



# Installation Manual

- **Type : Enclosed Type Switching Power Supply**  
(Families: ENP, G3, NE, NES, LRS, SE, PFC, HSP, SPV, UHP, USP, PSP, PSPA, RSP, RS, RST, G5, MSP, UHP)

- **Introduction**

Enclosed type switching power supplies possess a metal or plastic case for covering their internal PCB and will be installed inside the case of the end system. Mean Well's enclosed type power supplies include 2 different groups of power supplies, with built-in fan and without built-in fan, depending on their rated power or design concept.

- **Installation**

- ( 1 ) Before any installation or maintenance work, please disconnect your system from the utility. Ensure that it can't be re-connected inadvertently!
- ( 2 ) Keep enough insulation distance between mounting screws and internal components of power supplies. Please refer to case drawing on specifications to receive the maximum length of mounting screw.
- ( 3 ) 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.
- ( 4 ) Fans and ventilation holes must be kept free from any obstructions. Also a 10-15 cm clearance must be kept when the adjacent device is a heat source.
- ( 5 ) Input and Output terminal

Series	Terminal Screw	Screw Size	Suggested Torque
RSP-750 / 1000 / 1500 / 2000 / 2400 / 3000 SE-450 / 1000 / 1500 HEP-600 · HRP-300 · HRP-300 · MSP-300 SP-480 · SP-750 · SPV-1500 · USP-500 · RST-10000		M4	10-12kgf-cm
HRP-075 / 100 / 150 / 200 · HRP-150 / 200 LRS-035 / 050 / 075 / 100 / 150 / 150F / 200 / 350 MSP-100 / 200 NED-035 / 050 / 075 / 100 · NET-035 / 050 / 075 NES-025 / 035 / 050 / 075 / 100 / 150 / 200 / 350 QP-200 / 320 / 375 RD-050 / 065 / 085 / 125 · RID-050 / 065 / 085 / 125 RS-035 / 050 / 075 / 100 / 150 RSP-075 / 100 / 150 / 200 / 320 SP-075 / 100 / 150 / 200 / 240 / 320 · SPV-150/300 SE-100 / 200 / 350 · HSP-250 · PSP-600		M3.5	8-10 kgf-cm
RSP-1600 RD-035 · RT-050 / 065 / 085 / 125 RQ-050 / 065 / 085 / 125 TP-075 / 100 / 150 · QP-100 / 150 RS-015 / 025 NES-015 · USP-150		M3	6-8 kgf-cm
ERP-350 HDP-190 / 240 NEL-200 / 300		#6	8-10 kgf-cm
ENP-120 / 180 / 240 / 360		M2.6	4-5 kgf-cm



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Series \ Terminal Screw	Input		Output	
	Screw Size	Suggested Torque	Screw Size	Suggested Torque
HRP-450 / 600 HRPG-450 / 600 MSP-450 / 600 SE-600	M3	6-8kgf-cm	M4	10-12kgf-cm
HSP-150 / 200 /300 HSN-200 / 300	M3	6-8kgf-cm	M3.5	8-10kgf-cm
RSP-500	M3.5	8-10kgf-cm	M4	10-12kgf-cm
RST-5000	M4	10-12kgf-cm	M8	10-12kgf-cm
NEL-400	#6	8-10kgf-cm	M3	8-10kgf-cm
UHP-200(R) / 350(R) / 500(R)	M3	5kgf-cm	M3.5	8kgf-cm
UHP-200A	M3.5	13kgf-cm	M3.5	8kgf-cm

(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%



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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 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 <sup>2</sup> )	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.						

Make sure that all strands of each stranded wire enter the terminal connection and the screw terminals are securely fixed to prevent poor contact.

(8) For other information about the products, please refer to [www.meanwell.com](http://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 remove the case of the power supply by yourself!
- (2) Please do not install power supplies in places with high moisture or near the water.
- (3) Please do not install power supplies in places with high ambient temperature or near fire source. The maximum ambient temperature please refer to their specifications.
- (4) Output current and output wattage must not exceed the rated values on specifications.
- (5) The ground(FG) must be connected to earth ground.
- (6) All MW's PSUs 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.



## Installation Manual

- (7) This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
- (a) This device may not cause harmful interference, and
  - (b) this device must accept any interference received, including interference that may cause undesired operation.operation.

### Manufacturer :

MEAN WELL ENTERPRISES Co., LTD.  
No.28, Wuquan 3rd Rd., Wugu Dist.,  
New Taipei City 24891, Taiwan  
Tel: +886-2-2299-6100  
Web: [www.meanwell.com](http://www.meanwell.com)

### Branch Office :

#### **China**

MEAN WELL (GUANGZHOU)  
ENTERPRISES Co., LTD.  
2F, A Building, Yuean Industry Park,  
Huangcun,Dongpu Yown, Tianhe  
District, Gungzhou, China  
Post Code:510660  
Tel: +86-20-2887-1200  
Web: [www.meanwell.com.cn](http://www.meanwell.com.cn)

#### **China**

MEAN WELL (GUANGZHOU)  
ENTERPRISES Co., LTD.  
No.11, Jingu South Road, Huadong  
Town, Huadu Distric, Guangzhou,  
Gungzhou, China  
Tel: +86-20-3773-7100  
Web: [www.meanwell.com.cn](http://www.meanwell.com.cn)

#### **China**

SUZHOU MEAN WELL  
TECHNOLOGY Co., LTD.  
No.77, Jian-Ming Rd. Dong-Qiao,  
Pan-Yang Ind. Park, Huang-Dai  
Town, Xiang-Cheng District,  
Suzhou, Jiang-Su, China  
Post Code:215152  
Tel: +86-512-6508-8600  
Web: [www.meanwell.cc](http://www.meanwell.cc)

#### **U.S.A.**

MEAN WELL USA, INC.  
44030 Fremont Blvd., Fremont,  
CA 94538, U.S.A.  
Tel: +1-510-683-8886  
Web: [www.meanwellusa.com](http://www.meanwellusa.com)

#### **Europe**

MEAN WELL EUROPE B.V.  
Langs de Werf 8, 1185XT Amstelveen, The  
Netherlands  
Tel: +31-20-758-6000  
Web: [www.meanwell.eu](http://www.meanwell.eu)