

## 20W Single Output Switching Power Supply

# LPV-20 series



### Features :

- Constant voltage design
- Universal AC input / Full range
- Withstand 300VAC surge input for 5 seconds
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- Small and compact size
- Fully encapsulated with IP67 level (Note.7)
- · Fully isolated plastic case
- Class  ${\rm I\hspace{-1.5pt}I}$  power unit, no FG
- Pass LPS
- Suitable for LED lighting and moving sign applications
- 100% full load burn-in test
- Low cost, high reliability
- 2 years warranty

# □ LPS IP67 - **\$\\**\_\_\_s **C** €

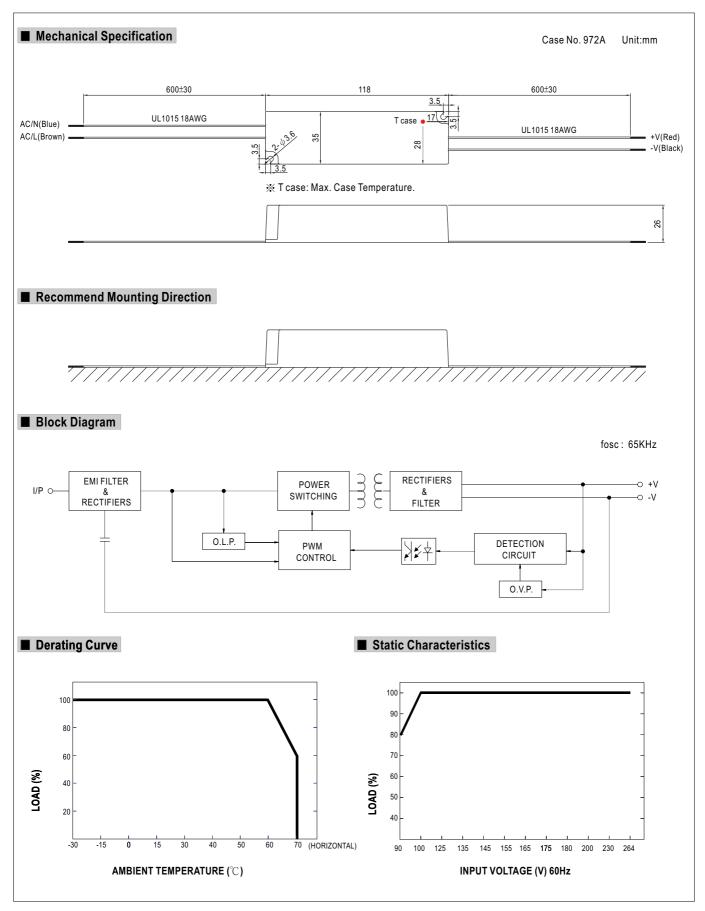
#### SPECIFICATION

MODEL		LPV-20-5	LPV-20-12	LPV-20-15	LPV-20-24
OUTPUT	DC VOLTAGE	5V	12V	15V	24V
	RATED CURRENT	3A	1.67A	1.33A	0.84A
	CURRENT RANGE	0 ~ 3A	0~1.67A	0~1.33A	0~0.84A
	RATED POWER	15W	20W	20W	20.2W
	RIPPLE & NOISE (max.) Note.2	80mVp-p	120mVp-p	120mVp-p	150mVp-p
	VOLTAGE TOLERANCE Note.3	±5.0%			
	LINE REGULATION	±1.0%			
	LOAD REGULATION	±2.0%			
	SETUP, RISE TIME Note.6	500ms, 20ms / 230VAC 500ms, 20ms / 115VAC at full load			
	HOLD UP TIME (Typ.)	50ms/230VAC 16ms/115VAC at full load			
INPUT	VOLTAGE RANGE Note.4	90 ~ 264VAC 127 ~ 370VDC			
	FREQUENCY RANGE	47 ~ 63Hz			
	EFFICIENCY (Typ.)	77%	81%	83%	83%
	AC CURRENT (Typ.)	0.55A/115VAC 0.35A/230VAC			
	INRUSH CURRENT(max.)	COLD START 35A/115VAC 70A/230VAC 70A/230VAC			
	LEAKAGE CURRENT	0.25mA / 240VAC			
PROTECTION	OVERLOAD	110 ~ 150% rated output power			
	OVERLOAD	Protection type : Hiccup mode, recovers automatically after fault condition is removed			
		5.75~6.75V	13.8 ~ 16V	17.5 ~ 21V	28 ~ 32V
	OVER VOLTAGE	Protection type : Shut off o/p voltage, clamping by zener diode			
ENVIRONMENT	WORKING TEMP.	-30 ~ +70°C (Refer to "Derating Curve")			
	WORKING HUMIDITY	20 ~ 90% RH non-condensing			
	STORAGE TEMP., HUMIDITY	-40 ~ +80°C, 10 ~ 95% RH			
	TEMP. COEFFICIENT	±0.03%/°C (0~50°C)			
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes			
SAFETY & EMC	SAFETY STANDARDS	UL879, UL1310 Class 2, CAN/CSA C22.2 No. 223-M91, IP67 approved ; design refer to TUV EN60950-1, EN61347-2-13			
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC			
	ISOLATION RESISTANCE	I/P-O/P:>100M Ohms / 500VDC / 25°C/ 70% RH			
	EMC EMISSION	Compliance to EN55022 (CISPR22) Class B, EN61000-3-2 Class A, EN61000-3-3			
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, light industry level, criteria A			
OTHERS	MTBF	786.5Khrs min. MIL-HDBK-217F (25℃)			
	DIMENSION	118*35*26mm (L*W*H)			
	PACKING	0.22Kg; 60pcs/14.2Kg/0.62CUFT			
NOTE	<ol> <li>Ripple &amp; noise are measure</li> <li>Tolerance : includes set up</li> <li>Derating may be needed ui</li> <li>The power supply is consid complete installation, the fir</li> <li>Length of set up time is me</li> </ol>	Illy mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. ed at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. tolerance, line regulation and load regulation. nder low input voltage. Please check the static characteristics for more details. Jered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the nal equipment manufacturers must re-qualify EMC Directive on the complete installation again. passured at first cold start. Turning ON/OFF the power supply may lead to increase of the set up time. putdoor use without direct sunlight exposure. Please avoid immerse in the water over 30 minute.			



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