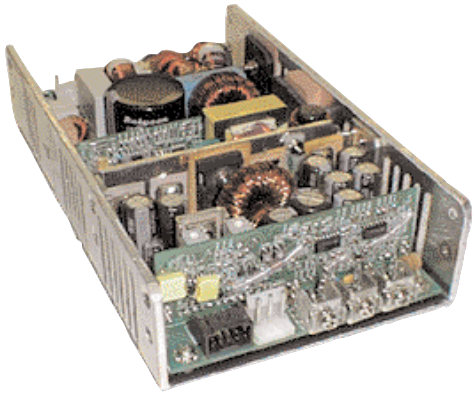
70-120 Watts
NTQ123 Series

Total Power:	70-120 Watts
Input Voltage:	85-264 VAC
# of Outputs:	Quad



Special Features

- Active power factor correction
- EN61000-3-2 compliance
- 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	85-264 VAC
Frequency	47-63 Hz
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.
Power factor	0.99 typical
Safety ground leakage current	<1 mA @ 50/60 Hz, 264 VAC input

Output

Maximum power	70 W convection, 120 W with 30 CFM forced air
Adjustment range	±5% minimum on outputs one and two
Hold-up time	20 ms @ 120 W load, 120 VAC 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: 20% 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

VDE	0805/EN60950 (IEC950)	21310-3336-0004
UL	UL1950	E186249
CSA	CSA 22.2-234 Level 3	LR109492C
NEMKO	EN 60950/EMKO-TUE (74-sec) 203	P98100870
BABT	EN60950/EN41003	608497
CB	Certificate and report	5009
CE	Mark (LVD)	

AMERICAS

5810 Van Allen Way
Carlsbad, CA 92008
Telephone: 760-930-4600
Facsimile: 760-930-0698

EUROPE

Astec House, Waterfront Business Park
Merry Hill, Dudley
West Midlands, DY5 1LX, UK
Telephone: 44 (1384) 842-211
Facsimile: 44 (1384) 843-355

ASIA

Units 2111-2116, Level 21
Tower1, Metroplaza
223, Hing Fong Road
Kwai Fong, New Territories
Hong Kong
Telephone: 852-2437-9662
Facsimile: 852-2402-4426

Ordering Information

Model Number	*Output Voltage*	*Minimum Load*[4]	*Maximum Load with Convection Cooling*	*Maximum Load with 30 CFM Forced Air*	*Peak Load*[1]	*Regulation*[2]	*Ripple P/P (PARD)*[3]
NTQ123	+3.3 V	0 A	14 A	25 A	28 A	±2%	50 mV
	+5 V	2 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 2.5 A on the 5 V output and 1 A on the 3.3 V output for each power supply.

Pin Assignments

Connector

SK1	PIN 1	Ground
	PIN 3	Neutral
	PIN 5	Live
SK5	PIN 1	+12 V
	PIN 2	Common
	PIN 3	-12 V
SK6	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) AC Input:	Molex: 09-50-8051 (USA) Molex: 09-91-0500 (UK) PINS: 08-58-0111
SK2,3,4:	Molex series 19141-0058/0063
(SK5) ±12V	Molex:09-50-8031 (USA) Molex: 09-91-0300 (UK) PINS: 08-58-0111
(SK6) Control Signals:	Molex: 90142-0010 PINS: 90119-2110 or Amp: 87977-3 PINS: 87309-8

Astec Connector Kit #70-841-012

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: 1.38 lb. / .63 kg