



- Universal AC input
- Protections: Short circuit/Overload/Over voltage
- Cooling by free air convection
- Can be installed on DIN rail TS-35/7.5 or 15
- NEC class 2/LPS compliant
- LED indicator for power on
- DC OK relay contact
- No load power consumption <0.75W



| Model Number | Output Volts | Output Amps | Ripple & Noise | Efficiency | OVP | DC Volt Adjust | Min Load |
|----------------------|--------------|-------------|----------------|------------|------------|----------------|--------------|
| SINGLE OUTPUT | | | | | | | |
| MDR60-5 | 5 Volts(DC) | 10 Amps | 80mV pk-pk | 78% | 6.25~7.25V | 5~6V | 0 ~ 10Amps |
| MDR60-12 | 12 Volts(DC) | 5 Amps | 120mV pk-pk | 86% | 15.6~18V | 12~15V | 0 ~ 5Amps |
| MDR60-24 | 24 Volts(DC) | 2.5 Amps | 150mV pk-pk | 88% | 31.2~36V | 24~30V | 0 ~ 2.5Amps |
| MDR60-48 | 48 Volts(DC) | 1.25 Amps | 200mV pk-pk | 87% | 57.6~64.8V | 48~56V | 0 ~ 1.25Amps |



60W Single Output Industrial DIN Rail Power Supply

MDR60 series

INPUT SPECIFICATIONS

| | |
|-----------------------------------|--------------------------------|
| Input Voltage Range | 90-264VAC / 120-370 Volts (DC) |
| Frequency Range | 47-63 Hz |
| Inrush Current, typ: (cold start) | 30 Amps @ 115VAC |
| | 60 Amps @ 230VAC |
| Input Current | 1.8 Amps. @ 115VAC |
| | 1.0 Amps. @ 230VAC |
| Leakage current | < 1mA / 240VAC |
| DC Voltage Adjust | See Selection Chart |

OUTPUT SPECIFICATIONS

| | |
|----------------------------|--------------------------------------|
| Voltage and Current | See Selection Chart |
| Line Regulation | ±1% max |
| Load Regulation | ±1.5%: 5Volts(DC) only |
| | ± 1%: 12~48Volts(DC) |
| Voltage Tolerance (Note 2) | ±2% 5Volts(DC) only |
| | ±1%: 12~48Volts(DC) |
| Ripple/Noise (Note 1) | See Selection Chart |
| Hold Up Time @ FL | 50ms @ 230VAC |
| | 20ms @115VAC |
| Setup, Rise Time @ FL | 500ms, 30ms/230VAC |
| | 500mS, 30mS/115VAC |
| Over Current Protection | 105~150% rated output power |
| | Constant current limit, auto-recover |
| Over Voltage Protection | See Selection Chart |
| | Shut down o/p voltage, re-power |

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

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.

GENERAL SPECIFICATIONS

| | |
|-----------------------|--|
| Safety | UL508 |
| | TUV EN60950-1 Approved |
| | NEC class 2/LPS compliant (24V,48Vonly) |
| Insulation Resistance | ≥ 100MΩ @ 500VDC |
| EMI | Compliance to EN55022B (CISPR22B) |
| Harmonic Current | Compliance to EN61000-3-2,-3 |
| Isolation | 3000VAC Input - Output |
| | 1500VAC Input - Ground |
| | 500VAC Output - Ground |
| EMS | Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, EN60601-1-2, heavy industry level, criteria A |

ENVIRONMENTAL SPECIFICATIONS

| | |
|---------------------------|--|
| Oper. Temperature | -20°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) |
| MTBF (MIL-HDBK-217F,25°C) | 299.2Khrs min |
| Vibration | 10~500Hz, 5G10min./1cycle, 60min. period for each along X, Y, Z axes |

PHYSICAL SPECIFICATIONS

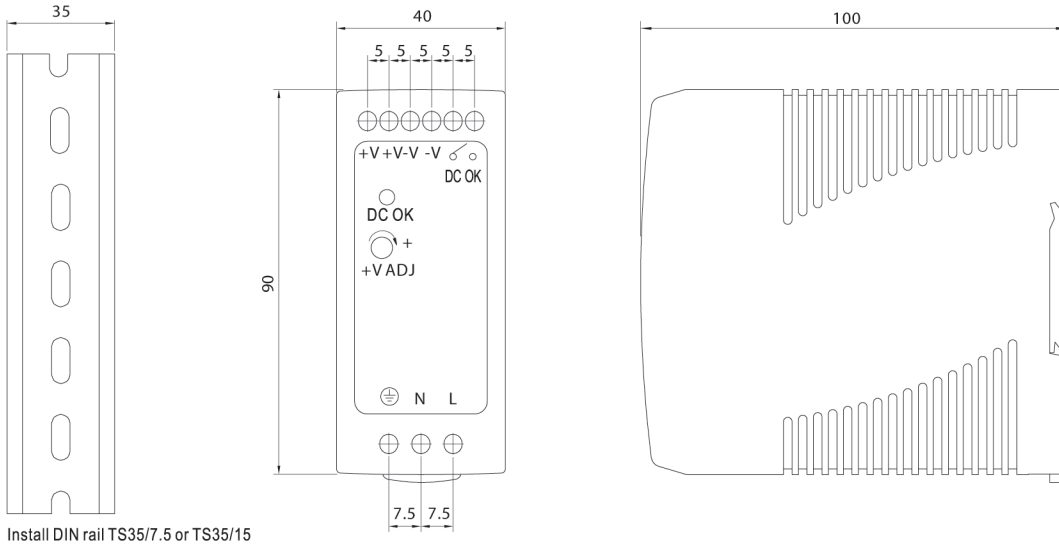
| | |
|-------------|-----------------------|
| Size | |
| Millimeters | 10 x 90 x 100 |
| Inches | 0.39" x 3.54" x 3.94" |
| Weight | 11.64 oz (330g) |

NOTE

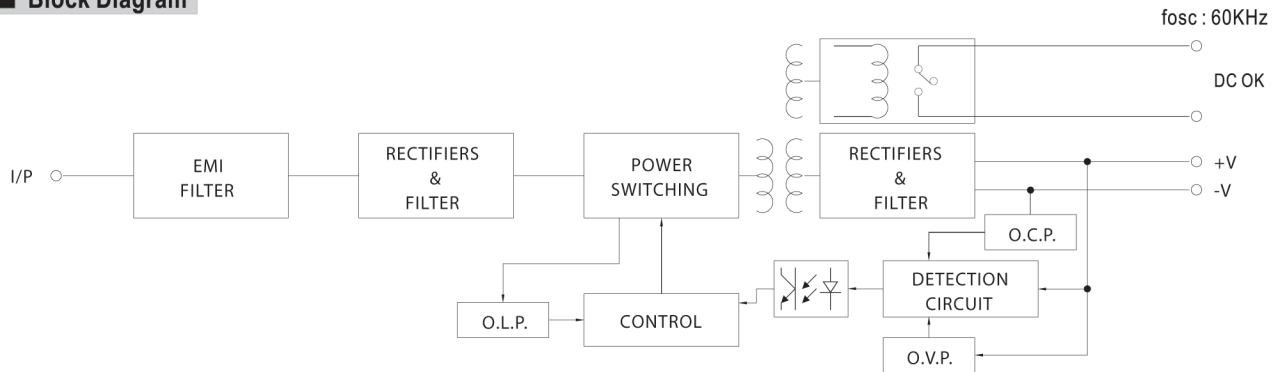
1. Ripple & Noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
2. Tolerance: includes set up tolerance, line regulation and load regulation.

Mechanical Specification

Case No.962A Unit:mm



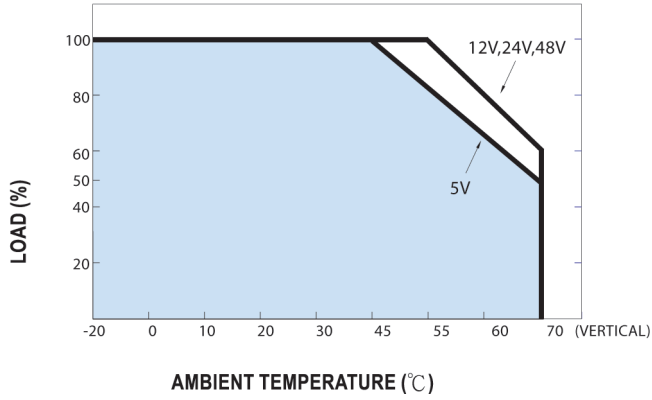
Block Diagram



DC OK Relay Contact

| | |
|------------------------|--|
| Contact Close | When the output voltage reaches the adjusted output voltage. |
| Contact Open | When the output voltage drop below 90% output voltage. |
| Contact Ratings (max.) | 30V/1A resistive load |

Derating Curve



Output Derating VS Input Voltage

