Vertiv™ Liebert® PEX3 CW

Chilled Water Cooled Precision Air Conditioning For Data Centers
Cooling Capacity : 10 to 200 kW

A Chilled Water Precision System That Handles The Most Demanding Conditions

Liebert® PEX3 CW is specifically designed to handle the high heat loads generated by computers and other electronic equipment, using an existing building chiller as a source of chilled water cooling.

Built to the highest specifications in the industry with proven components and design, the Liebert® PEX3 CW is ideal for critical applications including:

- Data center
- Telecommunications central switching offices
- Industrial process control centers
- Electrical and power room
- Medical facilities

Flexibility

- Provides a complete environmental control package, including both precision air conditioning and humidity control.
- Upflow and downflow configurations available for raised floor and non-raised floor applications.
- Liebert iCOM control system brings high-level supervision to multiple units, allowing them to work together as a single system to optimize room performance.

Higher Availability

- Designed with the highest quality components selected for their proven performance.
- Provide around-the-clock operation to protect critical installations.
- Operates with a high sensible heat ratio, assuring that proper humidity levels will be maintained.
- Liebert iCOM control system adds automatic sequencing of components to even wear and extend service life.

Lowest Total Cost of Ownership

- Adopts high-efficiency EC fan.
- Design to achieve sensible heat ratio of 1.0.
- Optimizes airflow efficiency with multiple control strategy.
- Low water pressure drop design enhancing system EER.

EC fan

- Backward curved motorized impeller powered by a direct drive DC Motor with integrated AC-DC conversion
- Soft startup
- Equipped with high energy efficiency and high external static pressure fan as standard configuration

The EC fan is located in the area beneath the raised floor or within the unit. Superior energy savings can be realized with the fans located beneath the raised floor.

Controller

- User friendly and customizable graphic display
- Multi-level password protection
- Auto-restart in the event of emergency
- Records various events and stores historical information
- Built-in lead/lag functions for enhanced system reliability
- Unit-to-unit communications to keep multiple units working together to optimize energy efficiency

Upflow Unit

Technical Parameters \ Model	Model (P****UC)							
	P1020	P1050	P2080	P2100	P2120	P2140	P3160	P3190
Return air dry/wet bulb temperature 33/20°C (P1020 return air dry/wet bulb temperature 25/17°C), chilled water inlet/outlet temperature 12/18°C								
Total cooling capacity (kW)	10.8	51.5	80.1	101.1	120.9	142.0	160.6	192.3
Sensible cooling capacity (kW)	10.8	51.5	80.1	101.1	120.9	142.0	160.6	192.3
Air volume (m3/h)	4500	12400	16200	25000	26000	28600	40500	39300
Fan Quantity	1	1	1	2	2	2	3	3
Water flow (l/s)	0.46	2.14	3.31	4.22	5.04	5.84	6.75	8.01
Filter grade	G4							
Thread joint specification (inch)	R 1"	R 1-1/4"	R 1-1/2"	R 2"	R 2"	R 2"	R 2-1/2"	R 2-1/2"
FLA (A)	5.5	5.6	5.6	11.2	11.2	11.2	16.8	16.8
Unit size (mm)	735x850x1975	930x995x1975	1400x995x1975	1800x995x1975		2200x995x1975	2700x995x1975	
Unit weight (kg)	245	310	420	500	520	580	630	670
ATO Re-heating (kW)	6	6	9	9	9	9	12	12
ATO Humidification (kg/h)	5	5	8	8	8	8	8	8

Downflow Unit

Technical Parameters \ Model	Model(P****DC)													
	P1020	P1040	P2080	P2100	P2110	P2120	P2130	P2140	P2150	P3160	P3170	P3180	P3190	P3200
Return air dry/wet bulb temperature 33/20°C (P1020 return air dry/wet bulb temperature 25/17°C), chilled water inlet/outlet temperature 12/18°C														
Total cooling capacity (kW)	11.1	40.8	80.5	101.4	113.6	120.7	130.7	140.7	151.0	160.1	170.4	181.3	190.1	201.3
Sensible cooling capacity (kW)	11.1	40.8	80.5	101.4	113.6	120.7	130.7	140.7	151.0	160.1	170.4	181.3	190.1	201.3
Air volume (m3/h)	4500	8500	15200	22000	26000	23600	26200	26400	29000	33600	39000	33300	35700	38700
Fan Quantity	1	1	1	2	2	2	2	2	2	3	3	3	3	3
Water flow (l/s)	0.46	1.65	3.29	4.13	4.66	4.92	5.35	5.72	6.16	6.51	6.99	7.36	7.74	8.23
Filter grade	G4													
Thread joint specification (inch)	R 1"	R 1-1/4"	R 1-1/2"	R 2"	R 2"	R 2"	R 2"	R 2"	R 2"	R 2-1/2"	R 2-1/2"	R 2-1/2"	R 2-1/2"	R 2-1/2"
FLA (A)	5.5	5.6	5.6	11.2	11.2	11.2	11.2	11.2	11.2	16.8	16.8	16.8	16.8	16.8
Unit size (mm)	735x850 x1975	930x995 x1975	1400x995 x1975	1800x995x1975				2200x995x1975		2700x995x1975				
Unit weight (kg)	255	320	440	520	530	540	550	600	620	650	660	670	680	690
ATO Re-heating (kW)	6	6	9	9	9	9	9	9	9	12	12	12	12	12
ATO Humidification (kg/h)	5	5	10	10	10	10	10	10	10	10	10	10	10	10

Note:

Test condition: 400V/3ph/50 to 60Hz+N

Standard test external static pressure: 50Pa for upflow air supply, 20Pa for downflow air supply. For higher external static pressure, please contact Vertiv. The air conditioner is equipped with a two-way valve as standard configuration. For different valve and high water pressure application, please contact Vertiv. If the required data is not listed in the table, please contact Vertiv.

Vertiv/Liebert-PEX3CW-BR-EN-ASIA-V1