



- Universal AC input
- Built-in PFC function, PF >0.95
- Protections: Short circuit / Overload / Over voltage
- Fixed switching frequency at 100KHz
- Free air cooling convection



Model Number	Output Volts	Output Amps	Ripple & Noise	Line Reg	Load Reg	Efficiency	Tolerance	Min Load
Quad OUTPUT								
QP100-3A	5 Volts(DC)	8.0 Amps	100mVpk-pk	±1.0%	±2.0%	74%	±3.0%	2.0~10Amps
	3.3 Volts(DC)	8.0 Amps	100mVpk-pk	±1.0%	±2.0%	74%	±3.0%	0~10Amps
	12 Volts(DC)	2.5 Amps	150mVpk-pk	±2.0%	±6.0%	74%	±6.0%	0.3~3.0Amps
	-5 Volts(DC)	0.6 Amps	150mVpk-pk	±1.0%	±2.0%	74%	±5.0%	0~1.0Amps
QP100-3B	5 Volts(DC)	8.0 Amps	100mVpk-pk	±1.0%	±2.0%	74%	±3.0%	2.0~10Amps
	3.3 Volts(DC)	8.0 Amps	100mVpk-pk	±1.0%	±2.0%	74%	±3.0%	0~10Amps
	12 Volts(DC)	2.2 Amps	150mVpk-pk	±2.0%	±6.0%	74%	±6.0%	0.3~3.0Amps
	-12 Volts(DC)	0.6 Amps	150mVpk-pk	±1.0%	±2.0%	74%	±5.0%	0~1.0Amps
QP100-3C	5 Volts(DC)	8.0Amps	100mVpk-pk	±1.0%	±2.0%	75%	±3.0%	2.0~10Amps
	3.3 Volts(DC)	8.0 Amps	100mVpk-pk	±1.0%	±2.0%	75%	±3.0%	0~10Amps
	15 Volts(DC)	1.7Amps	150mVpk-pk	±2.0%	±6.0%	75%	+8,-6%	0.3~2.0Amps
	-15 Volts(DC)	0.6 Amps	150mVpk-pk	±1.0%	±2.0%	75%	±5.0%	0~1.0Amps
QP100-3D	5 Volts(DC)	8.0 Amps	100mVpk-pk	±1.0%	±2.0%	75%	±3.0%	2.0~10Amps
	3.3 Volts(DC)	8.0 Amps	100mVpk-pk	±1.0%	±2.0%	75%	±3.0%	0~10Amps
	24 Volts(DC)	1.3 Amps	150mVpk-pk	±2.0%	±6.0%	75%	±6.0%	0.3~2.0Amps
	-12 Volts(DC)	0.6 Amps	150mVpk-pk	±1.0%	±2.0%	75%	±5.0%	0~1.0Amps
QP100-D	5 Volts(DC)	8.0 Amps	120mVpk-pk	±1.0%	±2.0%	78%	±3.0%	2.0~10Amps
	12 Volts(DC)	2.4 Amps	150mVpk-pk	±1.0%	±2.0%	78%	±3.0%	0~3.0Amps
	24 Volts(DC)	1.0 Amps	200mVpk-pk	±2.0%	±6.0%	78%	±6.0%	0.3~2.0Amps
	-12 Volts(DC)	0.6 Amps	150mVpk-pk	±1.0%	±2.0%	78%	±5.0%	0~1.0Amps
QP100-F	5 Volts(DC)	8.0 Amps	120mVpk-pk	±1.0%	±2.0%	78%	±3.0%	2.0~10Amps
	15 Volts(DC)	2.0 Amps	180mVpk-pk	±1.0%	±2.0%	78%	±3.0%	0~3.0Amps
	24 Volts(DC)	1.0 Amps	200mVpk-pk	±2.0%	±6.0%	78%	±6.0%	0.3~2.0Amps
	-15 Volts(DC)	0.6 Amps	150mVpk-pk	±1.0%	±2.0%	78%	±5.0%	0~1.0Amps
QP100-B	5 Volts(DC)	10 Amps	100mVpk-pk	±1.0%	±2.0%	76%	±3.0%	2.0~10Amps
	12 Volts(DC)	3.0 Amps	150mVpk-pk	±2.0%	±6.0%	76%	±6.0%	0.3~4.0Amps
	-12 Volts(DC)	1.0 Amps	150mVpk-pk	±2.0%	±6.0%	76%	+10,-6%	0.15~1Amps
	-5 Volts(DC)	0.6 Amps	100mVpk-pk	±1.0%	±2.0%	76%	±5.0%	0~1.0Amps
QP100-C	5 Volts(DC)	10 Amps	100mVpk-pk	±1.0%	±2.0%	77%	±3.0%	2.0~10Amps
	15 Volts(DC)	2.2 Amps	150mVpk-pk	±2.0%	±2.0%	77%	+6,-10%	0.3~3.0Amps
	-15 Volts(DC)	1.1 Amps	150mVpk-pk	±2.0%	±6.0%	77%	±8.0%	0.15~1Amps
	-5 Volts(DC)	0.6 Amps	100mVpk-pk	±1.0%	±2.0%	77%	±5.0%	0~1.0Amps



100W Quad Output with PFC Function

QP100

INPUT SPECIFICATIONS

Input Voltage Range (Note 3)	90-264VAC / 127-370 Volts(DC)
Frequency Range	47~63Hz
Inrush Current, typ: (cold start)	
QP100-3A/3B/3C/3D/D/F	≤40 Amps @ 230VAC
QP100-B/C	≤40 Amps
Input Current	1.5Amps max @115VAC
	0.75Amps max @230VAC
Leakage current	< 3.5mAmps / 240VAC
Power Factor @ FL	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	
QP100-3A/3B/3C/3D/D/F	24mS/230VAC, 24mS/115VAC
QP100-B/C	24mS
Setup, Rise Time @ FL	
QP100-3A/3B/3C/3D/D/F	800mS, 50mS/230VAC
	800mS, 50mS/115VAC
QP100-B/C	1000mS, 50mS
Over Voltage Protection	
5Volts(DC):	5.75~6.75Volts(DC)
3.3Volts(DC):	3.8~4.4Volts(DC)
QP100-D:	12Volts(DC): 13.8~16.2Volts(DC)
QP100-F:	17.25~20.25Volts(DC)
Shutdown o/p voltage, re-power	
Over Current Protection	Hiccup mode, auto recover
QP100-3A/3B/3C/3D/D/F	105~150% rated output power
QP100-B/C	105~135% rated output power
Over Temperature Protection	95°C±5°C (TSW1)
	Shutdown o/p voltage, auto recover after cool down
DC Voltage Adjust	5Volts(DC): 4.75~5.5Volts(DC)
	3.3Volts(DC): 3.14~3.63Volts(DC)
	QP100-D(12Volts): 11.4~13.2Volts(DC)
	QP100-F(15Volts): 14.3~16.5Volts(DC)

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

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	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, EN55024
	light industry level, criteria A

ENVIRONMENTAL SPECIFICATIONS

Oper. Temperature	-10°C to +60°C (See Derate Curve)
Storage Temperature	-20°C to +85°C, 10~95% RH
Relative Humidity	20 to +90% RH
Temperature Coefficient	±0.03% / °C (0-50°C)
MTBF	139.9K 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	199 x 99 x 50
Inches	7.84" x 3.90" x 1.97"
Weight	
QP100-3A/3B/3C/3D/D/F	30.69 oz (870g)
QP100-B/C	38.80 oz (1100g)

NOTE

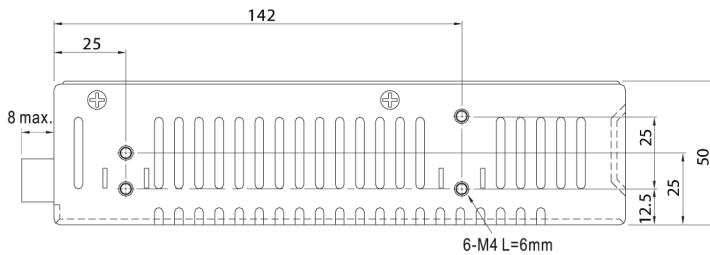
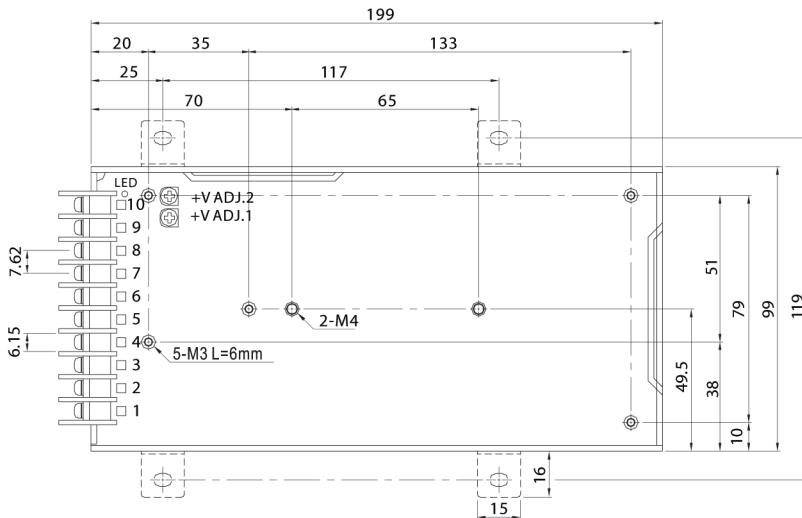
1. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
2. Tolerance : includes set up tolerance, line regulation and load regulation.
3. Derating may be needed under low input voltages. Please check the derating curve for more details.

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.

QP100-3A/3B/3C/3D/D/F

Mechanical Specification

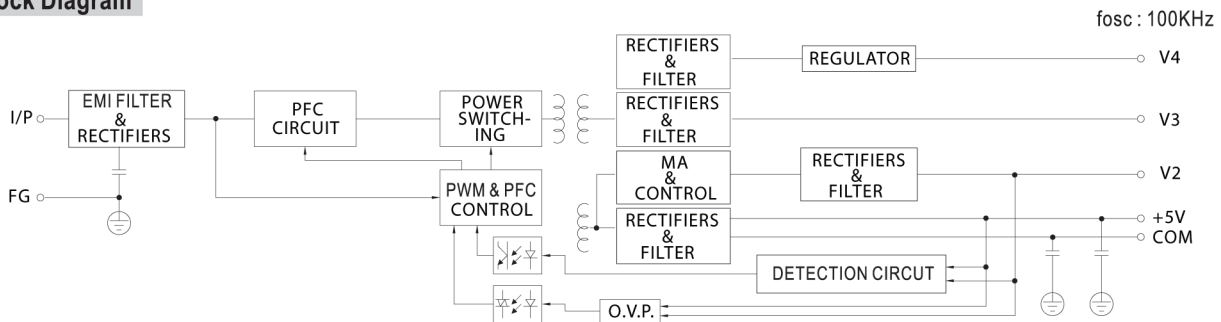
Case No. 916A Unit:mm



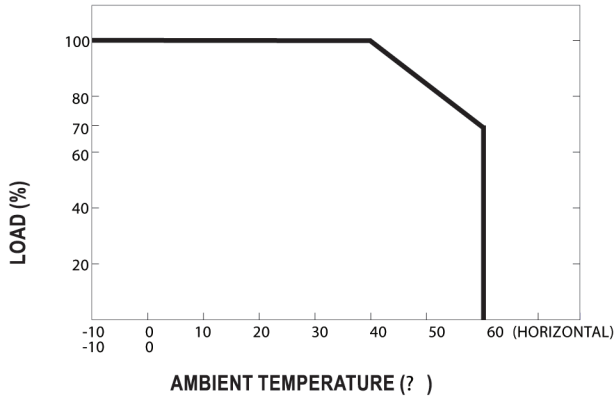
Terminal Pin No. Assignment :

Pin No.	Assignment	Pin No.	Assignment
1	AC/L	5	DC OUTPUT V3
2	AC/N	6,7	DC OUTPUT V1
3	FG \pm	8,9	DC OUTPUT COM
4	DC OUTPUT V4	10	DC OUTPUT V2

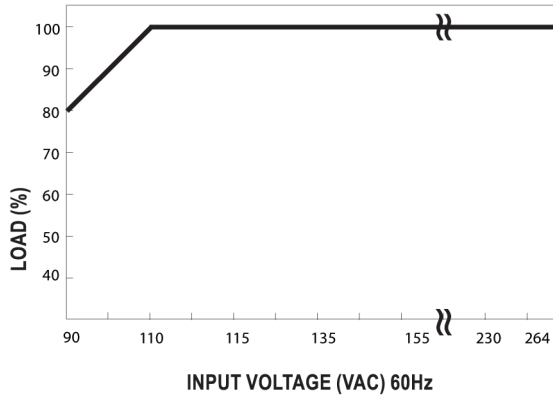
Block Diagram



Derating Curve



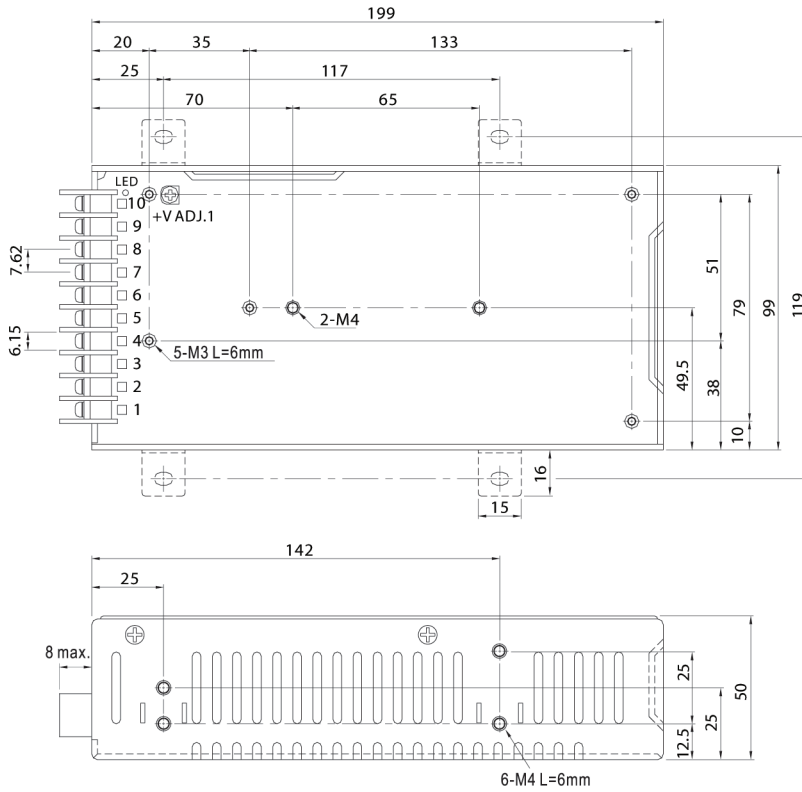
Output Derating VS Input Voltage



QP100B,C

Mechanical Specification

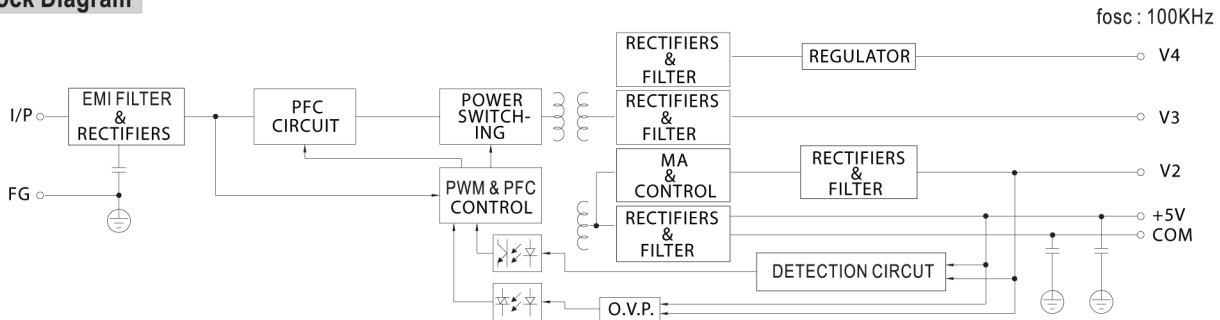
Case No. 916A Unit:mm



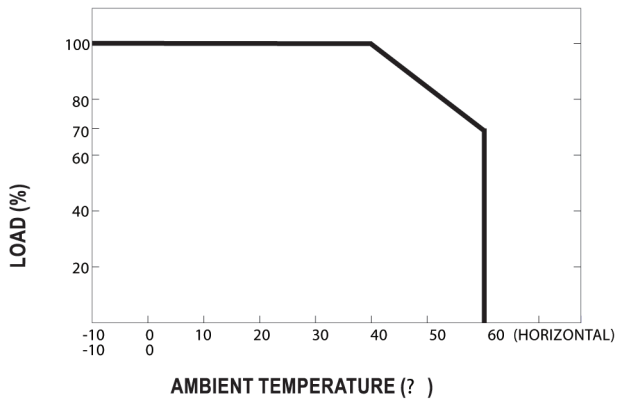
Terminal Pin No. Assignment :

Pin No.	Assignment	Pin No.	Assignment
1	AC/L	5	DC OUTPUT V3
2	AC/N	6,7	DC OUTPUT V1
3	FG \perp	8,9	DC OUTPUT COM
4	DC OUTPUT V4	10	DC OUTPUT V2

Block Diagram



Derating Curve



Output Derating VS Input Voltage

