

InfraStruXure® Modular Power Distribution

Modular Scalable Ultra-High Efficiency Power
Distribution for Data Centers

480:415V Power Distribution Unit
400V Remote Power Panel



**High Performance
3 Phase Modular,
Scalable Power
Distribution with
Industry Leading
Efficiency, Capacity
and Performance for
Medium to Large Data
Centers and Mission
Critical Environments**

- Innovative Autotransformer Technology
- 10X Efficiency over legacy distribution methods
- Modular and Scalable
- The safest method to ensure moves adds and changes are accomplished without down time or hot-work
- High Density distribution in a sleek 12" wide cabinet design
 - PDU - 266kW
 - RPP - 277kW
- Low first cost, low TCO
- Circuit breaker modules include cord-set, branch circuit monitoring, breaker position monitoring, and pre-terminated IEC Connector
- Rack based for agility and aesthetics

InfraStruXure® Modular Power Distribution

Safe, Efficient, Scalable, 3-Phase Power Distribution with industry leading availability, agility and performance for any size data center or high density power zone

The APC InfraStruXure® Modular Power Distribution line is the world's first fully scalable and hot-swap 3-Phase power distribution system. Through the innovative use of autotransformer technology, a tenfold increase in efficiency yields greater density, reduced floor space, and much lower heat impact on today's power hungry datacenter. A fully scalable power distribution system now provides cost effective high levels of availability, while enabling addition of circuits and cord-sets without scheduling outages or conducting dangerous hot work. Seamlessly integrating into today's state-of-the-art data center designs, the InfraStruXure PDU and RPP are true modular systems. Comprised of a UL listed "touch-safe" backplane with 72 poles of 3-phase power and hot-swappable circuit breaker modules, all engineered into the worlds smallest footprint for power distribution units, this architecture can scale power distribution circuits as demand grows or as new equipment is required to be provisioned without the headache of scheduling outages, or risking hot-work.



266kW Modular PDU



3Phase, 1Phase Circuit breaker modules; C-19 Splitter assembly

The Modular PDU delivers the highest efficiency while also greatly decreasing the floor-space required for high availability applications. With industry leading power density, the InfraStruXure® Modular PDU can distribute 11.5 kW per circuit while only consuming 20 Amperes. This innovative approach for utilization of all available electricity means more power per whip at the same amperage. Other features include circuit breaker modules providing branch current and breaker positioning monitoring, pre-terminated cord-sets, and quick status LEDs. Use of higher distribution voltage also brings smaller diameter cord-sets, further reducing first costs.

The safest method to bring ultra-high efficiency and scalability to power distribution for demanding business critical applications

Modular Power Distribution

Features & Benefits



- 1 266kW output in a sleek, 300mm Half-rack design**
Slimmest, most space-conscious design translates to a 60% floor-space savings over traditional PDUs, with up to 80% greater power output - the same form-factor rack houses the transformerless RPP, and serves 277kW at 400V
- 2 Innovative Autotransformer Technology brings a tenfold increase in efficiency**
At one tenth the loss of traditional dual winding isolation transformers, the electric usage saves money, and the heat penalty to existing cooling systems is greatly reduced.
- 3 Integrated Monitoring Solution**
While the legendary PowerView display provides information locally at the PDU, a Network Management Card relays vital information to the monitoring platform of choice.
- 4 20A 3-Phase Circuit Breaker Modules**
A hot-swap module houses the standard 3Phase circuit breaker, current transducers and position sensors. The entire assembly is attached to a pre-terminated cord-set with multiple length options - each module is programmed to know how long it's whip is!
- 5 IEC Connectors improve availability and safety**
A time tested approach in other parts of the world, positive locking mechanism, complete isolation at all touch-points, and robust interoperability enables standardization across all corporate locations.
- 6 20A 1-Phase Circuit Breaker Modules**
The same hot swap module technology is terminated with 3 individual 1Phase IEC connectors, perfect to power InRow RC modular cooling units.
- 7 IEC connector to triple C19 "Calamari Plug"**
Another industry first from APC - directly power multiple high density rack-based network gear and servers. Bypassing a rack PDU to provide up to 20A per phase, directly attaching servers to the PDU provides even better visibility into power usage at the server level.
- 8 Traditional Rack PDU with C13/C19 outlets**
Not every application is strictly C-19 based, so the AP7557NA basic rack PDU provides the same flexibility and features as all our rack PDUs.

Technical Characteristics

Enclosure Electrical Ratings	PDPM288G6H - PDU	PDPM277H - RPP	
Input voltage	480Y/277 V	400Y/230 V	
Wiring	3W + N + G	3W + N + G	
Conductors	5	5	
Input current	320	400	
KAIC	65	10	
Input wiring - phase (min.)	Cu : 1x 500 MCM (rated at 380A); Cu : 2x 4/0 MCM (rated at 230A) Al : 2x 250 MCM (rated at 205A)		
Input wiring - ground (min.)	Cu : #3 (400A rating); Cu : #6 if 2x (200A rating) Al : #4 if 2x (200A rating)		
Input wiring - GEC (min.)	Cu : 1/0 if 1x 500 MCM; #2 if 2x 4/0 MCM Al : #2 if 2x 250 MCM	N/A	
Input phase terminals - MCCB	Mechanical lug : 1 X #2 awg - 500MCM	Mechanical lug : 1 x 600MCM / 2 x 250MCM	
Input terminals - N, G & GEC	Mechanical lug : 1 x 600MCM / 2 x 250MCM		
Input wiring location	Top	Top or Bottom	
Cable voltage rating	600	600	
Cable temperature rating (degrees C)	90		
Input conduit size (North America)	Cu : 3" min. (1x 500 MCM); Cu : 2-12/" min. (2x 4/0 MCM) Al : 2-1/2" min. (2x 250 MCM)		
Suggested upstream breaker	320A (100% rated), 400A (80% rated)	400A (100% rated), 500A (80% rated)	
System output to distribution	415Y/240 V	400Y/230 V	
Conductors	3W + N + G		
Transformer size, type	288kVA, Autotransformer	Transformerless	
Transformer input voltage, current	480Y/277 V, 346A		
Transformer output voltage, current	415Y/240 V, 400A		
Transformer Thermal sensing	180C (NC)		
Transformer Weight	506 lbs		
Transformer Efficiency (@35% load)	99.81%		
Transformer Frequency	60hZ		
Transformer noise	<50db @ 1m		
Circuit Breaker Modules	20A 3 Phase		20A 1 Phase
Breaker type, rating, protection	20A		16A
Input current (nominal)	20A	16A	
Output voltage	240V	240V	
Connector type	IEC 309 5wire	IEC 309 3 wire	
Cord-set Lengths (CM)	80,140, 200, 260, 320, 380, 440, 500, 560, 620, 680, 740, 800, 860, 920, 980, 1080	260, 380, 500 680, 860, 1040 1680, 1680, 1680 <i>Triple 1 phase outputs</i>	