



## Power Distribution Unit (PDU)



IEM's Power Distribution Units (PDUs) are engineered to deliver reliable, high-capacity power from the critical distribution system to IT equipment on the server floor or to other load points within your data center. Built to support high-density environments, IEM PDUs offer exceptional energy efficiency and are scalable to accommodate future growth.

### IEM Difference

IEM's fully rated bus is designed based on density ratings rather than UL heat rise limits, enabling higher current-carrying capacity, reduced heat generation, and lower overall operating temperatures. Backed by decades of experience in low-voltage switchboard and PDU manufacturing, IEM's proven designs deliver an integration-ready package built for flexible deployment in mission-critical environments. All components and metering solutions are sourced from trusted, industry-leading brands known for their reliability and performance under demanding conditions.

### Features & Benefits

- Input Voltage: 480VAC
- Output Voltage: 208Y /120V, 415Y / 240V
- Power Rating: 500kVA
- Dimensions: 58"Wx48"Dx80"H
- Distribution Breakers: 35 kA @ 415 VAC (All), 250AF (80% or 100% Rated), 400AF (80% or 100% Rated), 600AF (80% Rated)
- Front access only required during operation
- Local 7" touch-screen display
- Revenue-grade main metering
- K9 rated transformer with electrostatic shields
- Neutral bus rated 200% rated current
- Modbus TCP communications
- Standard 150 kA surge protection with EMI/RFI filtering
- UL & cUL listed
- Quick ship from inventory available – custom and made-to-order available
- Optional IR inspection window\*
- Optional breaker status monitoring\*

\* See last page for details

PDU Ratings Overview

Input	Phasing	3Ø-Δ, 3-wire
	Nominal Voltage	480 VAC
	Interrupting Rating	65 kA @ 480 VAC
	Main Input Circuit Breaker	800AF / 750AT (ETU, LSI)
Transformer	500 kVA Windings: Copper Insulation Class H (220 °C) K-Rating: K9 Efficiency: DOE 2016 Compliant -10% to +5% of nominal in 2-1/2% increments	
Output	Phasing	3Ø-Y, 4-wire
	Nominal Voltage <sup>1,3</sup>	MTO Option of 208Y/120 VAC MTS Configured at 415Y/240 VAC
	Interrupting Rating	35 kA @ 415 VAC
	Distribution Branch Breakers	Up to (8) total breaker 250AF, 400AF, 600AF (ETU, LSI)
Frequency	60 Hz	
Neutral	200%	
Surge Protection <sup>2</sup>	150 kA	
Enclosure	(Indoor) UL Type 1 Hinged & Lockable Front Access Only (Operation*) Top & Bottom Cable Entry Seismic Tested	
Dimensions (W x D x H)	58 in. x 48 in. x 80 in. (1473 mm x 1219 mm x 2032 mm)	
Weight (max)	6,300 lbs. (2858 kg)	
Heat Output (max) <sup>4</sup>	30,725 BTU/Hr (9,000 W)	
Ventilation Clearance	6" Rear & Sides 18" Top	

1 Standard dual voltage transformer secondary output factory configured to 415Y/240 VAC  
2 IEM PDU designs are compatible for solidly grounded systems only.  
3 Rear access required for installation &/or to change transformer secondary output voltage  
4 Convection cooled

\*Distribution

The PDU Distribution Panel accommodates up to (8) breakers and consists of (4) horizontal rows; each defined (top to bottom) by Part Number Digits 13, 14, 15, 16; each accommodates either:

- (2) Breakers, twin-mounted
- Provisions Only for (2) Breakers, twin-mounted

Figure 1 depicts the MTS production configuration.

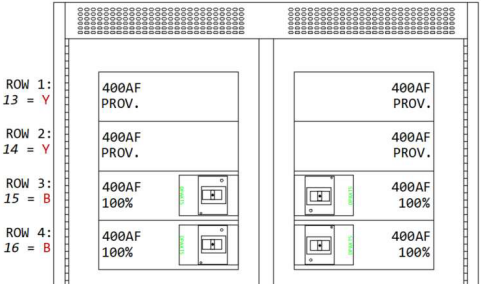


Figure 1: Distribution Panel Configuration



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Features	Made-To-Stock (MTS)	Made-To-Order (MTO)
Quick ship available	Yes	Contact your IEM Sales Engineer for more options
Number of feeders	Standard 4 - For additional, contact your IEM Sales Engineer	Optional up to 8
Main Breaker	800A LSI 80% rated	Contact your IEM Sales Engineer for more options
Branch Breakers	400A LSI 100% rated	250A LSI 80% or 100% rated 250A LSIG 80% or 100% rated 400A LSI 80% or 100% rated 400A LSIG 80% or 100% rated 600A LSI 80% rated 600A LSIG 80% rated
Branch Circuit Metering/Monitoring	Optional with additional lead time	Available
Breaker Status Monitoring (Open, Closed, Tripped)	Optional with additional lead time	Available
Surge Protectice Device (SPD)	Connected to output	Connected to input or output side
Paint	Black textured paint	Contact your IEM Sales Engineer for more options
IR Windows (Input Breaker, Branch Circuit Breakers)	Optional with additional lead time	Available
EPO	Provisions for remote contacts Local EPO optional with additional lead time	Remote or Local EPO available

## SPN Code Scheme

	Base PDU										Branch Breakers						Optional Features						
Digit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
SPN Code	P	D	U	5	4	S	H	A	M	-	D	D	Y	Y	B	B	-	S	X	S	X	X	X

### Base PDU

<b>1-3</b>	<b>Product Type</b>
<b>PDU</b>	Power Distribution Unit
<b>4</b>	<b>KVA Rating</b>
<b>5</b>	500kVA
<b>5</b>	<b>Input Voltage</b>
<b>4</b>	480 VAC
<b>6</b>	<b>Output Voltage</b>
<b>5</b>	Dual-Output Voltage, 415Y/240 or 208Y/120V
<b>7</b>	<b>XFMR. MFG.</b>
<b>H</b>	HPS
<b>M</b>	MGM
<b>8</b>	<b>Breaker MFG.</b>
<b>A</b>	ABB, Tmax XT
<b>9</b>	<b>Main Breaker</b>
<b>M</b>	Main Input Breaker

### Branch Breakers

<b>11</b>	<b>Trip Unit</b>
<b>D</b>	Default (ETU, LSI)
<b>12</b>	<b>LUGS</b>
<b>D</b>	Default
<b>13-16*</b>	<b>Distribution</b>
<b>X</b>	250AF Provisions (BUS Only for 2x250AF)
<b>2</b>	2x250AF, 80% Breakers
<b>A</b>	2x250AF, 100% Breakers
<b>Y</b>	400AF Provisions (BUS Only for 2x400AF)
<b>4</b>	2x400AF, 80% Breakers
<b>B</b>	2x400AF, 100% Breakers
<b>Z</b>	600AF Provisions (BUS Only for 2x600AF)
<b>6</b>	2x600AF, 80% Breakers

### Optional Features

<b>18</b>	<b>Power Monitoring</b>
<b>S</b>	Standard Parameters
<b>B</b>	Reserved
<b>19</b>	<b>Branch Meeting / Monitoring</b>
<b>X</b>	None
<b>C</b>	Circuit Metering (Voltage, Current, Power)
<b>S</b>	Status Monitoring (AUX, TRIP)
<b>B</b>	(Both) Circuit Metering & Status Monitoring
<b>20</b>	<b>Surge Protection</b>
<b>S</b>	Secondary (Output), 150kA
<b>P</b>	Primary (Input), 150kA
<b>21</b>	<b>Local EPO</b>
<b>X</b>	None
<b>P</b>	Local Emergency Power Off (EPO)
<b>23</b>	<b>IR Windows</b>
<b>X</b>	None
<b>R</b>	IR Scanning Windows (per BRKR)
<b>23</b>	<b>Option - Reserved</b>
<b>X</b>	None
<b>Z</b>	Reserved



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