

SOLUTION BRIEF

1 MW+ DC power distribution unit (PDU)

Scalable, in-row power delivery for gigawatt AI data centers

KEY BENEFITS

- Efficiently power megawatt IT racks at scale
- Accelerate transition to HVDC power architectures
- Simplify deployment with prefabricated, modular designs
- Engineered to custom specifications

AI is fundamentally transforming data center architecture, introducing new power, cooling, and compute paradigms to meet unprecedented demand for advanced capabilities. With GPUs and other accelerators drawing 10X the energy of CPUs, data center infrastructure is shifting toward high-voltage DC (HVDC) power architectures able to support gigawatt-scale facilities. Inspired by the Open Compute Project (OCP), Flex 1 MW+ DC power distribution units (PDUs) support +/-400 VDC and enable the transition to 800 VDC power architectures. These in-row PDUs efficiently and reliably deliver power to high-density, megawatt-class IT racks as a power sidecar in both one-to-one and one-to-many configurations for flexible, scalable deployment worldwide.

Customization at scale

OCP-compliant to support the rapid buildout of data center capacity, Flex 1 MW+ DC PDUs significantly increase power distribution efficiency and reduce energy losses from grid to rack.

Each PDU features:

10x 110 kW
power shelves with:

- +/-400 Vout
- Four 27 kW rectifier modules
- One power shelf controller
- Six 18 kW BBU or SuperCap modules

Power modules
available:

- +/-400 V to 50 V
- 7 kW
- 10 kW

40 AC electrical whips
(four 6 AWG Type W cables)

DC PDU with 12 fuse modules

HVDC busbar

Rack controller and management switch



ABOUT FLEX

Flex provides advanced manufacturing capabilities, innovative power and cooling products, and end-to-end lifecycle services that solve for data center power, heat, and scale challenges in the AI era. Accelerate data center deployment worldwide with Flex.

The Flex advantage

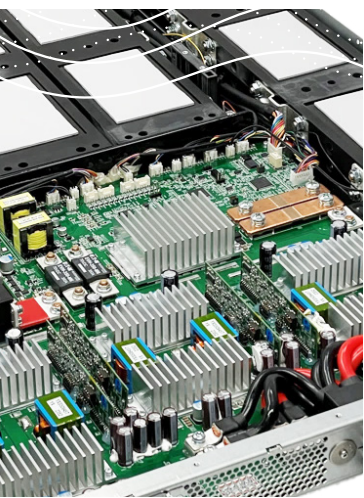
Flex accelerates the deployment of critical AI-era technologies with innovative power products, advanced manufacturing capabilities, and integrated data center services to help reduce time to deployment, optimize cost efficiency, and rapidly shift production as needed. The Flex 1 MW+ DC PDU is backed by:

- **Global manufacturing at scale** – With engineering expertise and state-of-the-art manufacturing facilities in 30 countries worldwide, Flex enables customers to regionalize deployment while maintaining the highest quality standards.
- **End-to-end lifecycle services** – From design and sourcing to integration, deployment, and circular economy solutions, Flex provides full data center lifecycle support.
- **Resilient supply chains** – Flex helps companies manage complex, global supply chains to reduce the risk of disruptions that can impact construction timelines and slow revenue realization.

Power megawatt IT racks at scale with 1 MW+ DC PDUs from Flex.

Learn more

[Data Center Solutions](#) | [Power and Cooling Products](#) | [Rack Integration](#)



For more information, visit flex.com/connect

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