

Vertiv™ CoolPhase Perimeter

DS035-105, R-454B



Benefits

- **Unmatched reliability:**
Built with corrosion-resistant materials, redundant systems, and predictive diagnostics to support continuous operation.
- **Energy savings & high ROI:**
Variable capacity compressors, EC fans, and Glycool free-cooling options reduce energy use and operating costs.
- **Scalable & adaptable:**
Modular design and multiple airflow and cooling configurations support evolving infrastructure needs.
- **Reduced environmental impact:** Low-GWP refrigerant integration positions your facility for long-term compliance and reduced environmental impact.
- **Intelligent System Control:**
Integrated temperature, humidity, filtration, and airflow management tailored for sensitive electronics that automatically adjust to maximize performance.

A high-performance refrigerant-based cooling system designed to meet the needs of data centers and other mission-critical spaces.



Vertiv™ CoolPhase Perimeter

Building on the legacy that the Vertiv™ Liebert® DS created in data center thermal management, the Vertiv™ CoolPhase Perimeter system delivers next-generation precision cooling for the modern day. Now updated to support low Global Warming Potential (GWP) refrigerants, the Vertiv CoolPhase Perimeter helps organizations meet evolving environmental regulations while maintaining the precision, uptime, and efficiency they depend on.

Ideal applications

- Medium and large data centers.
- Colocation / MTDC.
- Telecom.
- Finance and banking.
- Universities and healthcare.

Key features

- Flexible configurations available in upflow and downflow models with airflow options for ducted and non-ducted applications.
- Energy-efficient EC fans and variable speed motors deliver optimized airflow with reduced energy consumption.
- Intelligent control system with predictive humidity control, teamwork modes, and remote monitoring.
- Front-access components and field-separable frame for simplified maintenance and installation.



Technical specifications

Physical data	DS035	DS042	DS053	DS070	DS077	DS105
Unit dimensions (H x W x D), m (in)	2300 x 600 x 1200 (91 x 24 x 48)					
Shipping dimensions (H x W x D), m (in)	2400 x 1000 x 1400 (94.5 x 39.4 x 55.1)					
Weight, kg (lbs)	408 (899)					
Shipping weight, kg (lbs)	560 (1234)					

Performance data

Nominal cooling capacity, kW (kBTU/hr)*	39.3 (134,097)	43.1 (147,063)	58.6 (199,952)	71.6 (244,309)	73.7 (251,475)	103.5 (353,157)
Nominal air flow, m3/h (ACFM)	8,835 (5,200)	10,534 (6,200)	13,592 (8,000)	16,311 (9,600)	18,689 (11,000)	22,427 (13,200)
Nominal SCOP	3.13	3.02	2.63	2.75	2.34	2.73
Minimum return air temperature	68F (20C)					
Maximum return air temperature	100F (37.7C)					
Compressor modulation range	10-100%					
Fan modulation range	0-100%					
Refrigerant	R-454B					

* Nominal performance data calculated at unit inlet air temp 85°F, 0.2 inH₂O ESP, dew point 52°F, outdoor temp 95°F, and airflow listed above. For performance data at different site conditions, contact local sales representative.

Electrical data

*Air cooled system without humidifier

Power supply	460V	460V	460V	460V	460V	460V
FLA	33.4	35.5	55.8	58.6	62.8	78.9
WSA	40.8	43.5	67.8	71.3	76.5	96.3
OPD	45	50	70	80	90	110

Ambient conditions

Operating conditions	0 to 49C (0 - 120F)
Storage conditions	-40 to 70C (-40 - 158F)

Compliance

Safety compliance	cCSAus
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