

Infinity NE DC/DC Converter NE075DC24

-24V_{dc}, 75A_{dc} Output, 48V_{dc} Input



Packing More Power and Efficiency into Small Spaces

The INFINITY NE DC/DC converter NE075DC24 integrates the latest Switch mode technology with superior power density, protection and control features in a compact, cost efficient power conversion system. Designed as a key element in the

revolutionary INFINITY NE Universal Power Plant, the NE075DC24 converter converts -48V_{dc} input power into the 24 V_{DC} voltage level required to power end user equipment. Operation over a wide temperature range (-40°C to +75°C) makes the NE075DC24 suitable for controlled and uncontrolled environments.

Applications

- Wireless Cell Site Power Systems
- Dual Voltage Power Plants
- MTSO and Central Office Power Plants
- Base Station Power Plants

Key Features

- Universal Power shelf compatible
- Microprocessor controlled
- 2 – wire digital interface
- Hot pluggable
- Digital load sharing
- Field replaceable fans
- Optional Fan filter
- UL recognized
- CE marked

Benefits

- Compact - 1RU form factor providing high power density (18 W/in³)
- Dual Voltage compatibility – the unique connector pin designation allows the converter to be used in a “universal” power shelf, alongside converters or DC/DC converters with different output voltages.
- Plug and Play – installation of the converter in a shelf connected to a compatible system controller initializes all set up parameters automatically. No adjustments are needed.
- Extended service life – parallel operation with automatic load sharing ensures that parallel units are not unduly stressed even when a unit fails or is removed.
- Monitoring / control – the built in microprocessor controls and monitors all critical converter functions and communicates with the system controller using the built in Galaxy Protocol serial interface.
- Fail safe performance – hot insertion capabilities allow for converter replacement without system shutdown; soft start and inrush current protection are also incorporated.

See footnotes on page 2

Technical Specifications

Electrical

Input	
Nominal Operating Voltage	42-60V _{dc}
Absolute Voltage Limits	0-62V _{dc} (shut down <38V, no damage over range)
Nominal dc Input current	36A at 54.5V _{dc} input
Max dc input current	62A (at Vin Minimum, Iout Maximum)

Output	
Voltage range	23 V _{dc} to 28V _{dc}
Regulation (with controller)	±0.5%
Ripple	100 mV rms
Noise	<2mV psophometric
Output Current	75 A at 27.2 V _{dc}

Mechanical

Height	1.70" (43.2 mm)
Width	5.23" (132.8 mm)
Depth	13.85" (351.8 mm)
Weight	5.2 lb (2.4 kg)

Environmental

Efficiency	>90% at full output
Operating Temperature Range	-40°C to 75°C
Operating Relative Humidity	0 - 95% (non-condensing)
Storage Temperature Range	-40°C to 85°C
EMC	FCC, EN 55032, CISPR22, Level A, conducted and radiated
ESD	IEC/EN 61000-2, level 4

Safety/Standards Compliance

Safety Standards	UL1950, EN62368 (IEC950), CSA*234/950
Certification Marks	UL Recognized (Canada and U.S.), CE marking

Control and Monitoring

Visual Indicators	Norm, Input and Fail LEDs
Serial Interface	2 wire RS485 with GP Protocol

FOOTNOTES

*CSA is a registered trademark of Canadian Standards Association

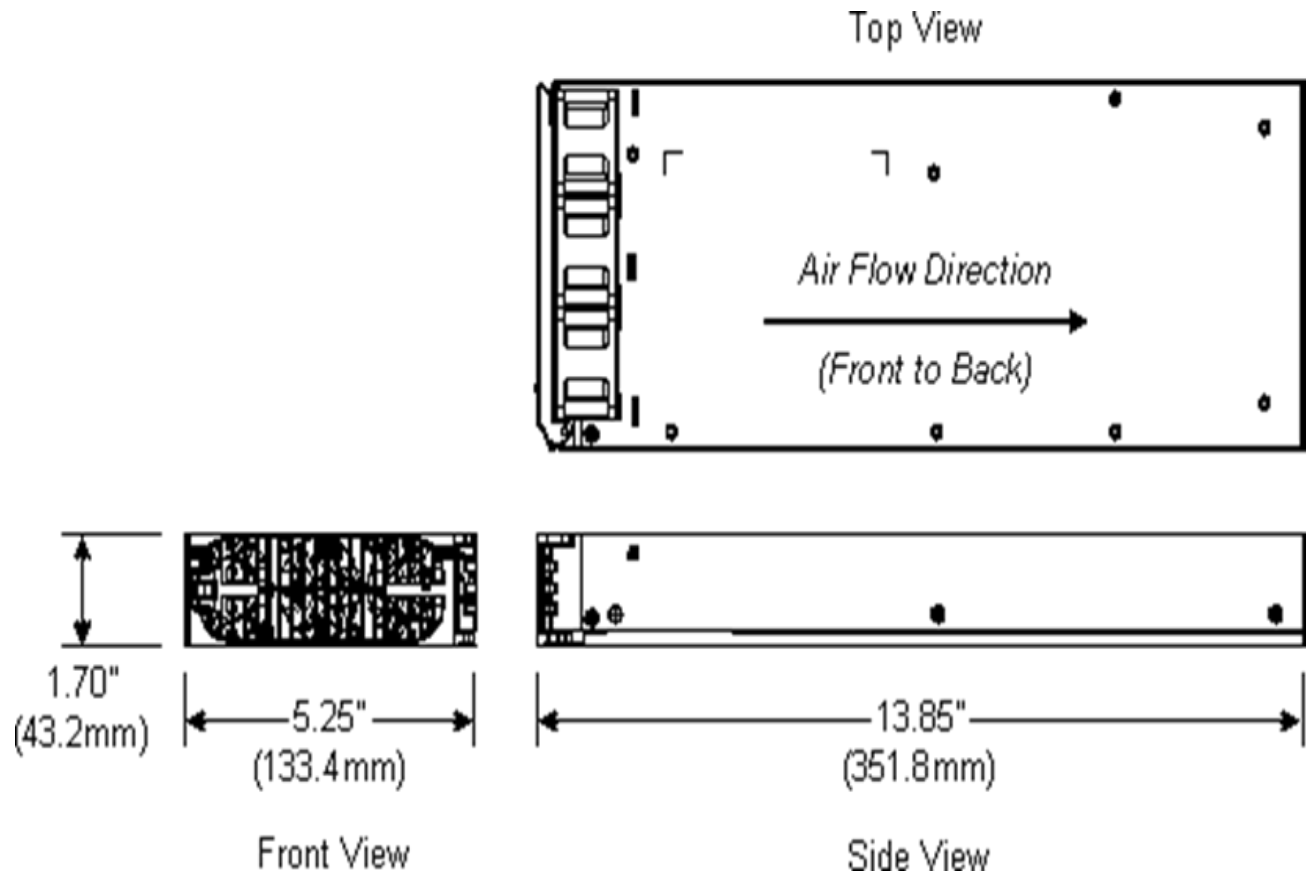
† VDE is a trademark of Verband Deutscher Elektrotechniker e.V.

UL is a registered trademark of Underwriters Laboratories, Inc.

This product is intended for integration into end user equipment. All the procedures for CE marking of end user equipment should be followed.

Technical Specifications (continued)

Outline Drawing



Technical Specification (continued)

Ordering Information

Power module	Input	Output	Density	Ordering Code
NE075DC24 Switch mode Converter	24 V _{dc}	-48 V _{dc}	18 W/in ³	CC109142881

Related Product Literature	Drawing number
Ordering Guide, Infinity NE-M Power Plant, +24 V _{dc} / -48V _{dc}	H569-2448
Ordering Guide, Infinity-D +24V or -48V Plant	H2007001

With our wide range of product offerings along with extensive application notes, development tools, pre- and post-sales support including technical support, OmniOn Power can provide a total solution to your current and future powering needs.

OmniOn Power is the industry's most trusted provider of reliable and innovative power conversion solutions, holding more than 400 power supply patents. A long-standing leader in the telecom industry, OmniOn Power leverages an 80-year design history that includes highly regarded companies like Bell Labs, Western Electric, AT&T, Lucent Technologies and most recently, Tyco Electronics. Engineering talent, superior service and energy efficient solutions make OmniOn Power the right choice for addressing your power requirements and network challenges.

Contact Us

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Change History (excludes grammar & clarifications)

Revision	Date	Description of the change
1.2	12/08/2021	Updated as per template
1.3	07/06/2023	Added key features
1.4	10/20/2023	Updated as per OmniOn template

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