

# JAC series(6-30A)

JAC -30 -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

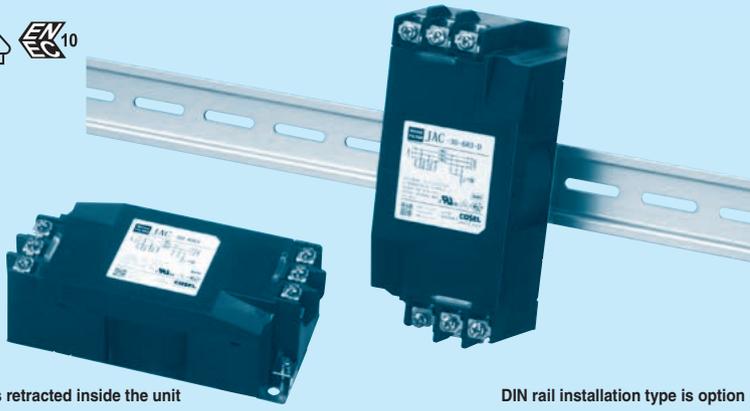
Code	Leakage Current (Input 250/500V 60Hz) (Only "224" is 250/400V 60Hz)	Line to ground capacitor (nominal value)
103	0.5mA / 1.0mA max	10,000pF
223	1.0mA / 2.0mA max	22,000pF
683	2.5mA / 5.0mA max	68,000pF
224	15mA / 24mA max	220,000pF

\* 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.
- H: Ultra high-attenuation type  
"103", "223", "683" is applied.
- U: Improve differential mode attenuation (Rated voltage 250V)



RoHS



The terminal cover is retracted inside the unit

DIN rail installation type is option

## Features of JAC series

### Compact and low profile, common mode EMI/EMC filters in 150kHz to 1MHz (1-stage filter)

- Three Phase 500 VAC
- Push down type terminal block
- Selectable leakage current value, Ultra high-attenuation type "224" for EU (Y type with neutral earth system)

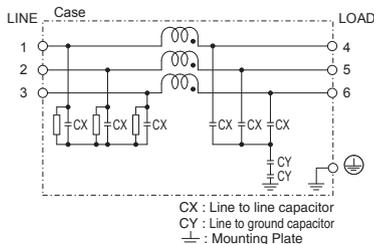
## Specifications

No.	Items	JAC-06-683	JAC-10-683	JAC-20-683	JAC-30-683
1	Rated Voltage[V]	AC Three Phase 500 (voltage range: 528 max) 50/60Hz *1 *2			
2	Rated Current[A]	6	10	20	30
3	Test Voltage (Terminal-Mounting Plate)	2,500 VAC (Cutoff Current = 100mA), 1minute at room temperature and humidity *3			
4	Isolation Resistance (Terminal-Mounting Plate)	500 VDC 100MΩ min at room temperature and humidity *4			
5	Leakage current 250/500V 60Hz	2.5mA/5.0mA max			
6	DC resistance	100mΩ max	45mΩ max	15mΩ max	8mΩ 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)	63 X 44 X 132 mm (W X H X D) (Option: -D refer to external view) [2.48 X 1.73 X 5.20 inches] (W X H X D)			
15	Weight	440g max			

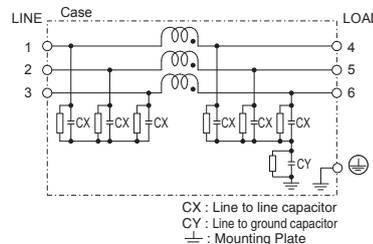
- \*1 Capacitor code "224" : Three Phase Δ-connection 400 (440 max), Y-connection 500 (528 max).
- \*2 "JAC-□□□□□□□□□□-U" : Three Phase 250 (275 max).
- \*3 Capacitor code "224" : 2,800VDC (Cutoff Current = 10mA), 1 minute at room temperature and humidity.
- \*4 Capacitor code "224" : Isolation resistance specification is deleted.

## Circuit Diagram

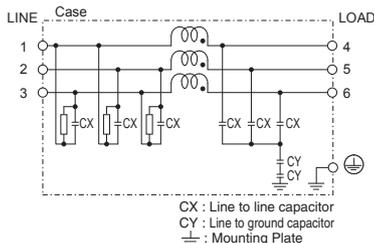
(1) Line to ground capacitor code : 103, 223, 683



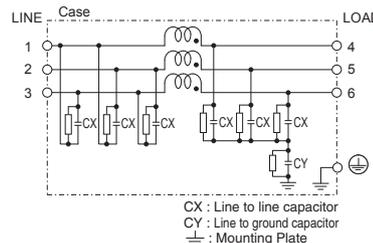
(2) Line to ground capacitor code : 224



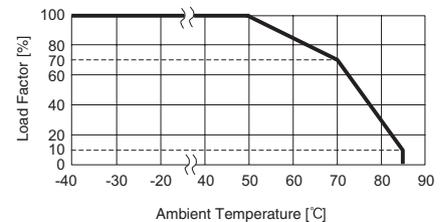
(3) Line to ground capacitor code : 103, 223, 683  
Option : U



(4) Line to ground capacitor code : 224  
Option : U



## Derating Curve

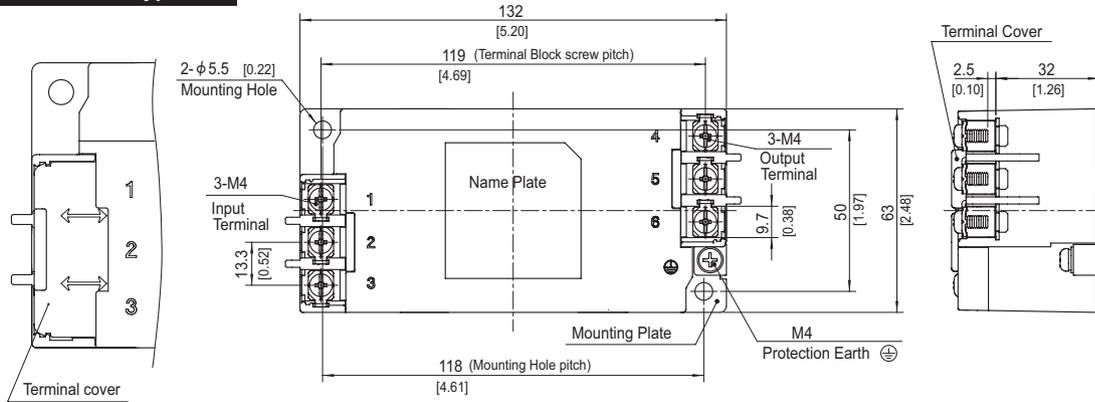


## External view

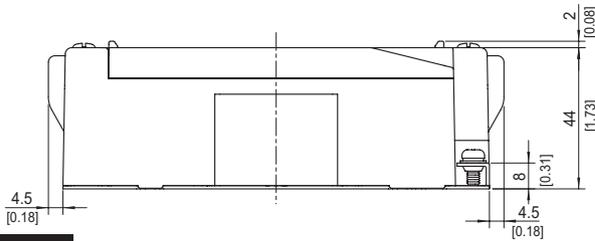
This product is shipped in the following condition, because it is equipped with push-down terminals.

- 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

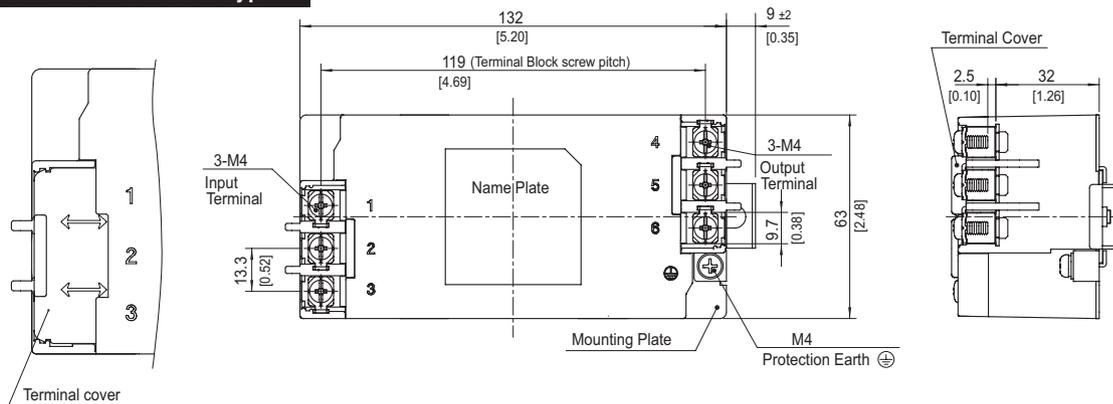


※ Close the terminal cover

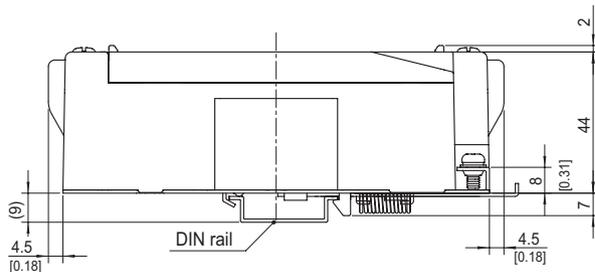


- ※ Tolerance :  $\pm 1[\pm 0.04]$
- ※ Weight : 440g max
- ※ Mounting Plate : Iron(surface finishing : nickel plating)  $t=1.0[0.04]$
- ※ Case : PBT
- ※ Dimensions in mm, [ ]=inches
- ※ Terminal block screw tightening torque M4 :  $1.6N \cdot m(16.9kgf \cdot cm)$ max

### DIN rail installation Type



※ Close the terminal cover

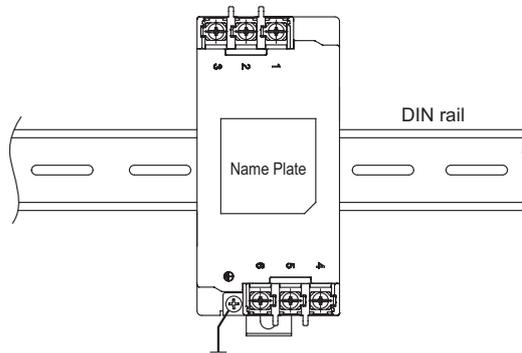


- ※ Tolerance :  $\pm 1[\pm 0.04]$
- ※ Weight : 440g max
- ※ Mounting Plate : Iron(surface finishing : nickel plating)  $t=1.0[0.04]$
- ※ Case : PBT
- ※ Dimensions in mm, [ ]=inches
- ※ Terminal block screw tightening torque M4 :  $1.6N \cdot m(16.9kgf \cdot cm)$ max

### ■ 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.



# JAC series(40,50,60A)

JAC -50 -683 -□

① ② ③ ④

- ① Series 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 *1	Line to ground capacitor (nominal value)
	Upper row : Δ-connection Lower row : Y-connection	
103	0.5mA / 1.0mA max 0.05mA / 0.1mA max	0.01μF
223	1.0mA / 2.0mA max 0.1mA / 0.2mA max	0.022μF
683	2.5mA / 5.0mA max 0.35mA / 0.7mA max	0.068μF
224	15mA / 24mA max 2.0mA / 4.0mA max	0.22μF
155	80mA / 125mA max 9.0mA / 18mA max	1.5μF

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

\*1 Input 250/500V 60Hz  
(Δ-connection of "224", "155" is 250/400V 60Hz)

- ④ Option
- H: Ultra high-attenuation type  
"103", "223", "683" is applied.
- U: Improve differential mode attenuation  
(Rated voltage 250V)



## Features of JAC series

### Compact and low profile, common mode EMI/EMC filters in 150kHz to 1MHz (1-stage filter)

- Three phase rated voltage 500 VAC (voltage range : 528V max)
- Selectable leakage current value, Ultra high-attenuation type "224", "155" for EU (Y type with neutral earth system)

### Specifications

No.	Items	JAC-40-683	JAC-50-683	JAC-60-683
1	Rated Voltage[V]	AC Three Phase 500 (voltage range: 528 max) 50/60Hz *2 *3		
2	Rated Current[A]	40	50	60
3	Test Voltage (Terminal-Mounting Plate)	2,500 VAC (Cutoff Current = 100mA), 1minute at room temperature and humidity *4		
4	Isolation Resistance (Terminal-Mounting Plate)	500 VDC 100MΩ min at room temperature and humidity *5		
5	Leakage current 250/500V 60Hz	2.5mA/5.0mA max		
6	DC resistance	7.0mΩ max	5.0mΩ max	3.5mΩ max
7	Safety agency approval temperatures	-40 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	UL60939[Overvoltage Category : III Altitude : 3000m], CSA C22.2 No.8 (C-UL) EN60939(DEMKO)[Overvoltage Category: III Altitude: 3000m] , ENEC		
14	Case size (without projection)	65 X 54 X 153 mm (W X H X D) [2.56 X 2.13 X 6.02 inches] (W X H X D)		
15	Weight	800g max		

\*2 Capacitor code "224" and "155" : Three Phase Δ-connection 400 (440 max), Y-connection 500 (528 max).

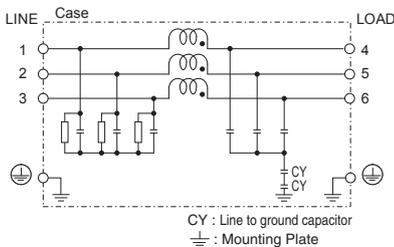
\*3 "JAC-□□□□□□□□-U" : Three Phase 250 (275 max).

\*4 Capacitor code "224" and "155" : 2,800VDC (Cutoff Current = 10mA), 1 minute at room temperature and humidity.

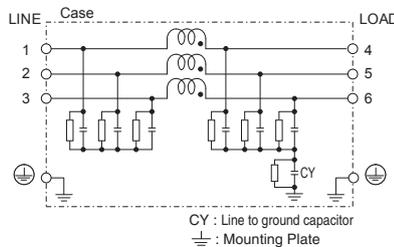
\*5 Capacitor code "224" and "155" : Isolation resistance specification is deleted.

## Circuit Diagram

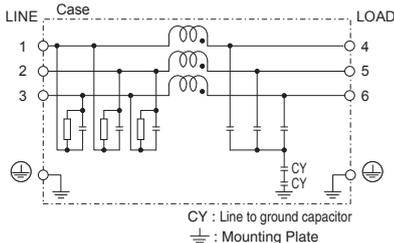
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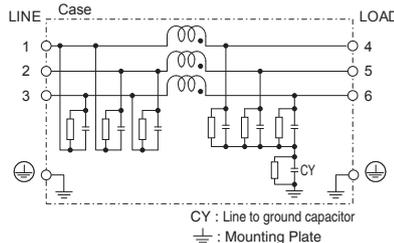
(2) Line to ground capacitor code : 224, 155



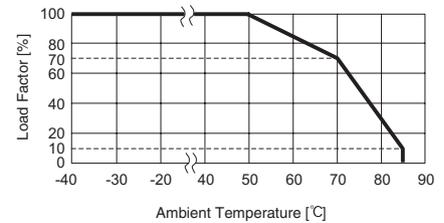
(3) Line to ground capacitor code : 103, 223, 683  
Option : U



(4) Line to ground capacitor code : 224, 155  
Option : U

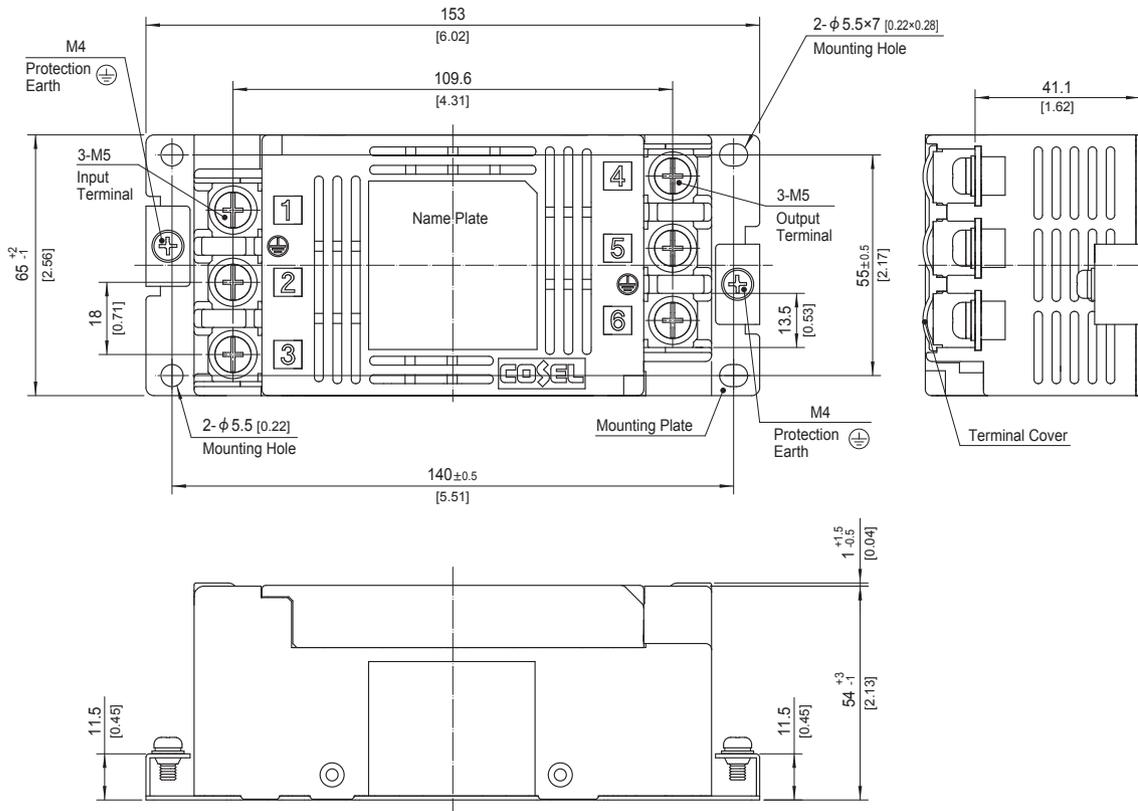


## Derating Curve



\* Keep free ventilation holes for cooling.

## External view



- ※ Tolerance :  $\pm 1$  [ $\pm 0.04$ ]
- ※ Weight : 800g max
- ※ Mounting Plate : Hot-dip Galvanized Steel board  $t=1.0$  [0.04]
- ※ Case Material : PBT
- ※ Dimensions in mm, [ ]=inches
- ※ Terminal block screw tightening torque M5 :  $3.0\text{N} \cdot \text{m}$  (30.7kgf · cm) max
- ※ Protection Earth (PE) screw tightening torque M4 :  $1.6\text{N} \cdot \text{m}$  (16.9kgf · cm) max
- ※ Can not be mounted upside-down. (mounted the top surface)
- ※ Keep free ventilation holes for cooling.
- ※ Can be mounted using the 2 corner mounting holes.