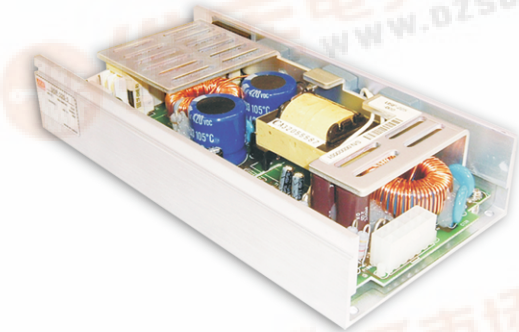


225W Single Output with PFC Function

USP-225 series



■ Features :

- Universal AC input / Full range
- Built in active PFC circuit compliance to EN61000-3-2
- Protections: Short circuit/Over load/Over voltage/Over temperature
- Free air convection for 150W and forced air convection for 225W
- High power density 4.7w/in³
- Active AC surge current limiting
- U-bracket low profile: 38mm
- 3 years warranty



SPECIFICATION

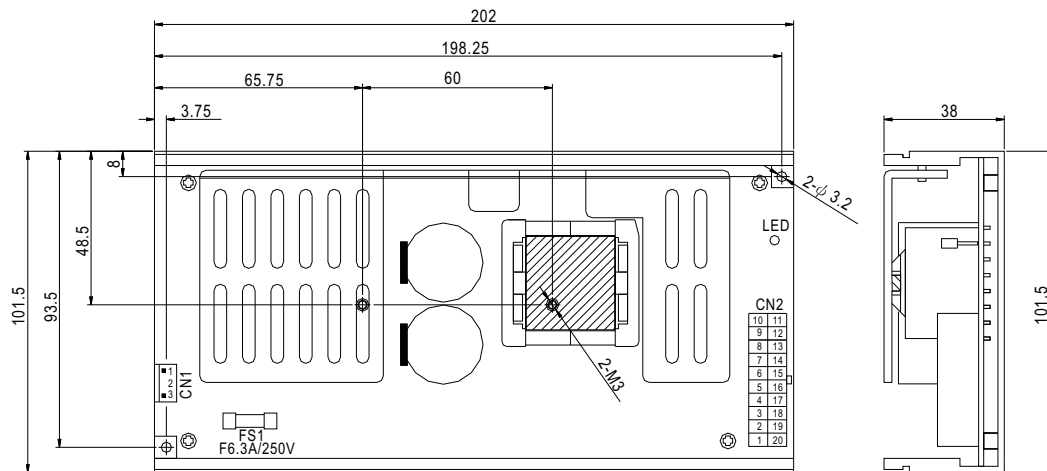
MODEL		USP-225-3.3	USP-225-5	USP-225-12	USP-225-15	USP-225-24	USP-225-48
OUTPUT	DC VOLTAGE	3.3V	5V	12V	15V	24V	48V
	RATED CURRENT	40A	40A	18.7A	15A	9.4A	4.7A
	CURRENT RANGE	0 ~ 40A	0 ~ 40A	0 ~ 18.7A	0 ~ 15A	0 ~ 9.4A	0 ~ 4.7A
	RATED POWER	132W	200W	224.4W	225W	225.6W	225.6W
	RIPPLE & NOISE (max.) Note.2	100mVp-p	100mVp-p	100mVp-p	100mVp-p	150mVp-p	250mVp-p
	VOLTAGE ADJ. RANGE	2.97 ~ 3.6V	4.5 ~ 5.5V	10.8 ~ 13.2V	13.5 ~ 16.5V	21.6 ~ 26.4V	43.2 ~ 52.8V
	VOLTAGE TOLERANCE Note.3	±2.0%	±2.0%	±2.0%	±2.0%	±2.0%	±2.0%
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	LOAD REGULATION	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
INPUT	SETUP, RISE, HOLD TIME	500ms, 30ms, 22ms/230VAC 1200ms, 30ms, 22ms/115VAC at full load					
	VOLTAGE RANGE	90 ~ 264VAC 127 ~ 370VDC					
	FREQUENCY RANGE	47 ~ 63Hz					
	POWER FACTOR	PF>0.93/230VAC PF>0.97/115VAC at full load					
	EFFICIENCY (Typ.)	72%	77%	85%	84%	87%	86%
	AC CURRENT	115VAC	2.2A	3.3A			
		230VAC	1.1A	1.6A			
	INRUSH CURRENT (max.)	20A/115VAC 30A/230VAC					
PROTECTION	OVER LOAD	105 ~ 150% rated output power Protection type : Constant current limiting, recovers automatically after fault condition is removed					
	OVER VOLTAGE	3.6 ~ 4.4V	5.5 ~ 7.4V	13.2 ~ 16.3V	16.5 ~ 20.2V	26.4 ~ 32.4V	52.8 ~ 64.8V
	OVER TEMPERATURE	95°C ±5°C (RTH2 : Detect on heatsink of power transistor) Protection type : Shut down o/p voltage, recovers automatically after temperature goes down					
	WORKING TEMP.	-20 ~ +65°C (Refer to output load derating curve)					
ENVIRONMENT	WORKING HUMIDITY	20 ~ 90% RH non-condensing					
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH					
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)					
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes					
SAFETY & EMC (Note 4)	SAFETY STANDARDS	UL60950, TUV EN60950 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					
OTHERS	EMS IMMUNITY	Compliance to EN61000-4-2, 3, 4, 5, 6, 8, 11; ENV50204, Light industry level, criteria A					
	MTBF	220K hrs min. MIL-HDBK-217F (25°C)					
	DIMENSION	202*101.5*38mm (L*W*H)					
	PACKING	0.85Kg; 16pcs/13.6Kg/0.76CUFT					
NOTE		1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uF & 47uF parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. 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.					

225W Single Output with PFC Function

USP-225 series

Mechanical Specification

Case No. 928 Unit:mm



AC Input Connector (CN1) : JST B3P-VH or equivalent

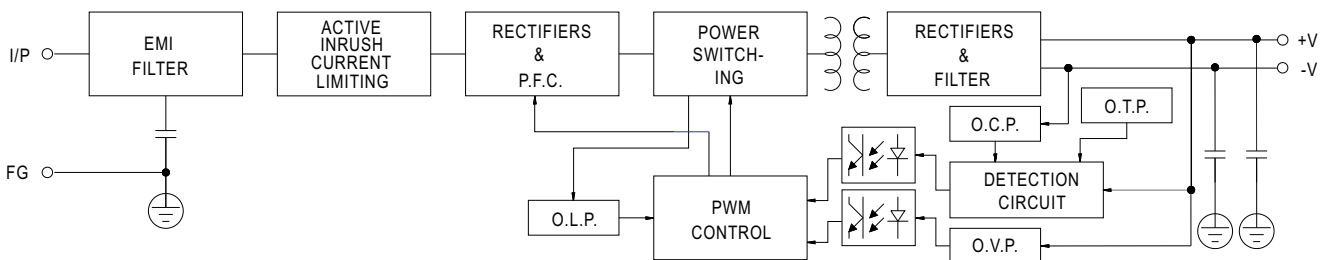
Pin No.	Assignment	Mating Housing	Terminal
1	AC/N	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
2	No Pin		
3	AC/L		

DC Output Connector (CN2) : MOLEX 39-29-9206 or equivalent

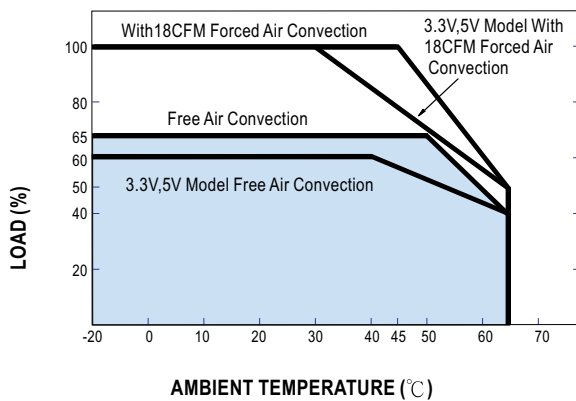
Pin No.	Assignment	Mating Housing	Terminal
1~5	+V	MOLEX 5557 or equivalent	MOLEX 5556 or equivalent
6~15	-V		
16~20	+V		

Block Diagram

fosc : 100KHz



Derating Curve



Static Characteristics (5V)

