



West Virginia Purchasing Division

2019 Washington Street, East
Charleston, WV 25305
Telephone: 304-558-2306
General Fax: 304-558-6026
Bid Fax: 304-558-3970

The following documentation is an electronically-submitted vendor response to an advertised solicitation from the *West Virginia Purchasing Bulletin* within the Vendor Self-Service portal at ***wvOASIS.gov***. As part of the State of West Virginia's procurement process, and to maintain the transparency of the bid-opening process, this documentation submitted online is publicly posted by the West Virginia Purchasing Division at ***WVPurchasing.gov*** with any other vendor responses to this solicitation submitted to the Purchasing Division in hard copy format.

Header

General Information

Procurement Folder: 37816

SO Doc Code: CRFQ

Procurement Type: Central Contract - Fixed Amt

SO Dept: 0210

Vendor ID:

SO Doc ID: ISC1500000002

Legal Name: WV ELECTRIC SUPPLY CO

Published Date: 9/24/14

Alias/DBA:

Close Date: 10/21/14

Total Bid: \$44,400.00

Close Time: 13:30

Response Date:

Status: Closed

Response Time:

Solicitation Description:

Total of Header Attachments: 0

Total of All Attachments: 0



Purchasing Division
 2019 Washinton Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

**State Of West Virginia
 Solicitation Response**

Proc Folder : 37816

Solicitation Description : Power Conditioning / Distribution Unit for WVOT Data Center

Proc Type : Central Contract - Fixed Amt

Date issued	Solicitation Closes	Solicitation No	Version
	2014-10-21 13:30:00	SR 0210 ESR10211400000000647	1

VENDOR

000000200158
 WV ELECTRIC SUPPLY CO

FOR INFORMATION CONTACT THE BUYER

Guy Nisbet
 (304) 558-2596
 guy.l.nisbet@wv.gov

Signature X **FEIN #** **DATE**

All offers subject to all terms and conditions contained in this solicitation

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	150 kVA Liebert Precision Power Center Model PPA150C331B9310	2.00000	EA	\$22,200.00	

Comm Code	Manufacturer	Specification	Model #
39121017	LIEBERT OR EQUAL		

Extended Description :	Model PPA150C331B9310 Power Conditioning and Distribution Cabinets, or equal
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Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

State of West Virginia
 Request for Quotation
 13 - Equipment

Proc Folder: 37816

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Date Issued	Solicitation Closes	Solicitation No	Version
2014-09-23	2014-10-21 13:30:00	CRFQ 0210 ISC1500000002	1

BID RECEIVING LOCATION

BID CLERK
 DEPARTMENT OF ADMINISTRATION
 PURCHASING DIVISION
 2019 WASHINGTON ST E
 CHARLESTON WV 25305
 US

VENDOR

Vendor Name, Address and Telephone Number:

WEST VIRGINIA ELECTRIC SUPPLY COMPANY
 250 12TH ST W
 HUNTINGTON WV 25704-1638

FOR INFORMATION CONTACT THE BUYER

Guy Nisbet
 (304) 558-2596
 guy.l.nisbet@wv.gov

Signature X

FEIN #

DATE

All offers subject to all terms and conditions contained in this solicitation

INVOICE TO		SHIP TO	
DEPARTMENT OF ADMINISTRATION OFFICE OF TECHNOLOGY 1900 KANAWHA BLVD E, BLDG 5 10TH FLOOR CHARLESTON WV25305 US		IS&C - DATA CENTER MANAGER DEPARTMENT OF ADMINISTRATION BLDG 6 RM B110 1900 KANAWHA BLVD E CHARLESTON WV 25305-0135 US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	150 kVA Liebert Precision Power Center Model PPA150C331B9310	2.00000	EA		

Comm Code	Manufacturer	Specification	Model #
39121017	LIEBERT OR EQUAL		

Extended Description :
Model PPA150C331B9310 Power Conditioning and Distribution Cabinets, or equal

ISC150000002	Document Phase Final	Document Description Power Conditioning / Distribution Unit for WVOT Data Center	Page 3 of 3
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ADDITIONAL TERMS AND CONDITIONS

See attached document(s) for additional Terms and Conditions

Proposal# 10202014DG



PREPARED FOR:

STATE OF WEST VIRGINIA
Office of Technology

PROJECT:

EQUIPMENT:

WaveStar™ PowerPak Power Distribution Units (PDU)

October 20, 2014

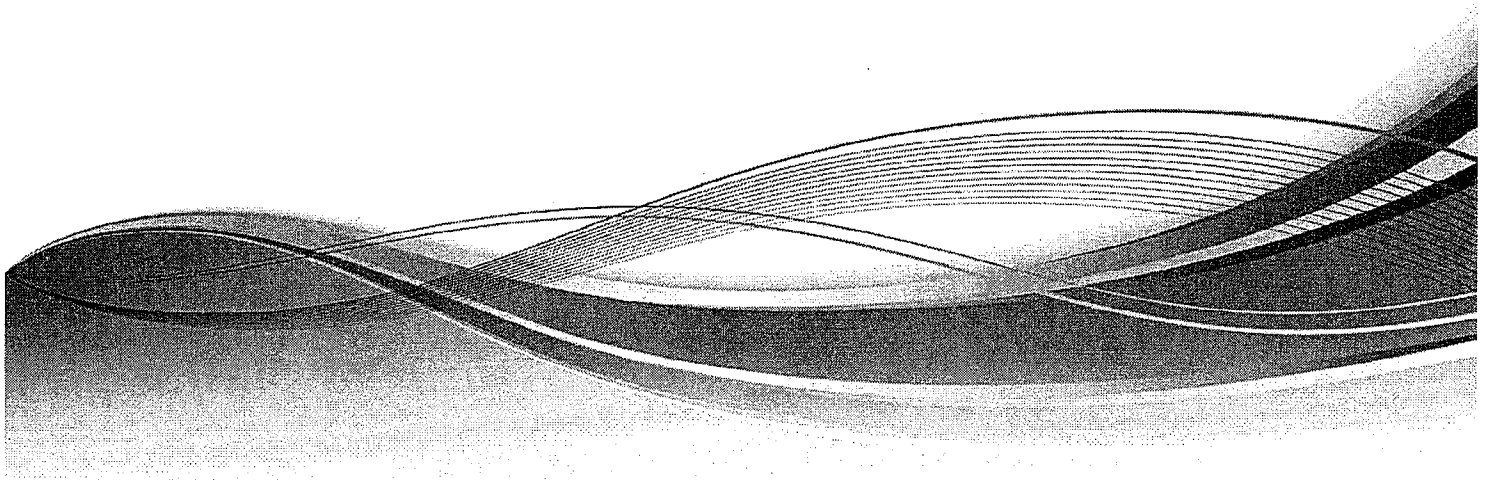


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3 WaveStar™ PowerPak Power Distribution Units (PDU)

3.1 WaveStar™ PowerPak Power Distribution Unit (PDU) Standard Features

Enclosure:

- Free-standing NEMA 1 enclosure constructed of heavy gauge sheet metal anchored to a 10 gauge welded steel frame
- Solid removable top conduit plate
- Enclosure base with heavy-duty swivel casters for ease of maneuver, and four (4) stop-feet for final installation
- Removable exterior panels for access and system servicing
- Convection cooling through ventilation slots in the rear and side access panels requiring no screens or filters

Transformer:

- NEMA TP-1 Compliant
- All Copper Transformer Construction, Dual Shielded Design
- 200% Neutral
- 240°C Insulation
- Single Point Grounding
- Qty (6) Transformer Compensation Taps (4FCBN, 2FCAN)
- Thermal Sensors for core temperatures of 180°C (*high-temp alarm*) and 200°C (*over-temp shutdown*)

Monitoring & Control:

- PDI WaveStar™ PDU Monitoring Package includes: 40x16 character LCD panel, true RMS metering, with remote monitoring capability via a RS-422/485 port with ModBus RTU Protocol
- Customer interface (contractor) board internal to the PDU
- Local Emergency Power Off (EPO) pushbutton (Guarded and Illuminated)

Quality:

- Listed to UL 60950
- CSA certified
- Standard Factory Testing
- 12/18 Month Standard Warranty

3.2 Proposed Bill-Of-Materials – 150kVA Power Distribution Units

Item #	Description		
1	<p>150 kVA PowerPak Power Distribution Unit (PDU Model №: PP-14-WS-150-G-641-0-4D)</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p><u>Input Characteristics</u></p> <ul style="list-style-type: none"> • 480 Volts AC • 60 Hz • 3-Phase, 3-Wire plus Ground </td> <td style="width: 50%; vertical-align: top;"> <p><u>Output Characteristics</u></p> <ul style="list-style-type: none"> • 208/120 Volts AC • 60 Hz • 3 Phase, 4 Wire plus Ground </td> </tr> </table> <p><u>Packaging Includes:</u></p> <ul style="list-style-type: none"> ▪ Enclosure: <ul style="list-style-type: none"> ➤ Overall Cabinet Dimensions: 56.75"W x 32.75"D x 74.75"H ➤ Standard Exterior Finish: IBM Pearl White Exterior ➤ Minimum Access Requirements: Front and 1-Side ▪ Input Section: <ul style="list-style-type: none"> ➤ Front-accessible Input Bus Bar landings for 1-hole/2-hole compression lug connections (<i>lugs not provided by PDI</i>) ➤ Qty (1) 250 Amp, Square-D, Main Input Circuit Breaker with Shunt Trip, 250AF/250AT, 65kAIC @ 480VAC, 80% rated for continuous load. ▪ Transformer: <ul style="list-style-type: none"> ➤ 150 kVA ➤ k-20 ➤ 150°C Rise ➤ 8-10x Inrush Maximum ➤ 3.8 – 5.3% Impedance per spec ▪ Output Distribution: <ul style="list-style-type: none"> ➤ Qty (1) 20" Wide Front & Side-facing Sidecars: <ul style="list-style-type: none"> ○ Qty (3) 225 Amp, Square-D, 240 volt 42-pole, branch circuit breaker distribution Panelboards, 22kAIC Bracing. Each Panelboard provided with 225AF/225AT Main Breaker ▪ Additional Monitoring & Controls: <ul style="list-style-type: none"> ➤ Branch Circuit Monitoring System (Current & Voltage) for (126) Panelboard Circuits. ➤ Standard Customer Interface (Contractor Board) with: <ul style="list-style-type: none"> ○ Qty (1) Summary Alarm Contact (<i>Programmable as either "N.O." or "N.C"</i>) ○ Qty (4) Sets of Building Input Alarm Contacts (<i>Programmable as either "N.O." or "N.C"</i>) ▪ Accessories Per PDU: <ul style="list-style-type: none"> ➤ Branch Circuit Monitoring ➤ 36" Floorstand 	<p><u>Input Characteristics</u></p> <ul style="list-style-type: none"> • 480 Volts AC • 60 Hz • 3-Phase, 3-Wire plus Ground 	<p><u>Output Characteristics</u></p> <ul style="list-style-type: none"> • 208/120 Volts AC • 60 Hz • 3 Phase, 4 Wire plus Ground
<p><u>Input Characteristics</u></p> <ul style="list-style-type: none"> • 480 Volts AC • 60 Hz • 3-Phase, 3-Wire plus Ground 	<p><u>Output Characteristics</u></p> <ul style="list-style-type: none"> • 208/120 Volts AC • 60 Hz • 3 Phase, 4 Wire plus Ground 		

4 Quotation Statement

4.1 Base Bid:

- Qty (2) 150kVA Single-Input Power Distribution Units per Item #1 BOM:.....\$ 44,400.00
- Standard Site Start-up, Qty-4 PDUs (M-F, 8am – 5pm w/ 2 wks notice, consecutive for all units):.. Included
- 1st Year Standard Warranty – PDU's:..... Included
- 1-Days PDU Customer Training on-site (M-F, 8am – 5pm w/ 2 wks notice):.....\$ Included

TOTAL Base Bid, US Funds (Freight & Taxes not included):.....\$ 44,400.00

4.2 Optional Products & Services:

- Integrated Site Testing/Commissioning, per Day (M-F, 8am – 5pm w/ 2-weeks' notice):.....\$ 1,778.00
- Integrated Site Testing/Commissioning, per Day (Overtime Hours w/ 2-weeks' notice):.....\$ 2,489.00
- Customer Training, per Day onsite (M-F, 8am – 5pm w/ 2-weeks' notice):.....\$ 2,779.00

4.3 Fabrication Schedule

- **Submittal Preparation:** 1-2 weeks after receipt of order.
- **Fabrication Lead-time:** First shipment, Six (6) – Eight (8) weeks after receipt of written release for manufacture and return of approved submittals.

4.4 Pricing

- Unless otherwise indicated, pricing does not include Freight, Inside Delivery, Installation, Sales Tax, or customs taxes and associated fees.
- All prices shown are valid for ninety (90) days from the date of quotation and are subject to PDI's standard terms and conditions of sale. If this proposal is older than 90 days, please contact the factory for updated pricing.
- Accepted purchase orders with a ship date longer than 6 months from the acceptance date of the purchase order may be subject to re-pricing based on the consumer price index. Commodity price increases on steel, copper, and lead may be added to the project cost if the delivery is longer than 6 months.
- All orders will be subject to all applicable sales tax unless a current tax exemption certificate is on file covering that state shown as the ship to address or service location on your purchase order
- **Terms of Sale:** Net 30 Days with prior approved credit / 100% Prepayment (For International Orders)
- PDI Terms and Conditions of Sale are a fundamental part of this proposal and will govern the sale of the products. A Copy of the Terms and Conditions is provided in the Appendix section of this proposal
- To place an order based on this proposal, please include the following with your order:
 - PDI's proposal number (top of first page of this document)
 - Ship to address with site contact name and phone number
 - Tax exemption status
 - Special delivery requirements (preferred carrier, lift-gate, etc.) may incur additional charges and will be passed on to the customer at time of invoice.
 - Remit To: **PDI-Onyx**
4200 Oakleys Court
Richmond, VA 23223
Attn: Order Entry
Email: productorders@pdicorp.com

4.5 PDI Order Cancellation Policy

Order Stage	Cancellation Charge as a Percentage of Order Total
Stage 1: Order Entry	0%
Stage 2: Submittals Completed	10%
Stage 3: Order Released for Fabrication / Materials Ordered	40%-60% <i>Dependent upon the materials that may be returned to PDI's Vendor(s)</i>
Stage 4: Production / Fabrication Started	90%
Stage 5: Fabrication Completed / Products Shipped to Customer	100%

If you have any questions or need any additional information please call us at 1-800-225-4838.

Best Regards,

PDI Sales Team

Note: All PDI products are designed and manufactured in the United States of America.



5 Appendix A: PDI Optional PDU Spare Parts

WaveStar™ Single-Input PowerPak PDU Spare Parts Kit Options				
Qty	Kit Contents / Description	Price Per Kit (if purchased with units)		
		Option "A" Kit	Option "B" Kit	Option "C" Kit
5	Assorted Fuses	US \$ 1,360.00	US \$ 2,665.00	US \$ 4,169.00
1	Control Power Transformer			
5	South-co Panel Retainer			
5	South-co Panel Clip			
5	South-co Panel Fastener			
5	South-co Panel Washer			
1	WaveStar® Data Acquisition Card			
1	Audible Alarm Horn			
5	Emergency Power Off Indicating Light			
1	Emergency Power Off Switch			
1	Emergency Power Off Switch Guard			
1	WaveStar® PDU Monitor			
1	WaveStar® Contractor Board			
1	Complete Set of Ribbon Cables (6)			
1	BCMS Board			
1	Data Module Transformer			
1	Split Core Hot Fix Board with 6 Split-core CT's			

PowerPak BCMS-equipped RPP Spare Parts Kit Options			
Qty	Kit Contents / Description	Price Per Kit (if purchased with units)	
		Option "A" Kit (BCMS, No Display)	Option "B" Kit (BCMS with WaveStar™ Display)
1	BCMS Board	US \$ 1,500.00	US \$ 2,779.00
1	Data Module Transformer		
1	Split Core Hot Fix Board with 6 CT's		
1	WaveStar® Display Board		
1	WaveStar® Display Faceplate		

6 Appendix B: Sample Warranty Agreement

Serial #: _____ Model #: _____
Equipment Location Address: _____

() _____
Contact Name: _____

PDI warrants that its products will perform as specified in PDI publications, providing such products are properly installed, cared for, and properly operated under the specified environmental conditions.

Standard products manufactured by PDI are warranted to be free from defects in workmanship and material for a period of _____ months from initial startup or _____ months from date of shipment. Any products which are defective in workmanship or material will be repaired or replaced at the option of PDI. The obligation of PDI hereunder shall be limited solely to repair and replacement at its factory of products that fall within the foregoing limitations and shall be conditioned upon receipt by PDI of written notice within the warranty period of any alleged defects or deficiency. No products shall be returned to PDI without its prior consent.

Where it is impractical to return suspected faulty equipment to PDI for repair or replacement, PDI will provide on-site service upon request. Replacement parts and on-site labor necessary for fitting replacement parts and removal of faulty parts will be undertaken at no charge. Charges will, however, be made for travel to and from the installation site. Where an on-site warranty is in effect, the no-charge labor shall be between 8 a.m. and 6 p.m., Monday through Friday, excluding national holidays. If the customer requests service outside the above hours, the customer agrees to pay the incremental difference between PDI's overtime and normal labor rates.

All warranties hereunder are contingent upon the initial start-up being done by PDI trained or other authorized personnel and upon proper use in the application for which the product was intended and do not cover products which have been modified or repaired without PDI approval or which have been subjected to neglect, accident, improper installation, or application or on which the original identification marks have been removed or altered. These warranties will not apply if adjustment, repair or parts replacement is required because of accident, neglect, misuse, secondary transportation or other causes other than ordinary use.

PDI's liability under this warranty shall be in lieu of any warranty or condition implied by law as the quality or fitness for any particular use of the goods, and save as provided in this clause, PDI shall not be under any liability, whether in contract, tort or otherwise for consequential damages resulting from defects in PDI products.

This warranty shall apply to all products manufactured by PDI unless this agreement is modified by addendum.

This agreement shall be effective from _____ to _____

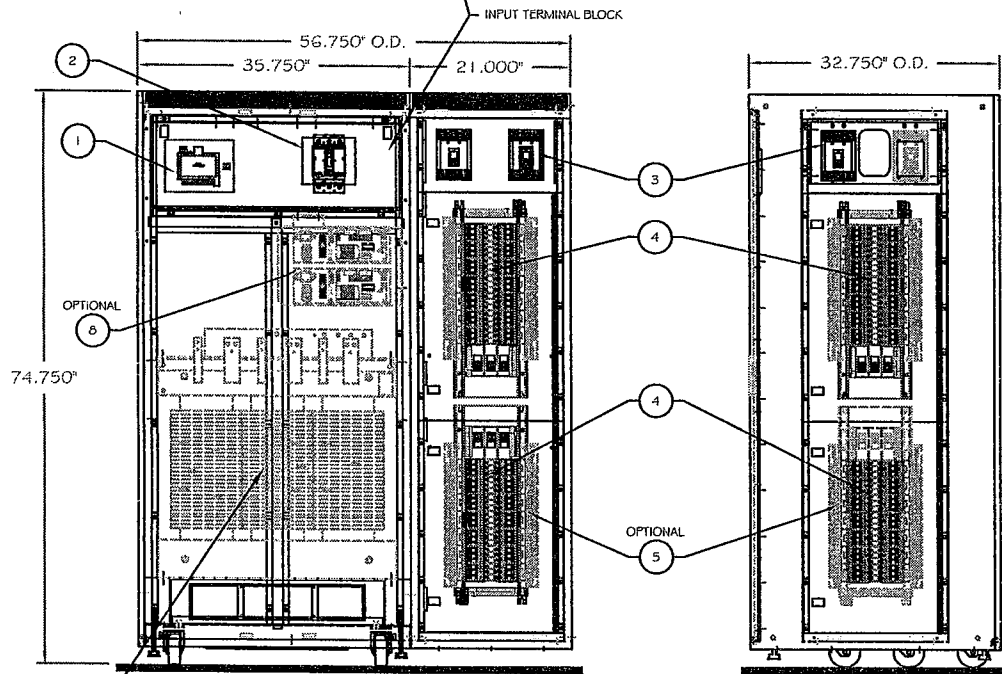
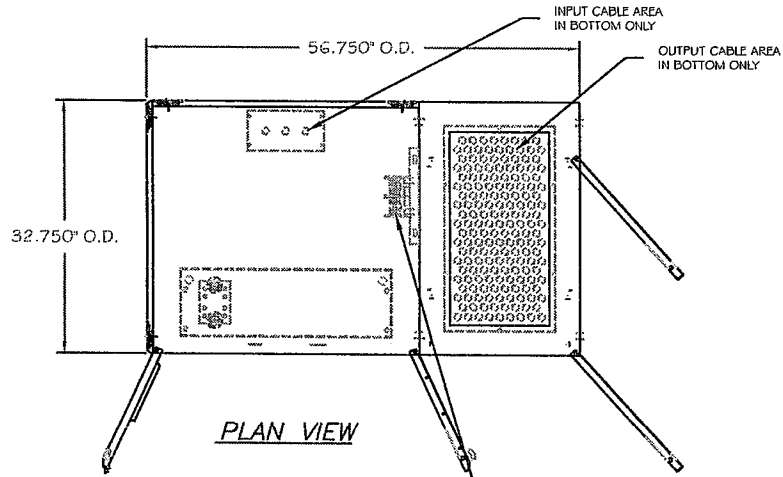
7 Appendix C: PDI Terms and Conditions of Sale

1. **TERMS:** The sale by Power Distribution, Inc. ("SELLER") of any products or services covered by this Invoice is expressly conditioned upon the terms and conditions contained or referred to herein. This Invoice constitutes an offer by SELLER to BUYER upon these terms and conditions and shall become a binding contract upon acceptance thereof either by acknowledgment by BUYER or the beginning of performance by SELLER. Any additional or different terms or conditions set forth in any prior communication or acknowledgment by BUYER or similar communication are objected to and will not be binding upon SELLER unless specifically assented to in writing by an authorized representative of SELLER.
2. **PRICE, TAXES:** In addition to the prices specified herein, BUYER shall pay the amount of any present or future tax applicable to the purchase, manufacture, deliver, use, handling or consumption of products or services. BUYER shall provide to SELLER any applicable tax exemption certificates.
3. **DELAYS, ALLOCATIONS:** SELLER shall not be liable for any failure or delay due, in whole or in part, to fires, accidents, acts of God, strikes or other labor difficulties, delay or failure of usual sources or transportation, or demands, orders, or interposition of any government or any subdivision thereof which make performance commercially impractical or any other cause beyond SELLER'S control. Under any such circumstances SELLER shall have such additional time with which to perform under this Invoice as may be reasonably necessary. SELLER SHALL NOT BE LIABLE IN ANY EVENT FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR FAILURE OR DELAY IN PERFORMANCE OR DELIVERY DUE TO ANY CAUSE WHATSOEVER.
4. **LIMITED WARRANTY:** SELLER warrants for a period of twelve (12) months from initial start-up or eighteen (18) months from date of shipment that all products sold hereunder shall be free from defects in material and workmanship and shall conform to the description and specifications on the face hereof. SELLER EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. This Limited Warranty is contingent upon the initial start-up being done by SELLER-trained or other authorized personnel and upon proper use in application for which the products were intended and does not cover products which have been modified or repaired without SELLER approval or which have been subjected to neglect, accident, improper installation or application or on which the original identification marks have been removed or altered. This Limited Warranty will not apply if adjustment, repair or parts replacement is required because of accident, neglect, misuse, secondary transportation or other causes other than ordinary use or if installation of the products is not in strict compliance with the applicable submittal drawings. Furthermore, SELLER'S obligation under this Limited Warranty is expressly conditioned upon receipt by SELLER of written notice within the warranty period of any alleged defects or deficiency. SELLER will be given a reasonable opportunity to inspect the goods prior to return. No product may be returned by BUYER until after receipt by BUYER of written shipping instructions. BUYER'S REMEDY AND SELLER'S LIABILITY SHALL BE LIMITED SOLELY TO REPLACEMENT AT ORIGINAL POINT OF DELIVERY OR REPAIR OF PRODUCTS NOT MEETING THE TERMS OF THIS LIMITED WARRANTY, AT SELLER'S OPTION. SELLER SHALL NOT BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, LOSSES OR EXPENSES WHETHER BASED ON CONTRACT, TORT, OR OTHER LEGAL THEORY, IN CONNECTION WITH THIS INVOICE.
5. **CREDITS, PAYMENT TERMS:** Initial terms of payment shall be net 30 days from date of this Invoice or as set forth on the face hereof. Remittances shall be as directed by SELLER. BUYER agrees that payment to a bank of depository designated by SELLER shall not constitute payment in full or a final settlement of BUYER'S account until accepted as such by SELLER notwithstanding any language to the contrary on BUYER'S check, draft or other order. A finance charge of 1.5% per month (annual percentage rate of 18%) will be applicable to all amounts under this Invoice from the due dates thereof. BUYER agrees to pay SELLER'S cost of collection, if any, on overdue Invoices, including reasonable attorneys' fees. If the financial responsibility of BUYER is unsatisfactory to SELLER'S Credit Department or if BUYER fails to make any payment in accordance with the terms of this Invoice, SELLER may at its sole option defer or decline to make any shipment hereunder except upon receipt of security satisfactory to SELLER or cash payment in advance of delivery, or SELLER may terminate this Invoice in which event all remaining unpaid amounts arising from this and any other Invoice will immediately become due and payable.
6. **TITLE, RISK OF LOSS:** Title to products produced and shipped hereunder and risk of loss shall remain with SELLER until delivered in accordance with Paragraph 9 herein. If products are held or stored by SELLER at the request of BUYER, title and the risk of loss shall transfer to BUYER upon SELLER'S receipt of payment of the Invoice in full. If, in accordance with Paragraph 5 hereof, BUYER'S credit at any time becomes unsatisfactory to SELLER and SELLER declines to make shipments, title to the products shall not transfer to BUYER until satisfactory security or cash payments are received by SELLER.
7. **INFRINGEMENT:** Products sold hereunder may be used and resold without further permission with respect to SELLER'S proprietary rights (patents, trademarks, copyrights, trade secrets), but no other license is granted by SELLER with respect to the products covered by this Invoice. SELLER agrees to indemnify, save harmless and defend BUYER against all claims of patent infringement under United States law because of SELLER'S manufacture, use or sale or BUYER'S use or sale of any product sold hereunder, in the form so sold, except any product which is manufactured or sold by SELLER to meet BUYER'S specifications or requirements and is not a part of SELLER'S standard line offered in the usual course of business. In the case of such excepted product, BUYER agrees to indemnify, save harmless and defend SELLER against all such claims of infringement. If any product sold hereunder shall include printed or graphic matter approved by BUYER, irrespective of the origin of the matter, BUYER agrees to indemnify, save harmless and defend SELLER with respect claims of infringement of propriety rights or of unfair competition because of such matter. If BUYER uses or sells abroad any product sold hereunder, BUYER agrees to indemnify, save harmless and defend SELLER against any charge of infringement of

foreign proprietary rights concerning the product. Any indemnification or defense required under this Paragraph shall be conditioned upon the following:

- (a) The party obligated to defend shall be notified promptly in writing by the other party of any notice of claims infringement; and
- (b) The party obligated to defend shall have the sole control of the defense of any action on such claim of infringement and negotiations of resettlement or compromise.

8. **ADVICE BY SELLER:** SELLER'S giving or failing to give any technical or other advice shall not impose any liability or SELLER.
9. **DELIVERY TERMS:** Delivery Terms, as stated on the front hereof, are defined as follows:
- (a) **F.O.B. DESTINATION:** SELLER will bear transportation charges to the SHIP TO location serviced by common carrier where BUYER or its designated agent takes custody of the products, if such point is within the United States, excluding Alaska and Hawaii.
 - (b) **F.O.B. ORIGIN:** If the SHIP TO location is located outside the United States or in Alaska or Hawaii, BUYER will bear all transportation charges from Seller's location to the SHIP TO location.
 - (c) **OTHER DELIVERY TERMS** are as stated on the face hereof and as further defined in SELLER'S price catalog. If SELLER permits BUYER to designate the route, method or agency (common carrier only) of transportation, BUYER will be invoiced for the transportation charges actually incurred by SELLER in excess of those charges that would have been incurred using SELLER'S standard delivery method. No transportation allowance will be made for pickup at any point. ALL DELIVERY TERMS ARE SUBJECT TO CHANGE WITHOUT NOTICE TO THOSE IN EFFECT AT THE TIME OF SHIPMENT.
10. **DEFERRAL OF SHIPMENT:** BUYER may defer the shipment of products for a term agreed to by both parties in writing if agreement is reached prior to scheduled shipment. Products held shall be invoiced immediately and shall carry a storage cost to be billed monthly. BUYER assumes all risks of product deterioration that might occur beyond 30 days from the original scheduled shipping date. Upon advance written notice to SELLER, BUYER may inspect any held products with 10 days of shipment. FAILURE TO INSPECT SHALL CONSTITUTE A WAIVER OF ANY RIGHT TO REJECT SHIPMENTS AT A LATER DATE ON THE BASIS OF PRODUCT DETERIORATION.
11. **CANCELLATION:** Upon SELLER's acceptance of a written cancellation notice from BUYER, SELLER will cancel this Invoice as instructed; however, SELLER shall have the right to continue the processing of the materials or articles to the point at which the products can be halted with the least inconvenience to SELLER under the circumstances. Cancellation charges shall be invoiced to BUYER, and BUYER shall pay all such charges within thirty (30) days after delivery of such invoice. Any late payment of such cancellation charges will be subject to the finance charges described in Paragraph 5 above.
12. **SECURITY INTEREST:** BUYER grants SELLER a security interest in the products sold hereunder to secure BUYER'S payment of the purchase price, and BUYER agrees that SELLER may take such action as SELLER deems advisable to perfect such interest, and BUYER will cooperate with SELLER in the taking of such actions. BUYER authorizes the filing by SELLER of all financing statements and other documents necessary to perfect SELLER's security interest in the products. If BUYER fails to make any payment within ten (10) days of the due date thereof, then SELLER may (a) either with or without legal process and using such force as may be lawfully necessary to enter into or upon the premises where the products may be, or are believed to be, take possession thereof, (b) cancel the Limited Warranty made herein, and/or (c) pursue any alternative or additional remedies provided by law.
13. **DRAWINGS AND INSTALLATION DETAILS:** SELLER shall, upon written request from BUYER, furnish submittal drawings of the product which shall include installation and physical data.
14. **MODEL AND DESIGN CHANGES; PERMISSIBLE VARIATIONS:** SELLER has the right at any time prior to delivery of the submittal drawings to BUYER to make any changes in the model or design of the products. SELLER has the right at any time prior to delivery of the products to make any changes to any component part of the product. In addition, SELLER may make any change or variation to the product which is within governmental or professional association standards or specifications applicable at the time of manufacture.
15. **SALE BY AGENT OR REPRESENTATIVE AND REPRESENTATIONS THEREBY:** The terms in this Invoice shall govern the liability obligations of SELLER with respect to this transaction, whether the sale was procured directly by SELLER or indirectly through one of its authorized sales representatives. No agent, employee or representative of SELLER has any authority to bind SELLER to any additional or contrary affirmation, representation or warranty concerning the products sold under this Invoice.
16. **WAIVER:** No waiver by SELLER of any provisions hereof shall constitute a waiver of any other breach or other provision. SELLER'S failure to object to provisions contained in any communication from BUYER shall not be deemed an acceptance of such provisions or as a waiver of the provisions of this Invoice.
17. **ACCEPTANCE.** This document is not an Expression of Acceptance or a Confirmation Document as contemplated in Section 2-207 of the Uniform Commercial Code. The acceptance of any order entered by BUYER is expressly conditioned on BUYER's assent to any additional or conflicting terms contained herein.
18. **GOVERNING LAW.** This agreement shall be governed and construed according to the laws of the Commonwealth of Virginia, without regard to any conflicts of laws principles.



NOTES:

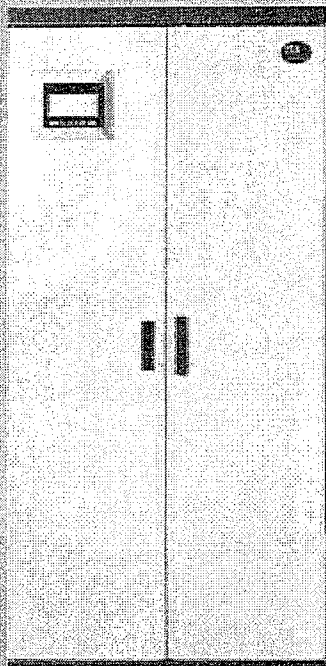
1. OPERATOR INTERFACE PANEL.
2. MAIN INPUT CIRCUIT BREAKER.
3. 225A SECONDARY MAIN CIRCUIT BREAKER.
4. (42) POLE DISTRIBUTION PANELBOARDS.
5. CT STRIP FOR BCMS (OPTIONAL).
6. MINIMUM OF 21" CLEARANCE FOR DOOR SWING.
7. RECOMMEND 6" CLEARANCE BETWEEN VENTILATED SIDES AND WALL FOR PROPER COOLING.
8. BCMS CIRCUIT BOARD (OPTIONAL).

<p>THIS DRAWING CONTAINS CONFIDENTIAL & PROPRIETARY INFORMATION AND SHALL NOT BE DISCLOSED OR COPIED WITHOUT THE EXPRESSED, WRITTEN PERMISSION OF POWER DISTRIBUTION INC.</p>	-OUTLINE-	
	PDU (30-150 kVA) W/ RH FS SIDECAR FRONT ACCESS W/ (3-4) 42 POLE PANEL BOARDS	
	DWG. NUMBER 1 OF 1 DWG11004	
	DRAWN BY RAE DATE 08-20-09	REVISION -A-

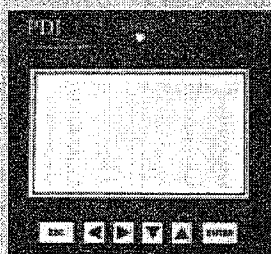


WAVESTAR™ PDU SERIES

ADVANCED POWER PROTECTION FOR NON-LINEAR LOADS



PDI



PDI

creating the perfect wave

PROTECT YOUR COMPUTERS PDI's PowerPak PDU protects your critical computer equipment from electrical noise and spikes and acts as a single point reference ground. Each PDU can be individually configured to meet your needs for isolation, voltage transformation, harmonic reduction and voltage regulation with virtually limitless distribution options. Built-in system monitoring and diagnostics facilitate load balancing and warn of potential threats to your critical equipment.

Every PDI PowerPak goes through the toughest testing in the industry. PDI's comprehensive quality assurance program, with 100% unit inspection and testing, is just one way PDI assures that each unit will perform flawlessly day after day.

INTELLIGENT WAVESTAR™ MONITORING WaveStar™ monitoring gives you real-time control of actual loads down to the individual breaker level. This important decision-making tool integrates PDI's BCMS and PDI's Intelligent Monitoring System so you control system-wide performance, breaker power levels, along with current and voltage data. This means improved, more timely decisions can be made based on real-time load and capacity data, all in one interactive and monitoring package.

WIN THE RACE FOR SPACE We designed our PDU to grow with your facility. "Sidecars" can be added to the standard cabinet to give you up to six 42-circuit panels or combinations of panels and sub-feed breakers. Up to 252 separate circuits can be installed in a single unit. These circuits can be monitored by one of PDI's BCMS systems as a factory installed component.

REdundancy INCREASES SYSTEM RELIABILITY For utmost system reliability, choose one of our dual input options. PDI manufactures dual-input PowerPaks with a full range of sensing and switching options to meet the speed and budget requirements of a wide array of applications. Our Manual Dual and Static Switch Primary and Secondary PowerPak PDU Systems help you create the most reliable power distribution system available; one that provides multiple power paths from normal and emergency electrical sources all the way to the point-of-use level.

MODULAR DESIGN PDI's modular design results in higher quality due to the standardized pre-testing of all modules, allowing PDI to meet the tight project deadlines that data centers demand.

PDI SERVICE AND SUPPORT After your equipment has been installed, call on the PDI service team for 24/7 support. Our industry best sales and service team will stay with you from the design of your system through the life of your data center.

OTHER POWER DISTRIBUTION UNITS

- Rack Mount Power Distribution Units – see our separate RPP brochure for 15-150 kVA units in a server cabinet.
- PowerHub™ 225-750 kVA with welded bus – see our separate PowerHub brochure.
- Medium Voltage Power Distribution Units – PDI can build a 4160V or 12470V system for you – call us for details.

POWER DISTRIBUTION UNIT: WAVESTAR™ PDU

SPECIFICATIONS

RATINGS

- kVA Ratings: 15-750 kVA
- Input: 3-phase, 3 wire plus ground
- Input Voltage @ 50 Hz: 415 or 380V
@ 60 Hz: 600, 480 or 208V
- Output: 3-phase, 4 wire plus ground
- Output Voltage @ 50 Hz: 575, 415/240, or 380/220V
@ 60 Hz: 600, 575, 480, or 208/120V

FEATURES

- Copper wound construction – better conducting and more resilient than aluminum
- Dual electrostatic shield – attenuates high frequency noise
- Oversized neutral conductor
- Common mode noise protection
- Transverse mode noise protection
- Accurate kW, power factor and THD measurement
- True RMS metering
- Operating Efficiency: 98% typical
- Listed to UL 1950, CSA Certified
- Modbus RTU communications
- BCMS available as factory installed option

ENCLOSURE

- NEMA 1 enclosure with removable front side & rear panels
- Optional NEMA 3R enclosure
- Removable front, side and rear panels
- Integrated two-point latch and vision panels
- Flush-mounted door handle with integral locks
- Advanced door catch assures positive closure

OPERATING CONDITIONS

- Operating Temperature: ambient 0°C to 40°C
- Storage Temperature: ambient -10°C to +40°C
- 50 Hz Operating Range: 47-53 Hz
- 60 Hz Operating Range: 57-63 Hz

CUSTOMIZATION

PDI offers the most comprehensive designs in the industry. Let us help you create your own for your application.

POWERPAK PDU OPTIONS

MONITORING

- Standard Monitor: PDI WaveStar™ monitor (input and output monitoring)
- Options: Per circuit output monitoring
- Communications: Serial RS-485 Modbus; optional SNMP communications
- M4 monitor available
- Thermal: Dual transformer thermal switches

QUAD-WYE® TECHNOLOGY

Solves harmonic problems by canceling the destructive triplen and non-triplen current harmonics.

TRANSIENT SUPPRESSION NETWORK (TSN)

An integrated system engineered to meet ANSI/IEEE category C standards for transient voltages and surge currents.

LIGHTNING ARRESTOR/SURGE SUPPRESSOR

Protects the insulation of the system magnetics.

DISTRIBUTION PANELBOARDS/SUB-FEED BREAKERS

Customized distribution configurations meet the demands of any facility.

REDUNDANT POWER DISTRIBUTION SYSTEMS

- **POWERPAK MD**
Dual-Input Power Distribution Systems that allow for manual source selection to isolate upstream equipment and facilitate system maintenance and repair.
- **POWERPAK PRIMARY & SECONDARY STATIC SWITCH SYSTEM**
Static Switching, Power Conditioning and Distribution System for transparent dual power source transfers. An integrated line up that offers primary, secondary and dual-cord configurations to help optimize your system solution. The PDI static switch will sense and transfer between sources in 4 ms.

TRANSFORMERS

TP-1 and low inrush transformers available for all models.

PDI_Q = POWER DISTRIBUTION INTELLIGENCE QUOTIENT
YOUR SMART MONITORING SOLUTION

PDI

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