

3" x 5" 180-200W Medical Power Supplies

Features

- ◆ 1-3 Outputs
- ◆ Up to 90% Efficient
- ◆ Active Power Factor Correction
- ◆ Universal Input (90 - 264VAC)
- ◆ No Minimum Loads
- ◆ Reinforced Insulation Input-Output (4kVAC)



Key Market Segments & Applications



Specifications		NV175-M	
Model		NV175-M	
Input Voltage range	-	90 - 264VAC (45 - 63Hz)	
Inrush Current	A	<40A at 25°C and 264VAC input, Cold Start	
Power Factor Harmonics	-	EN61000-3-2 Compliant (0.97 typical)	
Regulation Total	-	1%; Including Line, Load and Cross regulation	
Ripple & Noise	mV	1% or 50mV (Which ever is greater)	
Efficiency	-	Up to 90%, configuration dependant	
Minimum Load	A	None	
Overcurrent Protection	-	>105%	
Overvoltage Protection	V	CH1, 120-130%, Cycle AC line to reset	
Overtemperature Protection	- Yes		
Hold Up Time (Typ)	ms	>16ms at 90VAC Input	
Leakage Current (max) (*)	µA	123µA 120VAC 60Hz, 257µA 240VAC 60Hz, <300µA 264VAC 63Hz (Type Test results)	
Remote Sense	-	On Output CH1, 0.5V compensation maximum	
DC Good	-	CH1 Only, High on Fail (90% of nominal ±5%)	
Peak Power (Single output units)	-	200W (<5 mins. Average power not to exceed 180W)	
Operating Temperature ⁽¹⁾	-	0 to +65°C. Derate linearly to 62.5% load from 50°C to 65°C	
Storage Temperature	-	-40 to +85°C	
Humidity (non condensing)	-	5 - 95% RH	
Cooling	-	Forced air, 2m/s from input to output or use -F option	
Isolation	-	Input to Output 4kVAC ⁽⁴⁾ (2 x MOPPs (3rd edition 60601)), Input to Ground 2.3kVDC; Output to Ground 200VDC	
Vibration (non operating)	-	Conforms to MIL-STD-810E, Method 516.5, Pro I, IV, VI; EN60068-2-6, IEC68-2-6	
Shock	-	Conforms to MIL-STD-810E/F, Method 514.4, Pro I, Cat 1,9; EN60068-2-27, EN60068-2-47, IEC68-2-47, IEC68-2-47, JIS C0041-1987	
Safety Agency Approvals	-	UL/CSA/IEC/EN 60950-1, UL/CSA/IEC/EN 60601-1, ANSI/AAMI ES60601-1, IEC/EN 61010-1 ⁽⁵⁾ , CE Mark	
Immunity	-	EN61000-6-2:2001, EN61000-4-2, -3, -4, -5, -6, -8, -11	
Conducted Emissions and Flicker	-	EN55011, EN55022 Class B (per CISPR.22), EN61000-3-3	
Radiated Emissions ⁽²⁾	-	EN55011, EN55022 Class B (per CISPR.22)	
Weight (Typ)	g	250g	
Size (without cover) ⁽³⁾	in	3" x 5" x 1.3"	
Warranty	yrs	Three Years	

(1) -20°C cold start

(2) See application note for Class B

(3) Including underside component leads

(4) Type tested to 4 kVAC (equivalent to 5.7 kVDC), production tested to 4.3 kVDC.

(5) Designed to meet 61010-1

(*) Lower leakage versions available - contact factory

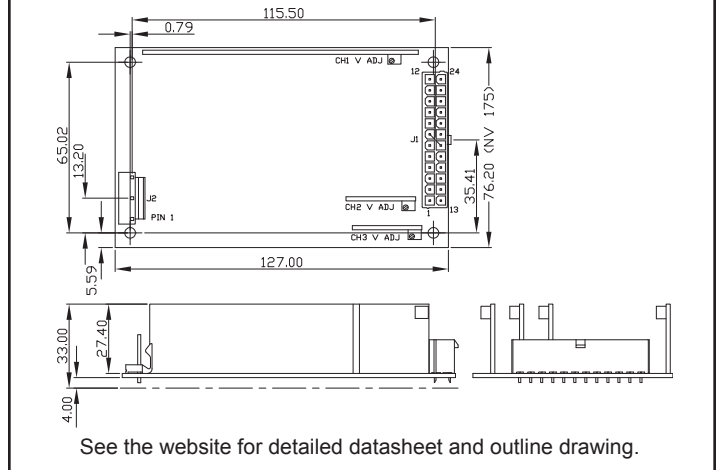
Stocked Models Quick Selector

Model	CH1 (4)	CH2 (4)	CH3
NV1-1T000-M	12V/15A	-	-
NV1-1G000-M	24V/7.5A	-	-
NV1-3G0TT-M	24V/7.5A	12V/5A	-12V/1A
NV1-3G0FF-M	24V/7.5A	15V/5A	-15V/1A

Notes:

(4) 12 - 12.5V if 24V CH3 is fitted.
 (5) 14.5 - 15V if 24V CH3 is fitted.
 (6) 24 - 26V if 24V CH3 is fitted.
 (7) 1.5A max if -F is specified.

Outline Drawing



Built to Order Model Selector

CH1	CH1 Code	Adjust. Range	CH2	CH3	CH3 Code	Adjust. Range	CH4	CH4 Code	Adjust. Range
+12V / 15A	T	12 - 15V (4)	Not available	+12V / 5A	T	12 - 15V	-12V / 1A	T	Fixed
+15V / 12A	F	12 - 15V (5)		+15V / 5A	F	12 - 15V	-15V / 1A	F	Fixed
+24V / 7.5A	G	24 - 28V (6)	No output	+24V / 2.5A	G	18 - 24V	+3.3V / 2A (7)	3HP	Fixed
				0	-		+5V / 2A (7)	5HP	Fixed
							-12V / 2A (7)	TH	Fixed
							-15V / 2A (7)	FH	Fixed
							Fan Supply only	0H	Fixed
							No output	0	

Add "Y" to code for negative polarity output

Add "P" to code for positive polarity output

How to Create a Model Number

NV1-	Enter number of outputs	CH1 Code	0	CH3 Code	CH4 Code	Case Option	-M	Connector Options
	No Case U Chassis U Chassis with Cover U Chassis, Cover and Fan* U Chassis, Cover and Fan* and IEC inlet					Blank U C F I		Blank R Vertical Horizontal

* A high output CH3 (3H, 5H, TH, FH) or fan supply 0H must be selected to provide fan option.

Example

NV1 3 G 0 TY 5HP C -M -R

Description: Triple output, 24V/7.5A, -12V/5A, +5V/2A, U Chassis with cover, Horizontal Connector

Mating Parts (Molex)

CONN	Housing	Pins
J1	39-01-2245	44476-3112
J2	09-50-8051	08-52-0113

Other Medical Products

NV350, 700	350-968W 1U Modular Power Supply 1-6 outputs
Vega	450-900W Modular Power Supply
HWS/ME	30-1500W Single Output Power Supply

For Additional Information, please visit
us.tdk-lambda.com/lp/products/nv-series.htm

