



Liebert® PEX3™

40-100kW

Prudent & Value-driven
Thermal Management Solution
in Compact Footprint



Liebert® PEX3™ 40-100kW

*Unparalleled efficiency and precision
cooling for your mission-critical loads*



Liebert® PEX3™

*Introducing Liebert® PEX3™
Reliable & Efficient Precision
Cooling Solution*

At Vertiv, we understand the evolving nature of your business, so is our products which supports your business continuity. Our latest thermal management solution, the Liebert® PEX3™, features advance technologies that gives to mission critical loads the highest levels of efficiency, utmost reliability within the most compact footprint.

The Liebert® PEX3™ is a direct expansion R410a gas heat exchanger equipped with the advanced industry technology, guaranteeing precise cooling of data centers and server rooms. It comes complete with refrigerant gas, enabling the unit to achieve significant efficiency levels.

Liebert® PEX3™ is equipped with microprocessor controller, it uses microchannel coil that truly enhances unit efficiency. The Liebert® PEX3™ range is also embedded with new generation Liebert EC Fans 2.0, thereby taking efficiency measures to new heights.

Liebert® PEX3™ ranges from 40 to 100kW, each 10kW interval comes with single & multiple compressor options. In fact, 50 kW model has both.

The complete unit design makes PEX3 an ideal, scalable cooling system that is able to expand with your evolving business needs.

Graph (at right side) reflects

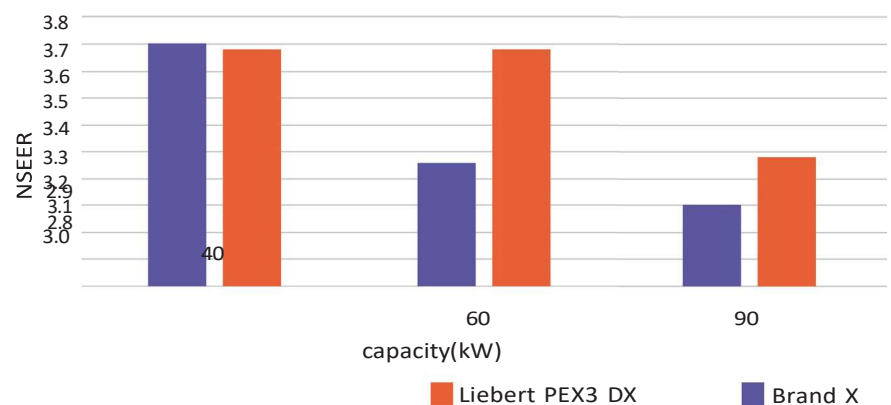
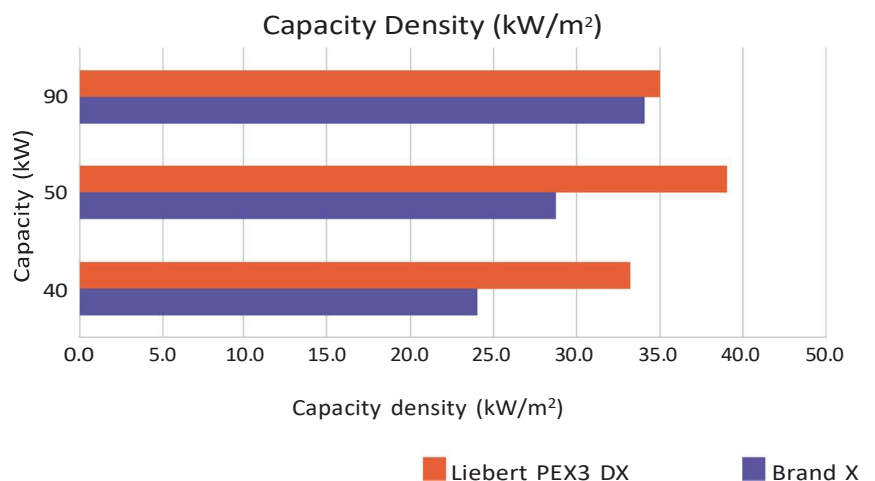
PEX3 DX features 10%-25% more compact & 5-10% more efficient than other in market.



PEX3 Down flow



PEX3 Up flow



Above values have been calculated based on return air condition of 24°C, 50%RH and condensing temperature of 45°C, excluding condenser power consumption

Enhanced efficiency through evaporator coil powered by Microchannel Aluminium coils - first ever deployed in PEX series



**EVAPORATOR COIL
- MICROCHANNEL**

- Microchannel coils are 40% smaller, 40% more efficient, and use 50% less refrigerant than standard tube and fin coils.
- 32 mm Flat tube microchannel aluminum coil single row results in lesser air side pressure drop, less power consumption.
- Compact design & less also resulting in reduced unit weight.



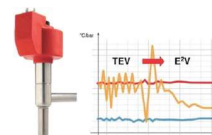
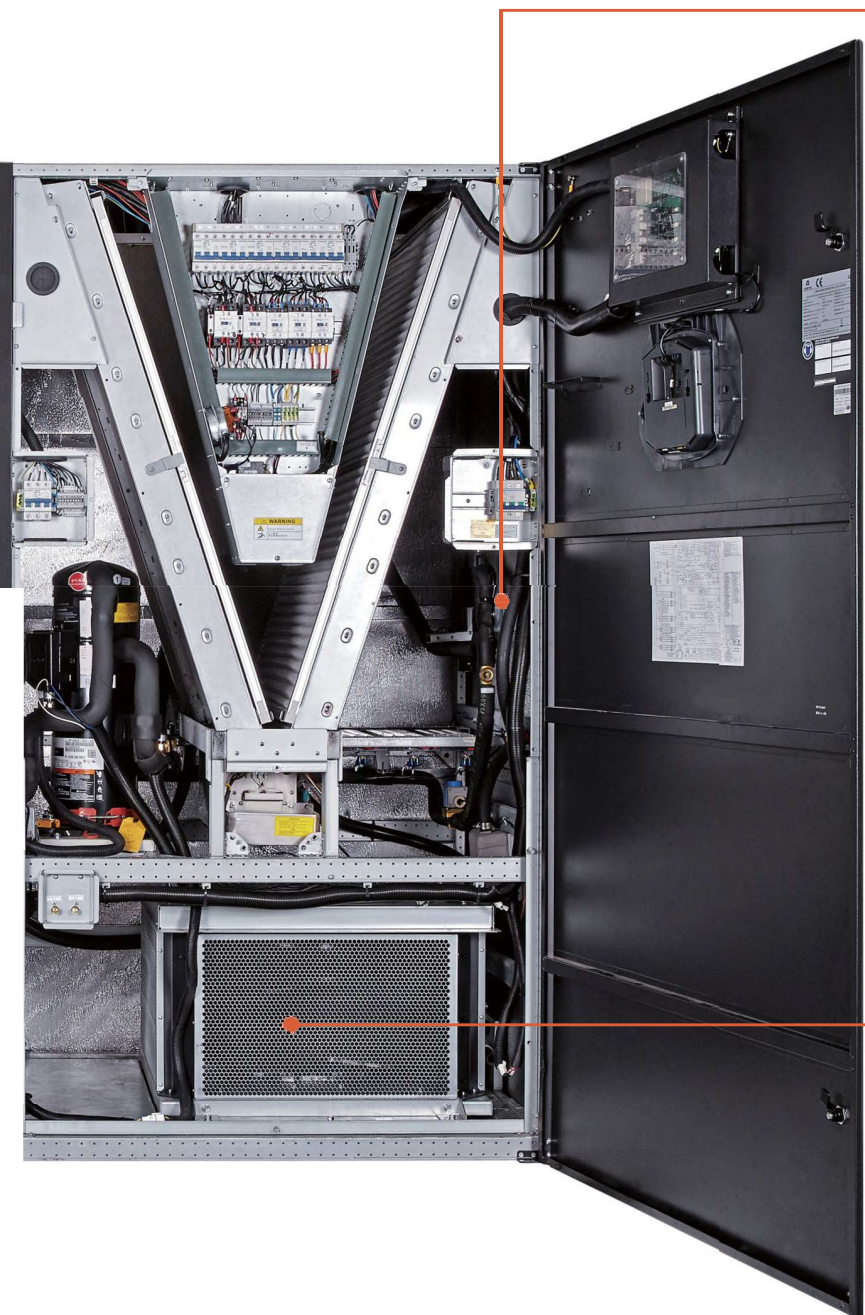
Compact Design

PEX3 has a footprint nearly 15~30% lower than other brands, available in 4 frame sizes.



Wide Capacity Range

PEX3 DX is available from 40 to 100kW both in down flow and up flow configurations.



ELECTRONIC EXPANSION VALVE

- Necessary for integrated and optimal variable capacity control.
- Maintain constant superheat
- EEV is standard feature in PEX3



EC Fan

- The unit is equipped with a high efficiency, IP54 protection, variable frequency for speed control, centrifugal plug type innovative EC fan(s).
- The EC fan technology regulates airflow and reduces the fan input power.
- Liebert EC 2.0 fan modulates the fan speed according to load density.



Precise Temperature & RH Control

PEX3 technology enables close monitoring and control of room temperature, the standard version includes advanced controller, heater, humidifier and other components.



Environment friendly option

The use of the eco-friendly refrigerant R410A (standard) is particularly advantageous: The best parameters in terms of heat exchange to improve greenhouse performance.

Vertiv™ iCOM™ Controller Drives Liebert® PEX3™ to the Highest Efficiency Levels

The Vertiv™ iCOM device features a unique control algorithm designed to manage the operation of the Liebert® PEX3™ units, ensuring top reliability under all conditions. With the optional wall-mounted display, Liebert PEX3 units with the Vertiv iCOM control graphic display can be centrally monitored and controlled.

PEX3 unit is available with 9-inch touch screen as a standard display, using multi-colour 800×480 dot-matrix liquid crystal touch screens with white backlight. The operation of the unit becomes simpler and more convenient, and the status view of the unit becomes more visualized.

The display allows access to the unit via the network as well. Unit control includes automatic restart functions after power failure, BMS communication interface via "Bacnet" and ModBus, with input for remote on/off contacts and facilitate coordination among Liebert PEX3 units within the same room by virtue of Integrated Ethernet Connection..

Advance technology based ® Liebert iCOM™ controller with touch screen display acts as the brain of the precision cooling system, providing the optimum performance under varying load conditions, resulting in huge savings in operating expenses.

Cascading effect leads to higher efficiency

Environment friendly refrigerant

Compact internal structure

iCOM controller with touch screen display

Advanced heatexchanger

High efficiency aspect bought to each components level

PEX3 is designed considering the dynamic needs of the market, anticipating future requirements, and achieving the best energy efficiency scenario, which will be the perfect solution for you to save operating expenses.

Technical Specifications

Parameters	P1030	P1040	P1050(S)*	P1050(D)**	P2060
Dimensions (WxDxH) (mm)	930 × 995 × 1975		1130 × 995 × 1975		830 × 995 × 1975
Operational Weight (kg)	360	420	440	470	660
Test Condition : Return air temp at 24°C DB/17°C WB & condensing temperature : 45°C					
Net Cooling Capacity (kW) (downflow)	38.5	47.8	53.2	53.9	65.3
Net Cooling Capacity (kW) (upflow)	38.5	47.6	52.9	53.9	64
Air Flow (m ³ /h)	13100	14500	15600	15600	20200
No of Compressor***& Fan	1 & 1	1 & 1	1 & 1	2 & 1	2 & 2
Type of filter	Type (EU4/MERV8 rating) - Standard				
Electrical Characteristics	380V (-15% ~+10%), 3Ph + N ~60Hz				
Power Input (KW)	19.3	21.3	26	26.4	35.7

Parameters	P2070	P2080	P2090	P2100
Dimensions (WxDxH) (mm)	1830 × 995 × 1975		2230 × 995 × 1975	
Operational Weight (kg)	670	740	770	780
Test Condition : Return air temp at 24°C DB/17°C WB & condensing temperature : 45°C				
Net Cooling Capacity (kW) (downflow)	74	83	86	102.3
Net Cooling Capacity (kW) (upflow)	74	83	86	102.3
Air Flow (m ³ /h)	25200	25000	25600	28500
No of Compressor***& Fan	2 & 2	2 & 2	2 & 2	2 & 2
Type of filter	Type (EU4/MERV8 rating) - Standard			
Electrical Characteristics	380V (-15% ~+10%), 3Ph + N ~60Hz			
Power Input (KW)	38.2	39	40	45.4

Note:

- *50 kW model with single refrigerant circuit
- **50 kW model with dual refrigerant circuits
- ***Hermetic fixed scroll compressor with R410A refrigerant
 - In Evaporator microchannel coil is used for better performance
 - Each coil module consists EEV as standard, single heat rejection
 - Infrared humidifier & single stage heaters are standard
 - For details, please refer technical manual of PEX3
 - ESP (External Static Pressure): 50Pa.

