

NPT40-M Series

55 Watts

Data Sheet

Total Power: 45 - 55 Watts
Input Voltage: 90 - 264 Vac
120 - 300 Vdc
of Outputs: Triple

SPECIAL FEATURES

- Medical and ITE safety approvals
- Universal input
- Less than 1U high
- 2" x 4" footprint
- Overload and short circuit protection
- High MTBF
- Built in EMI filter (CISPR 22 Class B)
- 0 °C to +80 °C operation
- Input power < 74 watts
- Complies with EN61000-3-2
- Class I approved
- Class II approved (with Class A EMI)
- LPX100 enclosure kit available
- Dual AC fuses
- RoHS compliant

SAFETY

- TUV: 60950, 60601-1, 3rd edition
- UL: 60950, 60601-1
- CSA: 60950, 60601-1
- CB: Certificate and report 3rd edition
- CE: Mark (LVD)
- CQC: Mark



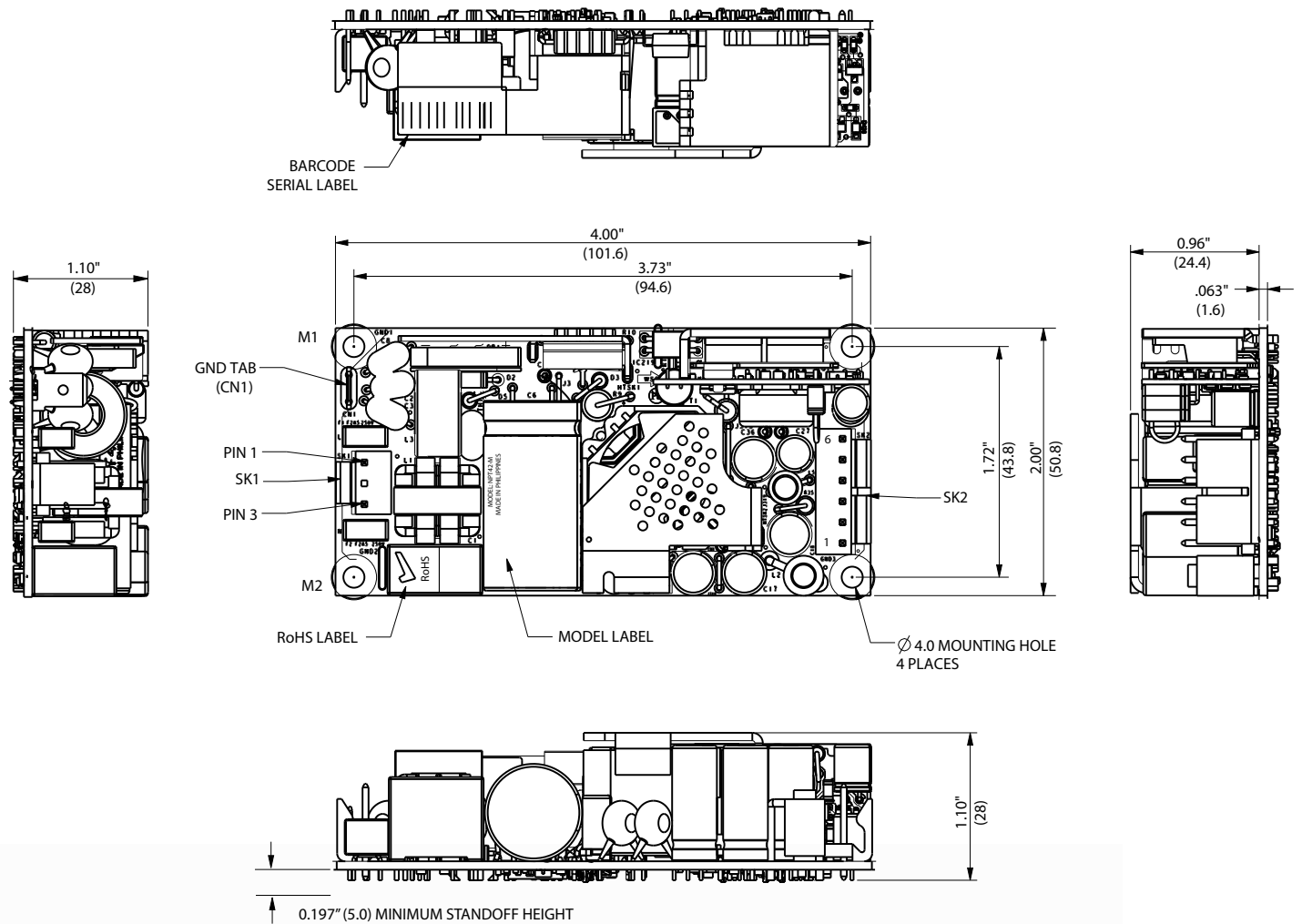
Electrical Specifications

| Input | |
|-------------------------------|--|
| Input range | 90 - 264 Vac (wide range) 127 - 300 Vdc |
| Frequency | 47 - 440 Hz |
| Inrush current | < 50 A peak @ 230 Vac, cold start @ 25 °C |
| Input power | < 74 Watts |
| Efficiency | 75% average |
| EMI/RFI | FCC Class B conducted; CISPR 22 Class B conducted; EN55022 Class B conducted, VDE0878PT3 Class B conducted |
| Safety ground leakage current | 275 µA @ 50/60 Hz; 264 Vac input |
| Output | |
| Maximum power | 45 W for convection 55 W with 30CFM forced air |
| Hold-up time | 10/20 ms 115/230 Vac input line |
| Overload protection | Short circuit protection on all outputs. Case overload protected @ 110% to 160% above peak rating |
| Overvoltage protection | 6.5 to 7.5 Vdc on the main output |

Environmental Specifications

| | |
|--------------------------------|---|
| Operating temperature | 0 ° to 50 °C ambient derate each output at 2.5% per degree from 50 °C to 80 °C. -20 °C start up |
| Storage temperature | -45 °C to +85 °C |
| Electromagnetic susceptibility | Designed to meet EN61000-4; -2, -3, -4, -5, -6, -8, -11 Level 3 |
| Humidity | Operating; non-condensing 10% to 90% RH |
| Vibration | IEC68-2-6 to the levels of IEC721-3-2 |
| MTBF demonstrated | > 550,000 hours at full load and 25 °C ambient conditions |

Mechanical Drawing



Ordering Information

| Model Number | Output Voltage | Minimum Load | Maximum Load with Convection Cooling | Maximum Load with 30CFM Forced Air | Peak Load ¹ | Regulation ² | Ripple P/P (PARD) ³ |
|----------------|----------------|--------------|--------------------------------------|------------------------------------|------------------------|-------------------------|--------------------------------|
| NPT42-M | +5 V | 0.5 A | 5 A | 8 A | 9 A | ± 2% | 50 mV |
| | +12 V | 0.1 A | 2.5 A | 3 A | 4 A | ± 5% | 120 mV |
| | -12 V | 0 A | 0.5 A | 0.7 A | 0.7 A | ± 5% | 120 mV |
| NPT43-M | +5 V | 0.5 A | 5 A | 8 A | 9 A | ± 2% | 50 mV |
| | +15 V | 0.1 A | 2 A | 2.4 A | 4 A | ± 5% | 150 mV |
| | -15 V | 0 A | 0.5 A | 0.7 A | 0.7 A | ± 5% | 150 mV |
| NPT44-M | +5 V | 0.5 A | 5 A | 8 A | 9 A | ± 2% | 50 mV |
| | +24 V | 0.1 A | 1.0 A | 1.5 A | 2 A | ± 5% | 240 mV |
| | +12 V | 0 A | 0.5 A | 0.7 A | 0.7 A | ± 5% | 120 mV |

1. Peak current lasting < 30 seconds with a maximum 10% duty cycle.
2. At 25 °C including initial tolerance, line voltage, load currents and output voltages adjusted to factory settings.
3. Peak-to-peak with 20 MHz bandwidth and 10 µF in parallel with a 0.1 µF capacitor at rated line voltage and load ranges.
4. Minimum loads are required.
5. This product is a Component Power Supply and is only for inclusion by professional installers within other equipment and must not be operated as a standalone product. EMC compliance to appropriate standards must be verified at the system level. This product is for sale to OEMs and System Integrators, including through Distribution Channels. It is not intended for sale to End Users.

Pin Assignments

| Connector | NPT42-M | NPT43-M | NPT44-M |
|--------------|---------|---------|---------|
| SK1-1 | Line | Line | Line |
| SK1-3 | Neutral | Neutral | Neutral |
| CN1 | Ground | Ground | Ground |
| SK2-1 | +5 V | +5 V | +5 V |
| SK2-2 | +5 V | +5 V | +5 V |
| SK2-3 | Common | Common | Common |
| SK2-4 | Common | Common | Common |
| SK2-5 | -12 V | -15 V | +12 V |
| SK2-6 | +12 V | +15 V | +24 V |

Mating Connectors

| | |
|--|--------------------------------------|
| AC Input | Molex 09-50-8031 PINS: 08-52-0113 |
| DC Outputs | Molex 09-50-8061 PINS: 08-52-0113 |
| Artesyn Embedded Power Connector Kit #70-841-006, includes all of the above. | |

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ± 0.02" (± 0.5 mm)
3. Mounting holes M1 and M2 should be grounded for EMI purposes.
4. Mounting hole M1 is safety ground connection.
5. Ground faston tab size is 6.35 mm x 0.80 mm
6. Specifications are for convection rating at factory settings at 115 Vac input, 25 °C unless otherwise stated.
7. Warranty: 2 years
8. Weight: 0.3 lbs/.14 kg

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NPT40-M DS 16Dec2019

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