



AC/DC & DC/DC Power Supplies



Standard Products

PCI™ & cPCI™

Front End Power Supplies

On-Board Front End Power Modules

Custom Products

Full Custom Design Service

Modified Standard

Military

CATV

Powering Inno

Power Electronics Division

C&D Technologies was founded on innovation - when Frank Carlyle and Leon Doughty began a career converting gas lighting to electricity in the early 1900s.

Since then the organization has grown into a global force in power conversion and storage and is now a world-leading manufacturer, listed on the New York Stock Exchange (NYSE:CHP).

As we have changed, so have the demands of our customers. Where a simple light bulb would have amazed Carlyle and Dougherty's first customers, today's electronic design engineers need innovative solutions for their ever more complex power needs. We aim not only to meet these needs, but

to design the solutions that provide the power to drive the innovations of the future.

With half a million square feet of manufacturing in six facilities on three continents, eight development labs and 12 sales offices around the world, C&D Technologies' Power Electronics Division boasts some of the best resources in the power electronics industry.

Our product range is the widest available today and is constantly being updated to keep pace with the many markets we serve.

Value, quality, reliability and innovation go hand-in-hand with total customer support to ensure that our products and services are second to none.

C&D Technologies, Inc.

C&D Technologies, Inc. is a technology company that produces and markets systems for the power conversion and storage of electrical power, including industrial batteries and electronics. The organization comprises three operating divisions:

Power Electronics Division

designs, manufactures and markets products for the conversion of power within electronic systems. Products include DC/DC & AC/DC converters, support magnetics, digital panel meters and data acquisition products.



Standby Division designs, manufactures and markets batteries for standby power in telecommunications, uninterruptible power systems (UPS), broadband, CATV and mobility traction applications.



Motive Power Division

develops, manufactures and markets the world's leading motive power batteries, advanced chargers, electronic monitoring modules, maintenance tools and computerized management systems.



www.cd4power.com

Full data on over 3,400 products are available online now.

The site offers an interactive resource for engineers sourcing all our product ranges and features:

- Intelligent product search
- Technical support details
- RoHS information
- Online purchasing
- Product datasheets
- Application notes
- Sample requests
- Custom parts requests



C&D Technologies Inc. reserves the right to alter or improve the specifications, data, descriptions, internal design or manufacturing process at any time, without notice. Please check with your supplier or visit our web site to ensure that you have the current and complete specification for your product before use.

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suitability of the product(s) featured herein for user's intended purpose and in user's specific application. The products are not suitable for use as Safety Critical Components¹, in Life Support Devices² or on aircraft.

C&D Technologies, Inc.'s liability for any breach of warranty is limited as set forth in C&D Technologies, Inc.'s standard warranty applicable to the product ("The Warranty"). The warranty is exclusive and offered in lieu of all other express, implied or statutory warranties including, without limitation, implied warranties of merchantability and fitness for a particular purpose.

In no event shall C&D Technologies, Inc.'s liability for any damages arising out of any sale of products to buyer, and regardless of the legal theory on which such damages may be based, exceed the amount that supplier has received as payment for such products and under no circumstances shall supplier be subject to any consequential, incidental, indirect, special or contingent damages whatsoever, including but not limited

to damages for lost profits or goodwill, even if supplier was advised of the possibility of such damage.

No part of this publication may be copied, transmitted or stored in a retrieval system or reproduced in any way including, but not limited to, photography, photocopy, magnetic or other recording means, without prior written permission from C&D Technologies, Inc.

- 1 Safety Critical Component means any component whose failure to perform could cause the failure of, or affect the operation of a Life Support Device.
- 2 Life Support Device means any device, system or ancillary equipment intended for implant into the body or used in relation to supporting or sustaining life.

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novation...

Power Supplies

C&D Technologies has a long and proud history in the production of high quality, reliable power supplies. With design centers and ISO 9001:2000 registered manufacturing facilities on three continents, we are able to produce power supplies to the highest of standards for a multitude of applications.

In addition to our standard range of products, we are also able to offer our experience and expertise to custom design a power supply to match your exact needs. Where cost and development time are critical, we can modify one of our many hundreds of existing design or we could simply configure one of our modular power supplies to your specification.



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For full datasheets go to: www.cd4power.com

Ultra-Compact 1600W Front-End Power Supply

The D1U-W-1600 is a 1600 Watt, power-factor-corrected (PFC) front-end power supply for hot-swapping redundant systems. The main output is 12V and standby output of either 5V or 3.3V. Packaged in 1U low profile, it is designed to deliver reliable bulk power to servers, workstations, storage systems or any 12V distributed power architecture systems requiring high power density. The highly efficient electrical and thermal design with internal cooling fans supports reliable operation conditions. The D1U-W-1600 is designed to auto-recover from over-current and over-temperature faults. Status information is provided with front panel LEDs, logic signals and I2C management interface. 3 units can be packaged into an optional 19" 1U power shelf to provide up to 4.8kW of power.

Datasheet: [D1U-W-1600-12](#)



1000W AC/DC Power Supply

	<ul style="list-style-type: none"> • Active Current Sharing • Remote Sense Compensation • Self Cooled Chassis • Remote Inhibit • DC OK signal & Power Fail Warning
	<ul style="list-style-type: none"> • Thermal Shutdown

Datasheet: [TX1000 Series](#)

The TX1000 Series of single-output, 1kW power supplies are fully featured for usage worldwide. With active Power Factor Correction (PFC) to EN61000-3-2, wide-range input of 90-264VAC, EMI compliance to FCC and CISPR 22, "CE" Mark, and immunity to EN61000-4 the TX100 series is ready for global deployment. A complete array of output voltages from 2.5 to 48VDC is available.

2000W AC/DC Power Supply

	<ul style="list-style-type: none"> • Harmonic Correction to EN61000-3-2 • Active Current Sharing • No Load Operation • Optional ORing Diode • 70-80% Efficiencies
	<ul style="list-style-type: none"> • FCC / CISPR 22 Class A EMI Filtering

Datasheet: [TX2000 Series](#)

The TXD2000 Series is a flexible, modular, 2000 watt design offering two high current outputs in a 5 x 8 x 12 package. Output voltages from 2.5 VDC through 48 VDC are standard. Standard features include Remote Sense Compensation, Output Voltage Adjustment, Active Current Sharing, Remote Inhibit, Power Fail Warning, DC OK Signal and Thermal Shutdown.

Standard AC/DC Product Specifications

		TX1000	TXD2000	SSI-W-102-D48	SSI-W-122-D48	D1U-W-1200-12	D1U-W-1600-12
Total Output Power (W)		1000W	1000W/2000W	1000W/700W	1200W/700W	1200W/900W	1600W/1200W
Output Voltage	Vdc1	3.3/5/12/15/18/24/28/36/48	3.3/5/12/15/18/24/28/36/48	48	48	12	12
	Vdc2	N/A	3.3/5/12/15/18/24/28/36/48	12.5	12.5	3.3 or 5	3.3 or 5
Rated Output Current	Iout-1 (A)	200/83/67/56/42/36/28/21	200/83/67/56/42/36/28/21	20/13.5	24/13.5	98/73	131/98
	Iout-2 (A)	N/A	200/83/67/56/42/36/28A/21	4	4	6/4	6/4
Input Voltage Range (VAC)		90-264	90-264	90-264	90-264	90-264	90-264
Isolation Voltage	Pri-Sec	4242VDC	4242VDC	3000Vrms	3000Vrms	3000Vrms	3000Vrms
	Pri-Chassis	2121VDC	2121VDC	1500Vrms	1500Vrms	1500Vrms	1500Vrms
	Sec-Chassis	500VDC	500VDC	N/A	N/A	N/A	N/A
PFC		Yes	Yes	Yes	Yes	Yes	Yes
Current Share		Yes - active	Yes - active	Active	Active	Active	Active
Efficiency		70-80%	70-80%	90%	89%	92%	92%
Features	HotPlug	No	No	Yes	Yes	Yes	Yes
	I ² C	No	No	Yes	Yes	Yes	Yes
	EMI Class	Class A	Class A	Class A	Class A	Class A	Class A
	Industry Spec.	N/A	N/A	SSI	SSI	N/A	N/A
	Airflow Direction	Front-Back	Front-Back	Back or Front	Back or Front	Back or Front	Back-Front
	Input Connector	TB	TB	IEC 320 C15	IEC 320 C15	IEC 320 C15	IEC 320 C20
	Output Connector	TB	TB	Berg PowerBlade #51415-001	Berg PowerBlade #51415-001	FCI PowerBlade #51732-021	FCI PowerBlade #51732-021
Dimensions (WxLxH)	Inches	5x5x12	5x8x12	2.74x12.8x4.86	2.74x12.8x4.86	4.75x12x1.6	4.75x12x1.6
	mm	127x127x304.8	127x203.2x304.8	69.5x338.9x123.5	69.5x338.9x123.5	120.6x305x40.7	120.6x305x40.7
Datasheet Name		TX1000	TXD2000	SSI-W-102-D48	SSI-W-122-D48	D1U-W-1200-12	D1U-W-1600-12

Standard AC/DC

For full datasheets go to: www.cd4power.com

600 Watt AC/48VDC Front-End Module for DPAs

The PF600-1 is a high power density 48V AC/DC converter with active power factor correction in a single compact module, saving space and simplifying the design at the front end of distributed power architectures.

With a fully safety-isolated 48V output and on-board active power factor correction, the PF600-1 achieves very high power density – 84W/in³ (5.4W/cm³) – and requires very few additional components to implement a full front-end solution for 48V distributed power architectures (DPAs).

Operating across an input voltage range of 85-264VAC, the PF600-1 is suitable for deployment in applications required to operate on a global basis as it can deliver a full 600W of output power with input voltages as low as 90VAC.

On-board features that minimize the need for external circuitry include a standby output that can be used to power auxiliary circuits that are required to remain active when the PF600-1 output is inhibited. Protection against overvoltage, overcurrent and overtemperature conditions is standard. A 'DC output OK' signal can also be used to maintain downstream intermediate bus converters in an inhibited state until the output voltage is within specification.

- **Small Package Size** 2.55 x 5.0 x 0.56 inches (64.8 x 127.0 x 14.2mm)
- **Wide Input Range** 85-264VAC
- **Safety Isolated 48VDC Output**
- **Active Power Factor Correction to EN61000-3-2**
- **Auxiliary (Standby) output**
- **DC OK Signal**



Datasheet: PF600 Series



Modular Power Supplies

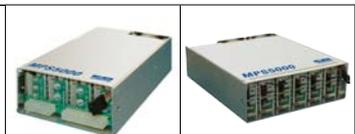
the 5000 and 7000 Series MPS Family is a flexible configurable solution for power requirements up to 700W. Five modules/outputs are available to configure as required including options for the front end, air flow, and connector (see datasheet at www.cd4power.com for details).

Features include:

- **Active current share on all outputs with ratings of 70 Watts or greater**
- **Remote voltage sense**
- **Overload protection on all outputs**
- **Power factor correction**
- **Forced air cooling**



Modular Power Supply Product Specifications



		5000 Series	7000 Series
Output Power Max. (W)		500	700
Input Voltage Range (VAC)		90-264	
Isolation Voltage	Input/Output	>1MΩ	
	Output/Output	>1MΩ	
Output Slots		4	6
Efficiency		65-80% depending on configuration	
Features	Current Share	Active (up to 6 modules can current share)	
	Power Factor Correction	0.99 Typical	
	Remote Sense	Up to 0.5V total drop	
	V _{OUT} Adjust	±10% minimum on all outputs	
	Auxiliary Voltage	5VDC at 700mA maximum	
	Over Voltage Protection	125-135%	
	Over Current Protection	110-130% of rated output current	
System Inhibit/Enable		TTL compatible input	
Dimensions (WxLxH)	Inches	5 x 9 x 2.5	7.5 x 9 x 2.5
	mm	127 x 228.6 x 50.8	190.5 x 228.6 x 50.8
Datasheet Name		MPS Series	

Output Modules	A	G	F	L	P
Voltage (Vdc)	5	3.3	12	±15	±12
Current (A)	35	35	12.5	5/5	5/5

For full datasheets go to: www.cd4power.com

Front-End Module & Modular

200W Compact PCI™

AC/DC The cPCI200A-1 is a high-reliability, 200 Watt power supply for 3U Compact PCI® systems. Developed to support hot-swap, redundant operation, the cPCI200A-1 is designed for compliance with PICMG™ 2.11 R1.0 Power Interface Specification with 47-pin I/O connector. Current sharing and internal ORing diodes are included to support high-availability (HA) enterprise applications.

Datasheet: [cPCI200-1A](#)



DC/DC A family of high reliability, 200W Watt power supplies for 3U CompactPCI™ systems. These hot-swap, N+1 redundant supplies are just 4HP (1 card slot) wide making them the narrowest in the industry. Standard features include 47-pin I/O connector, active current sharing and no load operation. Models are also available with an IPMI option.

Datasheet: [cPCI200-DC](#)



325W Compact PCI™

The cPCI325DC provides 325 Watts with IPMI functionality in a 3Ux8HP hot-swap CompactPCI™ power supply. Synchronous rectification, multiphase conversion, and output isolation FETs provide a high-efficiency, high-

density solution that requires minimum airflow. IPMI functionality enables active management through the SM Bus within high-availability (HA) CompactPCI™ platforms.

Datasheet: [cPCI325D-1](#)



4HP Ultra Slim
cPCI200 AC/DC & DC/DC occupy just 1 card slot making them the narrowest in the industry.

cPCI™ Specifications

	CPCI200A-1	CPCI200DC	CPCI325D-1	CPCI350DC	CPCI420DC	CPCI500DC
Total Output Power (W)	200	180/225	325	350	420	500
Output Voltage	Vout-1 (Vdc)	5	5	5	5	5
	Vout-2 (Vdc)	3.3	3.3	3.3	3.3	3.3
	Vout-3 (Vdc)	+12	+12	+12	+12	+12
	Vout-4 (Vdc)	-12	-12	-12	-12	-12
Rated Output Current	Iout-1 (A)	25	18/27	30	50	27/55
	Iout-2 (A)	30	27	40	40	27/55
	Iout-3 (A)	5	4	5	12	12
	Iout-4 (A)	1	4	1	2	1.75
Input Voltage Range	90-264VAC	36-72VDC	36-75VDC	36-75VDC	36-72VDC	36-72VDC
Isolation Voltage (Vdc)	Pri-Sec	4242	1500	1500	1500	1500
	Pri-Chassis	2121	1500	1500	1500	1500
	Sec-Chassis	500	500	500	500	500
Power Factor Correction	Yes	NA	NA	NA	NA	NA
Current Share	Yes - active droop	Yes - active V1-V3	Yes - active droop	Yes - active V1-V3	Yes - active V1-V3	Yes - active V1-V3
Efficiency (%)	80%	70%	80%	70%	70%	80%
Features	HotPlug	Yes	Yes	Yes	Yes	Yes
	EMI Class	Class A	ETS 300-386	ETS 300-386	NEBS GR1089	NEBS GR1089
	Industry Spec.	CompactPCI	CompactPCI	CompactPCI	CompactPCI	CompactPCI
	Airflow Direction	Bottom-top	Bottom-top	Bottom-top	Bottom-top	Bottom-top
	Input Connector	47-pin	47-pin	47-pin	47-pin	47-pin
	Output Connector	47-pin	47-pin	47-pin	47-pin	47-pin
IPMI	No	Optional	Yes	No	No	Optional
Form Factor	3Ux4HP	3Ux4HP	3Ux8HP	6Ux8HP	6Ux8HP	6Ux4HP
Datasheet Name	CPCI200A-1	CPCI200DC	CPCI325D-1	CPCI350DC	CPCI420DC	CPCI500DC

For full datasheets go to: www.cd4power.com

350W Compact PCI™

	<ul style="list-style-type: none"> • Quad Output • Compact Size - 6U x 8HP • 36-72VDC Input Range • Hot Swap Capable • Complies With PICMG 2.11 R1.0
	<ul style="list-style-type: none"> • Outputs Individually Protected Against Overloads
Datasheet: cPCI350DC	
<p>High-reliability, 350 Watt power supply for 6U Compact PCI™ systems developed with high-availability (HA) telecommunications applications in mind. Active current sharing and internal ORing diodes are included to support these and other applications requiring reliable, hot-swap performance and N+1 redundancy.</p>	

420W Compact PCI™

	<ul style="list-style-type: none"> • Quad Output • Compact Size - 6U x 8HP • P-47 I/O Connector • 36-72VDC Input Range • Complies With PICMG 2.11 R1.0
	<ul style="list-style-type: none"> • No Minimum Load
Datasheet: cPCI420DC	
<p>High-reliability, 420 watt power supply for 6U Compact PCI™ systems developed with high-availability (HA) telecommunications applications in mind. Active current sharing and internal ORing diodes are included to support these and other applications requiring reliable, hot-swap performance and N+1 redundant configuration.</p>	

500W Compact PCI™

<p>The cPCI500DC is a high-reliability, 500 Watt power supply for 6U Compact PCI™ systems. Available with IPMI functionality, this unit was developed with high-availability (HA) telecommunications applications in mind. Current sharing and internal ORing diodes are included to support these and other applications requiring reliable, hot-swap performance and N+1 redundant configuration.</p>	
<ul style="list-style-type: none"> • Quad Output • Compact Size - 6U x 4HP • IPMI Option • Hot Swap Capable • Complies With PICMG 2.11 R1.0 • Inputs Individually Protected Against Overloads 	
Datasheet: cPCI500 DC	

PCI™ Power Supplies

PCI™ Specifications		PCI500A-1	PCI500D-1
Total Output Power (W)		500	500
Output Voltage	V _{OUT-1} (Vdc)	5	5
	V _{OUT-2} (Vdc)	3.3	3.3
	V _{OUT-3} (Vdc)	12	12
	V _{OUT-4} (Vdc)	-12	-12
Rated Output Current	I _{OUT-1} (A)	74	74
	I _{OUT-2} (A)	60	60
	I _{OUT-3} (A)	10	10
	I _{OUT-4} (A)	2.5	2.5
Input Voltage Range		90-264VAC	36-72VDC
Isolation Voltage	Pri-Sec	4242VDC	1500VDC
	Pri-Chassis	2121VDC	1500VDC
	Sec-Chassis	500VDC	500VDC
Current Share		Yes - active V1-V3	Yes - active V1-V3
Efficiency (%)		65%	70%
Features	HotPlug	Yes	Yes
	EMI Class	Class B	NEBS GR1089
	Airflow Direction	Front-Back	Front-Back
	Input Connector	Elcon	Elcon
	Output Connector	Elcon	Elcon
Size (WxLxH)	Inches	5 x 12.27 x 3.46	5 x 12.27 x 3.46
	mm	127 x 312 x 88	127 x 312 x 88
Datasheet Name		PCI500-4A	PCI500-4D

500W AC/DC PCI™

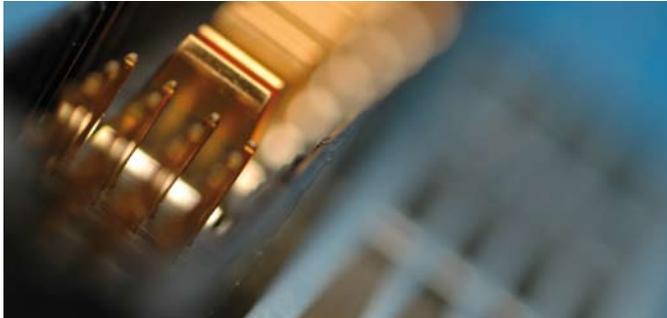
	<ul style="list-style-type: none"> • 90-264 VAC Input Range • Active Power Factor Correction • Outputs Individually Protected Against Overloads • Automatic Recovery • Hot Swap Capability
	<ul style="list-style-type: none"> • Safety Agency Approved
Datasheet: PCI500A-1	
<p>The PCI500A-1 is a modular, 500 watt, quad output power supply with active power factor correction. This hot-swap supply is designed specifically for redundant applications with active current sharing on the 5V and 3.3V outputs.</p>	

500W DC/DC PCI™

	<ul style="list-style-type: none"> • 36-72 VDC Input Range • Outputs Individually Protected Against Overloads • Automatic Recovery • Quad Output Configuration • Hot Swap Capability
	<ul style="list-style-type: none"> • No Minimum Load Required
Datasheet: PCI500D-1	
<p>The PCI500D-1 is a modular, 500 watt, quad output power supply with wide range 48VDC input. The PCI500 is also ideal for networking equipment, communications and computer equipment where fault-tolerance is a necessity. All outputs have remote sense and are individually protected against overloads and short circuits.</p>	

For full datasheets go to: www.cd4power.com

Custom Design Service



Custom power solutions are an integral part of our heritage and business strategy – in fact almost 90% of the power supplies we manufacture worldwide are modified-standard or fully custom products.

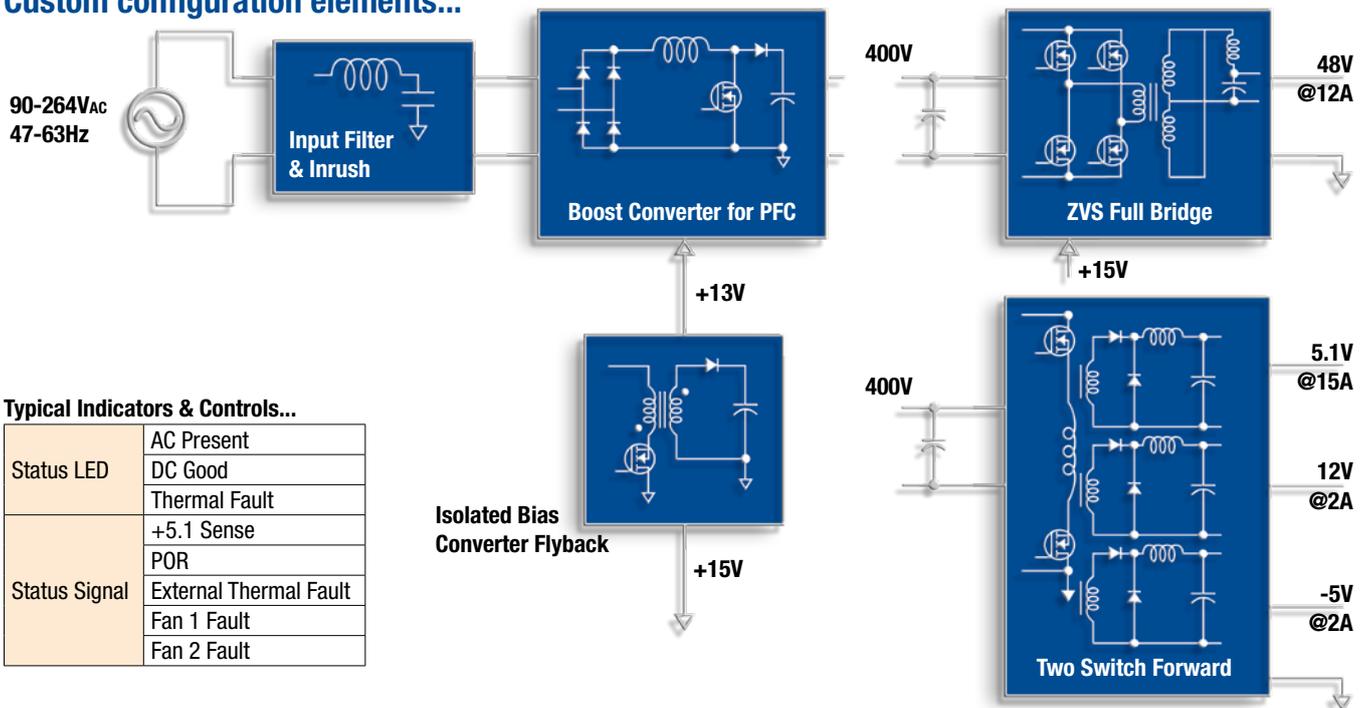
Every unit is designed to the exact requirements of the customer and are developed to fully comply with industry-specific standards (both local and global) as well as rigorous safety criteria. Our custom design service includes:

- **Thorough Qualification** processes determine the true needs of the application and ensures that your product is neither over-specified nor under-specified.
- **Cutting Edge Design** tools are utilized for printed circuit layout, circuit simulation and mechanical package design.
- **Rigorous Testing** procedures cover PCB-level and final product tests.
- **Quality Manufacturing** facilities in Europe, North America, Mexico and Asia feature state-of-the-art automated production systems including surface mount placement machines, vision inspection, and advanced, high-temperature reflow lines. All C&D product assembly and test processes, along with the design and development procedures, are certified to ISO 9001:2000 standards using documented process instructions to achieve world class quality objectives.

Custom Capabilities:

- 3 phase/single phase AC input, dual redundant AC or DC inputs
- 300W to 7.5kW+ power
- Low voltage to 12kV (10W) output
- 80% to 92%+ Efficiency
- Proven, well-established topologies
- Leading edge electro-mechanical-thermal packaging
- 10-30+ Watts/Inch³ power density
- N+1 redundancy, active and/or droop current sharing
- Hot insertion and extraction
- Blind docking connector
- Battery Management
- I²C for IPMI
- Airborne contaminant resistant
- Server, Datacom, Telco, Medical, Military applications
- Beyond Expectations on Performance and Cost of Ownership

Custom configuration elements...



Typical Indicators & Controls...

Status LED	AC Present
	DC Good
	Thermal Fault
Status Signal	+5.1 Sense
	POR
	External Thermal Fault
	Fan 1 Fault
	Fan 2 Fault

Military Power Supplies

Smaller, faster and lower cost

The modern military market requires major contractors, and all their suppliers, to constantly seek ways to pack more functionality into less space - and at less cost.

Thirty years' experience - and continual investment in best-practice design and manufacture - has enabled Celab products to establish a solid reputation for innovation in land, air and sea-based military power systems.

There are many Celab systems on major projects around the world, including:

- Typhoon (Eurofighter)
- F-16 Fighter
- T-50 Trainer
- Type-45 Destroyer
- Apache Helicopter
- Merlin Helicopter
- Bowman Communication System

We also undertake the production engineering and ongoing support of equipment originally developed by major contractors. We are even 'adopting' designs from third parties, utilizing our COTS and obsolescence management expertise to ensure continued lifetime support.

As well as being able to adapt previous Celab system designs, we are also able to 'ruggedize' pre-proven power modules from C&D or Vicor, allowing us to offer a semi-custom solution for the toughest military environment. These modules and sub-assemblies can dramatically reduce timescales, risk and cost. Similarly, our microcontroller expertise enables us to incorporate a versatile range of control, monitoring and communications intelligence within the power equipment. Similarly, our microcontroller expertise enables us to incorporate a versatile range of control, monitoring and communications intelligence within the power equipment.



Thirty years' experience in the development power systems for military applications has ensured that Celab products can be designed and manufactured to meet the requirements of even the most stringent requirements, including:

- Multi-output, high & low voltages
- DC & AC inputs
- Power factor correction, single & three phase
- Temperature range from -55°C to +100°C
- Sine, random and gunfire vibration
- Safety to IEC 60950
- Lightweight
- High density
- Fast custom design
- Modular build approach
- High conversion efficiency
- EMC to MIL STD 461
- MTBF to MIL STD 217
- Environmental to MIL STD 810
- Radiation hard

For more details go to:
www.cd4power.com/celab

Rugged Power Supplies - CATV & Telecoms



For more details go to:
www.cd4power.com/celab

System availability and quality of service are key business issues for all communications network providers, including CATV.

Utilizing 30 years of military experience, C&D's Celab range has pioneered the development of low cost, space saving electronic power supplies specifically designed for the CATV market.

- Military reliability at commercial prices
- Smaller, more flexible and more intelligent than ferro-resonant
- Integrated battery management and communications
- Dedicated fan controllers to reduce acoustic noise

SP1470	SP1490	SP1600/1601	SP1650/1660
Rack Mounting Telephony Supply	Special plug-in Telephony UPS	Power Supply	56VDC & 60VAC Telephony CATV UPS
<ul style="list-style-type: none"> ■ Integrated battery management system ■ Designed for street cabinet applications ■ Non latching thermal protection ■ 16A output with separate 4A battery charging facility, or 20A output ■ Output voltage adjustable from 54V to 58VDC ■ Automatic and remote controlled battery condition testing ■ Comprehensive range of management alarms 	<ul style="list-style-type: none"> ■ 4U high, including Telephony distribution module ■ Designed for street cabinet applications ■ Non latching thermal protection ■ 10A Telephony output, 15A CATV output ■ Separate 4A battery charging current ■ Automatic and remote controlled battery condition testing ■ Comprehensive management alarms 	<ul style="list-style-type: none"> ■ Designed for operation in Remote Telephony Access applications ■ Vertical rack-mounted enclosure with remote DC Distribution Module ■ Full output power available over full operational temperature range, forced air cooling not required ■ Integrated battery management system with remote monitor and control facility ■ Non-latching thermal protection allows battery support of the load following power supply thermal shutdown ■ Comprehensive alarm/status indicators 	<ul style="list-style-type: none"> ■ Occupies same volume as non battery backed CVT power system ■ Integral battery management with 10A charging facility ■ Operation configurable by microprocessor controller ■ Remote monitor and control facility by RS485 interface

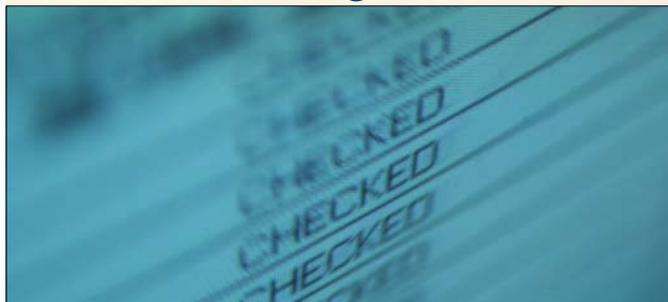
For full datasheets go to: www.cd4power.com

Military, CATV & Telecoms

C&D Technologies



Well Proven Designs



To allow you to design C&D products into your application with absolute confidence, we operate a comprehensive program of design verification.

This Design Verification Testing (DVT) process ensures that the specifications stated on our datasheets accurately represent the performance of our products. Tests are product specific but generally include:

Test	Standard
Electrical Characteristics	C&D Technologies internal
Solderability	CEIA ANSI/J-STD-002
Lead Temperature (Solder Heat)	C&D Technologies internal
Peak Reflow Temperature	CECC 00802
Isolation	C&D Technologies internal
Lead Finish Adhesion	Mil-Std 883E/2025.4
Temperature Cycling	Mil-Std 883E/1010.7
Mechanical Shock	Mil-Std 883E/2002.3
Vibration	Mil-Std 883E/2007.2
Bump	ETS 300 019-2-4
High Temperature Storage Life	EIA JESD 22-A103-A
Humidity Bias	EIA JESD 22-A101-B
Flammability	BS EN 60695-11-7
Lead Integrity Tension & Fatigue	Mil-Std 883E/2004
Solvent Resistance	Mil-Std 883E/2015.11
Coplanarity	EIA JESD22-B108

Environmental Responsibility



C&D Technologies is committed to achieving compliance with the European RoHS and WEEE directives which aim to reduce waste and its impact on the environment.

RoHS (Restriction of Hazardous Substances) Directive

RoHS is a European Parliament Directive requiring member states to legislate that electrical/electronic equipment sold after July 1st 2006 does not contain six potentially hazardous substances including lead (Pb).

WEEE (Waste Electrical & Electronic Equipment) Directive

This is another European directive which aims to:

- reduce the amount of electrical waste that is dumped in land fill sites every year within the European community
- develop a holistic view, on a global basis, that there is a real requirement to adopt a "cradle to grave" philosophy relating to Producer Responsibility.

These directives are among many legislative activities around the world which are driving the conversion to RoHS compliant, Pb-free components.

Our Policy

At C&D Technologies we have put in place comprehensive plans to migrate to RoHS compliant technologies with minimum disruption to customers and without compromise in critical areas such as product performance, reliability and cost.

Since the announcement of the RoHS Directive we have been working with our supplier base to eliminate non-compliant materials from the components in our products. Pb-free assembly lines are in place at all our manufacturing facilities to ensure that all available products are RoHS compliant by the July 06 deadline.

We constantly strive to improve our manufacturing processes and improve our level of environmental awareness. In addition to the move to Pb-free processes, recycling of waste materials, reduction of energy used, and the design of new products to accommodate end of life recycling are key areas where we are making positive progress towards a more environmentally friendly future.

For the latest information please visit our website.

For full datasheets go to: www.cd4power.com



DC/DC Power Supplies

C&D Technologies are proud to offer the largest range of DC/DC Converters available from a single manufacturer. Our ever increasing product portfolio includes all the options you'll ever need, including:



- **Isolated DC/DC Converters**
Single, dual, triple and quad output from 0.25 to 340 Watts.
- **Point-of-Load Converters**
From 0.75 to 5V outputs (including user-selectable versions) at current levels from 0.5 to 50A.
- **Processor & Memory Support**
Support for 64 & 32-bit processors and DDR1 & DDR2 memory.
- **Bus Converters**
Designed to take advantage of the high-efficiency and cost savings of intermediate bus architectures.
- **Digital Power**
Digital IBA - a multi-source open architecture power solution that utilizes an industry-standard 1°C interface to allow you to configure your power system (up to 32 PoLs) in less than 1 hour.
- **Factorized Power**
V•I Chips delivering up to 300W available in 'in-board' BGA configuration or as 'on-board' J-lead SMDs.

Magnetics

Two essential elements of the vast majority of power electronics applications are filtering and isolation. Whether you need to reduce noise or protect vital components, C&D can offer a wide range of products to suit your requirements.



- **Inductors & Transformers**
Over 400 highly advanced and optimized inductor and transformer solutions with the emphasis on miniaturization, reliability and ease of handling. These power oriented designs are available in a variety of styles including:
 - bobbin
 - radial
 - axial
 - surface mount
 - through-hole
 - Tape and reel packaging is available for surface mount devices making them ideal for pick and place assembly lines
- **Filters**
Differential common-mode
- **Databus Isolators**
Dual and Quad

Digital Panel Meters

Over 25 years of designing and manufacturing digital panel meters has not dulled our spirit of innovation. Today we are focusing on specific applications of 2-wire meters, process monitors and AC or DC ammeters that are the easiest-to-use, most affordable meters available.



- **General Purpose Voltmeters**
Versatile, 12-pin, dual-in-line package offering component like "plug-in" convenience for pc-board mounting as well as a built-in bezel for easy panel mounting.
- **2-Wire Meters**
Power your measuring instrument with the signal you're measuring! Measure the voltage at a standard USA-style wall outlet simply by "plugging in" an AC line monitor. Monitor the 400MHz frequency of an aircraft power generator without worrying about "proper" grounding.
- **Process Monitors**
4/20mA and 0-10V process control monitors
- **AC Ammeters**
Directly measure AC currents from 0-2A to 0-100A
- **DC Ammeters**
Include built-in shunts, reverse-polarity protection, and connections for all supply and load wiring

Data Acquisition

Our leadership status in high-performance data acquisition components is unchallenged. Our outstanding electrical performance, small packaging, low-power consumption and ease-of-use will genuinely impress you.



- **Electronic Imaging**
Resolution from 8 to 18-bits and sampling rates 20MSPS. Low cost commercial and military high-reliability versions
- **A/D Converters**
- **Sampling A/D Converters**
Ideal for high-end applications such as medical or life-science imaging, analytical instrumentation and military pulse and spread-spectrum applications
- **Digital-to-Analog Converters**
Settling times to 20 nanoseconds, update rates to 100MHz
- **Sample/Hold Amplifiers**
Accuracies from 0.01% to 0.0008% (12 to 16 bit equivalent resolution)
- **Single-Package Data Acquisition**
Multi-channel with differential or single-ended options
- **Multiplexers**

For full datasheets go to: www.cd4power.com

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