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

XFMR-XX-150

150W - 12V OR 24V SINGLE OUTPUT LED POWER SUPPLY

FEATURES

- Universal AC input / Full range (Up to 295VAC)
- High efficiency 92%
- Protections: short circuit/overload/over voltage/over temperature
- IP65 / IP67 design for indoor or outdoor installations
- Built-in active PFC function
- Cooling by free air convection
- Suitable for LED lighting and moving sign applications ^{Note: 1}
- Compliance to worldwide safety regulations for lighting
- Suitable for dry/damp locations
- 3 year warranty



XFMR-XX-150 <input type="checkbox"/>	BLANK: IP67 rated. Cable for I/O connection.
	A: IP65 rated. Output voltage and constant current level can be adjusted through internal potential meter.
	B: IP67 rated. Constant current level adjustable through output cable.
	C: Terminal block for I/O connection. Output voltage and constant current level can be adjusted through internal potential meter.

SPECIFICATION

	Model	XFMR-12-150 <input type="checkbox"/>	XFMR-24-150 <input type="checkbox"/>
OUTPUT	DC VOLTAGE	12V	24V
	CONSTANT CURRENT REGION ^{Note: 5}	9 ~ 12V	18 ~ 24V
	RATED CURRENT	11A	6.3A
	RATED POWER	132W	151.2W
	RIPPLE & NOISE (max.) ^{Note: 1}	150mVp-p	150mVp-p
	VOLTAGE ADJ. RANGE ^{Note: 4}	9 ~ 13V	22 ~ 27V
	CURRENT ADJ. RANGE ^{Note: 4}	5.5 ~ 11A	3.15 ~ 6.3A
		Can be adjusted by internal potentiometer or through output cable	
	VOLTAGE TOLERANCE ^{Note: 2}	±2.0%	±1.0%
	LINE REGULATION	±0.5%	±0.5%
LOAD REGULATION	±1.0%	±0.5%	
SETUP TIME	3000ms, 80ms at full load 230VAC/115VAC		
HOLD UP TIME (typ.)	50ms / 230VAC 16ms / 115VAC at full load		
INPUT	VOLTAGE RANGE ^{Note: 3}	90 ~ 295VAC	127 ~ 417VDC
	FREQUENCY RANGE	47 ~ 63Hz	
	POWER FACTOR	PF≥0.95/230VAC, PF≥0.98/115VAC at full load & rated output voltage, PF≥0.9 at 75 ~ 100% load (Please refer to "Power Factor Characteristic" curve)	
	EFFICIENCY (Typ.)	88%	90%
	AC CURRENT	2A/115VAC	1A/230VAC
	INRUSH CURRENT(max.)	COLD START 65A/230VAC	
	LEAKAGE CURRENT	<1mA/240VAC	

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

SPECIFICATION (cont.)

Model		XFMR-12-150 <input type="checkbox"/>	XFMR-24-150 <input type="checkbox"/>
PROTECTION	OVER CURRENT	95 ~ 108% rated output power Constant current limiting, recovers automatically after fault condition is removed	
	SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed	
	OVER VOLTAGE	13.5 ~ 16V	28 ~ 34V
		Shut off o/p voltage, re-power on to recover	
	OVER TEMPERATURE	212°F ±18°F (RTH2) Shut down o/p voltage, re-power on to recover	
ENVIRONMENT	WORKING TEMP.	-22 ~ 158°F (Refer to "Derating Curve")	
	WORKING HUMIDITY	20 ~ 95% RH non-condensing	
	STORAGE TEMP., HUMIDITY	-40 ~ 176°F, 10 ~ 95% RH	
	TEMP. COEFFICIENT	±0.03%/°F (32 ~ 122°F)	
	VIBRATION	10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes	
SAFETY & EMC	SAFETY STANDARDS	UL1012; EN61347-1, EN61347-2-13 independent (except for GLC-150 C type); UL60950-1, TUV EN60950-1; J61347-1, J61347-2-13(12 ~ 15V only), IP65 or IP67	
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC I/P-FG:1.88KVAC O/P-FG:0.5KVAC	
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 77°F/ 70% RH	
	EMI CONDUCTION AND RADIATION	Compliance to EN55015, EN55022 (CISPR22) Class B	
	HARMONIC CURRENT	Compliance to EN61000-3-2 Class C (≥75% load); EN61000-3-3	
OTHERS	EMI IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, ENV50204, EN61547, EN55024, light industry level (surge 4KV), criteria A	
	MTBF	303.7Khrs min.	MIL-HDBK-217F(77°F)
	DIMENSIONS	8.74in * 2.67in * 1.52in (L*W*H)	9in * 2.67in * 1.52in (L*W*H)
	PACKING	2.2lbs; 12pcs/28.6lbs/0.49CUFT	2.2lbs; 12pcs/28.6lbs/0.96CUFT

- NOTES**
- Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47 uf parallel capacitor.
 - Tolerance: includes set up tolerance, line regulation and load regulation.
 - Derating: may be needed under low input voltage, please check the static characteristic for more details.
 - Output voltage can be adjusted through the SVR1 on the PCB; limit of output constant current level can be adjusted through the SVR2 on the PCB.
 - Please refer to the "DRIVING METHODS OF LED MODULE"

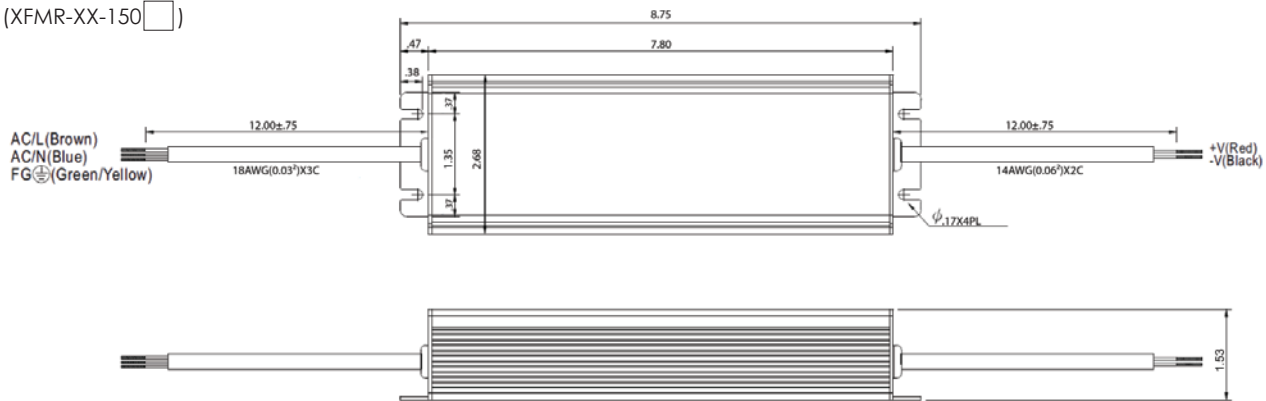
ATTENTION

- 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.
- To fulfill requirements of the latest ErP regulation for lighting fixtures, this LED power supply can only be used behind a switch without permanently connected to the mains.

MECHANICAL SPECIFICATION

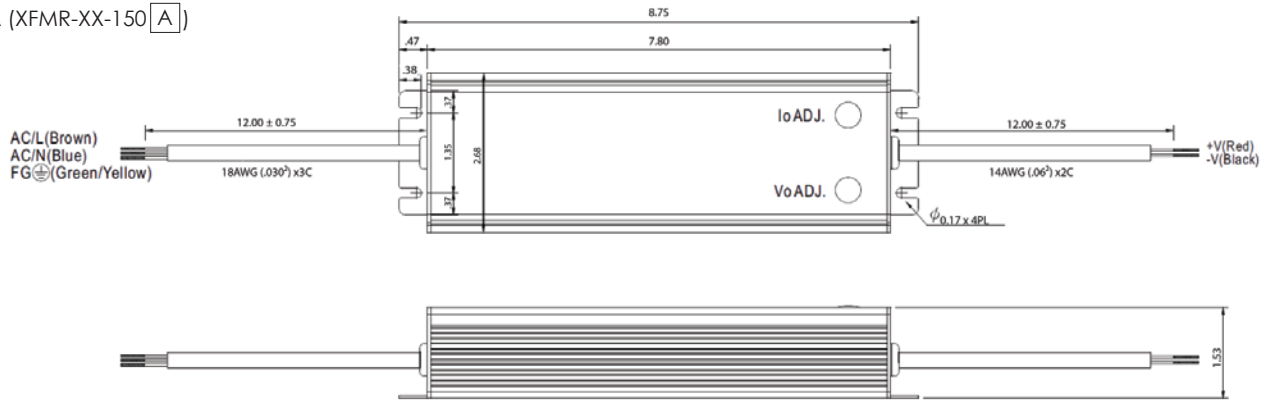
CASE NO. 954A UNITS: INCHES

BLANK (XFMR-XX-150)



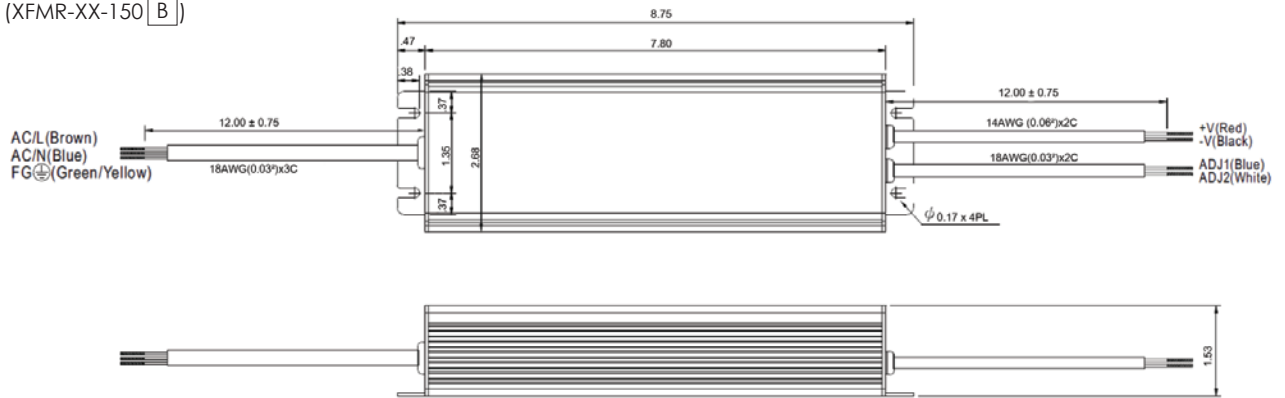
※IP67 rated. Cable for I/O connection.

TYPE A (XFMR-XX-150 **A**)



※ IP65 rated. Output voltage and constant current level can be adjusted through internal potential meter.
(Can access by removing the rubber stopper on the case.)

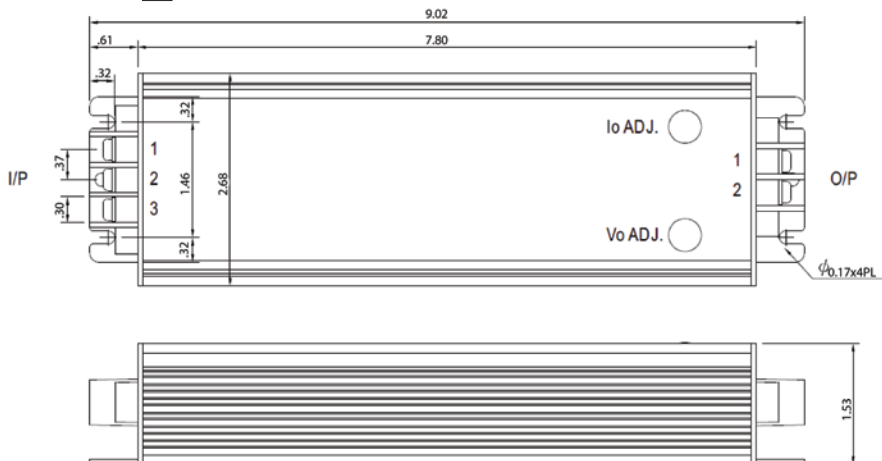
TYPE B (XFMR-XX-150 **B**)



※ IP67 rated. Output constant current level can be adjusted through output cable by connecting a resistor between ADJ1 and ADJ2.
※ Reference resistance value for output current adjustment (Typical)

Resistance	Percentage of rated current
Open	Slightly > 100%
4.7K Ω	100%
620 Ω	75%
82 Ω	50%
Short	Slightly < 50%

TYPE C (XFMR-XX-150 **C**)



AC Input Terminal Pin No. Assignment

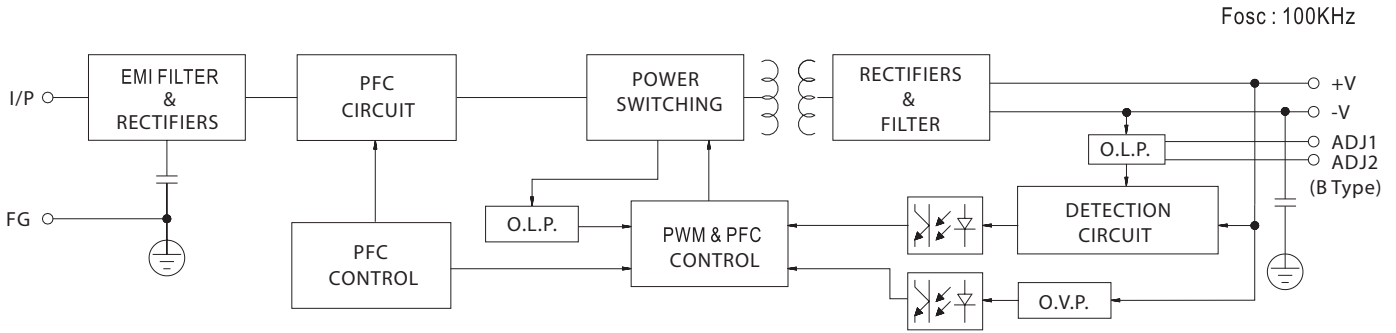
Pin No.	Assignment
1	FG \equiv
2	AC/N
3	AC/L

DC Output Terminal Pin No. Assignment

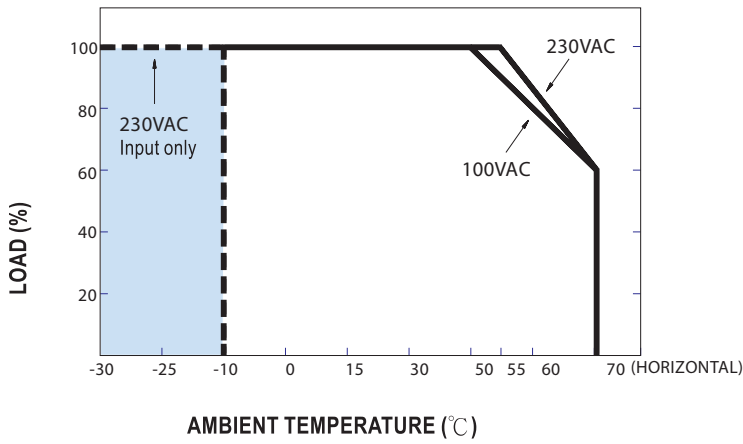
Pin No.	Assignment
1	+V
2	-V

※ Output voltage and constant current level can be adjusted through internal potential meter.
(Can access by removing the rubber stopper on the case.)

BLOCK DIAGRAM

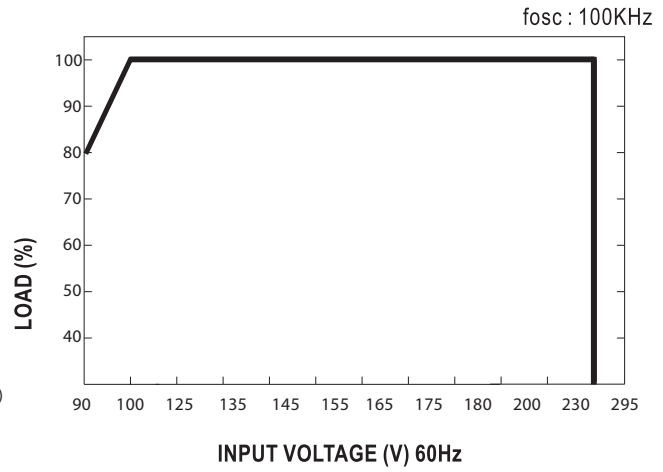


DERATING CURVE



※-30°C start up possible for 230VAC input

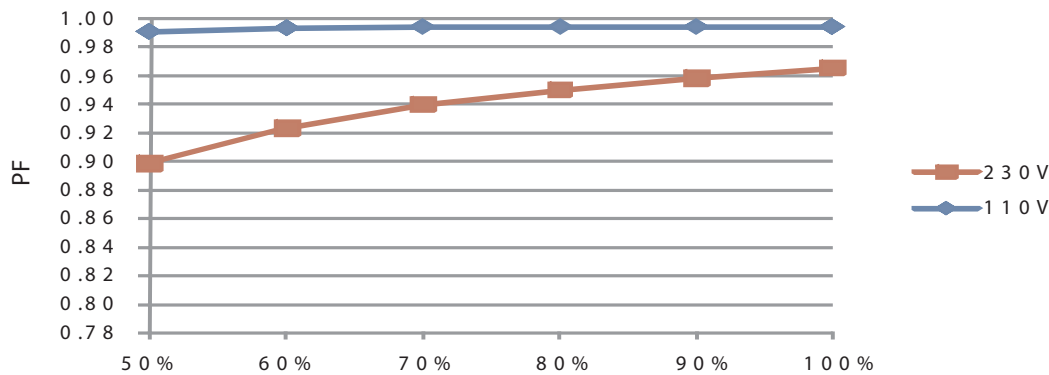
STATIC CHARACTERISTICS



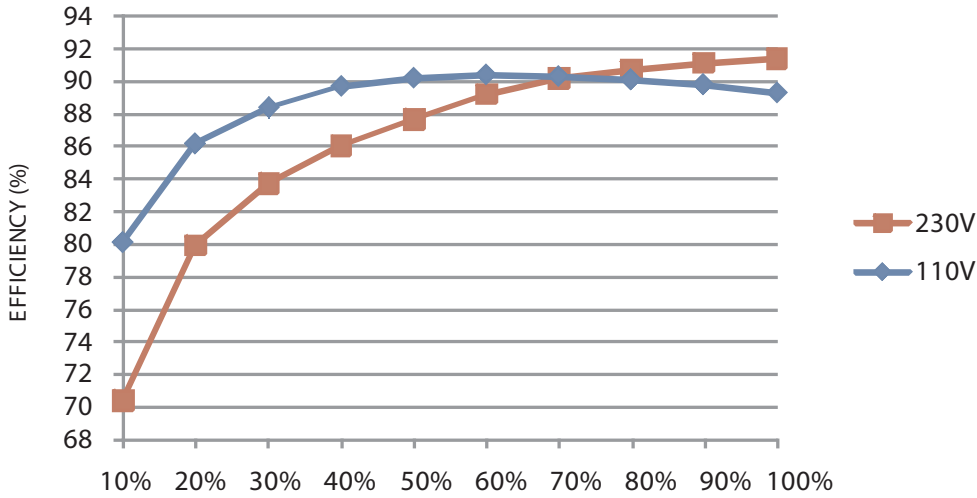
POWER FACTOR CHARACTERISTIC

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

Constant Current Mode



EFFICIENCY VS LOAD

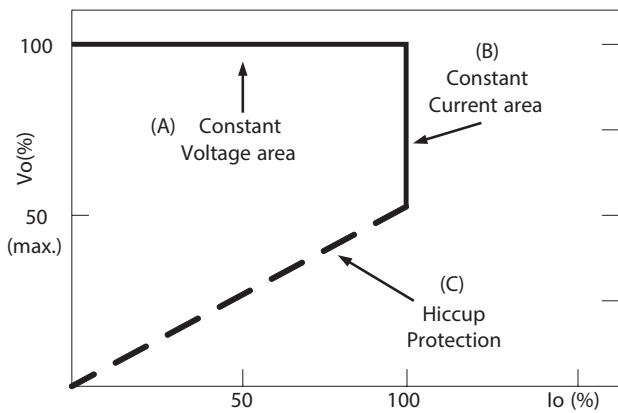


DRIVING METHODS OF LED MODULE

There are two major kinds of LED drive method "direct drive" and "with LED driver".

A typical LED power supply may either work in "constant voltage mode (CV) or constant current mode (CC)" to drive the LEDs.

Mean Well's LED power supply with CV+ CC characteristic can be operated at both CV mode [with LED driver, at area (A)] and CC mode [direct drive, at area (B)].



Typical LED power supply I-V curve

In the constant current region, the highest voltage at the output of the driver depends on the configuration of the end systems.

Should there be any compatibility issues, please contact factory.