VERTIV.

Liebert®

HPM
from 4 to 30 kW



Vertiv™

Vertiv designs, builds and services mission critical technologies that enable the vital applications for data centers, communication networks, and commercial and industrial environments. We support today's growing mobile and cloud computing markets with our portfolio of power, thermal, infrastructure management products, software and solutions, all complemented by our global service network. Bringing together global reach and local knowledge, and our decades-long heritage including brands like Chloride®, Liebert® and NetSure™, our team of experts is ready to take on your most complex challenges, creating solutions that keep your systems running—and your business moving. Together, we're building the future of a world where critical technologies always work.

YOUR VISION, OUR PASSION.
VertivCo.com

Liebert HPM

Liebert HPM air conditioners have been designed to allow maximum flexibility of application in technological environments, from data processing centers to control rooms and electronic centers for telecommunication. This range includes units with a cooling capacity from 4 to 30 kW granting complete environmental control and reliability which are paramount to ensure faultless operation of computer rooms, telecom installations, data centres and technical applications. Liebert HPM is available in a number of airflow versions: with upflow, downflow and displacement airflow patterns across a full range of cooling versions: direct expansion (freecooling, dual fluid and constant) or chilled water.

Key Features

- Precision cooling floor mount products comply with the European ErP 2015 Directive requirements, respecting environmental commitments, while reducing operating costs
- Continuous monitoring of heat load ensures that only necessary kilowatts are invested in targeted cooling, thus conserving energy
- First class energy efficiency achieved through the combination of market leading technologies
- EC Fans for optimized airflow distribution
- The direct expansion version has been designed for R410A Refrigerant
- Vertiv supports customers with an extensive service offering, guaranteeing availability and total peace of mind 24/7



Liebert® HPM

Vertiv's Customer Experience Center - The Floor-Mount Validation Area

Vertiv's Customer Experience Center located in Tognana (Padova- Italy), gives our customers the unique opportunity to witness pre-installation demonstrations, covering technical performance, interoperability and efficiency of our solutions under a broad range of real field conditions. Our Customer Experience Center features a dedicated area to test our highly efficient floor-mount units, including our Liebert® HPM solution. Equipped with a highly automated testing chamber, this validation area can balance a thermal load of up to 200 kW and can simulate a test environment within a temperature range of 0°C to 60°C.

Customers visiting the center may also benefit from a comprehensive consultation from our R&D, engineering and application specialists. The Customer Experience Center provides customers, consultants and data center specialists with the most complete testing area to experience the capabilities of our technologies at peak conditions. All our measuring tools are periodically tested to adhere to current international quality procedures.

Every customer visit is accompanied by a complete final report which includes each and every tested parameter as well as the relevant outputs for the specific Thermal Management unit validated.



The Thermal Management Customer Experience Center in Italy

1. R&D Validation Lab 1
2. R&D Validation Lab 2
3. Floor-Mount Validation Lab
4. Showroom
5. Evaporative Cooling Innovation Lab
6. Freecooling Chiller Validation Lab
7. Adiabatic Freecooling Chiller Innovation Lab



Technical Specifications

Liebert® HPM - Direct Expansion Version

MODEL		S0F	S0H	S1A	S1D	S1E	S1G	S2E	S2G
Condenser		HCR10	HCR14	HCR17	HCR24	HCR24	HCR24	HCR43	HCR43
Total gross cooling capacity	kW	5.6	7.2	10.6	13.0	15.6	17.4	23.1	25.0
Net sensible cooling capacity	kW	5.1	7.0	9.8	10.9	13.8	15.6	19.9	21.5
Sensible Heat Ratio (SHR)		0.93	1.00	0.94	0.86	0.93	0.95	0.90	0.92
Net sensible EER		2.6	3.0	3.1	2.9	3.3	3.1	3.1	3.0
Airflow	m^3/h	1.560	2.500	2.680	2.750	4.200	4.930	5.200	5.750
Max. ESP	Pa	300	240	190	140	400	380	280	190
Sound pressure level	dB(A)	56,2	50,8	52,9	53,3	48.8	49.4	52.7	50.0
Internal Unit Dimensions (W x D)	mm	750 x 400	750 x 500	750 x 500	750 x 500	750 x 750	750 x 750	750 x 750	750 x 750
External Unit Dimensions (W x D)	mm	701x 599	1050 x 891	1050 x 891	1112 x 1340	1112 x 1340	1112 x 1340	1112 x 1340	1112 x 1340
Weight of the Internal Unit	kg	170	195	210	215	240	250	260	270
Weight of the External Unit	kg	16	44	44	75	75	75	92	92
Airflow of the Delivery (downflow, upflow, displacement/frontal)		D, U, F*	D, U, F*	D, U, F*	D, U, F*	D, U, F*	D, U, F*	D, U, F*	D, U, F*

Note:

Performance at 24°C 50%
Nominal ESP 20 Pa
External Temperature 35°C
System able to work at up to 40°C external temperature.
Internal Unit Height 1950 mm; External Unit Height 907 mm
D: downflow U: upflow F: frontal

Technical Specifications

Liebert® HPM - Chilled Water Version

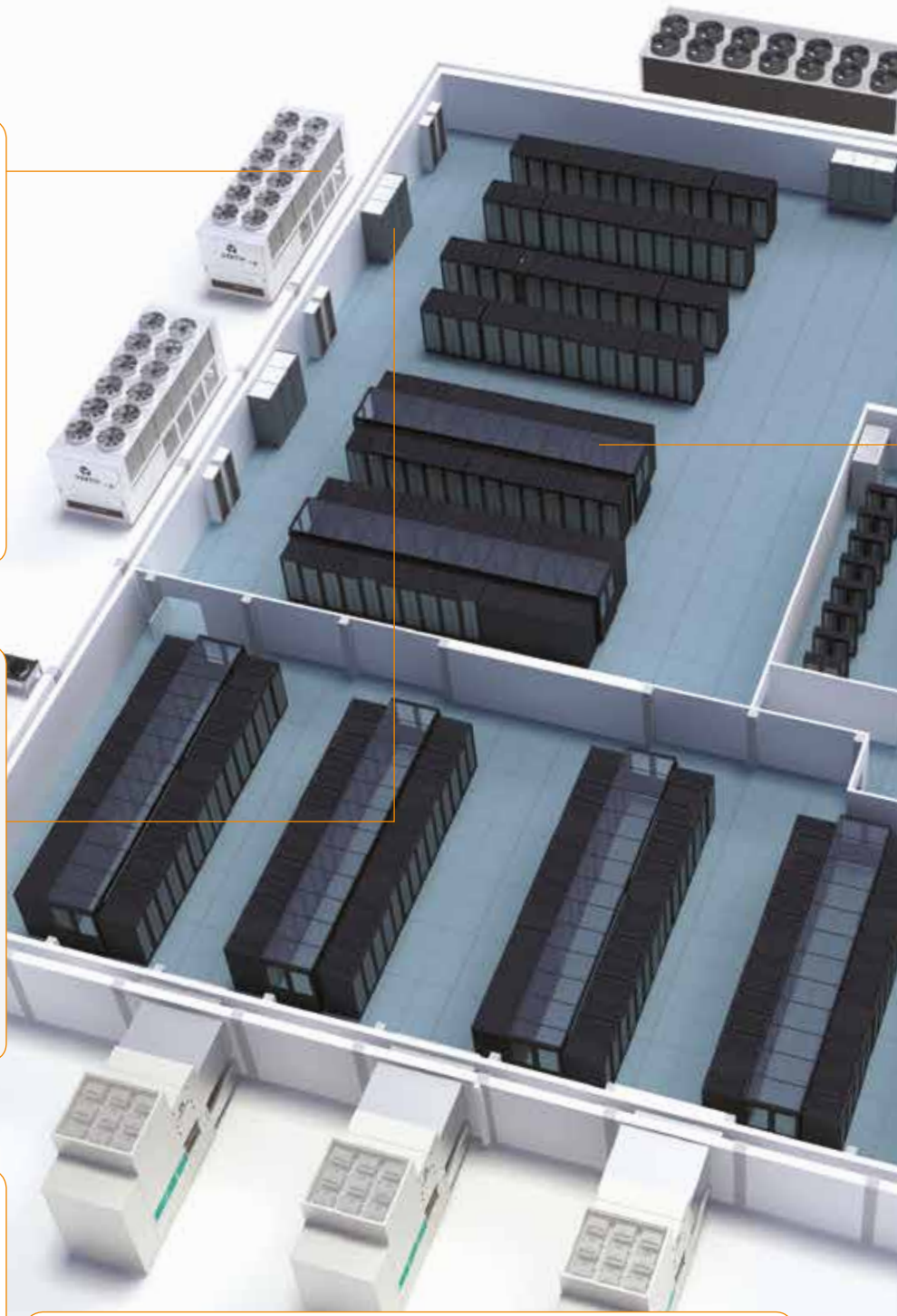
MODEL		S06	S08	S11	S15	S18	S29
Power supply voltage (V±10%)	V/Ph/Hz	230/1/50	400/3/50				
PERFORMANCE [1]							
Airflow	m3/h	1395	2200	2800	4500	5200	6150
ESP max (Downflow & Displacement) [2]	Pa	300	240	85	300	300	250
ESP max (Upflow) [2]	Pa	300	240	114	300	300	250
INLET WATER TEMPERATURE: 7°C - OUTLET WATER TEMPERATURE: 12°C							
Total cooling capacity	kW	6.2	9.2	12.6	17.5	22.4	28.8
Sensible cooling capacity	kW	5.6	8.5	11.2	16.7	20.3	25.0
NSEER		46	49	35	23	20	16
SHR (sensible / total ratio)		0.90	0.92	0.89	0.95	0.91	0.87
INLET WATER TEMPERATURE: 10°C - OUTLET WATER TEMPERATURE: 15°C							
Total cooling capacity	kW	4.1	6.4	8.8	12.3	15.8	20.1
Sensible cooling capacity	kW	4.1	6.4	8.8	12.3	15.8	20.1
NSEER		33	37	24	17	16	12
SHR (sensible / total ratio)		1.00	1.00	1.00	1.00	1.00	1.00
DIMENSIONS							
Width	mm	750	750	750	750	750	750
Depth	mm	400	500	500	750	750	750
Height	mm	1950	1950	1950	1950	1950	1950
WEIGHTS							
Net	kg	135	150	165	190	210	230

[1] At the following standard conditions: ambient conditions 24°C db; 50% R.H.(17°C wb). The airflow of the units refers to the standard configuration with G4 class filter.

Note 1: Cooling capacities are gross. To obtain the net cooling capacities the fan power input must be substracted.
Note 2: Performance with EC Fan Full, when available.

[2] Maximum external static pressure for the indicated airflow

Thermal Management Data Center Infrastructure for Small and Large Applications





Liebert® HPC

Wide range of high efficiency Freecooling Chillers from 40 kW to 1600 kW

- Designed specifically for data center applications and to work with Vertiv™ SmartAisle™
- Premium energy efficiency version
- Unique control capabilities with the Vertiv ICOM™ Control.

Liebert HPM

Room cooling air conditioners available from 4 to 30 kW



Liebert PDX
Liebert PCW

Available from 5-220 kW



- Premium energy efficiency
- Eurovent certified performance
- Unique control capabilities with the Vertiv ICOM Control
- Liebert® EconoPhase™ available for the direct expansion system.



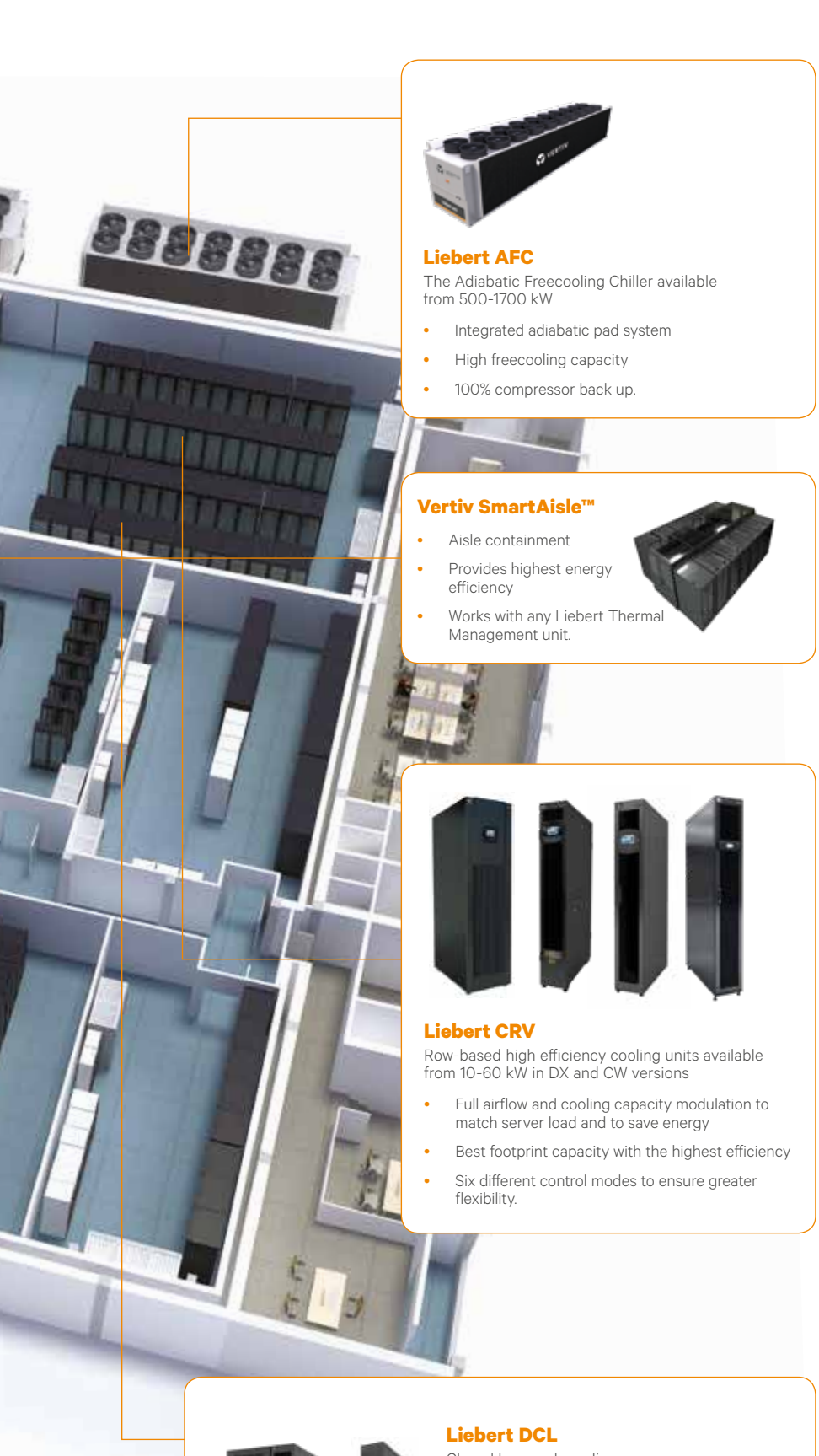
Liebert EFC

Indirect evaporative freecooling unit leveraging on data center know-how. Available from 100 to 450 kW

- Unique control capabilities optimizing water and energy costs
- Substantial reductions and savings in terms of electrical infrastructure.

Vertiv™ *Trellis*™ Platform

Vertiv's *Trellis*™ platform is a real-time infrastructure optimization platform that enables the unified management of data centre IT and facilities infrastructure. The Vertiv *Trellis* platform software can manage capacity, track inventory, plan changes, visualize configurations, analyze and calculate energy usage, and optimize cooling and power equipment. The Vertiv *Trellis* platform monitors the data center, providing a thorough understanding of system dependencies to help IT and facilities organizations keep the data center running at peak performance. This unified and complete solution, delivers the power to see the real situation in your data center, make the right decision and take action with confidence.



Liebert AFC

The Adiabatic Freecooling Chiller available from 500-1700 kW

- Integrated adiabatic pad system
- High freecooling capacity
- 100% compressor back up.

Vertiv SmartAisle™

- Aisle containment
- Provides highest energy efficiency
- Works with any Liebert Thermal Management unit.

Liebert CRV

Row-based high efficiency cooling units available from 10-60 kW in DX and CW versions

- Full airflow and cooling capacity modulation to match server load and to save energy
- Best footprint capacity with the highest efficiency
- Six different control modes to ensure greater flexibility.



Liebert DCL

Closed loop rack cooling

- Two different architectures:
  Closed Loop
  Hybrid Loop
- Multiple combinations for up to 4 server racks
- Available as direct expansion or chilled water version

SERVICES

Vertiv supports entire critical infrastructures with the largest global service organization and an extensive service offering, enhancing network availability and ensuring total peace of mind 24/7.

Our approach to servicing critical infrastructure covers all aspects of availability and performance: from single power and thermal management equipment to entire mission-critical systems.

The most comprehensive insurance for business protection can be obtained with a service program from Vertiv which includes access to Vertiv LIFE™ Services.

VERTIV™ LIFE™ SERVICES

Vertiv LIFE Services provides Remote Diagnostics and Preventive Monitoring for UPS and thermal management equipment.

Vertiv LIFE Services delivers increased uptime and operational efficiency by enabling continuous monitoring of your equipment, expert data analysis and field engineering expertise.

Through the data transferred from your equipment via Vertiv LIFE Services, our Remote experts gain the real-time insight and information needed to quickly identify, diagnose, and resolve any irregularities that may arise in operation, ultimately taking responsibility for your critical assets 24/7.



VertivCo.eu | **Vertiv S.r.l.,** Via Leonardo da Vinci 16-18, 35028 Piove di Sacco (PD), Italia, CF-P.IVA IT00230510281

© 2019 Vertiv Co. All rights reserved. Vertiv, the Vertiv logo and Vertiv Liebert HPM-S are trademarks or registered trademarks of Vertiv Co. All other names and logos referred to are trade names, trademarks or registered trademarks of their respective owners. While every precaution has been taken to ensure accuracy and completeness herein, Vertiv Co. assumes no responsibility, and disclaims all liability, for damages resulting from use of this information or for any errors or omissions. Specifications are subject to change without notice.

MKA4L0UKHPM Rev. 1-10/2020