

- Universal AC input
- Built-in active PFC function, PF>0.95
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- Fixed switching frequency at PFC:67KHz
PWM:134KHz(Optional)



Model Number	Output Volts	Output Amps	Ripple & Noise	Line Reg	Load Reg	Volt Tolerance	Min Load
Quad OUTPUT							
PPQ-1003A	3.3 Volts(DC)	10 Amps	100mVpk-pk	±1.0%	±2.0%	±3.0%	0~15Amps
	5 Volts(DC)	10 Amps	100mVpk-pk	±1.0%	±2.0%	±3.0%	2.0~15Amps
	12 Volts(DC)	2.0 Amps	150mVpk-pk	±2.0%	±6.0%	±6.0%	0.2~3.0Amps
	-5Volts(DC)	0.3 Amps	100mVpk-pk	±1.0%	±1.0%	±6.0%	0~1.0Amps
PPQ-1003B	3.3 Volts(DC)	10 Amps	100mVpk-pk	±1.0%	±2.0%	±3.0%	0~15Amps
	5 Volts(DC)	10 Amps	100mVpk-pk	±1.0%	±2.0%	±3.0%	2.0~15Amps
	12 Volts(DC)	2.0 Amps	150mVpk-pk	±2.0%	±6.0%	±6.0%	0.2~3.0Amps
	-12 Volts(DC)	0.3 Amps	120mVpk-pk	±1.0%	±1.0%	±6.0%	0~1.0Amps
PPQ-1003C	3.3 Volts(DC)	10Amps	100mVpk-pk	±1.0%	±2.0%	±3.0%	0~15Amps
	5 Volts(DC)	10 Amps	100mVpk-pk	±1.0%	±2.0%	±3.0%	2.0~15Amps
	15 Volts(DC)	1.5 Amps	180mVpk-pk	±2.0%	±6.0%	+10,-5%	0.2~3.0Amps
	-15 Volts(DC)	0.3 Amps	150mVpk-pk	±1.0%	±1.0%	±6.0%	0~1.0Amps
PPQ-1003D	3.3 Volts(DC)	10 Amps	100mVpk-pk	±1.0%	±2.0%	±3.0%	0~15Amps
	5 Volts(DC)	10 Amps	100mVpk-pk	±1.0%	±2.0%	±3.0%	2~15Amps
	12 Volts(DC)	2.0 Amps	150mVpk-pk	±2.0%	±6.0%	±6.0%	0.2~3.0Amps
	24 Volts(DC)	0.3 Amps	150mVpk-pk	±1.0%	±1.0%	±6.0%	0~1.0Amps



100W Quad Output with PFC Function

PPQ1003 series

INPUT SPECIFICATIONS

Input Voltage Range	90-264VAC / 127-370 Volts(DC)
Frequency Range	47~63Hz
Inrush Current, typ: (cold start)	40 Amps
Input Current	1.65Amps @115VAC 0.85Amps @230VAC
Leakage current	< 1.0mAmps / 240VAC
Power Factor	PF >0.95 / 230VAC > 0.98 / 115VAC

OUTPUT SPECIFICATIONS

Voltage and Current	See Selection Chart
Line Regulation	See Selection Chart
Load Regulation	See Selection Chart
Voltage Tolerance (Note 2)	See Selection Chart
Ripple/Noise (Note 1)	See Selection Chart
Hold Up Time @ FL	18mS
Setup, Rise Time @ FL	800mS, 50mS
Over Voltage Protection	3.3Volts(DC): 3.6~4.3Volts(DC) 5Volts(DC): 5.75~6.75Volts(DC) Shutdown o/p voltage, re-power
Over Current Protection	105~135% rated output power Constant current limiting, auto recover
DC Voltage Adjust	3.3Volts(DC): 3.14~3.63Volts(DC) 5Volts(DC): 4.75~5.5Volts(DC)

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
Efficiency	72%

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

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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	-10°C to +60°C (See Derate Curve)
Storage Temperature	-40°C to +85°C, 10~95% RH
Relative Humidity	20 to +90% RH non cond
Temperature Coefficient	±0.03% / °C (0-50°C)
MTBF	150.6K Hrs min, MIL-HDBK-217F (25°C)
Vibration	10~500Hz, 2G10min./1cycle, period for 60min. each along X, Y, Z axes

PHYSICAL SPECIFICATIONS

Size	Millimeters 177.8 x 107.95 x 38 Inches 7" x 4.25" x 1.50"
Weight	21.87 oz (620g)

NOTE

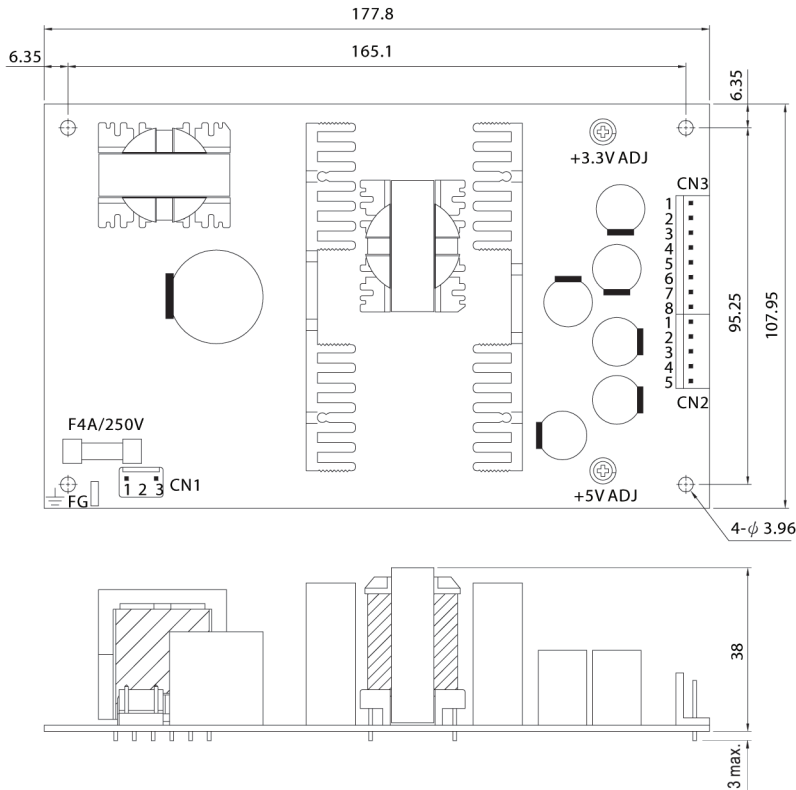
1. Ripple and Noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47 uf parallel capacitor.
2. Tolerance: includes set up tolerance, line regulation and load regulation.

Astrodyne products are not authorized or warranted for use as critical components in life support systems, equipment used in hazardous environments, nuclear controls systems, or other mission-critical applications.

ASTRODYNE USA: 1-800-823-8082
ASTRODYNE PACIFIC: 886-2-26983458

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		

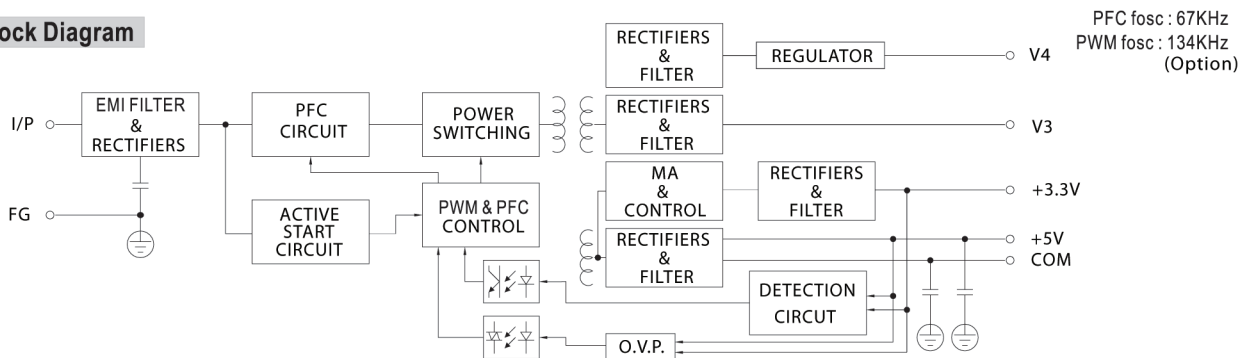
DC Output Connector (CN2) : JST B5P-VH or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1,2,3	V2	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
4	V3		
5	V4		

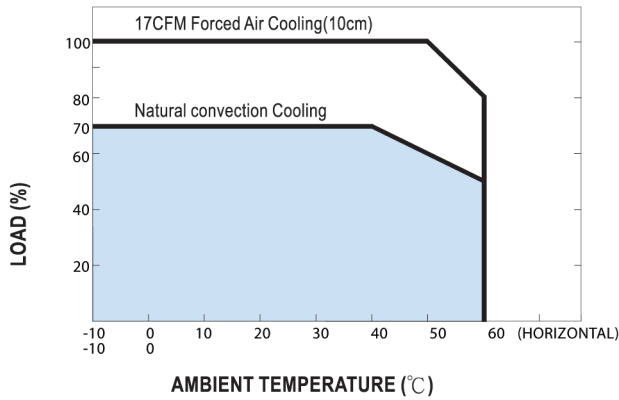
DC Output Connector (CN3) : JST B8P-VH or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1~3	V1	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
4~8	COM		

Block Diagram



Derating Curve



Output Derating VS Input Voltage

