ 1min]	100μA max. [250V/60Hz]	-25 to +85°C	55°C	350 max.	0.2 to 10	0.2 to 30	0.19
RSHN-2006L		6A						140 max.	0.2 to 10	0.2 to 30	0.24
RSHN-2010L		10A						60 max.	0.3 to 10	0.3 to 30	0.24
RSHN-2016L		16A						35 max.	0.3 to 30	0.3 to 30	0.35
RSHN-2020L		20A						22 max.	0.4 to 30	0.4 to 30	0.35
RSHN-2030L		30A						12 max.	0.6 to 30	0.6 to 30	0.35

**DERATINGS**

RSHN-2003/2006/2010/2016/2020/2030/  
2040/2050/2060



RSHN-2080/2100/2150/2200/2250/2300



ミスミ

ENF-SNTシリーズ(单相)



ココが特長

单相電源ラインからのノイズ防止に最適

- 開閉式カバー付き
- DINレール取付タイプもラインアップ
- ・ノイズフィルタは汎用インバータとモータ間には使用できません。
- ・漏電ブレーカ選定の際には、ノイズフィルタの漏洩電流を考慮して選定してください。



在庫品

RoHS



1台単位

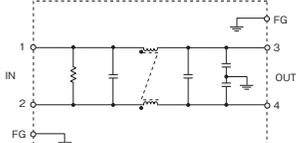


Order  
注文例

型番

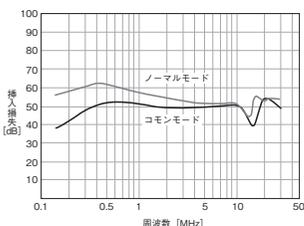
ENF-SNT-6D

回路図

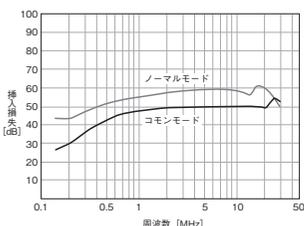


減衰量周波数特性

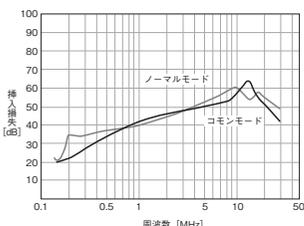
ENF-SNT-6



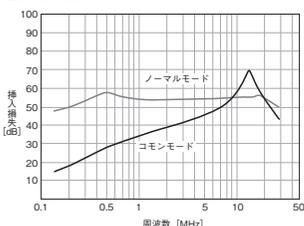
ENF-SNT-10



ENF-SNT-20



ENF-SNT-30

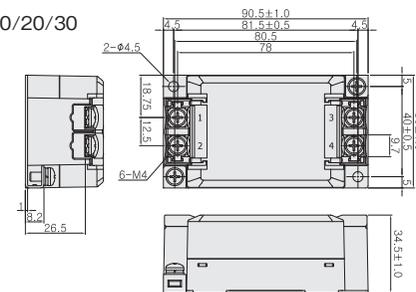


仕様

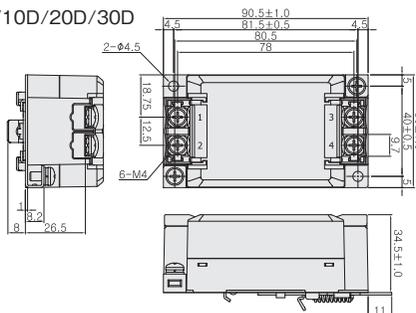
型番	標準	ENF-SNT-6	ENF-SNT-10	ENF-SNT-20	ENF-SNT-30
	DINレール取付	ENF-SNT-6D	ENF-SNT-10D	ENF-SNT-20D	ENF-SNT-30D
回路構成	単相				
定格電圧(AC/DC)	250V				
定格電流(AC/DC)		6A	10A	20A	30A
耐電圧	AC2500V 1分間・端子-FG間				
絶縁抵抗	100MΩ min. DC500V: 端子-FG間				
漏洩電流	125V 60Hz	0.5mA max.			
	250V 60Hz	1.0mA max.			
直流抵抗		120mΩ max.	50mΩ max.	14mΩ max.	6mΩ max.
動作環境	温度: -25~+85°C、20~95%RH(結露なきこと)				
質量	標準	195g			
	DINレール取付	205g			

外形図

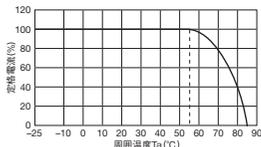
ENF-SNT-06/10/20/30



ENF-SNT-06D/10D/20D/30D



デレーティング



スイッチング電源

ケース付き

DINレール取付



0491ページ

0495ページ

ノイズフィルタ

ミスミ

ENF-SHTシリーズ(単相 高減衰)



ココが  
特長

単相電源ラインからのノイズ防止、2段フィルタ

- 開閉式カバー付き
- DINレール取付タイプもラインアップ

UL

在庫品

RoHS



ご注意

・ノイズフィルタは汎用インバータとモータ間には使用できません。  
・漏電ブレーカ選定の際には、ノイズフィルタの漏洩電流を考慮して選定をしてください。



1台単位

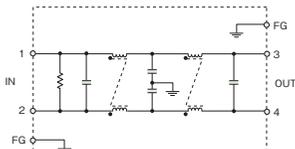


Order  
注文例

型番

ENF-SHT-6

回路図



スイッチング  
電源

ノイズフィルタ

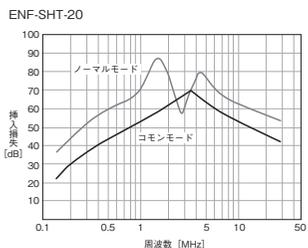
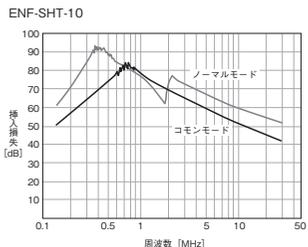
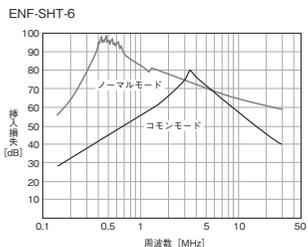
トランス

ACアダプタ

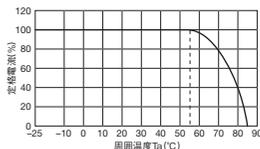
SPD・アレスタ  
(避雷器)

フェライトコア

減衰量周波数特性



デレージング



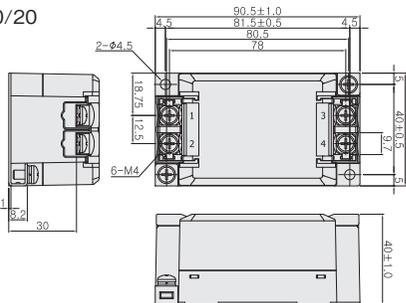
仕様

型番	標準	ENF-SHT-6	ENF-SHT-10	ENF-SHT-20
	DINレール取付	ENF-SHT-6D	ENF-SHT-10D	ENF-SHT-20D
回路構成	単相			
定格電圧(AC/DC)	250V			
定格電流(AC/DC)	6A	10A	20A	
耐電圧	AC2500V 1分間:端子-FG間			
絶縁抵抗	100MΩ min. DC500V:端子-FG間			
漏洩電流	125V 60Hz	0.5mA max.		
	250V 60Hz	1.0mA max.		
直流抵抗	130mΩ max.	65mΩ max.	14mΩ max.	
動作環境	温度: -25~+85℃、20~95%RH(結露なきこと)			
質量	標準	200g		
	DINレール取付	210g		

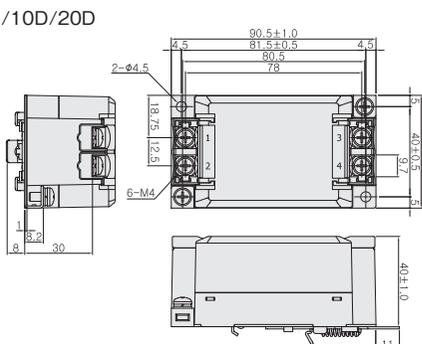
外形図

(単位: mm)

ENF-SHT-06/10/20



ENF-SHT-06D/10D/20D



ミスミ

新商品

ENF-TNTシリーズ(三相)



- ココが特長** 三相電源ラインからのノイズ防止に最適
- 開閉式カバー付き
  - DINレール取付タイプモラインアップ

在庫品



・ノイズフィルタは汎用インバータとモータ間には使用できません。  
 ・漏電ブレーカ選定の際には、ノイズフィルタの漏れ電流を考慮して選定をしてください。

ノイズフィルタ

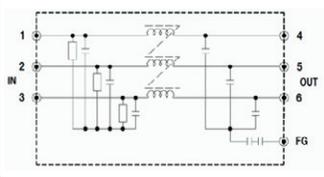


Order  
注文例

型番

ENF-TNT-6D

回路図



規格表

1台単位

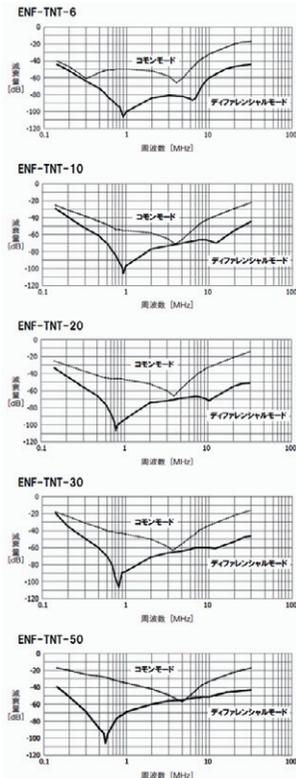


型番	回路構成	定格電流	形状 (取付方法)	¥通常単価		
				1~2台	3~9台	10台~
ENF-TNT-6	三相	6A	標準(直付)	3,100	2,800	2,600
ENF-TNT-6D			DINレール取付	3,250	2,950	2,750
ENF-TNT-10		10A	標準(直付)	3,200	2,850	2,650
ENF-TNT-10D			DINレール取付	3,350	3,000	2,800
ENF-TNT-20		20A	標準(直付)	4,250	3,850	3,600
ENF-TNT-20D			DINレール取付	4,400	4,000	3,750
ENF-TNT-30		30A	標準(直付)	4,500	4,100	3,850
ENF-TNT-30D			DINレール取付	4,650	4,250	4,000
ENF-TNT-50		50A	標準(直付)	8,700	8,100	7,600

仕様

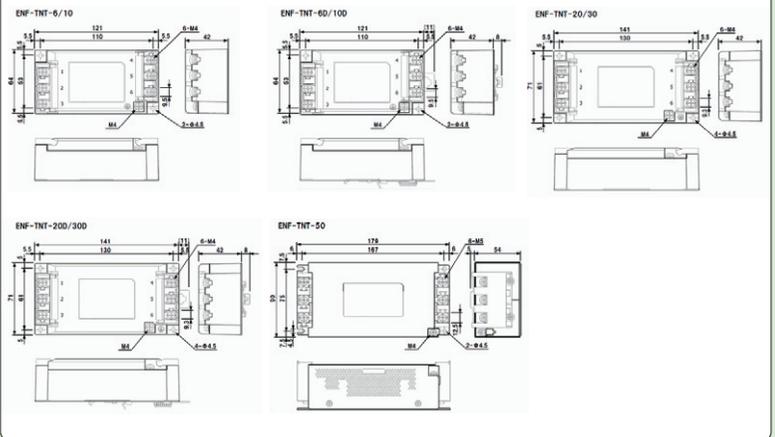
型番	標準 DINレール取付	ENF-TNT-6	ENF-TNT-10	ENF-TNT-20	ENF-TNT-30	ENF-TNT-50
		回路構成	ENF-TNT-6D	ENF-TNT-10D	ENF-TNT-20D	ENF-TNT-30D
定格電圧(AC/DC)		三相 500V				
定格電流(AC/DC)		6A	10A	20A	30A	50A
耐電圧		AC2500V 1分間:端子-FG間 100MΩ min. DC500V:端子-FG間				
絶縁抵抗		2.5mA max. 5.0mA max.				
漏れ電流	250V 60Hz 500V 60Hz	75mΩ max.	30mΩ max.	15mΩ max.	10mΩ max.	7mΩ max.
直流抵抗						
動作環境		温度: -25~+85°C, 20~95%RH(結露なきこと)				
安全規格		UL1283, CSA C22.2 No.8(c-UL), IEC/EN60939-2, UL/c-UL: E156363				
質量	標準	360g	560g	570g	1300g	-
	DINレール取付	370g				

減衰量周波数特性

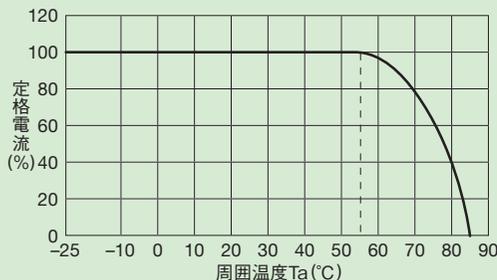


外形図

(単位: mm)



ディレーティング



ミスミ



## ENF-THTシリーズ(三相 高減衰)



**ココが特長** 三相電源ラインからのノイズ防止、2段フィルタ  
●開閉式カバー付き

**在庫品**



・ノイズフィルタは汎用インバータとモータ間には使用できません。  
・漏電ブレーカ選定の際には、ノイズフィルタの漏洩電流を考慮して選定してください。

規格表

1台単位



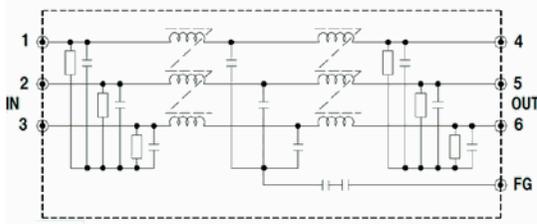
型番	回路構成	定格電流	形状 (取付方法)	¥通常単価		
				1~2台	3~9台	10台~
ENF-THT-6	三相	6A	標準(直付)	7,500	7,100	6,600
ENF-THT-10		10A		7,900	7,500	7,000
ENF-THT-20		20A		9,800	9,400	8,800



Order  
注文例

型番  
ENF-THT-6

回路図

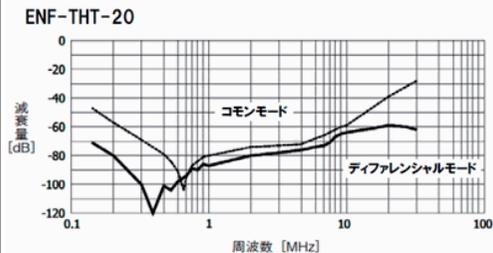
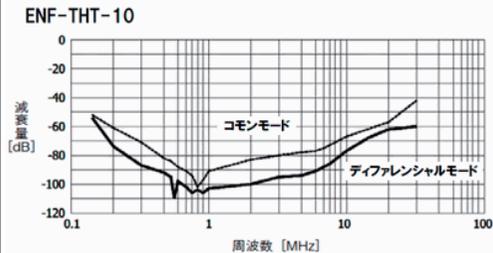
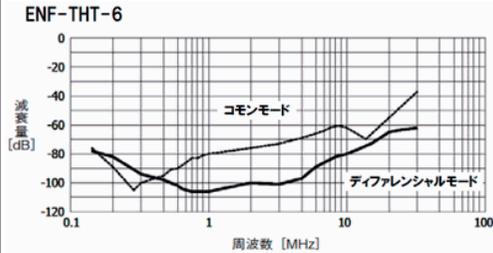


仕様

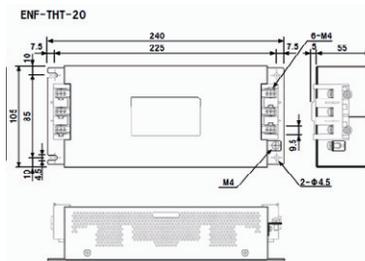
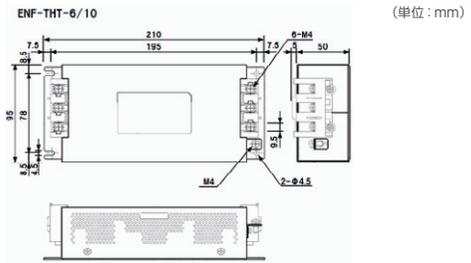
型番	ENF-THT-6	ENF-THT-10	ENF-THT-20
回路構成	三相		
定格電圧(AC/DC)	500V		
定格電流(AC/DC)	6A	10A	20A
耐電圧	AC2500V 1分間:端子-FG間		
絶縁抵抗	100MΩ min. DC500V:端子-FG間		
漏洩電流	250V 60Hz: 2.5mA max. 500V 60Hz: 5.0mA max.		
直流抵抗	290mΩ max.	120mΩ max.	50mΩ max.
動作環境	温度: -25~+85℃, 20~95%RH(結露なきこと)		
安全規格	UL1283, CSA C22.2 No.8(c-UL), IEC/EN60939-2, UL/c-UL: E156363		
質量	910g	1400g	

ノイズフィルタ

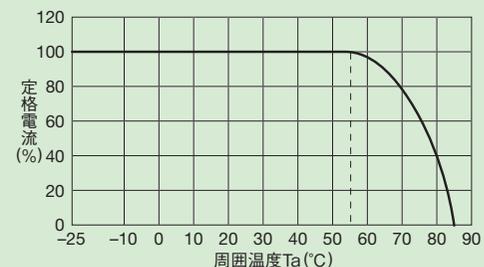
減衰量周波数特性



外形図



ディレーティング



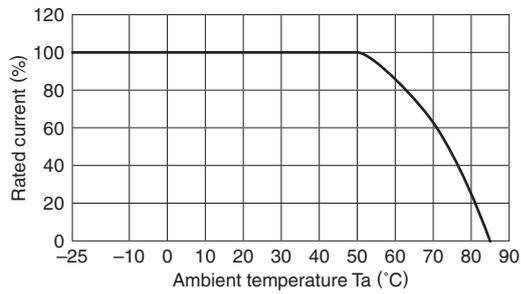
商品の取扱有無をすぐ確認したい...そんな時は、  
VONAサポートセンターへ ☎0120-343-256  
※IP電話からお掛けの場合番号末-11

●在庫品は、ご希望によりPM6:00迄のご注文で当日出荷致します。  
●他社ブランド(ミスミ品以外) 非在庫品の出荷日カウントは土日祝日を除きます。

## ELECTRICAL CHARACTERISTICS

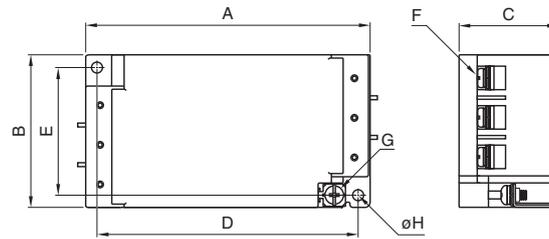
Part No.	Rated voltage (AC/DC)	Rated current (AC/DC)	Withstand voltage	Insulation resistance	Leakage current	Operating temperature range	With derating over	DC resistance (mΩ)	Attenuation frequency range (MHz)			Weight (kg)
									Common mode		Differential mode	
									at 25dB	at 10dB	at 25dB	
RTEN-5006	500V	6A	AC.2500V 60s [Between line to ground]	100MΩ min. [DC.500V/ 1min]	2.5mA max. [250V/60Hz] 5mA max. [500V/60Hz]	-25 to +85°C	50°C	145 max.	0.2 to 10	-	0.2 to 30	0.36
RTEN-5010		10A						60 max.	0.2 to 10	-	0.2 to 30	0.36
RTEN-5020		20A						25 max.	0.3 to 8	-	0.2 to 30	0.56
RTEN-5030		30A						13 max.	0.5 to 8	-	0.2 to 30	0.56
RTEN-5040		40A						10 max.	0.3 to 7	-	0.2 to 30	1.10
RTEN-5050		50A						7 max.	0.5 to 7	-	0.2 to 30	1.10
RTEN-5060		60A						5 max.	0.7 to 5	-	0.2 to 30	1.10
RTEN-5080		80A						5 max.	0.3 to 5	-	0.2 to 5	3.90
RTEN-5100		100A						4 max.	0.3 to 5	-	0.2 to 5	4.20
RTEN-5150		150A						3 max.	0.3 to 5	-	0.2 to 5	6.50
RTEN-5200		200A						2 max.	0.5 to 5	-	0.2 to 5	9.20
RTEN-5250		250A						1.5 max.	-	0.5 to 10	0.2 to 5	8.70
RTEN-5300		300A						1 max.	-	0.5 to 10	0.2 to 5	8.30

## DERATINGS

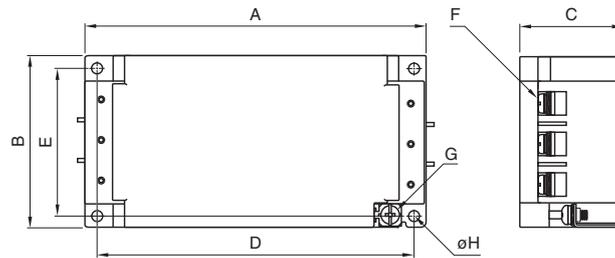


■ SHAPES AND DIMENSIONS

RTEN-5006/5010



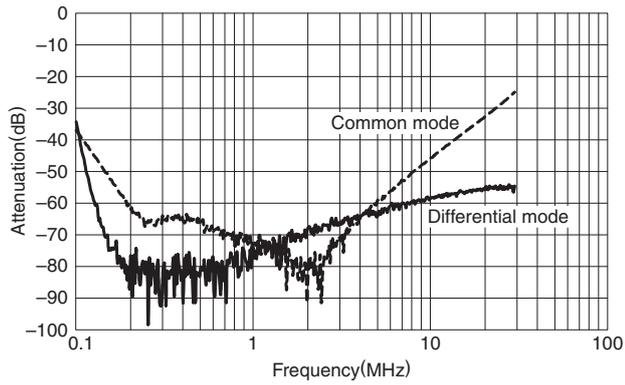
RTEN-5020/5030/5040/5050/5060



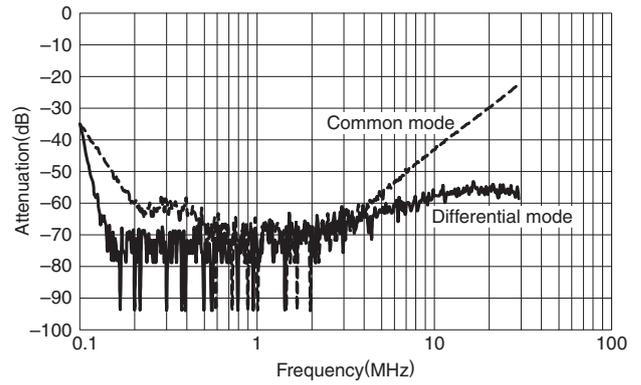
Dimensions in mm

Part No.	A	B	C	D	E	F	G	φH	Recommended clamping torque
RTEN-5006	120	63	42	110	53	M4	M4	4.5	M4 : 1.27N · m M5 : 2.5N · m
RTEN-5010									
RTEN-5020	140	70	42	130	60	M4	M4	4.5	
RTEN-5030									
RTEN-5040	170	90	54	160	80	M5	M4	4.5	
RTEN-5050									
RTEN-5060									

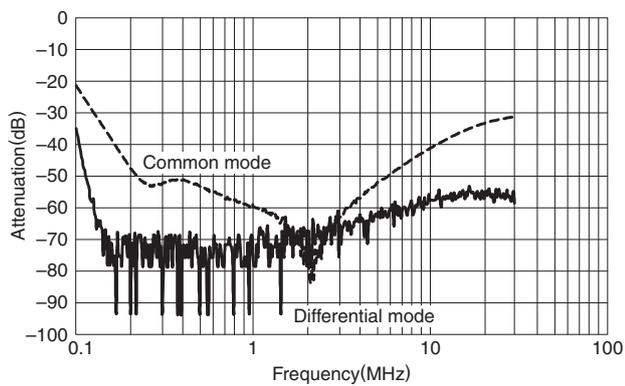
RTHC-5100



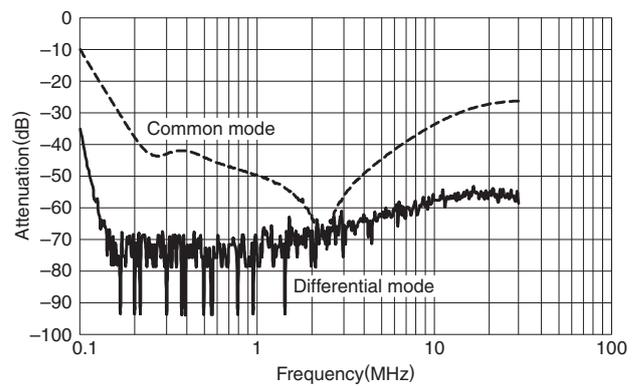
RTHC-5150



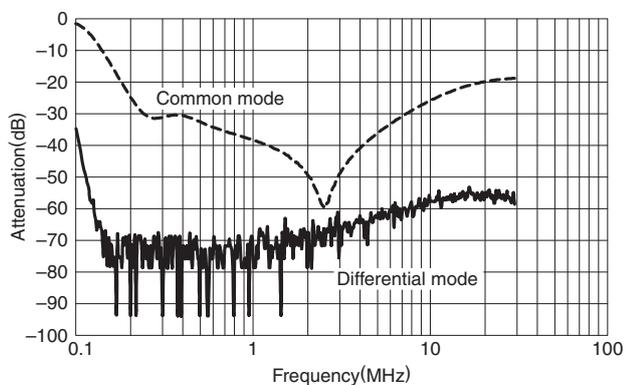
RTHC-5200



RTHC-5250



RTHC-5300



# RTHN SERIES

## High-Attenuation Three-Phase Filter with Many Current Variations (Thin Type)



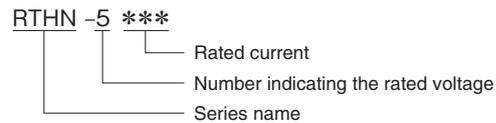
### FEATURES

- 6 to 300A wide range lineup.
- High attenuation, thin type with L2.
- Low-profile design.
- Self-tightening screws and an open/close type cover make wiring work easier.
- Terminal block cover included for safety.
- Compliant with RoHS directives.

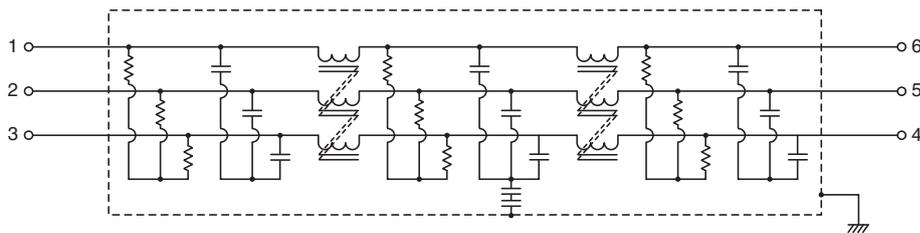
### SAFETY STANDARDS

- |         |  |
|---------|--|
| UL1283  | File No. E62388 (Up to 150A)             |
| EN60939 | Licence Ref. No. SE/07115-4 (Up to 300A) |

### PRODUCT IDENTIFICATION



### CIRCUIT DIAGRAMS



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

• All specifications are subject to change without notice.

## 単相 標準・ワイヤタイプ

RoHS



CSA UL

Delivery  
納期ココが  
特長

## 単相電源ラインからのノイズ防止、小型タイプ

- 小型汎用タイプで1~3Aをラインアップ
- ワイヤタイプで配線作業容易



ご注意

- ・ノイズフィルタは汎用インバータとモータ間には使用できません。
- ・漏電ブレーカ選定の際には、ノイズフィルタの漏洩電流を考慮して選定をしてください。

1台から注文OK!

## 出荷日

1~10台	翌日(当日)
11台~	都度見積

当日出荷は、17時までに都度お申し付けください。

在庫品

Order  
注文例

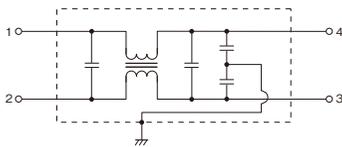
型式

ENF-RSEL-2003W



型式	回路構成	定格電流	形状 (取付方法)	基準単価		スライド単価
				1~4台	5~9台	10台~
ENF-RSEL-2001W	単相	1A	ワイヤタイプ (直付)	¥700	¥650	¥600
ENF-RSEL-2002W		2A		¥700	¥650	¥600
ENF-RSEL-2003W		3A		¥700	¥650	¥600

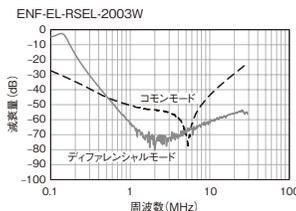
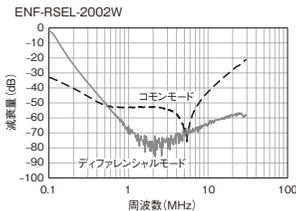
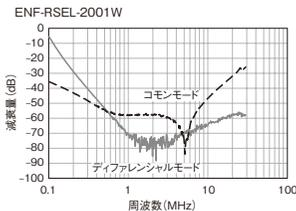
## 回路図



## 仕様

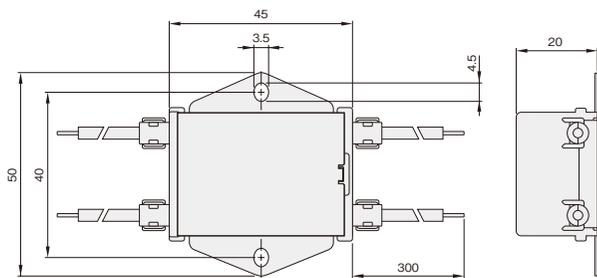
型式	ENF-RSEL-2001W	ENF-RSEL-2002W	ENF-RSEL-2003W
メーカー型式	RSEL-2001W	RSEL-2002W	RSEL-2003W
回路構成	単相		
定格電圧(AC/DC)	250V		
定格電流(AC/DC)	1A	2A	3A
耐電圧	AC2500V 1分間 at 20°C,65%RH: ライン-アース間		
絶縁抵抗	100MΩ min. DC500V at 20°C,65%RH: ライン-アース間		
漏洩電流	1.0mA max.		
直流抵抗	600mΩ max.	250mΩ max.	150mΩ max.
減衰量保証帯域	コモンモード	0.3~10MHz	0.5~10MHz
	ディファレンシャルモード	0.5~30MHz	0.5~30MHz
動作環境	温度: -25~+85°C、15~85%RH(結露なきこと)		
安全規格	UL1283, CSA C22.2 No.8, EN60939		
質量	58g	61g	61g

## 減衰量周波数特性

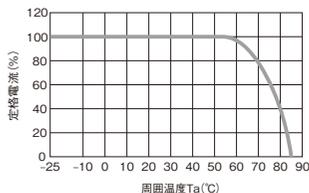


## 外形図

(単位: mm)



## デレーティング



## スイッチング電源

ケース付き

DINレール取付



▶1503ページ

▶1507ページ

単相 標準タイプ

RoHS



ココが  
特長

電源ラインからのノイズ侵入防止対策

- 低域ノイズ(150kHz~1MHz)に優れた減衰特性。
- 結線時のネジの脱落、粉防止構造。



ご注意

- ・ノイズフィルタは汎用インバータとモータ間には使用できません。
- ・漏電ブレーカ選定の際には、ノイズフィルタの漏洩電流を考慮して選定をしてください。

UL



納期

1台から注文OK!

出荷日

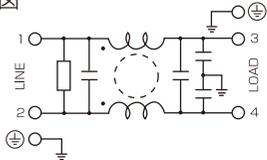
1~10台 翌日(当日)

11台~ 都度見積

当日出荷は、17時までにご都合お申し付けください。

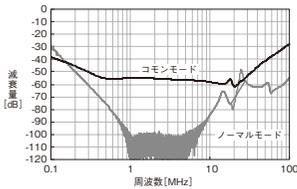
在庫品

回路図

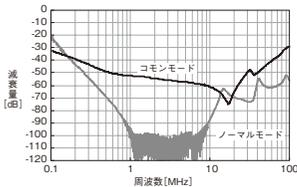


減衰量周波数特性

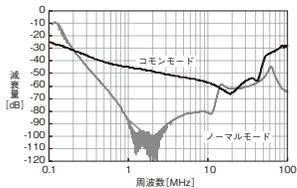
ENF-MA1206



ENF-MA1210



ENF-MA1216



Order  
注文例

型式
ENF-MA1206

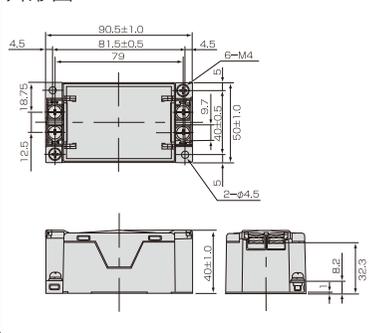
型式	定格電流	基準単価		
		1~2台	3~9台	10台~
ENF-MA1206	6A	¥1,850	¥1,750	¥1,600
ENF-MA1210	10A	¥1,950	¥1,850	¥1,700
ENF-MA1216	16A	¥2,050	¥1,950	¥1,800

仕様

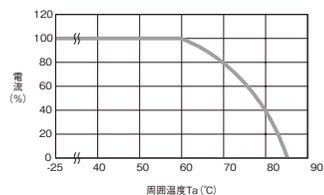
型式	ENF-MA1206	ENF-MA1210	ENF-MA1216
メーカー型式	MA1206	MA1210	MA1216
定格電圧(AC/DC)	250V		
定格電流(AC/DC)	6A	10A	16A
試験電圧	AC2.500V (20mA) 1分間/25℃、70%RH: 端子-FG間		
絶縁抵抗	100MΩmin DC500V/25℃、70%RH: 端子-FG間		
漏洩電流	0.5mA (最大)		
直流抵抗	120mΩ (最大)	50mΩ (最大)	20mΩ (最大)
動作環境	温度: -25 ~ +85℃、湿度: 30 ~ 95%RH (結露なきこと)		
安全規格	UL1283.EN60939		
質量	280g		

外形図

(単位: mm)



ディレーティング



単相 汎用タイプ

RoHS



ココが  
特長

電源コンセントラインからのノイズ防止

- タブ端子#250による結線



ご注意

- ・ノイズフィルタは汎用インバータとモータ間には使用できません。
- ・漏電ブレーカ選定の際には、ノイズフィルタの漏洩電流を考慮して選定をしてください。

CSA TÜV UL



納期

1個から注文OK!

出荷日

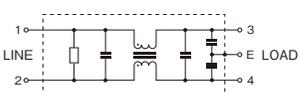
1~10台 翌日(当日)

11台~ 都度見積

当日出荷は、17時までにご都合お申し付けください。

在庫品

回路図



Order  
注文例

型式
ES1-F05

型式	定格電流	基準単価		
		1~2台	3~9台	10台~
ES1-F05	5A	¥1,800	¥1,650	¥1,450
ES1-F10	10A	¥1,850	¥1,700	¥1,500

販売: ミスミ/製造元: DONG IL TECHNOLOGY

仕様

型式	ES1-F05	ES1-F10
定格電圧(AC/DC)	250V	
定格電流(AC/DC)	5A	10A
耐電圧	AC1500V 1分間: ライン-アース間	
絶縁抵抗	300MΩ min. DC500V: ライン-アース間	
漏洩電流	0.5mA max.	
直流抵抗	290mΩ max.	50mΩ max.
動作環境	温度: -25 ~ +85℃	
タブ端子形状	#250(t=0.8)	
質量	230g	250g

ノイズ減衰特性

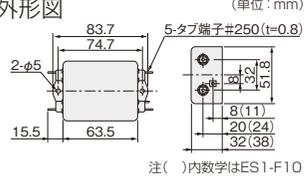
型式	コモンモード(L-G)減衰量(dB)									
	周波数帯域(MHz)									
	0.15	0.45	1	2	5	10	30			
ES1-F05	40	40	38	38	38	38	40			
ES1-F10	30	40	40	40	40	40	40			

型式	ノーマルモード(L-L)減衰量(dB)									
	周波数帯域(MHz)									
	0.15	0.45	1	2	5	10	30			
ES1-F05	20	55	70	70	61	58	52			
ES1-F10	22	60	70	70	70	65	50			

外形図

(単位: mm)



注( )内数字はES1-F10

スイッチング電源  
ノイズフィルタ  
アレスタ・トランス

ノイズフィルタ

セレクション  
ガイド

単相ノイズ  
フィルタ

三相ノイズ  
フィルタ

フェライトコア

の  
価格は値下げした  
商品です  
プライス  
ダウン

2012.9

2013.8

1528



## 単相 低背タイプ

RoHS



CSA UL

Delivery 納期

ココが特長

### 単相電源ラインからのノイズ侵入防止対策

- セルフアップネジ、開閉式カバーにより作業性向上
- DINレール取付タイプもラインナップ



・ノイズフィルタは汎用インバータとモータ間には使用できません。  
 ・漏電ブレーカ選定の際には、ノイズフィルタの漏洩電流を考慮して選定をしてください。

1台から注文OK!	
出荷日	
1~10台	翌日(当日)
11台~	都度見積

当日出荷は、17時までに都度お申し付けください。

在庫品



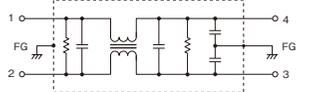
Order 注文例

型式	ENF-RSEN-2006
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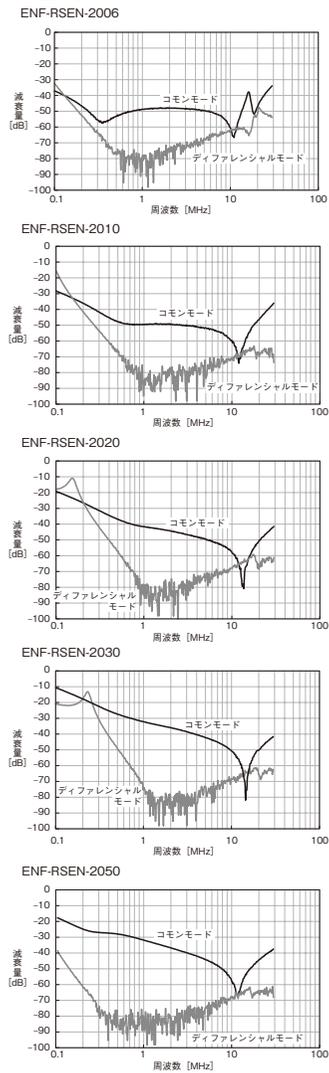


型式	回路構成	定格電流	形状 (取付方法)	基準単価		
				1~2台	3~9台	10台~
ENF-RSEN-2006	単相	6A	標準(直付)	¥1,800	¥1,700	¥1,550
ENF-RSEN-2006D			DINレール取付	¥2,050	¥1,950	¥1,800
ENF-RSEN-2010	単相	10A	標準(直付)	¥1,900	¥1,800	¥1,650
ENF-RSEN-2010D			DINレール取付	¥2,200	¥2,100	¥1,950
ENF-RSEN-2020	単相	20A	標準(直付)	¥2,050	¥1,950	¥1,800
ENF-RSEN-2020D			DINレール取付	¥2,350	¥2,250	¥2,100
ENF-RSEN-2030	単相	30A	標準(直付)	¥2,200	¥2,100	¥1,950
ENF-RSEN-2030D			DINレール取付	¥2,500	¥2,400	¥2,250
ENF-RSEN-2050	単相	50A	標準(直付)	¥9,800	¥9,300	¥8,600

### 回路図



### 減衰量周波数特性

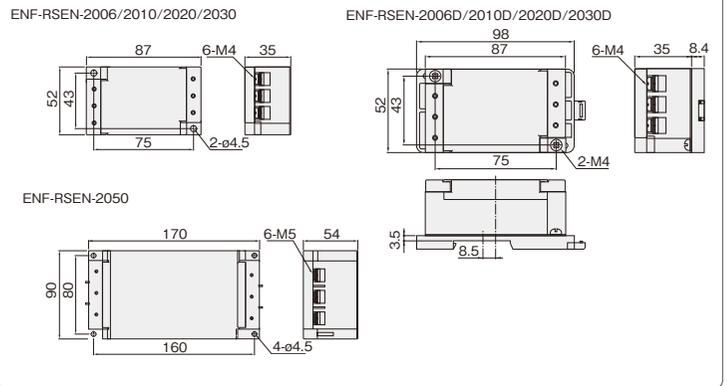


### 仕様

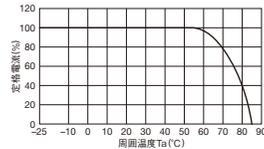
型式	標準	ENF-RSEN-2006	ENF-RSEN-2010	ENF-RSEN-2020	ENF-RSEN-2030	ENF-RSEN-2050
DINレール取付	標準	ENF-RSEN-2006D	ENF-RSEN-2010D	ENF-RSEN-2020D	ENF-RSEN-2030D	—
メーカー型式	標準	RSEN-2006	RSEN-2010	RSEN-2020	RSEN-2030	RSEN-2050
DINレール取付	標準	RSEN-2006D	RSEN-2010D	RSEN-2020D	RSEN-2030D	—
回路構成	単相					
定格電圧(AC/DC)	250V					
定格電流(AC/DC)	6A 10A 20A 30A 50A					
耐電圧	AC2500V 1分間 at 20°C,65%RH: ライン-アース間					
絶縁抵抗	100MΩ min. DC500V at 20°C,65%RH: ライン-アース間					
漏洩電流	1.0mA max.					
直流抵抗	110mΩ max. 40mΩ max. 10mΩ max. 6mΩ max. 6mΩ max.					
減衰量保証帯域	コモンモード	0.1~10MHz	0.2~20MHz	0.4~30MHz	2~30MHz	1~30MHz
25dB保証	ディファレンシャルモード	0.2~30MHz	0.2~30MHz	0.3~30MHz	0.4~30MHz	0.2~30MHz
動作環境	温度: -25~+85°C, 15~85%RH(結露なきこと)					
安全規格	UL1283, CSA C22.2 No.8, EN60939					
質量	標準	230g	230g	230g	230g	865g
	DINレール取付	260g	260g	260g	260g	—

### 外形図

(単位: mm)



### ディレーティング



スイッチング電源  
 ケース付き DINレール取付

●1503ページ ●1507ページ

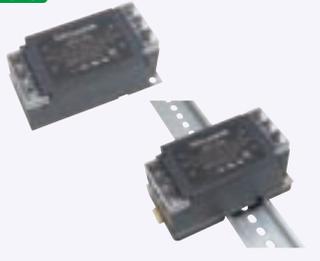
スイッチング電源  
 ノイズフィルタ  
 アレスタ・トランス

スイッチング電源  
 ACアダプタ  
 ノイズフィルタ  
 アレスタ  
 トランス



## 単相 高減衰タイプ

RoHS



CSA UL



Delivery 納期

ココが特長

### 単相電源ラインからのノイズ防止、高減衰タイプ

- セルフアップネジ、開閉式カバーにより作業性向上
- DINレール取付タイプもラインアップ



ご注意

- ・ノイズフィルタは汎用インバータとモータ間には使用できません。
- ・漏電ブレーカ選定の際には、ノイズフィルタの漏洩電流を考慮して選定してください。

1台から注文OK!

出荷日

1~10台	翌日(当日)
11台~	都度見積

当日出荷は、17時までに都度お申し付けください。

在庫品

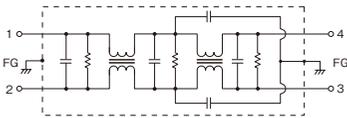


Order 注文例

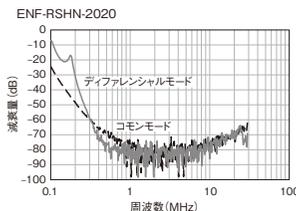
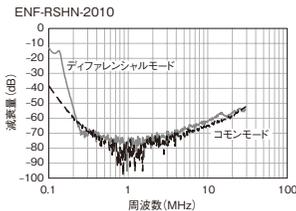
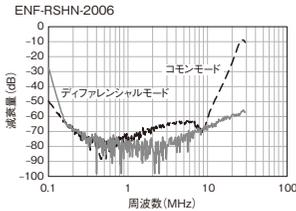
型式

ENF-RSHN-2006

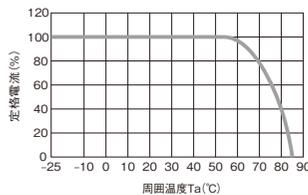
回路図



減衰量周波数特性



デレーティング



型式	回路構成	定格電流	形状 (取付方法)	基準単価		スライド単価
				1~2台	3~9台	10台~
ENF-RSHN-2006	単相	6A	標準(直付)	¥2,200	¥2,100	¥1,950
ENF-RSHN-2006D			DINレール取付	¥2,500	¥2,400	¥2,250
ENF-RSHN-2010		10A	標準(直付)	¥2,600	¥2,400	¥2,150
ENF-RSHN-2010D			DINレール取付	¥2,900	¥2,700	¥2,450
ENF-RSHN-2020		20A	標準(直付)	¥3,500	¥3,200	¥2,800
ENF-RSHN-2020D			DINレール取付	¥3,800	¥3,500	¥3,100

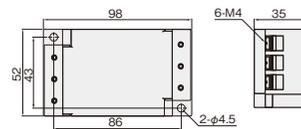
仕様

型式	標準	ENF-RSHN-2006	ENF-RSHN-2010	ENF-RSHN-2020
DINレール取付		ENF-RSHN-2006D	ENF-RSHN-2010D	ENF-RSHN-2020D
メーカー型式	標準	RSHN-2006	RSHN-2010	RSHN-2020
DINレール取付		RSHN-2006D	RSHN-2010D	RSHN-2020D
回路構成	単相			
定格電圧(AC/DC)	250V			
定格電流(AC/DC)		6A	10A	20A
耐電圧	AC2500V 1分間 at 20°C,65%RH: ライン-アース間			
絶縁抵抗	100MΩ min. DC500V at 20°C,65%RH: ライン-アース間			
漏洩電流	1.0mA max.			
直流抵抗		140mΩ max.	60mΩ max.	22mΩ max.
減衰量保証帯域	コモンモード	0.1~10MHz	0.1~30MHz	0.2~30MHz
25dB保証	ディファレンシャルモード	0.2~30MHz	0.3~30MHz	0.4~30MHz
動作環境	温度: -25~+85°C、15~85%RH(結露なきこと)			
安全規格	UL 1283, CSA C22.2 No.8, EN60939			
質量	標準	240g	240g	350g
	DINレール取付	270g	270g	400g

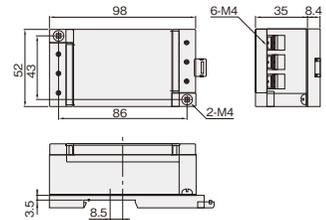
外形図

(単位: mm)

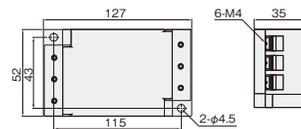
ENF-RSHN-2006/2010



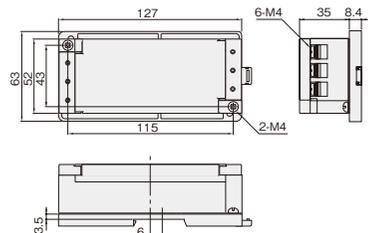
ENF-RSHN-2006D/2010D



ENF-RSHN-2020



ENF-RSHN-2020D





## 三相 低背タイプ

RoHS



UL



Delivery  
納期

1台から注文OK!

出荷日

1~10台	翌日(当日)
11台~	都度見積

当日出荷は、17時までに都度お申し付けください。

在庫品

ココが特長

### 三相電源ラインからのノイズ侵入防止対策

- セルフアップネジ、開閉式カバーにより作業性向上
- DINレール取付タイプもラインナップ



ご注意

- ・ノイズフィルタは汎用インバータとモータ間には使用できません。
- ・漏電ブレーカ選定の際には、ノイズフィルタの漏れ電流を考慮して選定をしてください。

スイッチング電源  
ノイズフィルタ  
アレスト・トランス

ノイズフィルタ

スイッチング電源

ACアダプタ

ノイズフィルタ

アレスト

トランス

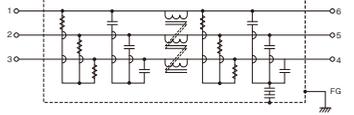


Order  
注文例

型式

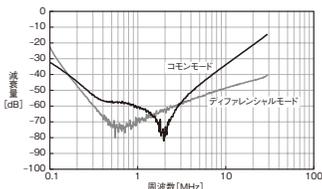
ENF-RTEN-5006

回路図

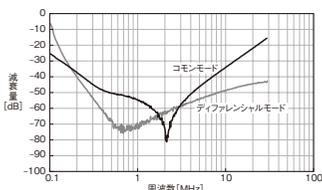


### 減衰量周波数特性

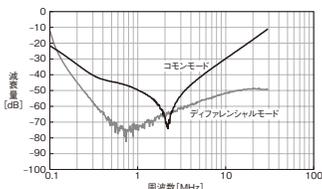
ENF-RTEN-5006



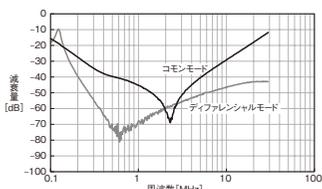
ENF-RTEN-5010



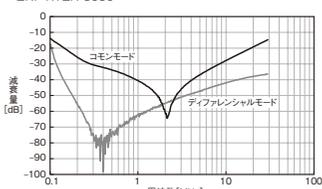
ENF-RTEN-5020



ENF-RTEN-5030



ENF-RTEN-5050



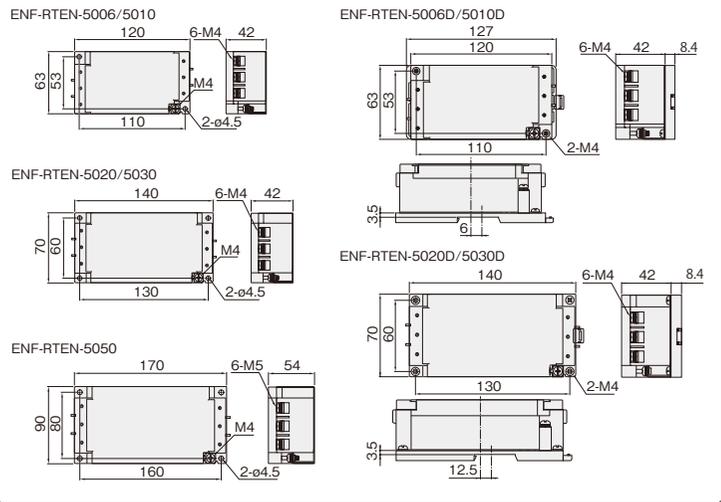
型式	回路構成	定格電流	形状 (取付方法)	基準単価		スライド単価
				1~2台	3~9台	10台~
ENF-RTEN-5006	三相	6A	標準(直付)	¥3,750	¥3,600	¥3,400
ENF-RTEN-5006D			DINレール取付	¥4,150	¥4,000	¥3,800
ENF-RTEN-5010		10A	標準(直付)	¥4,000	¥3,850	¥3,600
ENF-RTEN-5010D			DINレール取付	¥4,200	¥4,050	¥3,800
ENF-RTEN-5020		20A	標準(直付)	¥5,300	¥5,050	¥4,700
ENF-RTEN-5020D			DINレール取付	¥5,700	¥5,450	¥5,100
ENF-RTEN-5030	30A	標準(直付)	¥6,000	¥5,700	¥5,300	
ENF-RTEN-5030D		DINレール取付	¥6,300	¥6,000	¥5,600	
ENF-RTEN-5050	50A	標準(直付)	¥13,500	¥12,700	¥11,800	

### 仕様

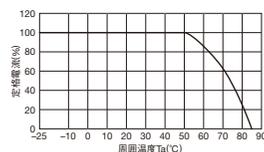
型式	標準	ENF-RTEN-5006	ENF-RTEN-5010	ENF-RTEN-5020	ENF-RTEN-5030	ENF-RTEN-5050
型式	標準	ENF-RTEN-5006D	ENF-RTEN-5010D	ENF-RTEN-5020D	ENF-RTEN-5030D	—
メーカー型式	標準	RTEN-5006	RTEN-5010	RTEN-5020	RTEN-5030	RTEN-5050
回路構成	標準	RTEN-5006D	RTEN-5010D	RTEN-5020D	RTEN-5030D	—
回路構成	三相					
定格電圧(AC/DC)	500V					
定格電流(AC/DC)	6A		10A	20A	30A	50A
耐電圧	AC2500V 1分間 at 20°C, 65%RH: ライン-アース間					
絶縁抵抗	100MΩ min. DC500V at 20°C, 65%RH: ライン-アース間					
漏れ電流	2.5mA max. (250V)/5.0mA max. (500V)					
直流抵抗	145mΩ max.		60mΩ max.	25mΩ max.	13mΩ max.	7mΩ max.
減衰量保証	コモンモード	0.2~10MHz	0.3~8MHz	0.5~8MHz	0.3~7MHz	0.5~7MHz
帯域	ディファレンシャルモード	0.2~30MHz	0.2~30MHz	0.2~30MHz	0.2~30MHz	0.2~30MHz
25dB保証	ディファレンシャルモード	0.2~30MHz	0.2~30MHz	0.2~30MHz	0.2~30MHz	0.2~30MHz
動作環境	温度: -25~+85°C, 15~85%RH(結露なきこと)					
安全規格	UL1283, EN60939					
質量	標準	360g	360g	560g	560g	1100g
	DINレール取付	400g	400g	620g	620g	—

### 外形図

(単位: mm)



### ディレーティング



### スイッチング電源

ケース付き DINレール取付

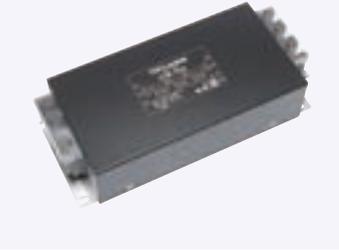


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○1507ページ

## 三相 高減衰タイプ

RoHS



UL



Delivery  
納期

の  
価格は値下げした  
商品です  
**プライス  
ダウン**

**ココが  
特長**

### 三相電源ラインからのノイズ防止、高減衰タイプ

- L2段で高減衰・低背タイプ
- セルフアップネジ、開閉式カバーにより作業性向上



ご注意

- ・ノイズフィルタは汎用インバータとモータ間には使用できません。
- ・漏電ブレーカ選定の際には、ノイズフィルタの漏洩電流を考慮して選定してください。

**1台から注文OK!**

### 出荷日

1~4台 翌日(当日)

5台~ 都度見積

当日出荷は、17時までに都度お申し付けください。

在庫品



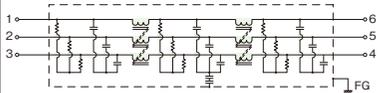
Order  
注文例

型式  
**ENF-RTHN-5006**

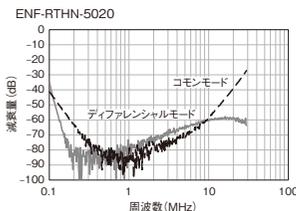
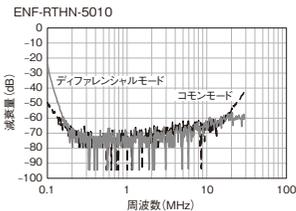
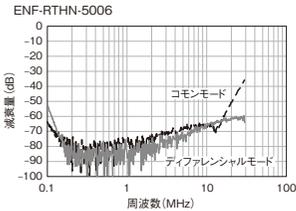


型式	回路構成	定格電流	形状 (取付方法)	基準単価 1~2台	スライド単価 3~9台	スライド単価 10台~
ENF-RTHN-5006	三相	6A	標準(直付)	¥12,000	¥11,300	¥10,400
ENF-RTHN-5010		10A		¥13,000	¥12,300	¥11,400
ENF-RTHN-5020		20A		¥15,000	¥14,000	¥12,800

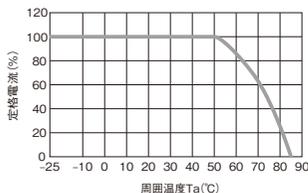
### 回路図



### 減衰量周波数特性



### ディレーティング

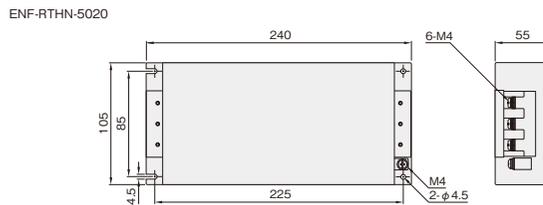
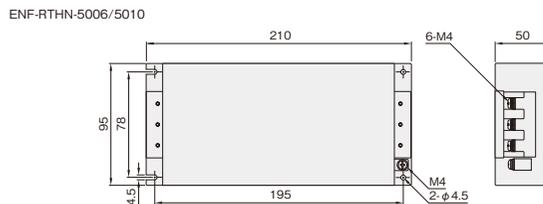


### 仕様

型式	ENF-RTHN-5006	ENF-RTHN-5010	ENF-RTHN-5020
メーカー型式	RTHN-5006	RTHN-5010	RTHN-5020
回路構成	三相		
定格電圧(AC/DC)	500V		
定格電流(AC/DC)	6A	10A	20A
耐電圧	AC2500V 1分間 at 20°C,65%RH: ライン-アース間		
絶縁抵抗	100MΩ min. DC500V at 20°C,65%RH: ライン-アース間		
漏洩電流	2.5mA max.(250V)/5.0mA max.(500V)		
直流抵抗	290mΩ max.	120mΩ max.	50mΩ max.
減衰量保証帯域	コモンモード	0.1~30MHz	0.1~20MHz
	ディファレンシャルモード	0.1~30MHz	0.2~30MHz
動作環境	温度: -25~+85°C, 15~85%RH(結露なきこと)		
安全規格	UL1283, EN60939		
質量	700g	700g	1000g

### 外形図

(単位: mm)



### スイッチング電源

ケース付き DINレール取付



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スイッチング電源  
ノイズフィルタ  
アレスタ・トランス

ノイズフィルタ

セレクトション  
ガイド

単相ノイズ  
フィルタ

三相ノイズ  
フィルタ

フェライトコア