



■ Features :

- Universal AC input / Full range(up to 295VAC)
- Built in active PFC function
- Constant Voltage design
- High efficiency up to 93%
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Cooling by free air convection
- U-bracket low profile:33mm
- ZVS technology to reduce power dissipation
- 3 years warranty

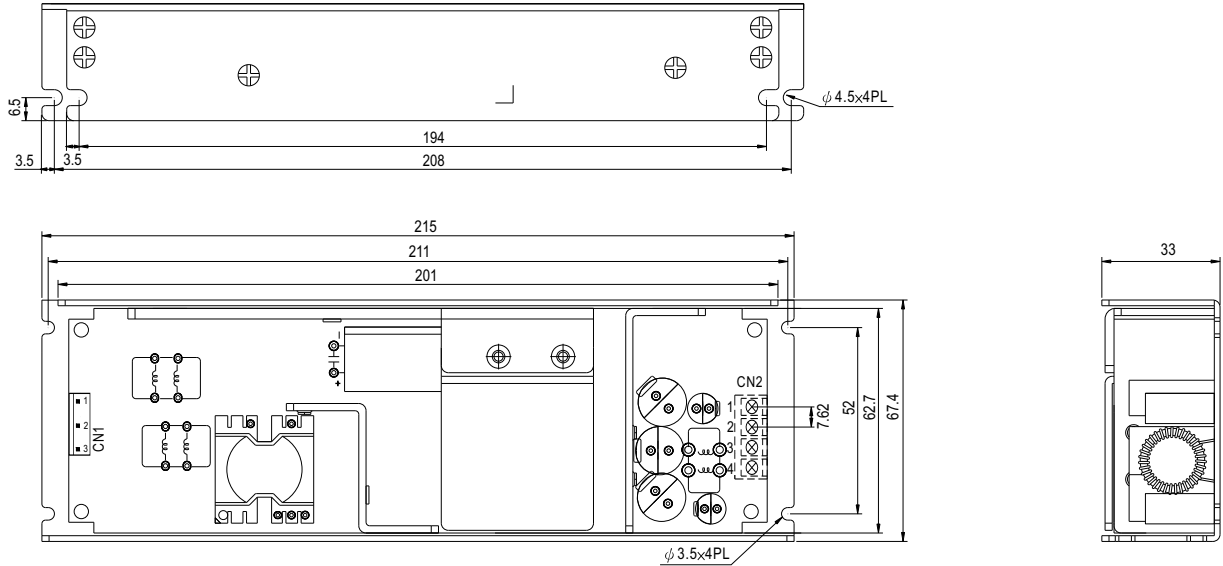


SPECIFICATION

MODEL		USP-150-12	USP-150-15	USP-150-24	USP-150-36	USP-150-48
OUTPUT	DC VOLTAGE	12V	15V	24V	36V	48V
	RATED CURRENT	12.5A	10A	6.3A	4.2A	3.2A
	CURRENT RANGE	0 ~ 12.5A	0 ~ 10A	0 ~ 6.3A	0 ~ 4.2A	0 ~ 3.2A
	RATED POWER	150W	150W	151.2W	151.2W	153.6W
	RIPPLE & NOISE (max.) Note.2	100mVp-p	150mVp-p	150mVp-p	250mVp-p	250mVp-p
	VOLTAGE ADJ. RANGE	11.0~13.2V	13.5~16.5V	21.6~26.4V	32.4~39.6V	43.2~52.8V
	VOLTAGE TOLERANCE Note.3	±2.0%	±2.0%	±2.0%	±2.0%	±2.0%
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	LOAD REGULATION	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
	SETUP, RISE TIME	200ms, 100ms/230VAC    300ms, 100ms/115VAC at full load				
HOLD UP TIME (Typ.)	16ms/230VAC    16ms/115VAC at full load					
INPUT	VOLTAGE RANGE Note.4	90 ~ 295VAC    127 ~ 417VDC				
	FREQUENCY RANGE	47 ~ 63Hz				
	POWER FACTOR (Typ.)	PF≥0.96/230VAC    PF≥0.98/115VAC at full load				
	EFFICIENCY (Typ.)	91.5%	91.5%	93%	93%	93%
	AC CURRENT (Typ.)	2A/115VAC    1A/230VAC				
	INRUSH CURRENT (Typ.)	Cold start 65A/230VAC				
	LEAKAGE CURRENT	<2mA / 240VAC				
PROTECTION	OVERLOAD	110~160% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed				
	SHORT CIRCUIT	Protection type : Hiccup mode, recovers automatically after fault condition is removed				
	OVER VOLTAGE	13.6 ~ 16.3V	17 ~ 21V	26.7 ~ 32.4V	41.4 ~ 48.6V	53 ~ 64.8V
		Protection type : Shut down o/p voltage with auto-recovery or re-power on to recovery				
	OVER TEMPERATURE	100°C ±5°C (RTH2) Protection type : Shut down o/p voltage, recovers automatically after temperature goes down				
ENVIRONMENT	WORKING TEMP	-30 ~ +65°C (Refer to output load derating curve)				
	WORKING HUMIDITY	20 ~ 90% RH non-condensing				
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH				
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 60°C)				
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes				
SAFETY & EMC (Note 5)	SAFETY STANDARDS	Design refer to IEC60950-1,EN60950-1,UL60950-1				
	WITHSTAND VOLTAGE Note.6	I/P-O/P:3.0KVAC    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/25°C / 70%RH				
	EMI CONDUCTION & RADIATION	Compliance to EN55022 (CISPR22) Class B				
	HARMONIC CURRENT	Compliance to EN61000-3-2,EN61000-3-3				
	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, light industry level (surge 4KV), criteria A				
OTHERS	MTBF	216.3K hrs min.    MIL-HDBK-217F (25°C)				
	DIMENSION	215*67.4*33mm (L*W*H)				
	PACKING	0.48kg; 24PCS/12.5kg/0.61CUFT				
NOTE	<p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</p> <p>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.</p> <p>3. Tolerance : includes set up tolerance, line regulation and load regulation.</p> <p>4. Derating may be needed under low input voltages. Please check the static characteristics for more details.</p> <p>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.</p> <p>6. Please remove the component D1 before conducted Hipot test.</p>					

**Mechanical Specification**

Case No. 988 Unit:mm



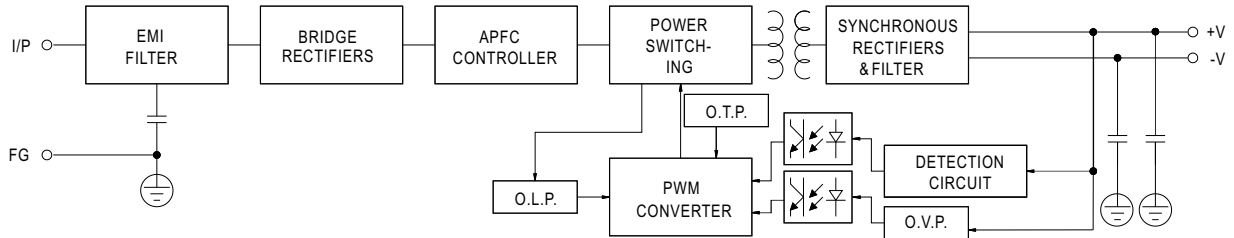
AC Input Connector (CN1) :SVH-21T-P1.1 or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1	FG	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
2	AC/L		
3	AC/N		

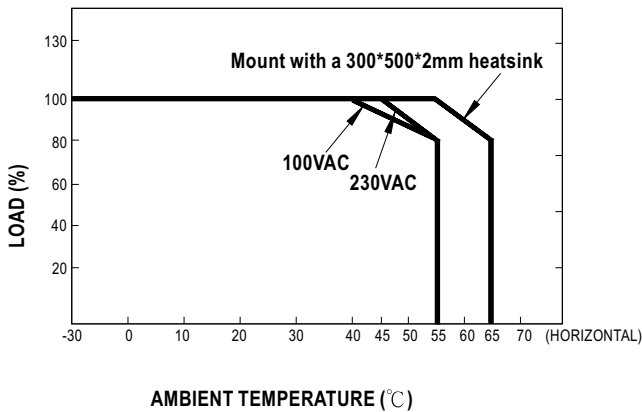
DC Terminal pin NO. Assignment (CN2)

Pin No.	Assignment	Terminal
1,2	V-	DECA
3,4	V+	T21-BM10-04

**Block Diagram**



**Derating Curve**



**Static Characteristics**

