Installation Manual

- **Type：DC-DC converter（Families：PSD, SD, RSD）**

- **Introduction**

A DC-DC converter is a device used to convert a DC source from one voltage level to another. Mean Well's DC-DC converters equipped with internal EMI filter stage that possess the required EMC performance.

- **Installation**

（1）Before commencing any installation or maintenance work, please disconnect your system from the utility. Ensure that it cannot be re-connected inadvertently!

（2）For PCB type, at least 5mm insulation distance around the unit should be kept.

（3）Allow good ventilation for the unit in use to prevent it from overheating. Also, a 10-15 cm clearance must be kept when the adjacent device is a heat source.

（4）Mounting orientations other than standard orientation or operate under high ambient temperature may increase the internal component temperature and will require a de-rating in output current. Please refer to the specification sheets to receive the optimum mounting position and information about the de-rating curve.

（5）Input and Output terminal

Terminal Screw / Series	Screw Size	Suggested Torque
SD-15	M3.0	9.2kgf-cm(8lb-inch)
SD-25/50/100/150/200/350	M3.5	13.8kgf-cm(12lb-inch)
SD-500	M4.0	18.4kgf-cm(16lb-inch)

Terminal Screw / Series	Input		Output	
	Screw Size	Suggested Torque	Screw Size	Suggested Torque
RSD-30/60/100	M3.5	10kgf-cm(8.7lb-inch)	M3.5	10kgf-cm(8.7lb-inch)
RSD-150/200	M3.5	10kgf-cm(8.7lb-inch)	M4.0	12kgf-cm(10.4lb-inch)
RSD-300	M4.0	12kgf-cm(10.4lb-inch)	M4.0	12kgf-cm(10.4lb-inch)
RSD-500	#6	8kgf-cm(6.9lb-inch)	#6	8kgf-cm(6.9lb-inch)
SD-1000	M4.0	12kgf-cm(10.4lb-inch)	M5.0	10kgf-cm(8.7lb-inch)

（6）Torque can be various due to different material, please refer to the following chart.

A Recommend torque for aluminum：

Size of screw (Imperial units)	Recommend torque (kgf-cm)
3-56	2.3±20%
4-40	3.0±20%
4-48	3.3±20%
5-40	4.5±20%
5-44	4.7±20%
6-32	5.6±20%
6-40	6.3±20%
8-32	10.4±20%
8-36	10.8±20%

Size of screw (Metric Units)	Recommend torque (kgf-cm)
M2.5	2.2±20%
M3	4.1±20%
M3.5	6.5±20%
M4	9.7±20%
M5	19.5±10%
M6	33.1±10%
M7	55.3±10%
M8	80.6±10%

B Recommend torque for iron：

Size of screw (Imperial units)	Recommend torque (kgf-cm)
3-56	5.0±20%
4-40	6.9±20%
4-48	7.0±20%
5-40	9.4±20%
5-44	9.9±20%
6-32	12.0±20%
6-40	13.4±20%
8-32	21.8±20%
8-36	23.0±20%

Size of screw (Metric Units)	Recommend torque (kgf-cm)
M2.5	4.6±20%
M3	8.8±20%
M3.5	13.7±20%
M4	20.4±20%
M5	41.1±10%
M6	69.1±10%
M7	117.5±10%
M8	169.4±10%

If above mentioned is not enough due to special application， Nylok Blue Patch screw is recommend, and extra torque can be added if needed.

(7) Recommended input/output wires are shown as below.

AWG	18	16	14	12	10	8
Rated Current of Equipment (Amp)	6A	6-10A	10-16A	16-25A	25-32A	32-40A
Cross-section of Lead(mm^2)	0.75	1.00	1.5	2.5	4	6
Note: Current each wire carries should be de-rated to 80% of the current suggested above when using 5 or more wires connected to the unit.						

(8) For PCB type, compatible mating housing please refers to the specifications

(9) For enclosed type, make sure that all strands of each stranded wire enter the terminal connection and the screw terminals are securely fixed to prevent poor contact.

(10) Special instructions for installation of RSD-500 is shown as below.

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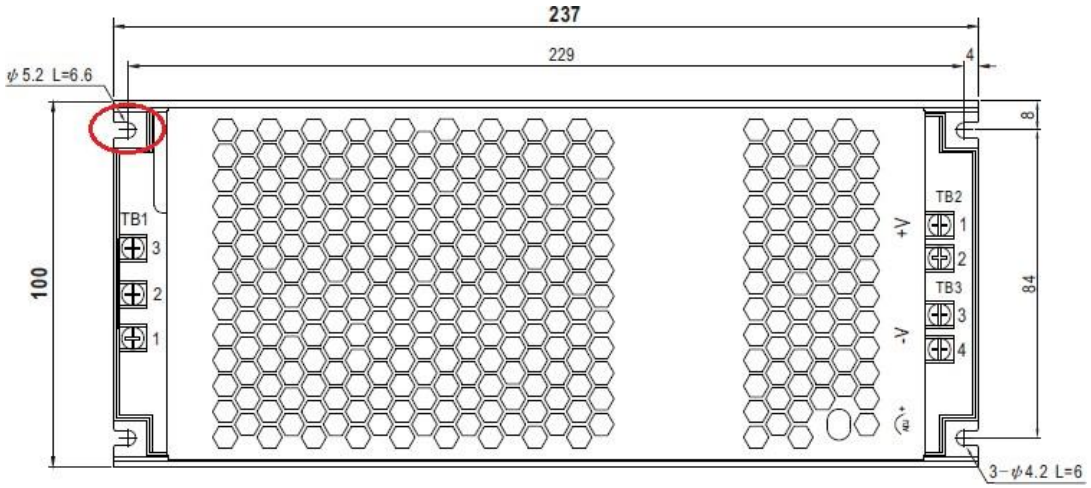

The mounting hole circled in red is the protective ground. Please use M5 screw with the diameter of the screw head less than 8mm.

(11) For other information about the products, please refer to www.meanwell.com for details.

- **Warning / Caution !!**

(1) Risk of electrical shock and energy hazard. All failure should be examined by a qualified technician. Please do not try to fix the converter by yourself!

(2) Risk of irreparable damage. Do not reverse polarity, both input and output.

(3) Please do not install converters in places with high moisture or near the water.

(4) Please do not install converters in places with high ambient temperature or near fire source. Please refer to the specifications about the maximum ambient temperature limitations.

(5) Output current and output wattage must not exceed the rated values on specifications.

(6) The ground (FG) must be connected to earth ground.

(7) For system considerations, PCB and enclosed type converters may require an additional inrush current limiting circuit to suppress high inrush current surges. If you are uncertain about that circuit, contact Mean Well.

(8) All of Mean Well's converters are designed in accordance with EMC regulations and the related test reports are available by request. Since they are belong to component power supplies and will be installed inside system enclosure, when they are integrated into a system, the EMC characteristics of the end system must be re-verified again.

(9) This product belong to class A information &technology equip. When install in household environment, radiation interference may occur, user must implement corresponding solution.

(10) The enclosure of surrounding equipments shall comply with V1 of above flammability capability.

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Declaration of China RoHS Conformity

In order to reduce the impacts on the environment and take the more responsibility for protecting the earth, MEAN WELL is confirming and announcing the conformity to China RoHS, an Administrative Measures for the Restriction of the Use of Hazardous Substances in Electrical and Electronic Products.

Environment Friendly Use Period Label

Observing SJT 11364-2014, Marking for the Restricted Use of Hazardous Substances in Electronic and Electrical Products

Observing SJ/Z 11388-2009, General Guidelines of Environment-friendly Use Period of Electronic Information Products Appendix B, adopting table look-up to verify the Environment Friendly Use Period

Names and Contents of Hazardous Substances Lists

Part Name	Hazardous Substances					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent chromium (Cr^{6+})	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
PCB and its components	X	O	O	O	O	O
Metal structure parts	X	O	O	O	O	O
Plastic structure parts	O	O	O	O	O	O
Accessories	O	O	O	O	O	O
Cables	X	O	O	O	O	O

O: The concentration of the hazardous substances within the homogeneous material of that product is less than the concentration limits set by GB/T 26572-2011.
X: The concentration of the hazardous substances within the homogeneous material of that product is over the concentration limits set by GB/T 26572-2011; however, it follows the standard advised by 2011/65/EU.

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Declaration of China VOC Conformity

In order to reduce the impacts on the environment and take the more responsibility for protecting the earth, MEAN WELL is confirming and announcing the conformity to China's Standardization Administration Releases VOC Standards

Standard No.	Name of the Standard
GB 30981-2020	Limit of harmful substances of industrial protective coatings
GB 33372-2020	Limits for volatile organic compounds content in adhesive
GB 38507-2020	Limits for volatile organic compounds (VOCs) In printing ink
GB 38508-2020	Limits for volatile organic compounds content in cleaning agents

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Declaration of Five PBT TSCA Conformity

In order to reduce the impacts on the environment and take the more responsibility for protecting the earth, MEAN WELL hereby confirms that MEAN WELL product series comply with Use and Risk Management for Five PBT Chemicals under TSCA section 6(h)

CAS No.	Substance Name
1163-19-5	Decabromodiphenyl ether (DecaBDE)
68937-41-7	Phenol, isopropylated, phosphate (3:1) PIP (3:1)
732-26-3	2,4,6-Tris (tert-butyl) phenol (2,4,6-TTBP)
133-49-3	Pentachlorothiophenol (PCTP)
87-68-3	Hexachlorobutadiene (HCBD)