NPS63-M Series

60 Watts

**Total Power:** 60 Watts

**Input Voltage:**
- 90 - 264 VAC
- 127 - 300 VDC

**# of Outputs:** Single

### Special Features
- Medical and ITE Safety Approvals
- Universal input
- Less than 1U high
- 2” x 4” footprint
- Remote sense
- Overload and short circuit protection
- Adjustable output voltage
- High efficiency
- High MTBF
- Built in EMI filter (CISPR 22 Class B)
- International Efficiency Level V, Energy Star 2.0 & CeC compliant (except NPS62-M)
- Less than 300 mW no-load power consumption
- 0°C to +80°C operation
- Input power < 74 watts
- Complies with EN61000-3-2
- UL Class I approved
- Class II approved (with Class A EMI)
- LPX50 enclosure kit available
- Dual AC fuses

### Electrical Specifications

#### Input
- **Input range:** 90 - 264 VAC (wide range) 127-300 Vdc
- **Frequency:** 47-63 Hz
- **Inrush current:** < 50 A peak @ 230 VAC, cold start @ 25°C
- **Input power:** < 74 Watts
- **Efficiency:** 87% average (as per Energy Star 2.0 standard) (NPS62-M, 80%)
- **EMI/RFI:** FCC Class B conducted; CISPR 22 Class B conducted; EN55022 Class B conducted; VDE0878PT3 Class B conducted
- **Safety ground leakage current:** 275μA @ 50/60 Hz; 264 VAC input

#### Output
- **Maximum power:** 60 W for convection
- **Adjustment range:** ± 20% minimum
- **Hold-up time:** 10/20 ms 115/230 VAC input line
- **Overload protection:** Short circuit protection on all outputs. Case overload protected @ 110-160% of normal rating
- **Overvoltage protection:** 30-50% above nominal output
- **Remote sense:** Compensated for 0.5 V lead drop max. Will operate without remote sense connected. Reverse connection protected.

Safety

- **TUV:** 60950, 60601-1
- **UL:** 60950, 60601-1
- **CSA:** 60950, 60601-1
- **NEMKO:** 60950, 60601-1
- **CB:** Certificate and report
- **CE:** Mark (LVD)
Environmental Specifications

Operating temperature: 0° to 50 °C ambient derate each output at 2.5% per degree from 50° 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

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Output Voltage</th>
<th>Minimum Load</th>
<th>Maximum Load with Convection Cooling</th>
<th>Peak Load</th>
<th>Regulation</th>
<th>Ripple P/P (PARD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPS63-M</td>
<td>12 V</td>
<td>0 A</td>
<td>5 A</td>
<td>5.5 A</td>
<td>±2%</td>
<td>120 mV</td>
</tr>
</tbody>
</table>

1. Peak current lasting < 15 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 (tantalum capacitor) in parallel with a 0.1 μF capacitor at rated line voltage and load ranges.

Pin Assignments

<table>
<thead>
<tr>
<th>Connector</th>
<th>NPS63-M</th>
</tr>
</thead>
<tbody>
<tr>
<td>SK1-1</td>
<td>Line</td>
</tr>
<tr>
<td>SK1-3</td>
<td>Neutral</td>
</tr>
<tr>
<td>SK2-1</td>
<td>+12 V</td>
</tr>
<tr>
<td>SK2-2</td>
<td>+12 V</td>
</tr>
<tr>
<td>SK2-3</td>
<td>Common</td>
</tr>
<tr>
<td>SK2-4</td>
<td>Common</td>
</tr>
<tr>
<td>SK2-5</td>
<td>-Sense</td>
</tr>
<tr>
<td>SK2-6</td>
<td>+Sense</td>
</tr>
</tbody>
</table>

Mating Connectors

AC Input: Molex 09-50-8031 (USA)
09-91-0300 (UK)
PINS: 08-52-0113

DC Outputs: Molex 09-50-8061 (USA)
09-91-0600 (UK)
PINS: 08-52-0113

Emerson Network Power Connector Kit #70-841-006, includes all of the above

Notes:
1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02" (±0.5mm)
3. Mounting holes M1 and M2 should be grounded for EMI purposes.
4. Mounting hole M1 is safety ground connection.
5. Specifications are for convection rating at factory settings at 115 VAC input, 25 °C unless otherwise stated.
6. For DC input an external DC safety rated fuse must be used
7. Warranty: 2 year
8. Weight: 0.26lbs/0.118kg

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