

Dell PowerScale Accelerator Nodes

The PowerScale accelerator nodes deliver flexible performance at scale and cost-effective solutions for modern and traditional workloads.

The PowerScale family comprises of PowerScale scale-out file storage platforms configured with the PowerScale OneFS operating system. PowerScale OneFS provides the intelligence behind the highly scalable, high-performance modular storage solution that can grow with your business. A OneFS powered cluster can be built with a flexible choice of storage platforms including all-flash, hybrid, archive and accelerator nodes. These solutions provide performance, choice, efficiency, flexibility, scalability, security and protection for you to store massive amounts of unstructured data within a cluster.

PowerScale Accelerator Nodes do not contain any local storage and are optimized for CPU/memory configurations. The PowerScale accelerator nodes co-exist seamlessly in the same cluster as your existing PowerScale nodes to drive your traditional and modern applications.

The available Accelerator nodes are as below:

PowerScale PA110

The **PowerScale PA110** is a streamlined, next-generation accelerator node that consolidates the functionality of the previous P100 and B100 models into a single, cost-effective offering. Designed to enhance performance in CPU-bound clusters, the PA110 delivers additional compute horsepower and significant DRAM resources for L1 cache, ensuring optimized workload performance across industries.



With its configurable NIC option for Fibre Channel HBA, the PA110 seamlessly accelerates two-way NDMP backups, boosting operational efficiency for backup use cases. Additionally, this versatile node is positioned to excel in demanding Gen-AI performance boost scenarios and verticals such as Media & Entertainment and Financial Services.

PowerScale P100

PowerScale P100 is a low-cost, value-based node that adds performance to a cluster that is generally composed of nodes that are CPU-bound. They provide additional CPU horsepower for compute bound applications and additional DRAM that can be used as L1 cache. The P100 nodes can also be part of a solution that targets a specific workload to meet specific costs and performance targets. A single P100 node can be added to a cluster and P100 nodes can be added in single node increments. The P100 supports inline compression and deduplication.



PowerScale B100

PowerScale B100 provides the ability to backup OneFS powered clusters via two-way NDMP protocol. The B100 is delivered in a cost-effective form factor to address the SLA targets and tape backup needs of a wide variety of workloads. Each node delivers Fibre Channel ports that can connect directly to a tape subsystem or a Storage Area Network (SAN). The B100 does not contain any local storage. A single B100 node can be added to a cluster and B100 nodes can be added in single node increments. The B100 supports inline compression and deduplication.



PowerScale PA110 Accelerator Node Specifications

PA110 ATTRIBUTES & OPTIONS	
Operating system	PowerScale OneFS 9.11 or later
ECC memory (per node)	512 GB
Front-end networking (per node)	Dual port 25G NIC supporting 10G or 25G connections Dual port 100G NIC supporting 40G or 100G connections Dual port 200G Ethernet NIC
Infrastructure networking (per node)	Dual port 25G NIC supporting 10G or 25G connections Dual port 100G Ethernet NIC Dual port 200G Ethernet NIC IB: for backward compatibility & new cluster

PowerScale P100 Accelerator Node Specifications

P100 ATTRIBUTES & OPTIONS	
Operating system	PowerScale OneFS 9.3 or later
ECC memory (per node)	384 GB or 768 GB
Front-end networking (per node)	Dual port 25G NIC supporting 10G or 25G connections (SFP+/SFP28) or Dual port 100G NIC supporting 40G or 100G connections (QSFP+/QSFP28)
Infrastructure networking (per node)	2 InfiniBand connections with QDR links or Dual port 100G NIC supporting 40G or 100G connections (QSFP+/QSFP28) or Dual port 25G NIC supporting 10G or 25G connections (SFP+/SFP28)
Power Supply	Dual redundant 750W 100V-240V 50/60 Hz

PowerScale B100 Accelerator Node Specifications

B100 ATTRIBUTES & OPTIONS	
Operating system	PowerScale OneFS 9.3 or later
ECC memory (per node)	384 GB
Front-end networking (per node)	Dual port 25G NIC supporting 10G or 25G connections (SFP+/SFP28) or Dual port 100G NIC supporting 40G or 100G connections (QSFP+/QSFP28)
Infrastructure networking (per node)	2 InfiniBand connections with QDR links or Dual port 100G NIC supporting 40G or 100G connections (QSFP+/QSFP28) or Dual port 25G NIC supporting 10G or 25G connections (SFP+/SFP28) 2 Fibre Channel 16Gb connections
Max Power Consumption @ 200~240V (per node)1	Dual redundant 750W 100V-240V 50/60 Hz

ENVIRONMENTAL SPECIFICATIONS – POWER

OPERATING ENVIRONMENT

Compliant with ASHRAE A3 data center environment guidelines

DIMENSIONS / WEIGHT:

The following specifications apply to P100 and B100

- Height 42.8mm (1.68")
- Width: 434mm (17.08")
- Depth: 808.5mm (31.83") (end of the power supply latches)

The following specifications apply to PA110

- Height 42.8mm (1.68")
- Width: 482mm (18.97")
- Depth: 822.88mm (32.39") (with bezel)

MINIMUM SERVICE CLEARANCES

Front: 40" (88.9 cm), rear: 42" (106.7 cm)

Safety and EMI Compliance

Statement of Compliance

This Information Technology Equipment is compliant with the electromagnetic compatibility (EMC) and product safety regulations/standards required by the countries in which the product is sold. EMC compliance is based on FCC part 15, CISPR22/CISPR24 and EN55022/EN55024 standards, including applicable international variations. EMC compliant Class A products are marketed for use in business, industrial, and commercial environments. Product Safety compliance is based on IEC 60950-1 and EN 60951-1 standards, including applicable national deviations.

This Information Technology Equipment is in compliance with EU RoHS Directive 2011/65/EU.

The individual devices used in this product are approved under a unique regulatory model identifier that is affixed to each individual device rating label, which may differ from any marketing or product family name in this datasheet.



PowerScale P100 nodes are Energy Star compliant.

For additional information see <http://support.dell.com> under the Safety & EMI Compliance Information tab.

Take the next step

Contact your Dell sales representative or authorized reseller to learn more about how PowerScale scale-out NAS storage can benefit your organization.



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