120W Single Output Switching Power Supply

NRS-120 Series



Size : 134*97*30mm

Features:

- Universal AC input/Full range
- Built-in EMI filter, tiny ripple
- Protections:short circuit/overload/over voltage
- Cooling by free air convection
- 43,000 hours of continuous operation at 20 °C
- 100% full load burn-in test
- LED indicator for power on
- Compliance to IEC/EN60335-1 (PD3) and
- IEC/EN61558-1,2-16 suitable for home appliance
- 3 years warranty

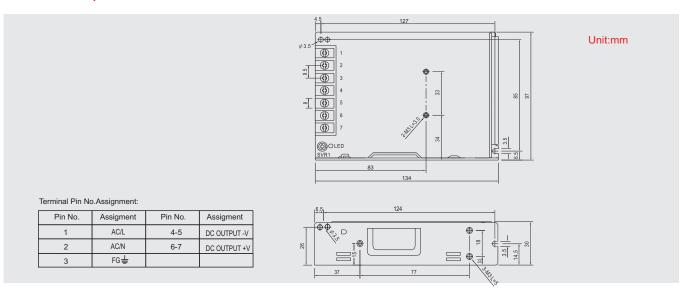
SPECIFICATION

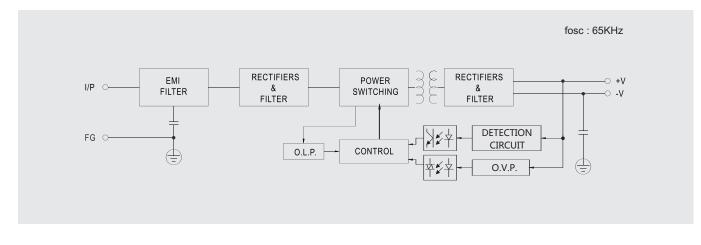
| | Model | NRS-120-12 | NRS-120-15 | NRS-120-24 | NRS-120-36 | NRS-120-48 |
|-------------|---|--|------------------|-----------------|--------------|--------------|
| OUTPUT | DC VOLTAGE | 12V | 15V | 24V | 36V | 48V |
| | RATED CURRENT | 10A | 8A | 5A | 3.33A | 2.5A |
| | CURRENT RANGE | 0 ~ 10A | 0~8A | 0 ~ 5A | 0~3.33A | 0 ~ 2.5A |
| | RATED POWER | 120W | 120W | 120W | 119.9W | 120W |
| | RIPPLE&NOISE(Max) | 120mVp-p | 120mVp-p | 150mVp-p | 200mVp-p | 200mVp-p |
| | VOLTAGE ADJ.RANGE | 10.2 ~ 13.8V | 13.5~18V | 21.6 ~ 28.8V | 32.4 ~ 39.6V | 43.2 ~ 52.8V |
| | VOLTAGE TOLERANCE | ±1.0% | ±1.0% | ±1.0% | ±1.0% | ±1.0% |
| | LINE REGULATION | ±0.5% | ±0.5% | ±0.5% | ±0.5% | ±0.5% |
| | LOAD REGULATION | ±0.5% | ±0.5% | ±0.5% | ±0.5% | ±0.5% |
| | SETUP, RISE TIME | 500ms, 30ms/230VAC 500ms, 30ms/115VAC(full load) | | | | |
| | HOLD UP TIME (Typ.) | 55ms/230VAC 10ms/115VAC (full load) | | | | |
| | VOLTAGE RANGE | 85 ~ 264VAC 120 ~ 373VDC(Withstand 300VAC surge for 5sec. Without damage) | | | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | - | - | |
| | EFFICIENCY(Typ.) | 88% | 88.5% | 90% | 90.5% | 91% |
| | AC CURRENT(Typ.) | 1.9A/115VAC 1 | .2A/230VAC | | | |
| | INRUSH CURRENT(Typ.) | | | | | |
| | LEAKAGE CURRENT | <0.75mA / 240VAC | | | | |
| PROTECTION | OVERLOAD | 110~ 150% rated output power | | | | |
| | | Protection type:Hiccup mode, recovers automatically after fault condition is removed | | | | |
| | OVER VOLTAGE | 13.8~16.2V | 18.75~21.75V | 28.8~33.6V | 41.4~48.6V | 55.2~64.8V |
| | | Protection type:Shut down o/p voltage, re-power on to recover | | | | |
| ENVIRONMENT | WORKING TEMP. | $-20 \sim +70^{\circ}$ C (Refer to "derating curve") | | | | |
| | | 20 ~ 90% RH non-condensing | | | | |
| | STORAGE TEMP.,HUMIDITY | -45 ~ +85°C, 20% ~ 95% RH non-condensing | | | | |
| | TEMP.COEFFICIENT | ±0.03%/°C (0 ~ 50°C) | | | | |
| | VIBRATION | 10 ~ 500Hz, 2G 10 min/1cycle,60min.each X、Y、Z axes | | | | |
| SAFETY | SAFETY STANDARDS | GB4943.1, EN 60950.1 APPROVED | | | | |
| | WITHSTAND VOLTAGE | I/P-O/P:1.5KVAC 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 / 25 °C/ 70% RH | | | | |
| | EMC EMISSION | Compliance to EN61000-3-2:2014/EN61000-3-3:2013 | | | | |
| | EMC IMMUNITY | Compliance to EN | 55032:2015/EN550 | 35:2017/60950-1 | | |
| OTHERS | MTBF | ≥763.6K hrs MIL- | HDBK-217F(25°C) | | | |
| | DIMENSION | 134*97*30mm (L*V | V*H) | | | |
| | PACKING | 0.34Kg/PCS,40PCS | S/14.8KG/CTN | | | |
| NOTE | All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. Ripple&noise are measured at 20MHz of bandwidth by using a 12 "twisted pair -wire terminated with a 0.1uf and 47uf parallel capacitors. | | | | | |
| | Ripple&noise are measured at 20MHz of bandwidth by using a 12 "twisted pair -wire terminated with a 0.1uf and 4/uf parallel capacitors. Tolerance:includes set up tolerance, line regulation and load regulation. | | | | | |
| | Inferance: Includes set up tolerance, line regulation and load regulation. Derating output is required under low input voltage. Please refer to the derating curve for details. | | | | | |
| | 5. The power supply should be considered as a part of the components in the system. All EMC tests will test the test samples on a metal iron plate | | | | | |
| | | nm, a length of 360mm * width of 360mm. | | | | |
| | | | | | | |

120W Single Output Switching Power Supply

NRS-120 Series

Mechanical Specification





Derating Curve



