



- Universal AC input
- Built-in active PFC function, PF >0.95
- Protections: Short circuit / Overload / Over voltage
- Fixed switching frequency at PFC: 67KHz PWM: 134KHz
- Cooling by free air convection
- LED indicator for power on
- Low profile: 33mm thickness



| Model Number         | Output Volts  | Output Amps | Ripple & Noise | Load Reg | Volt Tolerance | Min Load    |
|----------------------|---------------|-------------|----------------|----------|----------------|-------------|
| <b>TRIPLE OUTPUT</b> |               |             |                |          |                |             |
| TP75-A               | 5 Volts(DC)   | 7.0 Amps    | 100mVpk-pk     | ±3.0%    | ±3.0%          | 1.5~10Amps  |
|                      | 12 Volts(DC)  | 3.0 Amps    | 120mVpk-pk     | ±4.0%    | ±4.0%          | 0.2~4.0Amps |
|                      | -5 Volts(DC)  | 0.6 Amps    | 100mVpk-pk     | ±8.0%    | ±8.0%          | 0~0.6Amps   |
| TP75-B               | 5 Volts(DC)   | 7.0 Amps    | 100mVpk-pk     | ±3.0%    | ±3.0%          | 1.5~10Amps  |
|                      | 12 Volts(DC)  | 3.0 Amps    | 120mVpk-pk     | ±4.0%    | ±4.0%          | 0.2~4.0Amps |
|                      | -12 Volts(DC) | 0.4 Amps    | 120mVpk-pk     | ±8.0%    | ±8.0%          | 0~0.6Amps   |
| TP75-C               | 5 Volts(DC)   | 6.0 Amps    | 100mVpk-pk     | ±3.0%    | ±3.0%          | 1.5~10Amps  |
|                      | 15 Volts(DC)  | 2.5 Amps    | 120mVpk-pk     | ±4.0%    | ±4.0%          | 0.2~3.0Amps |
|                      | -15 Volts(DC) | 0.5 Amps    | 120mVpk-pk     | ±8.0%    | ±8.0%          | 0~0.6Amps   |

## 75W Triple Output with PFC Function

## TP75 series

### INPUT SPECIFICATIONS

|                                   |                                                |
|-----------------------------------|------------------------------------------------|
| Input Voltage Range (Note 3)      | 90-264VAC / 127-370 Volts(DC)                  |
| Frequency Range                   | 47-63 Hz                                       |
| Inrush Current, typ: (cold start) | 20 Amps @ 230VAC                               |
| Input Current                     | 1.5 Amps max @ 115VAC<br>0.8 Amps max @ 230VAC |
| Leakage current                   | < 2mA / 240 VAC                                |
| Power Factor @ FL                 | PF > 0.95/230VAC<br>>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          | 36mS                                                                  |
| Setup, Rise Time @ FL      | 800mS, 60mS                                                           |
| Over Voltage Protection    | 5Volts(DC) only: 5.75~6.75Volts(DC)<br>Shutdown o/p voltage, re-power |
| Over Current Protection    | 105~150% rated output power<br>Hiccup mode, auto-recover              |
| DC Voltage Adjust          | 5Volts(DC) : 4.5~5.5Volts(DC)                                         |

### GENERAL SPECIFICATIONS

|                       |                                                                                 |
|-----------------------|---------------------------------------------------------------------------------|
| Safety                | UL60950-1<br>TUV EN60950-1 approved                                             |
| Insulation Resistance | ≥ 100MΩ / 500 Volts(DC)                                                         |
| EMI                   | Compliance to EN55022 (CISPR22)<br>Class B                                      |
| Harmonic Current      | Compliance to EN61000-3-2,-3                                                    |
| Efficiency            | 70% typ.                                                                        |
| Isolation             | 3000VAC Input - Output<br>1500VAC Input - Ground<br>500VAC Output - Ground 1min |

|     |                                                                                                     |
|-----|-----------------------------------------------------------------------------------------------------|
| EMS | Compliance to<br>EN61000-4-2,3,4,5,6,8,11;<br>ENV50204, EN55024<br>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                    | 198.4KHrs min, MIL-HDBK-217F (25°C)                                     |
| Vibration               | 10~500Hz, 2G10min./1cycle, period for<br>60min. each along X, Y, Z axes |

### PHYSICAL SPECIFICATIONS

|             |                       |
|-------------|-----------------------|
| Size        |                       |
| Millimeters | 179 x 99 x 33         |
| Inches      | 7.05" x 3.90" x 1.30" |
| Weight      | 22.93 oz (650g)       |

### 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.**

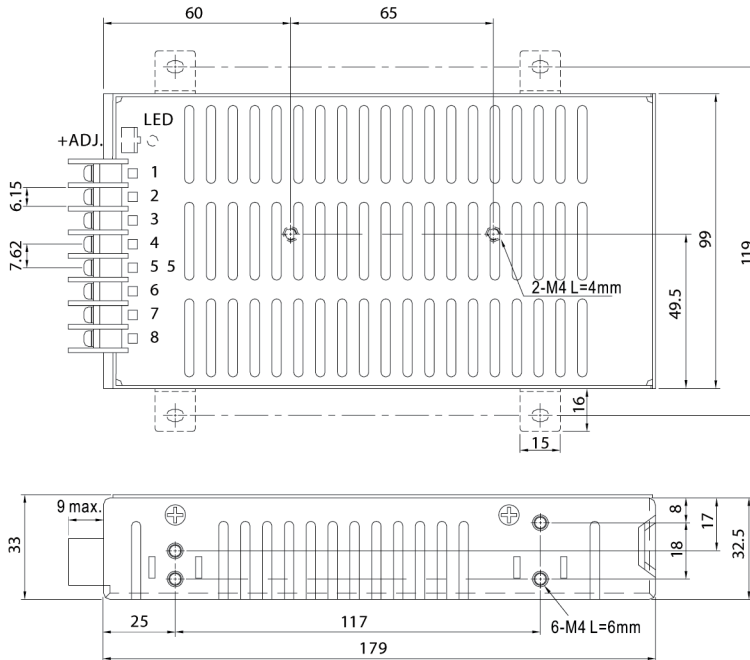
All specifications are typical at nominal input, full load, and 25°C unless otherwise noted

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### Mechanical Specification

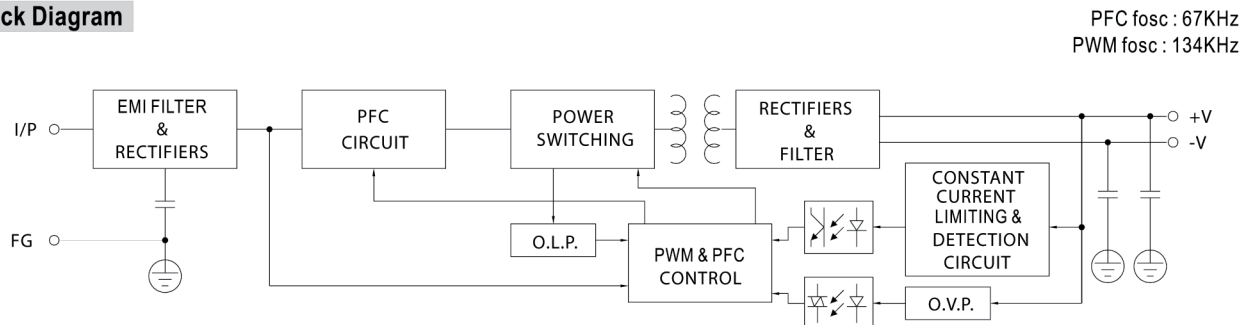
Case No. 920A Unit:mm



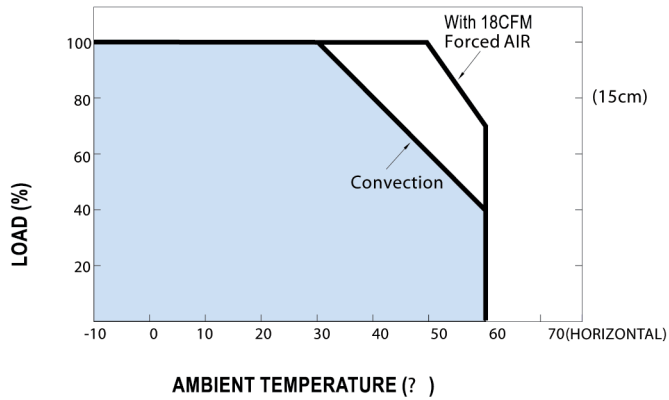
Terminal Pin No. Assignment

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

### Block Diagram



■ Derating Curve



■ Output Derating VS Input Voltage

