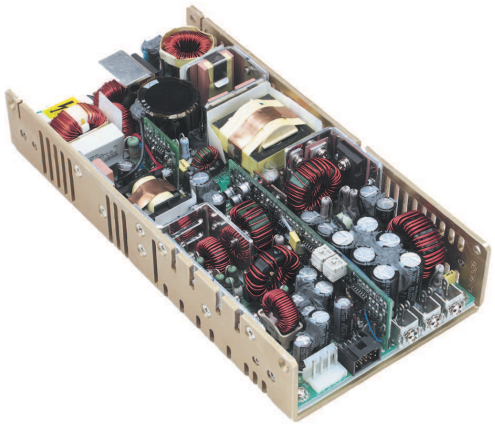
80-165 Watts
NTQ160 Series

Total Power: **80-165 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
- 5V Standby output
- DC Power good
- Single wire current sharing on outputs one and two
- Wide range adjustable on outputs 1 & 2
- Built-in Class B EMI filter
- Overvoltage protection
- Overload protection
- Thermal overload protection
- Outputs 3 & 4 are floating

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 10% 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 @ 115 VAC input
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	80 W convection, 165 W with 30 CFM forced air
Adjustment range	1.8V - 3.5V; 3.0V - 5.5V on outputs one and two
Hold-up time	20 ms @ 165 W load
Overload protection	Short circuit protection on all outputs. Case overload protected @ 110-145% above peak rating. Latching type recycle AC to reset.
Overvoltage protection	Tracks outputs 1 & 2: 20% to 35% above output setting
Standby output	5V@ 2 A regulated ±5%

Logic Control

Power failure	TTL logic signal goes high 100-500 msec after V1 output; it goes low at least 4 msec before loss of regulation
Remote Inhibit	Requires contact closure to inhibit outputs
Remote sense	Compensates for 0.5 V lead drop minimum, will operate without remote sense connected. Reverse connection protection.
DC Ok	TTL logic signal goes high after main output is in regulation. It goes low when there is a loss of regulation.

Safety

VDE	0805/EN60950 (IEC950)	21310-3336-0021 (129066)
UL	UL1950	E186249
CSA	CSA 22.2-234 Level 3	LR109492C
NEMKO	EN 60950/EMKO-TUE (74-sec) 203	P00100493
BABT	EN60950/EN41003	650251, NC/00069
CB	Certificate and report	9661, 9662, 8788
CE	Mark (LVD)	

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Ordering Information

Model Number	*Output Voltage*	*Minimum Load*	*Maximum Load with Convection Cooling*	*Maximum Load with 30 CFM Forced Air*	*Peak Load1*	*Regulation2*	*Ripple P/P (PARD)3*
NTQ162	+3.3 V(1.8 - 3.5V)	2 A	15 A	30 A	38 A	±2%	50 mV
	+5 V (3 - 5.5V)	0 A	10 A	20 A	22 A	±2%	50 mV
	12 V*	0 A	2 A	4.5 A	5 A	±3%	120 mV
	12 V*	0 A	2 A	4.5 A	5 A	±3%	120 mV
NTQ163	+5 V (3 - 5.5V)	2 A	15 A	30 A	32 A	±2%	50 mV
	+3.3 V (1.8 - 3.5V)	0 A	10 A	20 A	22 A	±2%	50 mV
	12 V*	0 A	2 A	4.5 A	5 A	±3%	120 mV
	12 V*	0 A	2 A	4.5 A	5 A	±3%	120 mV
NTQ165	+3.3 V (3 - 5.5V)	2 A	15 A	30 A	32 A	±2%	50 mV
	+2.5 V (1.8 - 3.5V)	0 A	10 A	20 A	22 A	±2%	50 mV
	5 V*	0 A	2 A	4 A	5 A	±3%	120 mV
	12 V*	0 A	2 A	4 A	5 A	±3%	120 mV

* *outputs are floating*

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 V1 output and 1 A on the V2 output for each power supply.
5. Total output current between V1 and V2 is 40A maximum.

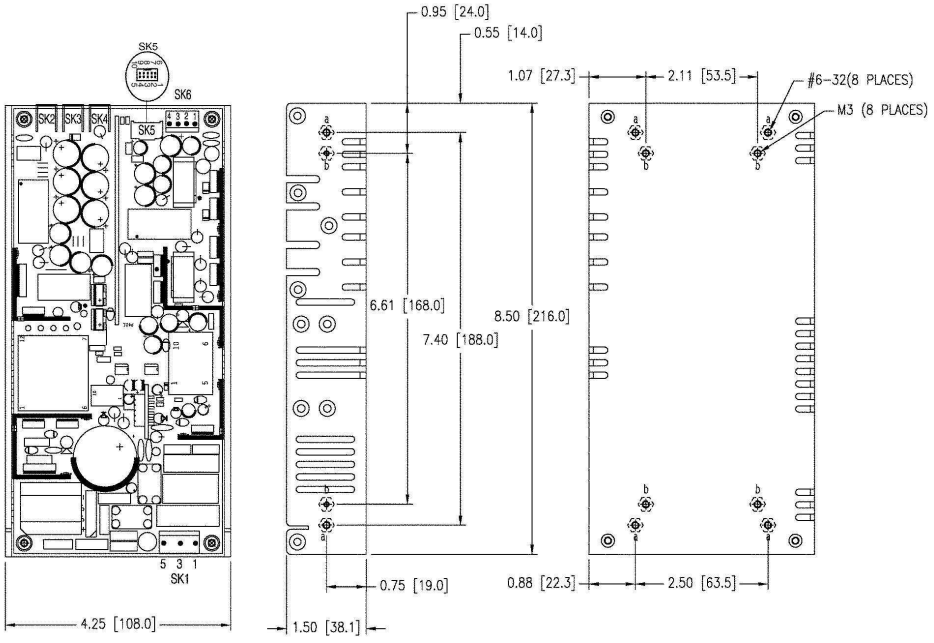
Ordering Information

Connector

SK1	PIN 1	Ground
	PIN 3	Neutral
	PIN 5	Live
SK2		V1
SK3		*Common*
SK4		V2
SK6	PIN 1	V4 Common
	PIN 2	V4
	PIN 3	V3 Common
	PIN 4	V3
SK5	PIN 1	V2 SWP
	PIN 2	5V Standby
	PIN 3	+V2 Sense
	PIN 4	V1 SWP
	PIN 5	COMMON
	PIN 6	+V1 Sense
	PIN 7	Sense COMMON
	PIN 8	Remote Inhibit
	PIN 9	DC Power Good
	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 BB-124-08
(SK6) ±12V	Molex:09-50-8041 (USA)
	Molex: 09-91-0400 (UK)
	PINS: 08-58-0111
(SK5) Control Signals:	Molex: 90142-0010
	PINS: 90119-2110
	or
	Amp: 87977-3
	PINS: 87309-8



Notes:

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance ±.02".
3. Remote inhibit requires an external contact closure to activate
4. Mounting maximum insertion depth is 0.12".
5. Warranty: 1 year
6. Weight: 2.38 lb. /1.08 kg

Astec Connector Kit #70-841-014, includes all of the above