



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



Model Number	Output Volts	Output Amps	Ripple & Noise	Min Load	DC Volt Adjust	Efficiency
<b>SINGLE OUTPUT</b>						
USP225-3.3	3.3 Volts(DC)	40 Amps	100mV pk-pk	0~40Amps	2.97~3.6Volt(DC)	72%
USP225-5	5 Volts(DC)	40 Amps	100mV pk-pk	0~40Amps	4.5~5.5Volt(DC)	77%
USP225-12	12 Volts(DC)	18.7 Amps	100mV pk-pk	0~18.7Amps	10.8~13.2Volt(DC)	83%
USP225-15	15 Volts(DC)	15 Amps	100mV pk-pk	0~15Amps	13.5~16.5Volt(DC)	84%
USP225-24	24 Volts(DC)	9.4 Amps	150mV pk-pk	0~9.4Amps	21.6~26.4Volt(DC)	85%
USP225-48	48 Volts(DC)	4.7 Amps	250mV pk-pk	0~4.7Amps	43.2~52.8Volt(DC)	86%



## 225W Single Output with PFC Function

# USP225 series

### INPUT SPECIFICATIONS

Input Voltage Range	90 ~ 264 VAC; 127~370 Volts(DC)
Frequency Range	47-63 Hz
Inrush Current, typ: (cold start)	15Amps@115VAC / 30Amps@230VAC
Input Current, typ.	
3.3Volts(DC)	2.2Amps@115VAC / 1.1Amps@230VAC
5~48Volts(DC)	3.3Amps@115VAC / 1.6Amps@230VAC
Leakage current	< 3.5mAmps /240VAC
Power Factor @ FL	PF > 0.93/230VAC
	>0.97/115VAC

### OUTPUT SPECIFICATIONS

Voltage and Current	See Selection Chart
Line Regulation	±0.5%
Load Regulation	±1.0%
Voltage Tolerance (Note2)	±2.0%
Ripple/Noise max(Note 1)	See Selection Chart
Hold Up Time @ FL	22mS/230VAC
	22mS/115VAC
Setup, Rise Time @ FL	500ms, 30m/230VAC
	1200mS, 30mS/115VAC
Over Voltage Protection	3.6 ~ 4.4Volt(DC): 3.3Volts(DC)
	5.5 ~ 7.4Volt(DC): 5Volts(DC)
	13.2 ~ 16.3Volt(DC): 12Volts(DC)
	16.5 ~ 20.2Volt(DC): 15Volts(DC)
	26.4~ 32.4Volt(DC): 24Volts(DC)
	52.8~ 64.8Volt(DC): 48Volts(DC)
	Shutdown o/p, re-power
Over Current Protection	105~ 150% rated output power
	Constant current limiting, auto-recover
Over Temperature Protection	95°C ±5°C(RTH2: detect on heatsink of power transistor)
	Shutdown o/p voltage, re-power after cool down
DC Volt Adjust	See Selection Chart

### GENERAL SPECIFICATIONS

Safety	UL60950-1, TUV EN60950-1 Approved
Insulation Resistance	≥ 100MΩ / 500Volts(DC)
EMI	Compliance to EN55022B (CISPR22B)
Harmonic Current	Compliance to EN61000-3-2,-3
Isolation	3000VAC Input - Output
	1500VAC Input - Ground
	500VAC Output - Ground
EMS	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, light Industry Level, Criteria A

### ENVIRONMENTAL SPECIFICATIONS

Oper. Temperature	-20°C to +65°C (See Derate Curve)
Storage Temperature	-40°C to +85°C, 10~95% RH
Relative Humidity	20~90% RH non cond
Temperature Coefficient	±0.03% / °C (0-50°C)
MTBF	220KHrs min, MIL-HDBK-217F(25°C)
Vibration	10~500Hz, 2G10min./1cycle, period for 60min. each along X, Y, Z axes

### PHYSICAL SPECIFICATIONS

Size	
Millimeters	202 x 101.5 x 38
Inches	7.68" x 2.17" x 0.91"
Weight	12.35 oz (850g)

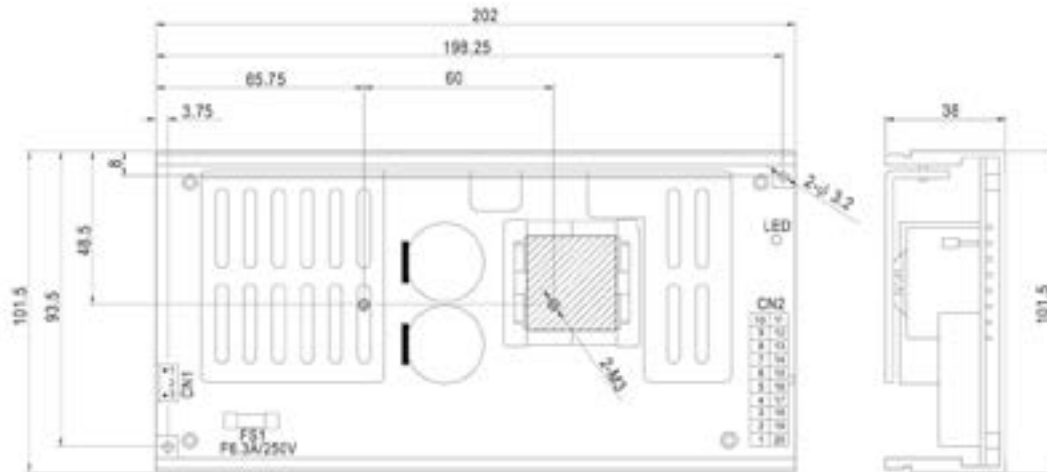
### NOTE

1. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
2. Tolerance : includes set up tolerance, line regulation and load regulation.

All specifications are typical at nominal input, full load, and 25°C unless otherwise noted

## Mechanical Specification

Case No. 928 Unit:mm



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

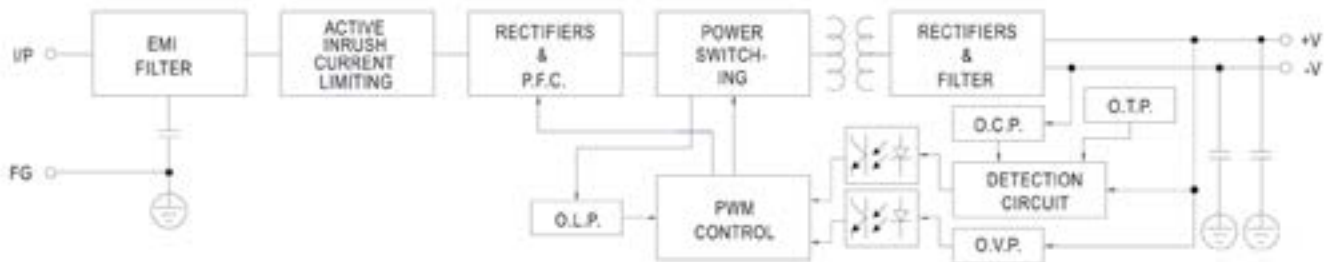
Pin No.	Assignment	Mating Housing	Terminal
1	AC/N	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
2	No Pin		
3	AC/L		

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

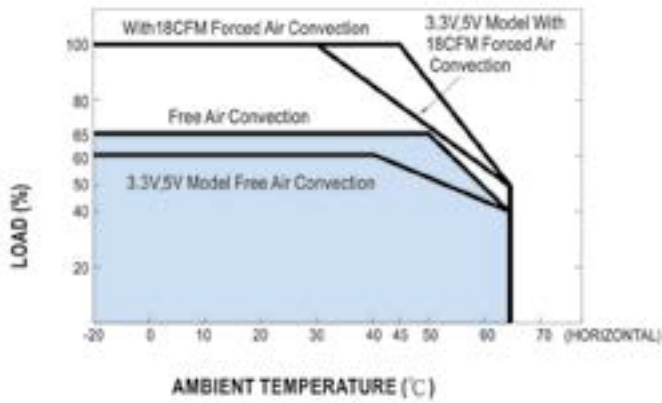
Pin No.	Assignment	Mating Housing	Terminal
1-5	+V	MOLEX 5557 or equivalent	MOLEX 5556 or equivalent
6-15	-V		
16-20	+V		

## Block Diagram

fosc : 100KHz



### Derating Curve



### Static Characteristics (5V)

