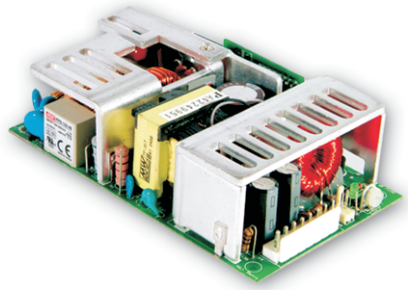
ASTRODYNE

125W Single Output with PFC Function

PPS-125 series



Features :

- Universal AC input / Full range
- Built-in active PFC function
- Protections:Short circuit/Over load/Over voltage
- PWM control and regulated
- High power density 6.117W/inch^3
- Built-in remote sense function
- LED indicator for power on
- 100% full load burn-in test
- 125W with 18CFM FAN
- 5"x3" compact size
- 3 years warranty

SPECIFICATION

MODEL		PPS-125-3.3	PPS-125-5	PPS-125-12	PPS-125-13.5	PPS-125-15	PPS-125-24	PPS-125-27	PPS-125-48
OUTPUT	DC VOLTAGE	3.3V	5V	12V	13.5V	15V	24V	27V	48V
	RATED CURRENT	20A	20A	8.5A	7.5A	6.7A	4.2A	3.8A	2.1A
	CURRENT RANGE (convection)	0 ~ 20A	0 ~ 20A	0 ~ 8.5A	0 ~ 7.5A	0 ~ 6.7A	0 ~ 4.2A	0 ~ 3.8A	0 ~ 2.1A
	CURRENT RANGE (18CFM FAN)	0 ~ 25A	0 ~ 25A	0 ~ 10.5A	0 ~ 9.3A	0 ~ 8.4A	0 ~ 5.2A	0 ~ 4.6A	0 ~ 2.6A
	RATED POWER (convection)	66W	100W	102W	101.25W	100.5W	100.8W	102.6W	100.8W
	RATED POWER (18CFM FAN)	82.5W	125W	126W	125.55W	126W	124.8W	124.2W	124.8W
	RIPPLE & NOISE (max.) Note.2	100mVp-p	100mVp-p	100mVp-p	100mVp-p	100mVp-p	150mVp-p	150mVp-p	250mVp-p
	VOLTAGE ADJ. RANGE	3.13 ~ 3.46V	4.75 ~ 5.25V	11.40 ~ 12.60V	12.82 ~ 14.17V	14.25 ~ 15.75V	22.80 ~ 25.20V	25.65 ~ 28.35V	45.60 ~ 50.40V
	VOLTAGE TOLERANCE Note.3	±2.0%	±2.0%	±2.0%	±2.0%	±2.0%	±1.0%	±1.0%	±1.0%
	LINE REGULATION	±0.5%	±0.5%	±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%	±1.0%	±1.0%
	SETUP, RISE TIME	1000ms, 30ms/230VAC 2000ms, 30ms/115VAC at full load							
	HOLD TIME (Typ.)	24ms/230VAC 24ms/115VAC at full load							
INPUT	VOLTAGE RANGE	90 ~ 264VAC 127 ~ 370VDC							
	FREQUENCY RANGE	47~63Hz							
	POWER FACTOR (Typ.)	PF>0.93/230VAC PF>0.98/115VAC at full load							
	EFFICIENCY (Typ.)	70%	79%	80%	80%	80%	83%	83%	84%
	AC CURRENT (Typ.) 115VAC	1.2A	1.7A						
	AC CURRENT (Typ.) 230VAC	0.6A	0.75A						
	INRUSH CURRENT (Typ.)	COLD START 24A/230VAC							
	LEAKAGE CURRENT	<2mA / 240VAC							
PROTECTION	OVER LOAD	130 ~ 160% rated output power							
		Protection type : Fold back current limiting, recovers automatically after fault condition is removed							
	OVER VOLTAGE	3.63 ~ 4.45V	5.5 ~ 6.75V	13.8 ~ 16.2V	15.5 ~ 20.25V	17.25 ~ 20.25V	27.6 ~ 32.4V	31.05 ~ 36.45V	57.6 ~ 67.2V
		Protection type : Hiccup mode, recovers automatically after fault condition is removed							
ENVIRONMENT	WORKING TEMP.	-20 ~ +70℃ (Refer to output load derating curve)							
	WORKING HUMIDITY	20 ~ 90% RH non-condensing							
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH							
	TEMP. COEFFICIENT	±0.05%/℃ (0 ~ 50℃)							
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes							
SAFETY & EMC (Note 4)	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	111.7Khrs min. MIL-HDBK-217F (25℃)							
	DIMENSION	127*76.2*34.6mm (L*W*H)							
	PACKING	0.37Kg; 36pcs/14.3Kg/0.91CUFT							
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ 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.								

WWW.ASTRODYNE.COM

300 Myles Standish Blvd., Taunton, MA 02780
Ph: 1-800-823-8082 Fax: 508-823-8181

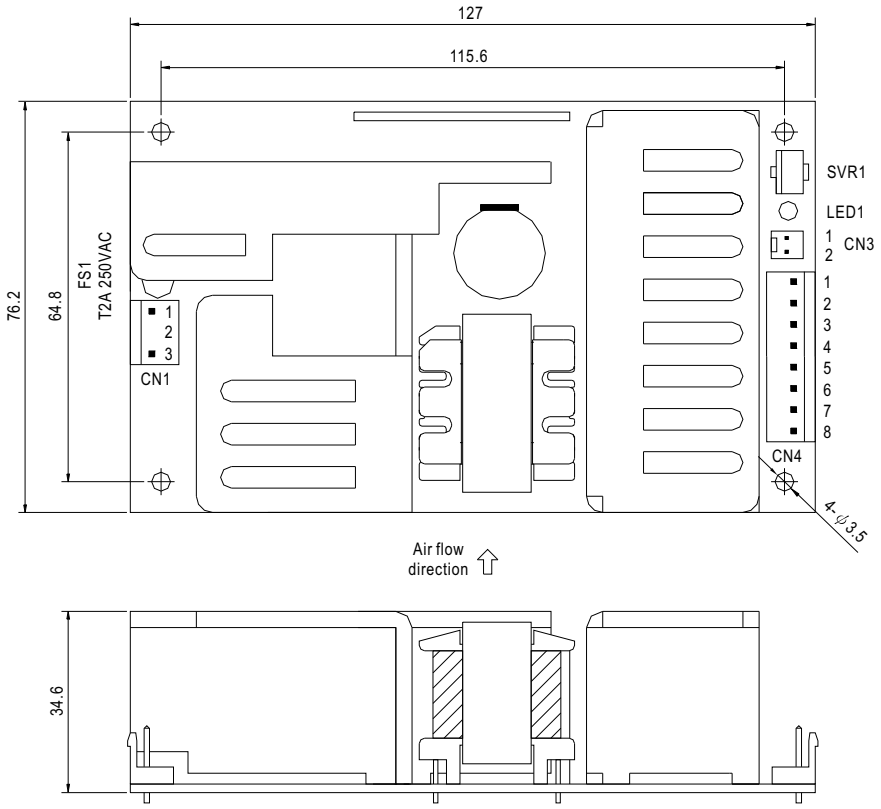
ASTRODYNE

125W Single Output with PFC Function

PPS-125 series

■ Mechanical Specification

Unit:mm



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

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

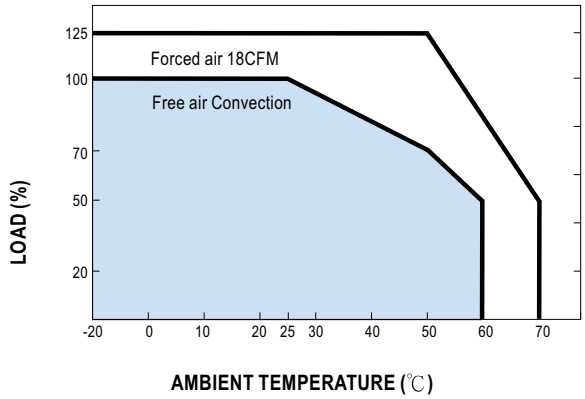
DC Output Connector (CN4) : JST B8P-VH or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1~4	-V	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
5~8	+V		

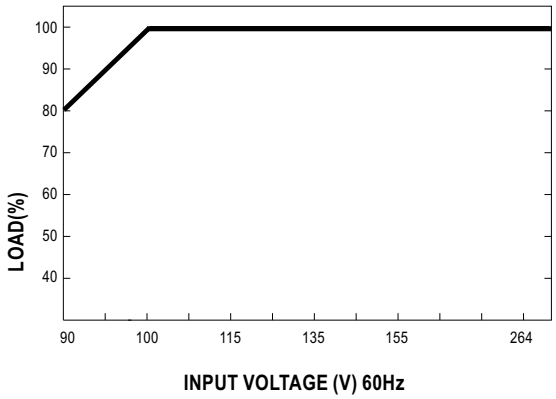
(CN3) : Remote Sense

Pin No.	Assignment
1	RS+
2	RS-

■ Derating Curve



■ Output Derating VS Input Voltage



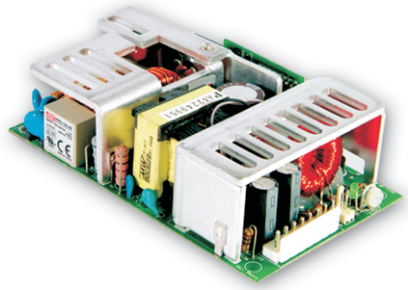
WWW.ASTRODYNE.COM

300 Myles Standish Blvd., Taunton, MA 02780
Ph: 1-800-823-8082 Fax: 508-823-8181

ASTRODYNE

125W Triple Output with PFC Function

PPT-125 series



Features :

- Universal AC input / Full range
- Built-in active PFC function
- Protections:Short circuit/Over load/Over voltage
- PWM control and regulated
- High power density 6.117W/inch^3
- LED indicator for power on
- 100% full load burn-in test
- 125W with 18CFM FAN
- 5"x3" compact size
- 3 years warranty

SPECIFICATION

MODEL		PPT-125A			PPT-125B			PPT-125C			PPT-125D		
OUTPUT	OUTPUT NUMBER	CH1	CH2	CH3	CH1	CH2	CH3	CH1	CH2	CH3	CH1	CH2	CH3
	DC VOLTAGE	3.3V	5V	12V	5V	12V	-12V	5V	15V	-15V	5V	24V	12V
	RATED CURRENT	10A	8A	0.5A	11.5A	3A	0.5A	11A	2.5A	0.5A	7A	2.5A	0.5A
	CURRENT RANGE (convection)	1 ~ 10A	0.8 ~ 8A	0.05 ~ 0.5A	1 ~ 11.5A	0.3 ~ 3A	0.05 ~ 0.5A	1 ~ 11A	0.25 ~ 2.5A	0.05 ~ 0.5A	1 ~ 7A	0.25 ~ 2.5A	0.05 ~ 0.5A
	CURRENT RANGE (18CFM FAN)	1 ~ 12.5A	0.8 ~ 10A	0.05 ~ 0.63A	1 ~ 14.38A	0.3 ~ 3.75A	0.05 ~ 0.63A	1 ~ 13.75A	0.25 ~ 3.13A	0.05 ~ 0.63A	1 ~ 8.75A	0.25 ~ 3.13A	0.05 ~ 0.63A
	RATED POWER (convection)	79W			99.5W			100W			101W		
	RATED POWER (18CFM FAN)	98.8W			124.46W			125.15W			126.43W		
	RIPPLE & NOISE (max.) Note.2	100mVp-p	100mVp-p	120mVp-p	100mVp-p	120mVp-p	120mVp-p	100mVp-p	150mVp-p	150mVp-p	100mVp-p	240mVp-p	120mVp-p
	VOLTAGE ADJ. RANGE	CH1:3.13 ~ 3.46V			CH1:4.75 ~ 5.25V			CH1:4.75 ~ 5.25V			CH1:4.75 ~ 5.25V		
	VOLTAGE TOLERANCE Note.3	±3.0%	±5.0%	±6.0%	±3.0%	±5.0%	±6.0%	±3.0%	±5.0%	±6.0%	±3.0%	±5.0%	±6.0%
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	LOAD REGULATION	±3.0%	±3.0%	±5.0%	±3.0%	±3.0%	±5.0%	±3.0%	±3.0%	±5.0%	±3.0%	±3.0%	±5.0%
	SETUP, RISE TIME	1000ms, 30ms/230VAC 2000ms, 30ms/115VAC at full load											
	HOLD TIME (Typ.)	24ms/230VAC 24ms/115VAC at full load											
INPUT	VOLTAGE RANGE	90 ~ 264VAC 127 ~ 370VDC											
	FREQUENCY RANGE	47~63Hz											
	POWER FACTOR (Typ.)	PF>0.93/230VAC PF>0.98/115VAC at full load											
	EFFICIENCY (Typ.)	75%			78%			78%			78%		
	AC CURRENT (Typ.)	1.7A/115VAC 0.75A/230VAC											
	INRUSH CURRENT (Typ.)	COLD START 24A/230VAC											
	LEAKAGE CURRENT	<2mA / 240VAC											
PROTECTION	OVER LOAD	130 ~ 160% rated output power											
		Protection type : Fold back current limiting, recovers automatically after fault condition is removed											
	OVER VOLTAGE	CH1:3.6 ~ 4.45V			CH1:5.75 ~ 6.75V			CH1:5.75 ~ 6.75V			CH1:5.75 ~ 6.75V		
		Protection type : Hiccup mode, recovers automatically after fault condition is removed											
ENVIRONMENT	WORKING TEMP., HUMIDITY	-20 ~ +70℃ (Refer to output load derating curve)											
	WORKING TEMP.	20 ~ 90% RH non-condensing											
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH											
	TEMP. COEFFICIENT	±0.05%/℃ (0 ~ 50℃)											
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes											
SAFETY & EMC (Note 4)	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	94.7Khrs min. MIL-HDBK-217F (25℃)											
	DIMENSION	127*76.2*34.6mm (L*W*H)											
	PACKING	0.37Kg; 36pcs/14.3Kg/0.91CUFT											
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ 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.												

WWW.ASTRODYNE.COM

300 Myles Standish Blvd., Taunton, MA 02780
Ph: 1-800-823-8082 Fax: 508-823-8181

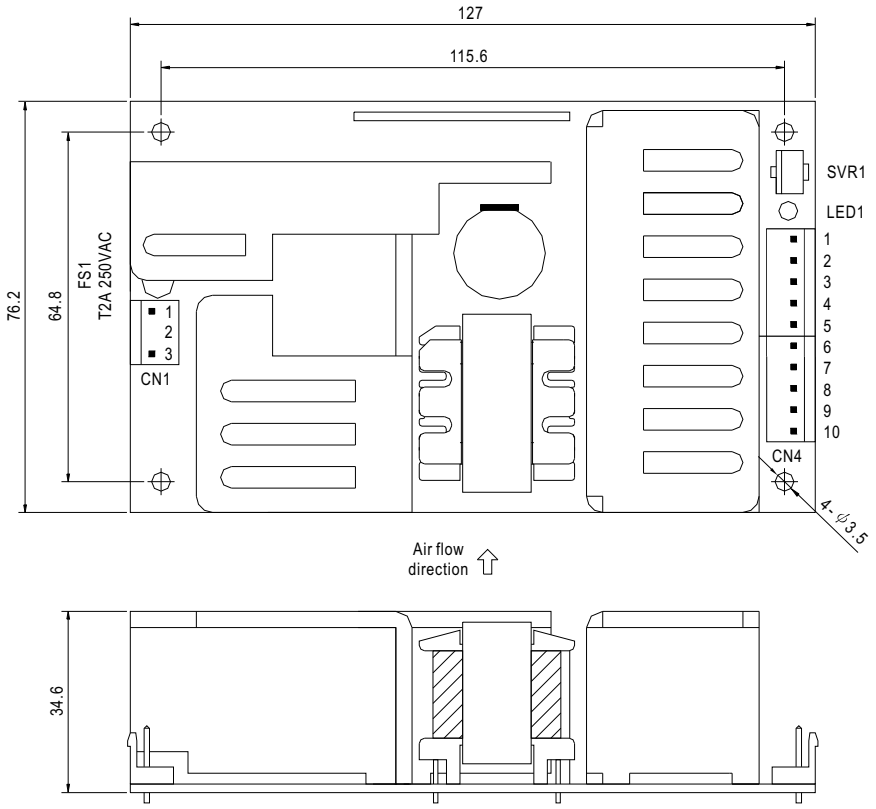
ASTRODYNE

125W Triple Output with PFC Function

PPT-125 series

■ Mechanical Specification

Unit:mm



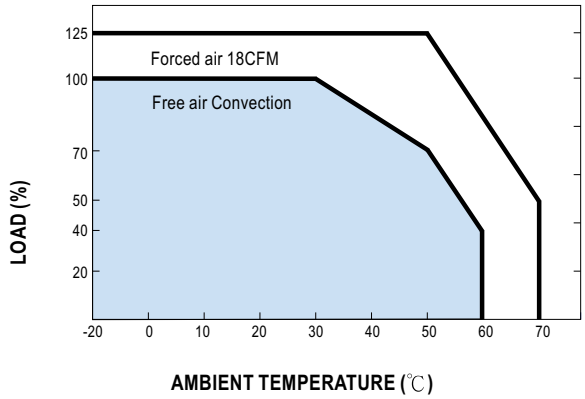
AC Input Connector (CN1) : JST B3P-VH or equivalent

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

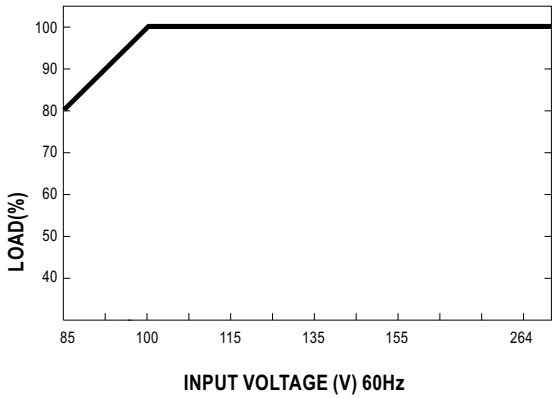
DC Output Connector (CN4) : JST B5P-VH*2 or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1	CH3	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
2,3	CH2		
4~8	GND		
9,10	CH1		

■ Derating Curve



■ Output Derating VS Input Voltage



WWW.ASTRODYNE.COM

300 Myles Standish Blvd., Taunton, MA 02780
Ph: 1-800-823-8082 Fax: 508-823-8181