









## ■ Applications (for Blank type only)

 Suitable for LED related fixture or appliance (such as LED Decoration or Advertisement devices)(Note.10)

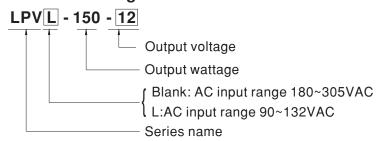
#### Features

- · Constant voltage design
- 90~132VAC input for LPVL-150 180~305VAC input for LPV-150
- Fully encapsulated with IP67 level (Note.7)
- · Class II power unit, no FG
- Protections: Short circuit/Overload/Over voltage/ Over temperature
- · Fully isolated plastic case
- · Fanless design, cooling by free air convection
- · 100% full load burn-in test
- · Low cost, high reliability
- Listed in UL Sign Component Manual (SAM)
- Type "HL" for use in class I, Division 2 hazardous (Classified) location luminaires for LPVL-150
- · 2 years warranty

### Description

LPV-150 and LPVL-150 are 150W single output power supplies that specifically and perfectly work for LED lighting and LED moving sign applications. As a class II power unit, these two series are housed with the UL 94V-0 rated flame retardant plastic enclosure. The IP67 design allows every model to fit the use at dry, damp and wet locations. Both series are constant voltage mode design that various models with 12V, 15V, 24V, 36V and 48V are offered for LPV-150 where as 12V and 24V are provided for LPVL-150.

#### **■** Model Encoding



# 150W Single Output Switching Power Supply

### **SPECIFICATION**

MODEL		LPV -150-12	LPV-150-15	LPV ☐ -150-24	LPV-150-36	LPV-150-48	
	DC VOLTAGE		12V	15V	24V	36V	48V
	RATED CURRENT		10A	8A	6.3A	4.2A	3.2A
	CURRENT RANGE		0 ~ 10A	0 ~ 8A	0.5A 0 ~ 6.3A	0 ~ 4.2A	0 ~ 3.2A
OUTPUT	RATED POWER		120W	120W	151.2W	151.2W	153.6W
	RIPPLE & NOISE (max.) Note.2			200mVp-p	200mVp-p	200mVp-p	200mVp-p
	VOLTAGE TOLERANCE Note.3			200111 γ ρ-ρ	200πγρ-ρ	2001117 P	2001117 P
	LINE REGULATION		±1.0%				
	LOAD REGULATION		±2.0%				
			ELPV-150: 500ms, 50ms / 230VAC 500ms, 50ms / 277VAC; LPVL-150: 1500ms, 50ms / 115VAC				
	HOLD UP TIME (Typ.)		LPV-150: 18ms/230VAC 20ms/277VAC at full load; LPVL-150: 10ms/115VAC at full load				
	FREQUENCY RANGE		LPV-150: 180 ~ 305VAC 254 ~ 431VDC; LPVL-150: 90~132VAC				
				000/	000/	000/	000/
	EFFICIENCY (Typ.)		87%	88%	89%	89%	90%
	AC CURRENT		LPV-150: 1.7A/230VAC 1.5A/277VAC; LPVL-150: 3.0A/115VAC				
INPUT	INRUSH CURRENT Blank type COLD START 60A(twidth=900µs measured at 50% Ipeak) at 230VAC						
	(Typ.) L type COLD START 75A(twidth=900µs measured at 50% Ipeak) at 115VAC						
	MAX. No. of PSUs	Blank type	2 units (circuit breaker of type B) / 3 units (circuit breaker of type C) at 230VAC				
	on 16A CIRCUIT BREAKER		1 units (circuit breaker of type B) / 2 units (circuit breaker of type C) at 115VAC				
		L type					
	LEAKAGE CURRENT		LPV-150: 0.25mA / 240VAC LPVL-150:0.25mA / 120VAC				
	OVERLOAD		110 ~ 150% rated output power				
			Protection type : Hiccup	mode, recovers autom	atically after fault condition	is removed	
PROTECTION	OVER VOLTAGE		13.5 ~ 18V	17 ~ 25V	27 ~ 35V	40 ~ 49V	52 ~ 63V
			Protection type : Shut down o/p voltage, re-power on to recover				
	OVER TEMPERATURE		Shut down o/p voltage, recovers automatically after temperature goes down				
	WORKING TEMP.		-25 ~ +65°C (Refer to "Derating Curve")				
ENVIRONMENT	WORKING HUMIDITY		20 ~ 90% RH non-condensing				
	STORAGE TEMP., HUMIDITY		-40 ~ +80°C, 10 ~ 95% RH				
	TEMP. COEFFICIENT		$\pm 0.03\%$ (0 ~ 40°C for LPV-150-12,15 and LPVL-150-12,24;0~50°C for LPV-150-24,36,48)				
	VIBRATION		10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes				
SAFETY & EMC	SAFETY STANDARDS	Blank type	UL8750,CSA C22.2 No 250.13-12,UL879,CSA C22.2 No.207-M89,BIS IS15885(for LPV-150-12,24 only),EAC TP TC 004, IP67, IEC62368-1 approved; Design refer to BS EN/EN62368-1				
		Біанк туре					
		L type	UL8750(type"HL"), CSA C22.2 No 250.13-12, UL879, CSA C22.2 No.207-M89, IP67 approved				
	WITHSTAND VOLTAGE		I/P-O/P:3KVAC				
	ISOLATION RESISTANCE		I/P-O/P:>100M Ohms / 500VDC / 25°C/ 70% RH				
	EMC EMISSION						
	EMC EMICCION	Blank type	Compliance to BS EN/EI	N55032 (CISPR32) Clas	s B, BS EN/EN61000-3-2 C	lass A(≤80% load), BS E	:N/EN61000-3-3, EAC TP TC 020
	EMC EMISSION	Blank type L type	Compliance to BS EN/El Compliance to FCC par	,	s B, BS EN/EN61000-3-2 C	lass A(≤80% load), BS E	:N/EN61000-3-3, EAC TP TC 020
			Compliance to FCC par	15	s B, BS EN/EN61000-3-2 C 1; BS EN/EN55024, light in	,	
	EMC EMISSION EMC IMMUNITY	L type	Compliance to FCC par Compliance to BS EN/E	15 N61000-4-2,3,4,5,6,8,1		,	
		L type Blank type	Compliance to FCC par Compliance to BS EN/E Design refer to IEC6100	15 N61000-4-2,3,4,5,6,8,1	1; BS EN/EN55024, light in	,	
OTHERS	EMC IMMUNITY	L type Blank type	Compliance to FCC par Compliance to BS EN/E Design refer to IEC6100	115 N61000-4-2,3,4,5,6,8,1 00-4-2,3,4,5,6,8,11; ligh DBK-217F (25°C)	1; BS EN/EN55024, light in	,	
OTHERS	EMC IMMUNITY  MTBF  DIMENSION	L type Blank type	Compliance to FCC par Compliance to BS EN/E Design refer to IEC6100 703Khrs min. MIL-HI	15 N61000-4-2,3,4,5,6,8,1 10-4-2,3,4,5,6,8,11; ligh DBK-217F (25°C)	1; BS EN/EN55024, light in	dustry level, criteria A, E	
	EMC IMMUNITY  MTBF  DIMENSION  PACKING	L type Blank type L type	Compliance to FCC par Compliance to BS EN/E Design refer to IEC6100 703Khrs min. MIL-HI 191*63*37.5mm (L*W*H LPV-150: 0.74Kg;20pcs	t 15 N61000-4-2,3,4,5,6,8,1 10-4-2,3,4,5,6,8,11; ligh DBK-217F (25°C) II) I/15.8Kg/0.95CUFT;	1; BS EN/EN55024, light in t industry level, criteria A	dustry level, criteria A, E	EAC TP TC 020
OTHERS	EMC IMMUNITY  MTBF  DIMENSION  PACKING  1. All parameters N	L type Blank type L type OT specially	Compliance to FCC par Compliance to BS EN/E Design refer to IEC6100 703Khrs min. MIL-HI 191*63*37.5mm (L*W*H LPV-150: 0.74Kg;20pcs mentioned are measure	15 N61000-4-2,3,4,5,6,8,11; ligh DBK-217F (25°C) II) I/15.8Kg/0.95CUFT; d at 230VAC(115VAC f	1; BS EN/EN55024, light in t industry level, criteria A LPVL-150: 0.85Kg;20pcs	dustry level, criteria A, E s/17Kg/0.95CUFT and 25°C of ambient ten	EAC TP TC 020
	EMC IMMUNITY  MTBF  DIMENSION  PACKING  1. All parameters N 2. Ripple & noise a	L type Blank type L type OT specially re measured	Compliance to FCC par Compliance to BS EN/E Design refer to IEC6100 703Khrs min. MIL-HI 191*63*37.5mm (L*W*H LPV-150: 0.74Kg;20pcs mentioned are measure	15 N61000-4-2,3,4,5,6,8,11; ligh DBK-217F (25°C) II) I/15.8Kg/0.95CUFT; d at 230VAC(115VAC f by using a 12" twisted p	1; BS EN/EN55024, light in t industry level, criteria A LPVL-150: 0.85Kg;20pcs or LPVL) input, rated load a	dustry level, criteria A, E s/17Kg/0.95CUFT and 25°C of ambient ten	EAC TP TC 020
	EMC IMMUNITY  MTBF  DIMENSION  PACKING  1. All parameters N 2. Ripple & noise a 3. Tolerance : inclu 4. Derating may be	L type Blank type L type OT specially re measured des set up to needed und	Compliance to FCC par Compliance to BS EN/E Design refer to IEC6100 703Khrs min. MIL-HI 191*63*37.5mm (L*W*h LPV-150: 0.74Kg;20pcs mentioned are measure at 20MHz of bandwidth olerance, line regulation at the low input voltage. Plea	15 N61000-4-2,3,4,5,6,8,11; ligh DBK-217F (25°C) I) //15.8Kg/0.95CUFT; d at 230VAC(115VAC f by using a 12" twisted p and load regulation. ase check the static cha	1; BS EN/EN55024, light in t industry level, criteria A  LPVL-150: 0.85Kg;20pc; for LPVL) input, rated load a pair-wire terminated with a caracteristics for more details	dustry level, criteria A, E s/17Kg/0.95CUFT and 25°C of ambient ten 0.1uf & 47uf parallel cap	EAC TP TC 020  Inperature.  acitor.
	EMC IMMUNITY  MTBF  DIMENSION  PACKING  1. All parameters N 2. Ripple & noise a 3. Tolerance : inclu 4. Derating may be 5. The power suppl	L type Blank type L type OT specially re measured des set up to needed und ly is conside	Compliance to FCC par Compliance to BS EN/E Design refer to IEC6100 703Khrs min. MIL-HI 191*63*37.5mm (L*W*I- LPV-150: 0.74Kg;20pcs mentioned are measure I at 20MHz of bandwidth olerance, line regulation a fer low input voltage. Plea red as a component that	15 N61000-4-2,3,4,5,6,8,11; ligh DBK-217F (25°C) I) //15.8Kg/0.95CUFT; d at 230VAC(115VAC f by using a 12" twisted p and load regulation. ase check the static cha will be operated in com	1; BS EN/EN55024, light in t industry level, criteria A  LPVL-150: 0.85Kg;20pcs for LPVL) input, rated load a pair-wire terminated with a coaracteristics for more details bination with final equipmen	dustry level, criteria A, E s/17Kg/0.95CUFT and 25°C of ambient ten 0.1uf & 47uf parallel cap i. nt. Since EMC performan	EAC TP TC 020  Inperature.  acitor.
	EMC IMMUNITY  MTBF  DIMENSION  PACKING  1. All parameters N 2. Ripple & noise a 3. Tolerance : inclu 4. Derating may be 5. The power supplicomplete installa	L type Blank type L type OT specially re measured des set up to needed und ly is conside tion, the final	Compliance to FCC par Compliance to BS EN/E Design refer to IEC6100 703Khrs min. MIL-HI 191*63*37.5mm (L*W*I- LPV-150: 0.74Kg;20pcs mentioned are measure I at 20MHz of bandwidth olerance, line regulation a fer low input voltage. Plea red as a component that I equipment manufacture	N61000-4-2,3,4,5,6,8,11; ligh (10-4-2,3,4,5,6,8,11; ligh (10-4-2,3,4,5,6,8,	1; BS EN/EN55024, light in t industry level, criteria A  LPVL-150: 0.85Kg;20pcs for LPVL) input, rated load a pair-wire terminated with a coaracteristics for more details bination with final equipmer Directive on the complete i	dustry level, criteria A, E s/17Kg/0.95CUFT and 25°C of ambient ten 0.1uf & 47uf parallel cap i. nt. Since EMC performan	EAC TP TC 020  Inperature.  acitor.
	EMC IMMUNITY  MTBF  DIMENSION  PACKING  1. All parameters N 2. Ripple & noise a 3. Tolerance: inclu 4. Derating may be 5. The power supplicomplete installa 6. Length of set up	L type Blank type L type OT specially re measured des set up to needed und ly is conside tion, the fina time is mea	Compliance to FCC par Compliance to BS EN/E Design refer to IEC6100 703Khrs min. MIL-HI 191*63*37.5mm (L*W*I- LPV-150: 0.74Kg;20pcs mentioned are measure I at 20MHz of bandwidth olerance, line regulation a fer low input voltage. Plea red as a component that I equipment manufacture sured at first cold start. T	N61000-4-2,3,4,5,6,8,11; ligh (10-4-2,3,4,5,6,8,11; ligh (10-4-2,3,4,5,6,8,	1; BS EN/EN55024, light in t industry level, criteria A  LPVL-150: 0.85Kg;20pcs for LPVL) input, rated load a pair-wire terminated with a coaracteristics for more details bination with final equipmen	dustry level, criteria A, E s/17Kg/0.95CUFT and 25°C of ambient ten 0.1uf & 47uf parallel cap i. nt. Since EMC performan	EAC TP TC 020  Inperature.  acitor.
	EMC IMMUNITY  MTBF  DIMENSION  PACKING  1. All parameters N 2. Ripple & noise a 3. Tolerance: inclu 4. Derating may be 5. The power suppl complete installa 6. Length of set up 7. Suitable for indoor	L type  Blank type L type  OT specially re measured des set up to needed und ly is conside tion, the fina time is measured or use or out	Compliance to FCC par Compliance to BS EN/E Design refer to IEC6100 703Khrs min. MIL-HI 191*63*37.5mm (L*W*) LPV-150: 0.74Kg;20pcs mentioned are measure at 20MHz of bandwidth olerance, line regulation a der low input voltage. Plea red as a component that I equipment manufacture sured at first cold start. T door use without direct s	N61000-4-2,3,4,5,6,8,11; ligh (10-4-2,3,4,5,6,8,11; ligh (10-4-2,3,4,5,6,8,	1; BS EN/EN55024, light in t industry level, criteria A  LPVL-150: 0.85Kg;20pcs for LPVL) input, rated load a pair-wire terminated with a coaracteristics for more details bination with final equipmer Directive on the complete inversupply may lead to increase.	dustry level, criteria A, E s/17Kg/0.95CUFT and 25°C of ambient ten 0.1uf & 47uf parallel cap i. at. Since EMC performant installation again. ease of the set up time.	nperature. acitor.  acitor will be affected by the
	EMC IMMUNITY  MTBF  DIMENSION  PACKING  1. All parameters N 2. Ripple & noise a 3. Tolerance: inclu 4. Derating may be 5. The power suppl complete installa 6. Length of set up 7. Suitable for indox 8. The ambient term	L type  Blank type L type  OT specially re measured des set up to needed und ly is conside tion, the finatime is mea or use or our operature des	Compliance to FCC par Compliance to BS EN/E Design refer to IEC6100 703Khrs min. MIL-HI 191*63*37.5mm (L*W*I-LPV-150: 0.74Kg;20pcs mentioned are measured at 20MHz of bandwidth olerance, line regulation after low input voltage. Pleared as a component that I equipment manufacture sured at first cold start. Todoor use without direct strating of 3.5°C/1000m with	N61000-4-2,3,4,5,6,8,11; ligh (DBK-217F (25°C))  N61008-4-2,3,4,5,6,8,11; ligh (DBK-217F (25°C))  N615.8Kg/0.95CUFT; dat 230VAC(115VAC fiby using a 12" twisted pand load regulation. ase check the static chawill be operated in common rs must re-qualify EMC urning ON/OFF the power unlight exposure.	1; BS EN/EN55024, light in t industry level, criteria A  LPVL-150: 0.85Kg;20pcs for LPVL) input, rated load a pair-wire terminated with a coaracteristics for more details bination with final equipmer Directive on the complete inversupply may lead to increase of 5°C/1000m with fan mode	dustry level, criteria A, E s/17Kg/0.95CUFT and 25°C of ambient ten 0.1uf & 47uf parallel cap int. Since EMC performant installation again. ease of the set up time.	EAC TP TC 020  Inperature.  acitor.
	EMC IMMUNITY  MTBF  DIMENSION  PACKING  1. All parameters N 2. Ripple & noise a 3. Tolerance: inclu 4. Derating may be 5. The power suppl complete installa 6. Length of set up 7. Suitable for indo 8. The ambient terr 9. For any applicati	L type  Blank type L type  OT specially re measuredes set up to needed und ly is conside time is measured or use or our operature deson note and	Compliance to FCC par Compliance to BS EN/E Design refer to IEC6100 703Khrs min. MIL-HI 191*63*37.5mm (L*W*)-LPV-150: 0.74Kg;20pcs mentioned are measured at 20MHz of bandwidth olerance, line regulation after low input voltage. Pleared as a component that I equipment manufacture sured at first cold start. Todoor use without direct strating of 3.5°C/1000m with IP water proof function in	N61000-4-2,3,4,5,6,8,11; ligh (DBK-217F (25°C))  N61008-4-2,3,4,5,6,8,11; ligh (DBK-217F (25°C))  N615.8Kg/0.95CUFT; dat 230VAC(115VAC fiby using a 12" twisted pand load regulation. ase check the static chawill be operated in common rs must re-qualify EMC urning ON/OFF the power unlight exposure.	1; BS EN/EN55024, light in t industry level, criteria A  LPVL-150: 0.85Kg;20pcs for LPVL) input, rated load a pair-wire terminated with a coaracteristics for more details bination with final equipmer Directive on the complete inversupply may lead to increase.	dustry level, criteria A, E s/17Kg/0.95CUFT and 25°C of ambient ten 0.1uf & 47uf parallel cap int. Since EMC performant installation again. ease of the set up time.	nperature. acitor.  acitor will be affected by the
	EMC IMMUNITY  MTBF  DIMENSION  PACKING  1. All parameters N 2. Ripple & noise a 3. Tolerance : inclu 4. Derating may be 5. The power suppl complete installa 6. Length of set up 7. Suitable for indo 8. The ambient terr 9. For any applicati https://www.mea	L type  Blank type L type  OT specially re measured des set up to needed und ly is conside time is mea or use or our operature de on note and nwell.com/U	Compliance to FCC par Compliance to BS EN/E Design refer to IEC6100 703Khrs min. MIL-HI 191*63*37.5mm (L*W*L-LPV-150: 0.74Kg;20pcs mentioned are measured at 20MHz of bandwidth olerance, line regulation after low input voltage. Pleared as a component that I equipment manufacture sured at first cold start. Todoor use without direct strating of 3.5°C/1000m with IP water proof function in pload/PDF/LED_EN.pdf	N61000-4-2,3,4,5,6,8,11; ligh (10-4-2,3,4,5,6,8,11; ligh (10-4-2,3,4,5,5,11	1; BS EN/EN55024, light in t industry level, criteria A  LPVL-150: 0.85Kg;20pcs for LPVL) input, rated load a pair-wire terminated with a coaracteristics for more details bination with final equipmer Directive on the complete inversupply may lead to increase for 5°C/1000m with fan mode is erefer our user manual be	dustry level, criteria A, E s/17Kg/0.95CUFT and 25°C of ambient ten 0.1uf & 47uf parallel cap ant. Since EMC performan installation again. ease of the set up time. els for operating altitude to	EAC TP TC 020  Inperature.  acitor.  Ince will be affected by the higher than 2000m(6500ft).
	EMC IMMUNITY  MTBF  DIMENSION  PACKING  1. All parameters N 2. Ripple & noise a 3. Tolerance: inclu 4. Derating may be 5. The power suppl complete installa 6. Length of set up 7. Suitable for indo 8. The ambient tem 9. For any applicati https://www.mea 10. This product is	L type  Blank type L type  OT specially re measured des set up to needed und ly is conside time is mea or use or our operature deson note and nwell.com/U not intended	Compliance to FCC par Compliance to BS EN/E Design refer to IEC6100 703Khrs min. MIL-HI 191*63*37.5mm (L*W*L-LPV-150: 0.74Kg;20pcs mentioned are measured at 20MHz of bandwidth olerance, line regulation after low input voltage. Pleared as a component that I equipment manufacture sured at first cold start. Todoor use without direct strating of 3.5°C/1000m with IP water proof function in pload/PDF/LED_EN.pdf for LED lighting luminair	N61000-4-2,3,4,5,6,8,11; ligh (10-4-2,3,4,5,6,8,11; ligh (10-4-2,3,4,5,5,5,	1; BS EN/EN55024, light in t industry level, criteria A  LPVL-150: 0.85Kg;20pcs for LPVL) input, rated load a pair-wire terminated with a coaracteristics for more details bination with final equipmer Directive on the complete inversupply may lead to increase refer our user manual best. (In the EU the LPF/NPF/X	dustry level, criteria A, E s/17Kg/0.95CUFT and 25°C of ambient ten 0.1uf & 47uf parallel cap int. Since EMC performan installation again. ease of the set up time. els for operating altitude I fore using.  LG series are recommen	EAC TP TC 020  Inperature.  acitor.  Ince will be affected by the higher than 2000m(6500ft).



