

CDC1024TP

UNIVERSAL INPUT 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.

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 (constant):	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:	5mVrms
Psophometric noise:	1mVrms

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 (de-rated output power) -40 to 70°C (-40 to 158°F) 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)

Standards

Safety:	CE marked EN60950 IEC60950
Environment:	RoHS compliant IEC 60068-2-27
EMC:	ETSI EN 300386

Part Numbers

Solution:

ACE106: 1000W/24VDC fan cooled solutions: ACE106