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Model: _____ Date: _____
Accessories: _____
Job Name: _____ Type: _____

XFMR-277-XX-20

20W · 277V SINGLE OUTPUT LED POWER SUPPLY

FEATURES

- Universal AC input / Full range (Up to 277VAC)
- Protections: short circuit/overload/over voltage/over temperature
- Built-in constant current limiting circuit with adjustable OCP level
- IP64 design for indoor or outdoor installations
- Pass LPS
- Class II power unit, no FG
- Cooling by free air convection
- 100% full load burn-in test
- High reliability
- Suitable for LED lighting and moving sign applications ^{Note: 1}
- Compliance to worldwide safety regulations for lighting
- Suitable for dry/damp locations
- 2 year warranty



SPECIFICATION

	Model	XFMR-277-12-20	XFMR-277-24-20	
OUTPUT	DC VOLTAGE	12V	24V	
	LED OPERATION VOLTAGE ^{Note: 4}	9 ~ 12V	18 ~ 24V	
	RATED CURRENT	1.6A	0.8A	
	CURRENT RANGE	0 ~ 1.6A	0 ~ 0.8A	
	CURRENT ADJ. RANGE	75% ~ 100%		
	RATED POWER	19.2W	19.2W	
	RIPPLE & NOISE (max.) ^{Note: 1}	2.5Vp-p	3.0Vp-p	
	VOLTAGE TOLERANCE ^{Note: 2}	±10%		
	LINE REGULATION	±3.0%		
	LOAD REGULATION	±10.0%		
SETUP TIME	2300ms/230VAC, 500ms, 3000ms/115VAC at full load			
INPUT	VOLTAGE RANGE ^{Note: 3}	90 ~ 277VAC	127 ~ 392VDC	
	FREQUENCY RANGE	47 ~ 63Hz		
	POWER FACTOR	PF 0.9 at 75~100% load, 115VAC/230VAC; PF 0.9 at 85~100% load 277VAC (Please refer to "Power Factor Characteristic" curve)		
	EFFICIENCY(Typ.)	80%	82%	
	AC CURRENT	0.4A/115VAC	0.2A/230VAC	0.15A/277VAC
	INRUSH CURRENT(max.)	40A/230VAC		
	LEAKAGE CURRENT	<0.5mA/240VAC		
PROTECTION	OVER CURRENT	95 ~ 110% rated output power		
	SHORT CIRCUIT	Constant current limiting, recovers automatically after fault condition is removed		
	OVER VOLTAGE	14 ~ 16V	27 ~ 34V	
		Shut down o/p voltage, clamping by zener diode		
	OVER TEMPERATURE	230°F ± 18°F (TSW1)		
	Shut down o/p voltage, recovers automatically after temperature goes down			

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

SPECIFICATION (cont.)

	Model	XFMR-277-12-20	XFMR-277-24-20
ENVIRONMENT	WORKING TEMP.	-22 ~ +140°F (Refer to "Derating curve")	
	WORKING HUMIDITY	20 ~ 90% RH non-condensing	
	STORAGE TEMP., HUMIDITY	-40 ~ +176°F , 10 ~ 95% RH	
	TEMP. COEFFICIENT	±0.06%/°F (32 ~ 122°F)	
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes	
SAFETY & EMC	SAFETY STANDARDS	IEC61347-1, IEC61347-2-13, TUV EN61347-1, EN61347-2-13, meets UL8750, meets CSA C22.2 No. 250.0-08, J61347-1, J61347-2-13, IP64 approved	
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC	
	ISOLATION RESISTANCE	I/P-O/P:>100M Ohms / 500VDC / 77°F / 70% RH	
	EMC EMISSION	Compliance to EN55015, EN61000-3-2 Class C (≒75% load); EN61000-3-3	
	EMC IMMUNITY	Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11; EN61547, light industry level, criteria A	
OTHERS	MTBF	643.6Khrs min. MIL-HDBK-217F(77°F)	
	DIMENSIONS	5.84in * 1.5in * 1.1in (L*W*H)	
	PACKING	0.396lbs; 60pcs/28.2lbs/0.9CUFT	

NOTES

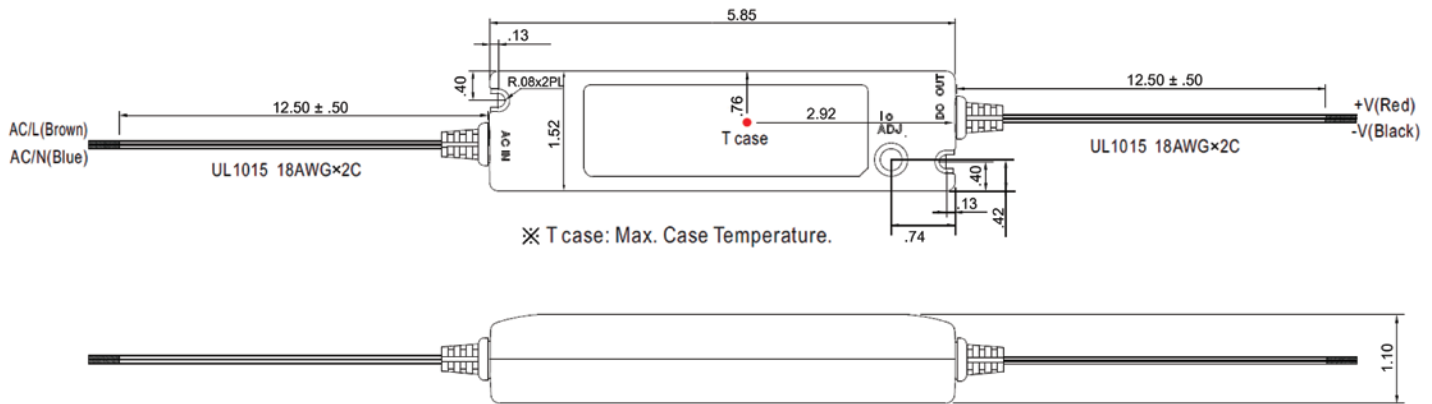
1. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47 uf parallel capacitor.
2. Tolerance: includes set up tolerance, line regulation and load regulation.
3. Derating: may be needed under low input voltage, please check the static characteristic for more details.
4. Constant current operation region is within 75%~ 100% rated output voltage. This is the suitable operation region for LED related applications, but please reconfirms special electrical requirements for some specific system design.

ATTENTION

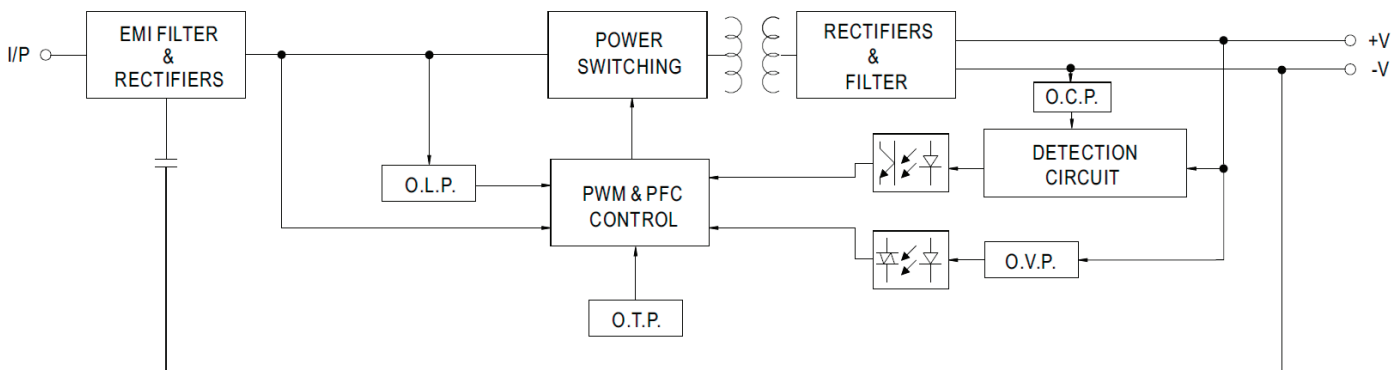
- All parameters NOT specifically mentioned are measured at 230VAC input, rated load and 77°F ambient temperature.
- The power supply is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment manufacturers must re-qualify EMC Directive on the complete installation again.
- Direct connecting to LEDs is suggested, but is not suitable for using additional drivers.

MECHANICAL SPECIFICATION

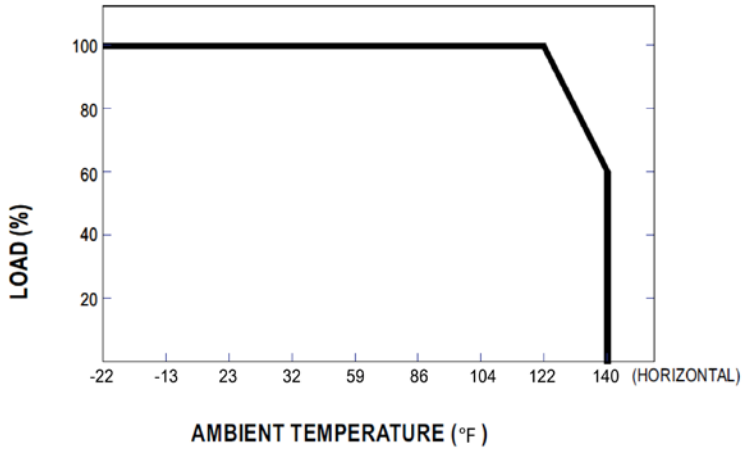
CASE NO. 989B UNITS: INCHES



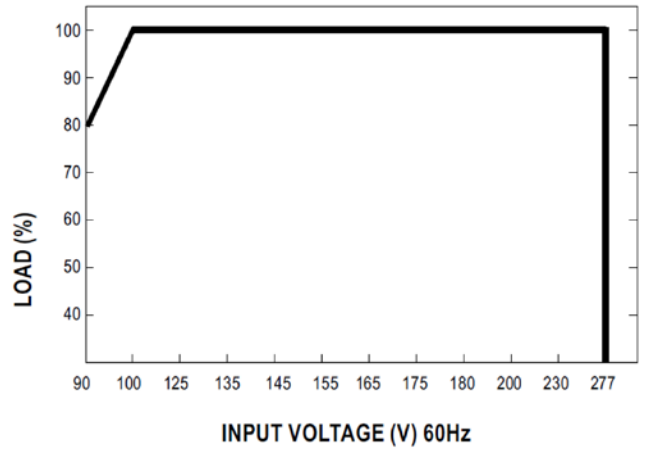
BLOCK DIAGRAM



DERATING CURVE



STATIC CHARACTERISTICS

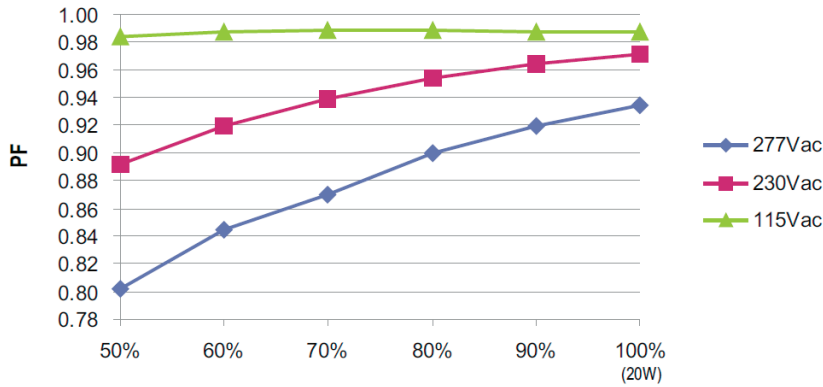


POWER FACTOR CHARACTERISTIC

Power factor will be higher than 0.9 when output loading is 75% or higher.

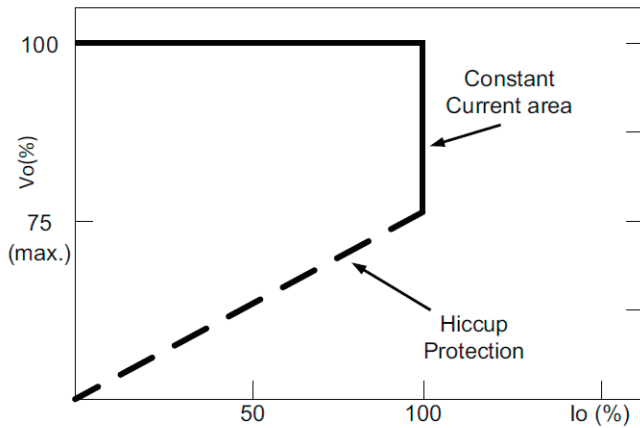
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Constant Current Mode



DRIVING METHODS OF LED MODULE

This LED power supply is suggested to work in constant current mode area (CC) to drive the LEDs.



Typical LED power supply I-V curve