> RHV

AIR WATER CHILLER
FOR OUTDOOR INSTALLATION

Available range

Unit type
IR Chiller
BR Chiller Brine

Version
VB Base version
VD Desuperheater version
VR Total recovery version

Acoustic setting up
AB Base setting up
AS Low noise setting up
AX eXtra low noise setting up

Source temperature level
M Medium temperature level
A High temperature level

Unit description

This range of air-water chillers are designed to meet the climate control and air conditioning needs of large capacity systems in the industrial and commercial sectors. Suitable for outdoor installation, as standard the units are equipped with 2 TWIN-SCREW semihermetic compressors mounted on rubber vibration dampers, able to modulate the capacity of the unit from minimum 12.5 (not for all configurations) to 100%, plant side exchanger shell and tube type complete with Victaulic water connections, fitted inside a shell of thermal insulation material to prevent condensation and heat exchange with the outside, optimised for R134a with high efficiency grooved tubes, protected by means of a water differential pressure switch and from the winter freeze to a minimum air temperature of -10°C by means of an antifreeze heater, source side exchanger finned coils with large heat exchange surface, made with copper pipes and louvered aluminium fins, 2 independent refrigerant circuits, complete with electronic expansion valve which optimises unit efficiency at full and partial loads and enables maximum seasonal efficiency, maximum and minimum pressure switch, PED safety valves, dehydrator filter, liquid/moisture indicator, compressor discharge and liquid shut-off valves, high and low pressure transducers, electrical panel with minimum protection IP54 containing the electrical equipment and all the components to control and command the unit complete with main supply breaker with door lock function, phase sequence control device, microprocessor controller with display (4 lines of 20 characters). In addition to the standard features the Low noise setting up (AS) is equipped with fans reduced speed and compressors positioned inside a soundproofed cabin, made with profiles and panels insulated with acoustic material. in addition to the standard features the eXtra low noise setting up (AX) is equipped with coils with larger surface in order to further reduce the fans speed and compressors positioned inside a soundproofed cabin, made with profiles and panels insulated with superior acoustic material. The range is completed with numerous accessories and options, including the possibility of having units equipped with pumping modules with 2 pumps, 2 poles for Basic Version and 4 poles for Low Noise and Extra Low Noise setting up. The units are carefully built and tested, therefore installation only requires the electrical and hydraulic connections.

Options

Compressor starting
- standard (contactors)
- soft starter

Compressors power factor correction
Electrical load protection
- standard (fuses)
- thermal magnetic circuit breakers

Accessories

Integrated Pumping Modules with 2 pumps, supplied in 4 different configurations:
- Pumps 2 poles standard head
- Pumps 2 poles high head
- Pumps 2 poles extra high head
- Pumps 4 poles standard head

Condensation Control Device (standard for AS and AX), enables unit operation to outside air temperatures =-10°C)
Spring vibration dampers
Coil protection grilles
Antintrusion protection grilles
External Water Storage Tank and Pumping Module complete with insulated carbon steel tank, single or twin pump and all hydronic components.
Antifreeze electrical heaters for Storage tank
Remote controller
Serial Interface Modbus on RS 485
Programmer clock
Phase sequence and voltage controller
High and low pressure gauges
Compressor suction shut-off valve
Water flow switch

NET NOMINAL performances - Standard plants - EUROVENT certified data

IR	Base setting up (AB)	330.2	370.2	420.2	470.2	510.2	590.2	670.2	740.2	800.2	900.2	1000.2	1150.2	
A35W7	Cooling capacity	329	363	412	464	507	589	660	738	795	883	980	1104	kW
	Power input	122	139	154	169	192	215	230	265	288	332	359	389	kW
	EER	2,71	2,6	2,68	2,74	2,63	2,74	2,88	2,78	2,77	2,66	2,73	2,84	W/W
	ESEER	3,34	3,23	3,33	3,44	3,31	3,46	3,54	3,51	3,51	3,42	3,48	3,69	W/W
	Water flow rate	15,9	17,5	19,8	22,4	24,4	28,4	31,8	35,5	38,3	42,6	47,2	53,2	l/s
	Pressure drops	49	57	44	56	53	53	44	45	52	60	42	56	kPa
IR	**Low noise setting up (AS)**	**330.2**	**370.2**	**420.2**	**470.2**	**510.2**	**590.2**	**670.2**	**740.2**	**800.2**	**900.2**	**1000.2**	**1150.2**	
A35W7	Cooling capacity	319	351	396	443	490	563	638	710	763	849	937	1071	kW
	Power input	120	139	154	171	191	219	239	270	296	334	367	400	kW
	EER	2,65	2,52	2,58	2,6	2,57	2,57	2,67	2,63	2,58	2,54	2,55	2,68	W/W
	ESEER	3,45	3,29	3,32	3,38	3,32	3,31	3,44	3,39	3,35	3,32	3,31	3,55	W/W
	Water flow rate	15,3	16,9	19,1	21,4	23,6	27,1	30,7	34,2	36,7	40,9	45,1	51,6	l/s
	Pressure drops	46	54	40	51	50	48	41	41	47	55	39	53	kPa
IR	**eXtra low noise setting up (AX)**	**330.2**	**370.2**	**420.2**	**470.2**	**510.2**	**590.2**	**670.2**	**740.2**	**800.2**	**900.2**	**1000.2**	**1150.2**	
A35W7	Cooling capacity	305	348	389	432	486	547	632	695	748	857	937	1067	kW
	Power input	125	141	157	176	194	230	249	277	304	337	374	412	kW
	EER	2,44	2,47	2,47	2,45	2,51	2,38	2,54	2,5	2,47	2,55	2,51	2,59	W/W
	ESEER	3,22	3,29	3,22	3,2	3,28	3,1	3,32	3,28	3,24	3,39	3,3	3,48	W/W
	Water flow rate	14,7	16,8	18,7	20,8	23,4	26,3	30,4	33,4	36	41,3	45,1	51,4	l/s
	Pressure drops	42	53	39	48	49	46	40	40	46	56	39	52	kPa

Data declared according to **EN 14511**. The values are referred to units without options and accessories.
EER (Energy Efficiency Ratio) = ratio of the total cooling capacity to the effective power input of the unit
ESEER (European Seasonal Energy Efficiency Ratio)
____ = Unit in **A CLASS.**
A35W7 = source : air in 35°C d.b. / plant : water in 12°C out 7°C

Acoustic performances

Base setting up (AB)	330.2	370.2	420.2	470.2	510.2	590.2	670.2	740.2	800.2	900.2	1000.2	1150.2	
Sound power level (E)	98	98	98	98	100	100	100	101	101	102	102	103	dB(A)
Sound pressure level at 1 meter	79	79	79	79	80	80	80	80	80	81	81	82	dB(A)
Sound pressure level at 5 meters	71	71	71	71	72	72	72	73	73	74	73	74	dB(A)
Sound pressure level at 10 meters	66	66	66	66	67	67	67	69	69	69	69	70	dB(A)
Low noise setting up (AS)	**330.2**	**370.2**	**420.2**	**470.2**	**510.2**	**590.2**	**670.2**	**740.2**	**800.2**	**900.2**	**1000.2**	**1150.2**	
Sound power level (E)	93	93	93	93	94	94	94	96	96	97	97	98	dB(A)
Sound pressure level at 1 meter	73	73	73	73	74	74	74	75	75	75	75	76	dB(A)
Sound pressure level at 5 meters	65	65	65	65	67	66	66	67	67	68	68	69	dB(A)
Sound pressure level at 10 meters	61	61	61	61	62	62	62	63	63	64	64	65	dB(A)
eXtra low noise setting up (AX)	**330.2**	**370.2**	**420.2**	**470.2**	**510.2**	**590.2**	**670.2**	**740.2**	**800.2**	**900.2**	**1000.2**	**1150.2**	
Sound power level (E)	87	87	87	87	88	88	90	91	91	92	92	93	dB(A)
Sound pressure level at 1 meter	67	67	67	67	68	68	69	69	69	70	70	71	dB(A)
Sound pressure level at 5 meters	59	59	59	59	61	60	62	63	63	63	63	65	dB(A)
Sound pressure level at 10 meters	55	55	55	55	56	56	57	58	58	59	59	60	dB(A)

(E): EUROVENT certified data
The acoustic performances are referred to units operating in cooling mode at nominal conditions A35W7.
Unit placed in free field on reflecting surface (directional factor equal to 2).
The sound power level is measured according to ISO 9614 standard.
The sound pressure level is calculated according to ISO 3744 and is referred to a distance of 1/5/10 metres from the external surface of the unit.

Technical data

Unit	330.2	370.2	420.2	470.2	510.2	590.2	670.2	740.2	800.2	900.2	1000.2	1150.2	
Power supply	400 - 3 - 50												V-ph-Hz
Compressor type	twin-screw												-
N° compressors / N° refrigerant circuits	2 / 2												n°
Part load	12.5 / 100% stepless												-
Plant side heat exchanger type	shell & tube												-
Source side heat exchanger type	finned coil												-
Fans type	axial												n°
N° fans (AB / AS)	8	8	8	8	10	10	10	12	12	14	14	16	l
N° fans (AX)	8	8	8	8	10	10	12	14	14	16	16	20	
Hydraulic fittings (victaulic)	DN100	DN100	DN125	DN125	DN125	DN150	DN150	DN150	DN150	DN200	DN200	DN200	-

Electrical data

Standard unit		330.2	370.2	420.2	470.2	510.2	590.2	670.2	740.2	800.2	900.2	1000.2	1150.2	
FLA - Full load current at maximum tolerated conditions	AB	274	304	332	360	409	469	469	557	594	684	746	755	A
	AS	274	304	332	360	409	469	469	557	594	684	746	755	
	AX	258	288	316	344	389	449	454	537	574	661	723	732	
FLI - Full load power input at maximum tolerated conditions	AB	164	184	200	216	242	282	282	339	364	412	452	456	kW
	AS	164	184	200	216	242	282	282	339	364	412	452	456	
	AX	157	177	193	209	233	273	275	330	355	402	442	446	
MIC - Maximum instantaneous current of the unit	AB	504	592	689	717	838	921	921	751	788	958	1053	1062	A
	AS	504	592	689	717	838	921	921	751	788	958	1053	1062	
	AX	488	576	673	701	818	901	906	731	768	935	1030	1039	

Operative range

Cooling

Temperature	Unit type	min	max	
Outdoor air inlet temperature	IR, BR	-10*	50**	(°C)
Water outlet temperature	IR	5	15	(°C)
Water outlet temperature	BR	-8	5	(°C)
Water outlet temperature (VD)	IR, BR	35	55	(°C)
Water outlet temperature (VR)	IR, BR	35	55	(°C)

* with fans modulating control option (condensation / evaporation control)
** with ATC outdoor high temperature protection fuction

USER INTERFACING

The controller on the unit is designed to ensure energy-saving and efficiency.
It enables the setting of:

- Double Set Point
- Demand Limit
- ATC function to avoid the block of the unit with high outdoor air temperature
- Dinamic set point
- Noise emission control
- Remote stand by

VD and VR versions

These units allow to recover the heating power, otherwise wasted on air, through an additional heat exchanger.

DESUPERHEATERS VERSION VD

Allows the production of cold water as in the standard version and, simultaneously, of hot water at temperatures from 35 to 50 ° C. This is achieved by inserting, between the compressor and finned coil, a heat exchanger water-gas cooler which allows for heat recovery from 15 to 20% of thermal power.

TOTAL RECOVERY VERSION VR

Allows the production of cold water and simultaneously of hot water at temperatures from 35 to 50 °C by using a heat exchanger, water-gas cooler which allows the total recovery of thermal power. The inclusion and exclusion of the total heat recovery, is done by a valve placed on the discharge of the compressors on each circuit.

Desupeheater Version (VD) - NET NOMINAL performances

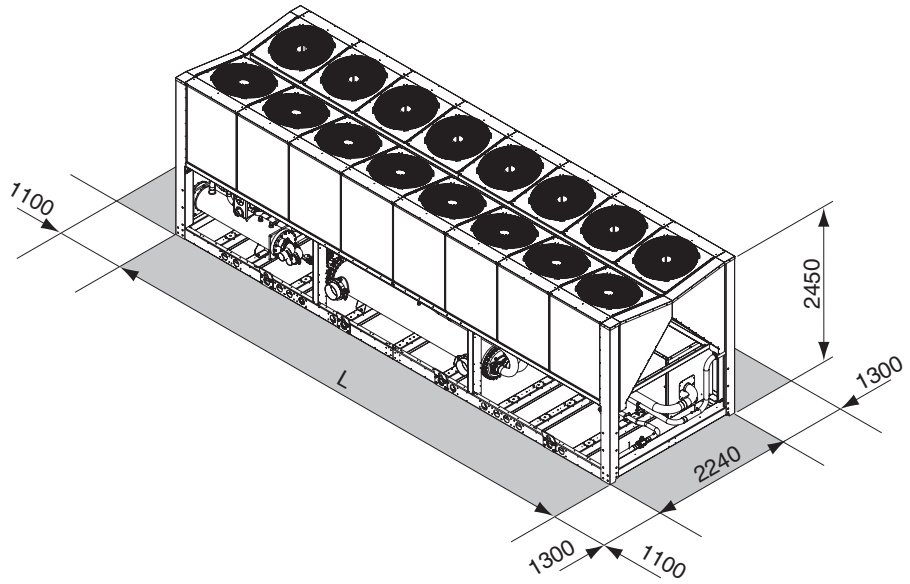
IR	Base setting up (AB)	330.2	370.2	420.2	470.2	510.2	590.2	670.2	740.2	800.2	900.2	1000.2	1150.2	
A35W7 - W45	Cooling capacity	342	377	429	482	526	612	687	767	827	918	1018	1148	kW
	Total power input	118	136	149	165	187	209	223	257	279	323	349	378	kW
	EER	**2,9**	**2,78**	**2,87**	**2,93**	**2,81**	**2,94**	**3,08**	**2,99**	**2,96**	**2,85**	**2,92**	**3,03**	**W/W**
	HRE	**3,69**	**3,58**	**3,69**	**3,75**	**3,63**	**3,76**	**3,91**	**3,81**	**3,78**	**3,67**	**3,76**	**3,86**	**W/W**
	Water flow rate	16,5	18,2	20,6	23,3	25,4	29,5	33	36,9	39,9	44,3	49	55,4	l/s
	Water pressure drop	53	62	47	60	58	57	47	48	56	65	46	61	kPa
	Heating recovery capacity	93	109	122	135	152	171	185	212	231	266	292	313	kW
	Water flow rate recovery	4,5	5,2	5,8	6,4	7,2	8,2	8,8	10,1	11,1	12,7	14	15	l/s
	Water pressure drop recovery	10	13	17	10	13	12	14	18	15	12	15	17	kPa

Total Recovery Version (VR) - NET NOMINAL performances

IR	Base setting up (AB)	330.2	370.2	420.2	470.2	510.2	590.2	670.2	740.2	800.2	900.2	1000.2	1150.2	
A35W7 - W45	Cooling capacity	325	359	413	468	519	593	653	742	799	897	989	1122	kW
	Total power input	109	126	139	153	169	193	212	238	263	297	330	352	kW
	EER	**3**	**2,84**	**2,97**	**3,05**	**3,08**	**3,07**	**3,09**	**3,11**	**3,04**	**3,02**	**3**	**3,18**	**W/W**
	HRE	**6,95**	**6,64**	**6,9**	**7,06**	**7,11**	**7,09**	**7,13**	**7,17**	**7,04**	**6,99**	**6,95**	**7,32**	**W/W**
	Water flow rate	15,7	17,3	19,9	22,6	25	28,6	31,4	35,7	38,5	43,3	47,6	54,1	l/s
	Water pressure drop	48	56	44	56	56	54	43	45	52	62	43	58	kPa
	Heating recovery capacity	429	479	545	614	680	777	855	968	1049	1180	1303	1457	kW
	Water flow rate recovery	20,5	22,9	26	29,3	32,5	37,1	40,8	46,3	50,1	56,4	62,2	69,6	l/s
	Water pressure drop recovery	27	33	43	45	47	43	47	44	52	47	48	50	kPa

Data declared according to **EN 14511**. The values are referred to units without options and accessories.
EER (Energy Efficiency Ratio) = ratio of the total cooling capacity to the effective power input of the unit
HRE (Heat Recovery Efficiency) = ratio of the total capacity of the system (heating plus cooling capacity) to the effectice power input
A35W7 - W45 = source : air in 35°C d.b. / plant : water in 12°C out 7°C / Recovery : water in 40°C out 45°C

DIMENSIONS - MINIMUM OPERATING AREA - WEIGHT



		330.2	370.2	420.2	470.2	510.2	590.2	670.2	740.2	800.2	900.2	1000.2	1150.2	
L	AB	4070	4070	4070	4070	5005	5005	5005	5950	5950	6900	6900	7810	mm
	AS	4070	4070	4070	4070	5005	5005	5005	5950	5950	6900	6900	7810	mm
	AX	4070	4070	4070	4070	5005	5005	5950	6900	6900	7810	7810	10000	mm
Operating maximum weight*		3734	3800	4192	4534	4731	5059	5318	6567	6715	7377	8032	9091	kg

* Weight refers to the unit IR with tank and pumping module 2 pumps.

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Acoustic setting up
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Source temperature level
M Medium temperature level
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Unit description

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Options

Compressor starting
- standard (contactors)
- soft starter

Compressors power factor correction
Electrical load protection
- standard (fuses)
- thermal magnetic circuit breakers

Accessories

Integrated Pumping Modules with 2 pumps, supplied in 4 different configurations:
- Pumps 2 poles standard head
- Pumps 2 poles high head
- Pumps 2 poles extra high head
- Pumps 4 poles standard head

Condensation Control Device (standard for AS and AX), enables unit operation to outside air temperatures =-10°C)
Spring vibration dampers
Coil protection grilles
Antintrusion protection grilles
External Water Storage Tank and Pumping Module complete with insulated carbon steel tank, single or twin pump and all hydronic components.
Antifreeze electrical heaters for Storage tank
Remote controller
Serial Interface Modbus on RS 485
Programmer clock
Phase sequence and voltage controller
High and low pressure gauges
Compressor suction shut-off valve
Water flow switch

NET NOMINAL performances - Standard plants - EUROVENT certified data

IR	Base setting up (AB)	330.2	370.2	420.2	470.2	510.2	590.2	670.2	740.2	800.2	900.2	1000.2	1150.2	
A35W7	Cooling capacity	356	395	451	502	557	638	686	796	858	970	1079	1172	kW
	Power input	118	130	147	163	177	206	220	257	278	318	349	368	kW
	EER	3,02	3,04	3,07	3,08	3,14	3,1	3,12	3,09	3,09	3,05	3,09	3,19	W/W
	ESEER	3,61	3,63	3,65	3,69	3,72	3,74	3,77	3,74	3,74	3,7	3,76	3,87	W/W
	Water flow rate	17,2	19	21,7	24,2	26,8	30,7	33,1	38,4	41,3	46,7	52,1	56,5	l/s
	Pressure drops	51	45	40	48	39	49	52	57	50	51	64	53	kPa
IR	Low noise setting up (AS)	330.2	370.2	420.2	470.2	510.2	590.2	670.2	740.2	800.2	900.2	1000.2	1150.2	
A35W7	Cooling capacity	347	386	438	485	544	618	675	774	832	941	1044	1152	kW
	Power input	115	128	145	163	175	208	227	259	283	318	350	374	kW
	EER	3,03	3,03	3,03	2,99	3,1	2,98	2,98	2,99	2,94	2,96	2,98	3,08	W/W
	ESEER	3,81	3,8	3,79	3,68	3,86	3,84	3,85	3,86	3,76	3,82	3,87	3,98	W/W
	Water flow rate	16,7	18,6	21,1	23,4	26,1	29,8	32,5	37,3	40	45,3	50,4	55,5	l/s
	Pressure drops	49	43	38	45	37	46	51	54	47	48	60	51	kPa
IR	eXtra low noise setting up (AX)	330.2	370.2	420.2	470.2	510.2	590.2	670.2	740.2	800.2	900.2	1000.2	1150.2	
A35W7	Cooling capacity	335	376	422	463	529	590	650	741	799	913	1022	1121	kW
	Power input	117	130	149	169	182	218	238	269	294	323	362	394	kW
	EER	2,85	2,88	2,82	2,74	2,91	2,71	2,73	2,76	2,72	2,83	2,82	2,85	W/W
	ESEER	3,69	3,71	3,66	3,64	3,76	3,62	3,64	3,69	3,66	3,76	3,74	3,78	W/W
	Water flow rate	16,1	18,1	20,3	22,3	25,4	28,4	31,3	35,7	38,5	44	49,3	54	l/s
	Pressure drops	45	41	35	41	35	42	47	49	43	45	57	48	kPa

Data declared according to **EN 14511**. The values are referred to units without options and accessories.
EER (Energy Efficiency Ratio) = ratio of the total cooling capacity to the effective power input of the unit
ESEER (European Seasonal Energy Efficiency Ratio)
____ = Unit in **A CLASS.**
A35W7 = source : air in 35°C d.b. / plant : water in 12°C out 7°C

Acoustic performances

Base setting up (AB)	330.2	370.2	420.2	470.2	510.2	590.2	670.2	740.2	800.2	900.2	1000.2	1150.2	
Sound power level (E)	97	97	97	97	99	99	99	100	100	101	101	102	dB(A)
Sound pressure level at 1 meter	77	77	77	77	79	78	78	79	79	80	79	80	dB(A)
Sound pressure level at 5 meters	69	69	69	69	71	71	71	72	72	73	72	73	dB(A)
Sound pressure level at 10 meters	65	65	65	65	67	67	67	67	67	68	68	69	dB(A)
Low noise setting up (AS)	**330.2**	**370.2**	**420.2**	**470.2**	**510.2**	**590.2**	**670.2**	**740.2**	**800.2**	**900.2**	**1000.2**	**1150.2**	
Sound power level (E)	92	92	92	92	93	93	93	95	95	96	96	97	dB(A)
Sound pressure level at 1 meter	72	72	72	72	73	72	72	74	74	75	74	75	dB(A)
Sound pressure level at 5 meters	64	64	64	64	65	65	65	67	67	68	67	68	dB(A)
Sound pressure level at 10 meters	60	60	60	60	61	61	61	62	62	63	63	64	dB(A)
eXtra low noise setting up (AX)	**330.2**	**370.2**	**420.2**	**470.2**	**510.2**	**590.2**	**670.2**	**740.2**	**800.2**	**900.2**	**1000.2**	**1150.2**	
Sound power level (E)	87	87	88	88	90	90	90	91	91	92	92	93	dB(A)
Sound pressure level at 1 meter	67	67	68	68	70	69	69	70	70	71	70	71	dB(A)
Sound pressure level at 5 meters	59	59	60	60	62	62	62	63	63	64	63	64	dB(A)
Sound pressure level at 10 meters	55	55	56	56	58	58	58	58	58	59	59	60	dB(A)

(E): EUROVENT certified data
The acoustic performances are referred to units operating in cooling mode at nominal conditions A35W7.
Unit placed in free field on reflecting surface (directional factor equal to 2).
The sound power level is measured according to ISO 9614 standard.
The sound pressure level is calculated according to ISO 3744 and is referred to a distance of 1/5/10 metres from the external surface of the unit.

Technical data

Unit	330.2	370.2	420.2	470.2	510.2	590.2	670.2	740.2	800.2	900.2	1000.2	1150.2	
Power supply	400 - 3 - 50												V-ph-Hz
Compressor type	twin-screw												-
N° compressors / N° refrigerant circuits	2 / 2												n°
Part load	12.5 / 100% stepless												-
Plant side heat exchanger type	shell & tube												-
Source side heat exchanger type	finned coil												-
Fans type	axial												n°
N° fans	8		10			12		14		16	20		l
Hydraulic fittings (victaulic)	DN150		DN200										-

Electrical data

Standard unit	330.2	370.2	420.2	470.2	510.2	590.2	670.2	740.2	800.2	900.2	1000.2	1150.2	
FLA - Full load current at maximum tolerated conditions	274	304	341	369	409	478	478	565	602	693	772	772	A
FLI - Full load power input at maximum tolerated conditions	164	184	204	220	242	286	286	343	368	416	464	464	kW
MIC - Maximum instantaneous current of the unit	504	592	698	726	838	930	930	759	796	967	1079	1079	A

Operative range

Cooling

Temperature	Unit type	min	max	
Outdoor air inlet temperature	IR, BR	-10*	52**	(°C)
Water outlet temperature	IR	5	15	(°C)
Water outlet temperature	BR	-8	5	(°C)
Water outlet temperature (VD)	IR, BR	35	50	(°C)
Water outlet temperature (VR)	IR, BR	35	50	(°C)

* with fans modulating control option (condensation / evaporation control)
** with ATC outdoor high temperature protection fuction

USER INTERFACING

The controller on the unit is designed to ensure energy-saving and efficiency.
It enables the setting of:

- Double Set Point
- Demand Limit
- ATC function to avoid the block of the unit with high outdoor air temperature
- Dinamic set point
- Noise emission control
- Remote stand by

VD and VR versions

These units allow to recover the heating power, otherwise wasted on air, through an additional heat exchanger.

DESUPERHEATERS VERSION VD

Allows the production of cold water as in the standard version and, simultaneously, of hot water at temperatures from 35 to 50 ° C. This is achieved by inserting, between the compressor and finned coil, a heat exchanger water-gas cooler which allows for heat recovery from 15 to 20% of thermal power.

TOTAL RECOVERY VERSION VR

Allows the production of cold water and simultaneously of hot water at temperatures from 35 to 50 °C by using a heat exchanger, water-gas cooler which allows the total recovery of thermal power. The inclusion and exclusion of the total heat recovery, is done by a valve placed on the discharge of the compressors on each circuit.

Desupeheater Version (VD) - NET NOMINAL performances

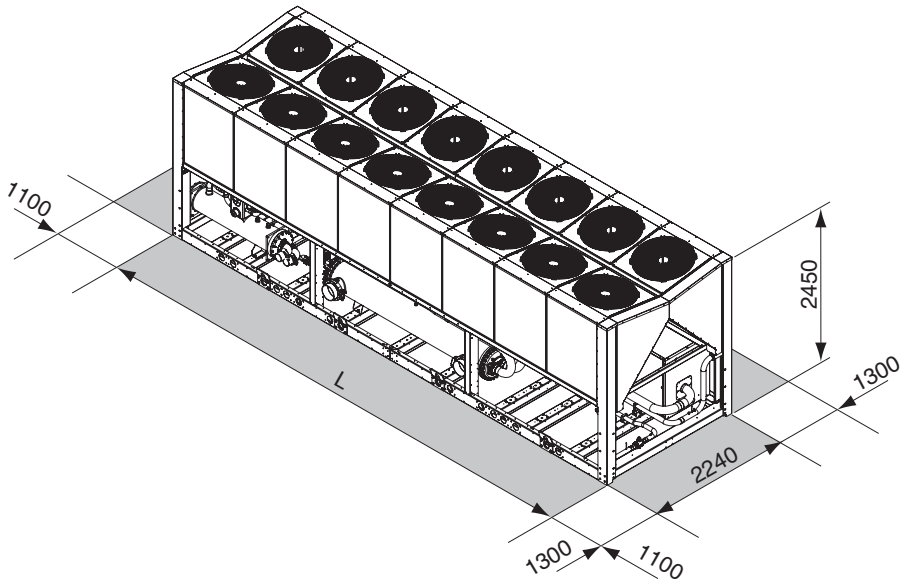
IR	Base setting up (AB)	330.2	370.2	420.2	470.2	510.2	590.2	670.2	740.2	800.2	900.2	1000.2	1150.2	
A35W7 - W45	Cooling capacity	370	411	469	522	578	663	714	827	892	1008	1122	1218	kW
	Total power input	115	127	143	159	173	202	214	251	272	311	341	359	kW
	EER	**3,21**	**3,23**	**3,27**	**3,27**	**3,34**	**3,29**	**3,33**	**3,29**	**3,28**	**3,24**	**3,28**	**3,39**	**W/W**
	HRE	**4,01**	**4,05**	**4,08**	**4,09**	**4,18**	**4,11**	**4,15**	**4,11**	**4,12**	**4,08**	**4,1**	**4,22**	**W/W**
	Water flow rate	17,8	19,8	22,6	25,1	27,8	31,9	34,4	39,9	43	48,6	54,2	58,7	l/s
	Water pressure drop	55	49	43	52	42	53	56	62	54	55	69	57	kPa
	Heating recovery capacity	93	104	116	130	144	165	177	207	227	259	278	297	kW
	Water flow rate recovery	4,4	5	5,5	6,2	6,9	7,9	8,5	9,9	10,8	12,4	13,3	14,2	l/s
	Water pressure drop recovery	10	12	15	9	11	11	13	18	15	11	14	15	kPa

Total Recovery Version (VR) - NET NOMINAL performances

IR	Base setting up (AB)	330.2	370.2	420.2	470.2	510.2	590.2	670.2	740.2	800.2	900.2	1000.2	1150.2	
A35W7 - W45	Cooling capacity	354	390	447	499	552	635	684	794	865	992	1082	1169	kW
	Total power input	107	121	133	147	161	187	200	233	251	283	313	333	kW
	EER	**3,31**	**3,23**	**3,37**	**3,4**	**3,42**	**3,4**	**3,43**	**3,4**	**3,44**	**3,5**	**3,45**	**3,51**	**W/W**
	HRE	**7,58**	**7,41**	**7,69**	**7,76**	**7,79**	**7,74**	**7,8**	**7,76**	**7,84**	**7,95**	**7,86**	**7,97**	**W/W**
	Water flow rate	17,1	18,8	21,5	24	26,5	30,6	33	38,3	41,7	47,8	52,2	56,3	l/s
	Water pressure drop	51	44	39	47	38	49	52	57	51	53	64	53	kPa
	Heating recovery capacity	456	505	574	639	705	813	874	1016	1104	1261	1380	1486	kW
	Water flow rate recovery	21,8	24,1	27,4	30,5	33,7	38,8	41,8	48,5	52,7	60,3	65,9	71	l/s
	Water pressure drop recovery	30	37	48	49	51	47	49	49	58	54	54	52	kPa

Data declared according to **EN 14511**. The values are referred to units without options and accessories.
EER (Energy Efficiency Ratio) = ratio of the total cooling capacity to the effective power input of the unit
HRE (Heat Recovery Efficiency) = ratio of the total capacity of the system (heating plus cooling capacity) to the effectice power input
A35W7 - W45 = source : air in 35°C d.b. / plant : water in 12°C out 7°C / Recovery : water in 40°C out 45°C

DIMENSIONS - MINIMUM OPERATING AREA - WEIGHT



	330.2	370.2	420.2	470.2	510.2	590.2	670.2	740.2	800.2	900.2	1000.2	1150.2	
L (AB-AS-AX)	4070		5005			5950		6900		7810	10000		mm
Operating maximum weight*	3950	4116	4971	5303	5546	5687	6004	7345	7378	8589	9494	10220	kg

* Weight refers to the unit IR with tank and pumping module 2 pumps.