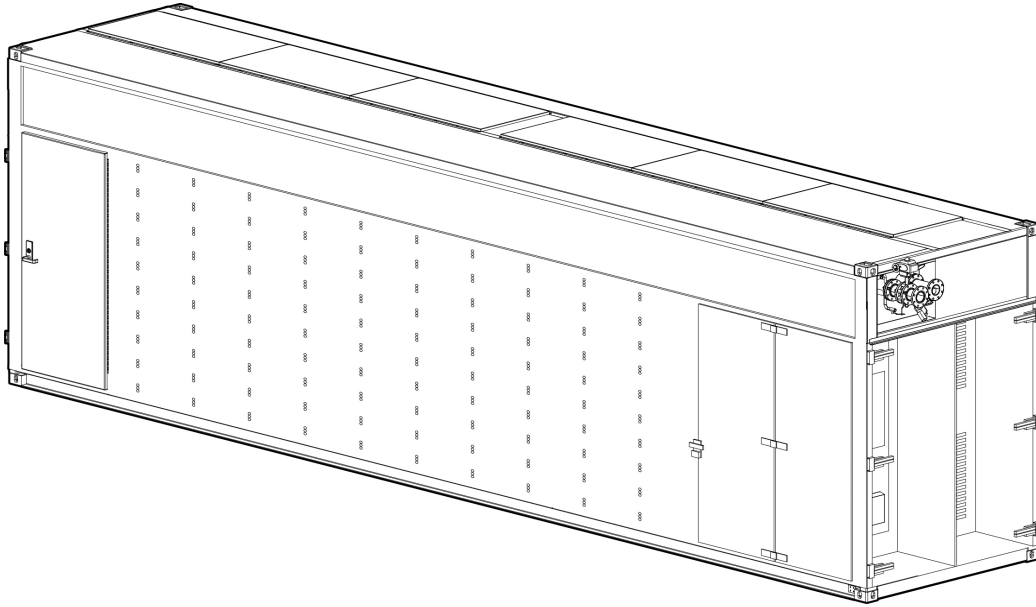


# QuickSpecs

## HP Performance Optimized Datacenter (POD) 40cp

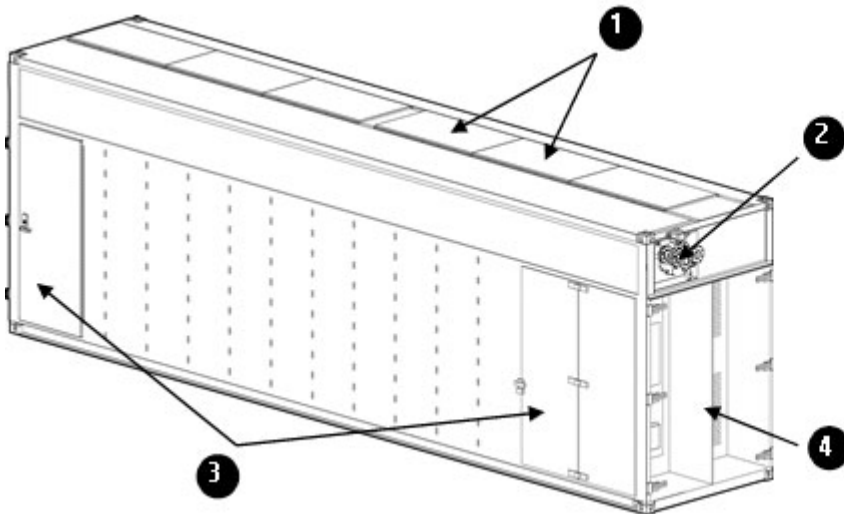
### Overview



The HP Performance-Optimized Data Center (HP POD) is a containerized datacenter equipped with power infrastructure, cooling and IT power distribution. The HP POD can be deployed within weeks instead of months or years typically associated with brick-and-mortar datacenters and offers advanced cooling infrastructure that is more energy-efficient than typical datacenter build-outs.

At 12 meters in length, the HP POD 40cp contains (21) Industry Standard 400mm (19") 50U racks. The HP POD 40cp supports a maximum of 1050U of server capacity and provides 600kW non-redundant (30kW per rack at N) or 300kW redundant (15kW per rack at 2N) power and cooling to support high density IT deployments. The POD Power and Cooling Modules allow simple and efficient power and cooling utility connections to streamline costs and speed up deployments.

The HP POD delivers best-in-class technology to provide flexible and energy-efficient data centers that can ship fully integrated and tested with IT from an HP factory in weeks - slashing the time for data center build-out. It offers configurations optimized for power density, enabling you to quickly upgrade or extend the capacity of your physical infrastructure.



#### HP 40cp POD

1. Heat Exchangers
2. Chilled Water Connections
3. Entry/Exit Doors
4. Power Connections

# QuickSpecs

## HP Performance Optimized Datacenter (POD) 40cp

### Product Features

#### IT Capacity

- Average load of up to 30kW per rack non-redundant (N) or 15kW per rack redundantly (2N)
- 600kW of non-redundant (N) and 300kW of redundant (2N) overall IT capacity
- 1,050U of available rack space - (21) 480mm industry standard 50U racks.

#### IT Flexibility

- Racks are standard 480 mm (19") universal RETMA rails
- Supports HP and third-party industry-standard hardware with front-to-back air flow.  
**NOTE:** Customers can install IT with side to side airflow with option part number AT960A
- Racks can be fully integrated, tested and installed through Factory Express.

#### Power Capacity

- POD uses a Bus Power Distribution System and Monitored and/or Manageable Rack Power Distribution Units
- Up to 600kW in non-redundant (N) power configuration.
- Up to 300kW in redundant (2N) power configuration.

#### Cooling and Energy Efficiency

- Efficient chilled water system with redundant and non-redundant configurations.
- Hot and Cold Aisle Containment, Close-Coupled Cooling to match heat removal with IT loads
- Power Usage Effectiveness (PUE) ratio as low as 1.08 when using HP Cooling Module
- Multi-Speed Fan Technology, allocates only 4% of power to the cooling fans
- Close-coupled temperature control allows use of higher chilled water supply temperatures, which delivers improvements in energy efficiency

#### Standard Datacenter Building Controls

- Smoke detection (VESDA) and fire suppression (NOVEC 1230) systems are included standard.
- Integrated Environmental Control System (ECS) for monitoring and management of power, cooling and other critical systems.
- Emergency Power Off (EPO) system enabling immediate POD shut-down

#### Location and Site Provisions

- 40m2 footprint for POD and required clearances.
- NEMA 3R Construction - Outdoor or Indoor Installation.
- Standard operating temperature -29°C to 54°C (Arctic Weather Options are Available)

#### Serviceability

- The HP POD 40cp has (2) cold aisle entry doors and (5) sets of rear double doors for access to the back of the IT in the racks.
- The power and cooling system are modular for simple component maintenance.
- The POD Environmental Control System (ECS) alerts the user when servicing needs to occur.
- HP offers a full portfolio of POD Infrastructure Services, ranging from basic deployment and commissioning services to complete solution maintenance and management.

#### Rack Information

- (21) 480 mm (19") industry standard full depth 50U racks
- 1,587kg loading capacity



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## HP Performance Optimized Datacenter (POD) 40cp

### Product Features

#### Rack PDU Info

- 3-Phase 400V Power; 32-Amp Power Input Feed With 230V Output
- Local Or Secure Remote Input Current Monitoring
- Remote Outlet Control/Management Available
- PDUs Available With A Variety Of C13 Or C19 Outlet Configurations

#### HP POD Environmental control system (ECS)

- Stand-Alone System Designed For Monitoring And Controlling HP POD Environmental Conditions, Set Points, Alerts, Alarms, POD Power And Cooling Modules.
- HP ECS Can Be Customized To Integrate With Standard Existing Building Management Systems (BMS).
- Snap In Management And Monitoring Addition Of Power And Cooling Utility Modules

#### Smoke Detection and Fire Suppression System

- The POD solution comes with integrated fire suppression (NOVEC 1230) and smoke detection (VESDA ASSD) systems.
- POD is capable of connecting to an existing on-site fire suppression system.

#### Humidifier

- Humidifier System maintains POD environment within 20-80% relative humidity

#### POD Cooling Modules

- Containerized chilled water cooling modules from 180kW to 600kW provide simple and efficient POD system deployment.
- Modularized design allows for N, N+1 or 2N redundancy configurations of Cooling Module
- Optional Connection kit allows for simple and fast deployment
- Economizer Option allows for the use of indirect free-cooling and PUE's as low as 1.08
- High/Low Temperature kits allow for the flexibility of deployment in many different regions.

#### POD Power Modules

- Containerized power modules from 350kVA to 1000kVA with integrated Generator, UPS System with 7 minutes of battery, and output power distribution provide simple and efficient POD system deployment.
- Modularized design allows for N, N+1 and 2N redundancy configurations of Power Module
- Optional Connection Kit allows for simple and fast deployment
- Additional battery and generator runtime modules can be added

#### Regulation and Certifications

- Listed to UL60950-1, UL50, CSA C22.2#60950-1
- Listed to UL50 and CSA C22.2#94.1; NEMA 3R
- Classified to NFPA 70, 2008, National Electric Code

#### Service and Support

- Product Warranty: Standard POD warranty is 1 Year, Next Business Day Support.  
**NOTE:** [Optional Expedited Service Response is available for certain coverage areas.](#)
- Additional Services such as IT and Facilities planning, deployment and installation can be included by HP Technology Services.



# QuickSpecs

## HP Performance Optimized Datacenter (POD) 40cp

### Models and Options

<b>Performance Optimized Datacenter (POD)</b>	HP POD 40cp, 12.2m (40'), 600kW (N)/300kW (2N) POD	FOH17A
<b>POD Racks And Rack Accessories</b>	HP POD 50U Rack <b>NOTE: 21 Included in 40cp POD SKU FOH17A</b>	N/A
	HP POD Filler Panel 10 Pack Kit <b>NOTE: One Filler Panel required for each empty rack U-space.</b>	AQ682A
	HP POD Filler Panel Kit, 100 pack <b>NOTE: One Filler Panel required for each empty rack U-space.</b>	AS933A
	HP POD Network Switch Enclosure Modifies airflow for network switches with side cooling	AT960A
	HP Performance Optimized Datacenter (POD) Filter Replacement Kit	AT979A
<b>POD Rack PDUs</b>	C13 PDU, (24) C13 Outlets, 32A 22kW, Metered, Switchable Outlets	QL174A
	C13 Drop Box <b>NOTE: 1 Required for C13 PDU Installation</b>	BD921A
	C19 PDU (18) C19 Outlets, 32A, 22kW, Metered, Switchable Outlets	QL173A
	C19 Outlet Drop Box <b>NOTE: Required for C19 PDU Installation</b>	QL175A
	HP POD PDU Rack Bracket Kit (Contains 1 Left and 1 Right Bracket)	QL181A
<b>POD Cooling Modules</b>	HP POD Cooling Module 180 <b>NOTE: 20 foot module, 180kW Cooling, Pumps, Buffer Tank</b>	FOH18A
	HP POD Cooling Module 180 Economizer	FOH26A
	HP POD Cooling Module 180 High Temperature Kit	FOH27A
	HP POD Cooling Module 180 Connection Kit	FOH28A
	HP POD Cooling Module 360 <b>NOTE: 20 foot Module, 360kW Cooling, Pumps, Buffer Tank</b>	FOH19A
	HP POD Cooling Module 360 Economizer	FOH29A
	HP POD Cooling Module 360 High Temperature Kit	FOH30A
	HP POD Cooling Module 360 Connection Kit	FOH31A
	HP POD Cooling Module 600 <b>NOTE: 20 foot Module, 600kW Cooling, Pumps, Buffer Tank</b>	FOH20A
	HP POD Cooling Module 600 Economizer	FOH32A
	HP POD Cooling Module 600 High Temperature Kit	FOH33A
	HP POD Cooling Module 600 Connection Kit	FOH34A



# QuickSpecs

## HP Performance Optimized Datacenter (POD) 40cp

### Models and Options

<b>POD Power Modules</b>	HP POD Power Module 350 <b>NOTE:</b> 20 foot module, 350kVA Generator, 200kW UPS 7 Min. Battery	FOH22A
	HP POD Power Module 350 N+1 UPS Option	FOH36A
	HP POD Power Module 350 Connection Kit	FOH37A
	HP POD Power Module 630 <b>NOTE:</b> (2) 20 foot modules, 630kVA Generator (FOH23A), 400kW UPS 7 Min. Battery (FOH38A)	FOH23A, FOH38
	HP POD Power Module 630 N+1 UPS Option	FOH39A
	HP POD Power Module 630 Connection Kit	FOH40A
	HP POD Power Module 1000 <b>NOTE:</b> (2) 20 foot modules, 1,000kVA Generator (FOH24A), 750kVA UPS 7 Min. Battery (FOH41A)	FOH24A, FOH41A
	HP POD Power Module 1000 N+1 UPS Option	FOH42A
	HP POD Power Module 1000 Connection Kit	FOH43A

# QuickSpecs

## HP Performance Optimized Datacenter (POD) 40cp

### Technical Specifications

	HP POD 40cp (Metric Units)
Length (plus clearance)	12.35 m
Width	2.44 m
Height	3.05 m
Site length requirement	14.50 m
Site width requirement	4.6 m
Site height requirement	3.1 m
Max Container Weight	45,500 kg
Max Weight per Rack	1,587 kg total
Power distribution	(6) 225A Busway
Container It Load Limit	600kW Non-Redundant (N) / 300kW Redundant (2N)
Average Power Per Rack	30kW Non-Redundant (N) / 15kW Redundant (2N)
Max Power Per PDU	22kW
Input Power Voltage	(2)380-415V 3phase Wye, 400A, 50-60 Hz
Voltage To Rack	380V -415V
Cooling Technology	Chilled Water
Flow Rate	1000L/min
Max.-Min. Inlet Temperature	12° to 24°C
Flange/Pipe Diameter	PN 16 / DN80
Airflow Per Rack	1,801 CFM
Rack Type	Industry Standard 19"/480mm Rack
Support For 3rd Party IT Equipment	Yes
Max Number Server Racks	21
Available U Space Per Rack	50U
Total POD Rack U Space	1050U
Smoke Detection	Yes, VESDA Air Sampling System
Fire Suppression	NOVEC 1230
Emergency Power Off (EPO) Switch	Included
Humidity Monitoring	Yes
Humidifier	Steam Humidifier
POD Management System	Included, POD Environmental Control System
Networking	(6) 6.35cm Network Pass Through, Interior Cable Tray (Ceiling/Floor)
Security	Key Locks Standard, Optional: Key Card, Biometric, Key Pad, etc.
Operating Min-Max Temp	-29°C to 54°C (as low as -45°C with Artic Temperature Option)
Operating Humidity Range	0-100%
Operating Altitude	3,048m max

# QuickSpecs

## HP Performance Optimized Datacenter (POD) 40cp

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### Technical Specifications

**Environment-friendly  
Products and Approach**

**End-of-life Management  
and Recycling**

Hewlett-Packard offers end-of-life HP product return, trade-in, and recycling programs in many geographic areas. For trade-in information, please go to: <http://www.hp.com/go/green>. To recycle your product, please go to: <http://www.hp.com/go/green> or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.

The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: <http://www.hp.com/go/green>. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.

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