Astrodyne

125W Quad Output Switching Power Supply

RQ125 series

- LED indicator for power on
- Protections: Short circuit / Overload / Over voltage
- All using 105°C long life electrolytic capacitors
- Cooling by free air convection
- High efficiency, long life and high reliability

Model Number	Output Volts	Output Amps	Ripple & Noise	Line Reg	Load Reg	Efficiency	Volt Tolerance	Min Load
Quad OUTPUT								
RQ125-B	5 Volts(DC)	11 Amps	80mVpk-pk	±0.5%	±1.0%	79%	±2.0%	2.0~12Amps
	12 Volts(DC)	4.5 Amps	120mVpk-pk	±1.0%	±3.0%	79%	+8-3%	0.5~4.5Amps
	-5 Volts(DC)	1.0 Amps	80mVpk-pk	±1.0%	±6.0%	79%	+6,-10%	0.1~1.0Amps
	-12Volts(DC)	0.5 Amps	80mVpk-pk	±1.0%	±2.0%	79%	±5.0%	0~1.0Amps
RQ125-C	5 Volts(DC)	10 Amps	80mVpk-pk	±0.5%	±1.0%	80%	±2.0%	2.0~12Amps
	15 Volts(DC)	4.0 Amps	120mVpk-pk	±1.0%	±3.0%	80%	+8,-3%	0.5~4.0Amps
	-5 Volts(DC)	1.0 Amps	80mVpk-pk	±1.0%	±6.0%	80%	+6,-10%	0.1~1.0Amps
	-15 Volts(DC)	0.5 Amps	80mVpk-pk	±1.0%	±2.0%	80%	±5.0%	0~1.0Amps
RQ125-D	5 Volts(DC)	8.0Amps	80mVpk-pk	±0.5%	±1.0%	82%	±2.0%	2.0~12Amps
	12 Volts(DC)	2.5Amps	120mVpk-pk	±1.0%	±3.0%	82%	+8,-3%	0.5~4.0Amps
	24 Volts(DC)	2.0Amps	150mVpk-pk	±1.0%	±5.0%	82%	+8.0%	0.1~2.5Amps
	-12 Volts(DC)	0.5 Amps	80mVpk-pk	±1.0%	±2.0%	82%	±5.0%	0~1.0Amps

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

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INPUT SPECIFICATIONS

Input Voltage Range	90-132VAC /176~264VAC selected
	by switch, 248-373 Volts(DC)
Frequency Range	47~63Hz
Inrush Current, typ: (cold start)	40 Amps @ 230VAC
Input Current	3.0Amps max @115VAC
	2.0Amps max @230VAC
Leakage current	< 2.0mAmps / 240VAC

OUTPUT SPECIFICATIONS

Voltage and Current	See Selection Chart
Line Regulation (Note 3)	See Selection Chart
Load Regulation (Note 4)	See Selection Chart
Voltage Tolerance (Note 2)	See Selection Chart
Ripple/Noise (Note 1)	See Selection Chart
Hold Up Time @ FL	25mS/230VAC, 30mS/115VAC
Setup, Rise Time @ FL	500mS, 20mS/230VAC
	1200mS, 30mS/115VAC
Over Voltage Protection	5Volts(DC) only: 5.75~6.75Volts(DC)
	Hiccup mode, auto recover
Over Current Protection	110~150% rated output power
	Hiccup mode, auto recover
DC Voltage Adjust	5Volts(DC)only: 4.75~5.5Volts(DC)

GENERAL SPECIFICATIONS

Safety	UL60950-1
	TUV EN60950-1 Approved
Insulation Resistance	≥100MΩ/500Volts(DC)/25°C/70%RH
EMI	Compliance to EN55022B ((CISPR22B)
Harmonic Current	Compliance to EN61000-3-2,-3
Efficiency	See Selection Chart
Isolation	
	3000VAC Input - Output
	1500VAC Input - Ground
	500VAC Output - Ground
EMS	Compliance to
	EN61000-4-2,3,4,5,6,8,11;
	ENV50204, EN61000-6-2(EN50082-2)
	heavy industry level, criteria A

ENVIRONMENTAL SPECIFICATIONS

Oper. Temperature	-25°C to +70°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) on +5Volts output
MTBF	203.1K Hrs min, MIL-HDBK-217F (25°C)
Vibration	10~500Hz, 5G10min./1cycle, period for
	60min. each along X, Y, Z axes

PHYSICAL SPECIFICATIONS

Size		
	Millimeters	199 x 98 x 38
	Inches	7.84” x 3.86” x 1.50”
Weight		24.69 oz (700g)

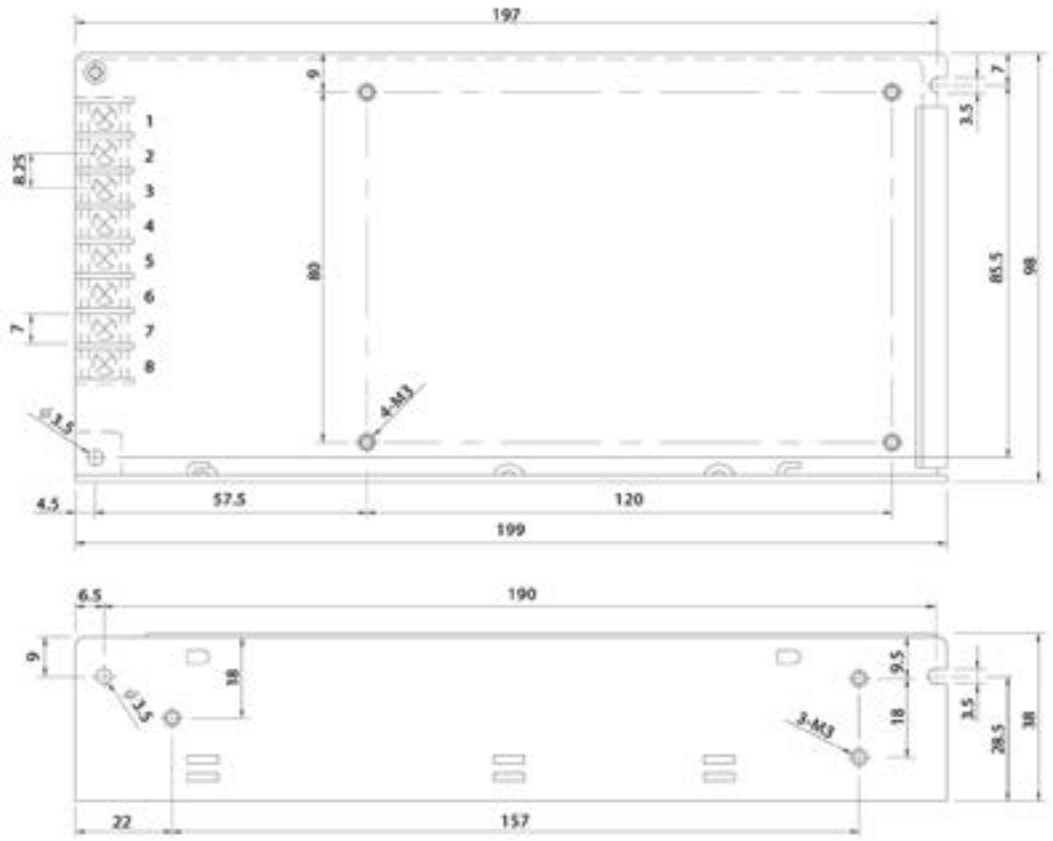
NOTE

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.
3. Line regulation is measured from low line to high line at rated load.
4. Load regulation is measured from 20% to 100% rated load, an other output at 60% rated load.

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

■ Mechanical Specification

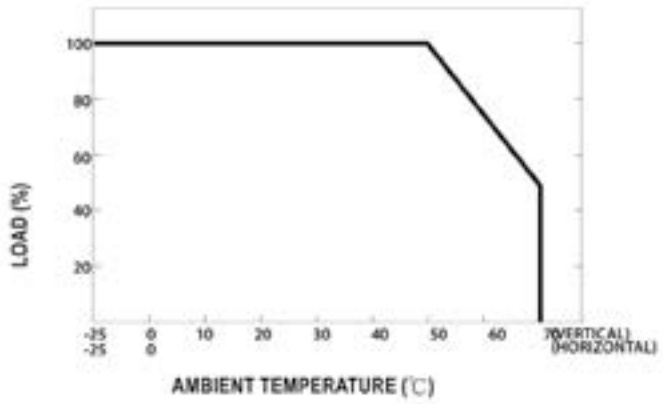
Case No. 902 Unit:mm



Terminal Pin No. Assignment

Pin No.	Assignment	Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4	DC OUTPUT -V4	7	DC OUTPUT COM
2	AC/N	5	DC OUTPUT V3	8	DC OUTPUT +V1
3	FG ⏚	6	DC OUTPUT +V2		

■ Derating Curve



■ Static Characteristics