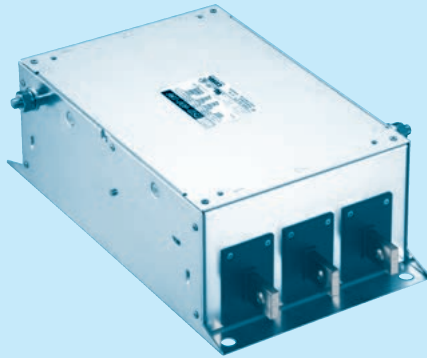


TSD series(400,600A)

TSD -600 -186



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 Upper row : Δ-connection Lower row : Y-connection	Line to ground capacitor (nominal value)		
		CY1	CY2	CY3
105	45mA/70mA max 3.5mA/7mA max	0.22μF	0.1μF	0.22μF
215	80mA/130mA max 7.5mA/15mA max	1.0μF	0.1μF	1.0μF
665	220mA/350mA max 20mA/40mA max	2.2μF	2.2μF	2.2μF
136	420mA/660mA max 40mA/80mA max	2.2μF	2.2μF	2.2μF
186	540mA/850mA max 50mA/100mA max	2.2μF	2.2μF	2.2μF

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

* Please contact us about low leakage current type. (Change to low grounding capacitor)

*1 Δ-connection : Input 250/400V 60Hz
Y-connection : Input 250/500V 60Hz

Features of TSD series

Ultra high-attenuation type for motor drive system (Multi-functional regenerative converter)

- Improve saturation resistance
- Input and output terminals : Busbar type
- Target application: Large equipment with Multi-functional regenerative convertor (Transferred equipment, Air conditioning equipment)

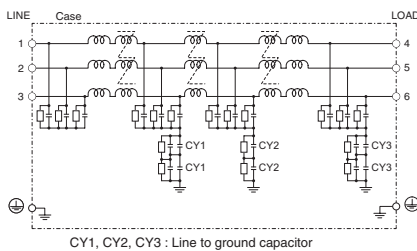
Specifications

No.	Items	TSD-400-186	TSD-600-186
1	Rated Voltage[V]	AC Three Phase Y-connection 500 (voltage range:528 max) 50/60Hz *2	
2	Rated Current[A]	400	600
3	Test Voltage (Terminal-Mounting Plate)	3,600 VDC (Cutoff Current = 10mA), 1minute at room temperature and humidity	
4	Leakage current 250/500V 60Hz	50mA/100mA max (Y-connection)	
5	DC resistance	0.27mΩ max	0.2mΩ max
6	Safety agency approval temperatures	-40 to +85°C (Refer to Derating Curve)	
7	Operating temperature	-40 to +85°C (Refer to Derating Curve)	
8	Operating humidity	20 to 95%RH (Non condensing)	
9	Storage temperature/humidity	-40 to +85°C/20 to 95%RH (Non condensing)	
10	Vibration	10 to 55Hz, 9.8m/s ² (1G), 3min. Period, 1hour each X, Y and Z axis	
11	Impact	98.1m/s ² (10G), 11ms Once each X, Y and Z axis	
12	Safety agency approvals	UL60939 [Overvoltage Category : III Altitude 3000m] , CSA C22.2 No.8 (C-UL) EN60939 (DEMKO) [Overvoltage Category: III Altitude 3000m] , ENEC	
13	Case size (without projection)	210×125×360 mm [8.27×4.92×14.17 inches] (W×H×D)	
14	Weight	10.0kg max	10.5kg max

*2 Three Phase Δ-connection:400V (440V max)

Circuit Diagram

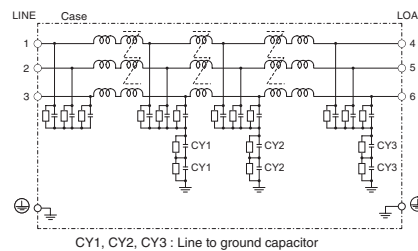
(1) Line to ground capacitor code : 105



CY1, CY2, CY3 : Line to ground capacitor

⊥ : Mounting Plate

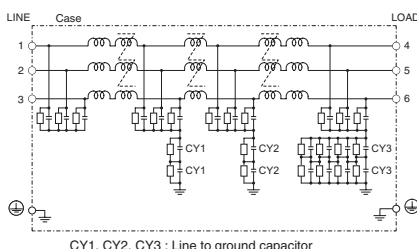
(2) Line to ground capacitor code : 215,665



CY1, CY2, CY3 : Line to ground capacitor

⊥ : Mounting Plate

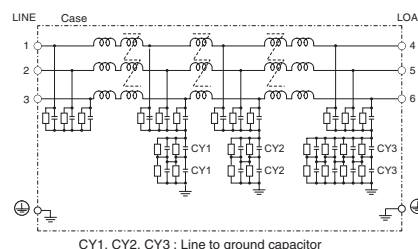
(3) Line to ground capacitor code : 136



CY1, CY2, CY3 : Line to ground capacitor

⊥ : Mounting Plate

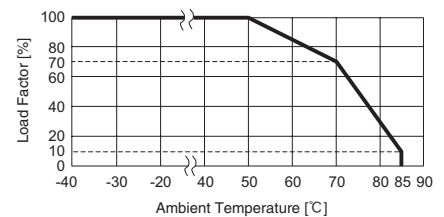
(4) Line to ground capacitor code : 186



CY1, CY2, CY3 : Line to ground capacitor

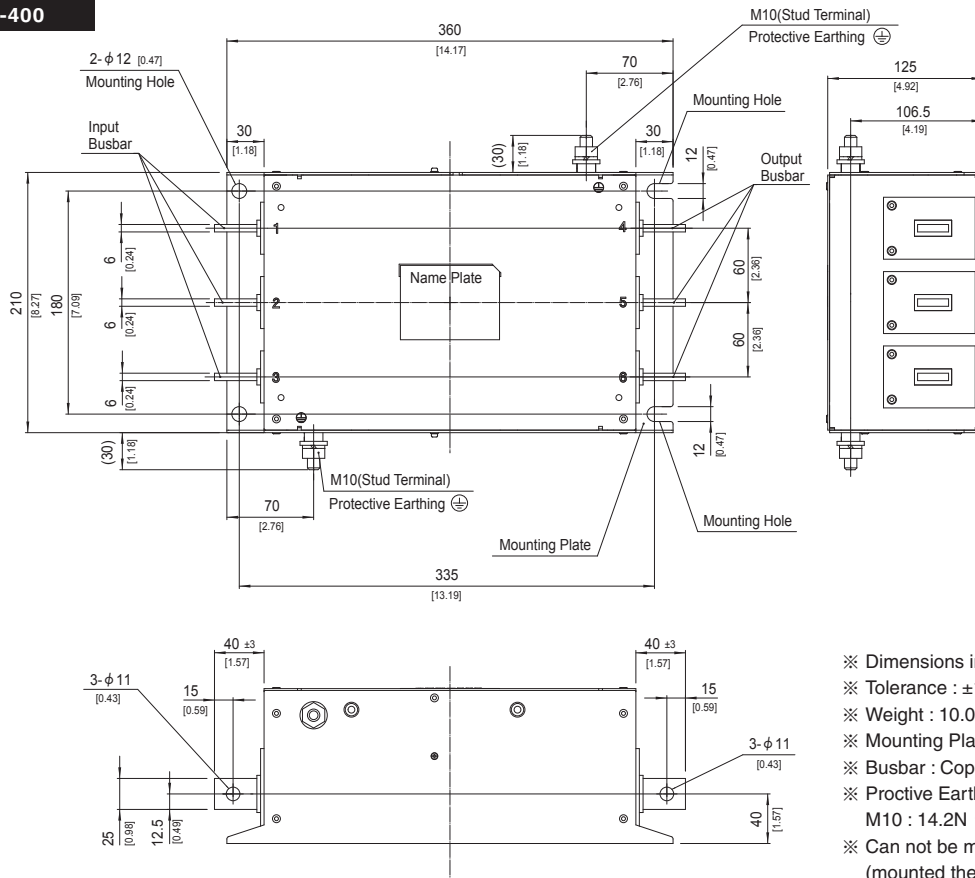
⊥ : Mounting Plate

Derating Curve



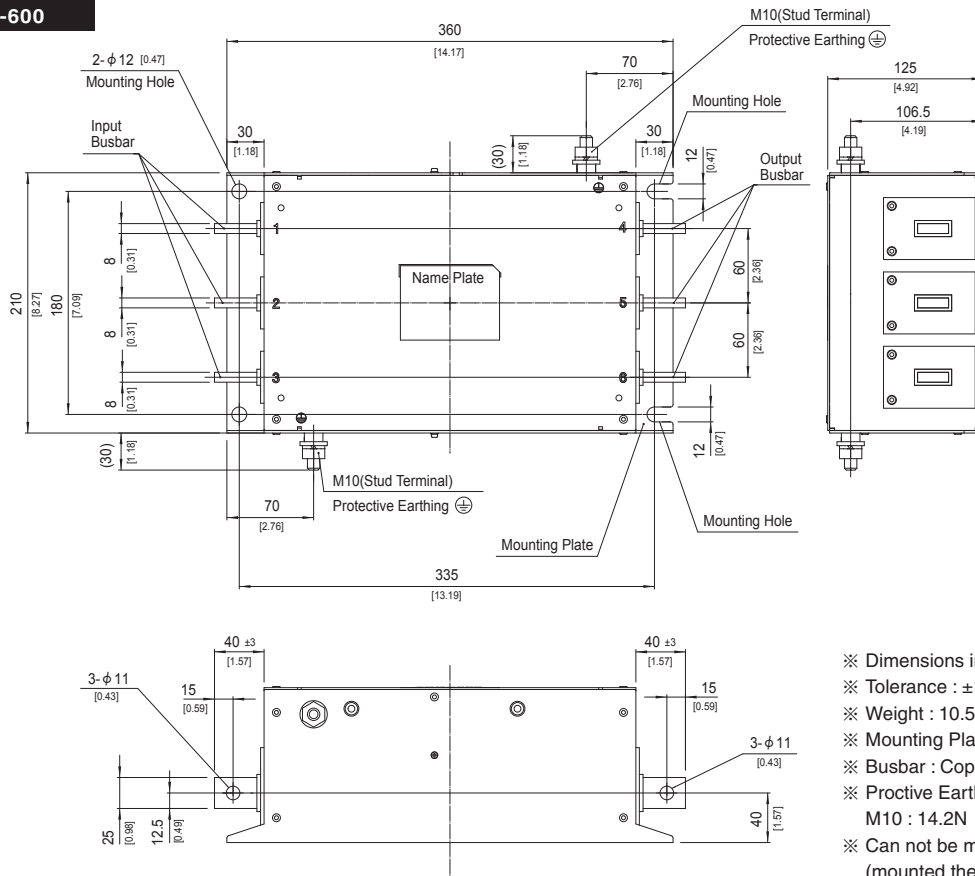
External view

TSD-400



- ※ Dimensions in mm, [] = inches
- ※ Tolerance : ± 1 [± 0.04]
- ※ Weight : 10.0kg max
- ※ Mounting Plate : Aluminum $t = 2.0$ [0.08]
- ※ Busbar : Copper (Unplated) $t = 6.0$ [0.24]
- ※ Protective Earthing (PE) screw tightening torque
M10 : 14.2N · m max
- ※ Can not be mounted upside-down
(mounted the top surface)

TSD-600

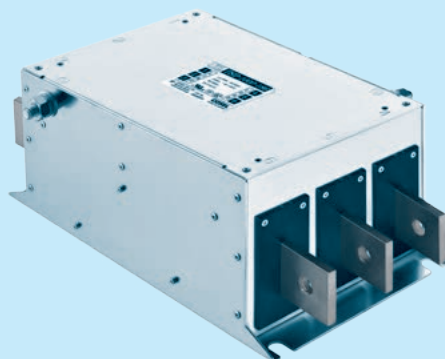


- ※ Dimensions in mm, [] = inches
- ※ Tolerance : ± 1 [± 0.04]
- ※ Weight : 10.5kg max
- ※ Mounting Plate : Aluminum $t = 2.0$ [0.08]
- ※ Busbar : Copper (Unplated) $t = 8.0$ [0.31]
- ※ Protective Earthing (PE) screw tightening torque
M10 : 14.2N · m max
- ※ Can not be mounted upside-down
(mounted the top surface)

TSD series(800,1000A)

TSD -1000 -356

① ② ③



- 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	Line to Ground Capacitor (Nominal Value)		
	Upper row : Δ-Connection Lower row : Y-Connection	CY1	CY2	CY3
000 *1	50uA/100uA max 50uA/100uA max	Not Provided	Not Provided	Not Provided
304 *1	10.5mA/21.0mA max 1.5mA/3.0mA max	0.1μF X1	0.1μF X1	0.1μF X1
664 *1	23mA/46mA max 3.5mA/7.0mA max	0.22μF X1	0.22μF X1	0.22μF X1
316 *2	960mA/1500mA max 90mA/180mA max	2.2μF X2	2.2μF X2	2.2μF X10
356 *2	1080mA/1700mA max 100mA/200mA max	2.2μF X4	2.2μF X4	2.2μF X8
446 *2	1300mA/2100mA max 110mA/220mA max	2.2μF X5	2.2μF X5	2.2μF X10

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

*Please contact us about low leakage current type (Change to low grounding capacitor).

*1 Δ-Connection : Input 250/500V 60Hz
Y-Connection : Input 250/500V 60Hz

*2 Δ-Connection : Input 250/400V 60Hz
Y-Connection : Input 250/400V 60Hz

Features of TSD series

Ultra high-attenuation type for motor drive system (Multi-functional regenerative converter)

- Improve saturation resistance
- Input and output terminals : Busbar type
- Target application: Large equipment with Multi-functional regenerative convertor (Transferred equipment, Air conditioning equipment)

Specifications

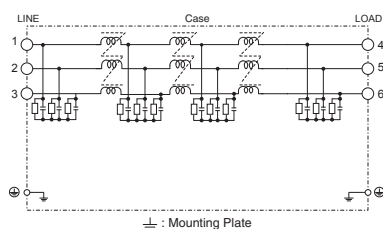
No.	Items		TSD-800-356	TSD-1000-356
1	Rated Voltage	[VAC]	Three-phase Y-Connection 500 (Voltage Range:528 max) 50/60Hz *3	
		[VDC]	610	
2	Rated Current[A]		800	1000
3	Test Voltage (Terminal-Mounting Plate)		3,600 VDC (Cutoff Current = 10mA), 1minute at room temperature and humidity *4	
4	Leakage Current 250/500V 60Hz (Y-Connection)		100mA / 200mA max	
5	DC Resistance		0.1mΩ max	
6	Operating Temperature/Humidity		-40 to +85°C (Refer to Derating Curve)/20 to 95%RH (Non condensing)	
7	Storage Temperature/Humidity		-40 to +85°C/20 to 95%RH (Non condensing)	
8	Vibration		10 to 55Hz, 9.8m/s ² (1G), 3min. Period, 1hour each X, Y and Z axis	
9	Impact		98.1m/s ² (10G), 11ms Once each X, Y and Z axis	
10	Safety Agency Approvals		UL60939 [Overvoltage Category : III Altitude : 3000m], CSA C22.2 No.8 (C-UL) EN60939 (DEMKO) [Overvoltage Category: III Altitude : 3000m], ENEC	
11	Case Size (Without Projection)		190 X 155 X 346mm (W×H×D) [7.48 X 6.10 X 13.62 inches] (W X H X D)	
12	Weight		11.5kg max	

*3 Line to Ground Capacitor Code 「186」, 「356」, 「446」, Three-Phase Δ-Connection:400V (440V max), Three-Phase Y-Connection:500V (528V max)

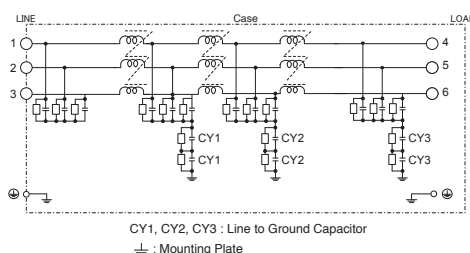
*4 Line to Ground Capacitor Code 「000」, 2,500 VAC (Cutoff Current = 5mA), 1minute at room temperature and humidity

Circuit Diagram

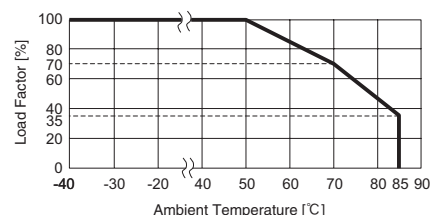
(1) Line to Ground Capacitor Code : 000



(2) Line to Ground Capacitor Code : 304, 664, 316, 356, 446

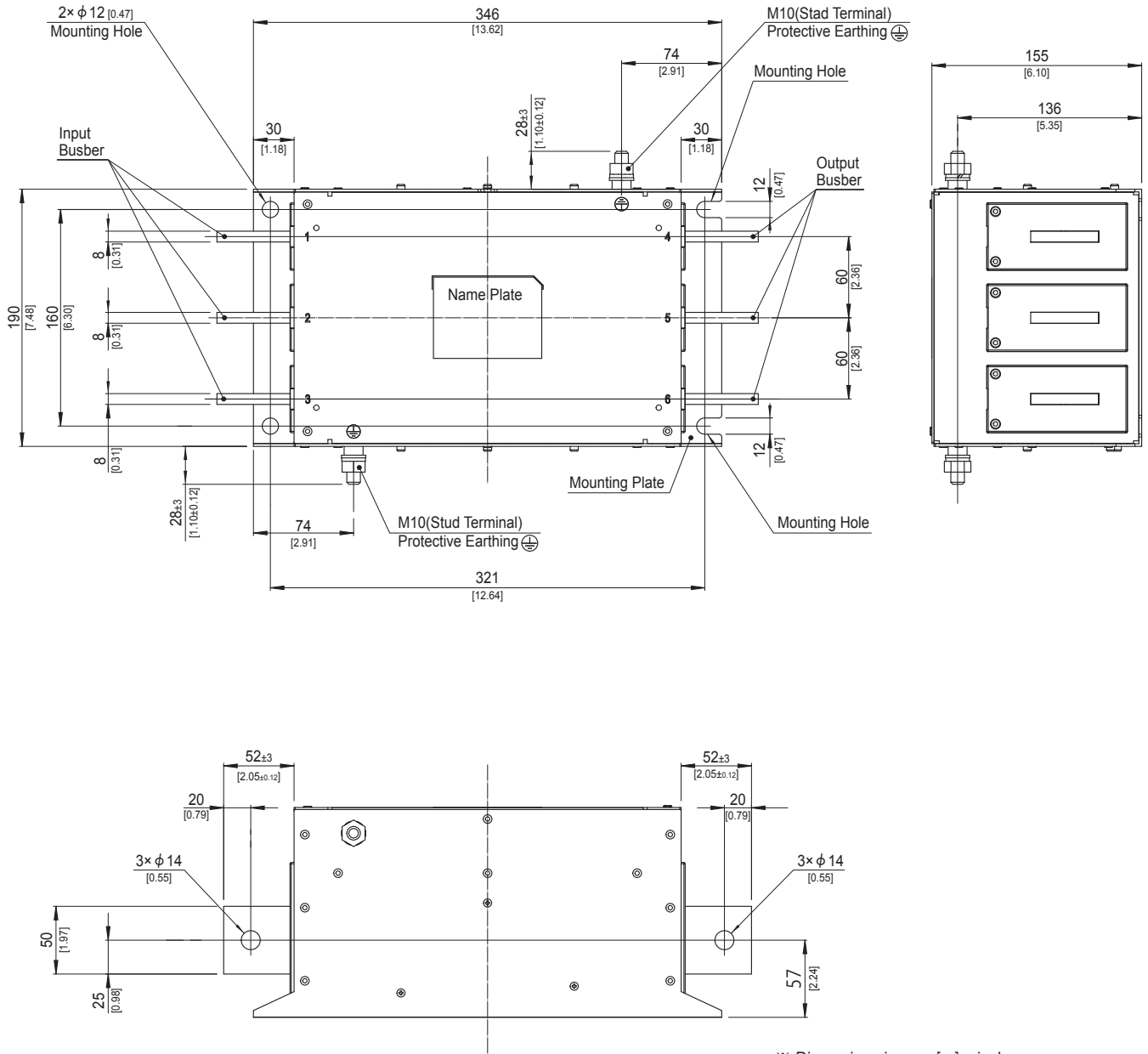


Derating Curve



External view

TSD-800/1000-□□□



- ※ Dimensions in mm, [] = inches
- ※ Tolerance : ±1 [±0.04]
- ※ Weight : 11.5kg max
- ※ Mounting plate Material : Aluminum t = 2.0 [0.08]
- ※ Busbar Material : Copper (Unplated) t = 8.0 [0.31]
- ※ Protective Earthing(PE) screw tightening torque M10 : 14.2N · m max
- ※ Can not be mounted upside-down (Mounted the top surface)