PRODUCT DATASHEET

Cyberex® Power Distribution Unit (PDU)

Power distribution system

Data centers are the essential ingredients that enable individual businesses to have an electronic presence on the Internet. Reliable uninterrupted power is critical to the mission of any organization's data center.

ABB embraces the challenge to develop solutions that meet the individual needs of the modern data center while maintaining our heritage of offering the highest reliability on the market today.

The Cyberex® PDU offers the most reliable and flexible power distribution product on the market today with almost unlimited configurations of panelboards and sub-feed breakers to meet every load requirement. Three cabinet designs support ratings up to 800kVA.

Our advanced Cyberex® PowerView circuit management solutions enable end users the ability to monitor and manage any combination of individual branch circuits or sub-feed circuits from a single hardware platform.

With several different standard sidecar options, the Cyberex® PDU offers the benefit of flexibility to system designers, installers, and owners alike.

Cyberex® Power Distribution Unit (PDU)
Key features

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01 350 – 800kVA

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02 50 – 225kVA
and most 300kVA

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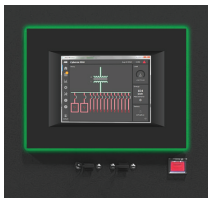
01

—
02



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6.5" color touchscreen LCD with integrated unit status LED ring-light

Designed for performance and flexibility

- Multiple panelboard and breaker configurations offer the highest level of configurability
- Cyberex® PowerView system monitoring provides ultimate flexibility for collecting and managing power data with revenue grade accuracy
- Advanced branch circuit and sub-feed circuit management (optional) provide enhanced power data collection for branch circuits and sub-feed circuits
- Remote monitoring interfaces to building management system using Modbus, and web server
- Industrial use, long life, 6.5" color touchscreen LCD with integrated unit status LED ring-light
- Efficient isolation, copper wound transformers increases performance and significant reduction of EMI and RFI noise
- Spacious cable management and landing area simplifies frequent wiring changes and ease of installation
- Easy maintenance access ensures safe and trouble-free repair in minimum time
- Compact footprint maximizes valuable floor space
- ETL listed to both UL 60950-1 and UL 891
- Suitable for Installation inside or outside IT-designated spaces
- Optional seismic-rated floor stands available

PDU specifications

Electrical	
kVA	50 – 800kVA
Input	3-phase, 3-wire + ground
Input voltage	Up to 600V – 60Hz*
Output	3-phase, 4-wire + ground
Output voltage	208/120 VAC*
Transformer type	Copper, delta-wye, electrostatic shielding
Transformer ratings	K-13 (standard) K-4, K-9, or K-20 (optional)
Transformer efficiency	DOE 2016 compliant
Transformer temperature rise	150°C (standard) 115°C or 80°C (optional)
Transformer inrush	8X (standard) 11X or 5X (optional)
Transformer compensation taps	(4) 2-1/2% FCBN, (2) 2-1/2% FCAN
Transformer insulation	220°C (class R)
Neutral rating	200%
Basic metering and monitoring (BMM)	
Cyberex® PowerView Monitoring System	
Metering (RMS): - Input voltage (L-L) - Output voltage (L-L) - Output voltage (L-N) - Output current - Neutral current - Ground current - kVA - kW - kWh - Hz - Power factor (each phase) - % load per phase - Peak demand	
Accuracy	<=1.0%
Operating conditions	
Temperature (operating)	0 to 40°C
Temperature (storage)	-40 to 60°C
Audible noise	NEMA ST20

Dimensions	
PDU 50 – 225kVA and most 300kVA	Height: 77.4" (450.6 cm) Width: 34" (86.4 cm) Depth: 34" (86.4 cm)
PDU 350 – 800kVA	Height: 78" (198.1 cm) Width: 52" (132.1 cm) Depth: 38" (96.5 cm)
Sidecars available in 3 widths	10" (25.4 cm) side-facing 24" (61.0 cm) front-facing and/or rear-facing 34" (86.4 cm) front-facing and/or rear-facing
Distribution options (50 – 300kVA)	
Side car is needed for more than 2 panelboards	
I-line panel available	
225A or 400A panelboards available	
Sub-feed breakers available: 100/150/225/400A	
ABB or Square D	
Distribution options (350 – 800kVA)	
Sub-feed breakers available: 100/150/225/400/600A	
ABB or Square D	
General	
Natural convection cooled	
Hinged dead-front panel	
6.5" color touchscreen LCD with integrated unit status LED ring-light	
Single point ground	
Top and bottom entry/exit	
Enhanced options	
Cyberex® PowerView branch and/or sub-feed circuit monitoring with revenue grade accuracy	
Remote emergency power off (EPO)	
Surge protective device (SPD) – primary and secondary sides	
Floor stands	
Input junction box	
Isolated ground	
Standards	
Safety	ETL listed to UL 60950-1 and UL 891 cETL listed to CAN/CSA-22.2 No. 60950-1
EMC	FCC compliant (part 15)
Enclosure	NEMA 1

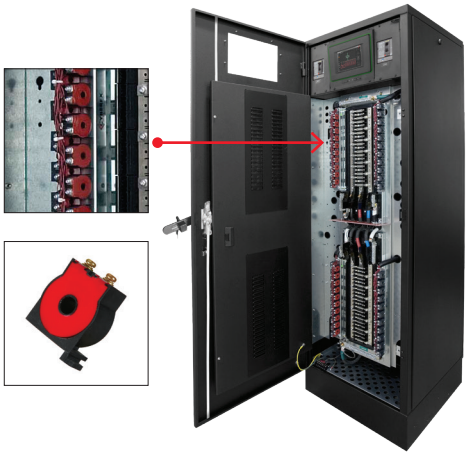
***Other configurations available as non-standard**

Cyberex® PowerView monitoring system

Designed for performance, flexibility and usability

Take your distribution equipment to the next level by managing your critical loads at the individual branch circuit level. Rely on Cyberex® PowerView circuit management solutions to monitor and alert your staff of potential problems before they occur. Understanding load profiles is the key to proactively managing your data center distribution system and avoiding unnecessary downtime.

- Branch circuit management – Up to six (6) 42 circuit panelboards (252 circuits)
- Sub-feed circuit management – Up to (65), 3-wire or (60), 4-wire sub-feed breakers
- Main-feed circuit management – Up to four (4) sources in multi-fed RPPs can be monitored: phases, neutral and ground



PowerView chassis

Key features

- Revenue grade metering accuracy (<=1% error)
- Complies with ANSI C12.1 standards
- Ability to customize main breaker, sub-feed breaker, panelboard, or branch circuit breaker names and/or numbers
- Modular chassis design allows for simple additions for future expansions

Advanced communication

- Communicate valuable system data to building management systems (BMS) or local display
- Protocols available: Modbus RTU, Modbus TCP, and web server

Monitor system parameters including:

- Voltage-current (RMS)
- MIN current
- MAX current
- kW (power)
- kVA-load
- Power factor (PF)
- Total harmonic distribution (THD)

Configure system warnings and alarms including:

- Over/under current
- Over/under voltage
- Over kW
- Over THD
- Low PF
- Phase loss

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Additional information

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