DX Cooler / Fin Tube Condenser

Air Cooled Chiller

Cooling Only
Fin and Tube Condenser
DX Evaporator
Outdoor Installation
Capacity from 97 to 1918 kW

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Air cooled water chiller with semi-hermetic screw compressors and optimized design for R134a, AC axial Fans, Aluminum Fin & Tube condenser, and two-pass Shell and Tube DX-evaporator designed and manufactured by ARVAND. Supporting and Base structures are of epoxy powder coated galvanized steel simulated and designed by ANSYS workbench. It is compatible with different thermal load conditions because of its precise

97-1918 kW ~ 28-546 TR

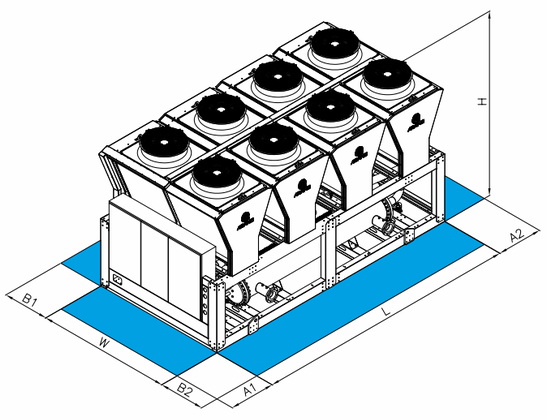
capacity control system. These versatile and reliable, easy installation chillers, could be used for residential, commercial and industrial application.

- ***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.
- ***Modular V type fin and tube Condenser:*** inner grooved copper tubes expanded onto aluminum fins causes the heat exchanger to become much more efficient and as results of its V shape configuration it offers a modularity situation to the unit.
- ***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 Efficieny 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 and preventing the compressors being damaged at any circumstances.
- ***Noise Version:*** Along with STANDARD noise version, thanks to fan low RPM, Fan Axitop and compressor sound enclosure chillers work with minimum noise, LOW noise version models are also available.
- ***Ambient Classified Version:*** The units are designed and well suited based on the ambient temperature in which they will be used. The ambient conditions are classified from Low to Extra High ambient from 40 to 52°C respectively.

Functions and Features

Cooling Only | Aircooled | Screw | Fin & Tube Condenser | Axial fan | Shell and Tube DX Evaporator | R134A | Electrical expansion valve | Tropical region | Energy Efficiency Labeled

Dimensions and Clearances



All Model		
A1	mm	1500
A2	mm	700
B1	mm	1200
B2	mm	1200

DX Cooler / Fin Tube Condenser

Technical Data

Standard Noise
Low Ambient

MODEL A-CH-SW-A-FT-SN-DX-C-1A-LA			141	282	332	442	462	612	682	762	922	962	992	1032	1102	1232	1423	1553	1673	1753	1873	1923
Cooling Capacity(1)		kW	143.4	275.4	329.0	438.0	456.0	610.0	676.0	765.0	917.0	962.0	988.0	1034.0	1098.0	1225.0	1423.0	1554.0	1666.0	1749.0	1870.0	1918.0
		TR	40.8	78.3	93.6	124.6	129.8	173.5	192.3	217.5	260.9	273.5	281.0	294.1	312.3	348.5	404.7	441.9	473.7	497.4	531.9	545.6
Total Power Input(2)		kW	54.3	100.9	117.5	162.8	168.8	217.7	234.3	286.7	305.2	333.6	347.0	376.2	420.3	437.7	496.9	564.6	565.0	637.7	698.7	684.3
EER		kW/kW	2.64	2.73	2.80	2.69	2.70	2.80	2.89	2.67	3.01	2.88	2.85	2.75	2.61	2.80	2.86	2.75	2.95	2.74	2.68	2.80
Energy Class		Grade	D	C	C	D	C	C	C	D	B	C	C	C	D	C	C	C	B	C	D	C
Compressor	Type	#	Screw																			
	qty.	#	1	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3
	Circuit	#	1	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3
	Power Input	kW	50.5	93.3	108.0	151.4	157.4	202.5	217.2	267.7	282.4	310.8	322.3	349.6	393.7	403.5	462.7	524.7	525.1	592.1	653.1	638.7
	Charged refrigerant mass	kg	48	90	108	146	153	201	222	264	306	321	332	351	376	431	467	516	545	577	636	646
Evaporator	Type	#	Shell & Tube DX																			
	Water Flow Rate	l/s	6.8	13.1	15.7	20.9	21.8	29.1	32.2	36.5	43.7	45.8	47.1	49.3	52.3	58.4	67.8	74.1	79.4	83.4	89.1	91.4
	Water Pressure Drop	mH_2O	1.6	2.5	2.2	1.8	6.4	2.6	3.0	5.3	4.0	4.3	6.1	4.2	4.7	2.8	3.8	4.5	3.2	3.5	4.0	4.1
	Water Connection Size(Nominal)	inches	3	4	5	5	4	5	6	5	6	6	6	6	6	6	6	6	8	8	8	8
	Water Volume	liter	137	346	396	535	359	663	605	585	933	933	605	876	876	1689	1689	1689	2863	2863	2863	2863
Condenser	Type	#	Fin & Tube																			
	qty.	#	2	4	5	6	6	8	9	10	12	12	13	14	14	18	18	21	21	24	24	24
	Air Flow Rate	$\times 10^3 m^3/hr$	44.4	88.8	111	133.2	128.4	171.2	192.6	222	256.8	256.8	278.2	310.8	299.6	385.2	385.2	466.2	449.4	532.8	532.8	513.6
Fan	Type	#	Axial																			
	qty.	#	2	4	5	6	6	8	9	10	12	12	13	14	14	18	18	21	21	24	24	24
	Power Input	kW	3.8	7.6	9.5	11.4	11.4	15.2	17.1	19	22.8	22.8	24.7	26.6	26.6	34.2	34.2	39.9	39.9	45.6	45.6	45.6
Sound	Sound Power Level(3)	dB	98	98	99	99	99	100	100	100	101	101	101	101	101	102	103	103	103	104	104	104
	Sound Pressure Level(4)	dBA	79	79	79	79	79	79	80	80	80	80	80	80	80	81	81	81	81	81	82	82
Maximum Ambient Temperature		°C	40																			
Electrical	Power Supply	V/Ph/Hz	380~415/3/50																			
Dimension & Weight	Length	mm	1200	2400	3600	3600	3600	4800	6000	6000	7200	7200	8400	8400	8400	10800	10800	13200	13200	14400	14400	14400
	Width	mm	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
	Height	mm	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200
	Weight	kg	1980	3400	4250	4930	4880	6040	6960	7130	8670	8730	8880	8880	9490	11720	12850	13420	15380	15780	15900	16630

Standard Noise
Medium Ambient

MODEL A-CH-SW-A-FT-SN-DX-C-1A-MA			131	151	201	242	262	261	272	302	301	332	372	402	462	542	612	682
Cooling Capacity(1)		kW	125.7	145.5	198.6	243.8	255.5	259.3	273.6	296.2	297.3	326.0	374.2	404.6	456.0	543.7	605.4	676.6
		TR	35.8	41.4	56.5	69.4	72.7	73.8	77.8	84.2	84.6	92.7	106.4	115.1	129.7	154.6	172.2	192.4
Total Power Input(2)		kW	45.5	52.8	73.0	82.8	91.8	92.6	97.4	106.6	107.5	113.4	134.7	147.3	148.1	189.3	216.9	226.3
EER		kW/kW	2.76	2.75	2.72	2.94	2.78	2.80	2.81	2.78	2.77	2.87	2.78	2.75	3.08	2.87	2.79	2.99
Energy Class		Grade	C	C	C	B	C	C	C	C	C	C	C	C	B	C	C	B
Compressor	Type	#	Screw															
	qty.	#	1	1	1	2	2	1	2	2	1	2	2	2	2	2	2	2
	Circuit	#	1	1	1	2	2	1	2	2	1	2	2	2	2	2	2	2
	Power Input	kW	41.7	49.0	67.3	75.2	84.2	85.0	89.8	99.0	99.9	103.9	123.3	135.9	132.9	174.1	201.7	207.3
	Charged refrigerant mass	kg	41	48	67	78	83	88	89	96	100	106	123	133	149	179	199	222
Evaporator	Type	#	Shell & Tube DX															
	Water Flow Rate	l/s	6.0	6.9	9.5	11.6	12.2	12.4	13.0	14.1	14.2	15.5	17.8	19.3	21.7	25.9	28.9	32.3
	Water Pressure Drop	mH_2O	3.0	1.8	3.4	3.0	3.4	6.9	3.9	2.7	4.7	3.6	4.8	5.1	6.4	2.9	3.5	3.1
	Water Connection Size(Nominal)	inches	2	3	3	3	3	4	3	4	3	4	4	4	4	5	5	5
	Water Volume	liter	87	151	151	216	216	137	216	359	216	322	322	359	359	585	585	663
Condenser	Type	#	Fin & Tube															
	qty.	#	2	2	3	4	4	4	4	4	4	5	6	6	8	8	8	10
	Air Flow Rate	$\times 10^3 m^3/hr$	44.4	42.8	66.6	88.8	88.8	88.8	85.6	85.6	85.6	107	133.2	133.2	171.2	177.6	171.2	214
Fan	Type	#	Axial															
	qty.	#	2	2	3	4	4	4	4	4	4	5	6	6	8	8	8	10
	Power Input	kW	3.8	3.8	5.7	7.6	7.6	7.6	7.6	7.6	7.6	9.5	11.4	11.4	15.2	15.2	15.2	19
Sound	Sound Power Level(3)	dB	98	98	98	98	98	98	98	98	98	99	99	99	99	99	100	100
	Sound Pressure Level(4)	dBA	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	80
Maximum Ambient Temperature		°C	43															
Electrical	Power Supply	V/Ph/Hz	380~415/3/50															
Dimension & Weight	Length	mm	1200	1200	2400	2400	2400	2400	2400	2400	2400	3600	3600	3600	4800	4800	4800	6000
	Width	mm	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
	Height	mm	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200
	Weight	kg	1900	2060	2770	3090	3240	2960	3370	3550	3200	4290	4620	4680	5550	5660	5930	7130

Note:
1- Evaporator Water (in/Out)=12/7°C ; Condenser air(in)=35°C
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-certfied units.
4- Average sound pressure level, at 10 meter distance

Standard Noise
Medium Ambient

MODEL A-CH-SW-A-FT-SN-DX-C-1A-MA			702	762	862	912	962	1032	1062	1102	1162	1222	1272	1322	1413	1593	1683	1793
Cooling Capacity(1)		kW	698.6	763.8	859.2	913.5	962.0	1030.5	1058.3	1095.4	1156.9	1224.2	1268.4	1323.3	1408.6	1590.1	1678.5	1791.0
		TR	198.7	217.2	244.4	259.8	273.6	293.1	301.0	311.6	329.0	348.2	360.8	376.4	400.6	452.2	477.4	509.4
Total Power Input(2)		kW	252.0	257.4	297.0	304.8	316.4	347.5	368.1	387.4	410.8	430.8	449.7	445.1	483.6	552.4	558.1	625.2
EER		kW/kW	2.77	2.97	2.89	3.00	3.04	2.97	2.88	2.83	2.82	2.84	2.82	2.97	2.91	2.88	3.01	2.86
Energy Class		Grade	C	B	C	B	B	B	C	C	C	C	C	B	B	C	B	C
Compressor	Type	#	Screw															
	qty.	#	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3
	Circuit	#	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3
	Power Input	kW	233.0	236.5	272.3	280.1	289.8	319.0	341.5	358.9	380.4	396.6	415.5	410.9	443.7	512.5	512.5	579.6
	Charged refrigerant mass	kg	233	254	287	307	324	346	356	369	388	424	448	462	465	523	546	586
Evaporator	Type	#	Shell & Tube DX															
	Water Flow Rate	l/s	33.3	36.4	41.0	43.5	45.9	49.1	50.4	52.2	55.1	58.4	60.5	63.1	67.1	75.8	80.0	85.4
	Water Pressure Drop	mH_2O	3.3	5.3	5.0	4.0	5.8	4.9	4.4	4.7	5.9	3.0	3.2	3.3	4.0	4.7	3.3	3.7
	Water Connection Size(Nominal)	inches	5	5	5	6	6	6	6	6	6	6	6	6	6	6	8	8
	Water Volume	liter	663	585	663	933	605	933	876	876	933	1334	1334	1689	1334	1689	2863	2863
Condenser	Type	#	Fin & Tube															
	qty.	#	10	11	13	13	14	15	14	15	16	18	18	18	21	21	24	24
	Air Flow Rate	$\times 10^3 m^3/hr$	222	235.4	288.6	288.6	299.6	333	299.6	321	342.4	399.6	399.6	385.2	466.2	449.4	532.8	513.6
Fan	Type	#	Axial															
	qty.	#	10	11	13	13	14	15	14	15	16	18	18	18	21	21	24	24
	Power Input	kW	19	20.9	24.7	24.7	26.6	28.5	26.6	28.5	30.4	34.2	34.2	34.2	39.9	39.9	45.6	45.6
Sound	Sound Power Level(3)	dB	100	100	101	101	101	101	101	101	102	102	102	102	103	103	104	104
	Sound Pressure Level(4)	dBA	80	80	80	80	80	80	80	80	80	81	81	81	81	81	81	82
Maximum Ambient Temperature		°C	43															
Electrical	Power Supply	V/Ph/Hz	380~415/3/50															
Dimension & Weight	Length	mm	6000	7200	8400	8400	8400	9600	8400	9600	9600	10800	10800	10800	13200	13200	14400	14400
	Width	mm	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
	Height	mm	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200
	Weight	kg	7240	7920	8380	8760	9060	9450	9320	9890	10300	10790	10830	11800	12950	14070	15510	16520

Note:
1- Evaporator Water (in/Out)=12/7°C ; Condenser air(in)=35°C
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-certfied units.
4- Average sound pressure level, at 10 meter distance

DX Cooler / Fin Tube Condenser

Standard Noise
Standard Ambient

MODEL A-CH-SW-A-FT-SN-DX-C-1A-SA			111	131	181	212	232	241	242	262	261	282	301	332	382	402	462	512	552	572	632
Cooling Capacity(1)		kW	112.2	130.4	183.2	207.0	226.0	238.0	241.5	261.0	264.4	275.0	304.4	331.1	384.8	396.9	455.2	507.0	548.3	573.7	632.3
		TR	31.9	37.1	52.1	58.9	64.3	67.7	68.7	74.2	75.2	78.2	86.6	94.2	109.5	112.9	129.5	144.2	155.9	163.2	179.9
Total Power Input(2)		kW	36.4	44.9	62.8	68.3	73.0	80.4	80.3	89.9	90.5	92.4	103.9	111.9	124.7	132.4	146.5	165.1	178.3	192.1	205.1
EER		kW/kW	3.08	2.90	2.92	3.03	3.09	2.96	3.01	2.90	2.92	2.98	2.93	2.96	3.09	3.00	3.11	3.07	3.07	2.99	3.08
Energy Class		Grade	B	B	B	B	B	B	B	B	B	B	B	B	B	B	A	B	B	B	B
Compressor	Type	#	Screw																		
	qty.	#	1	1	1	2	2	1	2	2	1	2	1	2	2	2	2	2	2	2	2
	Circuit	#	1	1	1	2	2	1	2	2	1	2	1	2	2	2	2	2	2	2	2
	Power Input	kW	32.6	41.1	57.1	60.7	65.4	72.8	72.7	82.3	82.9	82.9	94.4	100.5	113.3	119.1	131.3	149.9	159.3	175.0	186.1
	Charged refrigerant mass	kg	36	43	62	66	72	81	77	84	89	88	104	108	125	128	147	166	181	188	207
Evaporator	Type	#	Shell & Tube DX																		
	Water Flow Rate	l/s	5.3	6.2	8.7	9.9	10.8	11.3	11.5	12.4	12.6	13.1	14.5	15.8	18.3	18.9	21.7	24.2	26.1	27.3	30.1
	Water Pressure Drop	mH_2O	5.2	2.4	2.5	3.7	5.2	4.2	5.9	3.5	7.1	7.7	4.9	3.8	1.4	4.9	6.5	2.5	2.8	3.1	3.8
	Water Connection Size(Nominal)	inches	2	3	3	3	4	3	4	3	4	4	3	4	5	4	4	5	5	5	5
	Water Volume	liter	94	94	137	151	137	137	137	216	137	137	216	322	535	359	346	585	535	535	585
Condenser	Type	#	Fin & Tube																		
	qty.	#	2	2	3	4	4	4	4	4	4	5	5	6	6	7	8	8	10	9	10
	Air Flow Rate	$\times 10^3 m^3/hr$	44.4	42.8	66.6	88.8	88.8	88.8	85.6	85.6	85.6	107	111	133.2	128.4	155.4	171.2	177.6	222	192.6	214
Fan	Type	#	Axial																		
	qty.	#	2	2	3	4	4	4	4	4	4	5	5	6	6	7	8	8	10	9	10
	Power Input	kW	3.8	3.8	5.7	7.6	7.6	7.6	7.6	7.6	7.6	9.5	9.5	11.4	11.4	13.3	15.2	15.2	19	17.1	19
Sound	Sound Power Level(3)	dB	98	98	98	98	98	98	98	98	98	98	98	99	99	99	99	99	99	99	100
	Sound Pressure Level(4)	dBA	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79
Maximum Ambient Temperature		°C	46																		
Electrical	Power Supply	V/Ph/Hz	380~415/3/50																		
Dimension & Weight	Length	mm	1200	1200	2400	2400	2400	2400	2400	2400	2400	3600	3600	3600	3600	4800	4800	4800	6000	6000	6000
	Width	mm	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
	Height	mm	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200
	Weight	kg	1750	1980	2760	2770	2830	2930	3100	3360	3080	3740	3540	4300	5110	5130	5530	5640	6190	6320	6600

MODEL A-CH-SW-A-FT-SN-DX-C-1A-SA			702	732	792	862	912	972	1032	1092	1122	1232	1272	1473	1503
Cooling Capacity(1)		kW	697.7	733.5	794.5	856.6	912.1	966.4	1034.4	1087.8	1121.5	1227.8	1271.9	1466.6	1501.9
		TR	198.4	208.6	226.0	243.6	259.4	274.9	294.2	309.4	319.0	349.2	361.7	417.1	427.2
Total Power Input(2)		kW	218.5	236.4	250.3	270.8	292.7	314.4	335.9	355.5	377.0	407.6	414.3	461.6	465.9
EER		kW/kW	3.19	3.10	3.17	3.16	3.12	3.07	3.08	3.06	2.97	3.01	3.07	3.18	3.22
Energy Class		Grade	A	A	A	A	A	B	B	B	B	B	B	A	A
Compressor	Type	#	Screw												
	qty.	#	2	2	2	2	2	2	2	2	2	2	2	3	3
	Circuit	#	2	2	2	2	2	2	2	2	2	2	2	3	3
	Power Input	kW	195.7	213.6	225.6	244.2	264.2	284.0	303.6	321.3	344.7	369.6	376.3	416.0	420.3
	Charged refrigerant mass	kg	226	238	264	290	307	324	347	366	376	410	433	475	485
Evaporator	Type	#	Shell & Tube DX												
	Water Flow Rate	l/s	33.3	35.0	37.9	40.8	43.5	46.1	49.3	51.9	53.5	58.5	60.6	69.9	71.6
	Water Pressure Drop	mH_2O	3.3	4.9	4.3	4.6	5.2	5.8	4.2	4.6	4.9	2.8	3.3	4.3	4.2
	Water Connection Size(Nominal)	inches	5	5	5	6	6	6	6	6	6	6	6	6	6
	Water Volume	liter	663	585	663	605	605	605	876	876	876	1689	1334	1334	1689
Condenser	Type	#	Fin & Tube												
	qty.	#	12	12	13	14	15	16	17	18	17	20	20	24	24
	Air Flow Rate	$\times 10^3 m^3/hr$	256.8	256.8	278.2	310.8	333	355.2	377.4	399.6	363.8	444	428	513.6	513.6
Fan	Type	#	Axial												
	qty.	#	12	12	13	14	15	16	17	18	17	20	20	24	24
	Power Input	kW	22.8	22.8	24.7	26.6	28.5	30.4	32.3	34.2	32.3	38	38	45.6	45.6
Sound	Sound Power Level(3)	dB	100	100	100	100	101	101	101	101	101	102	102	103	103
	Sound Pressure Level(4)	dBA	80	80	80	80	80	80	80	80	80	81	81	81	81
Maximum Ambient Temperature		°C	46												
Electrical	Power Supply	V/Ph/Hz	380~415/3/50												
Dimension & Weight	Length	mm	7200	7200	8400	8400	9600	9600	10800	10800	10800	12000	12000	14400	14400
	Width	mm	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
	Height	mm	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200
	Weight	kg	7810	8100	8720	8510	9020	9240	9930	10110	10570	11780	12020	14450	14880

Note:
1- Evaporator Water (in/Out)=12/7°C ; Condenser air(in)=35°C
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-certfied units.
4- Average sound pressure level, at 10 meter distance

Standard Noise
High Ambient

MODEL A-CH-SW-A-FT-SN-DX-C-1A-HA			100	101	111	151	161	191	210	211	212	242	251	262	271	292	302	311	312	352	382
Cooling Capacity(1)		kW	96.7	101.5	114.0	148.4	156.1	187.9	206.3	208.1	210.9	236.1	245.9	258.3	273.0	290.2	302.6	312.9	314.4	354.4	382.9
		TR	27.5	28.9	32.4	42.2	44.4	53.4	58.7	59.2	60.0	67.1	69.9	73.5	77.6	82.5	86.1	89.0	89.4	100.8	108.9
Total Power Input(2)		kW	32.1	32.6	35.8	49.2	50.2	59.9	65.6	68.9	67.6	72.5	77.7	79.0	86.8	93.2	99.2	100.6	100.6	109.6	120.5
EER		kW/kW	3.02	3.11	3.19	3.01	3.11	3.14	3.14	3.02	3.12	3.26	3.16	3.27	3.14	3.11	3.05	3.11	3.12	3.23	3.18
Energy Class		Grade	B	A	A	B	A	A	A	B	A	A	A	A	A	A	B	A	A	A	A
Compressor	Type	#	Screw																		
	qty.	#	1	1	1	1	1	1	2	1	1	2	1	2	1	2	2	1	2	2	2
	Circuit	#	1	1	1	1	1	1	2	1	1	2	1	2	1	2	2	1	2	2	2
	Power Input	kW	28.3	28.8	32.0	43.5	44.5	52.3	58.0	61.3	60.0	64.9	68.2	69.5	77.3	81.8	87.8	89.2	89.2	94.4	105.3
	Charged refrigerant mass	kg	31	32	37	49	51	62	69	69	64	75	85	82	93	93	97	106	101	112	123
Evaporator	Type	#	Shell & Tube DX																		
	Water Flow Rate	l/s	4.6	4.8	5.4	7.1	7.4	9.0	9.8	9.9	10.1	11.3	11.7	12.3	13.0	13.8	14.4	14.9	15.0	16.9	18.3
	Water Pressure Drop	mH_2O	7.0	2.0	5.4	4.2	1.8	2.6	2.1	3.8	3.9	2.8	4.5	2.3	7.6	2.9	4.9	5.3	3.1	3.9	4.5
	Water Connection Size(Nominal)	inches	1	2	2	2	3	3	3	3	3	3	3	4	4	4	3	3	4	4	4
	Water Volume	liter	55	87	94	87	137	151	216	151	151	216	137	322	137	322	216	216	359	359	359
Condenser	Type	#	Fin & Tube																		
	qty.	#	2	2	2	3	3	4	4	4	4	4	5	5	5	6	6	6	6	8	8
	Air Flow Rate	$\times 10^3 m^3/hr$	44.4	44.4	42.8	66.6	66.6	88.8	88.8	88.8	85.6	85.6	111	107	107	133.2	133.2	133.2	133.2	177.6	177.6
Fan	Type	#	Axial																		
	qty.	#	2	2	2	3	3	4	4	4	4	4	5	5	5	6	6	6	6	8	8
	Power Input	kW	3.8	3.8	3.8	5.7	5.7	7.6	7.6	7.6	7.6	7.6	9.5	9.5	9.5	11.4	11.4	11.4	11.4	15.2	15.2
Sound	Sound Power Level(3)	dB	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	98	99	99
	Sound Pressure Level(4)	dBA	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79
Maximum Ambient Temperature		°C	50																		
Electrical	Power Supply	V/Ph/Hz	380~415/3/50																		
Dimension & Weight	Length	mm	1200	1200	2400	2400	2400	2400	2400	2400	2400	3600	3600	3600	3600	4800	4800	4800	6000	6000	6000
	Width	mm	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
	Height	mm	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200
	Weight	kg	1640	1700	1820	2360	2440	2940	2840	2930	3050	3060	3390	3810	3570	3970	3860	3690	4040	4970	5290

MODEL A-CH-SW-A-FT-SN-DX-C-1A-HA			430	432	462	532	582	672	712	772	802	852	942	1002	1062	1122	1192	1272	1302	1322	1392
Cooling Capacity(1)		kW	425.1	431.0	458.6	525.8	575.5	668.1	709.9	774.0	798.4	850.2	935.8	996.5	1055.1	1117.4	1186.3	1265.2	1295.7	1323.6	1385.0
		TR	120.9	122.6	130.4	149.5	163.7	190.0	201.9	220.1	227.1	241.8	266.2	283.4	300.1	317.8	337.4	359.8	368.5	376.5	393.9
Total Power Input(2)		kW	138.8	136.2	147.1	159.2	177.1	201.2	221.5	233.7	249.9	263.5	285.6	303.1	320.6	345.6	366.0	395.2	406.0	416.6	423.7
EER		kW/kW	3.06	3.17	3.12	3.30	3.25	3.32	3.20	3.31	3.19	3.23	3.28	3.29	3.29	3.23	3.24	3.20	3.19	3.18	3.27
Energy Class		Grade	B	A	A	A+	A	A+	A	A+	A	A	A	A	A	A	A	A	A	A	A
Compressor	Type	#	Screw																		
	qty.	#	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Circuit	#	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Power Input	kW	123.6	121.0	130.0	140.2	158.1	178.4	196.8	207.1	221.4	233.1	251.4	268.9	282.6	303.8	324.2	353.4	362.3	371.0	378.1
	Charged refrigerant mass	kg	136	137	149	172	188	215	231	251	266	287	314	335	352	377	395	423	444	465	482
Evaporator	Type	#	Shell & Tube DX																		
	Water Flow Rate	l/s	20.3	20.5	21.9	25.1	27.4	31.8	33.8	36.9	38.1	40.5	44.6	47.5	50.3	53.3	56.5	60.3	61.8	63.1	66.0
	Water Pressure Drop	mH_2O	5.6	5.7	6.5	2.7	3.2	2.9	3.2	3.8	4.3	4.9	5.5	6.2	6.9	4.83	6.2	3	3.38	7.48	3.57
	Water Connection Size(Nominal)	inches	4	4	4	5	5	6	6	6	5	5	6	6	6	6	6	6	6	6	6
	Water Volume	liter	359	359	359	585	585	605	605	605	663	663	605	605	605	876	933	1689	1334	933	1689
Condenser	Type	#	Fin & Tube																		
	qty.	#	8	8	9	10	10	12	13	14	15	16	18	18	20	22	22	22	23	24	24
	Air Flow Rate	$\times 10^3 m^3/hr$	177.6	171.2	199.8	222	214	256.8	288.6	299.6	333	355.2	399.6	385.2	428	488.4	470.8	470.8	492.2	513.6	513.6
Fan	Type	#	Axial																		
	qty.	#	8	8	9	10	10	12	13	14	15	16	18	18	20	22	22	22	23	24	24
	Power Input	kW	15.2	15.2	17.1	19	19	22.8	24.7	26.6	28.5	30.4	34.2	34.2	38	41.8	41.8	41.8	43.7	45.6	45.6
Sound	Sound Power Level(3)	dB	99	99	99	99	99	100	100	100	100	100	101	101	101	101	102	102	102	102	102
	Sound Pressure Level(4)	dBA	79	79	79	79	79	80	80	80	80	80	80	80	80	80	80	81	81	81	81
Maximum Ambient Temperature		°C	50																		
Electrical	Power Supply	V/Ph/Hz	380~415/3/50																		
Dimension & Weight	Length	mm	7200	7200	8400	8400	9600	9600	10800	10800	10800	12000	12000	14400	14400	13200	13200	13200	14400	14400	14400
	Width	mm	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
	Height	mm	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200
	Weight	kg	5290	5540	5760	6260	6580	7420	7920	8920	8930	9100	9790	10470	11100	11340	12240	13070	13180	13080	13830

Note:
1- Evaporator Water (in/Out)=12/7°C ; Condenser air(in)=35°C
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-certfied units.
4- Average sound pressure level, at 10 meter distance

DX Cooler / Fin Tube Condenser

Standard Noise
Extra Ambient

MODEL A-CH-SW-A-FT-SN-DX-C-1A-XA			121	141	161	201	222	221	232	242	251	262	292	312	321	332	362	402
Cooling Capacity(1)		kW	117.2	142.2	163.1	200.1	215.0	222.2	229.2	243.5	253.4	256.1	286.0	308.3	321.6	325.7	358.4	398.7
		TR	33.3	40.4	46.4	56.9	61.2	63.2	65.2	69.2	72.1	72.8	81.4	87.7	91.5	92.7	101.9	113.4
Total Power Input(2)		kW	35.5	43.0	49.4	59.9	65.2	67.0	67.7	71.7	76.8	77.1	86.2	92.9	97.4	98.7	107.8	119.5
EER		kW/kW	3.31	3.31	3.30	3.34	3.30	3.32	3.38	3.40	3.30	3.32	3.32	3.32	3.30	3.30	3.32	3.33
Energy Class		Grade	A+	A+	A+	A+	A+	A+	A+	A+	A+	A+	A+	A+	A+	A+	A+	A+
Compressor	Type	#	Screw															
	qty.	#	1	1	1	1	2	1	2	2	1	2	2	2	1	2	2	2
	Circuit	#	1	1	1	1	2	1	2	2	1	2	2	2	1	2	2	2
	Power Input	kW	29.8	37.3	41.8	52.3	53.8	57.5	58.2	60.3	67.3	63.8	74.8	77.7	84.1	83.5	92.6	104.3
	Charged refrigerant mass	kg	38	46	52	65	67	74	72	77	87	81	91	97	110	102	113	127
Evaporator	Type	#	Shell & Tube DX															
	Water Flow Rate	l/s	5.6	6.8	7.8	9.5	10.3	10.6	10.9	11.6	12.1	12.2	13.6	14.7	15.3	15.5	17.1	19.0
	Water Pressure Drop	mH_2O	5.6	1.5	2.8	1.9	1.5	5.0	1.8	3.0	6.6	6.7	2.7	3.0	5.6	2.2	4.0	1.5
	ater Connection Size(Nomin	inches	2	3	4	3	4	4	4	3	4	4	4	4	3	5	4	5
	Water Volume	liter	94	137	137	216	322	137	322	216	137	137	346	359	216	396	359	535
Condenser	Type	#	Fin & Tube															
	qty.	#	3	3	4	4	6	5	5	6	5	7	6	8	7	8	8	8
	Air Flow Rate	$\times 10^3 m^3/hr$	66.6	64.2	88.8	85.6	133.2	107	107	133.2	107	149.8	128.4	177.6	149.8	177.6	171.2	171.2
Fan	Type	#	Axial															
	qty.	#	3	3	4	4	6	5	5	6	5	7	6	8	7	8	8	8
	Power Input	kW	5.7	5.7	7.6	7.6	11.4	9.5	9.5	11.4	9.5	13.3	11.4	15.2	13.3	15.2	15.2	15.2
Sound	Sound Power Level(3)	dB	98	98	98	98	98	98	98	98	98	98	98	98	99	99	99	99
	Sound Pressure Level(4)	dBA	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79	79
Maximum Ambient Temperature		°C	52															
Electrical	Power Supply	V/Ph/Hz	380~415/3/50															
Dimension & Weight	Length	mm	2400	2400	2400	2400	3600	3600	3600	3600	3600	4800	3600	4800	4800	4800	4800	4800
	Width	mm	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
	Height	mm	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200
	Weight	kg	2210	2530	2620	3170	3570	3550	3620	3550	3560	4260	4200	4650	4370	4710	5220	5790

MODEL A-CH-SW-A-FT-SN-DX-C-1A-XA			422	442	492	532	602	672	742	802	862	942	1002	1042	1062	1132	1212
Cooling Capacity(1)		kW	416.2	444.3	493.6	533.4	599.3	670.4	743.1	801.2	856.8	944.5	999.5	1038.6	1060.2	1131.2	1208.7
		TR	118.4	126.4	140.4	151.7	170.5	190.7	211.3	227.9	243.7	268.6	284.3	295.4	301.5	321.7	343.8
Total Power Input(2)		kW	125.8	133.3	148.8	156.3	172.7	201.5	214.5	230.0	245.5	261.6	282.5	306.0	318.8	339.5	343.5
EER		kW/kW	3.31	3.33	3.32	3.41	3.47	3.33	3.46	3.48	3.49	3.61	3.54	3.39	3.33	3.33	3.52
Energy Class		Grade	A+	A+	A+	A+	A+	A+	A+	A+	A+	A+	A+	A+	A+	A+	A+
Compressor	Type	#	Screw														
	qty.	#	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Circuit	#	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	Power Input	kW	106.8	110.5	129.8	137.3	146.1	174.9	184.1	195.8	211.3	223.6	244.5	264.2	278.9	297.7	297.9
	Charged refrigerant mass	kg	133	142	160	174	196	219	239	259	282	316	336	351	356	380	399
Evaporator	Type	#	Shell & Tube DX														
	Water Flow Rate	l/s	19.8	21.2	23.5	25.4	28.6	32.0	35.4	38.2	40.8	45.0	47.6	49.5	50.5	53.9	57.6
	Water Pressure Drop	mH_2O	5.4	6.1	2.4	2.8	2.5	2.9	2.2	2.5	2.9	1.9	2.1	4.9	7.0	5.0	2.8
	ater Connection Size(Nomin	inches	4	4	5	5	5	6	6	6	6	6	6	6	6	6	6
	Water Volume	liter	359	359	585	585	663	605	876	876	876	1334	1334	933	605	876	1689
Condenser	Type	#	Fin & Tube														
	qty.	#	10	12	10	10	14	14	16	18	18	20	20	22	21	22	24
	Air Flow Rate	$\times 10^3 m^3/hr$	214	256.8	222	214	299.6	310.8	342.4	385.2	385.2	428	428	488.4	449.4	470.8	513.6
Fan	Type	#	Axial														
	qty.	#	10	12	10	10	14	14	16	18	18	20	20	22	21	22	24
	Power Input	kW	19	22.8	19	19	26.6	26.6	30.4	34.2	34.2	38	38	41.8	39.9	41.8	45.6
Sound	Sound Power Level(3)	dB	99	99	99	99	100	100	100	100	100	101	101	101	101	102	102
	Sound Pressure Level(4)	dBA	79	79	79	79	79	80	80	80	80	80	80	80	80	80	81
Maximum Ambient Temperature		°C	52														
Electrical	Power Supply	V/Ph/Hz	380~415/3/50														
Dimension & Weight	Length	mm	6000	7200	6000	6000	8400	8400	9600	10800	10800	12000	12000	13200	13200	13200	14400
	Width	mm	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
	Height	mm	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200
	Weight	kg	6210	6890	6250	6560	8050	7670	9400	10490	10500	11640	11700	11430	11590	12020	13570

Note:
1- Evaporator Water (in/Out)=12/7°C ; Condenser air(in)=35°C
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-certfied units.
4- Average sound pressure level, at 10 meter distance

LOW Noise
Low Ambient

MODEL A-CH-SW-A-FT-LN-DX-C-1A-LA			201	242	261	272	432	522	572	742	802	852	1052	1072	1142	1192	1282	1363	1543
Cooling Capacity(1)		kW	196.5	244.8	258.1	272.0	434.9	524.5	574.9	739.1	795.5	852.3	1045.6	1074.5	1135.8	1186.3	1276.1	1356.0	1541.6
		TR	55.9	69.6	73.4	77.4	123.7	149.2	163.5	210.2	226.3	242.4	297.4	305.6	323.1	337.4	362.9	385.7	438.4
Total Power Input(2)		kW	77.4	94.8	98.0	97.8	155.1	197.7	200.3	266.3	287.6	310.9	379.6	390.6	423.4	428.4	456.3	499.7	564.3
EER		kW/kW	2.54	2.58	2.63	2.78	2.80	2.65	2.87	2.78	2.77	2.74	2.75	2.75	2.68	2.77	2.80	2.71	2.73
Energy Class		Grade	D	D	D	C	C	D	C	C	C	C	C	C	D	C	C	C	C
Compressor	Type	#	Screw																
	qty.	#	1	2	1	2	2	2	2	2	2	2	2	2	2	2	2	3	3
	Circuit	#	1	2	1	2	2	2	2	2	2	2	2	2	2	2	2	3	3
	Power Input	kW	73.2	89.2	92.4	90.8	143.9	186.5	186.3	249.5	270.8	292.7	357.2	365.4	398.2	400.4	428.3	470.3	530.7
	Charged refrigerant mass	kg	68	41	89	89	146	88	192	250	136	293	178	368	196	415	226	456	514
Evaporator	Type	#	Shell & Tube DX																
	Water Flow Rate	l/s	9.4	11.7	12.3	13.0	20.7	25.0	27.4	35.2	37.9	40.6	49.8	51.2	54.1	56.5	60.8	64.6	73.5
	Water Pressure Drop	mH_2O	3.93	3.05	2.25	2.51	5.84	1.97	3.18	3.7	4.03	4.59	5	4.48	2.62	6.2	3.05	3.68	4.4
	Water Connection Size(Nominal)	inches	4	3	4	4	4	5	5	5	6	6	6	6	6	6	6	6	6
	Water Volume	liter	136.9	216.3	321.5	321.5	358.6	663.3	585.2	663.3	604.7	604.7	932.9	876.4	1333.5	932.9	1689.1	1333.5	1689.1
Condenser	Type	#	Fin & Tube																
	qty.	#	3	4	4	5	8	8	10	12	12	13	16	18	18	20	20	21	24
	Air Flow Rate	$\times 10^3\ m^3/hr$	52.5	70	70	87.5	140	140	175	210	210	227.5	280	315	315	350	350	367.5	420
Fan	Type	#	Axial																
	qty.	#	3	4	4	5	8	8	10	12	12	13	16	18	18	20	20	21	24
	Power Input	kW	4.2	5.6	5.6	7	11.2	11.2	14	16.8	16.8	18.2	22.4	25.2	25.2	28	28	29.4	33.6
Sound	Sound Power Level(3)	dB	94	95	95	95	95	96	96	96	97	97	97	98	98	98	98	99	99
	Sound Pressure Level(4)	dBA	75	75	75	75	75	76	76	76	76	76	76	76	77	77	77	77	77
Maximum Ambient Temperature		°C	40																
Electrical	Power Supply	V/Ph/Hz	380~415/3/50																
Dimension & Weight	Length	mm	2400	2400	2400	3600	4800	4800	6000	7200	7200	8400	9600	10800	10800	12000	12000	13200	14400
	Width	mm	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
	Height	mm	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200
	Weight	kg	2780	3240	3180	3820	5300	5780	6290	7860	7890	8410	9630	10200	10750	11070	11860	12950	14200

Note:
1- Evaporator Water (in/Out)=12/7°C ; Condenser air(in)=35°C
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-certfied units.
4- Average sound pressure level, at 10 meter distance

DX Cooler / Fin Tube Condenser

LOW Noise
Medium Ambient

MODEL A-CH-SW-A-FT-LN-DX-C-1A-MA			111	121	151	181	212	231	252	272	291	362	392	452	482	552	602	662
Cooling Capacity(1)		kW	110.8	117.5	154.4	175.0	205.1	234.0	246.3	267.9	294.3	355.9	385.6	451.6	475.7	550.3	599.3	659.7
		TR	31.5	33.4	43.9	49.8	58.3	66.6	70.0	76.2	83.7	101.2	109.7	128.4	135.3	156.5	170.5	187.6
Total Power Input(2)		kW	37.3	46.4	52.1	64.4	69.5	83.3	80.9	94.3	107.1	129.9	135.6	155.6	167.9	184.4	216.1	227.3
EER		kW/kW	2.97	2.53	2.96	2.72	2.95	2.81	3.04	2.84	2.75	2.74	2.84	2.90	2.83	2.98	2.77	2.90
Energy Class		Grade	B	D	B	C	B	C	B	C	C	C	C	B	C	B	C	B
Compressor	Type	#	Screw															
	qty.	#	1	1	1	1	2	1	2	2	1	2	2	2	2	2	2	2
	Circuit	#	1	1	1	1	2	1	2	2	1	2	2	2	2	2	2	2
	Power Input	kW	34.5	43.6	46.5	60.2	63.9	77.7	73.9	85.9	100.1	121.5	125.8	144.4	156.7	170.4	202.1	210.5
	Charged refrigerant mass	kg	36	40	50	60	66	80	80	87	102	59	127	149	79	92	101	220
Evaporator	Type	#	Shell & Tube DX															
	Water Flow Rate	l/s	5.3	5.6	7.4	8.3	9.8	11.2	11.7	12.8	14.0	17.0	18.4	21.5	22.7	26.2	28.6	31.4
	Water Pressure Drop	mH2O	2.4	3.9	4.5	2.3	3.1	5.6	3.1	7.3	4.6	3.9	4.6	1.9	2.1	2.9	3.4	4.1
	Water Connection Size(Nominal)	inches	2	2	2	3	3	4	3	4	3	4	4	5	5	5	5	5
	Water Volume	liter	87	59	87	151	137	137	216	137	216	359	359	535	535	585	585	585
Condenser	Type	#	Fin & Tube															
	qty.	#	2	2	4	3	4	4	5	6	5	6	7	8	8	10	10	12
	Air Flow Rate	$\times 10^3\ m^3/hr$	35	35	70	52.5	70	70	87.5	105	87.5	105	122.5	140	140	175	175	210
Fan	Type	#	Axial															
	qty.	#	2	2	4	3	4	4	5	6	5	6	7	8	8	10	10	12
	Power Input	kW	2.8	2.8	5.6	4.2	5.6	5.6	7	8.4	7	8.4	9.8	11.2	11.2	14	14	16.8
Sound	Sound Power Level(3)	dB	94	94	94	94	94	95	95	95	95	95	95	95	95	96	96	96
	Sound Pressure Level(4)	dBA	75	75	75	75	75	75	75	75	75	75	75	75	75	76	76	76
Maximum Ambient Temperature		°C	43															
Electrical	Power Supply	V/Ph/Hz	380~415/3/50															
Dimension & Weight	Length	mm	1200	1200	2400	2400	2400	2400	3600	3600	3600	3600	4800	4800	4800	6000	6000	7200
	Width	mm	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
	Height	mm	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200
	Weight	kg	1750	1860	2520	2780	2760	2950	3550	3750	3540	4680	5130	5550	5560	6280	6300	7320

MODEL A-CH-SW-A-FT-LN-DX-C-1A-MA			722	772	842	892	972	1032	1082	1122	1192	1252	1302	1433
Cooling Capacity(1)		kW	716.8	773.2	837.5	894.2	966.6	1033.5	1075.6	1121.7	1187.8	1246.7	1304.8	1430.4
		TR	203.9	219.9	238.2	254.3	274.9	293.9	305.9	319.0	337.8	354.6	371.1	406.8
Total Power Input(2)		kW	250.6	263.5	277.6	300.9	326.5	342.5	367.4	384.3	416.2	431.0	445.6	486.6
EER		kW/kW	2.86	2.93	3.02	2.97	2.96	3.02	2.93	2.92	2.85	2.89	2.93	2.94
Energy Class		Grade	C	B	B	B	B	B	B	B	C	C	B	B
Compressor	Type	#	Screw											
	qty.	#	2	2	2	2	2	2	2	2	2	2	2	3
	Circuit	#	2	2	2	2	2	2	2	2	2	2	2	3
	Power Input	kW	233.8	245.3	258.0	279.9	304.1	317.3	342.2	356.3	388.2	401.6	414.8	453.0
	Charged refrigerant mass	kg	119	262	144	305	164	349	183	384	202	435	234	473
Evaporator	Type	#	Shell & Tube DX											
	Water Flow Rate	l/s	34.2	36.9	39.9	42.6	46.1	49.3	51.3	53.5	56.6	59.4	62.2	68.2
	Water Pressure Drop	mH2O	3.3	3.8	2.8	3.1	4.4	4.9	5.2	5.6	2.7	2.9	3.2	3.8
	Water Connection Size(Nominal)	inches	6	6	6	6	6	6	6	6	6	6	6	6
	Water Volume	liter	605	605	876	876	933	933	933	933	1689	1689	1689	1689
Condenser	Type	#	Fin & Tube											
	qty.	#	12	13	14	15	16	18	18	20	20	21	22	24
	Air Flow Rate	$\times 10^3\ m^3/hr$	210	227.5	245	262.5	280	315	315	350	350	367.5	385	420
Fan	Type	#	Axial											
	qty.	#	12	13	14	15	16	18	18	20	20	21	22	24
	Power Input	kW	16.8	18.2	19.6	21	22.4	25.2	25.2	28	28	29.4	30.8	33.6
Sound	Sound Power Level(3)	dB	96	96	97	97	97	97	98	98	98	98	98	99
	Sound Pressure Level(4)	dBA	76	76	76	76	76	76	77	77	77	77	77	77
Maximum Ambient Temperature		°C	43											
Electrical	Power Supply	V/Ph/Hz	380~415/3/50											
Dimension & Weight	Length	mm	7200	8400	8400	9600	9600	10800	10800	12000	12000	13200	13200	14400
	Width	mm	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
	Height	mm	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200
	Weight	kg	7870	8340	8730	9240	9590	10220	10240	10940	11780	12280	12470	14140

Note:
1- Evaporator Water (in/Out)=12/7°C ; Condenser air(in)=35°C
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-certfied units.
4- Average sound pressure level, at 10 meter distance

Chillers
Air Handling Units
Packaged Units
Heat Exchangers
Condensers
Aircooled
Fancoils
Unit Heaters
Fresh Air Units
Recovery Systems
Cooling Towers

LOW Noise
Standard Ambient

MODEL A-CH-SW-A-FT-LN-DX-C-1A-SA			101	151	181	192	211	212	242	241	261	282	311	312	332	402	412	452
Cooling Capacity(1)		kW	97.6	147.2	183.8	187.2	206.8	213.1	239.6	240.3	262.1	280.9	305.3	305.6	330.5	395.1	414.6	447.7
		TR	27.8	41.9	52.3	53.2	58.8	60.6	68.1	68.3	74.6	79.9	86.8	86.9	94.0	112.4	117.9	127.3
Total Power Input(2)		kW	32.7	50.1	60.2	64.2	70.6	73.4	78.4	78.4	90.2	93.5	102.2	101.9	110.2	131.3	141.2	149.0
EER		kW/kW	2.99	2.94	3.05	2.91	2.93	2.90	3.06	3.06	2.90	3.00	2.99	3.00	3.00	3.01	2.94	3.01
Energy Class		Grade	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
Compressor	Type	#	Screw															
	qty.	#	1	1	1	2	1	2	2	1	1	2	1	2	2	2	2	2
	Circuit	#	1	1	1	2	1	2	2	1	1	2	1	2	2	2	2	2
	Power Input	kW	29.9	45.9	54.6	58.6	65.0	67.8	70.0	71.4	83.2	85.1	93.8	93.5	100.4	120.1	130.0	136.4
	Charged refrigerant mass	kg	31	49	61	30	69	34	77	84	91	91	104	50	107	128	134	148
Evaporator	Type	#	Shell & Tube DX															
	Water Flow Rate	l/s	4.7	7.0	8.8	8.9	9.9	10.2	11.4	11.5	12.5	13.4	14.6	14.6	15.8	18.8	19.8	21.3
	Water Pressure Drop	mH_2O	4.1	3.0	2.9	4.6	3.2	3.4	4.3	4.3	7.0	4.1	5.0	2.9	3.7	4.8	5.3	6.2
	Water Connection Size(Nominal)	inches	2	3	3	3	3	3	3	3	4	3	3	4	4	4	4	4
	Water Volume	liter	94	94	151	94	137	151	137	137	137	216	216	359	322	359	359	359
Condenser	Type	#	Fin & Tube															
	qty.	#	2	3	4	4	4	4	6	5	5	6	6	6	7	8	8	9
	Air Flow Rate	$\times 10^3 m^3/hr$	35	52.5	70	70	70	70	105	87.5	87.5	105	105	105	122.5	140	140	157.5
Fan	Type	#	Axial															
	qty.	#	2	3	4	4	4	4	6	5	5	6	6	6	7	8	8	9
	Power Input	kW	2.8	4.2	5.6	5.6	5.6	5.6	8.4	7	7	8.4	8.4	8.4	9.8	11.2	11.2	12.6
Sound	Sound Power Level(3)	dB	94	94	94	94	94	94	95	95	95	95	95	95	95	95	95	95
	Sound Pressure Level(4)	dBA	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75
Maximum Ambient Temperature		°C	46															
Electrical	Power Supply	V/Ph/Hz	380~415/3/50															
Dimension & Weight	Length	mm	1200	2400	2400	2400	2400	2400	3600	3600	3600	3600	3600	3600	4800	4800	4800	6000
	Width	mm	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
	Height	mm	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200
	Weight	kg	1710	2380	2930	2650	2920	2830	3570	3390	3410	3860	3690	4040	4750	5290	5290	5760

MODEL A-CH-SW-A-FT-LN-DX-C-1A-SA			572	602	642	682	742	802	852	912	962	1032	1062	1122	1212
Cooling Capacity(1)		kW	568.0	595.6	639.3	677.0	741.1	797.1	851.9	914.1	958.5	1033.3	1059.5	1117.6	1205.4
		TR	161.5	169.4	181.8	192.6	210.8	226.7	242.3	260.0	272.6	293.9	301.3	317.9	342.8
Total Power Input(2)		kW	177.6	191.9	208.5	223.2	241.6	255.2	268.7	288.0	313.3	331.9	352.8	373.2	397.9
EER		kW/kW	3.20	3.10	3.07	3.03	3.07	3.12	3.17	3.17	3.06	3.11	3.00	2.99	3.03
Energy Class		Grade	A	A	B	B	B	A	A	A	B	A	B	B	B
Compressor	Type	#	Screw												
	qty.	#	2	2	2	2	2	2	2	2	2	2	2	2	2
	Circuit	#	2	2	2	2	2	2	2	2	2	2	2	2	2
	Power Input	kW	160.8	175.1	191.7	205.0	222.0	234.2	246.3	262.8	288.1	303.9	324.8	342.4	364.3
	Charged refrigerant mass	kg	93	196	105	224	123	268	145	311	164	353	180	384	205
Evaporator	Type	#	Shell & Tube DX												
	Water Flow Rate	l/s	27.1	28.4	30.5	32.3	35.3	38.0	40.6	43.6	45.7	49.3	50.5	53.3	57.5
	Water Pressure Drop	mH_2O	3.1	3.4	2.7	3.1	3.5	4.0	4.6	5.3	5.8	4.2	7.0	4.8	2.9
	Water Connection Size(Nominal)	inches	5	5	6	5	6	6	6	6	6	6	6	6	6
	Water Volume	liter	585	585	605	663	605	605	605	605	605	876	605	876	1334
Condenser	Type	#	Fin & Tube												
	qty.	#	12	12	12	13	14	15	16	18	18	20	20	22	24
	Air Flow Rate	$\times 10^3 m^3/hr$	210	210	210	227.5	245	262.5	280	315	315	350	350	385	420
Fan	Type	#	Axial												
	qty.	#	12	12	12	13	14	15	16	18	18	20	20	22	24
	Power Input	kW	16.8	16.8	16.8	18.2	19.6	21	22.4	25.2	25.2	28	28	30.8	33.6
Sound	Sound Power Level(3)	dB	96	96	96	96	96	97	97	97	97	97	98	98	98
	Sound Pressure Level(4)	dBA	76	76	76	76	76	76	76	76	76	76	77	77	77
Maximum Ambient Temperature		°C	46												
Electrical	Power Supply	V/Ph/Hz	380~415/3/50												
Dimension & Weight	Length	mm	7200	7200	7200	8400	8400	9600	9600	10800	10800	12000	12000	13200	14400
	Width	mm	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
	Height	mm	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200
	Weight	kg	6890	6900	7050	7890	8490	8950	9120	9790	9850	10710	10510	11430	12590

Note:
1- Evaporator Water (in/Out)=12/7°C ; Condenser air(in)=35°C
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-certfied units.
4- Average sound pressure level, at 10 meter distance

DX Cooler / Fin Tube Condenser

LOW Noise
High Ambient

MODEL A-CH-SW-A-FT-LN-DX-C-1A-HA			131	211	251	252	272	271	292	302	311	362	432	462	532	642	692	742	802	842	932	992	1042
Cooling Capacity(1)		kW	128.4	209.4	246.4	253.5	267.1	269.7	289.7	304.6	312.2	359.5	428.0	460.5	527.1	643.3	693.1	741.7	800.0	835.5	934.8	986.8	1038.4
		TR	36.5	59.6	70.1	72.1	76.0	76.7	82.4	86.6	88.8	102.2	121.7	131.0	149.9	183.0	197.1	210.9	227.5	237.6	265.9	280.7	295.3
Total Power Input(2)		kW	42.7	67.3	76.3	78.8	86.7	87.0	91.8	101.7	99.3	119.3	135.6	144.0	156.3	200.8	217.3	233.7	245.8	260.0	281.6	302.6	322.2
EER		kW/kW	3.01	3.11	3.23	3.22	3.08	3.10	3.16	2.99	3.14	3.01	3.16	3.20	3.37	3.20	3.19	3.17	3.25	3.21	3.32	3.26	3.22
Energy Class		Grade	B	A	A	A	B	B	A	B	A	B	A	A	A+	A	A	A	A	A	A+	A	A
Compressor	Type	#	Screw																				
	qty.	#	1	1	1	2	2	1	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2
	Circuit	#	1	1	1	2	2	1	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2
	Power Input	kW	38.5	60.3	67.9	70.4	78.3	78.6	82.0	93.3	89.5	108.1	121.6	128.6	139.5	181.2	196.3	211.3	220.6	234.8	252.2	271.8	290.0
	Charged refrigerant mass	kg	43	71	85	82	87	93	93	99	108	117	139	151	172	212	228	243	269	286	320	339	355
Evaporator	Type	#	Shell & Tube DX																				
	Water Flow Rate	l/s	6.1	10.0	11.7	12.1	12.7	12.9	13.8	14.5	14.9	17.1	20.4	22.0	25.1	30.7	33.0	35.4	38.1	39.8	44.6	47.0	49.5
	Water Pressure Drop	mH_2O	6.6	3.8	4.5	3.3	3.7	7.4	2.9	3.0	5.2	7.1	5.7	6.5	2.7	2.8	3.3	3.7	4.3	6.2	5.5	6.1	6.7
	ater Connection Size(Nomin	inches	2	3	3	3	3	4	4	4	3	3	4	4	5	5	5	5	5	5	6	6	6
	Water Volume	liter	94	151	137	216	216	137	322	346	216	216	359	359	585	663	663	663	663	585	605	605	605
Condenser	Type	#	Fin & Tube																				
	qty.	#	3	5	6	6	6	6	7	6	7	8	10	11	12	14	15	16	18	18	21	22	23
	Air Flow Rate	$\times 10^3 m^3/hr$	52.5	87.5	105	105	105	105	122.5	105	122.5	140	175	192.5	210	245	262.5	280	315	315	367.5	385	402.5
Fan	Type	#	Axial																				
	qty.	#	3	5	6	6	6	6	7	6	7	8	10	11	12	14	15	16	18	18	21	22	23
	Power Input	kW	4.2	7	8.4	8.4	8.4	8.4	9.8	8.4	9.8	11.2	14	15.4	16.8	19.6	21	22.4	25.2	25.2	29.4	30.8	32.2
Sound	Sound Power Level(3)	dB	94	94	95	95	95	95	95	95	95	95	95	95	96	96	96	96	97	97	97	97	97
	Sound Pressure Level(4)	dBA	75	75	75	75	75	75	75	75	75	75	75	75	76	76	76	76	76	76	76	76	76
Maximum Ambient Temperature		°C	50																				
Electrical	Power Supply	V/Ph/Hz	380~415/3/50																				
mension & Weig	Length	mm	2400	3600	3600	3600	3600	3600	4800	3600	4800	4800	6000	7200	7200	8400	9600	9600	10800	10800	13200	13200	14400
	Width	mm	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
	Height	mm	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200
	Weight	kg	2360	3390	3540	3700	3850	3570	4430	4020	4150	5120	5900	6370	6870	7640	8510	9080	9700	9590	10860	11080	11550

Note:
1- Evaporator Water (in/Out)=12/7°C ; Condenser air(in)=35°C
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-certfied units.
4- Average sound pressure level, at 10 meter distance

DX Cooler / Fin Tube Condenser

LOW Noise
Extra Ambient

MODEL A-CH-SW-A-FT-LN-DX-C-1A-XA			101	121	141	161	191	202	221	242	251	262	292	302	321	322
Cooling Capacity(1)		kW	98.6	115.5	138.0	158.6	191.3	203.1	217.0	239.7	250.1	258.2	286.1	303.4	317.1	319.7
		TR	28.1	32.9	39.2	45.1	54.4	57.8	61.7	68.2	71.1	73.4	81.4	86.3	90.2	90.9
Total Power Input(2)		kW	31.1	35.0	42.2	48.7	58.8	62.7	66.5	70.7	75.2	77.6	85.4	91.6	97.6	97.7
EER		kW/kW	3.17	3.31	3.27	3.25	3.26	3.24	3.27	3.39	3.32	3.33	3.35	3.31	3.25	3.27
Energy Class		Grade	A	A+	A	A	A	A	A	A+	A+	A+	A+	A+	A	A
Compressor	Type	#	Screw													
	qty.	#	1	1	1	1	1	2	1	2	1	2	2	2	1	2
	Circuit	#	1	1	1	1	1	2	1	2	1	2	2	2	1	2
	Power Input	kW	26.9	30.8	36.6	43.1	51.8	54.3	58.1	62.3	65.4	67.8	74.2	80.4	86.4	86.5
	Charged refrigerant mass	kg	32	38	45	51	65	32	73	38	89	82	45	96	109	51
Evaporator	Type	#	Shell & Tube DX													
	Water Flow Rate	l/s	4.7	5.5	6.6	7.6	9.1	9.7	10.3	11.4	11.9	12.3	13.6	14.5	15.1	15.2
	Water Pressure Drop	mH_2O	7.3	5.5	2.6	1.9	2.7	3.1	3.5	2.9	4.7	3.4	2.7	2.9	5.4	3.2
	Water Connection Size(Nominal)	inches	1	2	3	3	3	3	3	3	3	3	4	4	3	4
	Water Volume	liter	55	94	94	137	137	137	137	216	137	216	346	359	216	359
Condenser	Type	#	Fin & Tube													
	qty.	#	3	3	4	4	5	6	6	6	7	7	8	8	8	8
	Air Flow Rate	$\times 10^3 m^3/hr$	52.5	52.5	70	70	87.5	105	105	105	122.5	122.5	140	140	140	140
Fan	Type	#	Axial													
	qty.	#	3	3	4	4	5	6	6	6	7	7	8	8	8	8
	Power Input	kW	4.2	4.2	5.6	5.6	7	8.4	8.4	8.4	9.8	9.8	11.2	11.2	11.2	11.2
Sound	Sound Power Level(3)	dB	94	94	94	94	94	94	94	95	95	95	95	95	95	95
	Sound Pressure Level(4)	dBA	75	75	75	75	75	75	75	75	75	75	75	75	75	75
Maximum Ambient Temperature		℃	52													
Electrical	Power Supply	V/Ph/Hz	380~415/3/50													
Dimension & Weight	Length	mm	2400	2400	2400	2400	3600	3600	3600	3600	4800	4800	4800	4800	4800	4800
	Width	mm	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
	Height	mm	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200
	Weight	kg	2090	2210	2540	2600	3380	3330	3530	3550	4000	4160	4620	4650	4310	4650

MODEL A-CH-SW-A-FT-LN-DX-C-1A-XA			352	402	412	442	472	542	592	682	712	792	852	922	982
Cooling Capacity(1)		kW	352.7	396.0	410.6	435.7	470.3	540.2	591.7	675.7	712.3	787.7	845.4	918.0	978.7
		TR	100.3	112.6	116.8	123.9	133.8	153.6	168.3	192.2	202.6	224.0	240.5	261.1	278.4
Total Power Input(2)		kW	107.8	118.9	125.4	133.1	141.4	154.3	172.2	196.5	211.5	230.1	244.8	260.8	280.7
EER		kW/kW	3.27	3.33	3.27	3.27	3.33	3.50	3.44	3.44	3.37	3.42	3.45	3.52	3.49
Energy Class		Grade	A	A+	A	A	A+	A+	A+	A+	A+	A+	A+	A+	A+
Compressor	Type	#	Screw												
	qty.	#	2	2	2	2	2	2	2	2	2	2	2	2	2
	Circuit	#	2	2	2	2	2	2	2	2	2	2	2	2	2
	Power Input	kW	95.2	104.9	110.0	116.3	121.8	134.7	149.8	171.3	184.9	202.1	215.4	230.0	247.1
	Charged refrigerant mass	kg	113	64	133	70	155	89	97	112	235	129	285	158	337
Evaporator	Type	#	Shell & Tube DX												
	Water Flow Rate	l/s	16.8	18.9	19.6	20.8	22.4	25.8	28.2	32.2	34.0	37.6	40.3	43.8	46.7
	Water Pressure Drop	mH_2O	3.9	1.5	5.2	5.9	6.8	2.1	2.4	3.0	3.5	2.5	2.8	4.0	4.5
	Water Connection Size(Nominal)	inches	4	5	4	4	4	5	5	6	5	6	6	6	6
	Water Volume	liter	359	535	359	359	359	663	663	605	663	876	876	933	933
Condenser	Type	#	Fin & Tube												
	qty.	#	9	10	11	12	14	14	16	18	19	20	21	22	24
	Air Flow Rate	$\times 10^3 m^3/hr$	157.5	175	192.5	210	245	245	280	315	332.5	350	367.5	385	420
Fan	Type	#	Axial												
	qty.	#	9	10	11	12	14	14	16	18	19	20	21	22	24
	Power Input	kW	12.6	14	15.4	16.8	19.6	19.6	22.4	25.2	26.6	28	29.4	30.8	33.6
Sound	Sound Power Level(3)	dB	95	95	95	95	95	96	96	96	96	97	97	97	97
	Sound Pressure Level(4)	dBA	75	75	75	75	75	76	76	76	76	76	76	76	76
Maximum Ambient Temperature		℃	52												
Electrical	Power Supply	V/Ph/Hz	380~415/3/50												
Dimension & Weight	Length	mm	6000	6000	7200	7200	8400	8400	9600	10800	12000	12000	13200	13200	14400
	Width	mm	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500	2500
	Height	mm	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200	3200
	Weight	kg	5430	6150	6360	6520	7140	7600	8240	8890	9730	10550	11010	11310	11980

Note:
1- Evaporator Water (in/Out)=12/7°C ; Condenser air(in)=35°C
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-certfied units.
4- Average sound pressure level, at 10 meter distance

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