

Vertiv™ Liebert® AFC

Inverter and Fixed-Screw Air-Cooled Chiller and Free-Cooling



from 650-1500 kW

3 VERSIONS

- Chiller
- Free-cooling
- Free-cooling glycol free

ENVIRONMENTALLY FRIENDLY

- Low Global Warming Potential (GWP)
- Hydrofluoroolefin (HFO) refrigerant
- R1234ze



Cooling capacity from 650-1500 kW

Liebert® AFC is many times more efficient, more compact, more precise, more versatile

- Ultimate seasonal efficiency thanks to Inverter driven screw compressor that maximizes the efficiency both in mixed mode and in partial load.
- Extended free-cooling operation and maximized efficiency ensured by new optimized exchangers. The nominal capacity can be reached in free-cooling mode at 11°C of external ambient temperature.¹
- Reduced footprint, up to 15% more compact than industry standard.
- Extremely precise control of supply water temperature guaranteed by the wide modulating capacity of inverter screw compressor combined with the optimization algorithm of the new advanced iCOM™ control
- Glycol-free version for a truly environmentally friendly unit.
- Wide operative range from -25°C to +55°C external ambient temperature

Liebert® AFC, a new step ahead for data center efficiency

Liebert® AFC is a high-end air-cooled free-cooling chiller specifically designed for efficient and reliable thermal management of Data Centers. Liebert® AFC introduces a new Screw Chiller platform including:

- Innovative Freecooling microchannel coil
- New high efficiency EC fans
- New compact design
- Advanced iCOM™ control
- R1234ze Low GWP as well as R134a

Every chiller is highly configurable to meet each specific data center need

- Fast restart function on uninterruptible power supply (UPS) line and/or ultra-capacitor
- Dual power supply or automatic transfer switch (ATS) on board
- Several pump configurations compatible with constant and variable flow
- Coil coating for harsh environment
- Low noise emission and ultra-quiet version
- Large 10" touch screen display

¹ Design conditions, Air 35°C, Ethylene Glycol 30% 20-26°C, Freecooling in open loop

Technical Features

R 1234ze - Low GWP - Inverter Screw

Air-Cooled chiller			CIZ065	CIZ075	CIZ080	CIZ085	CIZ095	CIZ110	CIZ125
Air 35°C Water 26-20°C ¹	Cooling capacity nom.	kW	686	753	804	888	995	1141	1296
	EER		4.55	4.35	4.52	4.43	4.46	4.39	4.41
	Power input	kW	151	173	178	201	223	260	294
Dimensions	Length	mm	7025	7025	8295	8295	9565	9565	10835
	Width	mm	2350	2350	2350	2350	2350	2350	2350
	Height	mm	2795	2795	2795	2795	2795	2795	2795

Free-cooling Chiller			FIZ065	FIZ075	FIZ080	FIZ085	FIZ095	FIZ110	FIZ125
Glycol-Free			NIZ065	NIZ075	NIZ080	NIZ085	NIZ095	NIZ110	NIZ125
Air 35°C Ethylene Glycol 30% 26-20°C	Cooling capacity nom.	kW	676	742	792	874	981	1120	1273
	EER		4.45	4.23	4.43	4.33	4.38	4.24	4.26
	Power input	kW	152	175	179	202	224	264	299
	ZET ²	°C	11.0	10.0	11.2	10.2	10.6	9.1	9.1
	ZET ² Glycol-free v.	°C	8.2	7.1	8.7	7.7	8.1	6.3	6.3
Dimensions	Length	mm	7025	7025	8295	8295	9565	9565	10835
	Width	mm	2350	2350	2350	2350	2350	2350	2350
	Height	mm	2870	2870	2870	2870	2870	2870	2870

R 134a - Screw

Air-Cooled chiller			CH4065	CH4075	CH4080	CH4090	CH4100	CH4110	CH4125	CH4140
Air 35°C Water 26-20°C ¹	Cooling capacity nom.	kW	686	776	856	971	1058	1137	1315	1473
	EER		4.41	4.37	4.31	4.31	4.40	4.42	4.41	4.40
	Power input	kW	155	178	199	225	241	257	298	334
Dimensions	Length	mm	7025	7025	8295	8295	9565	9565	10835	10835
	Width	mm	2350	2350	2350	2350	2350	2350	2350	2350
	Height	mm	2795	2795	2795	2795	2795	2795	2795	2795

Free-cooling Chiller			FH4065	FH4075	FH4080	FH4090	FH4100	FH4110	FH4125	FH4140
Glycol-Free			NH4065	NH4075	NH4080	NH4090	NH4100	NH4110	NH4125	NH4140
Air 35°C Ethylene Glycol 30% 26-20°C	Cooling capacity nom.	kW	675	762	843	954	1040	1115	1290	1443
	EER		4.35	4.27	4.24	4.19	4.31	4.31	4.30	4.25
	Power input	kW	155	179	199	227	242	259	300	340
	ZET ²	°C	11.0	9.7	10.6	9.1	10.0	9.1	9.0	7.5
	ZET ² Glycol-free v.	°C	8.3	6.8	8.1	6.6	7.5	6.5	6.2	4.6
Dimensions	Length	mm	7025	7025	8295	8295	9565	9565	10835	10835
	Width	mm	2350	2350	2350	2350	2350	2350	2350	2350
	Height	mm	2870	2870	2870	2870	2870	2870	2870	2870

¹Performance data calculated according to EN 14511 for 400V/3ph/50Hz;

²ZET: External ambient temperature at which the nominal capacity is achieved using only freecooling (all compressors off) declared at Air 35°C, Ethylene Glycol 30% 20-26°C

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