



# 60W Isolated Quad Output Switching Power Supply

# IQ-60 series



### ■ Features :

- Isolated output & GND for CH1,CH2 & CH3,CH4
- Universal AC input/Full range
- Protections:Short circuit/Over load/Over voltage
- LED indicator for power on
- 100% full load burn-in test
- Fixed switching frequency at 67KHz
- 2 years warranty

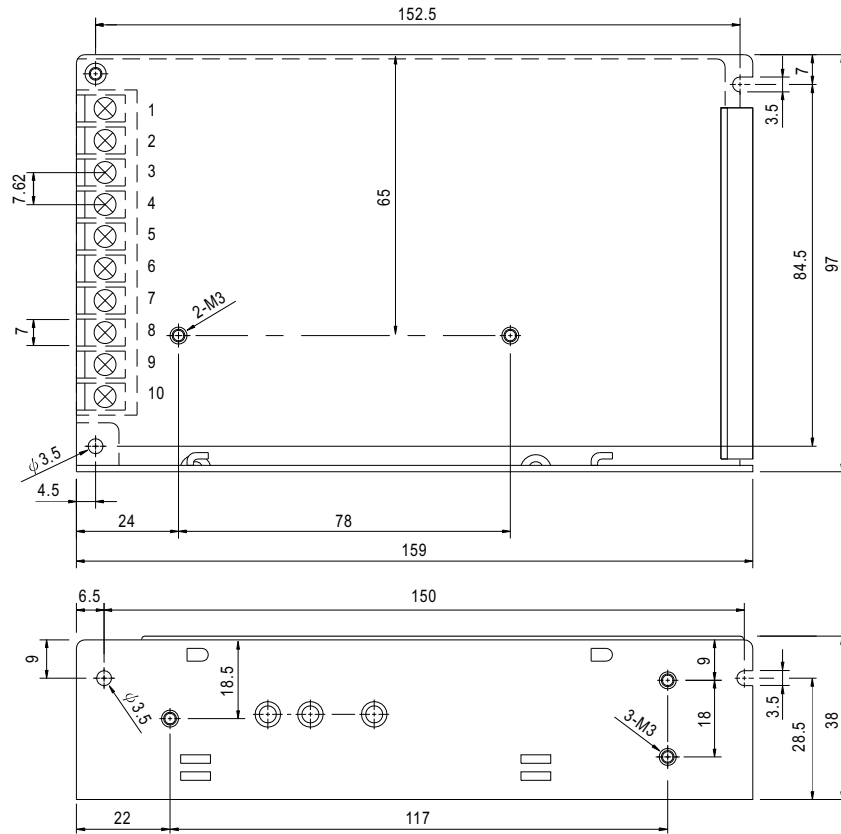


### SPECIFICATION

MODEL		IQ-60D				IQ-60F			
OUTPUT	OUTPUT	CH1	CH2	CH3	CH4	CH1	CH2	CH3	CH4
	DC VOLTAGE	5V	12V	-12V	24V	5V	15V	-15V	24V
	RATED CURRENT	3A	0.5A	0.5A	1.3A	3A	0.5A	0.5A	1.25A
	CURRENT RANGE	0.5 ~ 3A	0.1 ~ 1A	0.1 ~ 1A	0.2 ~ 2A	0.5 ~ 3A	0.1 ~ 1A	0.1 ~ 1A	0.2 ~ 2A
	RATED POWER	58.2W				60W			
	PEAK LOAD (3sec.) <small>Note.4</small>	70W							
	RIPPLE & NOISE (max.) <small>Note.2</small>	80mVp-p	120mVp-p	120mVp-p	240mVp-p	80mVp-p	150mVp-p	150mVp-p	240mVp-p
	VOLTAGE ADJ. RANGE	CH1 : 4.75 ~ 5.5V				CH1 : 4.75 ~ 5.5V			
	VOLTAGE TOLERANCE <small>Note.3</small>	±3.0%	±8.0%	±8.0%	±8.0%	±3.0%	±8.0%	±8.0%	±8.0%
	LINE REGULATION	±1.0%	±2.0%	±2.0%	±2.0%	±1.0%	±2.0%	±2.0%	±2.0%
	LOAD REGULATION	±2.0%	±5.0%	±5.0%	±5.0%	±2.0%	±5.0%	±5.0%	±5.0%
	SETUP, RISE TIME	300ms, 20ms/230VAC      800ms, 20ms/115VAC at full load							
	HOLD TIME (Typ.)	80ms/230VAC      18ms/115VAC at full load							
INPUT	VOLTAGE RANGE	90 ~ 264VAC		127 ~ 370VDC					
	FREQUENCY RANGE	47 ~ 63Hz							
	EFFICIENCY (Typ.)	76%							
	AC CURRENT (Typ.)	1.8A/115VAC		0.9A/230VAC					
	INRUSH CURRENT (Typ.)	COLD START 20A/115VAC		40A/230VAC					
LEAKAGE CURRENT	<1mA / 240VAC								
PROTECTION	OVER LOAD	70 ~ 90W rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed							
	OVER VOLTAGE	5V: 5.75 ~ 6.75V Protection type : Hiccup mode, recovers automatically after fault condition is removed							
ENVIRONMENT	WORKING TEMP.	-10 ~ +60°C (Refer to output load derating curve)							
	WORKING HUMIDITY	20 ~ 90% RH non-condensing							
	STORAGE TEMP., HUMIDITY	-20 ~ +85°C, 10 ~ 95% RH							
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C) on +5V output							
VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes								
SAFETY & EMC <small>(Note 5)</small>	SAFETY STANDARDS	UL60950-1, TUV EN60950-1 Approved							
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC    I/P-FG:1.5KVAC    O/P-FG:0.5KVAC							
	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC							
	EMI CONDUCTION & RADIATION	Compliance to EN55022 (CISPR22) Class B							
	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								
OTHERS	MTBF	313K hrs min.    MIL-HDBK-217F (25°C)							
	DIMENSION	159*97*38mm (L*W*H)							
	PACKING	0.55Kg; 24pcs/14.2Kg/0.75CUFT							
NOTE	<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 0.1uf &amp; 47uf parallel capacitor.</li> <li>3. Tolerance : includes set up tolerance, line regulation and load regulation.</li> <li>4. 5% Duty cycle maximum within every 1min. Average output power should not exceed the rated power.</li> <li>5. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.</li> </ol>								

**Mechanical Specification**

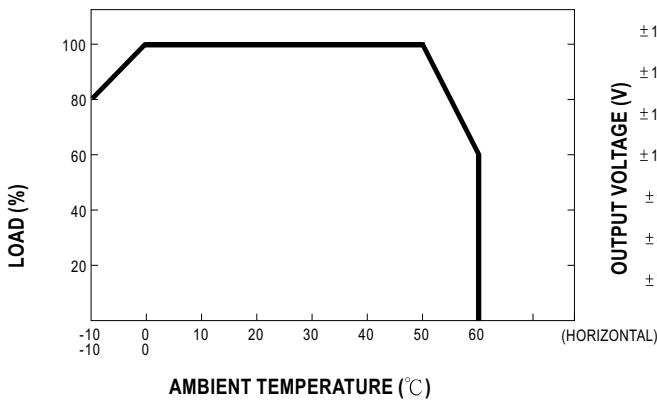
Case No. 901 Unit:mm



Terminal Pin. No Assignment

Pin No.	Assignment	Pin No.	Assignment	Pin No.	Assignment
1	AC/L	5	DC OUTPUT COM	9	DC OUTPUT G1
2	AC/N	6	DC OUTPUT +V2	10	DC OUTPUT +5V
3	FG $\perp$	7	DC OUTPUT G4		
4	DC OUTPUT -V3	8	DC OUTPUT +V4		

**Output Derating**



**Static Characteristics**

