

# ESC/ESM/ESP series

ESC -10 -472 -□

① ② ③ ④

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

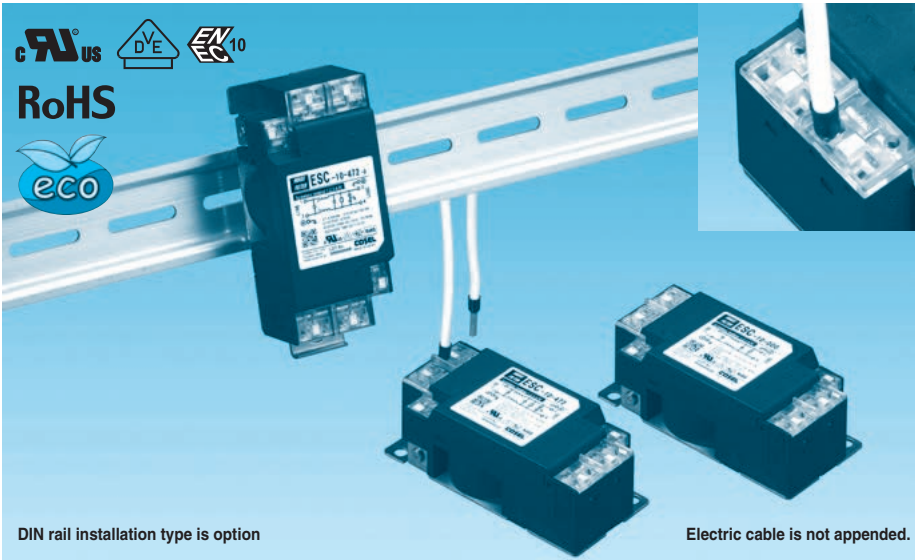
table 1.1 Line to ground capacitor code

Code	E S C	E S M	E S P	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

Electric cable is not appended.

## Features of ESC/ESM/ESP series

- Single Phase 250VAC (1-Stage filter)
- Small EMI/EMC Filters that change input-output terminal and protection earth terminal of EA series into screwless terminal type
- Torque management is unnecessary with screwless

■ ESC : Attenuation type from 150kHz to 1MHz

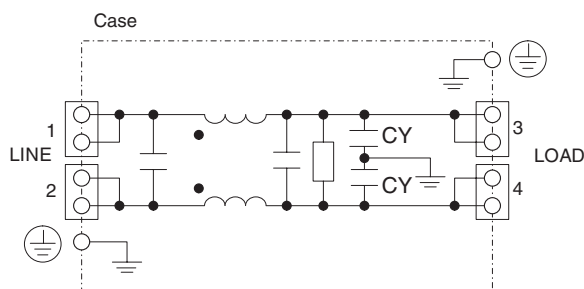
■ ESM : Low leakage current type

■ ESP : Outside impulse attenuation type

## Specifications

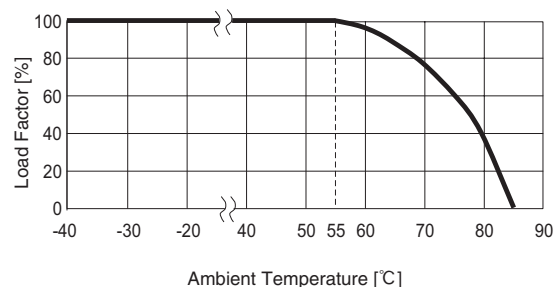
No.	Items	ESC-03-472	ESC-06-472	ESC-10-472	ESC-16-472
		ESM-03-000	ESM-06-000	ESM-10-000	ESM-16-000
		ESP-03-472	ESP-06-472	ESP-10-472	ESP-16-472
1	Rated Voltage[V]	AC 1 $\phi$ 250 / DC250			
2	Rated Current[A]	3	6	10	16
3	Test Voltage (Terminal-Mounting Plate)	2,500 VAC (Cutoff Current = 20mA), 1minute at room temperature and humidity			
4	Isolation Resistance (Terminal-Mounting Plate)	500 VDC 500M $\Omega$ min at room temperature and humidity			
5	Leakage current	Refer to table 1.1			
6	DC resistance	180m $\Omega$ max	110m $\Omega$ max	40m $\Omega$ max	20m $\Omega$ 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	39X30X85 mm [1.54X1.18X3.35 inches] (W X H X D) /170g max (Option : -D refer to external view)			

## Circuit Diagram



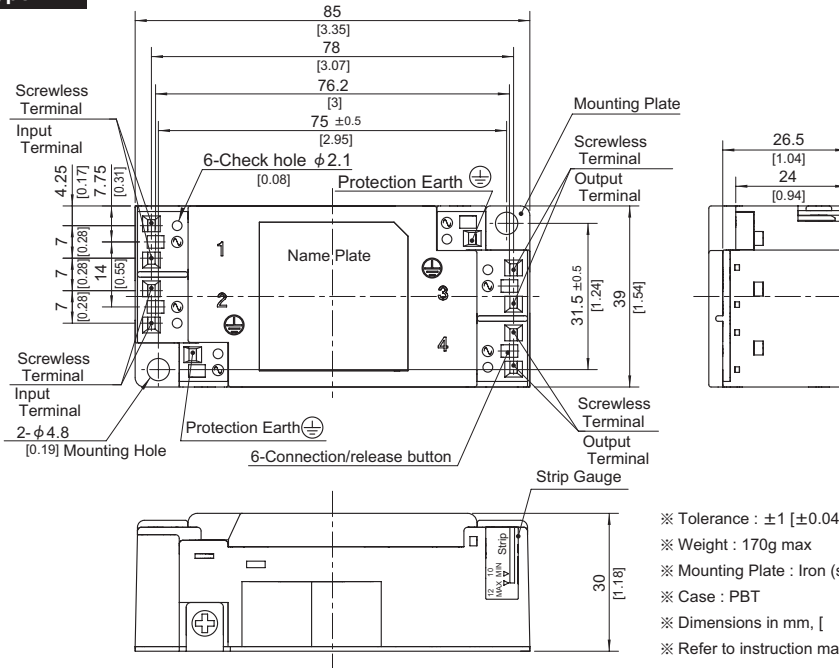
CY : Line to ground capacitor  $\perp$  : Mounting Plate

## Derating Curve

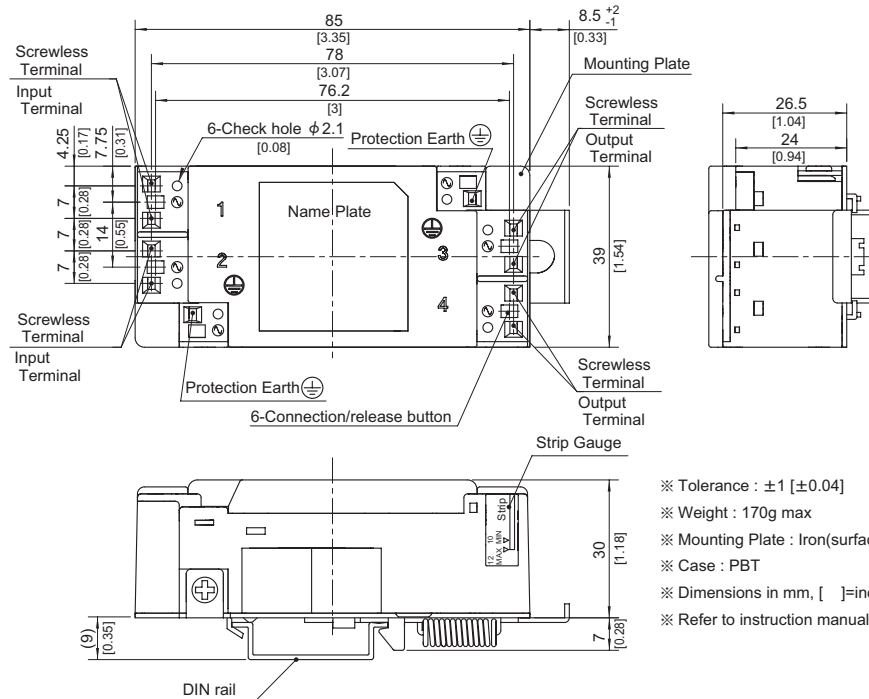


## External view

### 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.

It can connect the ground to either one only.

