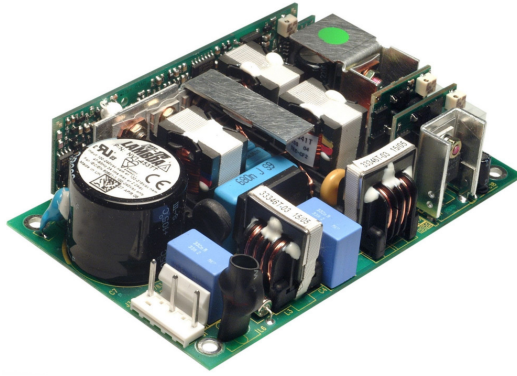




## NV-Power

175/180/200 Watts, flexible power solution

- High Efficiency
- High Power Density (9.3W/in<sup>3</sup>)
- Up to 5 outputs
- No minimum load
- Fits 1U applications
- Medical Approval
- 3 Year Warranty

### Key Market Segments & Applications

Instrumentation

Medical

Automation

Security

Network Servers and Routers

Broadcast

ATE

Industrial Computing

Lifesciences/Laboratory

### Features and Benefits

#### Feature

- ◆ High Efficiency
- ◆ Low Profile
- ◆ High Power Density

#### Benefit

- ◆ Minimises heat in system
- ◆ Fits 1U applications
- ◆ Less Space

### INPUT

|                       |                                                                             |
|-----------------------|-----------------------------------------------------------------------------|
| Input Voltage         | 90 - 264Vac                                                                 |
| Input Frequency       | 47 - 63Hz (440Hz with reduced PFC - consult factory)                        |
| Input Harmonics       | EN61000-3-2 compliant                                                       |
| Inrush Current        | <40A at 25°C and 264Vac, (cold start)                                       |
| Input Fuse            | Fast acting (not user accessible)                                           |
| Power Factor          | 0.97 typical                                                                |
| Earth Leakage Current | 300µA max at 264Vac & 63Hz (normal condition, 500µA Single Fault Condition) |

### AVAILABLE OUTPUTS

| Channel 1                                | Adjustment Range                               | Channel 2 <sub>1</sub>                                                             | Adjustment Range                       | Channel 3                                                                      | Adjustment Range                 | Channel 4 <sub>3</sub>                                                                                                                                                               | Adjustment Range                                   |
|------------------------------------------|------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------|--------------------------------------------------------------------------------|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| <b>5</b> 5V / 25A <sub>2</sub>           | 5 - 5.5V                                       | <b>1</b> 1.8V / 15A<br><b>2</b> 2.7V / 15A<br><b>3</b> 3.3V / 15A<br><b>0</b> Omit | 0.9 - 3.3V<br>2.5 - 3.3V<br>2.5 - 3.3V | <b>T</b> 12V / 5A<br><b>F</b> 15V / 5A<br><b>G</b> 24V / 2.5A<br><b>0</b> Omit | 12 - 15V<br>12 - 15V<br>18 - 24V | <b>T</b> -12V / 1A<br><b>F</b> -15V / 1A<br><b>3H</b> -3.3V / 2A<br><b>5H</b> -5V / 2A<br><b>TH</b> -12.1V / 2A<br><b>FH</b> -15V / 2A<br><b>0H</b> Fan supply only<br><b>0</b> Omit | Fixed<br>Fixed<br>Fixed<br>Fixed<br>Fixed<br>Fixed |
| <b>T</b> 12V / 15A<br><b>F</b> 15V / 12A | 12 - 15V <sub>4</sub><br>12 - 15V <sub>5</sub> | <b>5</b> 5V / 10A<br><b>0</b> Omit                                                 | 3.3 - 5.5V                             |                                                                                |                                  |                                                                                                                                                                                      |                                                    |
| <b>G</b> 24V / 7.5A                      | 24 - 28V <sub>6</sub>                          | <b>5</b> 5V / 8A<br><b>0</b> Omit                                                  | 3.3 - 5.5V                             |                                                                                |                                  |                                                                                                                                                                                      |                                                    |

#### Notes:

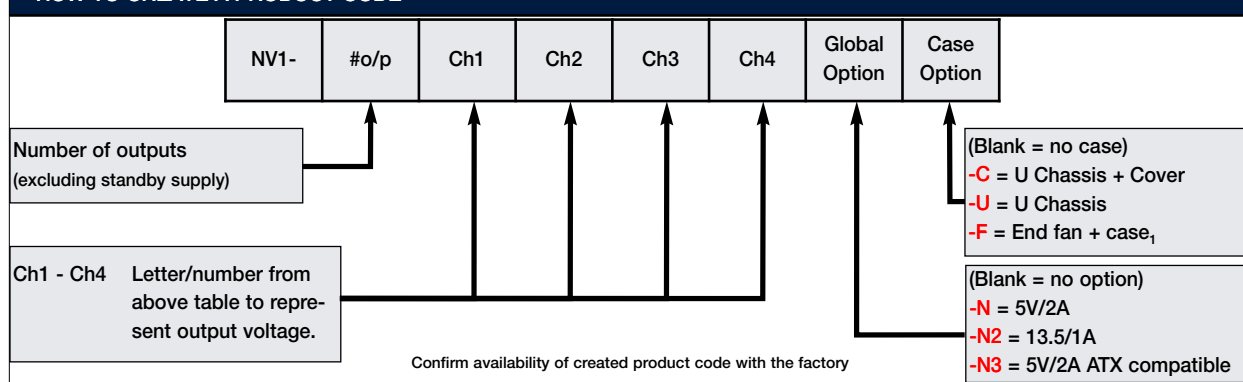
1. 1.8V, 2.7V, 3.3V channel 2 only available with 5V Channel 1  
5V/10A channel 2 only available with 12V or 15V Channel 1  
5V/8A channel 2 only available with 24V Channel 1.
2. Maximum combined output current from Ch1 & Ch2 = 25A  
Models with 5V channel 1 are limited to 175W output power
3. Follow letters in red by 'P' for positive output channel 4.
4. 12 - 12.5V if 24V channel 3 fitted.
5. 14.5 - 15V if 24V channel 3 fitted.
6. 24 - 24.5V if 5V channel 2 fitted  
24 - 26V if 24V channel 3 fitted.

Other output options are available, please contact factory with your requirements.

## OUTPUT SPECIFICATION

|                            | Channel 1 | Channel 2             | Channel 3 | Channel 4 | Notes                                                                                                                                        |
|----------------------------|-----------|-----------------------|-----------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Remote Sense               | Yes       |                       | No        |           | Max 0.5V total line drop                                                                                                                     |
| Total Regulation           |           | 1%                    |           |           | Including Line (for 90-264Vac input change), Load (for 0-100% load change) and Cross (for 0-100% load change on any other output) regulation |
| Ripple & Noise             |           | maximum of 50mV or 1% |           |           | pk-pk, using EIAJ test method & 20MHz bandwidth                                                                                              |
| Voltage Accuracy           |           | ±1%                   |           | +4%/-3%   | ±4% for channel 4 with 'T' or 'F' type outputs                                                                                               |
| Turn on Time               |           | 1.5s max              |           |           | at 90 Vac & 100% rated output power                                                                                                          |
| Efficiency                 |           | up to 90%             |           |           | configuration dependent                                                                                                                      |
| Hold up                    |           | 16ms min              |           |           | at 90 Vac                                                                                                                                    |
| Minimum Load               |           | None                  |           |           | on any output                                                                                                                                |
| Transient Response         |           | <4%                   |           |           | of set voltage for 50% load change (in 50µs within the range 25 - 100% load)                                                                 |
| Recovery                   |           | <500µs                |           |           | for recovery to 1% of set voltage                                                                                                            |
| Short circuit protection   |           | Yes                   |           |           |                                                                                                                                              |
| OverTemperature protection |           | Yes                   |           |           |                                                                                                                                              |
| Over Voltage Protection    |           | Yes                   |           |           | See Application Notes for details                                                                                                            |
| Ch1 Good Signal            | Yes       |                       |           |           | Provides a Logic 'Low' signal after output is within 90% (±5%) of nominal.                                                                   |
| Peak Output Power          |           | 200W                  |           |           | Units with 12V, 15V or 24V (T, F or G) channel 1. Average output power must not exceed 180W over any 5 minute period.                        |

## HOW TO CREATE A PRODUCT CODE



1. Needs 0H, 3H, 5H, TH or FH type channel 4

## QUICK SELECTOR - preferred configurations

| Model        | CH1        | CH2        | CH3      | CH4       | CH5     | Global Option <sub>1</sub> |
|--------------|------------|------------|----------|-----------|---------|----------------------------|
| NV1-1T000    | 12V / 15A  | -          | -        | -         | -       | No                         |
| NV1-1G000    | 24V / 7.5A | -          | -        | -         | -       | No                         |
| NV1-453TT    | 5V / 25A   | 3.3V / 15A | 12V / 5A | -12V / 1A | -       | No                         |
| NV1-453TT-N3 | 5V / 25A   | 3.3V / 15A | 12V / 5A | -12V / 1A | 5V / 2A | ATX (-N3)                  |
| NV1-453FF    | 5V / 25A   | 3.3V / 15A | 15V / 5A | -15V / 1A | -       | No                         |
| NV1-453FF-N3 | 5V / 25A   | 3.3V / 15A | 15V / 5A | -15V / 1A | 5V / 2A | ATX (-N3)                  |
| NV1-4G5TT    | 24V / 7.5A | 5V / 8A    | 12V / 5A | -12V / 1A | -       | No                         |
| NV1-4G5TT-N3 | 24V / 7.5A | 5V / 8A    | 12V / 5A | -12V / 1A | 5V / 2A | ATX (-N3)                  |
| NV1-4G5FF    | 24V / 7.5A | 5V / 8A    | 15V / 5A | -15V / 1A | -       | No                         |
| NV1-4G5FF-N3 | 24V / 7.5A | 5V / 8A    | 15V / 5A | -15V / 1A | 5V / 2A | ATX (-N3)                  |

Above Units available on rapid delivery.

See over for additional variants available 'Build to Order'

1. see page 3 for details of global option