Installation Manual

- **Type：LED Power Supply**

  （Families：CEN, CLG, ELG, ELGC, ELN, FDHC, FDL, FDLC, GSC, HBG, HBGC, HLG, HLN, HLP, HSG, HVG, HVGC, IDLC(V), IDPC(V), LCM, LDC, LPC, LPF, LPFH, LPH, LPHC, LPL, LPLC, LPV, LPVL, NPF, ODLC(V), OWA, PCD, PLC, PLD, PLM, PLN, PLP, PWM, SLD, XBG, XLG, ULP）

  Note：

  for LPHC-18,LPC-20,LPC-35,LPC-60,LPC-100,LPC-150/LPH-18,LPV-20,LPV-35,LPV-60, LPV-100, LPV-150/ APC, APV,:Only for installation in devices that have a different primary use than the Lighting, examples copiers, overhead projectors, or for scale and Display lighting."

- **Introduction**

  The LED power supply is a dedicated LED driving device that delivers a constant current/voltage or generates an adjustable current controlled by an external dimmer to LEDs. Depending on its types or design concept, some of them not only have PFC capability but also can be located in a harsh environment such as dusty, humid places. Mean Well's LED power supplies include metal case, plastic case, and PCB types.

- **Installation**

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

  （2）Keep proper ventilation around the unit and do not stack any object on it. Also a 10-15 cm clearance must be kept when the adjacent device is a heat source.

  （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 sheet to receive the optimum mounting position and information about the de-rating curve.

  （4）Current rating of an approved primary /secondary cable should be greater than or equal to that of the unit. Please refer to its specification.

  （5）For LED power supplies with waterproof connectors, verify that the linkage between the unit and the lighting fixture is tight so that water cannot intrude into the system.

  （6）For dimmable LED power supplies, make sure that your dimming controller is capable of driving these units. For those with "3 in 1" dimming or "2 in 1" dimming function, e.g. HLG or IDLC series, the output constant current level can be adjusted by applying one of the three methodologies between DIM+ and DIM-: 0/1 ~ 10VDC, 10V PWM signal or resistance. Please refer to DIMMING OPERATION Section of individual model specification sheet from https://www.meanwell.com/productSeries.aspx# for details.

  Note that the dimmable LED power supply series HLG-40H~320H, HLG-600H, HLG-60H~320H-C, HVG(C)-65~320, HVG-480, ELG, ELG-75~240-C, HBG, HBG-60P~240P, LPF(H), NPF, PWM, LCM HLP, HLN, IDLC(V), ODLC(V), IDPC(V), LDC dimming circuit is not isolated from the secondary output.

  （7）Wiring: The wire color will vary by country, please refer to the table below.

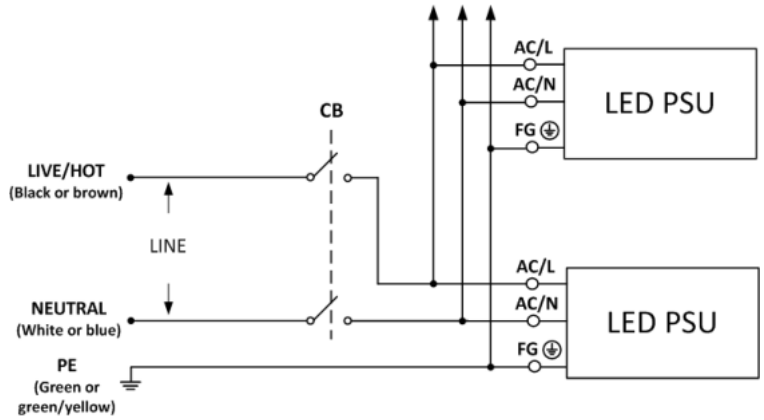
	North America	European Harmonized
Live and ACL	Black	Brown
Neutral and ACN	white	Blue
PE and FG (Class I only)	Green	Green/yellow

  （a）Connect the FG wire (green or green/yellow) of the LED power supply to PE (green or green/yellow), this step can be skipped when the unit is marked class II, ungrounded.

  （b）Connect the ACL wire (black or brown) of the LED power supply to Live (black or brown).

  （c）Connect the ACN wire (white or blue) of the LED power supply to Neutral (white or blue).

Installation Manual



（8）The maximum number of the LED PSUs that can be connected to a circuit breaker at 230V is shown as below.

Model	B10	B16	C10	C16	D10	D16
APC-8	11	17	18	29	37	59
APC-12	11	17	18	29	37	59
APC-16	8	13	14	23	28	46
APC-25	5	9	9	15	18	30
APC-35	3	5	6	9	12	19
APC-8E	11	17	18	29	37	59
APC-12E	11	17	18	29	37	59
APC-16E	8	13	14	23	26	42
APV-8	11	17	18	29	37	59
APV-12	11	17	18	29	37	59
APV-16	8	13	14	22	28	44
APV-25	5	9	9	15	18	30
APV-35	4	6	6	10	13	21
APV-8E	11	17	18	29	37	59
APV-12E	11	17	18	29	37	59
APV-16E	8	13	14	22	28	44
CEN-60	20	32	20	32	20	32
CEN-75	16	25	16	25	16	25
CEN-100	11	19	11	19	11	19
CLG-60	20	32	20	32	20	32
CLG-100	1	3	3	5	6	10
CLG-150	1	3	3	5	6	10
ELG-75	4	7	7	11	14	23
ELG-100	2	3	4	6	8	12
ELG-150	2	3	3	5	6	11
ELG-200	2	4	4	6	6	10
ELG-240	2	4	4	6	5	8
ELG-300	1	2	2	4	5	8

ELG-75-C	4	7	7	11	14	23
ELG-100-C	2	3	4	6	8	12
ELG-150-C	2	3	4	6	8	13
ELG-200-C	1	2	2	4	5	9
ELG-240-C	2	3	4	6	5	8
ELGC-300	1	2	2	4	5	8
ELN-30	3	4	5	8	10	16
ELN-60	2	3	3	5	7	11
FDHC-100	6	9	9	16	11	18
FDL-65	6	9	10	16	16	26
FDLC-80	6	10	10	17	16	25
FDLC-100	6	9	9	16	11	18
GSC18	26	42	26	42	26	42
GSC25	26	42	26	42	26	42
GSC40	22	36	22	36	22	36
HBG-60	18	28	20	32	20	32
HBG-100	3	4	5	8	10	16
HBG-160	2	4	4	7	9	15
HBG-240	1	2	2	3	4	7
HBG-60-P	18	28	20	32	20	32
HBG-100P	3	4	5	8	10	16
HBG-160P	2	4	4	7	9	15
HBG-240P	1	2	2	3	4	7
HBGC-300	1	2	2	4	5	8
HLG-40H	7	12	13	20	26	41
HLG-60H	6	9	10	16	20	32
HLG-80H	2	3	3	6	7	12
HLG-100H	3	4	5	8	10	16
HLG-120H	3	5	5	9	10	17
HLG-150H	2	4	4	7	8	13
HLG-185H	2	4	4	7	8	13
HLG-240H	1	2	3	4	5	8
HLG-320H	1	1	1	2	3	5
HLG-480H	0	1	1	2	3	5
HLG-600H	1	1	1	2	2	3
HLG-60H-C	5	8	8	13	16	26
HLG-80H-C	3	4	5	8	10	16
HLG-120H-C	2	4	4	6	8	13
HLG-185H-C	2	4	4	7	8	13
HLG-240H-C	1	2	2	3	4	7
HLG-320H-C	0	1	1	2	3	5
HLG-480H-C	0	1	1	2	3	5

HLN-40H	7	12	13	20	26	41
HLN-60H	6	9	10	16	20	32
HLN-80H	2	3	3	6	7	12
HLP-40H	7	12	13	20	26	41
HLP-60H	6	9	10	16	20	32
HLP-80H	2	3	3	5	6	10
HSG-70	4	6	7	11	14	22
HVG-65 (480V)	7	12	12	20	25	40
HVG-100 (480V)	3	5	5	8	10	17
HVG-150 (480V)	2	4	4	6	8	13
HVG-240 (480V)	2	4	4	7	9	15
HVG-320 (480V)	1	2	2	4	5	8
HVGC-65 (480V)	7	12	12	20	25	40
HVGC-100 (480V)	3	5	5	8	10	17
HVGC-150 (480V)	2	4	4	6	8	13
HVGC-240 (480V)	2	4	4	7	9	15
HVGC-320 (480V)	1	2	2	4	5	8
HVGC-650 (480V)	1	2	2	4	5	8
HVGC-1000 (480V)	1	1	1	3	3	5
IDLC-25(V)	27	43	45	72	50	80
IDLC-45(V)	20	32	20	32	20	32
IDLC-65(V)	20	32	20	32	20	32
IDPC-25(V)	27	43	45	72	50	80
IDPC-45(V)	20	32	20	32	20	32
IDPC-65(V)	20	32	20	32	20	32
LCM-25	16	26	27	44	50	80
LCM-40	16	26	27	44	29	47
LCM-60	15	25	20	32	20	32
LCM-25DA	16	26	27	44	50	80
LCM-40DA	16	26	27	44	29	47
LCM-60DA	15	25	20	32	20	32
LCM-40U (115V)	18	29	18	29	18	29
LCM-60U (115V)	12	19	12	19	12	19
LCM-40UDA (115V)	18	29	18	29	18	29
LCM-60UDA (115V)	12	19	12	19	12	19
LDC-35	11	17	18	29	36	58
LDC-55	11	17	18	29	36	58
LDC-80	4	6	7	11	14	23
LPC-20	5	8	9	14	18	29
LPC-35	2	4	4	7	9	15
LPC-60	2	3	3	6	7	12
LPC-100	1	1	1	2	3	5

LPC-150	2	3	4	6	5	8
LPF-16	9	14	15	24	30	48
LPF-25	8	12	13	21	27	43
LPF-40	7	12	13	20	26	41
LPF-60	5	8	9	14	18	29
LPF-90	2	4	4	6	8	13
LPF-16D	9	14	15	24	30	48
LPF-25D	8	12	13	21	27	43
LPF-40D	7	12	13	20	26	41
LPF-60D	5	8	9	14	18	29
LPF-90D	2	4	4	6	8	13
LPFH-60 (347V)	3	5	5	9	11	18
LPFH-60D (347V)	3	5	5	9	11	18
LPH-18	10	17	18	28	36	57
LPHC-18	8	13	14	22	28	44
LPL-18 (115V)	10	16	16	27	20	32
LPLC-18 (115V)	7	12	12	20	20	32
LPV-20	5	8	9	14	18	29
LPV-35	2	4	4	7	9	14
LPV-60	2	3	4	6	8	12
LPV-100	1	2	2	3	4	7
LPV-150	1	2	2	3	4	7
LPVL-150 (115V)	1	1	1	2	2	4
NPF-40	6	9	10	16	20	32
NPF-60	6	9	10	16	20	32
NPF-90	2	3	3	6	7	12
NPF-120	2	4	4	6	8	13
NPF-40D	6	9	10	16	20	32
NPF-60D	6	9	10	16	20	32
NPF-90D	2	3	3	6	7	12
NPF-120D	2	4	4	6	8	13
NPF-200	2	3	3	5	6	11
ODLC-45(V)	20	32	20	32	20	32
ODLC-65(V)	20	32	20	32	20	32
OWA-60E	1	2	2	4	5	8
OWA-90E	2	3	3	6	7	12
OWA-120E	2	4	4	6	8	13
OWA-200E	2	3	3	5	6	11
OWA-60U	1	2	2	4	5	8
OWA-90U	2	3	3	6	7	12
OWA-120U	2	4	4	6	8	13
OWA-200U	2	3	3	5	6	11

PCD-16A (115V)	36	58	36	58	36	58
PCD-16B	80	128	80	128	80	128
PCD-25A (115V)	23	37	23	37	23	37
PCD-25B	50	80	50	80	50	80
PCD-40B	29	47	29	47	29	47
PCD-60B	20	32	20	32	20	32
PLC-30	40	64	40	64	40	64
PLC-45	26	42	26	42	26	42
PLC-60	20	32	20	32	20	32
PLC-100	1	3	3	5	6	10
PLD-16A (115V)	36	58	36	58	36	58
PLD-16B	80	128	80	128	80	128
PLD-25	45	72	50	80	50	80
PLD-40B	29	47	29	47	29	47
PLD-60B	20	32	20	32	20	32
PLM-12	100	160	100	160	100	160
PLM-25	50	80	50	80	50	80
PLM-40	29	47	29	47	29	47
PLN-20	61	98	61	98	61	98
PLN-30	40	64	40	64	40	64
PLN-45	26	42	26	42	26	42
PLN-60	20	32	20	32	20	32
PLN-100	1	3	3	5	6	10
PLP-20	57	92	61	98	61	98
PLP-30	40	64	40	64	40	64
PLP-45	26	42	26	42	26	42
PLP-60	20	32	20	32	20	32
PWM-40	6	9	10	16	20	32
PWM-60	6	9	10	16	20	32
PWM-90	2	3	3	6	7	12
PWM-120	2	4	4	6	8	13
PWM-200	2	3	3	5	6	11
SLD-50	5	8	9	16	18	28
SLD-80	5	8	9	16	18	28
XBG-100	4	6	6	11	13	32
XBG-160	2	4	4	7	8	13
XBG-240	1	3	3	5	6	9
XLG-25	3	5	5	8	11	17
XLG-50	3	5	5	8	11	17
XLG-75	3	9	5	14	10	16
XLG-100	5	8	8	14	17	27
XLG-150	3	4	5	8	8	12

XLG-200	2	3	3	6	7	11
XLG-240	1	2	2	4	5	9
ULP-150	2	4	4	6	8	13

Note: These calculated values are based on MCB *S200 series* manufactured by *ABB* except for HVG/HVGC series, which are calculated by using MCB *S260 series* of the same manufacturer.

（9）Please confirm whether the installation wall or structural strength of the lamps is sufficient, and need to be hung with safety cables for bay light application.

（10）Device is a component power supply, proper insulation / isolation around interconnections should be provided at system level. Single insulated wire should be coved by the system enclosure for safety concern.

（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 remove the case of the power supply by yourself!

（2）Risk of irreparable damage. LED power supplies with IP64 to IP66 rating or IP67 rating with ADJ. function must be located indoors or in a location where these units can be sheltered from the rain if outdoors. All products cannot be in water.

（3）Please do not install LED power supplies in places with high ambient temperature or close to fire source. Please refer to the specifications about the maximum ambient temperature limitations.

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

（5）The FG (⏚) must be well connected to PE(protective earth) if the unit equips with it.

（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.

（7）If the external flexible cable or cord of this switching power supply is damaged, it shall be exclusively replaced by the manufacturer or his service agent or a similar qualified person in order to avoid a hazard.

（8）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.

（9）Please install LPF series with fireproof enclosure of V1 or higher to connect peripheral equipment for BSMI certification.

（10）Recommend torque of assembly screw for APC/APV/PCD/PLD series : 3.2~4.8kgf-cm.

（11）LED power supply needs to be disposed together with lighting equipment after the end of its life.

Installation Manual

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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)