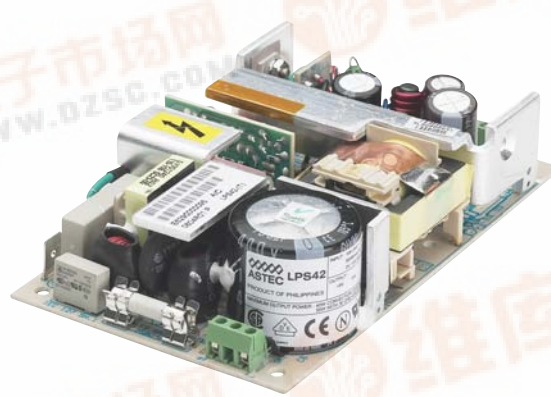


Embedded Power for Business-Critical Continuity

# NTQ123-DC Series

## 70 - 125 Watts

**Total Power:** 70-120 Watts  
**Input Voltage:** 36 - 72 VAC  
**# of Outputs:** Quad



Rev. 08.15.07  
NTQ123-DC Series  
1 of 3

## Electrical Specifications

### Special Features

- -48 VDC input
- Remote sense on outputs one and two
- Power fail and remote inhibit
- Single wire current sharing on outputs one and two
- Adjustable main outputs
- Built-in Class B EMI filter
- Overvoltage protection
- Overload protection
- Thermal overload protection

### Safety

**VDE** 0805/EN60950 (IEC950)  
**UL** UL1950  
**CSA** CSA 22.2-234 Level 3  
**NEMKO** EN 60950/EMKO-TUE (74-sec) 203  
**CB** Certificate and report  
**CE** Mark (LVD)

### Input

Input range 36 - 72 VDC  
 Inrush current 38 A max., cold start @ 25°C  
 Efficiency 65% typical at full load  
 EMI filter FCC Class B conducted; CISPR 22 Class B conducted; EN55022 Class B conducted; VDE 0878 PT3 class B conducted and radiated.  
 Safety ground leakage current <1 mA @ 72 Vdc input

### Output

Maximum power 70 W for convection; 125 W with 30 CFM forced air  
 Adjustment range ±5% minimum  
 Hold-up time 20ms @ 120 W load, -48 Vdc input  
 Overload protection Short circuit protection on all outputs  
 Case overload protected @ 110-145% above peak rating  
 Overvoltage protection 3.3 V output; 5 V output: 10% to 35% above nominal output

### Logic Control

Power failure TTL logic signal goes high 100-500 msec after 5 V output; it goes low at least 4 msec before loss of regulation  
 Remote inhibit Requires an external TTL Signal to inhibit outputs  
 Remote sense Compensates for 0.5 V lead drop minimum, will operate without remote sense connected. Reverse connection protection.



## Environmental Specifications

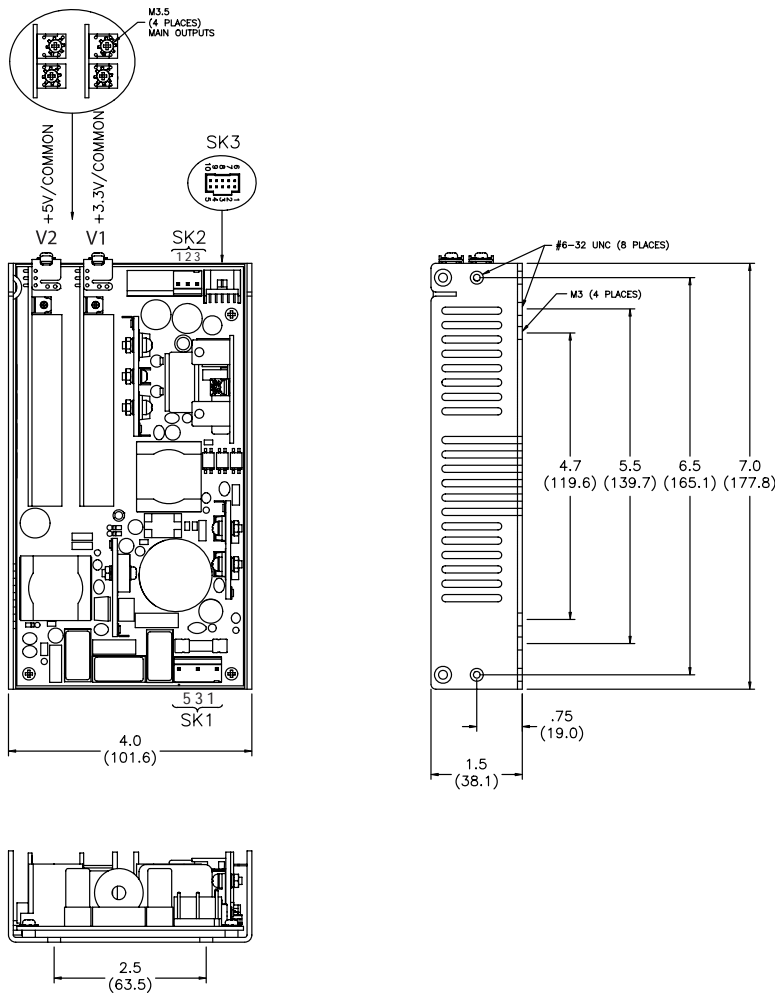
Operating temperature:	0° to 50°C ambient. Derate each output 2.5% per degree from 50° to 70°C
Storage temperature:	-40°C to +85°C
Temperature coefficient:	±0.4% per °C
Electromagnetic susceptibility:	Designed to meet EN61000-4, -2, -3, -4, -5, -6, -8, -11 Level 3
Humidity:	Operating; non-condensing 5% to 95% RH
Vibration:	Three orthogonal axes, sweep at 1 oct/min, 5 min. dwell at four major resonances 0.7 G peak 5 Hz to 500 Hz, operational
MTBF demonstrated:	>1 million hours at full load and 25°C ambient conditions

## Ordering Information

Model Number	Output Voltage	Minimum Load	Maximum Load with Convection Cooling	Maximum Load with 30CFM forced Air	Peak Load <sup>1</sup>	Regulation <sup>2</sup>	Ripple P/P (PARD) <sup>3</sup>
NTQ123-DC	+3.3 V (2.5 - 5.7)	2 A	14 A	25 A	28 A	±2%	50 mV
	+5 V (2.5 - 5.7)	0 A	12.5 A	24 A	28 A	±2%	50 mV
	+12 V	0 A	1 A	2 A	4 A	±3%	120 mV
	-12 V	0 A	0.5 A	1 A	1.5 A	±3%	120mV

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. In parallel minimum loads are 2 A on the 5 V output and 2 A on the 3.3 V output for each power supply

## Mechanical Drawing



### Pin Assignments

<b>SK1</b>	PIN 1	Ground
	PIN 3	-48 Vdc
	PIN 5	Return
<b>SK2</b>	PIN 1	+12 V
	PIN 2	Common
	PIN 3	-12 V
<b>SK3</b>	PIN 1	3.3 V SWP
	PIN 2	-3.3 V sense
	PIN 3	+3.3 V +sense
	PIN 4	5 V SWP
	PIN 5	Common
	PIN 6	+5 V ssense
	PIN 7	-5 V sense
	PIN 8	+ inhibit
	PIN 9	- inhibit
	PIN 10	Power fail

### Mating Connectors

**(SK1) DC Input:** Molex: 09-50-8051 (USA)  
Molex: 09-91-0500 (UK)  
PINS: 08-58-0111

**V1 & V2:** Molex BB-124-08

**(SK2) ±12 V** Molex:09-50-8031 (USA)  
Molex: 09-91-0300 (UK)  
PINS: 08-58-0111

**(SK3) Control Signals:** Molex: 90142-0010  
PINS: 90119-2110  
or  
Amp: 87977-3  
PINS: 87309-8

Astec Connector Kit #70-841-012, includes all of the above

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is  $\pm 0.02'$  ( $\pm 0.5$ mm)
3. Remote inhibit requires an external 5 V @ 10 mA to activate
4. Mounting maximum insertion depth is 0.12"

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