

COSEL DC-DC Converters Power Module type

DBS100A/DBS150A

Ordering information

DB S 150 A 15

① ② ③ ④ ⑤

- ① Series name
- ② Single output
- ③ Output wattage
- ④ Input voltage
- ⑤ Output voltage



RoHS

| 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 |

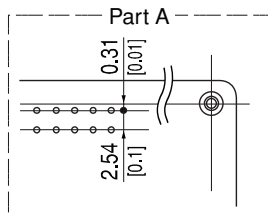
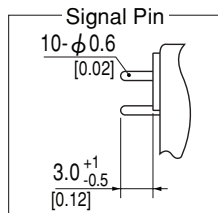
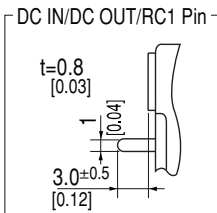
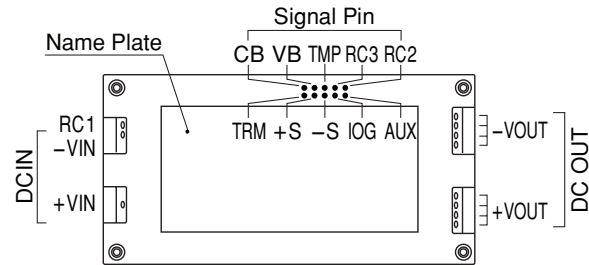
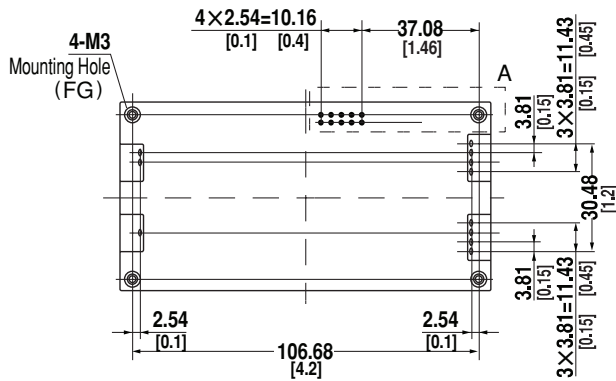
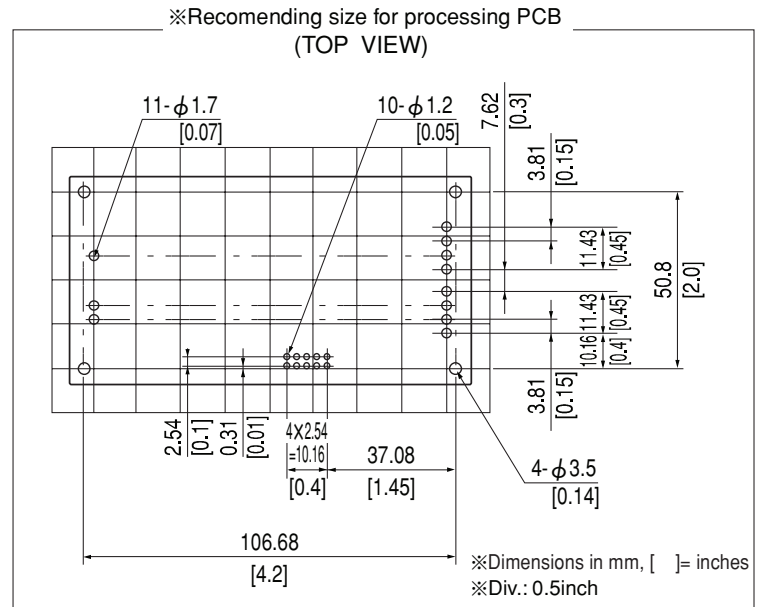
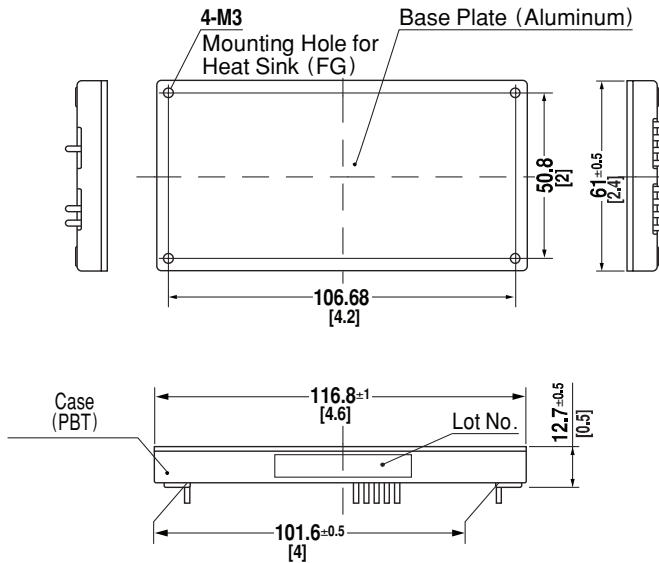
SPECIFICATIONS

| | 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°C *2 | 80max | 120max | 120max | 120max | 120max |
| | | -20 - 0°C *2 | 140max | 160max | 160max | 160max | 160max |
| | RIPPLE NOISE[mVp-p] | 0 to +85°C *2 | 100max | 150max | 150max | 150max | 150max |
| | | -20 - 0°C *2 | 150max | 180max | 180max | 180max | 180max |
| | TEMPERATURE REGULATION[mV] | 0 to +65°C | 50max | 180max | 120max | 180max | 280max |
| | | -20 to +85°C | 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°C) | | | | | |
| | INPUT-FG | AC2,000V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15°C) | | | | | |
| | OUTPUT-FG | AC500V 1minute, Cutoff current = 100mA, DC500V 50MΩ min (20±15°C) | | | | | |
| | OUTPUT-RC2,RC3 | AC100V 1minute, Cutoff current = 100mA, DC100V 10MΩ min (20±15°C) | | | | | |
| ENVIRONMENT | OPERATING TEMP.,HUMID.AND ALTITUDE *4 | -20 to +85°C (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°C, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max | | | | | |
| | VIBRATION | 10 - 55Hz, 49.0m/s ² (5G), 3minutes period, 60minutes each along X, Y and Z axis | | | | | |
| SAFETY | IMPACT | 196.1m/s ² (20G), 11ms once each along X, Y and Z axis | | | | | |
| | AGENCY APPROVALS | UL60950-1, C-UL, EN60950-1 | | | | | |
| OTHERS | CASE SIZE/WEIGHT | 61 x 12.7 x 116.8mm [2.4 x 0.5 x 4.6 inches] (W x H x 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°C, with the input voltage held constant at the rated input/output.
 *4 Please consult us in regard to use from -40°C.

Specifications are subject to change without notice. It is responsibility of each customer to thoroughly test each product and part number under their unique parameters and environments to ensure a product will work properly and reliably.

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)