



- Universal AC input
- Built-in active PFC function, PF >0.94
- Protections: Short circuit /Overload/Over voltage
- Fixed switching frequency at 100KHz
- Forced air cooling by built-in DC fan



| Model Number | Output Volts | Output Amps | Ripple & Noise | Load Reg | Volt Tolerance | Min Load |
|----------------------|---------------|-------------|----------------|----------|----------------|-------------|
| TRIPLE OUTPUT | | | | | | |
| TP150-A | 5 Volts(DC) | 15 Amps | 100mVpk-pk | ±3.0% | ±3.0% | 2.0~20Amps |
| | 12 Volts(DC) | 6.0 Amps | 120mVpk-pk | ±6.0% | ±8.0% | 0.4~7.0Amps |
| | -5 Volts(DC) | 0.6 Amps | 100mVpk-pk | ±4.0% | ±6.0% | 0~1.0Amps |
| TP150-B | 5 Volts(DC) | 15 Amps | 100mVpk-pk | ±3.0% | ±3.0% | 2.0~20Amps |
| | 12 Volts(DC) | 5.5 Amps | 120mVpk-pk | ±6.0% | ±8.0% | 0.4~7.0Amps |
| | -12 Volts(DC) | 0.6 Amps | 100mVpk-pk | ±4.0% | ±6.0% | 0~1.0Amps |
| TP150-C | 5 Volts(DC) | 15 Amps | 100mVpk-pk | ±3.0% | ±3.0% | 2.0~20Amps |
| | 15 Volts(DC) | 4.5 Amps | 150mVpk-pk | ±6.0% | +10,-6% | 0.4~6.0Amps |
| | -15 Volts(DC) | 0.6Amps | 100mVpk-pk | ±4.0% | ±6.0% | 0~1.0Amps |
| TP150-D | 5 Volts(DC) | 15 Amps | 100mVpk-pk | ±3.0% | ±3.0% | 2.0~20Amps |
| | 24 Volts(DC) | 3.0 Amps | 150mVpk-pk | ±6.0% | ±8.0% | 0.4~4.0Amps |
| | 12 Volts(DC) | 0.6 Amps | 100mVpk-pk | ±4.0% | ±6.0% | 0~1.0Amps |



150W Triple Output with PFC Function

TP150 series

INPUT SPECIFICATIONS

| | |
|-----------------------------------|--|
| Input Voltage Range (Note 3) | 90-264VAC / 127-370 Volts(DC) |
| Frequency Range | 47-63 Hz |
| Inrush Current, typ: (cold start) | ≤ 40Amps @ 230VAC |
| Input Current | 2.5 Amps max @ 115VAC 1.2 Amps max @ 230VAC |
| Leakage current | < 3.5mA / 240 VAC |
| Power Factor @ FL | PF > 0.94/230VAC >0.98/115VAC |

OUTPUT SPECIFICATIONS

| | |
|----------------------------|---|
| Voltage and Current | See Selection Chart |
| Line Regulation | ±1.0% |
| Load Regulation | See Selection Chart |
| Voltage Tolerance (Note 2) | See Selection Chart |
| Ripple/Noise (Note 1) | See Selection Chart |
| Hold Up Time @ FL | 24mS/230VAC, 24mS/115VAC |
| Setup, Rise Time @ FL | 800mS, 60mS/230VAC 800mS, 60mS/115VAC |
| Over Voltage Protection | 5Volts(DC) only: 5.75~6.75Volts(DC) Shutdown o/p voltage, auto recover |
| Over Current Protection | 105~150% rated ourtput power Hiccup mode, auto recover |
| Over Temperature Protecion | 95°C ±5°C (TSW1) Shutdown o/p voltage, auto recover |
| DC Voltage Adjust | 5Volts(DC): 4.5~5.5Volts(DC) |

GENERAL SPECIFICATIONS

| | |
|-----------------------|--|
| Safety | UL60950-1 TUV EN60950-1 approved |
| Insulation Resistance | ≥ 100MΩ / 500Volts(DC) |
| EMI | Compliance to EN55022 (CISPR22) Class B |
| Harmonic Current | Compliance to EN61000-3-2,-3 |

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

| | |
|------------|---|
| Efficiency | 77% typ. |
| Isolation | 3000VAC Input - Output 1500VAC Input - Ground 500VAC Output - Ground 1min |
| 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 non cond |
| Temperature Coefficient | ±0.03% / °C (0-50°C) |
| MTBF | 161.6KHrs 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 | 31.75 oz (900g) |

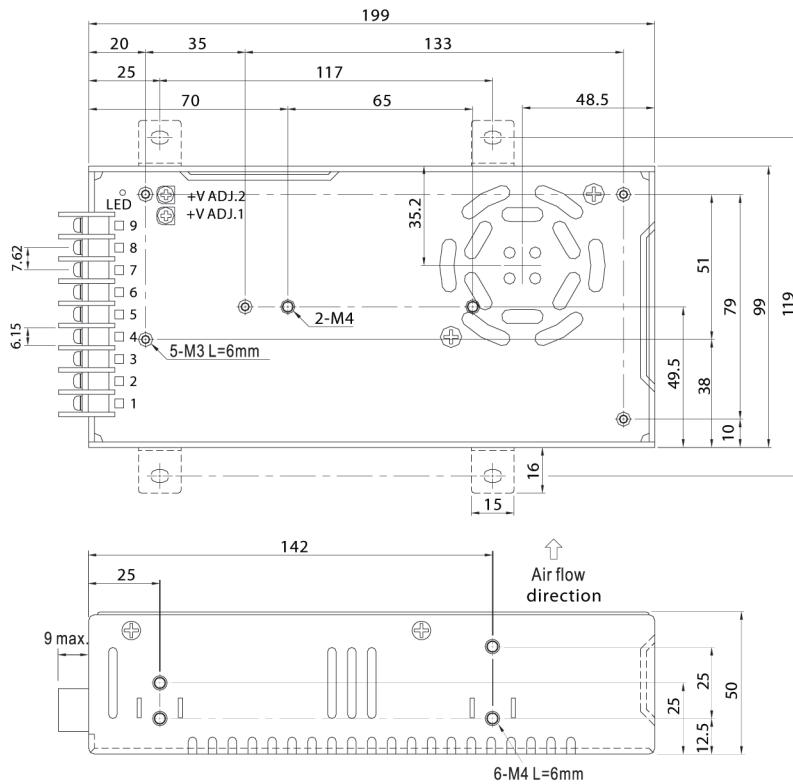
NOTE

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. 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.

Mechanical Specification

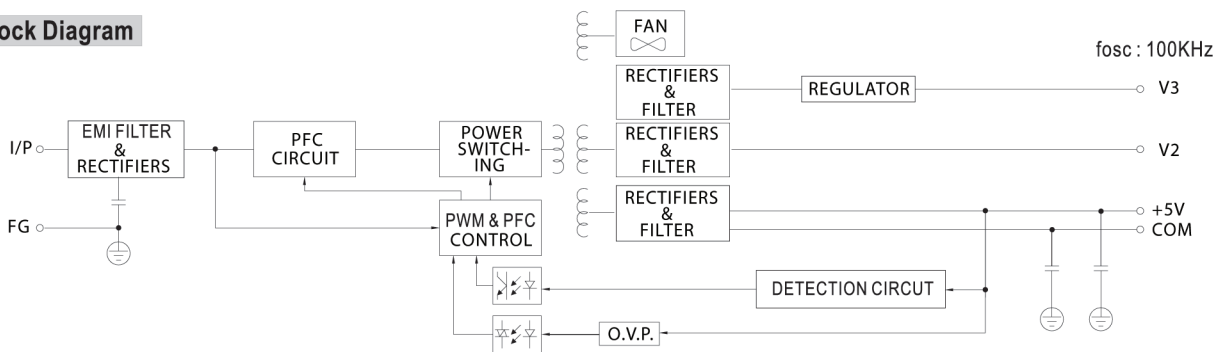
Case No. 916B Unit:mm



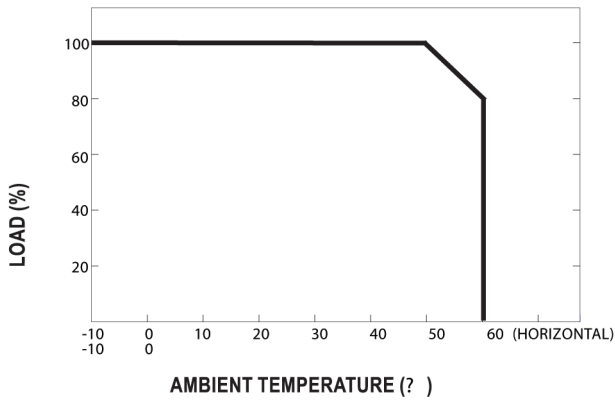
Terminal Pin No. Assignment :

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

Block Diagram



Derating Curve



Output Derating VS Input Voltage

