PRODUCT INFORMATION Selection guide

Ultra high-attenuation type(2-Stage filter)(Single Phase)
Difference from old single phase 250V noise filters:
(1) Can select leakage current
(2) Withstand voltage 4,000VAC(Line to ground capacitor code -000 to -471)
(3) Push-down style terminal block prevents screw drop-out and cover loss
Can be used for many purposes.

Product Lineup
| NBH |

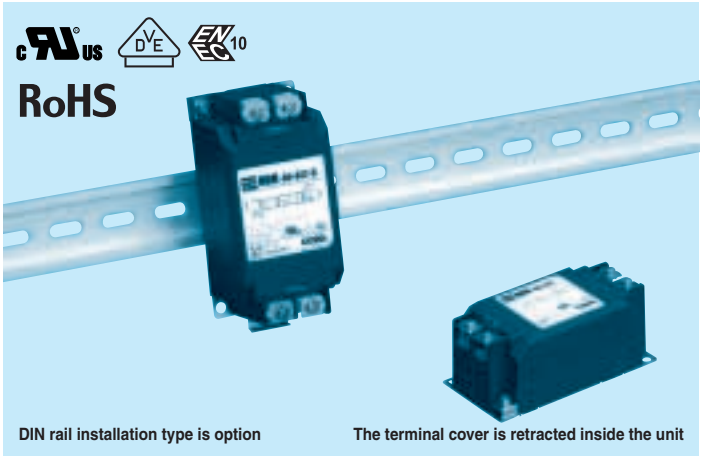
CATALOG DATA DOWN LOAD
Technical Data
Specifications, circuit diagram and derating curve
Characteristic data • Instruction manual • About noise filters

NBH Series : Ultra high-attenuation type of common mode noise from 10KHz to 10MHz(2-Stage filter)(Single Phase)

- **Features**
  - **Ultra high-attenuation type of common mode noise from 10kHz to 10MHz**
  - **Single Phase 250 VAC**
  - **Selectable leakage current**
  - **Withstand voltage 4,000VAC(Line to ground capacitor code -000 to -471)**
  - **Quick and easy push-down terminal**
    Just connect the wires, push down and tighten the screws with a screwdriver
  - **DIN rail installation type(Option)**
- **Safety agency approvals**
  - **UL1283**
  - **CSA C22.2 No.8 (C-UL)**
  - **DIN EN60939 VDE0565 Teil 3-1**
  - **ENEC**
- **Environment**
  - **RoHS directive**
- **5-year warranty**

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

NBH series



DIN rail installation type is option

The terminal cover is retracted inside the unit

Ordering information

NBH -10 -432 -□

① ② ③ ④

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

table1.1 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 μA/ 10μA max	Not Provided	Not Provided	4,000VAC
101	12.5 μA/ 25μA max	100pF	Not Provided	
221	25 μA/ 50μA max	220pF	Not Provided	
331	37.5 μA/ 75μA max	330pF	Not Provided	
471	50 μA/100μA max	470pF	Not Provided	
681	75.5 μA/150μA 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.

④Options
D:DIN rail installation type

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

Features of NBH series

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

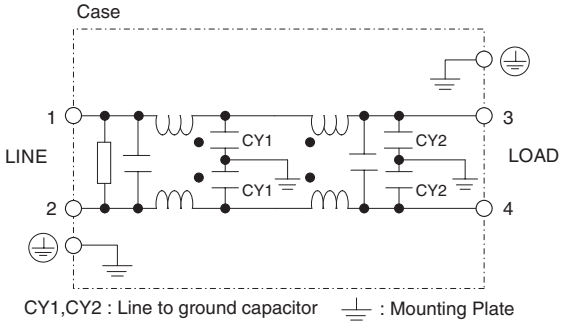
- Single Phase 250 VAC
- Withstand voltage 4,000 VAC
  (Line to ground capacitor code -000 to -471)
- Quick and easy push-down terminal
  Just connect the wires, push down and tighten the screws with a screwdriver

Specifications

No.	Items	NBH-06-432	NBH-10-432	NBH-16-432	NBH-20-432	NBH-30-432
1	Rated Voltage[V]	AC 1φ 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 100MΩ 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℃ (Refer to Derating Curve A)		-25 to +85℃ (Refer to Derating Curve B)		
8	Operating temperature	-40 to +85℃ (Refer to Derating Curve A)		-40 to +85℃ (Refer to Derating Curve B)		
9	Operating humidity	20 to 95%RH (Non condensing)				
10	Storage temperature/humidity	-40 to +85℃/20 to 95%RH (Non condensing)				
11	Vibration	10 to 55Hz, 19.6m/s² (2G), 3min. Period, 1hour each X, Y and Z axis				
12	Impact	196.1m/s² (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) /Mass	53×43×104 mm (W×H×D) /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)

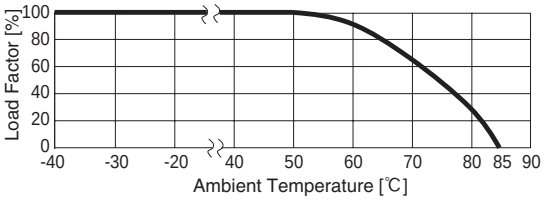
Circuit Diagram



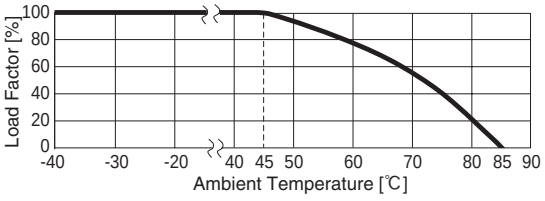
CY1,CY2 : Line to ground capacitor ⏚ : Mounting Plate

Derating Curve

Derating Curve (A) 6,10A



Derating Curve (B) 16 to 30A

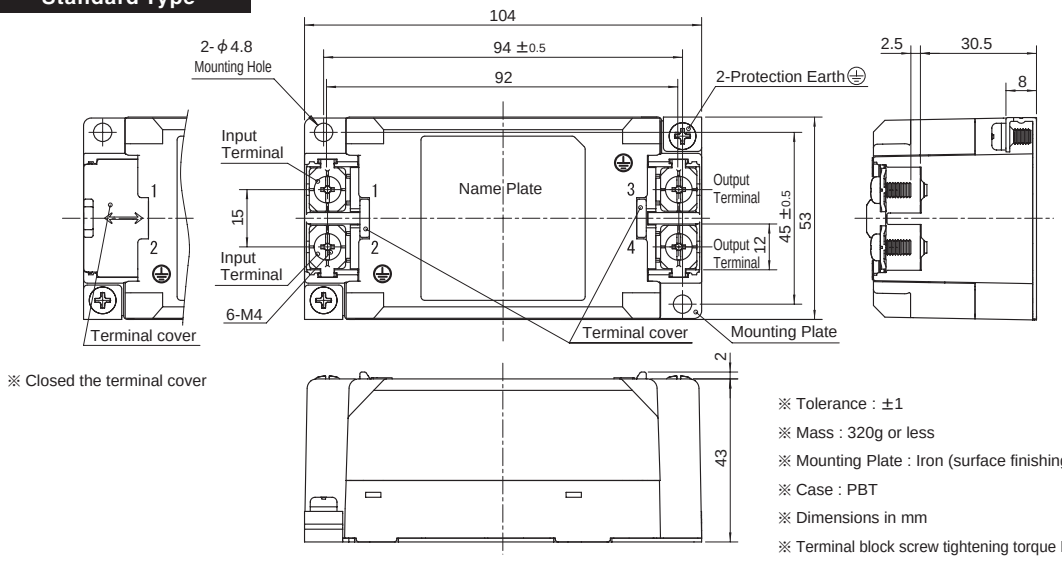


Noise Filter

External view

This product is shipped in the following condition, because it is equipped with push-down terminals.
①The terminal cover is retracted inside the unit.
②The screws for connecting the terminals are held in the up right position.

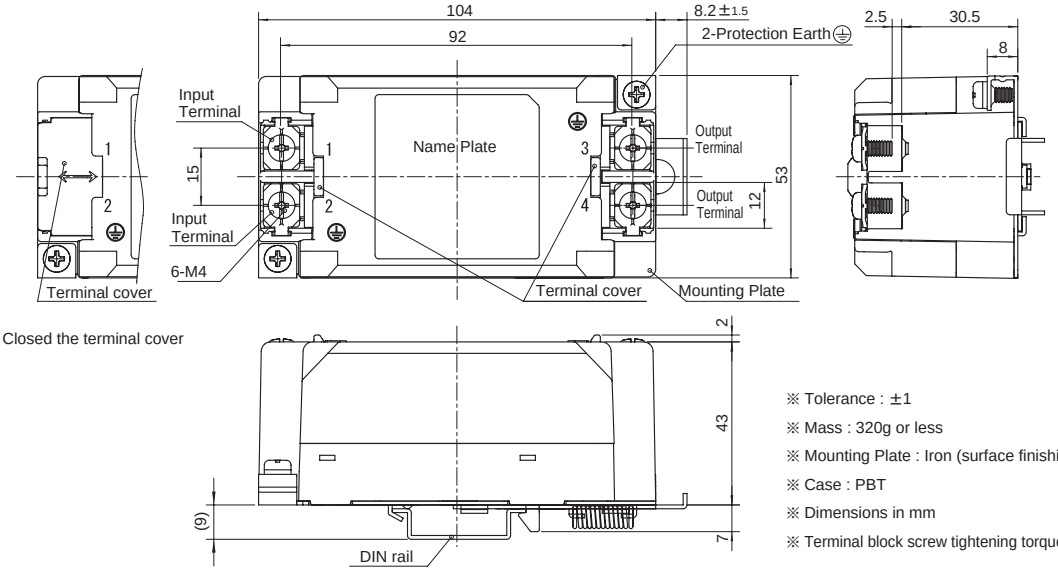
Standard Type



※ Closed the terminal cover

※ Tolerance : ±1
※ Mass : 320g or less
※ Mounting Plate : Iron (surface finishing:nickel plating) t=1.0
※ Case : PBT
※ Dimensions in mm
※ Terminal block screw tightening torque M4:1.6N・m (16.9kgf・cm) max

DIN rail installation Type



※ Closed the terminal cover

※ Tolerance : ±1
※ Mass : 320g or less
※ Mounting Plate : Iron (surface finishing:nickel plating) t=1.0
※ Case : PBT
※ Dimensions in mm
※ Terminal block screw tightening torque M4:1.6N・m (16.9kgf・cm) max

■Note when installing the noise filter on a DIN rail.

When the noise 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 noise filter body to the earth.