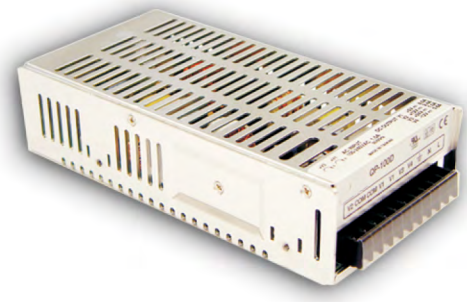
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100W Quad Output with PFC Function

QP100



- 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%	±60%	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

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

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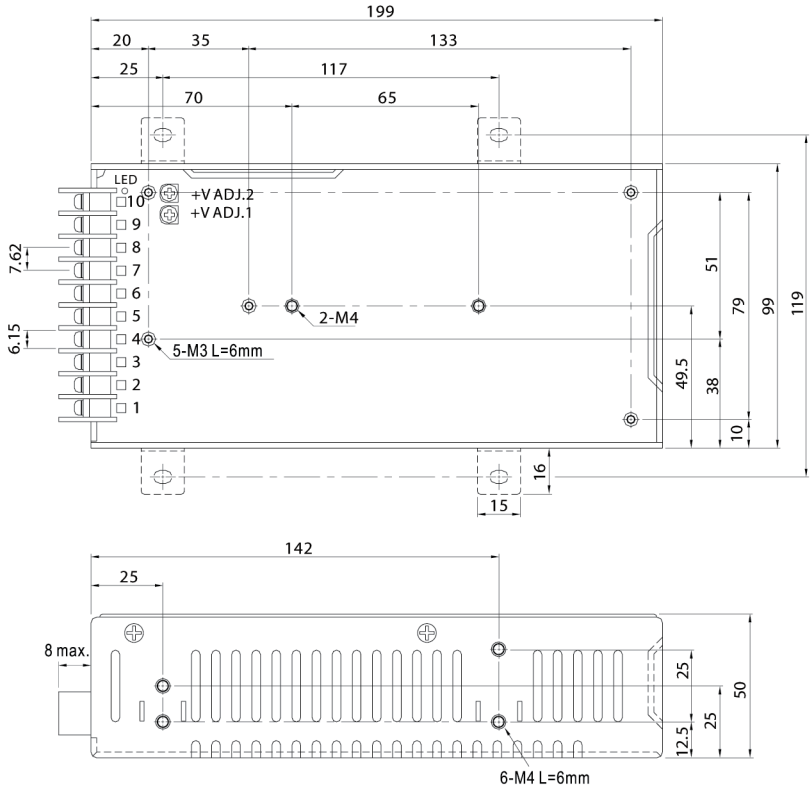
100W Quad Output with PFC Function

QP100

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

■ Mechanical Specification

Case No. 916A Unit:mm

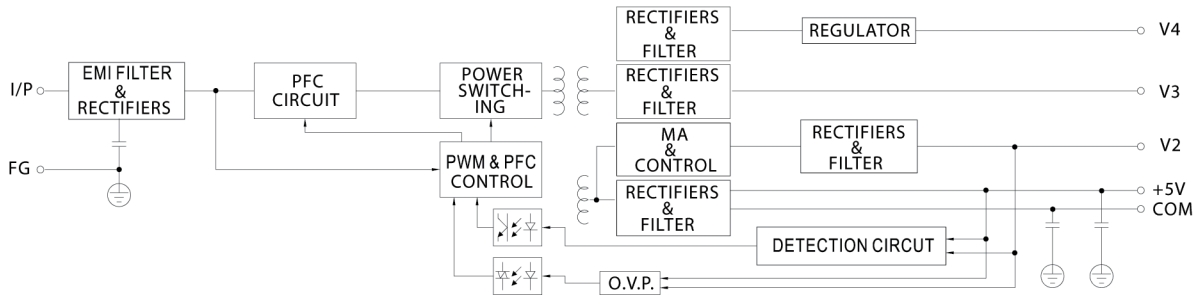


Terminal Pin No. Assignment :

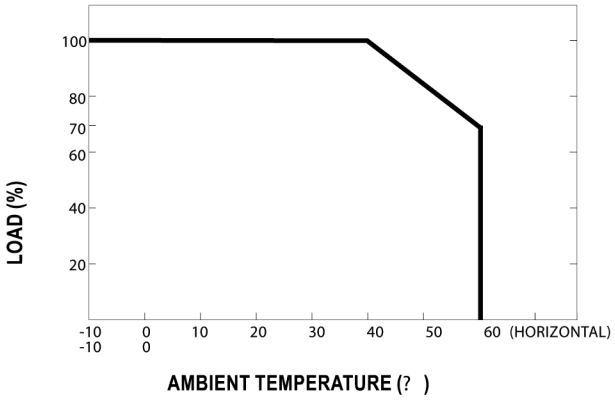
Pin No.	Assignment	Pin No.	Assignment
1	AC/L	5	DC OUTPUT V3
2	AC/N	6,7	DC OUTPUT V1
3	FG ⏚	8,9	DC OUTPUT COM
4	DC OUTPUT V4	10	DC OUTPUT V2

■ Block Diagram

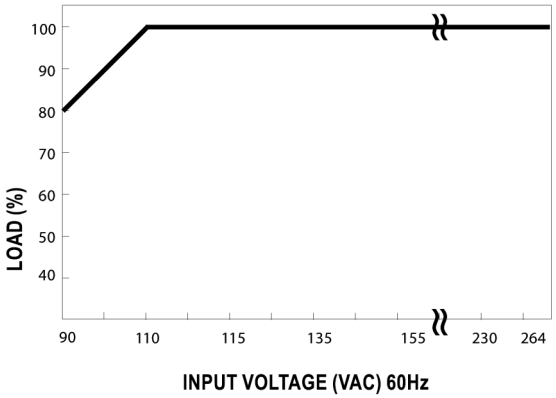
fosc : 100KHz



■ Derating Curve



■ Output Derating VS Input Voltage



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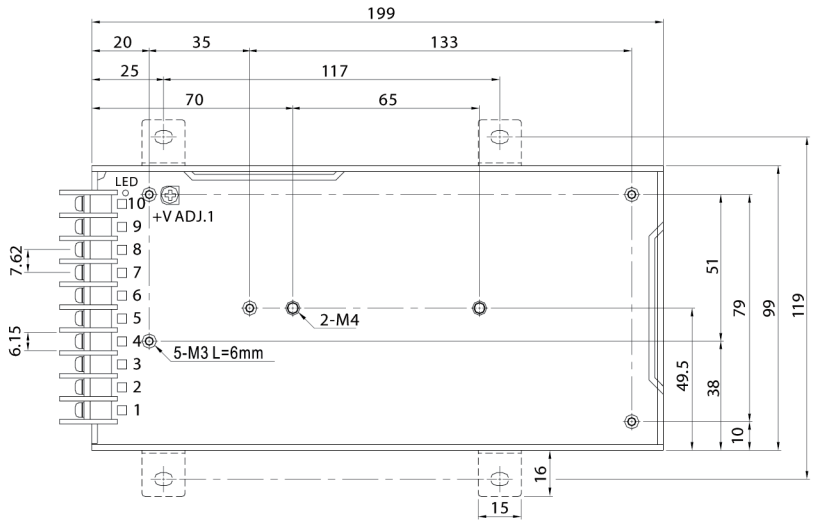
100W Quad Output with PFC Function

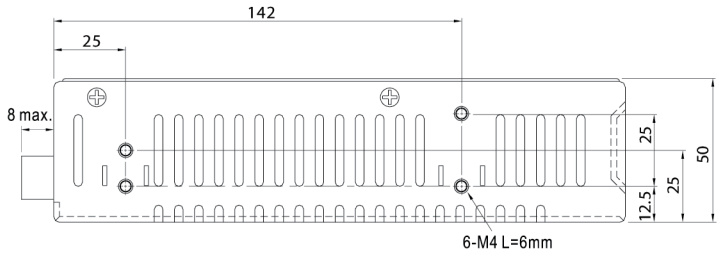
QP100

QP100B,C

■ Mechanical Specification

Case No. 916A Unit:mm



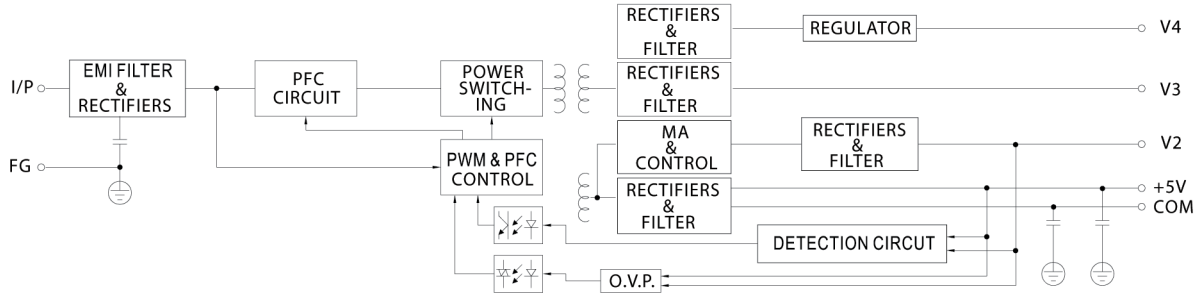


Terminal Pin No. Assignment :

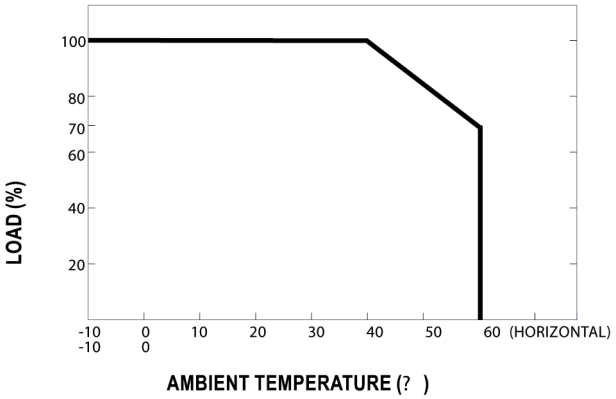
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2	AC/N	6,7	DC OUTPUT V1
3	FG ⏚	8,9	DC OUTPUT COM
4	DC OUTPUT V4	10	DC OUTPUT V2

■ Block Diagram

fosc : 100KHz



■ Derating Curve



■ Output Derating VS Input Voltage

