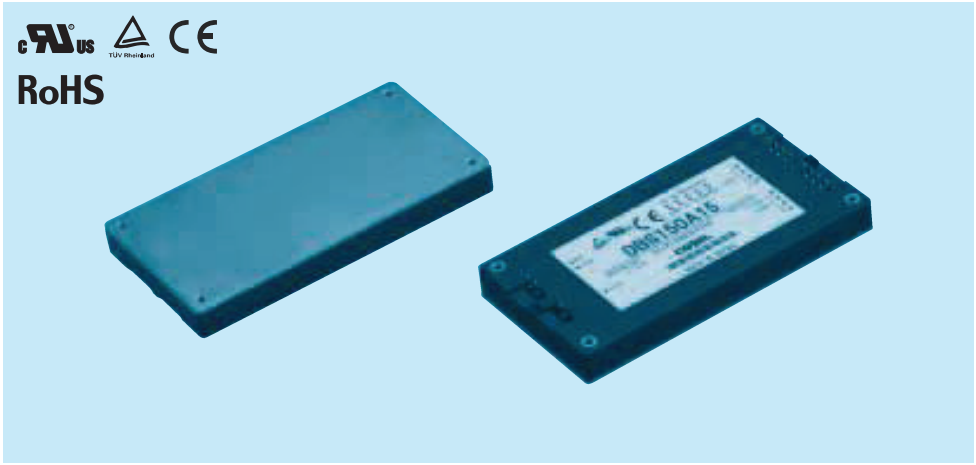
COSEL DC-DC Converters Power Module type

DBS100A/DBS150A

Ordering information

DB	S	150	A	15	
①	②	③	④	⑤	



①Series name
②Single output
③Output wattage
④Input voltage
A :DC110V input
⑤Output voltage

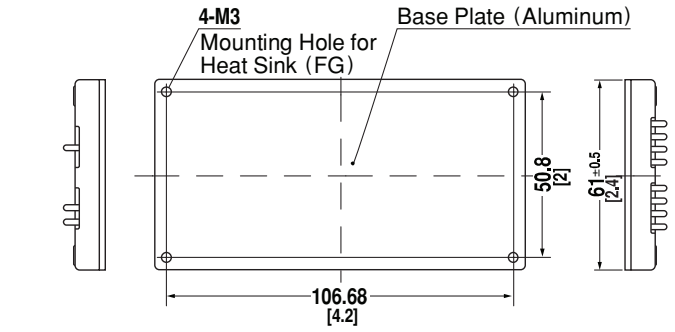
MODEL	DBS100A05	DBS100A13R8	DBS150A12	DBS150A15	DBS150A24
MAX OUTPUT WATTAGE[W]	100	100.7	150	150	151
DC OUTPUT	5V 20A	13.8V 7.3A	12V 12.5A	15V 10A	24V 6.3A

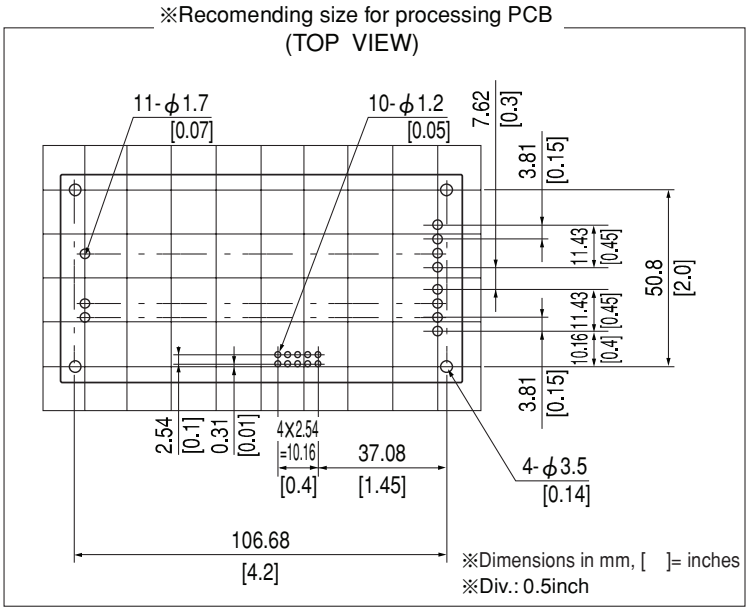
SPECIFICATIONS

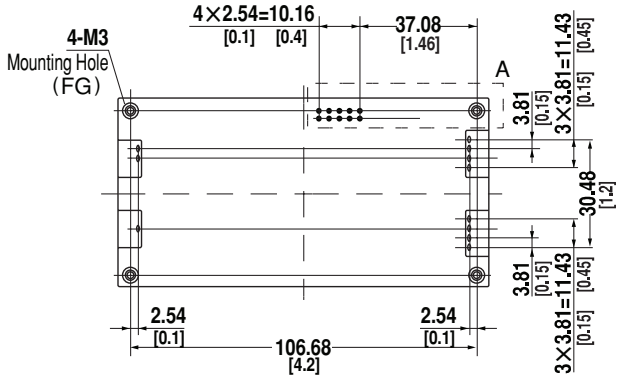
	MODEL		DBS100A05	DBS100A13R8	DBS150A12	DBS150A15	DBS150A24
INPUT	VOLTAGE[V]		DC45 - 160		DC66 - 160		
	CURRENT[A]	∗1	1.11typ	1.10typ	1.57typ	1.59typ	1.58typ
	EFFICIENCY[%]	∗1	82typ	83typ	87typ	86typ	87typ
OUTPUT	VOLTAGE[V]		5	13.8	12	15	24
	CURRENT[A]		20	7.3	12.5	10	6.3
	LINE REGULATION[mV]		20max	60max	40max	60max	95max
	LOAD REGULATION[mV]		40max	150max	100max	150max	190max
	RIPPLE[mVp-p]	0 to +85℃ ∗2	80max	120max	120max	120max	120max
		-20 - 0℃ ∗2	140max	160max	160max	160max	160max
	RIPPLE NOISE[mVp-p]	0 to +85℃ ∗2	100max	150max	150max	150max	150max
		-20 - 0℃ ∗2	150max	180max	180max	180max	180max
	TEMPERATURE REGULATION[mV]	0 to +65℃	50max	180max	120max	180max	280max
		-20 to +85℃	85max	310max	200max	310max	480max
	DRIFT[mV]	∗3	20max	60max	40max	60max	90max
	START-UP TIME[ms]		200max (DCIN 110V, Io=100%)				
	OUTPUT VOLTAGE ADJUSTMENT RANGE		Fixed (TRM pin open), 60 - 110% adjustable by external VR or external voltage				
	OUTPUT VOLTAGE SETTING[V]		4.90 - 5.20	13.25 - 14.35	11.60 - 12.60	14.40 - 15.60	23.04 - 24.96
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION		Works over 105% of rating and recovers automatically				
	OVERVOLTAGE PROTECTION		5.75 - 7.00V	15.87 - 19.32V	13.80 - 16.80V	17.25 - 21.00V	27.60 - 33.60V
	REMOTE SENSING		Provided				
	REMOTE ON/OFF		Provided (On both side of input and output)				
ISOLATION	INPUT-OUTPUT		AC3,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)				
	INPUT-FG		AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)				
	OUTPUT-FG		AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (20±15℃)				
	OUTPUT-RC2,RC3		AC100V 1minute, Cutoff current = 100mA, DC100V 10MΩ min (20±15℃)				
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE	∗4	-20 to +85℃ (On aluminum base plate), 20 - 95%RH (Non condensing) (Refer to DERATING CURVE), 3,000m (10,000feet) max				
	STORAGE TEMP.,HUMID.AND ALTITUDE		-40 to +85℃, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max				
	VIBRATION		10 - 55Hz, 49.0m/s² (5G), 3minutes period, 60minutes each along X, Y and Z axis				
	IMPACT		196.1m/s² (20G), 11ms once each along X, Y and Z axis				
SAFETY	AGENCY APPROVALS		UL60950-1, C-UL, EN60950-1				
OTHERS	CASE SIZE/WEIGHT		61×12.7×116.8mm [2.4×0.5×4.6 inches] (W×H×D) / 150g max				
	COOLING METHOD		Conduction cooling (e.g. heat radiation from the aluminum base plate to the attached heat sink)				

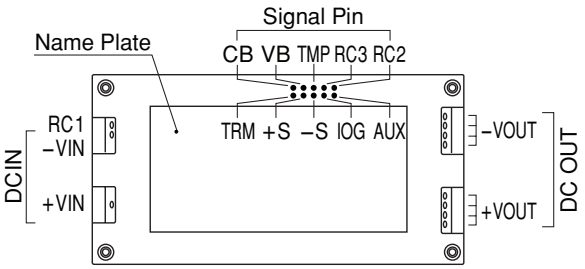
∗1 At rated input(DC110V) and rated load.
∗2 Ripple and ripple noise is measured by using measuring board with the recommended capacitor Co & the film capacitor 0.1μF.
Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN:RM101). Refer to the manual.
∗3 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25℃, with the input voltage held constant at the rated input/output.
∗4 Please consult us in regard to use from -40℃.

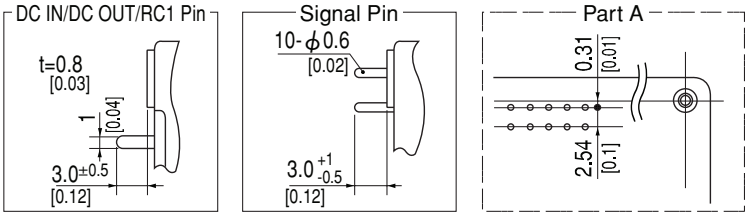
External view











※Weight: 150g max
※Tolerance:±0.3 [±0.012]
※Base Plate: Aluminum
※Dimensions in mm, [ ]= inches
※Mounting hole screwing torque: 0.49N·m(5.0kgf·cm)