Data Center IT Rack
OCP ORV3 HPR
Unleashing Extreme Power Density

A high-power evolution of the ORV3 platform, engineered for extreme-density AI, HPC, and next-generation compute deployments.

- Industrialized, mass-produced design ready for global deployment
- Global footprint (Asia, North America, Europe)
- Market leader in custom racks for hyperscale data centers
- Green steel options available (R50+ recycled steel)

Overview

OCP EMBODIED CARBON DISCLOSURE

OCP INSPIRED

- *OCP Open Rack V3 High Power Rack (HPR)*
- *Designed for extreme power delivery and thermal demands*
- *Modular, scalable extension of the ORV3 platform*

Supports up to 33kW per power shelf for ultra-dense configurations	**High-voltage 3-phase power for large-scale compute loads**
Optimized for air and direct liquid cooling integration	**Maintains ORV3 modularity while enabling higher density**

flex

Performance Benefits for High-Density AI & HPC

Designed to support extreme-density compute environments, the OCP ORV3 HPR rack enables high-power performance, efficient operation, and scalable deployment.

Technical Specifications

A high-level view of the OCP ORV3 HPR racks core physical and operational characteristics.

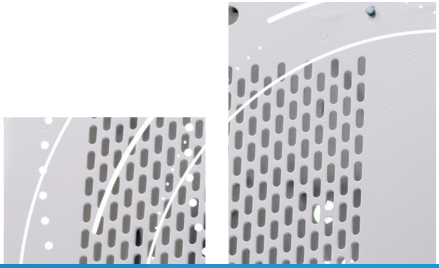
Dimensions (H x W x D)	2286 mm × 600 mm × 1192 mm
Weight	
Rack Units	44 Open Units (OU) / 48 Rack Units (RU)
Static Load Capacity	1600 kg (3527 lbs)
Dynamic Load Capacity	1400 kg (3086 lbs)
Input Power	3-phase AC (347/200 to 480/277 VAC)
Power Shelf Capacity:	Up to 33 kW per shelf
Cooling Support	Optimized for advanced air and liquid cooling integration
Material Options	G30 / ASTM A653 steel options, including green steel (R50+)
Paint Options	Custom finishes available upon request

Customization & Engineering Support

Flex provides end-to-end engineering capability to tailor the OCP ORV3 HPR rack to specific power, cooling, and infrastructure requirements, while maintaining compliance with OCP standards.

Customization examples:

- Rack dimension and configuration adjustments
- Custom power configurations and shelf layouts
- Air or liquid cooling integration and optimization
- Prototyping, validation, and production readiness testing



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