

# Power System Controller – CSU Family



The Delta Power System Controllers monitor the status and control the operation of various parts within the system to advance its operational reliability, designed to meet the critical mission of telecommunication applications. The PSC controllers fit in every DP 2700 customized system configurations so that customers may select appropriate configuration according to different features.

## CSU 5

The power system controller CSU 5 is a perfect solution for rack power system. It consists of a central unit with integrated user interface with LCD display. The optional SNMP function offers enhanced remote alarming and is designed to work with SNMP managers. The smart battery management with regular battery testing is designed for reliability and availability of the power system. An integrated web server offers user-friendly interface for detailed monitoring and control with a standard web browser.

## CSU 501

The controller CSU 501 provides perfect solution for power shelf systems, including a central unit with integrated user interface with 7-segment LED display. The optional SNMP function offers enhanced remote alarming and is designed to work with SNMP managers. The smart battery management and user-friendly interface are part of the key factors for the success of the reliable availability of the power system.

## CSU 502

The CSU 502 provides a full set of control and supervision functions for power shelf systems. This means user configurable alarms and settings, which are well readable on the LED display with plain text indication. The smart battery management with manual accomplished capacity tests is one of the key factors for the availability of a power system. The CSU502 allows remote alarming by means of potential-free relay contacts.

Either CSU 5, CSU 501 or CSU 502 power system controller can be adopted in DP 2700 series power system to perform its valuable reliability. It is considered to be the brain of the system. System features with different power controllers are shown in the table below.

### Features with different controllers

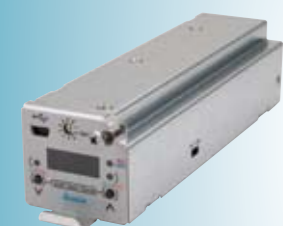
Feature/ Function	CSU 5	CSU 501	CSU 502
System / Shelf	System	System shelf	System shelf
User interface	LCD	7-segment LED	7-segment LED
Max rectifier support	1...32	1...32	1...24
Basic supervision	Yes	Yes	Yes
Battery management	Complete	Complete	Simple
Configuration alarm and settings	Yes	No	Yes
Local management	Yes	Yes	Yes
Web / SNMP	Optional	Optional	No
Energy saving function	Yes	Yes	No
Multi-language support	Yes	No	No



CSU 5



CSU 501



CSU 502

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## DP 2700 Series Product Line Power system for telecom applications



# System

The Delta DP 2700 Series provides admirable features to meet the demand of current and future telecommunication application. The series is capable of offering reliable power, modular design and flexible configurations. These advanced features of the versatile DP 2700 series make it an optimized choice for indoor and outdoor applications.

- Features:
- Hot swappable 2.7KW rectifier
  - Compact system size for easy installation
  - Wide input voltage range
  - Both shelf power and power system solutions available
  - Intelligent battery management
  - User friendly interface

## Reliable power

Delta DP 2700 series power systems employ the state-of-the-art design to ensure high reliability and performance. All Delta DP 2700 power systems pass stringent reliability testing and are manufactured in our modern ISO 9001/ TL 9000 certified facilities. Delta's Total Quality Control and Statistical Process Control programs ensure continuous quality improvements.

## Compact size and modular design

With 1U size and high power density rectifier, the compact DP 2700C series system easily saves valuable floor space and operation cost. Different system configurations, including cabinet and shelf solutions, are available for selection in terms of customer application demands. Furthermore, DP 2700 series adopts the modular power distribution design which shortens the configuration and delivery lead time.

## Smart and user friendly operation

Delta DP 2700 series power system comes up with the smart controller for system operation. Several controller options are available based on customer requirement. Each controller performs automatic control and monitoring of the system input/output status, rectifiers, and batteries. With additional options, customers can access the power system locally or via Internet/ Intranet using commercially available Internet browsers.

# Rectifier

The DP 2700 rectifier is a single phase, hot-pluggable, fan-cooled rectifier that offers the optimum 1U shelf solutions for easy integration into power systems. The constant output power characteristic supplies the specified power over the full output voltage range.

Features:

- Hot swappable 2.7kW rectifier
- High power density 34W/inch<sup>3</sup>
- Compact and light weight
- Efficiency 92 %
- Wide input voltage range: 88 - 310 V
- Power factor correction
- Constant output power characteristic
- Operating temperature range up to 75°C

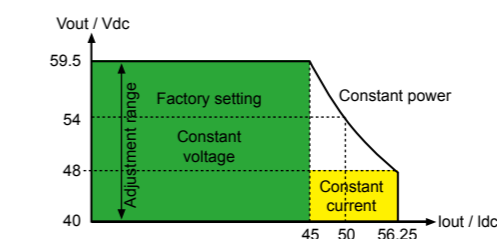
## Compact and reliable solution

The rectifier design allows for an optimized modular power system design for various applications. The outstanding power density of this product as well as the compact 1U shelf solutions make DP 2700 rectifier a cost effective and reliable solution.

## Advanced technology

Advanced design and manufacturing technology is applied in this rectifier product to increase high power density and efficiency. The power factor corrector (PFC) is responsible for the sinusoidal input current with a minimum distortion. The DC-DC converter is responsible for galvanic isolation and power conversion to the DC output.

## Output characteristics



The microprocessor controlled rectifier includes protections for all operation conditions appearing in a power system. The high performance EMC filters guarantee compliance with required standards.

## Constant power

The constant output power characteristic supplies the specified power over the output voltage range. The benefit is an optimized modular system design (fewer modules) that matches the supply requirements for state-of-the-art telecom equipments.



Specifications Input	
Voltage, nominal (V rms)	230
Voltage range (V rms)	88... 310
Current maximum (A rms)	21.8
Power factor	0.99
THD(%)	< 5
Output	
Voltage, nominal (Vdc)	54
Voltage adj. Range (Vdc)	40... 59.5
Power limitation (W)	2700
Current limitation (A)	50 @ 54.0 VDC
Efficiency (%)	92.0
Mechanics	
Width (mm / in)	125.5 / 4.94
Height (mm / in)	41.0 / 1.61
Depth (mm / in)	267.3 / 10.52
Weight (kg/ lb)	2.0/ 4.4
Environment	
Operating temp. (oC)	-20... +75
Cooling	Fan cooled rectifier
Relative humidity, max (%)	95%, non condensing
MTBF (Calculated)	300k hr (Telcordia SR-332)

Subject to change due to technical progress

