



## 20W Single Output Switching Power Supply

## LPV-20 series



### ■ Features :

- Constant voltage mode power supply
- Universal AC input / Full range
- Withstand 300VAC surge input for 5 seconds
- Protections: Short circuit / Over current / Over voltage
- Fully isolated plastic case
- Cooling by free air convection
- Small and compact size
- UL1310 Class 2 power unit, pass LPS
- 100% full load burn-in test
- Low cost, high reliability
- Suitable for LED lighting and moving sign applications
- 2 years warranty

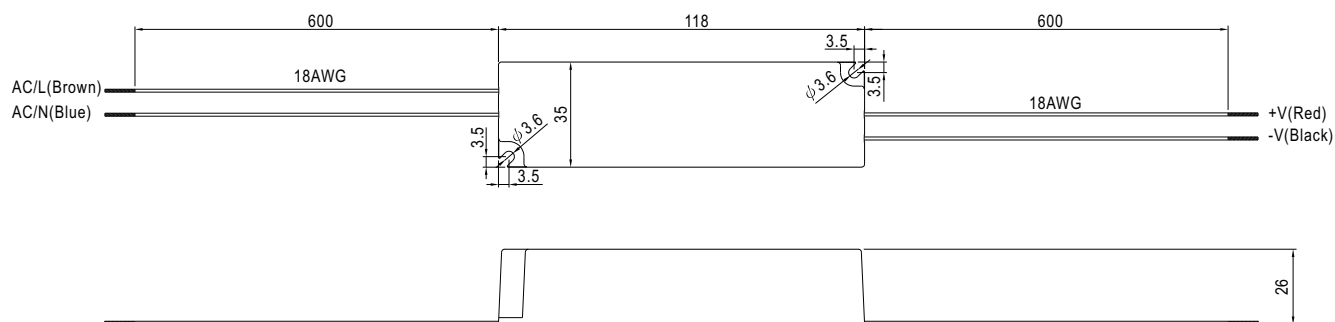


### SPECIFICATION

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%			
INPUT	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			
	VOLTAGE RANGE	90 ~ 264VAC			
	FREQUENCY RANGE	47 ~ 63Hz			
	EFFICIENCY (Typ.)	77%	81%	83%	83%
	AC CURRENT	0.55A/115VAC 0.35A/230VAC			
PROTECTION	INRUSH CURRENT(max.)	COLD STAR 35A/115VAC 70A/230VAC			
	LEAKAGE CURRENT	0.25mA / 240VAC			
	OVER CURRENT Note.4	110 ~ 150% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed			
ENVIRONMENT	OVER VOLTAGE	5.75 ~ 6.75V	13.8 ~ 16V	17.5 ~ 21V	28 ~ 32V
		Protection type : Shut off o/p voltage, clamping by zener diode			
	WORKING TEMP.	-30 ~ +70°C (Refer to output load derating curve)			
	WORKING HUMIDITY	20 ~ 90% RH non-condensing			
	STORAGE TEMP., HUMIDITY	-40 ~ +80°C, 10 ~ 95% RH			
SAFETY & EMC	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)			
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes			
	SAFETY STANDARDS	Design refer to UL1310 Class 2, TUV EN60950-1, EN61347-2-13, CAN/CSA C22.2 No. 223-M91, meet IP66			
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC			
	ISOLATION RESISTANCE	I/P-O/P:>100M Ohms / 500VDC / 25°C / 70% RH			
	EMI CONDUCTION & RADIATION	Compliance to EN55022 (CISPR22) Class B			
OTHERS	HARMONIC CURRENT	Compliance to EN61000-3-2,-3			
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, light industry level, criteria A			
	MTBF	786.5Khrs min. MIL-HDBK-217F (25°C)			
	DIMENSION	118*35*26mm (L*W*H)			
NOTE	PACKING	0.22Kg; 60pcs/14.2Kg/0.62CUFT			
		1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. Derating may be needed under low input voltage. Please check the derating curve for more details. 5. The power supply is considered a component which will be installed a final equipment. The final equipment must be re-confirmed that it still meets EMC directives. 6. Length of set up time is measured at first cold start. Turning ON/OFF the power supply may lead to increase of the set up time.			

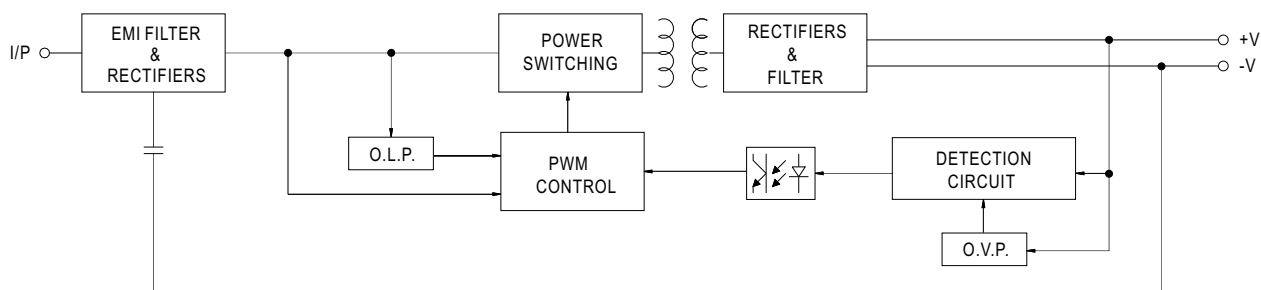
## ■ Mechanical Specification

Case No. 972A      Unit:mm

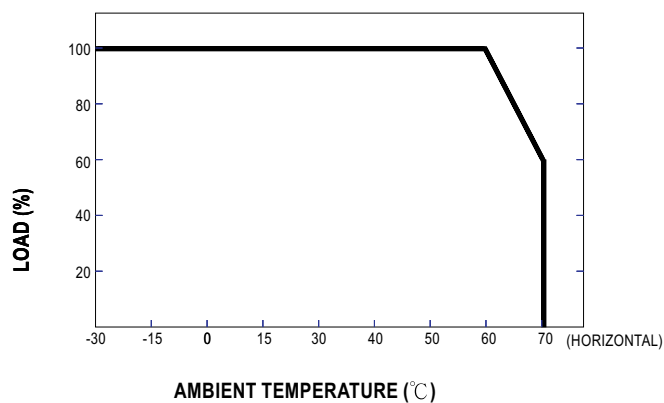


### ■ Block Diagram

fosc : 65KHz



### Derating Curve



### ■ Static Characteristics

