

Infinity NE DC/DC Converter NE030DC48

-48V_{dc}, 30A_{dc} Output, 24V_{dc} Input



Description

Designed as a key element in the revolutionary INFINITY NE Universal Power Plant, the NE030DC48 converter converts +24 VDC input power into the -48 VDC voltage level required to power end user equipment. Operation over a wide temperature range (-40°C to +75°C) makes the NE030DC48 suitable for controlled and uncontrolled environments.

Packing More Power and Efficiency into Small Spaces

The INFINITY NE DC/DC converter NE030DC48 integrates the latest Switchmode technology with superior power density, protection and control features in a compact, cost efficient power conversion system.

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
- Compliant to RoHS Directive 2011/65/EU and amended Directive (EU) 2015/863
- Compliant to REACH Directive (EC) No 1907/2006

Benefits

- Compact - 1RU form factor providing high power density (13 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

Technical Specifications

Specifications

Electrical

Input

| | |
|---------------------------|--|
| Nominal Operating Voltage | 21-30V _{dc} (extended to 19-30Vdc with de-rating) |
| Absolute Voltage Limits | 0-31V _{dc} (shut down <18V, no damage over range) |
| Nominal dc Input current | 63 A at 27V _{dc} input |
| Max dc input current | 81A (at Vin Minimum, Iout Maximum) |

Output

| | |
|------------------------------|---|
| Voltage range | -46 V _{dc} to -57V _{dc} |
| Regulation (with controller) | ±0.5% |
| Ripple | 100 mV rms |
| Noise | <2mV psophometric |
| Output Current | 30 A at 52.0 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 55022, CISPR22, Level A, conducted and radiated |
| ESD | IEC/EN 61000-2, level 4 |

Safety/Standards Compliance

| | |
|---------------------|---|
| Safety Standards | UL1950, EN60950 (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

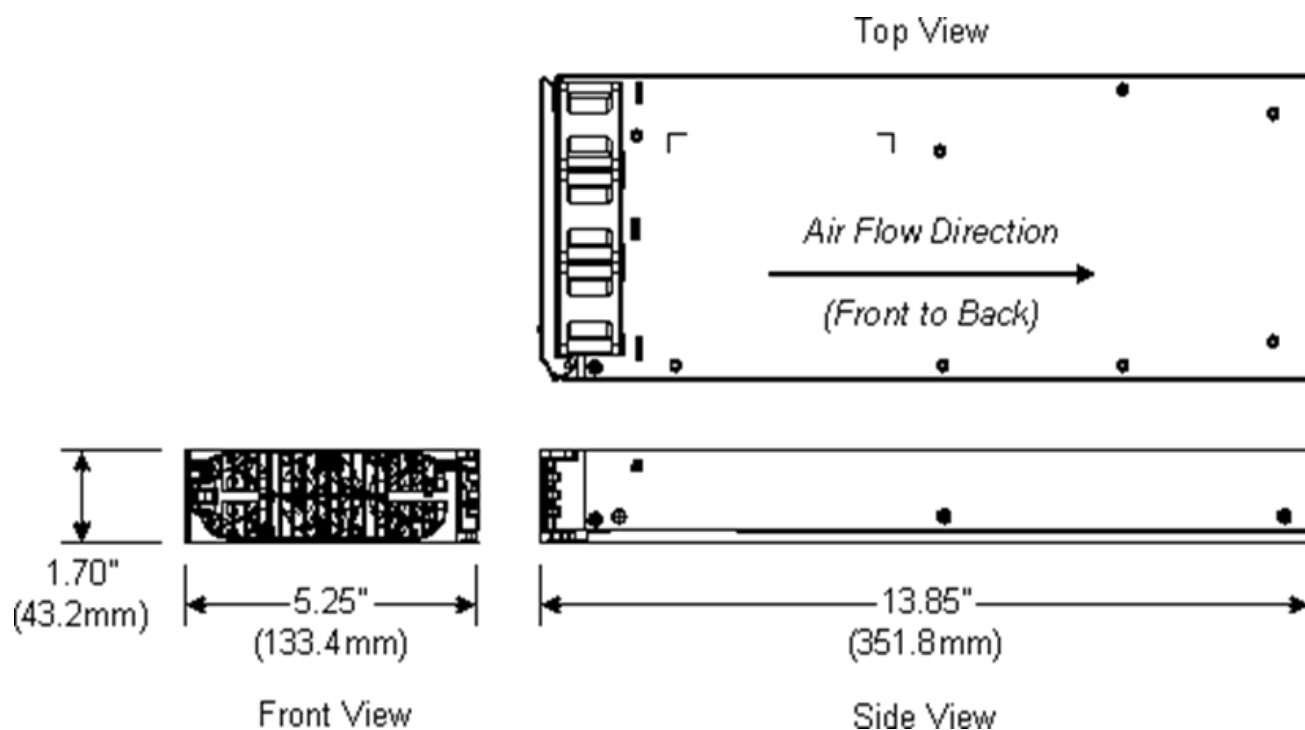
† VDE is a trademark of Verband Deutscher Elektrotechniker e.V.

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

Outline Drawing



| Power module | Input | Output | Density | Comcode |
|---------------------------------|--------------------|---------------------|----------------------|-------------|
| NE030DC48 Switch mode Converter | 24 V _{dc} | -48 V _{dc} | 13 W/in ³ | CC109112471 |

Related Product Literature

| | |
|---|-----------|
| 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, ABB Power can provide a total solution to your current and future powering needs.

ABB 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, ABB 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 ABB Power the right choice for addressing your power requirements and network challenges.

Contact Us

For more information, call us at

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Change History (excludes grammar & clarifications)

| Version | Date | Description of the change |
|---------|------------|--|
| 1.2 | 12/08/2021 | Updated as per template and upgraded RoHS standard |



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