Sold by Servo Systems Co. 115 Main Road, P.O. Box 97, Montville, NJ 07045-0097
Toll Free: (800) 922-1103 Phone: (973) 335-1007 Fax: (973) 335-1661
www.servosystems.com

MEAN WELL

# 120W Single Output Industrial DIN RAIL Power Supply DR-120 series

■ Features :

- AC input range selectable by switch
- Protections:Short circuit/Over load/Over voltage/Over temperature
- Cooling by free air convection
- Can be installed on DIN rail TS-35/7.5 or 15
- UL 508(industrial control equipment)approved
- LED indicator for power on
- 100% full load burn-in test
- Fixed switching frequency at 55KHz
- 3 years warranty

## SPECIFICATION

| MODEL | | DR-120-12 | DR-120-24 | DR-120-48 |
|---|---|---|---|---|
| OUTPUT | DC VOLTAGE | 12V | 24V | 48V |
| | RATED CURRENT | 10A | 5A | 2.5A |
| | CURRENT RANGE | 0 ~ 10A | 0 ~ 5A | 0 ~ 2.5A |
| | RATED POWER | 120W | 120W | 120W |
| | RIPPLE & NOISE (max.) Note.2 | 80mVp-p | 80mVp-p | 100mVp-p |
| | VOLTAGE ADJ. RANGE | 12 ~ 14V | 24 ~ 28V | 48 ~ 53V |
| | VOLTAGE TOLERANCE Note.3 | ±2.0% | ±1.0% | ±1.0% |
| | LINE REGULATION | ±0.5% | ±0.5% | ±0.5% |
| | LOAD REGULATION | ±1.0% | ±1.0% | ±1.0% |
| | SETUP, RISE, HOLD TIME | 500ms, 70ms, 30ms/230VAC 500ms, 70ms, 30ms/115VAC at full load | | |
| INPUT | VOLTAGE RANGE | 88 ~ 132VAC/176 ~ 264VAC by switch 248 ~ 370VDC | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | |
| | EFFICIENCY (Typ.) | 80% | 84% | 85% |
| | AC CURRENT | 3.3A/115VAC 2A/230VAC | | |
| | INRUSH CURRENT (max.) | COLD START 30A/115VAC 60A/230VAC | | |
| | LEAKAGE CURRENT | <3.5mA / 240VAC | | |
| PROTECTION | OVER LOAD | 105 ~ 150% rated output power | | |
| | | Protection type : Constant current limiting, recovers automatically after fault condition is removed | | |
| | OVER VOLTAGE | 15 ~ 16.5V | 29 ~ 33V | 58 ~ 65V |
| | | Protection type : Shut down o/p voltage, re-power on to recover | | |
| | OVER TEMPERATURE | 85℃±5℃ (TSW1) | 90℃±5℃(TSW1) | 90℃±5℃(TSW1) |
| | | Protection type : Shut down o/p voltage, recovers automatically after temperature goes down | | |
| ENVIRONMENT | WORKING TEMP. | -10 ~ +60℃ (Refer to output load derating curve) | | |
| | WORKING HUMIDITY | 20 ~ 90% RH non-condensing | | |
| | STORAGE TEMP., HUMIDITY | -20 ~ +85℃, 10 ~ 95% RH | | |
| | TEMP. COEFFICIENT | ±0.03%/℃ (0 ~ 50℃) | | |
| | VIBRATION | 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes | | |
| SAFETY & EMC (Note 4) | SAFETY STANDARDS | UL508, UL60950-1, TUV EN60950-1 Approved | | |
| | WITHSTAND VOLTAGE | I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC | | |
| | ISOLATION RESISTANCE | I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC | | |
| | EMI CONDUCTION & RADIATION | Compliance to EN55011,EN55022 (CISPR22) Class B | | |
| | HARMONIC CURRENT | Compliance to EN61000-3-2,-3 | | |
| | EMS IMMUNITY | Compliance to EN61000-4-2,3,4,5,6,8,11, ENV50204, EN55024, EN61000-6-2 (EN50082-2) Heavy industry level, criteria A | | |
| OTHERS | MTBF | 136.8Khrs min. MIL-HDBK-217F (25℃) | | |
| | DIMENSION | 65.5*125.2*100mm (W*H*D) | | |
| | PACKING | 0.79Kg; 20pcs/16.5Kg/1.1CUFT | | |

**NOTE**

1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
3. Tolerance : includes set up tolerance, line regulation and load regulation.
4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.

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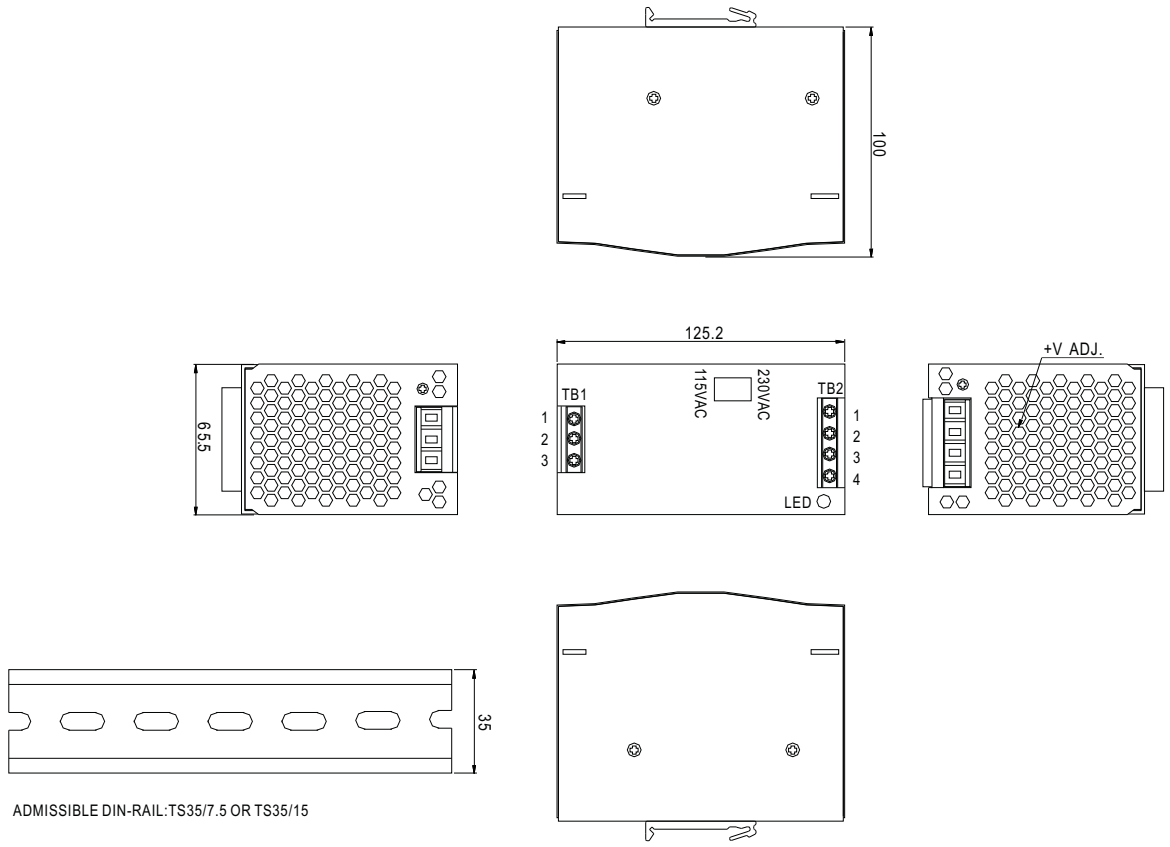
## ■ Mechanical Specification

Case No. 921 Unit:mm



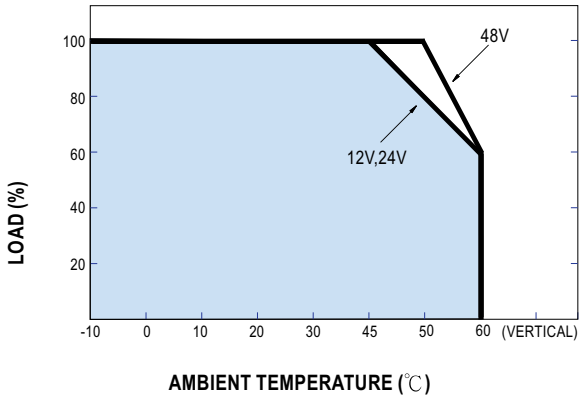

Terminal Pin. No Assignment (TB1)

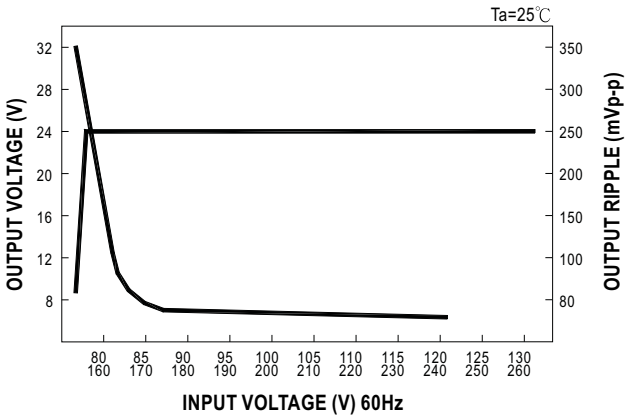
| Pin No. | Assignment |
|---|---|
| 1 | FG ⏚ |
| 2 | AC/N |
| 3 | AC/L |

Terminal Pin. No Assignment (TB2)

| Pin No. | Assignment |
|---|---|
| 1,2 | DC OUTPUT +V |
| 3,4 | DC OUTPUT -V |

## ■ Output Derating




## ■ Static Characteristics (24V)