

3" x 5" 175W Power Supplies



- ◆ 1-5 Outputs
- ◆ Up to 90% Efficient
- ◆ Active Power Factor Correction
- ◆ Universal Input (90 - 264VAC)
- ◆ No Minimum Loads
- ◆ Medical Approvals

Key Market Segments & Applications

Broadcast
 Test & Measurement
 Medical
 Industrial Computing and Routers

Features and Benefits

Feature	Benefit
◆ High Efficiency	◆ Less heat dissipated in system
◆ Low Profile	◆ Fits in 1U enclosures
◆ Power Factor Corrected	◆ Supports Global Use
◆ No Minimum Loads	◆ Ease of Use

Specifications

MODEL		NV175
ITEMS		
Input Voltage range	-	90 - 264VAC (47 - 63Hz, 440Hz with reduced PFC)
Inrush Current	A	<40A at 25°C and 264VAC input, Cold Start
Power Factor Harmonics	-	EN61000-3-2 Compliant
Line Regulation	-	< 0.1% for 90-264VAC input change
Load Regulation	-	< 1% for 0-100% load change
Cross Regulation	-	< 0.1% for 100% load change on any output
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 & CH2, 120-130%, Cycle AC line to reset
Overtemperature Protection	-	Yes
Hold Up Time (Typ)	ms	> 16ms at 90VAC Input
Leakage Current (max)	mA	300µA max at 264VAC, 63Hz
Remote Sense	-	On Outputs CH1 & CH2, 0.5V compensation maximum
DC Good (Specify N option)	-	CH1 Only, High on Fail (<95% of nominal)
Remote On/Off (Specify N option)	-	TTL logic level high will inhibit all outputs (except Standby)
Operating Temperature	-	0 to +70°C. Derate linearly to 50% load from 50°C to 70°C(1)(7)
Storage Temperature	-	-40 to +85°C
Humidity (non condensing)	-	5 - 95% RH
Cooling	-	Forced air, 2m/s from input to output
Isolation	-	Input to Ground 2.3kVDC, Input to Output 4.3kVDC, Output to Ground 200VDC
Vibration (non operating)	-	2G, 10-500Hz (sweep & endurance at resonance) in all 3 planes
Shock	-	30G per IEC68-2-27
Safety Agency Approvals	-	UL60950-1, CSA22.2 No 60950-1, EN60950-1, IEC60950-1, CE for LVD, IEC60601-1, EN60601-1, EN61010-1, IEC61010-1
Immunity	-	EN61000-6-2:2001, EN61000-4-2, -3, -4, -5, -6, -8, -11
Conducted Emissions and Flicker	-	EN55022 Class B (per CISPR.22), EN61000-3-3
Radiated Emissions	-	EN55022 Class A (per CISPR.22)(2)
Weight (Typ)	g	250g
Size (3)	in	3" x 5" x 1.25" (3.7" x 5" x 1.25" for N option version)
Warranty	yrs	Three Years

Notes: (1) -20°C cold start

(2) See application note for Class B

(3) Including underside component leads

Model Selector

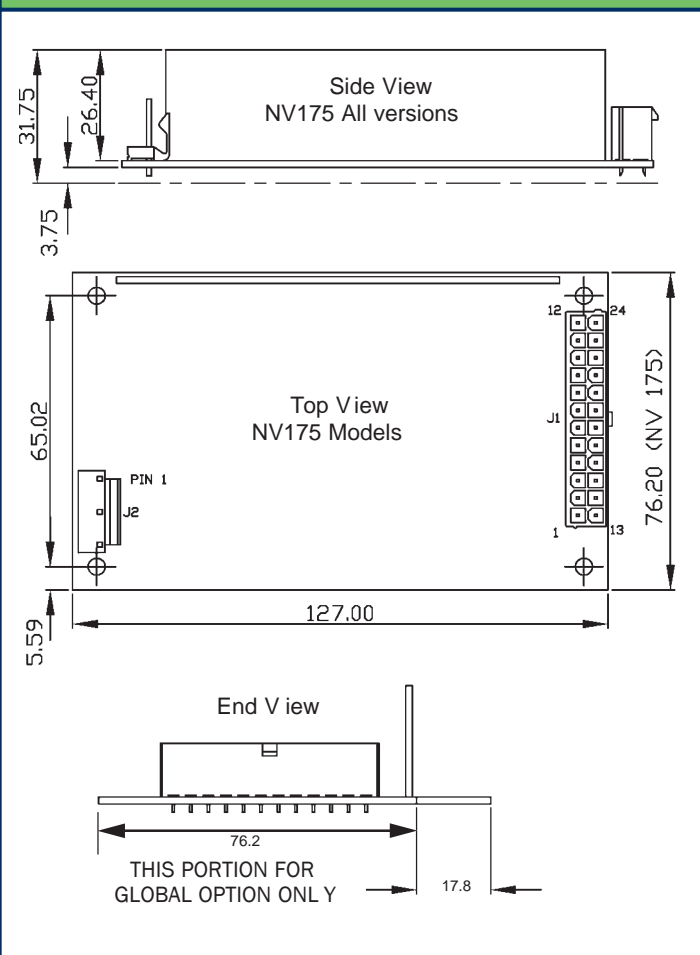
Model	CH1 (Adjustment) (4)	CH2 (Adjustment) (4)	CH3 (Adjustment) (4)	CH4 (Adjustment) (4)	CH5 (Adjustment) (5)
NV115000*	+5V/25A (5 - 5.5V)	-	-	-	-
NV11T000*	12V/15A (12 - 13.2V)	-	-	-	-
NV11G000*	24V/7.5A (24 - 26.4V)	-	-	-	-
NV11M000*	48V/3.75A (48 - 52.8V)	-	-	-	-
NV1453TT	+5V/25A (5 - 5.5V)	+3.3V/15A (2.5 - 3.3V)	+12V/5A (12 - 15V)	-12V/1A (Fixed)	-
NV1453FF	+5V/25A (5 - 5.5V)	+3.3V/15A (2.5 - 3.3V)	+15V/5A (12 - 15V)	-15V/1A (Fixed)	-
NV1452TT	+5V/25A (5 - 5.5V)	+2.7V/15A (2.5 - 3.3V)	+12V/5A (12 - 15V)	-12V/1A (Fixed)	-
NV1452FF	+5V/25A (5 - 5.5V)	+2.7V/15A (2.5 - 3.3V)	+15V/5A (12 - 15V)	-15V/1A (Fixed)	-
NV1350TT	+5V/25A (5 - 5.5V)	-	+12V/5A (12 - 15V)	-12V/1A (Fixed)	-
NV1350FF	+5V/25A (5 - 5.5V)	-	+15V/5A (12 - 15V)	-15V/1A (Fixed)	-
NV1250T0 ⁶	+5V/25A (5 - 5.5V)	-	+12V/5A (12 - 15V)	-	-
NV1453TTN	+5V/25A (5 - 5.5V)	+3.3V/15A (2.5 - 3.3V)	+12V/5A (12 - 15V)	-12V/1A (Fixed)	5V/2A (Fixed)
NV1453FFN	+5V/25A (5 - 5.5V)	+3.3V/15A (2.5 - 3.3V)	+15V/5A (12 - 15V)	-15V/1A (Fixed)	5V/2A (Fixed)
NV1452TTN	+5V/25A (5 - 5.5V)	+2.7V/15A (2.5 - 3.3V)	+12V/5A (12 - 15V)	-12V/1A (Fixed)	5V/2A (Fixed)
NV1452FFN	+5V/25A (5 - 5.5V)	+2.7V/15A (2.5 - 3.3V)	+15V/5A (12 - 15V)	-15V/1A (Fixed)	5V/2A (Fixed)
NV1350TTN	+5V/25A (5 - 5.5V)	-	+12V/5A (12 - 15V)	-12V/1A (Fixed)	5V/2A (Fixed)
NV1350FFN	+5V/25A (5 - 5.5V)	-	+15V/5A (12 - 15V)	-15V/1A (Fixed)	5V/2A (Fixed)
NV1250T0N ⁶	+5V/25A (5 - 5.5V)	-	+12V/5A (12 - 15V)	-	5V/2A (Fixed)

- Notes:
- (4) Maximum combined current from CH1 + CH2 = 25A
 - (5) CH5 is a standby Voltage (always On). 2.5A Peak rated
 - (6) Non-stocked model
 - (7) Convection cooled maximum ratings: CH1: 55W, CH2: 8.25W, CH3: 9W, CH4: 3W, 75.25W total. 0°C - 40°C temperature range.
 - (*) Contact factory for availability

Pinouts

PIN	Function	PIN	Function
J1			
12	STANDBY +VE	24	STANDBY RETURN
11	POWER GOOD	23	REMOTE ON/OFF
10	CH1 OUTPUT	22	CH1 POWER GOOD
9	CH1 OUTPUT	21	CH1 OUTPUT
8	CH1 OUTPUT	20	CH1 OUTPUT
7	+ SENSE CH1	19	- SENSE CH1
6	0V COMMON	18	0V COMMON
5	0V COMMON	17	0V COMMON
4	CH2 OUTPUT	16	0V COMMON
3	CH2 OUTPUT	15	CH2 OUTPUT
2	+ SENSE CH2	14	- SENSE CH2
1	CH3 OUTPUT	13	CH4 OUTPUT
J2			
1	NEUTRAL	4	N/C
2	N/C	5	EARTH
3	LIVE		

Outline Drawing



Mating Parts (Molex)

CONN	Housing	Pins
J1	39-01-2240	39-00-0039 (18-24AWG)
J2	09-91-0500	08-52-0072

Options

Suffix	Description
blank	Open frame, PCB style
C	U Chassis and Cover ⁸
N	5V Standby (CH5), DC Good, Remote ON/OFF

Note:(8)

Model	Size
NV1xxxxxC	3.3x5x1.6"
NV1xxxxxNC	4x5x1.6"

Other Lambda Industrial Products

NV350	350W 1U Modular Power Supply 1-6 outputs
SC40/60	40 to 80W single, dual & triple 3x5 footprint
ZWS/ZWSPA	5 to 240W single output power supplies

For Additional Information, please visit
www.lambdapower.com/products/nv-series.htm