

Power

CDC1024TP

Universal input DC/DC converter



CDC1024TP DC/DC converter

- 110Vdc & 220Vdc input for higher flexibility and easier spare parts management
- Wide temperature operation for installation in harsh outdoor environments
- Low internal temperature for high reliability
- Active load sharing and fault tolerant output for high availability
- Combination with high voltage rectifiers in a single cabinet for industrial and utility applications

The CDC1024TP is the perfect module to build up highly reliable multi-output energy systems for industrial and utility applications. A true constant power with 90% typical efficiency for this 1000W DC/DC converter demonstrates the combination of the long experience of Alpha Technologies for distributed power architecture with the latest developments in technology. This unique product is designed to work with a wide DC input range from 80 to 300Vdc, enabling to meet many installation requirements and making spare parts management easier.

The units are perfectly suitable for both indoor and outdoor applications and offer many features to improve monitoring and control. Beyond the traditional voltage programming and fault control, the unit is equipped with a smart derating of the power in regard to internal temperature. Signals include thermal shutdown, input range detection, over-voltage and module missing - and offer great flexibility of system configuration.

Each system is protected against input under- and overvoltage, output overvoltage, smart output power limitation and over-temperature.

CDC1024TP Universal 1000W DC/DC converter, 24Vdc output

Part Number: CDC1024TP

Electrical

Input Voltage:80 to 300Vdc

Power factor:1 (DC input)

Input Current:5.5A typical @ 220Vdc
12A typical @ 80Vdc

Efficiency:.....90% typical @ 220Vdc

Output voltage:.....20 to 29Vdc

Output power*:1000W @ 220Vdc input
* Constant output power 700W @ 110Vdc input

Output current:37A nominal @ high DC input
26A nominal @ low DC input

Load and line regulation:.....<0.5% (any combination of load and line)

Wide band noise:5mV_{rms}

Psophometric noise:1mV_{rms}

Performance / Features

Indicators:.....DC input OK — green LED
DC output OK — green LED
Thermal Shutdown — red LED
Output overvoltage — red LED

Protections:Mains out of range (input fuse)
Output overvoltage
Output overload
Short circuit current
Smart power derating
Thermal shutdown
Hot swap

Mechanical

Dimensions:
mm:.....128H (3U) x 69W x 325D
inches:.....5H x 2.7W x 12.8D

Weight:3.2kg (7.05lb)

Environmental

Temperature:
Standard:.....-25 to 55°C (-4 to 158°F)
Extended*:.....-40 to 70°C (-40 to 158°F)
* de-rated output power

Storage:-40 to 85°C (-40 to 185°F)

Humidity:
Operating.....30 to 90% RH non-condensing
Storage:10 to 95% RH non-condensing

Elevation:.....Up to 2000m (6562ft)

Cooling:Fan cooled (front to rear)

Related Components

Shelves:
ACE106ST.L48N6 x 1000W basic power shelf

Standards

Safety:CE marked
EN60950
IEC60950

Environment:RoHS compliant
IEC 60068-2-27

EMC:ETSI EN 300386