



**PowerPak 2 Power Distribution Unit**  
Flexible. Configurable. Intelligent. Safe.



## PDI PowerPak 2 Power Distribution Unit

Following in the footsteps of numerous PowerPak designs PDI is proud to release PowerPak 2, the most versatile and safest PDU on the market today. Designed and engineered to meet the exact needs of our clients PowerPak 2 PDU brings with it a powerful combination of flexibility and modularity.

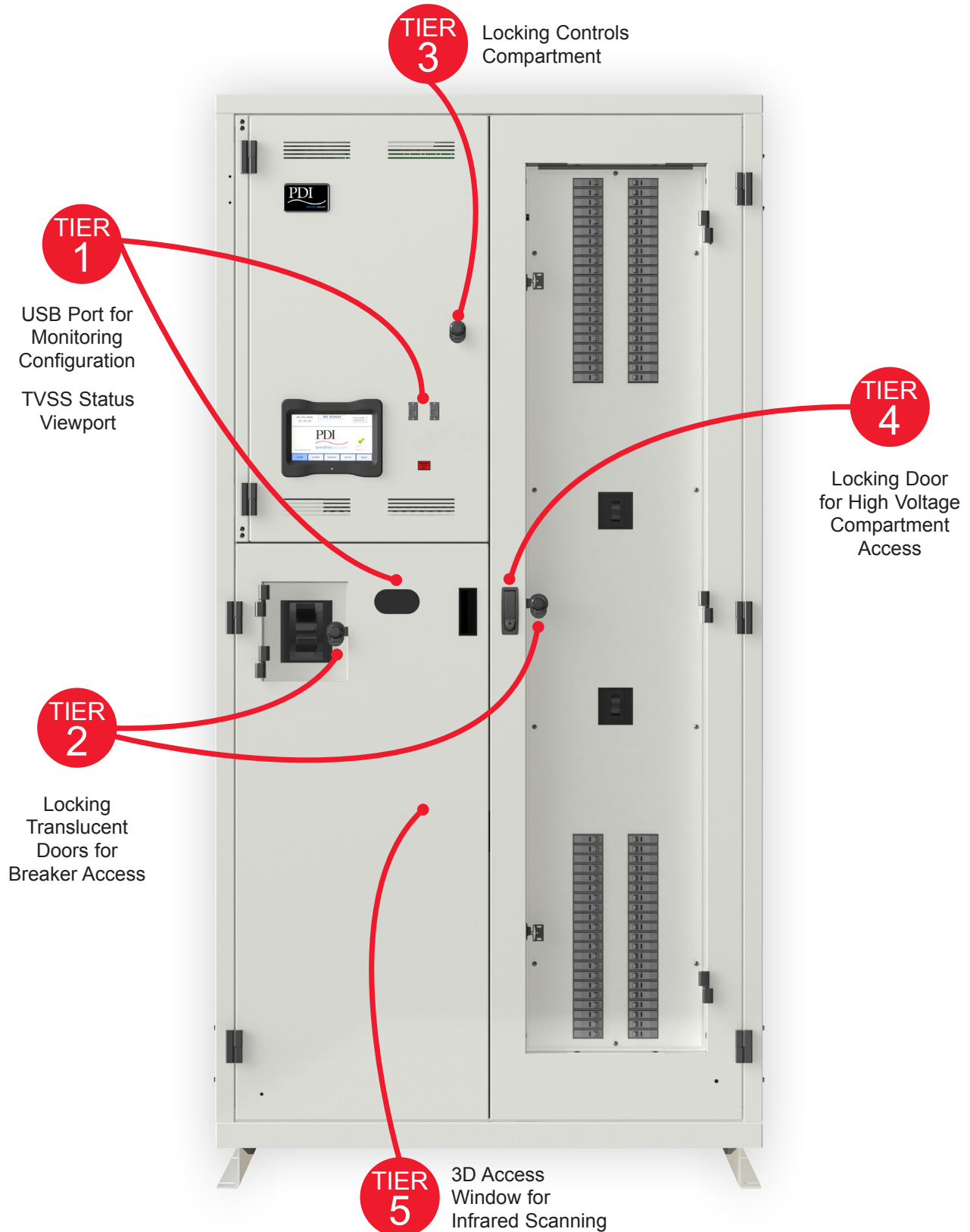
With hundreds of possible configurations, PowerPak 2 PDU is the smallest power distribution unit with true front access in today's market. A patent pending 3D access window allows true front access (TFA) for service and maintenance of the transformer while offering panel board and/or sub feed distribution in the main cabinet. PowerPak 2 offers up to a 400kVA DOE2016 transformer and incorporates compartmentalized design in order to isolate controls and high voltage components.



# PowerPak 2 Features

## Five Tier True Front Access (TFA)

Five Tier True Front Access (TFA) maximizes operator safety, increases security and allows for maintenance and service from the front of the PDU. Each Tier provides locked access to the PDU through secured software or keyed access.



# PowerPak 2 Features

## SMALLEST FOOTPRINT

The PowerPak 2 PDU can accommodate up-to a 400kVA DOE2016 high efficiency transformer while maintaining True Front Access (TFA) and a cabinet size of 40" deep by 42" width. This reduced footprint allows the operator to maximize space required for power transformation and distribution.



**400kVA**  
**DOE 2016**  
**Transformer**

## POWER COMPARTMENTALIZATION

In order to simplify maintenance and increase safety of operators the PowerPak 2 PDU features isolated controls and high voltage compartments within the main cabinet. Compartmentalized components include high voltage input breakers and panelboards as well as controls and logic printed circuit boards and Displays associated with the WaveStar® Branch Circuit Monitoring System (BCMS).





## PowerPak 2 Features

### WAVESTAR® INTELLIGENT POWER MONITORING

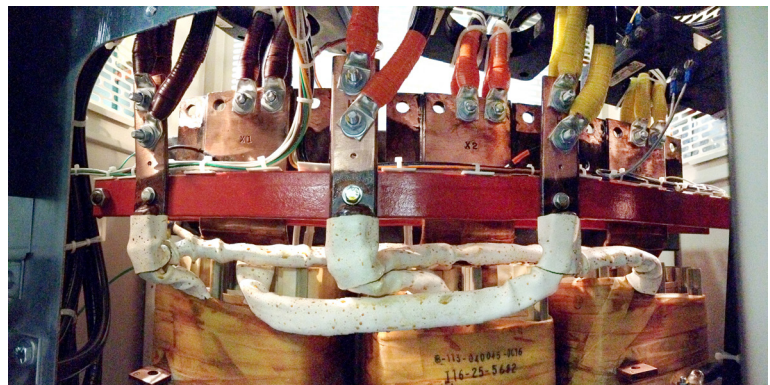
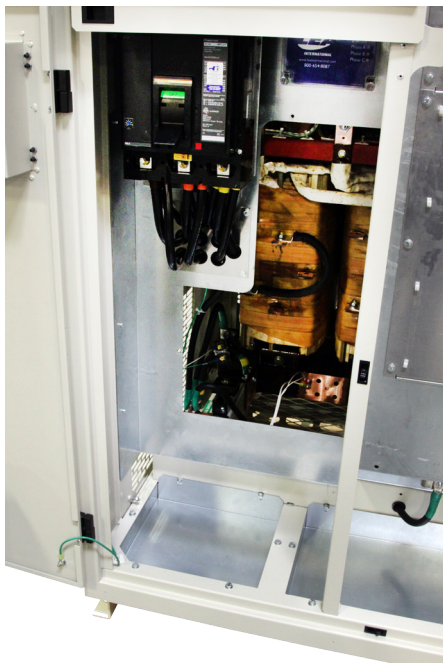
PDI's Branch Circuit Monitoring System (BCMS) allows for the pro-active management of power usage and availability ensuring maximum uptime and reliability. BCMS monitors server loads locally via a 7" Touchscreen Display or remotely by multiple open protocols including Modbus®, SNMP and TCP/IP. Power data includes Current, Voltage, Voltage L-L, L-N, kW, kVA, kVAR, kWh per panelboard, kWh per branch circuit and more.

#### 7" Color Touchscreen Display



### FRONT ACCESS INFRARED SCANNING

A patent pending 3D Access Window located in the bottom left hand high-voltage compartment and Specialized Transformer designs enable infrared scanning from the front of the PDU. The combination of these features result in the smallest PDU footprint in the industry and maximize space utilization.



#### Specialized Transformer Designs

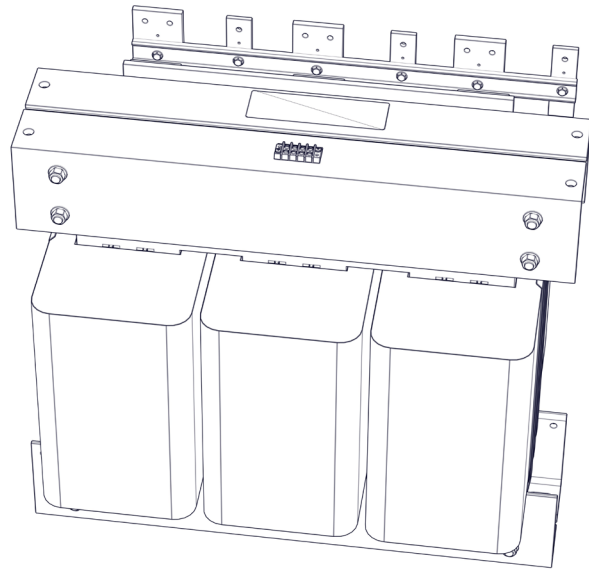
#### Patent Pending 3D Scanning Window

# PowerPak 2 Features

## UP-TO 400 KVA DOE2016 TRANSFORMER

On January 1st, 2016 the Department of Energy mandated that distribution transformers must meet a new, more stringent Energy Efficiency Standard. PowerPak 2 supports this new standard and offers DOE compliant transformers from 100 to 400 kVA.

- Transformer Sizes (kVA)
  - 400, 300, 225, 200, 150, 125, 100
- K-Factor Rating
  - Standard K13, Optional K4, K9, K20
- Temp Rise
  - 150° C (Standard), 115° C (Optional)
- 8-10x In-rush, 2.5 - 5% Impedance
- Winding
  - Copper (Standard), Aluminium (Optional)
- Other Options
  - Quad Wye®, Delta Zig Zag, 208V Primary, 600V Primary Adder



## FLEXIBLE IN-CABINET AND SIDE-CAR DISTRIBUTION OPTIONS

The PowerPak 2 PDU is compatible with multiple panelboard and sub feed breaker manufacturers and styles which allows the end-user complete flexibility in distributing power. Single, Inline and Finger Safe panelboards and sub feed breakers are available in-cabinet and in optional front and side facing side-cars.

- In Cabinet & Sidecar Distribution
  - 24" Front / Front and Side Facing Side-Car
  - 12" Side Facing Side-Car
- Multiple Panelboard Sizes and Styles
  - Square D, ABB, GE
  - Traditional and Finger Safe
- Multiple Sub Feed Breakers Styles and Sizes
  - Square D, ABB, GE
  - Traditional and ILine Panels

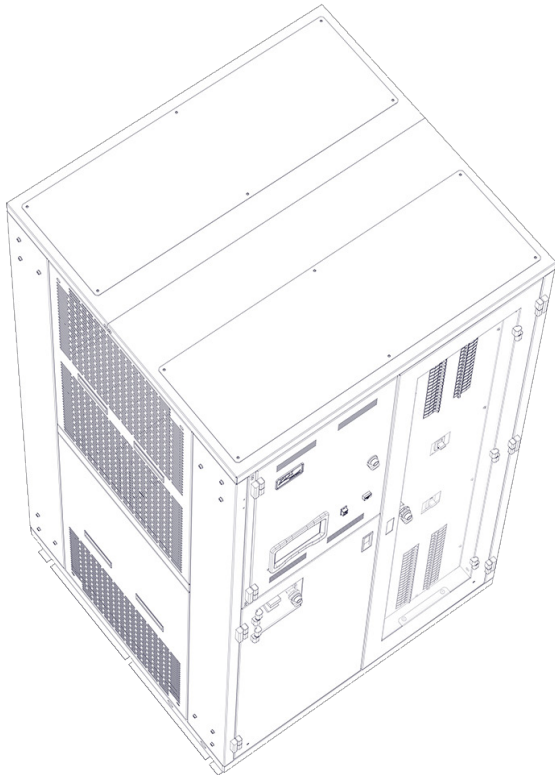


**12" wide**   **42" x 40"**   **24" wide**  
Side Facing Sidecar   Main Cabinet   Front Facing Sidecar

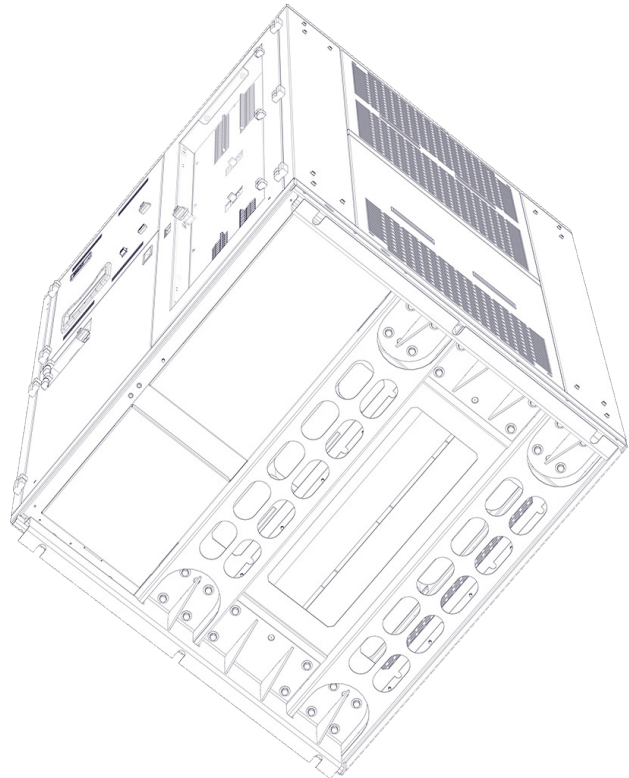
# PowerPak 2 Features

## ADAPTABLE SERVICE ENTRANCES

Every data center is different hence determining service entrance for line and load connections can vary from site to site as well as unit to unit. The PowerPak 2 was engineered to be both Top/Bottom Entry/Exit for the ultimate in flexibility.



**Top Entry & Exit**



**Bottom Entry & Exit**

## About Power Distribution, Inc. (PDI)

Power Distribution, Inc. (PDI) designs, manufactures, and services mission critical power distribution, static switching, and power monitoring equipment for corporate data centers, alternative energy, industrial and commercial customers around the world. For over 35 years, PDI has served the data center and alternative energy markets providing flexible solutions with the widest range of products in the industry.



# PDI PowerPak 2 Power Distribution Unit

## PDU Specifications

### Ratings

- kVA rating, 100kVA – 400kVA
- Input: 3-phase, 3-wire plus ground
- Input Voltage @ 50 Hz: 380V – 415V  
@ 60 Hz: 600, 480 or 208V
- Output: 3-phase, 4-wire plus ground
- Output Voltage @ 50 Hz: 575, 415/240, or 380/230V  
@ 60 Hz: 600, 575, 480, or 208/120V
- 200% neutral busbar connection
- Listed to UL 60950-1, CSA C22.2#60950-1, UL 891, IEC 60950-1, EN 60950-1, EN 61000-6-2, EN 61000-6-4

### Transformers

- DOE2016 transformers standard for USA.
- Operating Efficiency: 98% or better
- Copper wound construction – better conducting and more resilient than aluminum
- Dual electrostatic shield – attenuates high frequency noise
- Oversized 200% neutral conductor
- Common mode noise protection
- Transverse mode noise protection
- Optional Quad-Wye® Technology solves harmonic problems by canceling the destructive triplen and non-triplen current harmonics.

### Enclosure

- NEMA 1 enclosure with 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
- Optional floor skirts

### Operating Conditions

- Operating Temperature: ambient 0°C to 40°C
- Relative humidity: 0% to 95% non-condensing
- Altitude ≤ 10,000 ft.
- 50 Hz Operating Range: 47-53 Hz
- 60 Hz Operating Range: 57-63 Hz
- Storage Temperature: ambient -10°C to +40°C

### Monitoring

- Monitor: WaveStar® monitor  
WaveStar® color touch monitor
- Communications: Serial RS-485 Modbus RTU; optional SNMP or TCP/IP communications
- BCMS: Available as factory-installed option
- Options: Per circuit output monitoring
- Thermal: Dual transformer thermal sensors
- True RMS metering
- Accurate kW, power factor and THD measurement

### 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

- WaveStar® Manual Dual System  
Dual-Input power distribution system allows for manual source selection to isolate upstream equipment and facilitate system maintenance and repair.

### Customization

PDI is dedicated to providing customized solutions to meet the specific requirements of your application. Contact us at +1.800.225.4838 for further information and support.

### PDI Service Support

After your equipment has been installed, call on the PDI Service team for 24/7 support. With 35 years of mission critical power experience and seasoned factory-trained service staff, PDI Global Services can maximize the benefit of your equipment investment.

