



# KRONO<sup>2</sup> HE EKWXBA HE

Heat pump



AIR-WATER CHILLERS | AXIAL  
SCROLL

## Maximum versatility in ultra-compact equipment

Reversible monobloc heat pumps with air condensation and axial fans.  
Series of hermetic scroll-type rotary compressors and refrigerant gas R410A.

### MAIN CHARACTERISTICS

- Cooling capacities: 37.9 to 206.5 kW
- Heating capacities: 42.3 to 242.3 kW
- Compressors: 2 or 4 compressors, depending on model, hermetically sealed scroll-type rotary compressors with thermal protection and crankcase heater
- Electronic expansion valve on models 75.2 / 95.2 / 109.2 / 171.4 / 193.4 / 207.4
- Water Side Exchanger: thermally insulated Stainless Steel Plates
- Air-side heat exchanger: aluminium finned coil with copper tubes
- Fans: 2, 3, 4 or 6 fans, depending on models, axial-type impeller with brushless EC motor and internal thermal protection; protection grilles; proportional electronic device for continuous regulation of the fan rotation speed (condensation control + evaporation control)
- 1 or 2 water circulation pumps integrated into the unit (depending on models)
- Control: electronic microprocessor
- Outside temperature probe allowing compensation of the setpoint value (functional up to model 109.2; for information purposes only in all others)
- Modbus integrated as standard
- Master/Slave management up to 4 units in parallel

- Magnetohermic switches in compressors and fans
- Structure: galvanised and painted sheet steel
- Compressor sound insulation as standard up to model 55.2

### ADVANTAGES

- Water as a heat-carrying fluid
- High energy efficiency due to optimised design of all the constituent components
- Scroll compressor tandem for maximum partialisation
- Hydronic kit integration for maximum ease of installation
- Modbus as standard

### VERSIONS

- Heat pump
- Cooling only (optional)
- No circulation pump (optional)

### REGULATION

Integrated control:  
(up to 2 compressors)  
**MCX 08**



Integrated control:  
(4 compressors)  
**MCX15**



See regulation and control on page 106

## SERIES KRONO<sup>2</sup> HE

MODEL		38.2	44.2	47.2	55.2	59.2	67.2
<b>COLD MODE (1)</b>							
Cooling Capacity	kW	37.9	44.1	47.3	55.4	59.3	66.6
Total Absorbed Power	kW	14.5	16.9	19.2	21.3	24.1	28.0
EER		2.6	2.6	2.5	2.6	2.5	2.4
SEER		4.1	3.9	3.8	4.1	4.0	3.8
ηs cooling	%	160.6	154.7	150.3	159.5	155.2	149.2
Water flow	m <sup>3</sup> /h	6.2	7.1	8.0	9.3	10.3	11.3
Available Static Pressure	KPa	165	162	160	156	154	149
<b>HEAT MODE (2)</b>							
Heat Output	kW	42.3	48.9	55.2	63.5	71.7	79.6
Total Absorbed Power	kW	15.3	17.8	20.8	22.6	26.2	29.3
COP		2.76	2.74	2.66	2.81	2.73	2.72
Water flow	m <sup>3</sup> /h	7.4	8.5	9.6	11.1	12.5	13.8
Available Static Pressure	KPa	153	150	147	142	137	131
<b>HEAT MODE (3)</b>							
Heat Output	kW	43.6	49.7	56.0	65.5	72.9	82.4
Total Absorbed Power	kW	11.9	14.5	17.1	19.0	21.7	24.6
COP		3.66	3.43	3.26	3.45	3.36	3.34
SCOP		3.21	3.20	3.20	3.21	3.20	3.20
ηs heating	%	125	125	125	125	125	125
Water flow	m <sup>3</sup> /h	7.6	8.7	9.8	11.4	12.7	14.3
Available Static Pressure	KPa	149	146	143	137	132	128
<b>REFRIGERANT</b>							
Number of circuits		1					
Gas Type		R-410A					
PCA		2088					
Total Refrigerant Charge (without options)	kg	10.1	10.3	10.5	13.7	14.2	14.5
<b>COMPRESSORS</b>							
Type		Scroll					
Number of compressors		2					
Number of power stages		2					
<b>FANS</b>							
Type		Axial					
Number		2					
Maximum air flow rate	m <sup>3</sup> /h	34,468	34,384	34,329	38,059	37,990	37,885
Available Static Pressure	Pa	0					
Diameter		710	710	710	800	800	800
Nominal Power	kW	2 x 1.95	2 x 1.95	2 x 1.95	2 x 2.1	2 x 2.1	2 x 2.1
Nominal Amps	A	2 x 3.2	2 x 3.2	2 x 3.2	2 x 3.3	2 x 3.3	2 x 3.3
<b>EXTERNAL EXCHANGER</b>							
Quantity		2					
Front surface heat exchanger	m <sup>2</sup>	1.5+1.5					
<b>INTERNAL EXCHANGER</b>							
Type		PLATE EXCHANGER					
Quantity		1					
Antifreeze resistance	W	100					
<b>WATER PUMP</b>							
Nominal Power	kW	1.35	1.35	1.35	1.35	1.35	1.35
Nominal Amps	A	2.45	2.45	2.45	2.45	2.45	2.45
<b>ELECTRICAL CONNECTIONS</b>							
Supply Voltage	v / Phases / Hz	400/3/50 with neutral					
Nominal Amps	A	46.9	52.9	56.9	65.1	71.1	81.1
Main Switch	A	63	63	63	160	160	160
<b>WATER CONNECTIONS</b>							
Type		Grooving					
Outer diameter	"	2"					
<b>DIMENSIONS AND WEIGHTS</b>							
Length	mm	2,215					
Width	mm	1,350					
Height	mm	1,520					
Weight (no options or refrigerant load)	kg	634	657	660	690	690	698
<b>SOUND LEVEL</b>							
Sound Power	dB(A)	86	87	87	88	88	88
Sound Pressure (5m)	dB(A)	64.5	65.5	65.5	66.5	66.5	66.5

(1) Application AC = Water Temperature 12/7°C -Air Temperature 35°C  
 (2) Application IT = Water Temperature 40/45°C -Air Temperature 7°C BS/ 6 °C BH  
 (3) Application LT = Water Temperature 30/35°C -Air Temperature 7°C BS/ 6 °C BH

According to EU regulation 2281/2016  
 According to EU regulation 813/2013  
 According to EU regulation 813/2013

## SERIES KRONO<sup>2</sup> HE

MODEL		75.2	95.2	109.2	121.4	132.4	171.4	193.4	207.4
<b>COLD MODE (1)</b>									
Cooling Capacity	kW	75.3	96.6	115.5	120.6	131.5	171.3	193.3	206.5
Total Absorbed Power	kW	26.2	35.6	44.7	45.4	50.6	62.4	71.7	79.9
EER		2.87	2.71	2.58	2.7	2.6	2.7	2.7	2.6
SEER		4.11	3.85	3.81	3.9	3.9	3.9	3.8	3.8
η <sub>s</sub> cooling	%	161.4	150.8	149.4	154.4	151.1	153.3	150.5	149.0
Water flow	m <sup>3</sup> /h	13.0	17.0	19.4	20.4	22.3	29.1	32.8	35.1
Available Static Pressure	KPa	164	142	134	153	149	150	144	140
<b>HEAT MODE (2)</b>									
Heat Output	kW	84.8	109.8	131.2	133.7	141.2	196.5	221.5	242.3
Total Absorbed Power	kW	27.5	41.9	48.2	49.5	53.1	69.1	75.4	88.5
COP		3.08	2.62	2.72	2.70	2.66	2.85	2.94	2.74
Water flow	m <sup>3</sup> /h	14.4	19.1	22.3	23.2	24.6	34.1	38.5	42.0
Available Static Pressure	KPa	136	122	110	140	138	135	127	120
<b>HEAT MODE (3)</b>									
Heat Output	kW	87.5	111.2	133.5	137.7	145.0	200.2	227.7	246.8
Total Absorbed Power	kW	23.5	33.8	41.0	40.8	43.4	55.8	61.7	73.3
COP		3.72	3.29	3.26	3.37	3.34	3.59	3.66	3.37
SCOP		3.27	3.20	3.20	3.21	3.20	3.21	3.20	3.20
η <sub>s</sub> heating	%	127.8	125.0	125.0	125	125	125	125	125
Water flow	m <sup>3</sup> /h	14.9	19.3	23.4	23.9	25.2	34.8	39.1	42.8
Available Static Pressure	KPa	127	114	101	135	133	130	122	115
<b>REFRIGERANT</b>									
Number of circuits		1			2				
Gas Type		R-410A			R-410A				
PCA		2088			2088				
Total Refrigerant Charge (without options)	kg	18.0	22.0	23.0	NOT AVAILABLE				
<b>COMPRESSORS</b>									
Type		Scroll			Scroll				
Number of compressors		2			4				
Number of power stages		2			4				
<b>FANS</b>									
Type		Axial			Axial				
Number		2	3	3	4	4	4	6	6
Maximum air flow rate	m <sup>3</sup> /h	44,000	50,100	54,000	91,780	91,626	87,660	100,428	100,222
Available Static Pressure	Pa	0			0				
Diameter		800	710	710	800	800	800	710	710
Nominal Power	kW	2 x 2.1	3 x 1.95	3 x 1.95	4 x 2.1	4 x 2.1	4 x 2.1	6 x 1.95	6 x 1.95
Nominal Amps	A	2 x 3.3	3 x 3.2	3 x 3.2	4 x 3.3	4 x 3.3	4 x 3.3	6 x 3.2	6 x 3.2
<b>EXTERNAL EXCHANGER</b>									
Quantity		1			2				
Front surface heat exchanger	m <sup>2</sup>	6.70			6.7+6.7				
<b>INTERNAL EXCHANGER</b>									
Type		PLATE EXCHANGER			PLATE EXCHANGER				
Quantity		1			2				
Antifreeze resistance	W	100			2 x 100				
<b>WATER PUMP</b>									
Nominal Power	kW	1.95			2 x 1.35	2 x 1.35	2 x 1.35	2 x 1.95	2 x 1.95
Nominal Amps	A	3.43			2 x 2.45	2 x 2.45	2 x 2.45	2 x 3.43	2 x 3.43
<b>ELECTRICAL CONNECTIONS</b>									
Supply Voltage	v / Phases / Hz	400" 3/50			400" 3/50				
Nominal Amps	A	81.83	111.3	125.3	137.7	151.7	185.66	222.66	236.66
Main Switch	A	160	160	160	160	160	250	250	250
<b>WATER CONNECTIONS</b>									
Type		Grooving			Grooving				
Outer diameter	"	2"			2 1/2"	3"			
<b>DIMENSIONS AND WEIGHTS</b>									
Length	mm	3,200			3,200				
Width	mm	1,400			2,215				
Height	mm	2,150			2,150				
Weight (no options or refrigerant load)	kg	855	970	970	1,621	1,733	1,865	1,898	1,901
<b>SOUND LEVEL</b>									
Sound Power	dB(A)	90	92	92	90	90	93	95	95
Sound Pressure (5m)	dB(A)	69	71	71	68.5	68.5	71.5	73.5	73.5

(1) Application AC = Water Temperature 12/7°C - Air Temperature 35°C  
(2) Application IT = Water Temperature 40/45°C - Air Temperature 7°C BS/ 6 °C BH  
(3) Application LT = Water Temperature 30/35°C - Air Temperature 7°C BS/ 6 °C BH

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## AVAILABLE OPTIONS

### FACTORY-ASSEMBLED ACCESSORIES

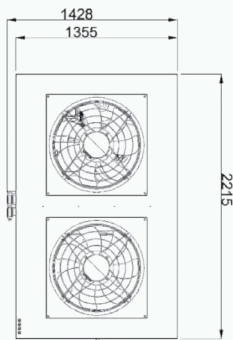
- PKDM condensation and proportional evaporation control
- Acoustic insulation in compressor
- Jacket Compressor
- 1 or 2 high pressure (AP) pumps (depending on model)
- Low pressure safety pump (BP)
- High pressure safety pump (AP)
- Expansion vessel and buffer
- Rubber Shock Absorbers
- MCX remote wall controller
- External battery with LCE Coating treatment
- External battery with GALVAL treatment
- External battery with BLYGOLD treatment
- Powerful EC Ventilator (POTEC)
- Expansion vessel (VAEXP)
- Differential water pressure switch
- Threaded water connections Gas
- Resistance 8 kW in tank
- Resistance 15 kW in tank
- Resistance 25 kW in tank (from model 75.2)
- Suction accumulator (standard on two-circuit models)
- Anti-vibration dampers with hydronic kit (AMVKH)
- Protection grille for external heat exchangers (REJ03)

### ACCESSORIES SUPPLIED SEPARATELY

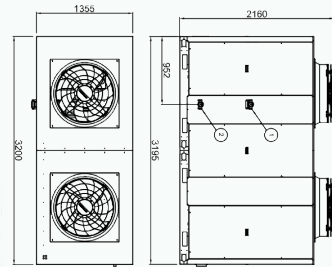
- Water filter
- Flow switch
- Rubber dampers

## DIMENSIONS

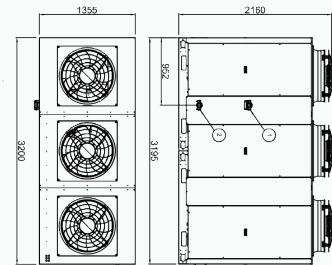
MODELS  
38.2 - 67.2



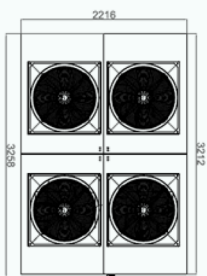
MODEL  
75.2



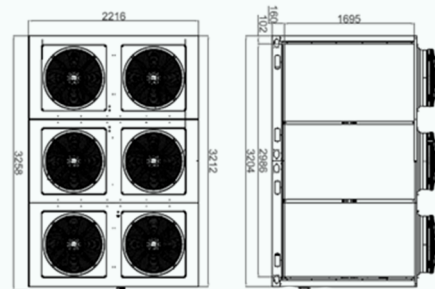
MODELS  
95.2 - 109.2



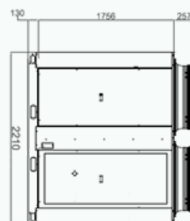
MODELS  
121.4 - 171.4



MODELS  
193.4 - 207.4

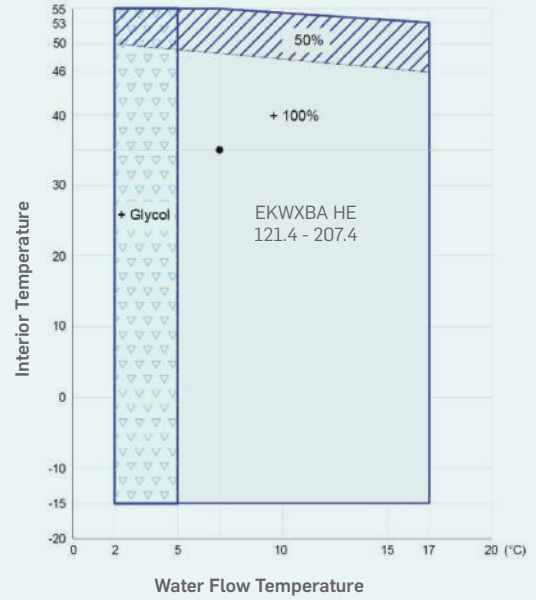
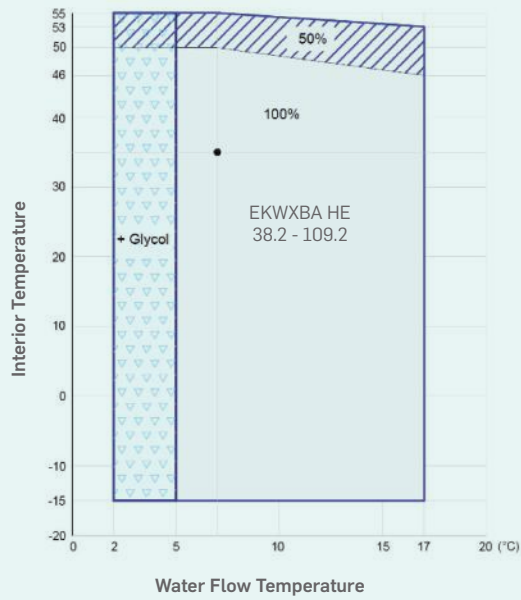


MODELS  
121.4 - 207.4



## RUNNING LIMITS

### COOL MODE



### HEAT MODE

