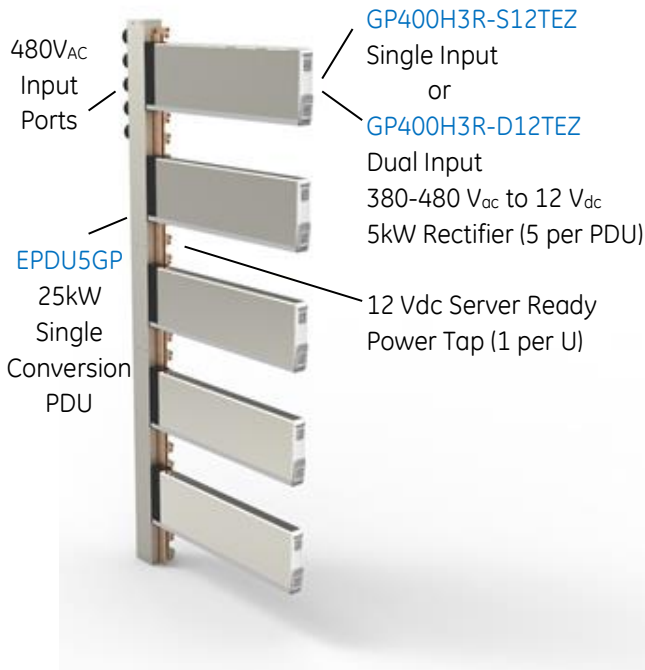


Data Center Single Conversion PDU

fact sheet

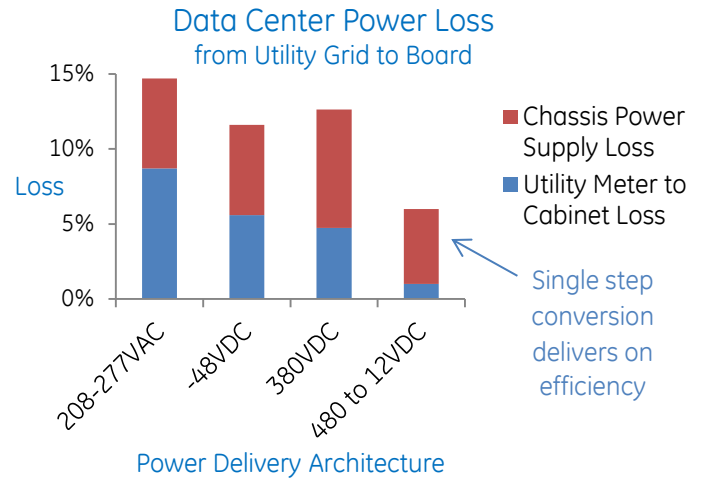
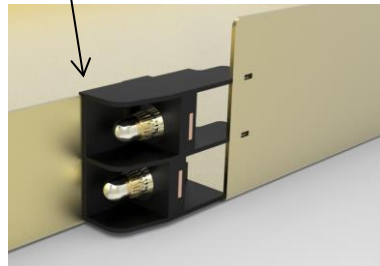


Engineered for Single Conversion, Simple Manufacturing and Low Parts Count



42U of Customer Usable Rack Space

Bullet style 12V power tap is located on the side of the server, away from corners and handling hazards.



A Clear Choice for Powering Data Centers

Customer data<sup>1</sup> supports single step conversion. We provide:

- Dual redundant AC feeds for energy storage outside of the white space.
- 480V True 3 phase inputs (3-wire+GND) for low IR loss, energy efficient, proven distribution path to each server rack. The neutral conductor is not needed.
- Containment of 480V<sub>ac</sub> distribution inside the server rack with a factory wired UL recognized unit.
- One step power conversion (95% η), from 480V 3φ to 12V<sub>dc</sub>, immediately adjacent to the servers.

More Space for Revenue Generating Equipment

- Five rectifiers convert three phase 380-480 V<sub>ac</sub> to 12 V<sub>dc</sub>. These rectifiers are *outside of the rack space*.
- 12 Volts is delivered directly to 42U of server ready rack space. [Server width up to 2 in. wider than in 19 in. racks.]
- 12V<sub>dc</sub> delivery is by pairs of proven bullet terminals spaced on 1U or 1.5 U spacing. Capacity is 80A per U.
- Each server tray can be hot plugged using the 12V<sub>dc</sub> power tap – with connection options to preference.

A Simplified Path to a Better Customer Experience

Flexible 12V dc power connection and reference design rack with 3D CAD files provide a path to low Total Cost of Ownership. The finished product is easy to maintain.

Support every piece of equipment in your data center with a single, trusted, power unit: The GP400 in a Single Conversion PDU.



Reference design documentation available on request. Patents pending on orderable items.

<sup>1</sup> Doyle, Don. "Single-Conversion Power Distribution." (paper presented at the International Stationary Battery Conference, Orlando, Florida, May 12-14, 2015), <http://www.battcon.com/PapersFinal2015/14%20Doyle%20Paper%202015.pdf>

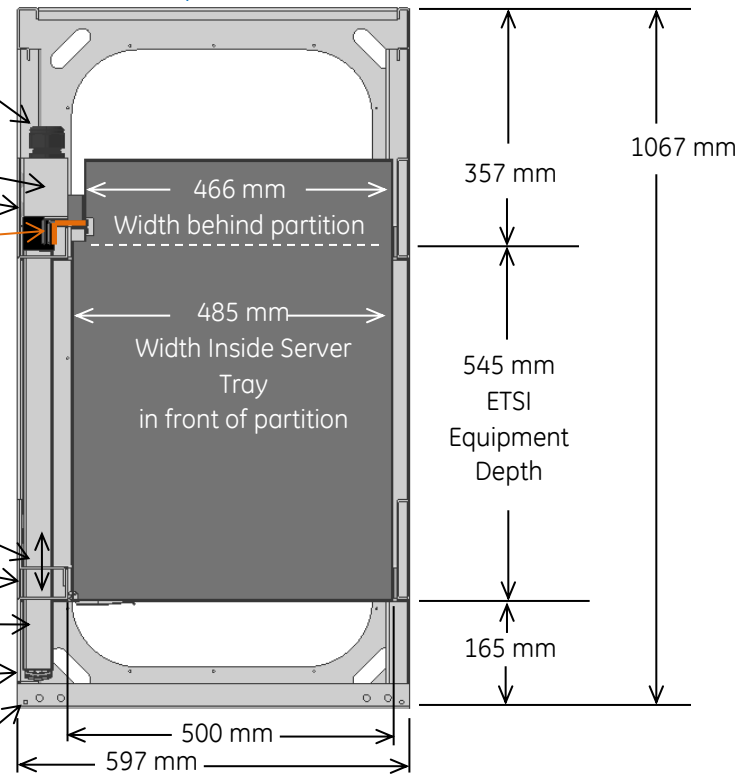
## Reference Design Information for 2 Meter Tall 42RU Single Conversion Cabinet

Pave your path to a better datacenter with this Single Conversion PDU Cabinet reference design.

### Advantages

- AC whips feed out the rear, with service loop to exit any face of the cabinet
- Single Conversion PDU is bolted to welded steel frame, near the center of gravity of rack
- External copper busbars can support alternative power connectors
- Welded "doorway" that forms front rack rails can be positioned forward or backward (in discrete intervals to promote several standard server depths)
- Wide, up to 70% stiffer, structural box beam, [76 mm or 3 inches] with room for rectifiers in the web
- Rectifier user interface is right up front
- Optional door mounts to hinge features in footer

### 2m Reference Design Cabinet Top View



Reference design documentation available on request. Patents pending on orderable items.