

UMEC SMPS SPECIFICATION

This unit is ready for “Green Product” and meet “Pb-free lead plating” & “RoHS Compliant” requirement.

1.0 INPUT CHARACTERISTICS :

1.1 Input Voltage Range : 90Vac to 264Vac , Single Phase.

1.2 Input Frequency Range : 47Hz to 63Hz.

1.3 Max Input AC Current : 2.0A @90VAC.

1.4 Inrush Current : Component Damage Can not Occur After Inrush Current Applies, And
40A Max. at 230VAC @Cold Start

1.5 Efficiency : 70% Min. at 110VAC Input, Output 12Vdc Load 5.8A.(Inverter is off.)

Min. Loading Power Dissipation : Input Power < 1W AT 230Vac
(Measure at Warm up Condition Amb.: 25°C)

1.6 Brightness Voltage (Vadj) : 0 Vdc (Max.) ~ 3.3Vdc(Min.),Iadj=100uA max.

1.7 On / Off Control : 3.3Vdc (On) 0Vdc (Off) ,Ion/off=100uA max.

2.0

2.1 Static Output Characteristics (Vdc)

Output Voltage	Load Range		Regulation		Ripple & Noise Voltage	Ambient 25°C
	Min.	Max.	Min.	Max.		
12V ±5%	10mA	2.8A	11.4V	12.6V	180 mVp-p	
12V ±5%(for Inverter)	0mA	3.0A	11.4V	12.6V	360 mVp-p	

UMEC SMPS SPECIFICATION

NOTE : A. Ripple & Noise Test : Use 20MHz Bandwidth Frequency Oscilloscope.

B. At Output 12V Connector Terminals Add 0.1uF Ceramic And 47uF Low Impedance Aluminum Electrolytic Capacitor For Ripple Voltage And Spike Noise Voltage Test, @25°C Warm-up Test.

2.2 Output Characteristics (Power Supply)

2.2.1 Turn-On Delay Time : 3 Sec Max. at Output 12V Connector Terminals

2.2.2 Hold up Time : 6mS Min. @110Vac Input, Full Load at Output 12V Connector Terminals.

2.2.3 Short Circuit Protection : No Damage.

2.2.4 EN61000-4-2 Electrostatic Discharge Immunity Test (ESD) Class 4:

(1).Air Discharge Test (With System) :±15KV...No Damage.

(2).Contact Discharge Test (With System) :± 8KV...No Damage.

2.2.5 EN61000-4-4 Electrical Fast Transient/Burst Immunity Test (EFT)

Class 2: 1KV/5KHz On AC Power Port For 1 Minute (With System)...No Damage.

2.2.6 EN61000-4-5 Surge Immunity Test (PLD) Class 3(With System):

(1).L to N: 1KV /1.2*50uS...No Damage.

(2).L/N to PE: 2KV/1.2*50uS.....No Damage.

2.3 Output Characteristics (Inverter) :

2.3.1 Panel Type : QDI QD20AL02 REV.01

2.3.2 Scope : The Inverter Unit to Drive 6 CCFT Backlight Lamps.

2.3.3 $V_{adj} = 3.3V$ $V_{on} = 3.3V$ @ 25°C

	Min.	Typ.	Max.	Remark
IL	*	4.5	*	Load: Resistances 100K Ohm & 5PF/3KV Capacitors

UMEC SMPS SPECIFICATION

2.3.4 $V_{adj} = 0V$, $V_{on} = 3.3V$ @ $25^{\circ}C$

	Min.	Typ.	Max.	Remark
Freq.	40	*	60	
IL	6.5	7.0	8.0	Load: Resistances 100K Ohm & 5PF/3KV Capacitors

Set lamp current 6.5 mA ,7.0mA for optional by CN4.

2.3.5 Kick-Off Voltage , $V_{on} = 3.3V$, $V_{adj} = 0V$

	Min.	Type	Max.	Remark
Vs	1500	---	---	Ambient= 0 degree

2.3.6 Symbol And Unit

Vs : Output Open Voltage ----- (unit : Vrms)

Vin : Input Voltage -----(unit : Vdc)

Iin : Input Current -----(unit : mAdc)

Freq : Frequency -----(unit : KHz)

IL : Output Current -----(unit : mArms)

3.0 DIELECTRIC WITHSTAND VOLTAGE

3.1 Primary to Secondary : 4242Vdc 10mA for 1 Second.

3.2 Leakage Current : 0.75mA Max. at 254Vac / 60Hz.(Primary to Secondary)

3.5mA Max. at 254Vac / 60Hz. (L, N to PE)

4.0 CONNECTOR

4.1 CN2 : TKP P110I-08 or Equivalent

Pin Definition: Pin 1 & 2 &3----- GND

Pin 4 ----- On/Off (“High” Set Lamps On)

Pin 5 ----- Brightness Control

Pin 6 & 7&8 ----- VDC Output (12V +/-5%)

UMEC SMPS SPECIFICATION

4.2 CN301 & CN304 : (PONTRONICS PEC 4001-WR-4B or Equivalent)

Pin Definition : Pin 1,2 --- HV (High Voltage for CFL)

Pin 3 ---Blank

Pin 4,5 --- Return (Low Voltage for CFL)

4.3 CN302 & CN303 : (FULLCONN W01-02100-0228 or PONTRONICS PEC 3501-WR or Equivalent)

Pin Definition : Pin 1 --- HV (High Voltage for CFL)

Pin 2 --- Return (Low Voltage for CFL)

4.4 CN1 AC Socket (3 Pin) : SOLTEAM ST-01K-BCK or Equivalent

4.5 CN4 : 2.5mm jumper or Equivalent

pin 1-2 or OPEN :Set lamp current 6.5mA for optional

pin 2-3 :Set lamp current 7.0mA for optional

5.0 MEET SAFETY REQUIRMENTS

UL (UL1950 3rd)

C+UL (CSA C22.2 NO.950)

TUV (EN 60950)

6.0 ENVIRONMENTS

6.1 Operating Temperature : 0 to 50°C

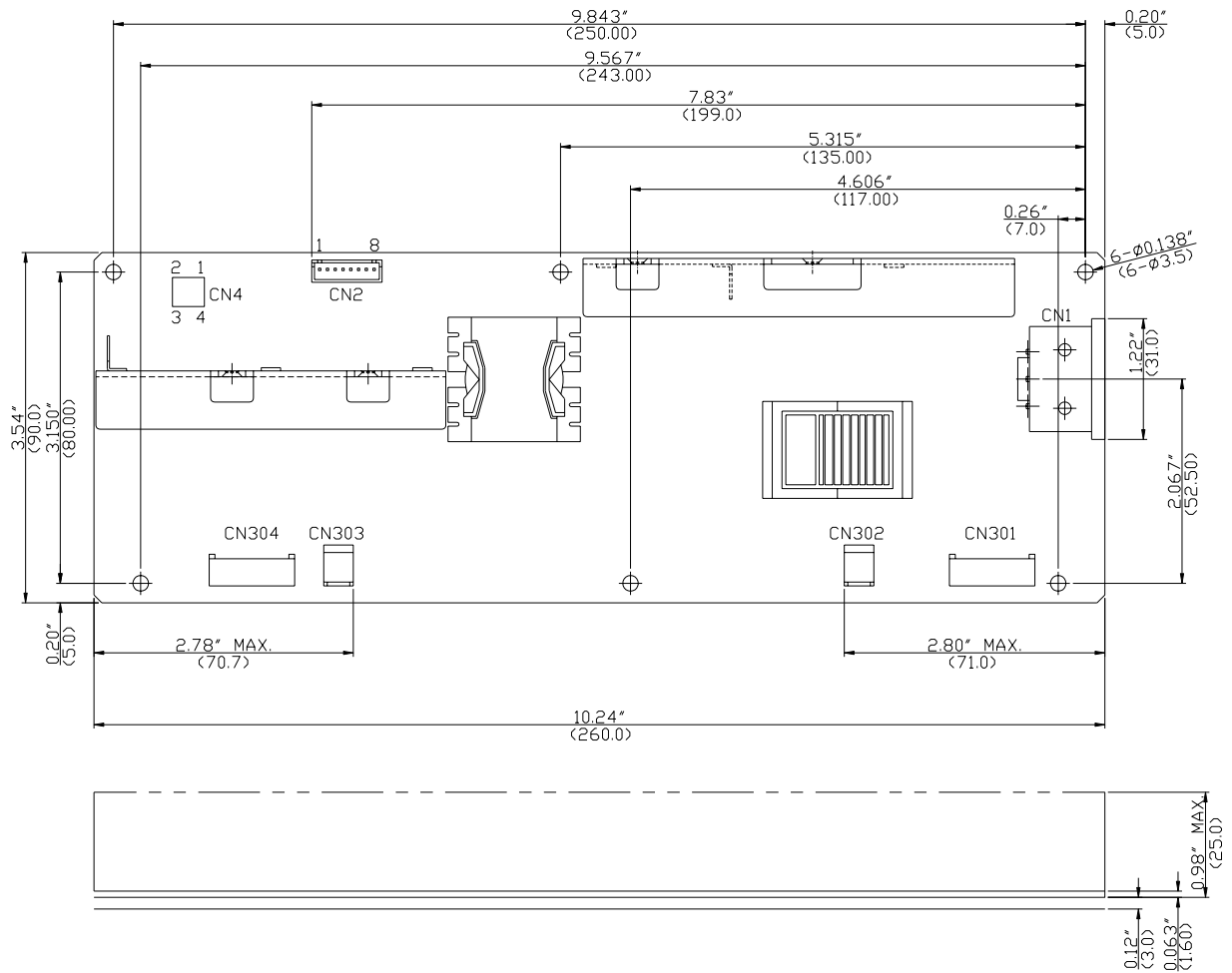
6.2 Operating Relative Humidity : 8 to 90 %.

6.3 Storage Temperature : - 30 to + 85°C

6.4 Storage Relative Humidity : 5 % to 95 % Noncondensing.

UMEC SMPS SPECIFICATION

7.0 Mechanical Requirements



NOTES:

1. All dimensions in inches (mm).
2. Tolerance: .xx = ±0.04
.xxx = ±0.010