

Vertiv™ CoolPhase Perimeter

DA050-165, R-454B



Benefits

- Annualized power usage effectiveness (PUE) under 1.2 with pumped refrigerant economization.
- Low global warming potential (GWP) refrigerant, using R-454B (GWP = 466).
- Advanced controls for smooth economization transitions.
- Complete separation of data center and outdoor air for highly flexible split-system installations.
- Scalable design supports faster time-to-market.
- Nominal seasonal coefficient of performance (SCOP) up to 3.31 across the unit's service life.

The Vertiv™ CoolPhase Perimeter is a pumped refrigerant free cooling economization system for medium to large data centers, built on the Vertiv™ Liebert® DS platform with installations across 130+ countries.

Energy-efficient operation

- Designed to achieve annualized PUE under 1.20 under specified site conditions.¹
- 26-53% higher SCOP at full load compared to ASHRAE 90.1 standard.
- Automated transitions designed to reduce compressor runtime when site conditions allow.
- Pumped refrigerant economization supplements direct expansion cooling at low ambient temperatures.

Easier servicing

- Front-access servicing.
- Split-system design keeps service work outside the IT whitespace.
- Bearings support reduced fan impeller maintenance.
- No dampers to service or outside air filters to replace.

Advanced control

- Vertiv™ Liebert® iCOM™ controls provide smooth economization transitions for more stable thermal management.
- Advanced, automated component protection routines.
- Multi-unit teamwork modes eliminate unit fighting and increases efficiency.
- Supports integration to BMS via using onboard BACnet and Modbus.
- Lead / Lag setting for automated emergency rotation of operating and standby units.

Flexible design

- More than two dozen combinations of capacity, airflow and application.
- Configurable as split-systems for indoor perimeter and gallery configurations.



Vertiv™ CoolPhase Perimeter (DA125)

¹ Nominal performance data calculated at unit inlet air temp 85°F, 0.2 inH₂O, dew point 52°F, outdoor temp 95°F, and airflow listed above. For performance data at different site conditions, contact local sales representative.



Technical specifications

Physical data	DA050	DA080	DA085	DA125	DA150	DA165
Unit dimensions (H x W x D), mm (in)	1,930 x 1,930 x 889 (76 x 76 x 35)	1,930 x 2,515 x 889 (76 x 99 x 35)	1,930 x 2,515 x 889 (76 x 99 x 35)	1,930 x 3,607 x 1,194 (76 x 142 x 47)	1,930 x 3,607 x 1,194 (76 x 142 x 47)	1,930 x 3,607 x 1,194 (76 x 142 x 47)
Dry weight, kg (lbs)	721 (1,590)	1,021 (2,250)	1,021 (2,250)	1,572 (3,465)	1,621 (3,574)	1,621 (3,574)
Performance data						
Nominal cooling capacity, kW (kBTU/hr)*	49.1 (167,536)	78.9 (269,218)	87.7 (299,245)	134.6 (459,274)	158.1 (539,460)	168.0 (573,240)
Nominal air flow, m3/h (ACFM)	11,213 (6,600)	16,311 (9,600)	17,670 (10,400)	30,582 (18,000)	30,582 (18,000)	30,582 (18,000)
SCOP	3.22	3.20	3.27	3.31	3.25	3.06
Refrigerant	R-454B					

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

Ambient conditions

Operating conditions

-34° to 49°C (-29° - 120°F)

Storage conditions

-40° to 70°C (-40° - 158°F)