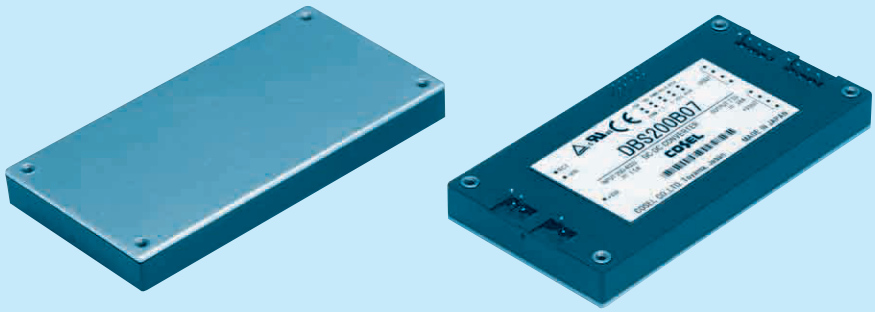
COSEL DC-DC Converters Bus Converter·Power Module Type

DBS200B

Ordering information

DB	S	200	B	03	
①	②	③	④	⑤	

①Series name
②Single output
③Output wattage
④Input voltage
B :DC200 - 400V
⑤Output voltage



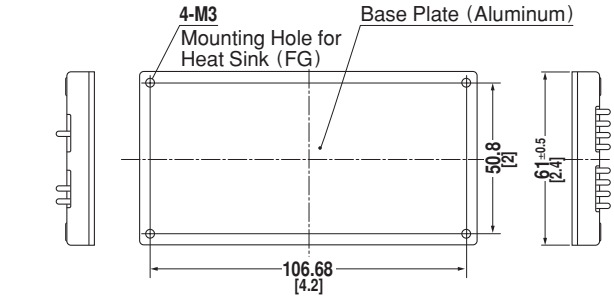
MODEL	DBS200B03	DBS200B05	DBS200B07	DBS200B12
MAX OUTPUT WATTAGE[W]	165	200	210	240
DC OUTPUT	3.3V 50A	5V 40A	7.5V 28A	12V 20A

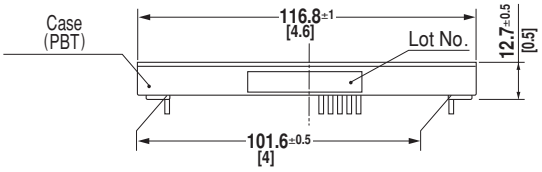
SPECIFICATIONS

	MODEL		DBS200B03	DBS200B05	DBS200B07	DBS200B12
INPUT	VOLTAGE[V]		DC200 - 400			
	CURRENT[A]	*1	0.75typ	0.86typ	0.87typ	0.99typ
	EFFICIENCY[%]	*1	79typ	83typ	86typ	87typ
OUTPUT	VOLTAGE[V]		3.3	5	7.5	12
	CURRENT[A]		50	40	28	20
	LINE REGULATION[mV]		16max	20max	30max	40max
	LOAD REGULATION[mV]		30max	40max	60max	100max
	RIPPLE[mVp-p]	0 to +85℃ *2	80max	80max	100max	120max
		-20 - 0℃ *2	140max	140max	150max	160max
	RIPPLE NOISE[mVp-p]	0 to +85℃ *2	100max	100max	140max	150max
		-20 - 0℃ *2	150max	150max	160max	180max
	TEMPERATURE REGULATION[mV]	0 to +65℃	35max	50max	75max	120max
		-20 to +85℃	60max	85max	130max	200max
	DRIFT[mV]	*3	16max	20max	30max	40max
	START-UP TIME[ms]		200max (DCIN 280V, Io=100%)			
	OUTPUT VOLTAGE ADJUSTMENT RANGE		Fixed (TRM pin open), 60 - 110% adjustable by external VR or external voltage			
	OUTPUT VOLTAGE SETTING[V]		3.25 - 3.45	4.90 - 5.20	7.25 - 7.85	11.60 - 12.60
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION		Works over 105% of rating and recovers automatically			
	OVERVOLTAGE PROTECTION		4.00 - 5.50V	5.75 - 7.00V	8.60 - 10.50V	13.80 - 16.80V
	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, EN50178 Complies with DEN-AN and IEC60950-1			
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)			

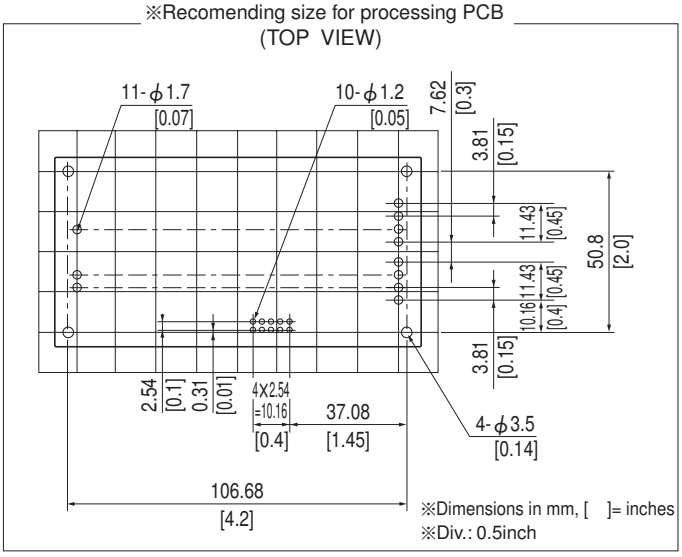
*1 At rated input(DC280V) and rated load.
*2 Ripple and ripple noise is measured by using measuring board with the recommended capacitor Co & the film capacitor 0.1μF.
Measured by 20MHz oscilloscope or Ripple-Noise meter (Equivalent to KEISOKU-GIKEN:RM101). Refer to the manual.
*3 Drift is the change 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

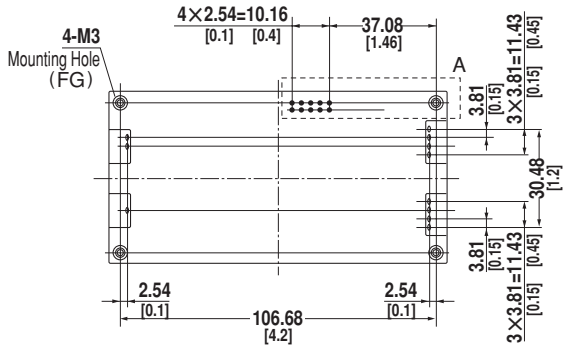


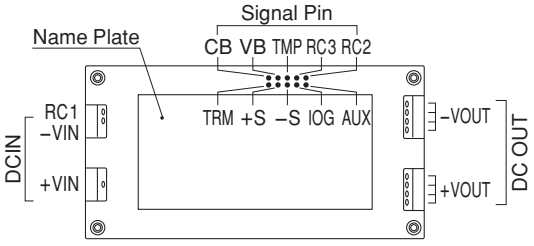


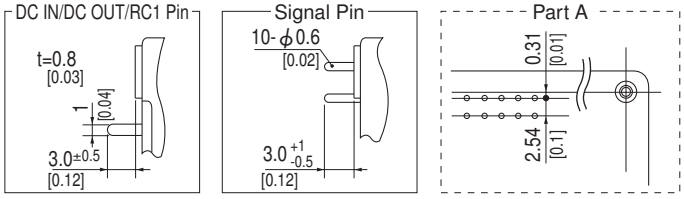
※Recomending size for processing PCB
(TOP VIEW)



※Dimensions in mm, [ ]= inches
※Div.: 0.5inch





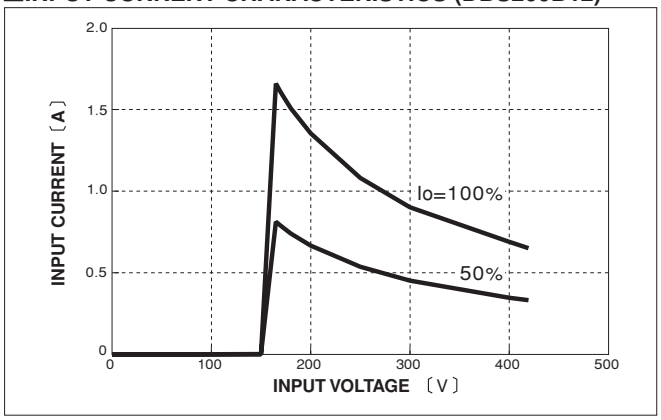


※Weight: 150g max
※Tolerance: ±0.3 [±0.012]
※Base Plate: Aluminum
※Dimensions in mm, [ ]= inches
※Mounting hole screwing torque: 0.49N·m(5.0kgf·cm)

DBS

Performance data

■INPUT CURRENT CHARACTERISTICS (DBS200B12)



■EFFICIENCY CHARACTERISTICS