



***Water Cooled Chiller***

Cooling Only  
Water Cooled Condenser  
DX Evaporator  
Capacity from 128 to 2007 kW

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- The New Water-Cooled DX Evaporator chiller with enhanced efficiency by incorporating several advanced technologies and features is now introduced. This series are equipped with the state-of-the-art semi-hermetic screw compressors and newly improved shell and tube heat exchanger named DX type causing not only the efficiency to be enhanced, but the refrigerant side pressure drop to become reduced. It is compatible with different thermal load conditions thanks to its precise capacity control system. These versatile and reliable, easy installation, low noise and low vibration could be used for residential, commercial and industrial application.

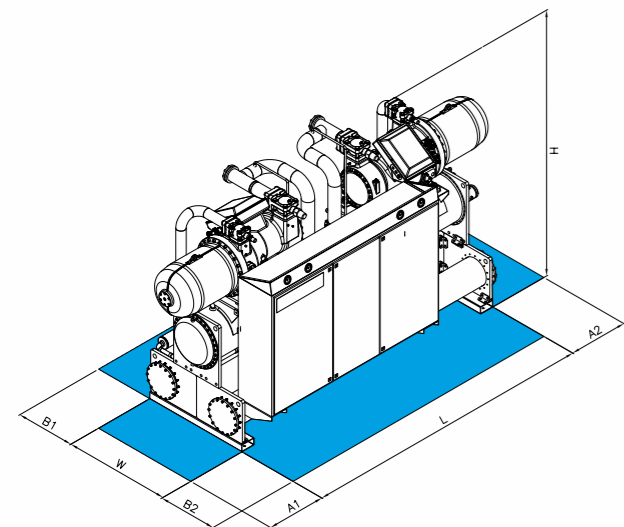
128-2007 kW ~ 36-570 TR

- Compatibility:** using 4 step or step less screw compressor capacity accompanied by controlling fan speed using inverter causes the series to become more compatible with different load condition during the application time.
- Water Cooled Condenser:** These models exploit enhanced copper tube heat exchanger as condenser. It is adapted with different water treatment conditions, from low to high fouling factor.
- Dry Expansion Evaporator:** The two-pass shell and tube heat exchanger manufactured by inner-grooved copper tube to enhance heat transfer is used as evaporator.
- EUROVENT Classified:** Energy Efficiency Ratio (EER) is categorized as per EUROVENT and the units offer a high range cooling capacity in different categories.
- Envelope Control:** The chiller control system is capable of maintaining the operating point located in envelope limit of the compressors when running. So it ensures that the compressors are protected which preventing the compressors being damaged at any circumstances.
- Refrigerant:** R134a refrigerant is used towards being committed to environmental responsibility, while R22 as an option is still available.

Functions and Features



Dimensions and Clearances



All Model		
A1	mm	3400
A2	mm	1000
B1	mm	1000
B2	mm	1000

Technical Data



MODEL A-CH-SW-W-DX-C-IN-EE	131	161	181	221	261	311	351	401	252	312	372	442	512	622	702	832	942	1052	1242	1452	1672	2012	
Cooling Capacity(1)	kW	128.2	157.9	182.2	216.6	255.6	310.0	349.0	402.7	251.1	308.2	366.5	435.9	513.7	619.8	700.0	827.6	935.8	1048.6	1242.6	1446.2	1668.3	2007.1
	TR	36.5	44.9	51.8	61.6	72.7	88.2	99.3	114.5	71.4	87.7	104.3	124.0	146.1	176.3	199.1	235.4	266.1	298.2	353.4	411.3	474.5	570.9
Total Power Input(2)	kW	29.7	36.6	44.0	50.7	57.6	72.4	82.1	97.7	59.0	72.7	89.6	101.7	115.3	140.4	158.0	197.5	212.6	244.2	277.3	314.2	356.1	445.4
EER	kW/kW	4.32	4.32	4.14	4.27	4.44	4.28	4.25	4.12	4.25	4.24	4.09	4.29	4.45	4.41	4.43	4.19	4.40	4.30	4.48	4.60	4.68	4.51
Compressor	Energy Class	Grade	C	C	D	C	C	C	C	D	C	D	C	C	C	C	D	C	C	C	C	B	C
	Type	#	Screw																				
	qty.	#	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2
	Circuit	#	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2
Evaporator	Power Input	kW	29.7	36.6	44.0	50.7	57.6	59.0	72.4	73.2	82.1	89.6	97.7	101.7	115.3	140.4	158.0	197.5	212.6	244.2	277.3	314.2	356.1
	Type	#	Shell & Tube DX																				
	Water Flow Rate	l/s	6.1	7.5	8.7	10.3	12.2	14.8	16.6	19.2	12.0	14.7	17.5	20.8	24.5	29.5	33.4	39.4	44.6	50.0	59.2	68.9	79.5
	Water Pressure Drop	mH <sub>2</sub> O	2.3	3.3	4.4	4.8	6.7	3.3	3.8	5.6	6.4	5.4	4.6	3.8	5.2	3.6	4.6	4.6	3.4	4.5	5.9	4.2	5.1
Condenser	Water Connection Size(Nominal)	inches	3	3	3	4	4	4	4	4	4	4	5	5	5	5	6	6	6	6	6	6	6
	Water Volume	liter	94	94	94	137	137	322	359	322	137	216	322	396	396	535	535	663	876	876	1334	1689	1689
	qty.	#	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2
	Water Flow Rate	l/s	7.5	9.3	10.8	12.7	14.9	18.2	20.5	23.9	14.8	18.2	21.7	25.6	30.0	36.2	40.9	48.9	54.7	61.6	72.5	83.9	96.5
Sound	Water Pressure Drop	mH <sub>2</sub> O	1.2	1.4	1.5	1.6	1.8	1.8	1.8	2.2	1.2	1.3	1.3	1.4	1.7	2.1	2.2	2.4	2.6	2.1	1.8	2	2.1
	Water Connection Size(Nominal)	inches	2 1/2	2 1/2	3	3	3	3	3	4	2 1/2	2 1/2	3	3	3	4	4	4	4	3	3	4	4
	Water Volume/each condenser	liter	69	59	94	94	133	133	122	159	69	59	59	94	133	122	159	159	159	133	122	159	159
	Sound Power Level(3)	dB	83	85	86	89	91	93	95	97	86	88	90	92	94	97	99	101	103	104	106	106	104
Electrical	Sound Pressure Level(4)	dBA	62	64	65	68	70	72	74	76	65	67	69	71	73	76	78	80	82	83	85	85	83
	Power Supply	V/Ph/Hz	380~415/3/50																				
	Length	mm	2486	2486	2486	2520	2520	3140	3440	3140	2520	2830	3140	3790	3790	4060	4060	4170	3890	3890	3890	4000	4900
	Width	mm	1200	1200	1200	1200	1200	1250	1280	1300	1250	1300	1320	1350	1350	1400	1420	1430	1500	1500	1500	1550	1600
Dimension & Weight	Height	mm	1200	1200	1200	1350	1350	1400	1550	1500	1350	1500	1500	2000	2000	2100	2100	2200	2400	2400	2500	2500	2600
	Weight	kg	1280	1320	1640	1730	1880	2480	2580	2720	2100	2270	2810	3240	3540	4440	4820	5120	5430	5550	7230	7900	9150



MODEL A-CH-SW-W-DX-C-1A-SE	131	151	171	201	231	271	301	341	262	302	332	412	472	552	632	702	822	952	1122	1252	1372	1492	
Cooling Capacity(1)	kW	127.7	147.1	165.2	204.3	232.5	276.4	305.8	350.0	258.1	297.5	334.3	407.8	473.4	550.2	625.5	698.5	823.6	954.9	1115.6	1251.0	1370.8	1493.1
	TR	36.3	41.8	47.0	58.1	66.1	78.6	87.0	99.5	73.4	84.6	95.1	116.0	134.6	156.5	177.9	198.7	234.2	271.6	317.3	355.8	389.9	424.7
Total Power Input(2)	kW	25.7	30.7	35.0	43.0	48.5	55.8	62.7	70.8	51.6	61.6	70.3	85.9	99.4	111.6	126.1	144.5	173.6	193.0	217.8	245.4	287.2	301.8
EER	kW/kW	4.96	4.79	4.71	4.75	4.79	4.95	4.88	4.95	5.00	4.83	4.75	4.75	4.76	4.93	4.96	4.83	4.74	4.95	5.12	5.10	4.77	4.95
Compressor	Energy Class	Grade	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	A	A	B
	Type	#	Screw																				
	qty.	#	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2
	Circuit	#	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2
Evaporator	Power Input	kW	25.7	30.7	35.0	43.0	48.5	51.6	55.8	61.6	62.7	70.3	70.8	85.9	99.4	111.6	126.1	144.5	173.6	193.0	217.8	245.4	287.2
	Type	#	Shell & Tube DX																				
	Water Flow Rate	l/s	6.1	7.0	7.9	9.7	11.1	13.2	14.6	16.7	12.3	14.2	15.9	19.4	22.6	26.2	29.8	33.3	39.3	45.5	53.2	59.6	65.3
	Water Pressure Drop	mH <sub>2</sub> O	2.3	2.9	3.6	4.2	5.5	4.0	5.0	4.2	2.2	3.0	3.8	5.1	2.1	2.8	2.7	3.3	2.7	3.6	2.5	3.2	3.5
Condenser	Water Connection Size(Nominal)	inches	3	3	3	4	4	3	3	4	4	4	4	5	5	5	6	6	6	6	6	6	
	Water Volume	liter	94	94	94	137	137	322	359	322	137	322	359	535	535	663	663	876	876	1334	1334	1689	
	qty.	#	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	
	Water Flow Rate	l/s	7.3	8.5	9.5	11.8	13.4	15.8	17.6	20.1	14.8	17.1	19.3	23.5	27.3	31.5	35.8	40.2	47.5	54.7	63.6	71.3	
Sound	Water Pressure Drop	mH <sub>2</sub> O	1.2	1.3	1.3	1.5	1.7	1.7	1.6	2	1.2	1.3	1.3	1.5	1.7	1.6	1.7	1.8	2.1	1.9	1.6	1.7	
	Water Connection Size(Nominal)	inches	2 1/2	2 1/2	2 1/2	3	3	3	3	4	2 1/2	2 1/2	3	3	3	3	3	3	4	3	3	3	
	Water Volume/each condenser	liter	69	59	59	94	133	133	122	159	69	59	59	94	133	122	122	133	159	133	122	122	
	Sound Power Level(3)	dB	83	84	86	87	89	91	93	95	86	88	89	91	93	95	97	99	101	103	105	106	106
Electrical	Sound Pressure Level(4)	dBA	62	63	65	66	68	70	72	74	65	67	68	70	72	74	76	78	80	82	84	85	85
	Power Supply	V/Ph/Hz	380~415/3/50																				
	Length	mm	2486	2486	2486	2520	2520	2830	2830	3140	3140	2520	2830	3140	3440	4060	4060	4170	4170	3890	3890	4000	4900
	Width	mm	1200	1200	1200	1200	1200	1250	1280	1300	1250	1300	1320	1350	1350	1400	1420	1430	1500	1500	1500	1550	1600
Dimension & Weight	Height	mm	1200	1200	1200	1350	1350	1400	1550	1500	1350	1500	1500	1800	2000	2000	2200	2200	2400	2400	2500	2500	2600
	Weight	kg	1320	1500	1520	2040	2170	2350	2380	2700	2410	2750	2790	3810	4110	4390	4690	4770	5880	6290	7650	7900	8590

Note:  
1- Based on EN14511-1/4 2013: Evaporator Water (in/Out)=12/7°C, Fouling factor=0.000018 m²K/W; Condenser Water (in/out): 30/35 °C, Fouling Factor= 0.000044 m²K/W  
2- Power input based on total power input including compressors and fans  
3- Sound Power on the basis of measurements made in compliance with Iso 9614 and Eurovent 8/1 for Eurovent certified units; in compliance with ISO 3744 for non-certified units.  
4- Average sound pressure level, at 10 meter distance.