

# NBC/NBM series

NBC -10 -472 -□

① ② ③ ④

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

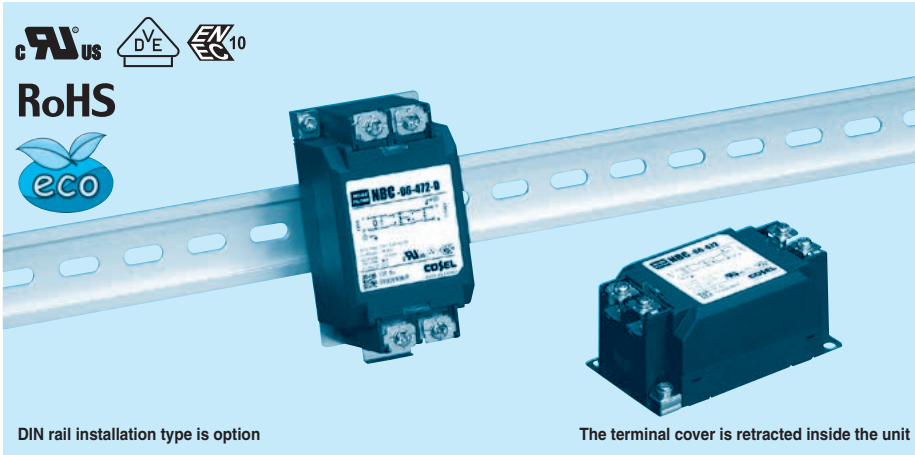
table 1.1 Line to ground capacitor code

| Code | NBC | NBM | 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  | ●   |     | 0.13 mA / 0.25mA max                  | 1,000pF                                  |
| 222  | ●   |     | 0.25 mA / 0.5 mA max                  | 2,200pF                                  |
| 332  | ●   |     | 0.38 mA / 0.75mA max                  | 3,300pF                                  |
| 472  | ●   |     | 0.5 mA / 1.0 mA max                   | 4,700pF                                  |

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

- ④ Option
- 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 NBC/NBM series

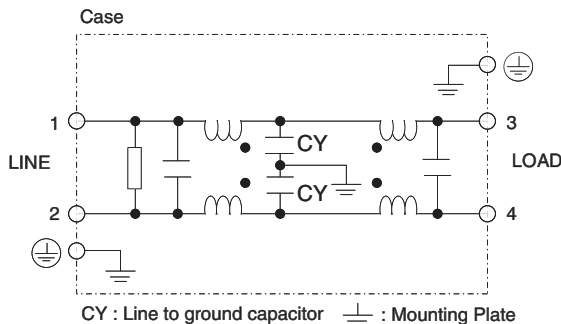
- Single Phase 250VAC (2-Stage filter)
  - Quick and easy push-down terminal
- Just connect the wires, push-down and tighten the screws with a screwdriver

- NBC : High-attenuation type from 150kHz to 1MHz
- NBM : Low leakage current, Withstand voltage 4,000 VAC

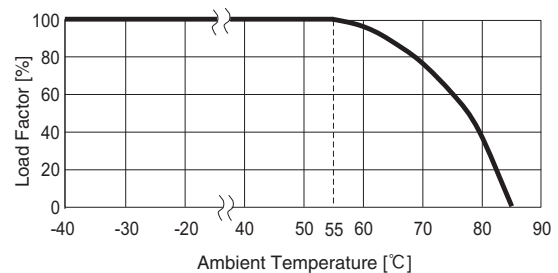
## Specifications

| No. | Items                                          | NBC-06-472                                                                                                                                                             | NBC-10-472 | NBC-16-472 | NBC-20-472 | NBC-30-472 |
|-----|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------|------------|------------|
|     |                                                | NBM-06-471                                                                                                                                                             | NBM-10-471 | NBM-16-471 | NBM-20-471 | NBM-30-471 |
| 1   | Rated Voltage[V]                               | AC 1 $\phi$ 250 / DC250                                                                                                                                                |            |            |            |            |
| 2   | Rated Current[A]                               | 6                                                                                                                                                                      | 10         | 16         | 20         | 30         |
| 3   | Test Voltage (Terminal-Mounting Plate)         | NBC : 2,500 VAC (Cutoff Current = 20mA), 1minute at room temperature and humidity<br>NBM : 4,000 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                                | Refer to table 1.1                                                                                                                                                     |            |            |            |            |
| 6   | Voltage drop                                   | 1.0V 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         | 53X41X92 mm [2.09X1.61X3.62 inches] (W X H X D) /270g max (Option : -D refer to external view)                                                                         |            |            |            |            |

## Circuit Diagram



## Derating Curve

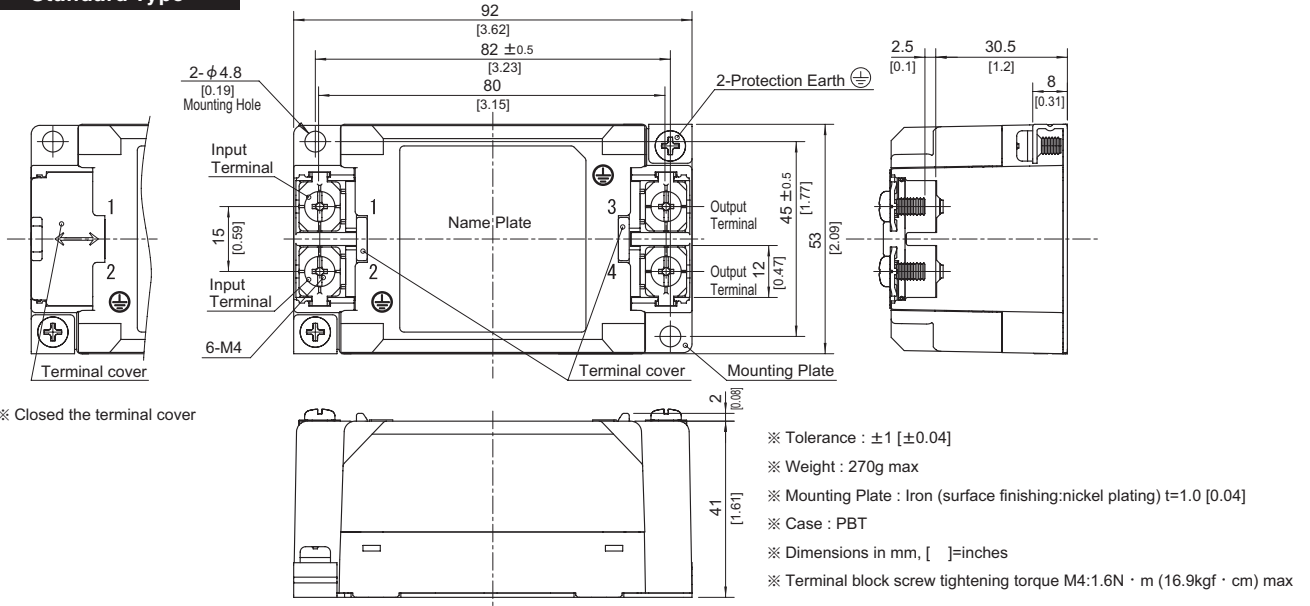


## External view

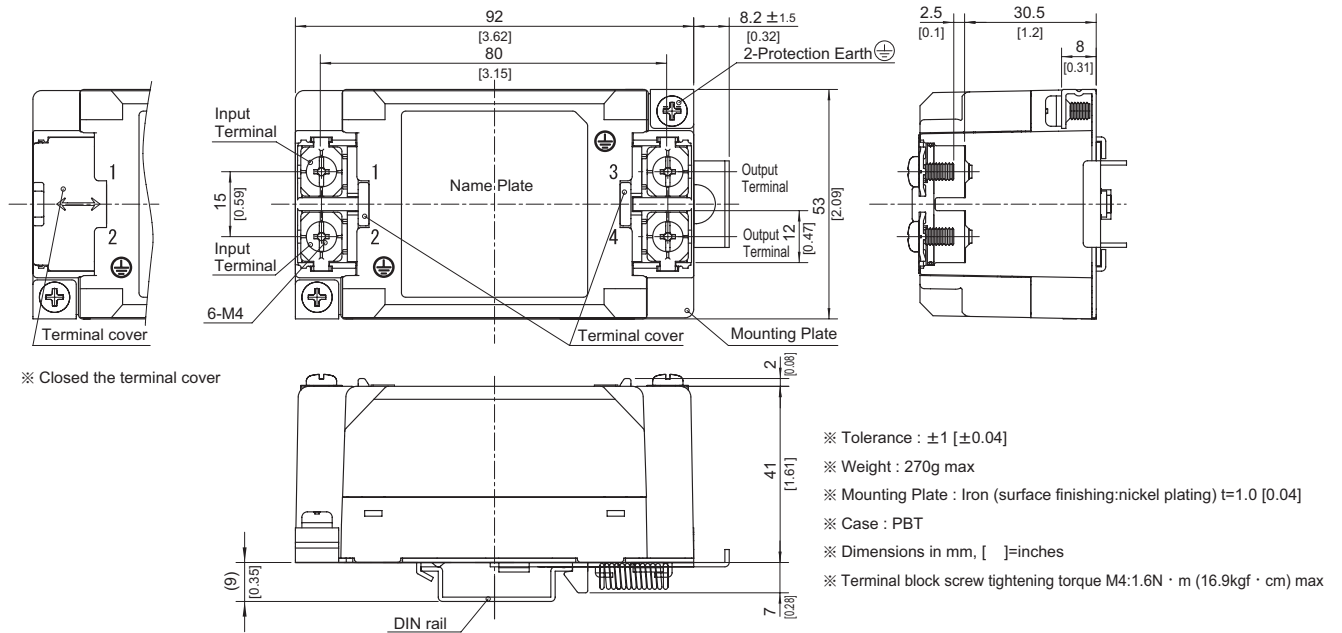
This product is shipped in the following condition, because it is equipped with push-down terminals.

- 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



### 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. At least one PE connection is required.

