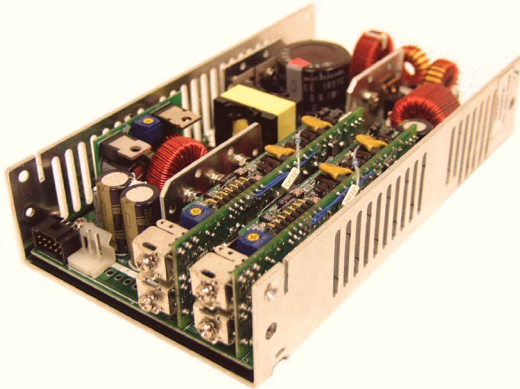


# 70-125 Watts NTQ123-DC Series

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



## 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

## Environmental

Operating temperature: 0° to 50°C ambient; derate each output at 2.5% per degree from 50° to 70°C

Electromagnetic susceptibility: Designed to meet EN61000-4, -2, -3, -4, -5, -6, -8, -11 Level 3

Humidity: Operating; non-condensing  
5% to 95%

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

Storage temperature: -40° to 85°C

Temperature coefficient: ± .04% per °C

MTBF demonstrated: >1 million hours at full load and 25°C ambient conditions

## Electrical Specs

### 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 and radiated, CISPR 22 Class B conducted and radiated, EN55022 Class B conducted and radiated, VDE 0878 PT3 Class B conducted and radiated.
Safety ground	
Leakage current	<1 mA @ 72 VDC input

### Output

Maximum power	70 W convection, 125 W with 30 CFM forced air
Adjustment range	±5% minimum on outputs one and two
Hold-up time	20 ms @ 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 and 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.

## Safety

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

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## Ordering Information

Model Number	Output Voltage	Minimum Load <sup>1</sup>	Maximum Load with Convection Cooling	Maximum Load with 30 CFM 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%	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. 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

## Pin Assignments

### Connector

SK1	PIN 1	Ground
	PIN 3	-48 VDC
	PIN 5	Return
SK2	PIN 1	+12 V
	PIN 2	Common
	PIN 3	-12 V
SK3	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 Sense
	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) ±12V	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.

### Notes:

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance ±.02".
3. Remote inhibit requires an external 5 V @ 10 mA to activate
4. Mounting maximum insertion depth is 0.12".
5. Warranty: 1 year
6. Weight: 1..49 lb. / 0.68 kg

