

# Power Distribution Unit

Front and rear access



50-300kVA Platform PDU (with optional EPO)



400-500kVA Platform PDU



*Powering Business Worldwide*

# The Eaton line of **three-phase power distribution units (PDUs)** provide **robust power distribution** that can be **easily tailored** to meet the design specifications of **any facility or data center.**

The PDU offers ratings from 50 to 500 kVA with DoE 2016-efficient K13 and K20 transformers. Energy Management System (EMS) offers cost effective intelligence to manage load efficiency.



50–300kVA Platform PDU (with outer doors open)

## Easy service and setup

### *Reduce installation time and save on startup costs*

- Backed by Eaton's extensive network of more than 240 field technicians for fast reliable service
- Ample cabling space between panelboards and for subfeed breakers
- Standard top and bottom cable access for more flexible installation options
- Front access for operation and general service requirements
- Easily removable side and rear covers with captive hardware
- Front access control panel for all standard communication expansion and maintenance

## Monitoring and connectivity

### *To understand your power profile*

- Eaton's Energy Management System (EMS) provides state-of-the-art monitoring and alarming provisions
- PXGX PDP communication card allows for daisy chaining multiple PDUs together, reducing individual network drops to your power equipment
- Monitor the PDU from any computer without software through the integrated web interface, or easily integrate into existing building management systems or Eaton's Power Xpert™ Software
- Stores consumption trends for up to 24 months
- Up to 100A branch breaker CTs available
- **Auxiliary contacts to interface with third-party monitoring for subfeed breaker positions**

## Safety

### *Protecting employees, contractors and service personnel*

- Protective trim panels cover panelboard bus/breakers/wiring from accidental contact
- Separation of Low/High/Control voltage sections for safer servicing
- UL/CSA approved 60950
- **Shunt trip in subfeed breakers**

## Aesthetics and flexibility

### *Providing the right form-factor for demanding applications*

- Durable finish gives a clean professional appearance to facilities and data centers
- Sidecar options to expand distribution capacity (300 kVA and below)

# PDU units have easy front and rear access through double doors on both sides.

Eaton PDUs are easy to setup, maintain, monitor and connect. They provide safety and flexibility for the most demanding applications.



Additional subfeed with aux and shunt trip



Single input crimp lug



400 and 500 kVA comm port access



400 and 500 kVA Main Bus (patent pending)

## General

- Natural convection cooling
- Swivel casters (up to 300 kVA)
- System level metering included
- 8 x 40 character LDC display
- Top and bottom entry
- Protective trim panels (up to 300 kVA)
- Cable management for input and panel wiring
- (2) X-Slots for communication

## Distribution breakers

### 300 kVA and below

- Panelboards with 225A or 400A panel main breaker
- Additional subfeed breakers
  - 225A (50–150 kVA)
  - 225A/400A (200–300 kVA)

### 400–500 kVA

- 800A electronic trip main breaker (LSI)
- Subfeed breakers
  - 225A, 400A, 600A, and 800A

## Options

- Branch circuit monitoring
- 100% rated subfeed breakers
- 100% rated panel main breakers
- Subfeed breaker monitoring
- High kAIC main input and subfeed breakers
- Surge protection device (100 or 200kA) UL1449
- Lightning arrester
- Transient suppression plate
- Isolated ground (*standard*)
- Clear plexiglass doors (up to 300 kVA)
- Load bank test lugs (*standard*)
- Lockout breaker tabs
- Air skirts
- Floor stands – seismic (12", 15", 18", 24", 30", 33", 36" and 48")
- High voltage input junction box
- Low voltage control junction box
- Input and ground compression lugs
- Dual input basic with kirk key interlock<sup>5</sup>
- Dual input premium with sync check<sup>5</sup>
- Vibration resistant locking hardware
- Local EPO
- Other transformer ratings
  - 480V pri with 400/230V sec
  - Harmonic Mitigating (HMT)
  - 115°C temp. rise
- Auxiliary and shunt trip main cabinet subfeeds
- Field upgradable capabilities

## Control

- REPO provisions
- Up to 4 building alarm inputs (N/O or N/C)

## Optional custom shutdowns on alarms

- Phase rotation/loss
- Ground/neutral overcurrent
- Transformer overtemperature
- Output overload
- Input voltage out of tolerance
- Frequency out of tolerance

## Energy management system

### Monitored parameters

- Input voltage (L-L and L-N)
- Output voltage (L-L and L-N)
- Output current (A, B and C phases)
- Output neutral current
- System ground current
- kVA, kW, Hz
- Monthly, yearly, total output kWh
- Input voltage THD (all phases)
- Output voltage THD (all phases)
- Power factor (lead/lag indicator)
- Output current % (A, B and C phases)

## Load profiling

**Captures highest and lowest reading on monthly basis with trend information over the last 24 months**

- Input/output voltage
- Output current
- Input/output frequency
- Output power factor
- Output kVA
- Input/output voltage THD
- Ground and neutral current

## Warnings/alarms

- Over-temp and shutdown
- Input/output over- and under-voltage
- Input/output over- and under-frequency
- Input/output phase rotation
- Input/output voltage and current THD
- Output overload (3 levels)
- Remote EPO
- Building alarms (4 programmable)
- Summary alarm
- Communication fault

## Connectivity

- Modbus RTU (RS232/485)
- Power Xpert gateway card – PXGX PDP (modbus TCP/IP, SNMP, ethernet)

## TECHNICAL SPECIFICATIONS<sup>1</sup>

Category	Up to 150 kVA	200-300 kVA	400-500 kVA
<b>ELECTRICAL CHARACTERISTICS</b>			
kVA	50 / 75 / 100 / 125 / 150	200 / 225 / 300	400 / 500
Input ratings	208 / 380 / 400 / 415 / 480 / 600V – 3 phase, 3 wire + ground (single and dual input) Dual input: basic or premium <sup>5</sup>		
Output ratings	208V – 3 phase, 4 wire + ground		
Frequency	60 Hz		
Transformer type	Copper / double shielding / class R (220°C) insulation		
Transformer Characteristics	150°C temp. rise / K13 (std.) and K20 (opt.) / Complies with DoE 2016 efficiency standards; TP-1 efficient transformers available for non-U.S. customers		
Transformer Compensation taps	(4) 2 – 1/2% FCBN / (2) 2 – 1/2% FCAN		
Neutral rating	200%		
<b>POWER DISTRIBUTION</b>			
Panelboards	Up to (6) 42-pole panels – (2) panels in main cabinet and (4) panels in sidecars <sup>2</sup>		N/A
Panelboard options	Cutler-Hammer (bolt-on or plug-on) or SquareD panels (225A and 400A main breakers)		N/A
Main cabinet Subfeed breakers 80% or 100% (CH only) rated	Up to (8) 225A frame <sup>4</sup>	Up to (12) 225A frame <sup>2,4</sup> Up to (5) 400A frame <sup>2</sup> Up to (3) 600A frame <sup>2</sup>	Up to (16) 225A frame <sup>2</sup> Up to (8) 400A frame <sup>2</sup> Up to (8) 600A frame <sup>2</sup> Up to (6) 800A frame <sup>2</sup>
Branch breaker	Factory installed branch circuit breaker <sup>3</sup>		
Additional subfeed breakers	Up to (2) 225A frame	Up to (2) 225A frame or (1) 400A frame	N/A
Sidecars	Up to (2) front or side facing sidecars		(1) Front facing sidecar (right ONLY)
Sidecar options	(2) 42-pole panels or (4) 225A frame subfeeds (each sidecar)		Dual input application ONLY
<b>DIMENSIONS</b>			
Main cabinet	39"W x 35"D x 80"H	44"W x 35"D x 80"H	62"W x 45"D x 80"H
Front facing sidecar	24"W x 35"D x 80"H		33"W x 45"D x 80"H
Side facing sidecar	9.5"W x 35"D x 80"H		N/A
<b>STANDARDS</b>			
NEMA, UL 60950, CSA 60950			

1. Due to continuing improvements, specifications are subject to change without notice.

2. Please see sales configurator for additional information.

3. Branch breaker schedule required at time of order.

4. When using optional PRL3 chassis, a maximum of (8) 225A frame breakers can be installed.

5. Dual Input requires a right hand sidecar.

For more information about the PDUs,  
please visit: [Eaton.com/PDU](http://Eaton.com/PDU)

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