

# 40081: CONVERTER 230V LED 24V 40VA IP67 DIMMABLE 1-10V

## ■ Features :

- Universal AC input / Full range (up to 305VAC)
- Built-in active PFC function
- High efficiency up to 89%
- Protections: Short circuit / Over current / Over voltage / Over temperature
- Cooling by free air convection
- Fully isolated plastic case
- Fully encapsulated with IP67 level (Note.6)
- Class II power unit, no FG
- Class 2 power unit
- Built-in 3 in 1 dimming function (1~10Vdc or PWM signal or resistance)
- Suitable for LED lighting and moving sign applications
- Compliance to worldwide safety regulations for lighting
- Suitable for dry / damp / wet locations
- 3 years warranty



## SPECIFICATION

MODEL	40W-24V			
OUTPUT	DC VOLTAGE	24V		
	CONSTANT CURRENT REGION <sup>Note.4</sup>	14.4 ~ 24V		
	RATED CURRENT	1.67A		
	RATED POWER	40.08W		
	RIPPLE & NOISE (max.) <sup>Note.2</sup>	150mVp-p		
	VOLTAGE TOLERANCE <sup>Note.3</sup>	±4.0%		
	LINE REGULATION	±0.5%		
	LOAD REGULATION	±0.5%		
	SETUP, RISE TIME <sup>Note.7</sup>	1000ms, 80ms / 115VAC at full load	1000ms, 80ms / 230VAC	
	HOLD UP TIME (Typ.)	16ms/230VAC	16ms/115VAC at full load	
INPUT	VOLTAGE RANGE <sup>Note.5</sup>	90 ~ 305VAC	127 ~ 431VDC	
	FREQUENCY RANGE	47 ~ 63Hz		
	POWER FACTOR (Typ.)	PF>0.97/115VAC, PF>0.95/230VAC, PF>0.92/277VAC at full load (Please refer to "Power Factor Characteristic" curve)		
	EFFICIENCY (Typ.)	87%		
	AC CURRENT (Typ.)	0.6A / 115VAC	0.3A / 230VAC	0.25A / 277VAC
	INRUSH CURRENT (Typ.)	COLD START 50A(t <sub>width</sub> =210μs measured at 50% I <sub>peak</sub> ) at 230VAC		
	LEAKAGE CURRENT	<0.75mA / 240VAC		
PROTECTION	OVER CURRENT <sup>Note.4</sup>	95 ~ 108% Protection type : Constant current limiting, recovers automatically after fault condition is removed		
	SHORT CIRCUIT	Hiccup mode, recovers automatically after fault condition is removed.		
	OVER VOLTAGE	28 ~ 35V Protection type : Shut down and latch off o/p voltage, re-power on to recover		
	OVER TEMPERATURE	90°C ±10°C (RTH2) Protection type : Shut down o/p voltage, re-power on to recover		
ENVIRONMENT	WORKING TEMP.	-40 ~ +70°C (Refer to "Derating Curve")		
	WORKING HUMIDITY	20 ~ 95% RH non-condensing		
	STORAGE TEMP., HUMIDITY	-40 ~ +80°C, 10 ~ 95% RH		
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)		
SAFETY & EMC	VIBRATION	10 ~ 500Hz, 5G 12min./1cycle, period for 72min. each along X, Y, Z axes		
	SAFETY STANDARDS <sup>Note.6</sup>	UL8750, CSA C22.2 No. 250.0-08(except for 48V, 54V), EN61347-1, EN61347-2-13 independent, IP67, J61347-1, J61347-2-13 approved ; design refer to UL60950-1, TUV EN60950-1		
	WITHSTAND VOLTAGE	I/P-O/P:3.75KVAC		
	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH		
OTHERS	EMC EMISSION	Compliance to EN55015, EN61000-3-2 Class C (≥60% load) ; EN61000-3-3		
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; EN61547, EN55024, light industry level(surge 2KV), criteria A		
	MTBF	394.9K hrs min. MIL-HDBK-217F (25°C)		
	DIMENSION	162.5*43*32mm (L*W*H)		
NOTE	PACKING	0.45Kg; 32pcs/15.4Kg/0.93CUFT		
	<ol style="list-style-type: none"> <li>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li> <li>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1μf &amp; 47μf parallel capacitor.</li> <li>3. Tolerance : includes set up tolerance, line regulation and load regulation.</li> <li>4. Constant current operation region is within 60% ~ 100% rated output voltage. This is the suitable operation region for LED related applications, but please reconfirm special electrical requirements for some specific system design.</li> <li>5. Derating may be needed under low input voltages. Please check the static characteristics for more details.</li> <li>6. Suitable for indoor use or outdoor use without direct sunlight exposure. Please avoid immerse in the water over 30 minutes.</li> <li>7. Length of set up time is measured at cold first start. Turning ON/OFF the power supply may lead to increase of the set up time.</li> <li>8. 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-quality EMC Directive on the complete installation again.</li> <li>9. Direct connecting to LEDs is suggested, but is not suitable for using additional drivers.</li> </ol>			

## ■ Mechanical Specification

