

# FSB series(80,100,150A)

FSB -150 -324 -□

① ② ③ ④



## Features of FSB series

### EMI/EMC Filter for motor drive system (AC servo)

- Improve saturation resistance (There is such as performance improvement type “-324-HU”)
- Book type (Space-saving type)

- 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 *1 Upper row : Δ-connection Lower row : Y-connection	Line to ground capacitor CY1 (nominal value)	Line to ground capacitor CY2 (nominal value)
203	1.0mA/2.0mA max 0.1mA/0.2mA max	0.01 μF	0.01 μF
693	2.5mA/5.0mA max 0.35mA/0.7mA max	0.022 μF	0.047 μF
104	3.5mA/7.0mA max 0.5mA/1.0mA max	0.033 μF	0.068 μF
324	12mA/24mA max 1.5mA/3.0mA max	0.1 μF	0.22 μF
355	330mA/515mA max 40mA/80mA max	0.22 μF	3.3 μF

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

\*1 Input 250/500V 60Hz (Only Δ-connection of “355” is 250/400V 60Hz)

- ④ Option
- H : Ultra high-attenuation type  
“355” is not applied.
- S : Hexagon socket head cap screw  
(Standard type is Hexagon head screw)
- U : Improve differential mode attenuation  
(Rated voltage 250V)

## Specifications

No.	Items	FSB-80-324	FSB-100-324	FSB-150-324
1	Rated Voltage[V]	AC Three Phase 500 (voltage range:528 max) 50/60Hz *2 *3		
2	Rated Current[A]	80	100	150
3	Test Voltage (Terminal-Mounting Plate)	2,800 VDC (Cutoff Current = 10mA), 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	12mA/24mA max		
6	DC resistance	10mΩ max	8mΩ max	6mΩ 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 Teil 3-1, ENEC		
14	Case size (without projection)	100 X 170 X 350 mm (W X H X D)		100 X 210 X 400 mm (W X H X D)
		[3.94 X 6.69 X 13.78 inches] (W X H X D)		[3.94 X 8.27 X 15.75 inches] (W X H X D)
15	Weight	6.3kg max		

\*2 Only capacitor code “355”, Three Phase Δ-connection : 400 (440 max), Y-connection : 500 (528 max)

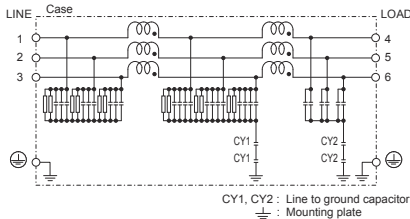
\*3 Only “FSB-□□□□□□□□-U”, Three Phase 250 (275 max)

\*4 Only capacitor code “203”, “693”, “104”, 2,500VAC (Cutoff Current = 100mA), 1minute at room temperature and humidity.

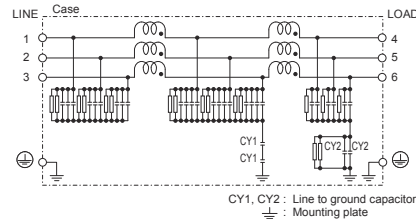
\*5 Only capacitor code “355”, Isolation resistance specification is deleted.

## Circuit Diagram

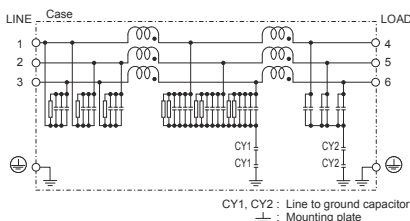
(1) Line to ground capacitor code : 203, 693, 104, 324



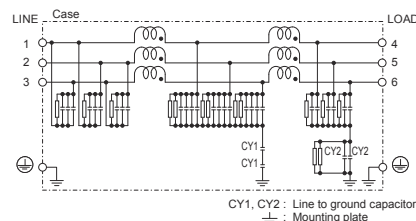
(2) Line to ground capacitor code : 355



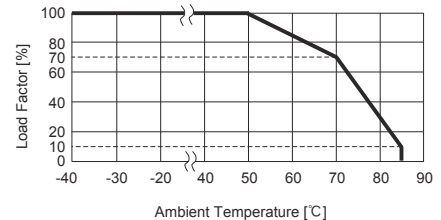
(3) Line to ground capacitor code : 203, 693, 104, 324  
Option : U



(4) Line to ground capacitor code : 355  
Option : U



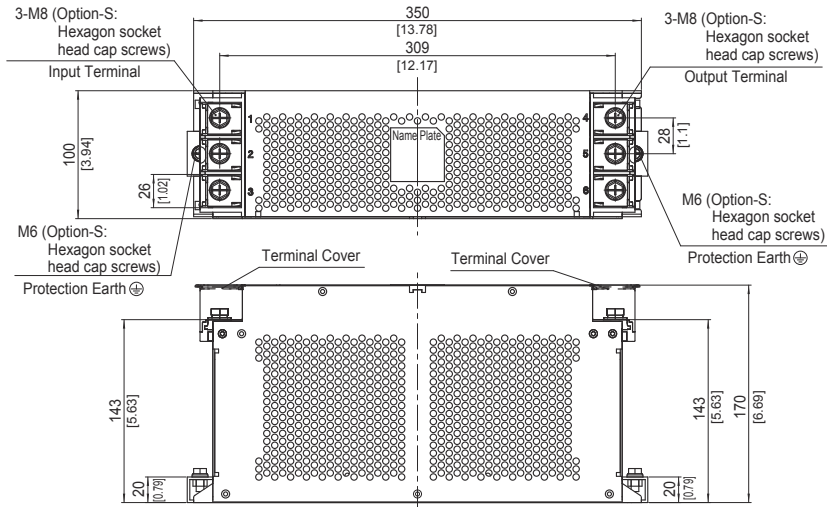
## Derating Curve



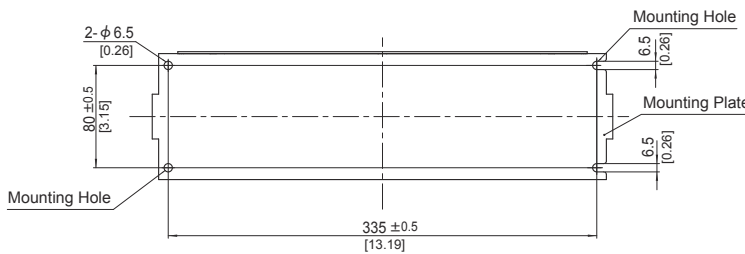
\* Keep free ventilation holes for cooling.

## External view

### FSB-80 / FSB-100

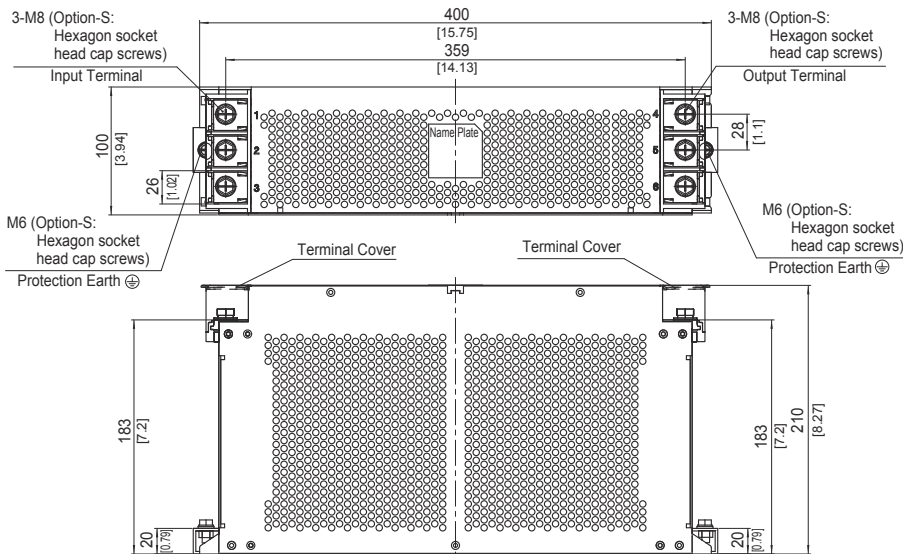


※ The air hole for heat radiation is not on the opposite side side.

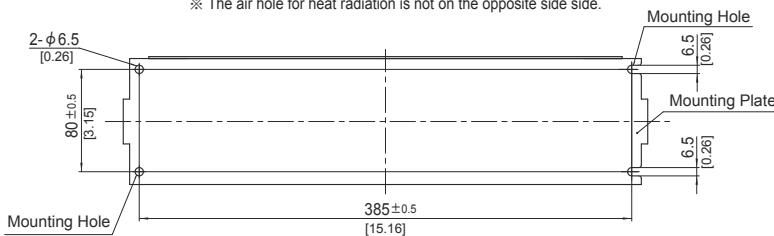


- ※ Tolerance :  $\pm 1$  [ $\pm 0.04$ ]
- ※ Weight : 6.3kg max
- ※ Mounting Plate : Aluminum  $t=2.0$  [0.08]
- ※ Dimensions in mm, [ ]=inches
- ※ Terminal block screw tightening torque  
M8 :  $9.2N \cdot m$  (93.9kgf · cm)max
- ※ Protection Earth (PE) screw tightening torque  
M6 :  $5.8N \cdot m$  (59.2kgf · cm)max
- ※ Can not be mounted upside-down  
(mounted the top surface)
- ※ Keep free ventilation holes for cooling

### FSB-150



※ The air hole for heat radiation is not on the opposite side side.



- ※ Tolerance :  $\pm 1$  [ $\pm 0.04$ ]
- ※ Weight : 8.8kg max
- ※ Mounting Plate : Aluminum  $t=2.0$  [0.08]
- ※ Dimensions in mm, [ ]=inches
- ※ Terminal block screw tightening torque  
M8 :  $9.2N \cdot m$  (93.9kgf · cm)max
- ※ Protection Earth (PE) screw tightening torque  
M6 :  $5.8N \cdot m$  (59.2kgf · cm)max
- ※ Can not be mounted upside-down  
(mounted the top surface)
- ※ Keep free ventilation holes for cooling