CHAPTER 3

WATERCOOLED & CONDENSERLESS LIQUID CHILLERS AND HEAT PUMPS FOR COMMERCIAL & INDUSTRIAL APPLICATION. REMOTE CONDENSERS

UNIT	Page
CWW/K 15÷151	110 - 111
CWW/K 182-P÷604-P	112 - 113
CWW/K 182÷604	114 - 115
MEA/K 15÷151	116 - 117
MEA/K 182-P÷604-P	118 - 119
RCA/K 4111÷8222	120 - 121
RCA/K/SL 4111÷8222	122 - 123
RCA/K/SSL 5111÷8222	124 - 125
CWW/K 726-P÷36012-P	126 - 127
CWW/K 726÷36012	128 - 129
CWW/H/A 1002÷6002	130 - 131
CWW/Y/A 1302÷4802	132 - 133
CWW/Y 1302-B÷9003-B	134 - 135
MEA/Y 1302-B÷9003-B	136 - 137
RCA/Y 8141÷9282	138 - 139
RCA/Y/SL 8231÷9282	140 - 141
RCA/Y/SSL 8151÷9281	142 - 143
CWW/TTH 1701-1÷6606-1	144 - 145
CWW/TTH/DR 1701-1÷6606-1	146 - 147
CWW/TTY 1601-1÷14406-1	148 - 149
CWW/TTY/DR 1601-1÷6204-1	150 - 151
CWW/CCY 4031÷11682	152 - 153

3

4

5

6

CWW/K 15÷151

WATERCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH ROTARY/ SCROLL COMPRESSOR AND PLATE EXCHANGERS.







The CWW/K 15÷151 liquid Chillers and Heat Pumps, with R410A refrigerant, are designed for small and medium domestic or industrial systems which require medium-low power, space-saving units and quiet operation. These units are ideal for indoor installation and, equipped with a self-contained structure, they reduce the overall dimensions to a minimum while at the same time making installation and maintenance operations easier.

These units can be combined with Fan Coil units or with intermediate heat exchangers for process cooling applications.

Equipped with prepainted plate structure, Rotary/Scroll compressor and plate-type exchangers, these units have cooling and hydraulic circuits complete with everything necessary for quick installation and high energy efficiency, even in the version with tank and pump.

A wide range of accessories, factory fitted or supplied separately, completes the outstanding versatility and functionality of the series.

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CWW/K	CWW/K/WP
Cooling only	Reversible Heat Pump
CWW/K/SP	CWW/K/WP/SP
Cooling only with tank and pump	Reversible Heat Pump with tank and pump

FEATURES

- Self-supporting prepainted steel frame.
- · Rotary/Scroll compressor with internal overheat protection and crankcase heater, if needed.
- Condenser AISI 316 stainless steel braze welded plates type, with pressostatic valve.
- Evaporator AISI 316 stainless steel braze welded plates type, complete with water differential pressure switch.
- R410A refrigerant.
- Electrical board includes: main switch with door lock device, fuses, compressor and pump remote control switch.
- Water circuit for SP version includes: insulated tank, circulating pump, safety valve, gauge and expansion vessel.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES

BT Low water temperature Kit
PS Single circulating pump
FE Antifreeze heater for evaporator
FA Antifreeze heater for tank

LOOSE ACCESSORIES

CR Remote control panel

IS Modbus RTU protocol, RS485

serial interface

PV Pressure valve (for cooling only

versions)

/V Pressure valve and solenoid valve

(for WP versions)

AG Rubber shock absorbers

CWW/K 15÷151







									51
0 1:							9.6		14.3
Cooling		kVV							3.4
		ν /Λ/							4.21 14.2
									3.7
Cooling (EN14511)		KVV							3.80
Cooling (EN14511)							4 45	4.26	4.51
	SEER (2)						5.23	5.21	5.31
		%	199	196		196	201	200	204
	Heating capacity (3)	kW	5.9	7.2	8.8	10.4	12.5	14.9	17.5
Heating	Absorbed power (3)	kW	1.4	1.7	2.2	2.5	3.0	3.5	4.3
									4.07
									17.1
	Absorbed power (3)	kW						3.9	4.5
Heating (EN14511)	COP (3)		3.38		3.31				3.81
ricating (EIV14511)	SCUP (4)	0/							4.34 166
	Energy Class (4)	70							A++
-			ATT			ATT	ATT		ATT
Compressor									1 1
				0.28		0.40		0.55	0.68
Evaporator	Pressure drops								42
F 2 2 22	Water connections		1"	1"		1"		1″	1"
	Water flow			0.09		0.12			0.21
Condenser			3		5		8		5
			1"	1"	1"		1"	1"	1"
Electrical	Power supply			40			10	00	400/3+N/50
characteristics	Max. running current								9
onaraotoriotioo									50 0.68
	Pump available static pressure								128
Unit SP version	Tank water volume			50			50	50	50
						1"		1"	1"
Sound pressure					· ·	36			39
									93
Weights	Operating weight (6)								95
MODEL		1 3 1	61	71	01	01	101	121	151
IVIODEL									
	Cooling capacity (1)						33.6		49.2
Cooling		kW					7.9		11.5
		130/		4.17			4.25		4.28
				19.8			33.3		48.8
		KVV		2.70					12.1 4.03
Cooling (EN14511)									4.03
									6.25
		0/				0.00			
	l Energy Efficiency (2)	1 % 1	71h	747	1 246	71.3	1 236 1	252	1 242
	Energy Efficiency (2) Heating capacity (3)								242 59.5
Heating	Heating capacity (3)	kW	20.8	24.3	28.4	33.8	39.8	47.0	59.5
Heating	Heating capacity (3) Absorbed power (3)	kW	20.8 5.4	24.3 6.1	28.4 7.0	33.8 8.2	39.8 10.1	47.0 11.7	59.5 14.4
Heating	Heating capacity (3) Absorbed power (3) COP (3)	kW kW	20.8 5.4 3.85	24.3 6.1 3.98	28.4 7.0 4.06	33.8 8.2 4.12	39.8 10.1 3.94	47.0 11.7 4.02	59.5
Heating	Heating capacity (3) Absorbed power (3) COP (3) Heating capacity (3) Absorbed power (3)	kW kW	20.8 5.4 3.85 19.7 5.6	24.3 6.1 3.98 22.5 6.3	28.4 7.0 4.06 26.3 7.2	33.8 8.2 4.12 31.8 8.9	39.8 10.1 3.94 37.9 10.8	47.0 11.7 4.02 44.5 12.4	59.5 14.4 4.13 56.4 15.2
	Heating capacity (3) Absorbed power (3) COP (3) Heating capacity (3) Absorbed power (3) COP (3)	kW kW	20.8 5.4 3.85 19.7 5.6 3.50	24.3 6.1 3.98 22.5 6.3 3.59	28.4 7.0 4.06 26.3 7.2 3.67	33.8 8.2 4.12 31.8 8.9 3.56	39.8 10.1 3.94 37.9 10.8 3.50	47.0 11.7 4.02 44.5 12.4 3.58	59.5 14.4 4.13 56.4 15.2 3.71
	Heating capacity (3) Absorbed power (3) COP (3) Heating capacity (3) Absorbed power (3) COP (3) SCOP (4)	kW kW kW	20.8 5.4 3.85 19.7 5.6 3.50 3.95	24.3 6.1 3.98 22.5 6.3 3.59 4.05	28.4 7.0 4.06 26.3 7.2 3.67 4.05	33.8 8.2 4.12 31.8 8.9 3.56 4.31	39.8 10.1 3.94 37.9 10.8 3.50 3.94	47.0 11.7 4.02 44.5 12.4 3.58 4.18	59.5 14.4 4.13 56.4 15.2 3.71 4.28
	Heating capacity (3) Absorbed power (3) COP (3) Heating capacity (3) Absorbed power (3) COP (3) SCOP (4) Energy Efficiency (4)	kW kW kW	20.8 5.4 3.85 19.7 5.6 3.50 3.95	24.3 6.1 3.98 22.5 6.3 3.59 4.05	28.4 7.0 4.06 26.3 7.2 3.67 4.05 154	33.8 8.2 4.12 31.8 8.9 3.56 4.31	39.8 10.1 3.94 37.9 10.8 3.50 3.94	47.0 11.7 4.02 44.5 12.4 3.58 4.18 159	59.5 14.4 4.13 56.4 15.2 3,71 4.28 163
	Heating capacity (3) Absorbed power (3) COP (3) Heating capacity (3) Absorbed power (3) COP (3) SCOP (4) Energy Efficiency (4) Energy Class (4)	kW kW kW	20.8 5.4 3.85 19.7 5.6 3.50 3.95	24.3 6.1 3.98 22.5 6.3 3.59 4.05	28.4 7.0 4.06 26.3 7.2 3.67 4.05 154	33.8 8.2 4.12 31.8 8.9 3.56 4.31 164 A++	39.8 10.1 3.94 37.9 10.8 3.50 3.94	47.0 11.7 4.02 44.5 12.4 3.58 4.18 159	59.5 14.4 4.13 56.4 15.2 3.71 4.28
Heating (EN14511)	Heating capacity (3) Absorbed power (3) COP (3) Heating capacity (3) Absorbed power (3) COP (3) SCOP (4) Energy Efficiency (4) Energy Class (4) Type	kW kW kW kW	20.8 5.4 3.85 19.7 5.6 3.50 3.95 150 A+	24.3 6.1 3.98 22.5 6.3 3.59 4.05	28.4 7.0 4.06 26.3 7.2 3.67 4.05 154 A++	33.8 8.2 4.12 31.8 8.9 3.56 4.31 164 A++	39.8 10.1 3.94 37.9 10.8 3.50 3.94 150 A+	47.0 11.7 4.02 44.5 12.4 3.58 4.18 159 A++	59.5 14.4 4.13 56.4 15.2 3.71 4.28 163
Heating (EN14511)	Heating capacity (3) Absorbed power (3) COP (3) Heating capacity (3) Absorbed power (3) COP (3) SCOP (4) Energy Efficiency (4) Energy Class (4) Type Quantity	kW kW kW kW	20.8 5.4 3.85 19.7 5.6 3.50 3.95 150 A+	24.3 6.1 3.98 22.5 6.3 3.59 4.05 154 A++	28.4 7.0 4.06 26.3 7.2 3.67 4.05 154 A++	33.8 8.2 4.12 31.8 8.9 3.56 4.31 164 A++ Scroll	39.8 10.1 3.94 37.9 10.8 3.50 3.94 150 A+	47.0 11.7 4.02 44.5 12.4 3.58 4.18 159 A++	59.5 14.4 4.13 56.4 15.2 3.71 4.28 163 A++
Heating (EN14511) Compressor	Heating capacity (3) Absorbed power (3) COP (3) Heating capacity (3) Absorbed power (3) COP (3) SCOP (4) Energy Efficiency (4) Energy Class (4) Type Ouantity Water flow	kW kW kW kW	20.8 5.4 3.85 19.7 5.6 3.50 3.95 150 A+	24.3 6.1 3.98 22.5 6.3 3.59 4.05 154 A++	28.4 7.0 4.06 26.3 7.2 3.67 4.05 154 A++	33.8 8.2 4.12 31.8 8.9 3.56 4.31 164 A++ Scroll 1	39.8 10.1 3.94 37.9 10.8 3.50 3.94 150 A+	47.0 11.7 4.02 44.5 12.4 3.58 4.18 159 A++	59.5 14.4 4.13 56.4 15.2 3.71 4.28 163 A++
Heating (EN14511) Compressor	Heating capacity (3) Absorbed power (3) COP (3) Heating capacity (3) Absorbed power (3) COP (3) SCOP (4) Energy Efficiency (4) Energy Class (4) Type Quantity Water flow Pressure drops	kW kW kW kW %	20.8 5.4 3.85 19.7 5.6 3.50 3.95 150 A+	24.3 6.1 3.98 22.5 6.3 3.59 4.05 154 A++	28.4 7.0 4.06 26.3 7.2 3.67 4.05 154 A++	33.8 8.2 4.12 31.8 8.9 3.56 4.31 164 A++ Scroll 1 1.32 48	39.8 10.1 3.94 37.9 10.8 3.50 3.94 150 A+	47.0 11.7 4.02 44.5 12.4 3.58 4.18 159 A++	59.5 14.4 4.13 56.4 15.2 3.71 4.28 163 A++
Heating (EN14511) Compressor	Heating capacity (3) Absorbed power (3) COP (3) Heating capacity (3) Absorbed power (3) COP (3) SCOP (4) Energy Efficiency (4) Energy Class (4) Type Quantity Water flow Pressure drops Water connections	kW kW kW kW % n° l/s kPa "G	20.8 5.4 3.85 19.7 5.6 3.50 3.95 150 A+ 1 0.82 29 1"	24.3 6.1 3.98 22.5 6.3 3.59 4.05 154 A++	28.4 7.0 4.06 26.3 7.2 3.67 4.05 154 A++ 1 1.10 47 1"	33.8 8.2 4.12 31.8 8.9 3.56 4.31 164 A++ Scroll 1 1.32 48	39.8 10.1 3.94 37.9 10.8 3.50 3.94 150 A+	47.0 11.7 4.02 44.5 12.4 3.58 4.18 159 A++ 1 1.90 49	59.5 14.4 4.13 56.4 15.2 3.71 4.28 163 A++
Heating (EN14511) Compressor Evaporator	Heating capacity (3) Absorbed power (3) COP (3) Heating capacity (3) Absorbed power (3) COP (3) SCOP (4) Energy Efficiency (4) Energy Class (4) Type Quantity Water flow Pressure drops Water connections Water flow	kW kW kW kW % n° 1/s kPa "G	20.8 5.4 3.85 19.7 5.6 3.50 3.95 150 A+ 1 0.82 29 1"	24.3 6.1 3.98 22.5 6.3 3.59 4.05 154 A++	28.4 7.0 4.06 26.3 7.2 3.67 4.05 154 A++ 1.10 47 1" 0.34	33.8 8.2 4.12 31.8 8.9 3.56 4.31 164 A++ Scroll 1 1.32 48 1" 0.41	39.8 10.1 3.94 37.9 10.8 3.50 3.94 150 A+	47.0 11.7 4.02 44.5 12.4 3.58 4.18 159 A++ 1 1,90 49 1" 0.58	59.5 14.4 4.13 56.4 15.2 3.71 4.28 163 A++
Heating (EN14511) Compressor Evaporator	Heating capacity (3) Absorbed power (3) COP (3) Heating capacity (3) Absorbed power (3) COP (3) SCOP (4) Energy Efficiency (4) Energy Class (4) Type Ouantity Water flow Pressure drops Water connections Water flow Pressure drops	kW kW kW kW % n° 1/s kPa "G 1/s kPa	20.8 5.4 3.85 19.7 5.6 3.50 3.95 150 A+ 1 0.82 29 1" 0.25 8	24.3 6.1 3.98 22.5 6.3 3.59 4.05 154 A++	28.4 7.0 4.06 26.3 7.2 3.67 4.05 154 A++ 1 1.10 47 1" 0.34 13	33.8 8.2 4.12 31.8 8.9 3.56 4.31 164 A++ Scroll 1 1.32 48 1" 0.41	39.8 10.1 3.94 37.9 10.8 3.50 3.94 150 A+ 1.61 60 1" 0.50 21	47.0 11.7 4.02 44.5 12.4 3.58 4.18 159 A++ 1 1.90 49 1" 0.58 22	59.5 14.4 4.13 56.4 15.2 3.71 4.28 163 A++ 1 2.35 54 1" 0.73 22
Heating (EN14511) Compressor Evaporator Condenser	Heating capacity (3) Absorbed power (3) COP (3) Heating capacity (3) Absorbed power (3) COP (3) SCOP (4) Energy Efficiency (4) Energy Class (4) Type Quantity Water flow Pressure drops Water connections Water flow Pressure drops Water flow Water flow Pressure drops Water connections	kW kW kW kW % n° I/s kPa "G I/s kPa	20.8 5.4 3.85 19.7 5.6 3.50 3.95 150 A+ 1 0.82 29 1" 0.25 8	24.3 6.1 3.98 22.5 6.3 3.59 4.05 154 A++	28.4 7.0 4.06 26.3 7.2 3.67 4.05 154 A++ 1 1.10 47 1" 0.34 13	33.8 8.2 4.12 31.8 8.9 3.56 4.31 164 A++ Scroll 1 1.32 48 1" 0.41 20	39.8 10.1 3.94 37.9 10.8 3.50 3.94 150 A+ 1.61 60 1" 0.50 21	47.0 11.7 4.02 44.5 12.4 3.58 4.18 159 A++ 1 1.90 49 1" 0.58 22	59.5 14.4 4.13 56.4 15.2 3.71 4.28 163 A++
Heating (EN14511) Compressor Evaporator Condenser Electrical	Heating capacity (3) Absorbed power (3) COP (3) Heating capacity (3) Absorbed power (3) COP (3) SCOP (4) Energy Efficiency (4) Energ	kW kW kW kW % n° I/s kPa "G I/s kPa "G	20.8 5.4 3.85 19.7 5.6 3.50 3.95 150 A+ 1 0.82 29 1" 0.25 8	24.3 6.1 3.98 22.5 6.3 3.59 4.05 154 A++ 1 0.96 40 1" 0.30 10	28.4 7.0 4.06 26.3 7.2 3.67 4.05 154 A++ 1 1.10 47 1" 0.34 13 1"	33.8 8.2 4.12 31.8 8.9 3.56 4.31 164 A++ Scroll 1 1.32 48 1" 0.41 20 1" 400/3+N/50	39.8 10.1 3.94 37.9 10.8 3.50 3.94 150 A+ 1 1.61 60 1" 0.50 21	47.0 11.7 4.02 44.5 12.4 3.58 4.18 159 A++ 1 1.90 49 1" 0.58 22	59.5 14.4 4.13 56.4 15.2 3.71 4.28 163 A++ 1 2.35 54 1" 0.73 22
Heating (EN14511) Compressor Evaporator Condenser Electrical	Heating capacity (3) Absorbed power (3) COP (3) Heating capacity (3) Absorbed power (3) COP (3) SCOP (4) Energy Efficiency (4) Energy Class (4) Type Quantity Water flow Pressure drops Water connections Water flow Pressure drops Water connections Power supply Max. running current	kW kW kW kW % n° l/s kPa "G l/s kPa "G V/Ph/Hz	20.8 5.4 3.85 19.7 5.6 3.50 3.95 150 A+ 1 0.82 29 1" 0.25 8 1"	24.3 6.1 3.98 22.5 6.3 3.59 4.05 154 A++ 1 0.96 40 1" 0.30 10	28.4 7.0 4.06 26.3 7.2 3.67 4.05 154 A++ 1 1.10 47 1" 0.34 13 1"	33.8 8.2 4.12 31.8 8.9 3.56 4.31 164 A++ Scroll 1 1.32 48 1" 0.41 20 1" 400/3+N/50	39.8 10.1 3.94 37.9 10.8 3.50 3.94 150 A+ 1 1.61 60 1" 0.50 21 1"	47.0 11.7 4.02 44.5 12.4 3.58 4.18 159 A++ 1 1.90 49 1" 0.58 22 1"	59.5 14.4 4.13 56.4 15.2 3.71 4.28 163 A++ 1 2.35 54 1" 0.73 22 1"
Heating (EN14511) Compressor Evaporator Condenser Electrical	Heating capacity (3) Absorbed power (3) COP (3) Heating capacity (3) Absorbed power (3) COP (3) SCOP (4) Energy Efficiency (4) Energy Class (4) Type Quantity Water flow Pressure drops Water connections Water flow Pressure drops Water connections Water flow Pressure drops Water connections Water flow Accordance of the property of the	kW kW kW kW % n° I/s kPa "G I/s kPa "G V/Ph/Hz A A	20.8 5.4 3.85 19.7 5.6 3.50 3.95 150 A+ 1 0.82 29 1" 0.25 8 1" 11 71 0.82	24.3 6.1 3.98 22.5 6.3 3.59 4.05 154 A++ 1 0.96 40 1" 0.30 10 1"	28.4 7.0 4.06 26.3 7.2 3.67 4.05 154 A++ 1 1.10 47 1" 0.34 13 1"	33.8 8.2 4.12 31.8 8.9 3.56 4.31 164 A++ Scroll 1.32 48 1" 0.41 20 1" 400/3+N/50 18 142 1.32	39.8 10.1 3.94 37.9 10.8 3.50 3.94 150 A+ 1 1.61 60 1" 0.50 21 1"	47.0 11.7 4.02 44.5 12.4 3.58 4.18 159 A++ 1 1.90 49 1" 0.58 22 1"	59.5 14.4 4.13 56.4 15.2 3.71 4.28 163 A++ 1 2.35 54 1" 0.73 22 1"
Heating (EN14511) Compressor Evaporator Condenser Electrical characteristics	Heating capacity (3) Absorbed power (3) COP (3) Heating capacity (3) Absorbed power (3) COP (3) SCOP (4) Energy Efficiency (4) Energ	kW kW kW % n° 1/s kPa "G V/Ph/Hz A	20.8 5.4 3.85 19.7 5.6 3.50 3.95 150 A+ 1 0.82 29 1" 0.25 8 1" 0.11 71 0.82 131	24.3 6.1 3.98 22.5 6.3 3.59 4.05 154 A++ 1 0.96 40 1" 0.30 10 1"	28.4 7.0 4.06 26.3 7.2 3.67 4.05 154 A++ 1 1.10 47 1" 0.34 13 1" 15 74 1.10 93	33.8 8.2 4.12 31.8 8.9 3.56 4.31 164 A++ Scroll 1 1.32 48 1" 0.41 20 1" 400/3+N/50 18 142 1.32 187	39.8 10.1 3.94 37.9 10.8 3.50 3.94 150 A+ 1 1.61 60 1" 0.50 21 1" 20 142 1.61 160	47.0 11.7 4.02 44.5 12.4 3.58 4.18 159 A++ 1 1.90 49 1" 0.58 22 1" 23 147 1.90 131	59.5 14.4 4.13 56.4 15.2 3.71 4.28 163 A++ 1 0.73 22 1" 29 197 2.35 155
Heating (EN14511) Compressor Evaporator Condenser Electrical characteristics	Heating capacity (3) Absorbed power (3) COP (3) Heating capacity (3) Absorbed power (3) COP (3) SCOP (4) Energy Efficiency (4) Energy Class (4) Type Quantity Water flow Pressure drops Water connections Power supply Max. running current Max. starting current Water flow Pump available static pressure Tank water volume	kW kW kW % "n° I/s kPa "G I/s kPa "G V/Ph/Hz A I/s kPa	20.8 5.4 3.85 19.7 5.6 3.50 3.95 150 A+ 1 0.82 29 1" 0.25 8 1" 71 0.82 131 50	24.3 6.1 3.98 22.5 6.3 3.59 4.05 154 A++ 1 0.96 40 1" 0.30 10 1"	28.4 7.0 4.06 26.3 7.2 3.67 4.05 154 A++ 1 1.10 47 1" 0.34 13 1" 15 74 1.10 93 50	33.8 8.2 4.12 31.8 8.9 3.56 4.31 164 A++ Scroll 1 1.32 48 1" 0.41 20 1" 400/3+N/50 18 142 1.32 187 150	39.8 10.1 3.94 37.9 10.8 3.50 3.94 150 A+ 1.61 60 1" 0.50 21 1" 20 142 1.61 160 150	47.0 11.7 4.02 44.5 12.4 3.58 4.18 159 A++ 1 1.90 49 1" 0.58 22 1" 23 147 1.90 131	59.5 14.4 4.13 56.4 15.2 3.71 4.28 163 A++ 1 2.35 54 1" 0.73 22 1" 29 197 2.35 155 150
Heating (EN14511) Compressor Evaporator Condenser Electrical characteristics Unit SP version	Heating capacity (3) Absorbed power (3) COP (3) Heating capacity (3) Absorbed power (3) COP (3) SCOP (4) Energy Efficiency (4) Energy Class (4) Type Quantity Water flow Pressure drops Water connections Water flow Pressure drops Water connections Power supply Max. running current Max. starting current Water flow Pump available static pressure Tank water volume Water connections	kW kW kW kW % n° I/s kPa "G V/Ph/Hz A A I/s kPa	20.8 5.4 3.85 19.7 5.6 3.50 3.95 150 A+ 1 0.82 29 1" 0.25 8 1" 0.82 11 71 0.82 131 50 1"	24.3 6.1 3.98 22.5 6.3 3.59 4.05 154 A++ 1 0.96 40 1" 0.30 10 1" 1"	28.4 7.0 4.06 26.3 7.2 3.67 4.05 154 A++ 1 1.10 47 1" 0.34 13 1" 15 74 1.10 93 50 1"	33.8 8.2 4.12 31.8 8.9 3.56 4.31 164 A++ Scroll 1 1.32 48 1" 0.41 20 1" 400/3+N/50 18 142 1.32 187 150 1"	39.8 10.1 3.94 37.9 10.8 3.50 A+ 150 A+ 1 1.61 60 1" 0.50 21 1" 20 142 1.61 160 150 17	47.0 11.7 4.02 44.5 12.4 3.58 4.18 159 A++ 1 1.90 49 1" 0.58 22 1" 23 147 1.90 131 150 1"	59.5 14.4 4.13 56.4 15.2 3.71 4.28 163 A++ 1 2.35 54 1" 0.73 22 1" 29 197 2.35 155 150 1"
Heating (EN14511) Compressor Evaporator Condenser Electrical characteristics Unit SP version	Heating capacity (3) Absorbed power (3) COP (3) Heating capacity (3) Absorbed power (3) COP (3) SCOP (4) Energy Efficiency (4) Energy Class (4) Type Quantity Water flow Pressure drops Water connections Water flow Pressure drops Water flow Pressure drops Water flow Pressure drops Water connections Water flow Pressure drops Water connections Water flow Pressure drops Water connections Fower supply Max. running current Max. starting current Water flow Pump available static pressure Tank water volume Water connections STD/SP version (5)	kW kW kW kW % "G I/s kPa "G V/Ph/Hz A A I/s kPa I/s kPa	20.8 5.4 3.85 19.7 5.6 3.50 3.95 150 A+ 1 0.82 29 1" 0.25 8 1" 11 71 0.82 131 50 1" 40	24.3 6.1 3.98 22.5 6.3 3.59 4.05 154 A++ 1 0.96 40 1" 0.30 10 1" 14 74 0.96 100 50 1" 41	28.4 7.0 4.06 26.3 7.2 3.67 4.05 154 A++ 1 1.10 47 1" 0.34 13 1" 15 74 1.10 93 50 1" 43	33.8 8.2 4.12 31.8 8.9 3.56 4.31 164 A++ Scroll 1.32 48 1" 0.41 20 1" 400/3+N/50 18 142 1.32 187 150 1"	39.8 10.1 3.94 37.9 10.8 3.50 3.94 150 A+ 11.61 60 1" 0.50 21 1" 20 142 1.61 150 150 17 43	47.0 11.7 4.02 44.5 12.4 3.58 4.18 159 A++ 1 1.90 49 1" 0.58 22 1" 23 147 1.90 131 150 1"	59.5 14.4 4.13 56.4 15.2 3.71 4.28 163 A++ 1 2.35 54 1" 0.73 22 1" 29 197 2.35 155 150 1" 44
Heating (EN14511) Compressor Evaporator Condenser Electrical characteristics Unit SP version Sound pressure	Heating capacity (3) Absorbed power (3) COP (3) Heating capacity (3) Absorbed power (3) COP (3) SCOP (4) Energy Efficiency (4) Energy Class (4) Type Quantity Water flow Pressure drops Water connections Water flow Pressure drops Water flow Pussure drops Water connections Power supply Max. running current Water flow Pump available static pressure Tank water volume Water connections STD/SP version (5) Transport weight (6)	kW k	20.8 5.4 3.85 19.7 5.6 3.50 3.95 150 A+ 1 0.82 29 1" 0.25 8 1" 71 71 0.82 131 50 1" 40 96	24.3 6.1 3.98 22.5 6.3 3.59 4.05 154 A++ 1 0.96 40 1" 0.30 10 1" 14 74 0.96 100 50 1" 41	28.4 7.0 4.06 26.3 7.2 3.67 4.05 154 A++ 1 1.10 47 1" 0.34 13 1" 15 74 1.10 93 50 1" 43	33.8 8.2 4.12 31.8 8.9 3.56 4.31 164 A++ Scroll 1 1.32 48 1" 0.41 20 1" 400/3+N/50 18 142 1.32 187 150 17 43	39.8 10.1 3.94 37.9 10.8 3.50 3.94 150 A+ 1 1.61 60 1" 0.50 21 1" 20 142 1.61 160 150 1" 43 198	47.0 11.7 4.02 44.5 12.4 3.58 4.18 159 A++ 1 1.90 49 1" 0.58 22 1" 23 147 1.90 131 150 1"	59.5 14.4 4.13 56.4 15.2 3.71 4.28 163 A++ 1 2.35 54 1" 0.73 22 1" 29 197 2.35 155 150 17 44 218
Heating (EN14511) Compressor Evaporator Condenser Electrical characteristics Unit SP version Sound pressure	Heating capacity (3) Absorbed power (3) COP (3) Heating capacity (3) Absorbed power (3) COP (3) SCOP (4) Energy Efficiency (4) Energy Class (4) Type Quantity Water flow Pressure drops Water connections Water flow Pressure drops Water flow Pressure drops Water flow Pressure drops Water connections Water flow Pressure drops Water connections Water flow Pressure drops Water connections Fower supply Max. running current Max. starting current Water flow Pump available static pressure Tank water volume Water connections STD/SP version (5)	kW kW kW kW % "G I/s kPa "G V/Ph/Hz A A I/s kPa I/s kPa	20.8 5.4 3.85 19.7 5.6 3.50 3.95 150 A+ 1 0.82 29 1" 0.25 8 1" 11 71 0.82 131 50 1" 40	24.3 6.1 3.98 22.5 6.3 3.59 4.05 154 A++ 1 0.96 40 1" 0.30 10 1" 14 74 0.96 100 50 1" 41	28.4 7.0 4.06 26.3 7.2 3.67 4.05 154 A++ 1 1.10 47 1" 0.34 13 1" 15 74 1.10 93 50 1" 43	33.8 8.2 4.12 31.8 8.9 3.56 4.31 164 A++ Scroll 1.32 48 1" 0.41 20 1" 400/3+N/50 18 142 1.32 187 150 1"	39.8 10.1 3.94 37.9 10.8 3.50 3.94 150 A+ 11.61 60 1" 0.50 21 1" 20 142 1.61 150 150 17 43	47.0 11.7 4.02 44.5 12.4 3.58 4.18 159 A++ 1 1.90 49 1" 0.58 22 1" 23 147 1.90 131 150 1"	59.5 14.4 4.13 56.4 15.2 3.71 4.28 163 A++ 1 2.35 54 1" 0.73 22 1" 29 197 2.35 155 150 1" 44
Heating (EN14511) Compressor Evaporator Condenser Electrical characteristics Unit SP version Sound pressure Weights	Heating capacity (3) Absorbed power (3) COP (3) Heating capacity (3) Absorbed power (3) COP (3) SCOP (4) Energy Efficiency (4) Energy Class (4) Type Quantity Water flow Pressure drops Water connections STO/SP version (5) Transport weight (6) Operating weight (6)	kW kW kW kW kW kW kW skPa rG l/s kPa l/s kRa l/s kg kg	20.8 5.4 3.85 19.7 5.6 3.50 3.95 150 A+ 1 0.82 29 1" 0.25 8 1" 11 71 0.82 131 50 1" 40 96	24.3 6.1 3.98 22.5 6.3 3.59 4.05 154 A++ 1 0.96 40 1" 0.30 10 1" 14 74 0.96 100 50 1" 41 98 100	28.4 7.0 4.06 26.3 7.2 3.67 4.05 154 A++ 1 1.10 47 1" 0.34 13 1" 15 74 1.10 93 50 1" 43 100 102	33.8 8.2 4.12 31.8 8.9 3.56 4.31 164 A++ Scroll 1.32 48 1" 0.41 20 1" 400/3+N/50 18 142 1.32 187 150 1" 43 190 193	39.8 10.1 3.94 37.9 10.8 3.50 A+ 150 A+ 1.61 60 1" 0.50 21 1" 20 142 1.61 160 150 17 43 198 201	47.0 11.7 4.02 44.5 12.4 3.58 4.18 159 A++ 1 1.90 49 1" 0.58 22 1" 23 147 1.90 131 150 1" 44 204 207	59.5 14.4 4.13 56.4 15.2 3.71 4.28 163 A++ 1 2.35 54 1" 0.73 22 1" 29 197 2.35 155 150 1" 44 218 221
Heating (EN14511) Compressor Evaporator Condenser Electrical characteristics Unit SP version Sound pressure Weights DIMENSIONS	Heating capacity (3) Absorbed power (3) COP (3) Heating capacity (3) Absorbed power (3) COP (3) SCOP (4) Energy Efficiency (4) Energy Class (4) Type Quantity Water flow Pressure drops Water connections STOSP version (5) Transport weight (6) Operating weight (6)	kW kW kW kW kW kW kW kW kPa rG l/s kPa rG V/Ph/Hz A A l/s kPa l rG dB(A) Kg Kg	20.8 5.4 3.85 19.7 5.6 3.50 3.95 150 A+ 1 0.82 29 1" 0.25 8 1" 11 71 0.82 131 50 1" 40 96 98	24.3 6.1 3.98 22.5 6.3 3.59 4.05 154 A++ 1 0.96 40 1" 0.30 10 1" 41 74 0.96 100 50 1" 41 98 100 31 41	28.4 7.0 4.06 26.3 7.2 3.67 4.05 154 A++ 1 1.10 47 1" 0.34 13 1" 15 74 1.10 93 50 1" 43 100 102	33.8 8.2 4.12 31.8 8.9 3.56 4.31 164 A++ Scroll 1.32 48 1" 0.41 20 1" 400/3+N/50 18 142 1.32 187 150 1" 43 190 193	39.8 10.1 3.94 37.9 10.8 3.50 3.94 150 A+ 1 1.61 60 1" 0.50 21 1" 20 142 1.61 150 150 11" 43 198 201 81 91	47.0 11.7 4.02 44.5 12.4 3.58 4.18 159 A++ 1 1.90 49 1" 0.58 22 1" 23 147 1.90 131 150 1" 44 204 207	59.5 14.4 4.13 56.4 15.2 3.71 4.28 163 A++ 1 2.35 54 1" 0.73 22 1" 29 197 2.35 155 150 17 44 218 221 131 151
Heating (EN14511) Compressor Evaporator Condenser Electrical characteristics Unit SP version Sound pressure Weights DIMENSIONS	Heating capacity (3) Absorbed power (3) COP (3) Heating capacity (3) Absorbed power (3) COP (3) SCOP (4) Energy Efficiency (4) Energy Class (4) Type Quantity Water flow Pressure drops Water connections Water flow Pressure drops Water connections Fower supply Max. running current Water flow Pump available static pressure Tank water volume Water connections STD/SP version (5) Transport weight (6) Operating weight (6)	KW KW KW KW KW KW KW KW	20.8 5.4 3.85 19.7 5.6 3.50 3.95 150 A+ 1 0.82 29 1" 0.25 8 1" 11 71 0.82 131 50 1" 40 96 98	24.3 6.1 3.98 22.5 6.3 3.59 4.05 154 A++ 1 0.96 40 1" 0.30 10 1" 41 74 0.96 100 50 1" 41 98 100 31 41 550 550	28.4 7.0 4.06 26.3 7.2 3.67 4.05 154 A++ 1 1.10 47 1" 0.34 13 1" 15 74 1.10 93 50 1" 43 100 102 51 6 550 58	33.8 8.2 4.12 31.8 8.9 3.56 4.31 164 A++ Scroll 1 1.32 48 1" 0.41 20 1" 400/3+N/50 18 142 1.32 187 150 179 193	39.8 10.1 3.94 37.9 10.8 3.50 3.94 150 A+ 1 1.61 60 1" 0.50 21 1" 20 142 1.61 150 150 17" 43 198 201 81 91 550 550	47.0 11.7 4.02 44.5 12.4 3.58 4.18 159 A++ 1 1.90 49 1" 0.58 22 1" 23 147 1.90 131 150 1" 44 204 207	59.5 14.4 4.13 56.4 15.2 3.71 4.28 163 A++ 1 2.35 54 1" 0.73 22 1" 29 197 2.35 155 150 17 44 218 221 131 151
Heating (EN14511) Compressor Evaporator Condenser Electrical characteristics Unit SP version Sound pressure Weights DIMENSIONS	Heating capacity (3) Absorbed power (3) COP (3) Heating capacity (3) Absorbed power (3) COP (3) SCOP (4) Energy Efficiency (4) Energy Class (4) Type Quantity Water flow Pressure drops Water connections Water flow Pressure drops Water connections Water flow Pressure drops Water connections Water flow Pressure drops STOMAR TABLE TO THE TO	KW KW KW KW KW KW KW KW	20.8 5.4 3.85 19.7 5.6 3.50 3.95 150 A+ 1 0.82 29 1" 0.25 8 1" 11 71 0.82 131 50 1" 40 96 98	24.3 6.1 3.98 22.5 6.3 3.59 4.05 154 A++ 1 0.96 40 1" 0.30 10 1" 41 74 0.96 100 50 1" 41 98 100 31 41	28.4 7.0 4.06 26.3 7.2 3.67 4.05 154 A++ 1 1.10 47 1" 0.34 13 1" 15 74 1.10 93 50 1" 43 100 102	33.8 8.2 4.12 31.8 8.9 3.56 4.31 164 A++ Scroll 1 1.32 48 1" 0.41 20 1" 400/3+N/50 18 142 1.32 187 150 1" 43 190 193	39.8 10.1 3.94 37.9 10.8 3.50 3.94 150 A+ 1 1.61 60 1" 0.50 21 1" 20 142 1.61 150 150 11" 43 198 201 81 91	47.0 11.7 4.02 44.5 12.4 3.58 4.18 159 A++ 1 1.90 49 1" 0.58 22 1" 23 147 1.90 131 150 1" 44 204 207	59.5 14.4 4.13 56.4 15.2 3.71 4.28 163 A++ 1 2.35 54 1" 0.73 22 1" 29 197 2.35 155 150 17 44 218 221 131 151

CLEARANCE AREA

CWW/	K 15÷15	1	
200	500	800	500



CWW/K/SP 91÷151



- Chilled water from 12 to 7 °C, water temperature at the condenser from 15 to 35 °C.

- Colline Water Horl 2 to 7 C, Water temperature at the collidates from 15 to 35 ct.

 Heated water from 40 to 45 °C, water temperature at the evaporator from 15 to 10 °C.

 Seasonal energy efficiency of heating at low temperature with average climatic conditions. According to EU Regulation n. 811/2013.

 Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744. 4.

- Unit without tank and pump.
 N.B. Weights of WP versions are specified on technical brochure.



CWW/K 182-P+604-P

WATERCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH SCROLL COMPRESSORS AND PLATE EXCHANGERS.















The CWW/K 182-P÷604-P liquid Chillers and Heat Pumps, with R410A refrigerant, are designed for medium-sized domestic or industrial systems which require medium power, space-saving units and quiet operation. This range is ideal for indoor installation and, equipped with a self-contained structure, it reduces the overall dimensions to a minimum while at the same time making installation and maintenance operations easier. These units are used to remove the heat developed during industrial processes or, combined with Fan Coil units, for the air conditioning of the rooms. They can be supplied with Modbus RTU protocol through RS485 serial interface. Equipped with polyester powder plate painting structure, Scroll compressors and plate-type exchangers, these units have cooling and hydraulic circuits complete with everything necessary for quick installation and high energy efficiency, even in the version with tank and pump; and a series of accessories, factory fitted or supplied separately, like desuperheater and total heat recovery, rounds off the variety of equipment in this product range.

CWW/G 182-P+604-P

On request, units can be supplied with R452B refrigerant.

VFRSION

CWW/K	CWW/K/WP
Cooling only	Reversible Heat Pump

FEATURES

- · Self-supporting galvanized steel frame protected with additional protection achieved via polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Condenser AISI 316 stainless steel braze welded plates type with one circuit on the refrigerant side and one on the water side in 182-P÷453-P models; with two independent circuits on the refrigerant side and one on the water side in 524-P÷604-P models.
- Evaporator AISI 316 stainless steel braze welded plates type with one circuit on the refrigerant side and one on the water side in 182-P÷453-P models; with two independent circuits on the refrigerant side and one on the water side in 524-P+604-P models, complete with water differential pressure switch.
- R410A refrigerant. On request R452B refrigerant.
- Electrical board includes: main switch with door safety interlock, fuses, thermal protection relays for compressors, interface relay and terminals for external connections.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES

IM	Automatic circuit breakers
SL	Unit silencement
RFM	Cooling circuit shut-off valve on
	discharge line
RFL	Cooling circuit shut-off valve on
	liquid line
ВТ	Low water temperature Kit
DS	Desuperheater
RT	Total heat recovery

Antifreeze heater for evaporator Antifreeze heater for tank

SS Soft start

FF

FΑ

Modbus RTU protocol, RS485 IS serial interface

LOOSE ACCESSORIES

MN	High and low pressure gauges
CR	Remote control panel
SPU	Inertial tank and single circulating pump
SPD	Inertial tank and double circulating pump
PV2	2-Way electronic pressostatic valve
PV3	3-Way electronic pressostatic valve
AG	Rubber shock absorbers
AM	Spring shock absorbers



CWW/K 182-P÷604-P







MODEL			182-P	202-P	242-P	262-P	302-P	363-P	393-P	453-P	524-P	604-P
	Cooling capacity (1)	kW	55.4	62.5	72.1	82.5	97.2	112	130	149	170	195
Cooling	Absorbed power (1)	kW	12.8	14.3	16.6	18.7	21.8	25.7	28.5	32.8	37.7	43.7
_	EER (1)		4.33	4.37	4.34	4.41	4.46	4.36	4.56	4.54	4.51	4.46
	Cooling capacity (1)	kW	55.0	62.1	71.6	82.0	96.7	111	129	148	169	194
	Absorbed power (1)	kW	13.6	15.3	17.6	19.9	22.9	27.3	29.9	34.3	39.3	45.6
Cooling (EN14511)	EER (1)		4.04	4.06	4.06	4.13	4.22	4.08	4.33	4.32	4.31	4.26
Cooling (EN 14311)	ESEER		5.06	4.95	5.03	5.20	5.58	4.90	5.26	5.47	5.27	5.49
	SEER (2)		5.28	5.13	5.14	5.12	5.64	5.20	5.72	6.17	5.78	6.16
	Energy Efficiency (2)	%	203	197	198	197	218	200	221	239	223	238
	Heating capacity (3)	kW	72.5	80.1	93.3	105	121	140	159	180	205	237
Heating	Absorbed power (3)	kW	18.0	20.0	23.2	25.7	28.8	33.2	38.4	42.7	51.7	56.7
Ü	COP		4.03	4.01	4.02	4.09	4.20	4.22	4.14	4.22	3.97	4.18
	Heating capacity (3)	kW	72.8	80.6	93.4	105	122	141	159	180	205	237
	Absorbed power (3)	kW	18.3	20.5	23.3	26.1	29.4	33.9	38.5	42.8	51.8	56.9
Heating (EN14511)	COP (3)		3.98	3.94	4.01	4.04	4.14	4.15	4.13	4.21	3.96	4.17
	SCOP (4)		4.29	4.03	4.77	5.15	5.11	5.05	5.37	5.31	4.76	4.76
	Energy Efficiency (4)	%	164	153	183	198	196	194	207	204	182	182
	Quantity	n°	2	2	2	2	2	3	3	3	4	4
Compressor	Refrigerant circuits	n°	1	1	1	1	1	1	1	1	2	2
	Capacity steps	n°	2					3			4	
	Water flow	I/s	2.65	2.99	3.44	3.94	4.64	5.38	6.23	7.14	8.12	9.33
Evaporator	Pressure drops	kPa	54	48	49	51	44	57	53	59	49	48
	Water connections	"G	1 ¼"	1 1/4"	1 1/4"	1 1/4"	2 ½"	2 ½"	2 ½"	2 ½"	2 1/2"	2 ½"
	Water flow	I/s	3.26	3.67	4.24	4.84	5.69	6.60	7.59	8.71	9.92	11.41
Condenser	Pressure drops	kPa	47	51	52	43	46	54	36	39	43	48
	Water connections	"G	1 ¼"	1 1/4"	1 1/4"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
Electrical	Power supply	V/Ph/Hz					400/	/3/50				
characteristics	Max. running current	А	33	39	43	49	60	64	73	90	98	120
Characteristics	Max. starting current	Α	128	137	139	164	204	161	189	234	213	264
Unit with tank and	Pump available static pressure	kPa	100	100	90	130	115	120	105	75	110	65
	Tank water volume		300	300	300	300	300	300	300	300	300	300
pump	Water connections	"G	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
Cound proceurs	STD version (5)	dB(A)	55	56	56	57	58	57	57	59	59	60
Sound pressure	With SL accessory (5)	dB(A)	50	51	51	52	53	52	52	54	54	55
Maighta	Transport weight (6)	Kg	384	393	411	423	453	622	658	681	767	803
Weights	Operating weight (6)	Kg	390	400	420	435	470	640	680	705	790	830

DIMENSIONS			182-P	202-P	242-P	262-P	302-P	363-P	393-P	453-P	524-P	604-P
	L	mm	1200	1200	1200	1200	1200	2285	2285	2285	2285	2285
UN I T	W	mm	680	680	680	680	680	680	680	680	680	680
	Н	mm	1520	1520	1520	1520	1520	1520	1520	1520	1520	1520
	L	mm	2310	2310	2310	2310	2310	3395	3395	3395	3395	3395
UNIT + SPU/SPD	W	mm	680	680	680	680	680	680	680	680	680	680
	Н	mm	1520	1520	1520	1520	1520	1520	1520	1520	1520	1520

CLEARANCE AREA

CWW/K 182-P÷604-P 0 300 800 300



- Chilled water from 12 to 7 $^{\circ}\text{C}\text{,}$ water temperature at the condenser from 30 to 35 °C.
- Seasonal energy efficiency of cooling at medium temperature. According to EU Regulation n. 2016/2281. Heated water from 40 to 45 °C, water temperature at the
- evaporator from 15 to 10 °C.
- Seasonal energy efficiency of heating at low temperature with average climatic conditions. According to EU Regulation n. 811/2013.
- Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- 6. Unit without tank and pump.
 N.B. Weights of WP version are specified on technical brochure.

CWW/K 182÷604

WATERCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH SCROLL COMPRESSORS AND SHELL AND TUBE EXCHANGERS.

















The CWW/K 182÷604 liquid Chillers and Heat Pumps, with R410A refrigerant, are designed for medium-sized domestic or industrial systems which require medium power, space-saving units and quiet operation. This range is ideal for indoor installation and, equipped with a self-contained structure, it reduces the overall dimensions to a minimum while at the same time making installation and maintenance operations easier. These units are used to remove the heat developed during industrial processes or, combined with Fan Coil units, for the air conditioning of the rooms. They can be supplied with Modbus RTU protocol through RS485 serial interface. Equipped with Scroll compressors and shell and tube exchangers, these units have cooling and hydraulic circuits complete with everything necessary for quick installation and high energy efficiency, even in the version with tank and pump; a series of accessories, factory fitted or supplied separately, like desuperheater and total heat recovery, rounds off the variety of equipment in this product range.

CWW/G 182÷604

On request, units can be supplied with R452B refrigerant.

VERSION	
CWW/K	CWW/K/WP
Cooling only	Reversible Heat Pump
CWW/K/SSL	CWW/K/WP/SSL
Super silenced cooling only	Super silenced reversible Heat Pump

FEATURES

- Self-supporting galvanized steel frame protected with additional protection achieved via polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Shell and tube type condenser with one circuit on the refrigerant side and one on the water side in 182÷453 models; with two independent circuits on the refrigerant side and one on the water side in 524÷604 models.
- Shell and tube type evaporator with one circuit on the refrigerant side and one on the water side in 182+453 models; with two independent circuits on the refrigerant side and one on the water side in 524+604 models, complete with water differential pressure switch.
- R410A refrigerant. On request R452B refrigerant.
- Electrical board includes: main switch with door safety interlock, fuses, thermal protection relays for compressors, interface relay and terminals for external connections.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES

IM Automatic circuit breakers

SL Unit silencement

RFM Cooling circuit shut-off valve on

discharge line

RFL Cooling circuit shut-off valve on

liquid line

BT Low water temperature Kit

HR Desuperheater HRT Total heat recovery

SP Inertial tank
SPU Inertial tank and single circulating

pump

SPD Inertial tank and double circulating

pump

FE Antifreeze heater for evaporator

FB Antifreeze heater for evaporator

and tank SS Soft start

IS Modbus RTU protocol, RS485

serial interface

LOOSE ACCESSORIES

MN High and low pressure gauges

CR Remote control panel

PV2 2-Way electronic pressostatic valve

PV3 3-Way electronic pressostatic valve

AG Rubber shock absorbers

AM Spring shock absorbers

FL Flow switch



CWW/K 182÷604







MODEL			182	202	242	262	302	363	393	453	524	604
	Cooling capacity (1)	kW	57.0	62.6	70.9	82.9	98.3	111	129	151	172	196
Cooling	Absorbed power (1)	kW	13.2	14.3	16.4	18.9	22.0	25.7	28.2	33.1	38.2	44.1
-	EER (1)		4.32	4.38	4.32	4.39	4.47	4.32	4.57	4.56	4.50	4.44
	Cooling capacity (1)	kW	56.7	62.2	70.4	82.2	97.6	110	128	150	171	195
	Absorbed power (1)	kW	13.7	14.9	17.2	19.9	23.1	26.9	29.4	34.5	39.7	45.7
Caslina /FNI14F111	EER (1)		4.14	4.17	4.10	4.14	4.23	4.10	4.36	4.36	4.31	4.27
Cooling (EN14511)	ESEER		5.19	5.03	4.93	5.12	5.57	4.87	5.19	5.54	5.19	5.48
	SEER (2)		5.13	5.18	5.16	5.17	5.71	5.19	5.74	6.21	5.83	6.19
	Energy Efficiency (2)	%	197	199	198	199	220	200	222	240	225	240
Heating	Heating capacity (3)	kW	74.6	80.3	91.7	106	122	139	158	182	208	238
	Absorbed power (3)	kW	18.6	20.0	22.9	26.0	29.1	33.2	38.0	43.1	52.3	57.3
	COP		4.01	4.02	4.00	4.08	4.19	4.19	4.16	4.22	3.98	4.15
	Heating capacity (3)	kW	75.1	80.9	92.5	106	123	140	159	183	210	239
	Absorbed power (3)	kW	19.3	20.9	24.0	27.1	30.6	34.8	39.6	44.8	54.4	59.4
Heating (EN14511)	COP (3)		3.89	3.88	3.86	3.92	4.03	4.03	4.02	4.08	3.85	4.03
	SCOP (4)		4.16	4.39	4.39	4.53	4.62	4.57	4.85	4.64	4.72	4.84
	Energy Efficiency (4)	%	158	168	168	173	177	175	186	178	181	186
	Quantity	n°	2	2	2	2	2	3	3	3	4	4
Compressor	Refrigerant circuits	n°	1	1	1	1	1	1	1	1	2	2
'	Capacity steps	n°	2					3	4			
	Water flow	I/s	2.72	2.99	3.39	3.96	4.70	5.30	6.16	7.21	8.22	9.36
Evaporator	Pressure drops	kPa	32	42	55	74	62	55	57	49	63	49
	Water connections	"G	1 ½"	1 ½"	2"	2"	2"	2 ½"	2 ½"	3"	3"	3"
	Water flow	I/s	3.35	3.67	4.17	4.86	5.75	6.53	7.51	8.80	10.04	11.47
Condenser	Pressure drops	kPa	15	17	18	20	27	33	23	30	20	27
	Water connections	"G	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
Electrical	Power supply	V/Ph/Hz					400/	3/50				
	Max. running current	Α	33	39	43	49	60	64	73	90	98	120
characteristics	Max. starting current	Α	128	137	139	164	204	161	189	234	213	264
Ulada a dala kanala anal	Pump available static pressure	kPa	150	145	130	140	110	165	165	140	135	105
Unit with tank and	Tank water volume	I	470	470	470	470	470	470	470	470	660	660
pump	Water connections	"G	2"	2"	2"	2"	2"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
	STD version (5)	dB(A)	57	57	58	59	60	60	61	62	62	63
Sound pressure	With SL accessory (5)	dB(A)	54	54	55	56	57	57	58	59	59	60
- P	SSL version (5)	dB(A)	52	52	53	54	55	55	56	57	57	58
14/ 11/	Transport weight (6)	Kg	465	470	478	488	504	590	606	657	840	856
Weights	Operating weight (6)	Kg	495	500	510	520	540	630	650	710	900	920

DIMENSION	NS		182	202	242	262	302	363	393	453	524	604
L	STD/SSL	mm	2100	2100	2300	2100	2700	2400	2400	2400	2400	2600
W	STD/SSL	mm	830	830	830	830	830	830	830	830	830	830
Н	STD/SSL	mm	1300	1300	1300	1300	1300	1300	1300	1300	1450	1450

CLEARANCE AREA

CWW/K 182÷604

500 500 800 1500



- Chilled water from 12 to 7 °C, water temperature at the condenser from 30 to 35 °C.
- Seasonal energy efficiency of cooling at medium temperature. According to EU Regulation n. 2016/2281. Heated water from 40 to 45 °C, water temperature at the
- evaporator from 15 to 10 °C.
- Seasonal energy efficiency of heating at low temperature with average climatic conditions. According to EU Regulation n. 811/2013.
- Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- Unit without tank and pump.
 Weights of SSL and WP versions are specified on technical brochure.



MEA/K 15÷151

CONDENSERLESS LIQUID CHILLERS AND HEAT PUMPS WITH ROTARY/ SCROLL COMPRESSOR AND PLATE EXCHANGER.







The liquid Chillers and Heat Pumps for remote condensation of the MEA/K 15÷151 series, with R410A refrigerant, are designed for domestic or service sector systems which require medium power, space-saving units and quiet operation. Combined with remote condenser, these units are ideal for indoor installation and, equipped with a self-contained structure, they reduce the overall dimensions to a minimum while at the same time making installation and maintenance operations easier.

Equipped with prepainted plate structure, Rotary/Scroll compressor and plate-type exchanger, these units have cooling and hydraulic circuits designed for quick installation and high energy efficiency, even in the version with tank and pump.

A wide range of accessories, factory fitted or supplied separately, completes the outstanding versatility and functionality of the series.

VERSION

MEA/K	MEA/K/SP
Cooling only	Cooling only with tank and pump
MEA/K/WP	MEA/K/WP/SP
Reversible Heat Pump	Reversible Heat Pump with tank and pump

FEATURES

- Self-supporting prepainted steel frame.
- Rotary/Scroll compressor with internal overheat protection and crankcase heater, if needed.

IS

- Evaporator AISI 316 stainless steel braze welded plates type, complete with water differential pressure switch.
- R410A refrigerant
- Electrical board includes: main switch with door lock device, fuses, compressor and pump remote control switch.
- Water circuit for SP version includes: insulated tank, circulating pump, safety valve, gauge and expansion vessel.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES

BT Low water temperature Kit PS Single circulating pump

RL Liquid receiver

FE Antifreeze heater for evaporator
FA Antifreeze heater for tank

LOOSE ACCESSORIES

CR Remote control panel

Modbus RTU protocol, RS485

serial interface

AG Rubber shock absorbers

MEA/K 15÷151

MODEL			15	18	21	25	31	41	51
Cooling	Cooling capacity (1)	kW	4.0	5.1	6.2	7.3	8.5	10.1	12.1
Cooling	Absorbed power (1)	kW	1.4	1.8	2.1	3.0	3.3	3.7	3.3
Heating	Heating capacity (2)	kW	5.1	6.4	8.2	9.4	10.7	13.2	15.5
пеанну	Absorbed power (2)	kW	1.5	1.9	2.4	2.7	3.0	4.2	4.5
Compressor	Туре			Ro	tary			Scroll	
Compressor	Quantity	n°	1	1	1	1	1	1	1
	Water flow	I/s	0.19	0.24	0.30	0.35	0.41	0.48	0.58
Evaporator	Pressure drops	kPa	15	15	20	18	20	25	35
	Water connections	"G	1"	1"	1"	1"	1"	1"	1"
Connections	Delivery line	Ø mm	12	12	12	12	12	12	16
Odifficetions	Liquid line	Ø mm	10	10	10	10	10	10	12
Electrical	Power supply	V/Ph/Hz				/1/50			400/3+N/50
characteristics	Max. running current	A	8	10	13	14	16	22	9
Characteristics	Max. starting current	A	37	43	62	62	75	86	50
	Water flow	I/s	0.19	0.24	0.30	0.35	0.41	0.48	0.58
Unit SP version	Pump available static pressure	kPa	50	45	75	70	70	60	180
01111 01 10101011	Tank water volume		50	50	50	50	50	50	50
	Water connections	"G	1"	1"	1"	1"	1"	1"	1"
Sound pressure	STD/SP versions (3)	dB(A)	36	36	36	36	37	39	39
Weights	Transport weight (4)	Kg	74	75	77	81	84	87	86
org.n.o	Operating weight (4)	Kg	75	76	78	82	85	88	88
MODEL			61	71	81	91	101	131	151
Cooling	Cooling capacity (1)	kW	14.5	17.0	20.0	24.1	28.8	33.9	41.5
Cooling	Absorbed power (1)	kW	5.2	6.0	7.1	7.8	9.3	10.9	13.3
Heating	Heating capacity (2)	kW	18.5	22.0	25.9	30.4	36.4	43.0	53.2
пеашу	Absorbed power (2)	kW	5.5	6.5	7.7	8.3	10.1	11.7	14.2
Compressor	Туре					Scroll			
Compressor	Quantity	n°	1	1	1	1	1	1	1
	Water flow	I/s	0.69	0.81	0.96	1.15	1.38	1.62	1.98
Evaporator	Pressure drops	kPa	28	35	39	40	45	40	40
	Water connections	"G	1"	1"	1"	1"	1"	1"	1"
Connections	Delivery line	Ø mm	16	16	16	22	22	22	22
COMMECTIONS	Liquid line	Ø mm	12	12	12	12	12	12	16
Electrical	Power supply	V/Ph/Hz				400/3+N/50			
characteristics	Max. running current	A	11	14	15	18	20	23	29
Cilaracteristics	Max. starting current	A	71	74	74	142	142	147	197
	Water flow	I/s	0.69	0.81	0.96	1.15	1.38	1.62	1.98
Unit SP version	Pump available static pressure	kPa	170	140	110	215	130	155	235
OTHE OF VERSION	Tank water volume	I	50	50	50	150	150	150	150
	Water connections	"G	1″	1"	1"	1"	1"	1"	1"
Sound pressure	STD/SP versions (3)	dB(A)	40	41	43	43	43	44	44
Weights	Transport weight (4)	Kg	89	91	93	183	189	195	206
vvoigitta	Operating weight (4)	Kg	91	93	95	186	192	198	209

DIMENSION	IS		15	18	21	25	31	41	51	61	71	81	91	101	131	151
1	STD	mm	550	550	550	550	550	550	550	550	550	550	550	550	550	550
L	SP	mm	550	550	550	550	550	550	550	550	550	550	1100	1100	1100	1100
W	STD/SP	mm	550	550	550	550	550	550	550	550	550	550	550	550	550	550
Н	STD/SP	mm	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200

CLEARANCE AREA

MEA/K 15÷151

500 800 800 800



- 1. Chilled water from 12 to 7 °C, condensing temperature 50 °C.
 2. Heated water from 40 to 45 °C, evaporating temperature 0 °C.
 3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
 4. Unit without tank and pump.
 N.B. Weights of WP versions are specified on technical brochure.

MEA/K 182-P+604-P

CONDENSERLESS LIQUID CHILLERS AND HEAT PUMPS WITH SCROLL COMPRESSORS AND PLATE EXCHANGER.







MEA/K 182-P÷604-P series liquid Chillers and Heat Pumps for remote condensation, with R410A refrigerant, are designed to meet the needs of residential or industrial-type systems requiring high power together with space-saving and quiet operation. These units are ideal for indoor installation and, equipped with a self-contained structure, minimise overall dimensions while also facilitating installation and maintenance operations. Equipped with polyester plate powder painting structure, Scroll compressors and platetype exchanger they have refrigerant and hydraulic circuits, even in the version with tank, with pump or tank and pump, complete with everything necessary for quick installation operations and for high energy efficiencies. A number of accessories, factory fitted or supplied separately, such as the desuperheater or the total heat recovery, enhance and complete the equipment of this range.



VERSION

MEA/K	MEA/K/WP
Cooling only	Reversible Heat Pump

FEATURES

- · Self-supporting galvanized steel frame protected with additional protection achieved via polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Evaporator AISI 316 stainless steel braze welded plates type with one circuit on the refrigerant side and one on the water side in 182-P÷453-P models; with two independent circuits on the refrigerant side and one on the water side in 524-P÷604-P models, complete with water differential pressure switch.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, fuses, thermal protection relays for compressors, interface relay and terminals for external connections.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES

Automatic circuit breakers IM

SL Unit silencement RFM Cooling circuit shut-off valve on

discharge line

RFL Cooling circuit shut-off valve on

liquid line

ВT Low water temperature Kit

DS Desuperheater

RT Total heat recovery

FF Antifreeze heater for evaporator

FΑ Antifreeze heater for tank

SS Soft start

IS Modbus RTU protocol, RS485

serial interface

LOOSE ACCESSORIES

MN High and low pressure gauges CR

Remote control panel

SPU Inertial tank and single circulating

SPD Inertial tank and double circulating

Rubber shock absorbers AG ΑM Spring shock absorbers



MEA/K 182-P÷604-P

MODEL			182-P	202-P	242-P	262-P	302-P	363-P	393-P	453-P	524-P	604-P
Cooling	Cooling capacity (1)	kW	50.8	57.1	64.3	73.6	87.1	98.8	114	134	149	176
Cooling	Absorbed power (1)	kW	15.4	17.3	19.0	21.6	25.8	29.4	32.9	38.7	43.5	51.5
Heating	Heating capacity (2)	kW	59.5	65.8	74.3	84.7	96.5	107	122	148	157	194
пеанну	Absorbed power (2)	kW	18.0	20.0	22.3	24.7	27.8	32.8	37.2	41.1	50.8	56.5
	Quantity	n°	2	2	2	2	2	3	3	3	4	4
Compressor	Refrigerant circuits	n°	1	1	1	1	1	1	1	1	2	2
	Capacity steps	n°			2				3			4
	Water flow	I/s	2.43	2.73	3.07	3.52	4.16	4.72	5.42	6.41	7.10	8.41
Evaporator	Pressure drops	kPa	47	42	41	42	40	48	44	51	41	40
	Water connections	"G	1 ¼"	1 1/4"	1 1/4"	1 1/4"	2 ½"	2 ½"	2 ½"	2 ½"	2 1/2"	2 ½"
Connections	Delivery line	Ø mm	28	28	28	28	28	28	28	28	2 x 28	2 x 28
Connections	Liquid line	Ø mm	22	22	22	22	22	22	22	22	2 x 22	2 x 22
Electrical	Power supply	V/Ph/Hz					400/	3/50				
	Max. running current	A	33	39	43	49	60	64	73	90	98	120
characteristics	Max. starting current	А	128	137	139	164	204	161	189	234	213	264
Unit with tank and	Pump available static pressure	kPa	105	110	100	135	120	130	120	110	120	100
	Tank water volume	1	300	300	300	300	300	300	300	300	300	300
pump	Water connections	"G	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 1/2"	2 ½"
Cound procesure	STD version (3)	dB(A)	55	56	56	57	58	57	57	59	59	60
Sound pressure	With SL accessory (3)	dB(A)	50	51	51	52	53	52	52	54	54	55
Maighta	Transport weight (4)	Kg	347	357	376	386	397	562	581	595	669	708
Weights	Operating weight (4)	Kg	350	360	380	390	405	570	590	605	680	720

DIMENSIONS			182-P	202-P	242-P	262-P	302-P	363-P	393-P	453-P	524-P	604-P
	L	mm	1200	1200	1200	1200	1200	2285	2285	2285	2285	2285
UN I T	W	mm	680	680	680	680	680	680	680	680	680	680
	Н	mm	1520	1520	1520	1520	1520	1520	1520	1520	1520	1520
	L	mm	2310	2310	2310	2310	2310	3395	3395	3395	3395	3395
UNIT + SPU/SPD	W	mm	680	680	680	680	680	680	680	680	680	680
	Н	mm	1520	1520	1520	1520	1520	1520	1520	1520	1520	1520

CLEARANCE AREA

MEA/K 182-P÷604-P

0 300 800 300



- Chilled water from 12 to 7 °C, condensing temperature 50 °C.
 Heated water from 40 to 45 °C, evaporating temperature 0 °C.
 Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
 Unit without tank and pump.
 N.B. Weights of WP version are specified on technical brochure.

RCA/K 4111÷8222

REMOTE AIRCOOLED CONDENSERS WITH AXIAL FANS.







The Remote aircooled Condensers with axial fans of the RCA/K series are designed to be combined with evaporating units with R410A refrigerant (MEA/K).

These units, available in three configurations depending on the level of noiselessness required: Standard, Silenced (SL) and Super silenced (SSL), are equipped with latest generation axial fans, with motor fan shrouds having a large radius of curvature to eliminate all the air flow turbulence and with larger plenum to uniform the air distribution on the cooling coil.

The units can be installed with either horizontal or vertical air delivery, as needed.

VERSION

RCA/K

Base unit

FEATURES

- Frame in oven painted with a polyurethane resin and galvanised steel casework.
- The cowlings of the motorfans are made with a wide bending radius to eliminate any turbulence in the air flow.
- Heat exchanger is made with corrugated tubes with a greater heat exchange surface, fins cut with a special louver configuration to give the
 best external coefficient of heat exchange.

COMBINATIONS

MEA/K	15	18	21	25	31	41	51	61	71	81
RCA/K	4111	4111	4111	4111	4111	4112	5111	5111	5112	5113
MEA/K	91	101	131	151						
RCA/K	6111	6112	6113	5121						
MEA/K	182-P	202-P	242-P	262-P	302-P	363-P	393-P	453-P	524-P	604-P
RCA/K	6114	6121	6122	6123	6124	6125	6131	6132	8221	8222

ACCESSORIES

FACTORY FITTED ACCESSORIES

SD Wiring integrated in branch circuit box

FR Fan speed control

LOOSE ACCESSORIES

SVV Supports for vertical air flow versions

RCA/K 4111÷8222

MODEL		4111	4112	5111	5112	5113	5121	6111	6112	6113	6114	
Fan	Quantity	n°	1	1	1	1	1	1	1	1	1	1
Connections	In	Ø mm	22	28	22	28	28	35	28	28	28	35
CONNECTIONS	Out	Ø mm	18	18	18	18	18	28	22	22	22	28
Electrical	Power supply	V/Ph/Hz					230/1/50					400/3/50
characteristics	Absorbed power	kW	0.22	0.22	0.83	0.83	0.83	1.90	0.63	1.90	1.90	1.90
Characteristics	Absorbed current	А	0.97	0.97	1.45	1.45	1.45	3.2	1.25	3.20	3.20	3.20
Sound pressure	STD version (1)	dB(A)	43	43	51	51	51	58	46	58	58	58
Weights	Transport weight	Kg	89	89	89	94	94	169	158	158	158	178
vveigitts	Operating weight	Kg	90	91	90	96	96	174	161	163	164	184

MODEL			6121	6122	6123	6124	6125	6131	6132	8221	8222
Fan	Quantity	n°	2	2	2	2	2	3	3	4	4
Connections	In	Ø mm	35	42	35	42	42	42	54	2x35	2x35
Connections	Out	Ø mm	28	35	28	35	35	35	35	2x28	2x28
Electrical	Power supply	V/Ph/Hz					400/3/50				
characteristics	Absorbed power	kW	1.26	1.26	3.80	3.80	3.80	5.70	5.70	5.76	7.20
CHALACTELISTICS	Absorbed current	Α	2.50	2.50	6.40	6.40	6.40	9.60	9.60	11.60	15.20
Sound pressure	STD version (1)	dB(A)	48	48	60	60	60	62	62	54	55
Weights	Transport weight	Kg	178	198	178	198	218	304	322	555	555
vveigins	Operating weight	Kg	184	207	184	207	230	313	336	573	569

DIMENSION	NS .		4111	4112	5111	5112	5113	5121	6111	6112	6113	6114	6121	6122	6123	6124	6125	6131	6132	8221	8222
L	STD	mm	1130	1130	1130	1130	1130	1910	1490	1490	1490	1490	2630	2630	2630	2630	2630	3770	3770	3230	3230
W	STD	mm	900	900	900	900	900	900	1260	1260	1260	1260	1260	1260	1260	1260	1260	1260	1260	2400	2400
Н	STD	mm	980	980	980	980	980	990	990	990	990	990	990	990	990	990	990	990	990	1565	1565

CLEARANCE AREA

RCA/K 4111÷8222



- Sound pressure level measured in free field conditions at 10 m from the unit. According to ISO 3744.
 N.B. Combinations are made at condensing temperature 50 °C, ambient air temperature 35 °C.
 N.B. Clearance areas are specified on installation, use and maintenance manual.

RCA/K/SL 4111÷8222

SILENCED REMOTE AIRCOOLED CONDENSERS WITH AXIAL FANS.









The Remote aircooled Condensers with axial fans of the RCA/K/SL series are designed to be combined with evaporating units with R410A refrigerant (MEA/K).

These units, available in three configurations depending on the level of noiselessness required: Standard, Silenced (SL) and Super silenced (SSL), are equipped with latest generation axial fans, with motor fan shrouds having a large radius of curvature to eliminate all the air flow turbulence and with larger plenum to uniform the air distribution on the cooling coil.

The units can be installed with either horizontal or vertical air delivery, as needed.

VERSION

RCA/K/SL

Silenced unit

FEATURES

- Frame in oven painted with a polyurethane resin and galvanised steel casework.
- The cowlings of the motorfans are made with a wide bending radius to eliminate any turbulence in the air flow.
- Heat exchanger is made with corrugated tubes with a greater heat exchange surface, fins cut with a special louver configuration to give the
 best external coefficient of heat exchange.

COMBINATIONS

MEA/K	15	18	21	25	31	41	51	61	71	81
RCA/K/SL	4111	4111	4111	4112	4113	5111	5112	5113	5121	6111
MEA/K	91	101	131	151						
RCA/K/SL	6111	6111	6112	6120						
MEA/K	182-P	202-P	242-P	262-P	302-P	363-P	393-P	453-P	524-P	604-P
RCA/K/SL	6121	6122	6123	6124	6131	6132	6133	6134	8221	8222

ACCESSORIES

FACTORY FITTED ACCESSORIES

SD Wiring integrated in branch

circuit box

FR Fan speed control

LOOSE ACCESSORIES

SVV Supports for vertical air flow versions

RCA/K/SL 4111÷8222

MODEL			4111	4112	4113	5111	5112	5113	5121	6111	6112	6120
Fan	Quantity	n°	1	1	1	1	1	1	2	1	1	2
Connections	In	Ø mm	22	22	22	22	22	28	28	35	35	28
Connections	Out	Ø mm	18	18	18	18	18	18	22	28	28	22
Electrical	Power supply	V/Ph/Hz					230/	1/50				
Electrical	Absorbed power	kW	0.22	0.22	0.22	0.22	0.55	0.55	0.55	1.35	1.35	1.15
characteristics	Absorbed current	Α	0.97	0.97	0.97	0.97	0.97	0.97	0.97	2.20	2.20	2.20
Sound pressure	SL version (1)	dB(A)	43	43	43	43	43	43	43	52	52	42
Weights	Transport weight	Kg	89	89	89	89	89	94	99	158	169	215
vveignts	Operating weight	Kg	90	91	92	90	90	96	105	161	174	221
MODEL			6121	6122	6123	6124	6131	6132	6133	6134	8221	8222

MODEL					6123	6124	6131	6132	6133	6134	8221	8222
Fan	Quantity	n°	2	2	2	2	3	3	3	3	4	4
Connections	In	Ø mm	35	42	35	42	42	42	54	54	2x35	2x42
CONNECTIONS	Out	Ø mm	28	35	28	35	35	35	35	35	2x28	2x35
Electrical	Power supply	V/Ph/Hz					400/	3/50				
characteristics	Absorbed power	kW	0.88	0.88	2.70	2.70	1.89	4.05	4.05	4.05	4.60	4.60
CHALACTELISTICS	Absorbed current	Α	1.46	1.46	4.40	4.40	3.75	6.60	6.60	6.60	8.80	8.80
Sound pressure	SL version (1)	dB(A)	43	43	54	54	50	56	56	56	48	48
Weights	Transport weight	Kg	178	198	178	198	304	304	322	351	555	603
vveigins	Operating weight	Kg	184	207	184	207	313	313	336	369	569	625

DIMENSION	1S		4111	4112	4113	5111	5112	5113	5121	6111	6112	6120
L	SL	mm	1130	1130	1130	1130	1130	1130	1910	1490	1490	2630
W	SL	mm	900	900	900	900	900	900	900	1260	1260	1260
Н	SL	mm	980	980	980	980	980	980	980	990	990	990
DIMENSION	NS		6121	6122	6123	6124	6131	6132	6133	6134	8221	8222
DIMENSION	NS SL	mm	6121 2630	6122 2630	6123 2630	6124 2630	6131 3770	6132 3770	6133 3770	6134 3770	8221 3230	8222 3230
DIMENSION L W	SL SL	mm mm										

CLEARANCE AREA

RCA/K/SL 4111÷8222



- Sound pressure level measured in free field conditions at 10 m from the unit. According to ISO 3744.
 N.B. Combinations are made at condensing temperature 50 °C, ambient air temperature 35 °C.
 N.B. Clearance areas are specified on installation, use and maintenance manual.



RCA/K/SSL 5111+8222

SUPER SILENCED REMOTE AIRCOOLED CONDENSERS WITH AXIAL FANS.









The Remote aircooled Condensers with axial fans of the RCA/K/SSL series are designed to be combined with evaporating units with R410A refrigerant (MEA/K).

These units, available in three configurations depending on the level of noiselessness required: Standard, Silenced (SL) and Super silenced (SSL), are equipped with latest generation axial fans, with motor fan shrouds having a large radius of curvature to eliminate all the air flow turbulence and with larger plenum to uniform the air distribution on the cooling coil.

The units can be installed with either horizontal or vertical air delivery, as needed.

VERSION

RCA/K/SSL

Super silenced unit

FEATURES

- Frame in oven painted with a polyurethane resin and galvanised steel casework.
- The cowlings of the motorfans are made with a wide bending radius to eliminate any turbulence in the air flow.
- Heat exchanger is made with corrugated tubes with a greater heat exchange surface, fins cut with a special louver configuration to give the best external coefficient of heat exchange.

COMBINATIONS

MEA/K	15	18	21	25	31	41	51	61	71	81
RCA/K/SSL	5111	5111	5111	5111	5111	5112	5112	6111	6111	6111
MEA/K	91	101	131	151						
RCA/K/SSL	6112	6121	6121	6121						
MEA/K	182-P	202-P	242-P	262-P	302-P	363-P	393-P	453-P	524-P	604-P
RCA/K/SSL	6124	6131	6132	6133	6141	8121	8131	8132	8221	8222

ACCESSORIES

FACTORY FITTED ACCESSORIES

SD Wiring integrated in branch circuit box

FR Fan speed control

LOOSE ACCESSORIES

SVV Supports for vertical air flow versions

RCA/K/SSL 5111÷8222

MODEL			5111	5112	6111	6112	6121	6124	6131	6132
Fan	Quantity	n°	1	1	1	1	2	2	3	3
Connections	In	Ø mm	22	28	28	35	35	42	42	42
Connections	Out	Ø mm	18	18	22	28	28	35	35	35
Flectrical	Power supply	V/Ph/Hz			230/1/50				400/3/50	
characteristics	Absorbed power	kW	0.13	0.94	0.24	0.24	0.47	0.47	0.42	0.71
characteristics	Absorbed current	А	0.59	1.60	0.55	0.55	1.10	1.10	0.81	1.65
Sound pressure	SSL version (1)	dB(A)	34	22	41	41	43	43	39	45
Weights	Transport weight	Kg	48	79	158	178	178	198	304	304
vveigins	Operating weight	Kg	49	81	161	181	184	207	313	313

MODEL			6133	6141	8121	8131	8132	8221	8222
Fan	Quantity	n°	3	4	2	3	3	4	4
Connections	In	Ø mm	54	35	42	42	54	2x35	2x35
Connections	Out	Ø mm	35	28	35	35	42	2x28	2x28
Flectrical	Power supply	V/Ph/Hz				400/3/50			
characteristics	Absorbed power	kW	0.71	0.94	1.78	2.67	2.67	3.56	3.56
characteristics	Absorbed current	А	1.65	2.20	4.44	6.66	6.66	8.88	8.88
Sound pressure	SSL version (1)	dB(A)	45	46	46	48	48	49	49
Weights	Transport weight	Kg	322	407	434	545	586	555	603
vveigins	Operating weight	Kg	336	419	450	557	604	569	625

DIMENSION	IS		5111	5112	6111	6112	6121	6124	6131	6132	6133	6141	8121	8131	8132	8221	8222
L	SSL	mm	1130	1130	1490	1490	2630	2630	3770	3770	3770	4910	3230	4580	4580	3230	3230
W	SSL	mm	900	900	1260	1260	1260	1260	1260	1260	1260	1260	1380	1380	1380	2400	2400
Н	SSL	mm	980	980	990	990	990	990	990	990	990	990	1565	1565	1565	1565	1565

CLEARANCE AREA

RCA/K/SSL 5111÷8222



- Sound pressure level measured in free field conditions at 10 m from the unit. According to ISO 3744.
 N.B. Combinations are made at condensing temperature 50 °C, ambient air temperature 35 °C.
 N.B. Clearance areas are specified on installation, use and maintenance manual.



WATERCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH SCROLL COMPRESSORS AND PLATE EXCHANGERS.

















The CWW/K 726-P÷36012-P series liquid Chillers and Heat Pumps, with R410A refrigerant, are designed for medium and large domestic or industrial systems which require medium-high power, space-saving units and quiet operation. These units are ideal for indoor installation and, equipped with a self contained structure, they reduce the overall dimensions to a minimum while at the same time making installation and maintenance operations easier. The units are characterized by multi-compressor design on double cooling circuit, to reach high energy performances, reduction of current at start-up, elimination of inertial tanks and excellent silent functioning. The use of components built in large series makes them highly reliable and the management of an high number of compressors allows increased life span with reduction of machine stopping risks and easier maintenance operations. A wide range of accessories, factory fitted or supplied separately, complete the outstanding versatility and functionality of the series.

CWW/G 726-P÷36012-P

On request, units can be supplied with R452B refrigerant.

VERSION	
CWW/K	CWW/K/WP
Cooling only	Reversible Heat Pump
CWW/K/SSL	CWW/K/WP/SSL
Super silenced cooling only	Super silenced reversible Heat Pump

FEATURES

- · Self-supporting galvanized steel frame protected with additional protection achieved via polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Condenser AISI 316 stainless steel braze welded plates type with two independent circuits on the refrigerant side and one on the water side.
- Evaporator AISI 316 stainless steel braze welded plates type with two independent circuits on the refrigerant side and one on the water side, complete with water differential pressure switch.
- Cooling circuit shut-off valve on liquid line in 1048-P÷36012-P models.
- Electronic expansion valve.
- Electronic high and low pressure gauges.
- R410A refrigerant. On request R452B refrigerant.
- Electrical board includes: main switch with door safety interlock, fuses, thermal protection relays for compressors, interface relay and terminals for external connections.
- Microprocessor control and regulation system.

ACCESSORIES

FACTO	RY FITTED ACCESSORIES			LOOS	E ACCESSORIES
IM	Automatic circuit breakers	ISB	BACnet MSTP protocol, RS485	MN	High and low pressure gauges
SL	Unit silencement		serial interface	CR	Remote control panel
RFM	Cooling circuit shut-off valve on	ISBT	BACnet TCP/IP protocol, Ethernet	PV2	2-Way electronic pressostatic valve
	discharge line		port	PV3	3-Way electronic pressostatic valve
RFL	Cooling circuit shut-off valve on	ISL	LonWorks protocol, FTT-10 serial	AG	Rubber shock absorbers
	liquid line		interface	AM	Spring shock absorbers
BT	Low water temperature Kit	IAV	Remote set-point, 0-10 V signal		
DS	Desuperheater	IAA	Remote set-point, 4-20 mA signal		
RT	Total heat recovery	IAS	Remote signal for second set-point		
FE	Antifreeze heater for evaporator		activation		
SS	Soft start	IDL	Demand limit from digital input		
IS	Modbus RTU protocol, RS485				

serial interface

CWW/K 726-P÷36012-P







MODEL			726-P	786-P	826-P	906-P	1048-P	1128-P	1208-P	13010-P	15010-P
	Cooling capacity (1)	kW	224	250	274	308	345	383	422	462	509
Coo l ing [Absorbed power (1)	kW	52	57	63	70	78	86	95	104	115
	EER (1)		4.31	4.39	4.35	4.40	4.42	4.45	4.44	4.44	4.43
	Cooling capacity (1)	kW	223	249	273	307	343	382	420	460	507
	Absorbed power (1)	kW	55	60	66	74	82	90	99	109	121
0 1: (5)(4,5,4)	EER (1)		4.08	4.16	4.11	4.17	4.20	4.26	4.23	4.21	4.20
Cooling (EN14511)	ESEER		5.16	5.27	5.25	5.45	5.26	5.51	5.57	5.23	5.57
	EUROVENT Class		D	D	D	D	D	C	D	D	D
	SEER (2)	2/	5.27	5.52	5.56	5.87	5.61	5.99	6.08	6.08	6.14
	Energy Efficiency (2)	%	203	213	214	227	216	232	235	235	238
11	Heating capacity (3)	kW	290	320	349	394	437	484	534	584	640
Heating	Absorbed power (3)	kW	66	74	80	88	101	111	119	135	144
	COP (3)	1110	4.39	4.32	4.36	4.48	4.33	4.36	4.49	4.33	4.44
	Heating capacity (3)	kW	291	321	350	396	438	485	536	585	642
	Absorbed power (3)	kW	68	78	81	90	102	112	121	136	146
Heating (EN14511)	COP (3)		4.31	4.14	4.30	4.41	4.29	4.33	4.44	4.29	4.39
	EUROVENT Class		D	D	D	C	D	D	C	D	C
	SCOP (4)	2/	5.23	5.36 206	5.49	5.50	5.77	5.71	5.78	5.78	5.74
	Energy Efficiency (4)	%	201	ZUb	212	212	223	220	223	223	222
0	Quantity	n°	3+3	3+3	3+3	3+3	4+4	4+4	4+4	5+5	5+5
Compressor	Refrigerant circuits	n°	2	2	2	2	2	2	2	2	2
	Capacity steps	n°	40.70	11.04	10.00	1470	10.40	10.00	8	00.07	04.00
F	Water flow	I/s	10.70	11.94	13.09	14.72	16.48	18.30	20.16	22.07	24.32
Evaporator	Pressure drops	kPa	54	51	56	56	60	47	52	60	57
	Water connections	DN	80	80	80	80	80	80	80	80	80
	Water flow	I/s	13.19	14.67	16.10	18.06	20.21	22.41	24.70	27.04	29.81
Condenser	Pressure drops	kPa	70	74	81	76	67	59	65	75	76
	Water connections	DN	80	80	80	80	80	80	80	80	80
Electrical	Power supply	V/Ph/Hz	100	454	100	170	400/3/50	1 040	004	054	
characteristics	Max. running current	A	136	151	163	176	201	218	234	251	293
CHARACTERISTICS	Max. starting current	A	261	284	331	344	334	385	402	384	461
	STD version (5)	dB(A)	62	64	65	65	65	66	66	66	67
Sound pressure	With SL accessory (5)	dB(A)	58	60	61	61	61	62	62	62	63
	SSL version (5)	dB(A)	55	56	57	57	57	58	58	58	59
Weights	Transport weight	Kg	1047	1103	1123	1159	1352	1422	1442	1642	1730
Tronginto	Operating weight	Kg	1080	1140	1160	1200	1400	1480	1500	1700	1800
MODEL			16812-P	18012-F	21012	-P 2401	12-P 27	012-P 3	0012-P	33012-P	36012-P
	Cooling approximately (1)	kW				78			1015	1129	1242
Cooling	Cooling capacity (1)		562	622	696			895			
Cooling	Absorbed power (1)	kW	129	144	157	17		204	230	261	287
	EER (1)	LAM	4.36	4.32	4.43	4.4		1.39	4.41	4.33	4.33
	Cooling capacity (1)	kW	559 125	619	693	78		891	1011	1124	1236
	Absorbed power (1)	kW	135	151	164	18		213	239	273	301
Cooling (EN14E11)	EER (1)		4.13 5.30	4.11	4.24	4.2		1.18	4.22	4.12 4.26	4.11
Cooling (EN14511)	ESEER EUROVENT Class			5.38 D	4.56 D	4.,	/U /	1.39 D	4.49 D	4.2b	4.10 D
	SEER (2)		D 5.95	5.96	5.91	6.2				6.03	6.03
		0/						5.08	6.16		233
	Energy Efficiency (2)	%	230	230	228	24	tl c	235	238	233	
Hooting	Heating capacity (3)	kW kW	710 164	783 181	874	98	00	113	1255 289	1391 321	1531 357
Heating	Absorbed power (3)	KVV			203		40	259	289	321	35/
	COP (3)	kW	4.33	4.33	4.31	4.4 98		1.30	4.34	4.33 1393	4.29 1533
	Heating capacity (3)		713	787	875			114	1257		
	Absorbed power (3)	kW	167	185 4.26	204	22		260 1.28	291	323	359 4.27
Heating (EN14511)	COP (3) EUROVENT Class		4.28		4.29	4.0			4.32	4.31	
3, 5,	COD (4)		D	D	D	(D	D	D	D
	SCOP (4)	0/	-	-	-			-	-	-	-
	Energy Efficiency (4)	%	-		- 0.0	-	I	-	-	-	- 0.0
0	Quantity	n°	6+6	6+6	6+6	6+		6+6	6+6	6+6	6+6
Compressor	Refrigerant circuits	n°	2	2	2	2		2	2	2	2
	Capacity steps	n°	00.05	00.70	00.05		10	0.70	10.10	E0.04	E0.04
	Water flow	I/s	26.85	29.72	33.25	37.	.55 4	2.76	48.49	53.94	59.34
Evaporator	Pressure drops	kPa	70	59	60	5	3	66	61	70	79
	Water connections	DN	80	80	150	15	DU	150	150	150	150
	Water flow	l/s	33.01	36 60	40.75	5 45	4K h	2 51	59 48	66 41	73 05

	22F A6	ersion (5)			aR(A)	59		59	63		b4	65		65	bb		bb
Weights	Transp	ort weigh	t		Kg	193	0	1968	280	6	2884	3184		3558	3658		3708
vveigins	Opera	ting weigh	ıt		Kg	200	0	2050	290	0	3000	3300		3700	3800		3850
																·	
DIMENSIONS	726-P	786-P	826-P	906-P	1048-P	1128-P	1208-P	13010-P	15010-P	16812-P	18012-P	21012-P	24012-P	27012-P	30012-P	33012-P	36012-P
L STD/SSL mm	2500	2500	2500	2500	3000	3000	3000	3550	3550	4000	4000	4650	4650	4650	4650	4650	4650
W STD/SSL mm	800	800	800	800	800	800	800	800	800	800	800	1350	1350	1350	1350	1350	1350
H STD/SSI mm	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900

36.60

80

40.75

60 150

399

CLEARANCE AREA

Condenser

Electrical

characteristics

Sound pressure

CWW/K 726-P÷36012-P

500 500 800 500



I/s kPa DN

V/Ph/Hz

A A dB(A)

80

326 494

NOTES

- Chilled water from 12 to 7 °C, water temperature at the condenser from 30 to 35 °C.

65 150

45.98 53 150

454

631 72

59.48

61 150

66.41

70 150

150

699

961 74

- Seasonal energy efficiency of cooling at low temperature at the evaporator From 15 to 10 °C.

 Seasonal energy efficiency of heating at low temperature with average climatic conditions. According to EU Regulation n. 811/2013.
- Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
- Weights of SSL and WP versions are specified on technical brochure.



Water flow

Pressure drops

Water connections
Power supply

Max. running current

Max. starting current STD version (5) With SL accessory (5)

CWW/K 726+36012

WATERCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH SCROLL COMPRESSORS AND SHELL AND TUBE EXCHANGERS.

















The CWW/K 726÷36012 series liquid Chillers and Heat Pumps, with R410A refrigerant, are designed for medium and large domestic or industrial systems which require medium-high power, space-saving units and quiet operation. These units are ideal for indoor installation and, equipped with a self contained structure, they reduce the overall dimensions to a minimum while at the same time making installation and maintenance operations easier. The units are characterized by multi-compressor design on double cooling circuit, to reach high energy performances, reduction of current at start-up, elimination of inertial tanks and excellent silent functioning. The use of components built in large series makes them highly reliable and the management of an high number of compressors allows increased life span with reduction of machine stopping risks and easier maintenance operations. A wide range of accessories, factory fitted or supplied separately, complete the outstanding versatility and functionality of the series.

CWW/G 726+36012

On request, units can be supplied with R452B refrigerant.

VERSION	
CWW/K	CWW/K/WP
Cooling only	Reversible Heat Pump
CWW/K/SSL	CWW/K/WP/SSL
Super silenced cooling only	Super silenced reversible Heat Pump

FEATURES

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- Self-supporting galvanized steel frame protected with additional protection achieved via polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Shell and tube type condenser with two independent circuits on the refrigerant side and one on the water side.

IDL

- Shell and tube type evaporator with two independent circuits on the refrigerant side and one on the water side, complete with water differential pressure switch.
- Cooling circuit shut-off valve on liquid line in 1048÷36012 models.
- Electronic expansion valve.
- Electronic high and low pressure gauges.
- R410A refrigerant. On request R452B refrigerant.
- Electrical board includes: main switch with door safety interlock, fuses, thermal protection relays for compressors, interface relay and terminals for external connections.
- Microprocessor control and regulation system.

Modbus RTU protocol, RS485

ACCESSORIES

FACTO	RY FITTED ACCESSORIES			LOOS	E ACCESSORIES
IM	Automatic circuit breakers	ISB	BACnet MSTP protocol, RS485	MN	High and low pressure gauges
SL	Unit silencement		serial interface	CR	Remote control panel
RFM	Cooling circuit shut-off valve on	ISBT	BACnet TCP/IP protocol, Ethernet	PV2	2-Way electronic pressostatic valve
	discharge line		port	PV3	3-Way electronic pressostatic valve
RFL	Cooling circuit shut-off valve on	ISL	LonWorks protocol, FTT-10 serial	AG	Rubber shock absorbers
	liquid line		interface	AM	Spring shock absorbers
BT	Low water temperature Kit	IAV	Remote set-point, 0-10 V signal	FL	Flow switch
HR	Desuperheater	IAA	Remote set-point, 4-20 mA signal		
HRT	Total heat recovery	IAS	Remote signal for second set-point		
FE	Antifreeze heater for evaporator		activation		

Demand limit from digital input

Soft start

serial interface

SS

IS

CWW/K 726÷36012







Compressor Com	MODEL			726	786	826	906	1048	1128	1208	13010	15010
EBRID	01:											
Conting (ENI 451) Cont	Cooling		kVV									
Absorbed prove (1)			kW		248	271	302	343		422		
Section Control Cont		Absorbed power (1)	kW	53	57			79				
FIROVENT Close	Cooling (EN1/1511)											
February	Oooling (EIVI 4311)			D	С	D		С		С		
Heating Capacity 3			0/	5.31				5.58		6.26		
Absorber Cover S		Energy Efficiency (Z)	% L\A/	204						524		
COP 10	Heating						91					
		COP (3)	1114									
Searing (EN/451)		Heating capacity (3)										
Clarification Clarificatio			KVV									
Energy Efficiency (4)	Heating (EIV14511)			В						В		
Questing			0/.				4.97		5.04			
Refrigement circuits					3+3		3+3					
Water flow Vis 19,75 11,85 12,95 14,43 16,39 17,92 20,16 22,17 2441	Compressor	Refrigerant circuits	n°		2					2		
Peasure drops				10.75		12.05	14.40	10.00	17.00		22.17	24.41
Water connections	Evanorator											
Water flow		Water connections	DN	125	125	150	150	150	150	150	150	150
Water connections	Candanas		I/s						22.12			
Power supply	Condenser					51 65		65 65				
Conting capacity (1)	Flactrical	Power supply			00	00	00	400/3/50	- 00		1 00	
Sound pressure STP Section STP Section StP Section StP Section StP Section Section StP Section S				136								
With St. accessory (5)	CHARACTERISTICS	Max. starting current		261		331						
SSL version (5)	Sound pressure	With SL accessory (5)		58								
MODEL Kg		SSL version (5)	dB(A)	55	56	57	57	57	58	58	58	59
MODEL	Weights							1819				2493
Cooling Cooling capacity	14005	Operating weight	Ny		'							
Absorbed power (1)	MODEL	10 P : (4)	1 114/									
EER	Cooling	Absorbed power (1)										
Cooling capacity (1)	Cooling		KVV									
Cooling (EN1451) ESEER		Cooling capacity (1)		579			801	91	3		1152	1254
SEER S.59 S.61 S.81 S.28 S.19 4.96 S.08 4.97			kW					20	18			
EUROVENT Class	Cooling (FN14511)			5.59			5.28	5.	19	4.44	5.08	4.97
Energy Efficiency 2	, , , , , , , , , , , , , , , , , , , ,	EUROVENT Class		С	С	С	C		;	С	С	С
Heating capacity (3)			0/									
Heating												
Heating (EN14511)	Heating	Absorbed power (3)		168	183	206	231	26	64	292	325	361
Absorbed power (3)			134/	4.35	4.32	4.33	4.35	4.3	30	4.38	4.37	4.28
COP (3)			kW	173	189			27	3	303	335	373
Compressor Com	Hoating (ENI1/IE11)	COP (3)			4.20		4.24			4.25	4.25	4.17
Energy Efficiency (4)	ricating (LIV14511)				_		_					
Quantity		Energy Efficiency (4)	%									
Capacity steps		Quantity	n°									
Water flow I/s 27.66 30.00 33.92 38.27 43.62 49.45 55.04 59.91	Compressor			2	2	2	2		2	2	2	2
Pressure drops				27.66	30.00	33 92	38.27		62	49.45	55.04	59 91
Water flow I/s 33.97 36.98 41.52 46.92 53.56 60.58 67.65 73.77	Evaporator	Pressure drops		34		27					45	
Pressure drops	<u> </u>			150								
Water connections	Condonsor											
Max. running current A 326 352 399 454 506 559 629 699	Condenser	Water connections	DN					8				
Max. funning current A 326 352 399 454 506 559 629 699 691	Electrical			200	050		15.4			550	000	
STD version (5) dB(A) 67 68 71 72 73 73 74 74	characteristics				352							
With SL accessory (5) dB(A) 63 63 67 68 69 69 70 70		STD version (5)										
SSL version (5) dB(A) 59 59 63 64 65 65 66 66 66 Weights Transport weight Kg 2728 2863 3568 3446 3772 4300 4370 4440 Operating weight Kg 2960 3160 3950 3800 4110 4650 4720 4790 OliMENSIONS 726 786 826 906 1048 1128 1208 13010 15010 16812 18012 21012 24012 27012 30012 33012 36012 STD/SSL mm 3000 3000 3000 3000 3000 3000 3000 3000 3300 3300 3300 4000 4000 4000 4000 V STD/SSL mm 800 800 800 800 1350 13	Sound pressure	With SL accessory (5)	dB(A)	63	63	67	68	6	9	69	70	70
Operating weight Kg 2960 3160 3950 3800 4110 4650 4720 4790		SSL version (5)		59	59							
DIMENSIONS 726 786 826 906 1048 1128 1208 13010 15010 16812 18012 21012 24012 27012 30012 33012 36012 STD/SSL mm 3000 3000 3000 3000 3000 3000 3000	Weights			2/28 2960						4500		
STD/SSL mm 3000 3000 3000 3000 3000 3000 3000		1 sharania maidir	1 1.49	2500	3100	, 0000	, 5500	. 1 **	. 5	,000	., 20	., 50
V STD/SSL mm 800 800 800 800 1350 1350 1350 1350 1350 1350 1350 13	DIMENSIONS			1128		0 15010				2 27012	30012 330	12 36012
r 21D/22F WW 1300												
	H STD/SSL mn	n 1900 1900 1900 19	1900	1900	1900 1900	ן 1900 נ	1900 1	900 T900	J 1900	1900	1900 190	u 1900

CLEARANCE AREA

CWW/K 726÷36012

500 500 800 500



- Chilled water from 12 to 7 $^{\circ}\text{C}$, water temperature at the condenser from 30 to 35 $^{\circ}\text{C}$.
- Seasonal energy efficiency of cooling at low temperature. According to EU Regulation n. 2016/2281. Heated water from 40 to 45 °C, water temperature at the evaporator from 15 to 10 °C.
- Seasonal energy efficiency of heating at low temperature with average climatic conditions. According to EU Regulation n. 811/2013.
- Sound pressure level measured in free field conditions at 1 m from the unit. According
- Weights of SSL and WP versions are specified on technical brochure.



CWW/H/A 1002÷6002

A CLASS ENERGY EFFICIENCY WATERCOOLED LIQUID CHILLERS WITH (INVERTER) SCREW COMPRESSORS AND SHELL AND TUBE EXCHANGERS.





INVERTER SCREW

HFO R1234ze ₩















The liquid Chillers of the CWW/H/A 1002÷6002 series, with A CLASS energy efficiency and **HFO-R1234ze** refrigerant, are designed to satisfy the needs of the service sector or industrial systems requiring high power.

The latest generation refrigerant HFO-R1234ze, with GWP<1 (Global Warming Potential), is the most environmentally sustainable refrigerant on the market, and meets the strictest international environmental regulations.

Equipped with latest generation Screw compressors, shell and tube exchangers and connections for condensation with cooling tower water or well water or with a Dry-Cooler, these units have a series of accessories which are factory fitted or supplied separately. Designed and produced to optimize the layout of each component so as to make any necessary maintenance operations more convenient, these units have an essential and compact structure intended for indoor installation. Furthermore, accessories as the Inverter control on one Screw compressor or both is also available for getting the highest efficiency at part load and a significant reduction of starting current.

The models 1002÷1402 are already compliant to ErP 2021 European Regulations. The models 1602÷6002 are already compliant to ErP 2021 European Regulations if provided with ID accessory (Inverter on all compressors).

VERSION

V E NOION	
CWW/H/A	CWW/H/A/SSL
Cooling only	Super silenced cooling only

FEATURES

- · Self-supporting galvanized steel frame protected with additional protection achieved via polyester powder painting.
- Screw compressors with built-in oil separator, suction filter, crankcase heater, oil sight glass, thermal protection and stepless capacity steps.
- Shell and tube type condenser, with easily removable cast iron heads to enable access for maintenance operations. Each cooling circuit is supplied with an independent condenser. Water connections for cooling tower and Dry-Cooler operation; on request for well water.
- Shell and tube type evaporator, with two independent circuits on the refrigerant side and one on the water side, complete with water differential pressure switch

Modbus RTU protocol, RS485

Demand limit from digital input

Potential free contacts

- Cooling circuit shut-off valves on discharge and liquid line.
- Electronic expansion valve.
- Electronic high and low pressure gauges.
- HFO-R1234ze refrigerant.
- Electrical board includes: main switch with door safety interlock, fuses, thermal protection relays for compressors.
- Microprocessor control and regulation system.

ACCESSORIES

IM

FACTORY FITTED ACCESSORIES

Automatic circuit breakers

BT	Low water temperature Kit		serial interface
HR	Desuperheater	ISB	BACnet MSTP protocol, RS485
HRT	Total heat recovery		serial interface
FE	Antifreeze heater for evaporator	ISBT	BACnet TCP/IP protocol, Ethernet
II	Inverter on one compressor		port
ID	Inverter on all compressors	ISL	LonWorks protocol, FTT-10 serial
SS	Soft start		interface
DP	Device for heat pump operation	IAV	Remote set-point, 0-10 V signal
WM	Web Monitoring - Wireless remote	IAA	Remote set-point, 4-20 mA signal
	monitoring (GPRS/EDGE/3G/TCP-IP)	IAS	Remote signal for second set-point

IS

IDI

CP

LOOSE ACCESSORIES

MN	High and low pressure gauges
CR	Remote control panel
PV3	3-Way electronic pressostatic valve
AG	Rubber shock absorbers
AM	Spring shock absorbers
FL	Flow switch



CWW/H/A 1002÷6002





MODEL			1002	1202	1402	1602	1802	2202	2502
	Cooling capacity (1)	kW	234	310	375	437	488	558	655
Cooling	Absorbed power (1)	kW	44	57	66	80	89	100	117
	EER (1)		5.32	5.44	5.68	5.46	5.48	5.58	5.60
	Cooling capacity (1)	kW	233	309	373	436	487	557	653
	Absorbed power (1)	kW	45	59	68	83	92	103	121
	EER (1)		5.18	5.23	5.46	5.27	5.32	5.39	5.42
Cooling (EN14511)	ESEER		5.75	5.80	6.00	5.97	6.01	6.02	6.05
31	EUROVENT Class		А	Α	Α	Α	А	А	А
	SEER (2)		5.68	5.71	5.89	5.88	5.90	5.91	5.94
	Energy Efficiency (2)	%	219	220	228	227	228	228	230
	Quantity	n°	2	2	2	2	2	2	2
Compressor	Refrigerant circuits	n°	2	2	2	2	2	2	2
50111p1 00001	Capacity steps	n°		_	_	Stepless		_	
	Water flow	I/s	11.18	14.81	17.92	20.88	23.32	26.66	31.29
vaporator	Pressure drops	kPa	36	37	42	39	32	31	35
vaporator	Water connections	DN	125	150	150	150	200	200	200
	Water flow	I/s	13.28	17.53	21.07	24.70	27.57	31.44	36.88
Condenser	Pressure drops	kPa	17	28	34	36	36	35	32
70114011801	Water connections	DN	80	80	80	80	80	80	100
	Power supply	V/Ph/Hz	00	1 00	1 00	400/3/50	1 00	1 00	100
lectrical	Max. running current	A A	144	190	220	260	290	334	384
:haracteristics	Max. starting current	A	199	257	318	373	420	504	492
	STD version (3)	dB(A)	76	76	76	76	76	76	76
Sound pressure	SSL version (3)	dB(A)	72	70	72	72	70	72	70
			2140	2445	2640	2860	3090	3230	4180
Neights	Transport weight Operating weight	Kg	2300	2660	2840	3100	3420	3550	4590
l	Operating weight	Kg	2300	2000	2040	3100	3420	3330	4550
MODEL			2802	3302	3602	4602	4802	5402	6002
MODEL	Cooling capacity (1)	kW	2802 736	3302 868	3602 980	4602 1160	4802 1278	5402 1475	6002 1650
		kW kW							
	Cooling capacity (1) Absorbed power (1) EER (1)		736 131	868 154	980 174	1160 222	1278 242	1475 275	1650 304
	Absorbed power (1) EER (1)		736	868	980	1160	1278	1475	1650 304 5.43
	Absorbed power (1) EER (1) Cooling capacity (1)	kW	736 131 5.62 734	868 154 5.64 866	980 174 5.63 977	1160 222 5.23 1157	1278 242 5.28 1274	1475 275 5.36 1469	1650 304 5.43 1644
	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1)	kW	736 131 5.62 734 135	868 154 5.64 866 159	980 174 5.63 977 180	1160 222 5.23 1157 229	1278 242 5.28 1274 250	1475 275 5.36 1469 285	1650 304 5.43 1644 314
Cooling	Absorbed power (1) EER (1) Cooling capacity (1)	kW	736 131 5.62 734	868 154 5.64 866	980 174 5.63 977 180 5.44	1160 222 5.23 1157 229 5.06	1278 242 5.28 1274 250 5.10	1475 275 5.36 1469 285 5.16	1650 304 5.43 1644 314 5.23
Cooling	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1) EER (1) ESEER	kW	736 131 5.62 734 135 5.42 6.04	868 154 5.64 866 159 5.45 6.03	980 174 5.63 977 180 5.44 5.98	1160 222 5.23 1157 229 5.06 5.97	1278 242 5.28 1274 250 5.10 6.01	1475 275 5.36 1469 285 5.16 5.99	1650 304 5.43 1644 314 5.23 6.42
Cooling	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1) EER (1) ESEER EUROVENT Class	kW	736 131 5.62 734 135 5.42 6.04	868 154 5.64 866 159 5.45 6.03 A	980 174 5.63 977 180 5.44 5.98 A	1160 222 5.23 1157 229 5.06 5.97 A	1278 242 5.28 1274 250 5.10 6.01 A	1475 275 5.36 1469 285 5.16 5.99	1650 304 5.43 1644 314 5.23 6.42
Cooling	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1) EER (1) ESEER EUROVENT Class SEER (2)	kW kW kW	736 131 5.62 734 135 5.42 6.04 A 5.93	868 154 5.64 866 159 5.45 6.03 A 5.94	980 174 5.63 977 180 5.44 5.98 A 5.96	1160 222 5.23 1157 229 5.06 5.97 A 5.88	1278 242 5.28 1274 250 5.10 6.01 A 5.89	1475 275 5.36 1469 285 5.16 5.99 A	1650 304 5.43 1644 314 5.23 6.42 A 6.33
Cooling	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1) EER (1) ESEER EUROVENT Class SEER (2) Energy Efficiency (2)	kW kW kW	736 131 5.62 734 135 5.42 6.04 A 5.93 229	868 154 5.64 866 159 5.45 6.03 A 5.94	980 174 5.63 977 180 5.44 5.98 A 5.96	1160 222 5.23 1157 229 5.06 5.97 A 5.88 227	1278 242 5.28 1274 250 5.10 6.01 A 5.89 228	1475 275 5.36 1469 285 5.16 5.99 A 5.91 228	1650 304 5.43 1644 314 5.23 6.42 A 6.33 245
Cooling Cooling (EN14511)	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1) EER (1) ESEER EUROVENT Class SEER (2) Energy Efficiency (2) Quantity	kW kW kW	736 131 5.62 734 135 5.42 6.04 A 5.93 229 2	868 154 5.64 866 159 5.45 6.03 A 5.94 230	980 174 5.63 977 180 5.44 5.98 A 5.96 230	1160 222 5.23 1157 229 5.06 5.97 A 5.88 227	1278 242 5.28 1274 250 5.10 6.01 A 5.89 228	1475 275 5.36 1469 285 5.16 5.99 A 5.91 228	1650 304 5.43 1644 314 5.23 6.42 A 6.33 245
Cooling Cooling (EN14511)	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1) EER (1) ESEER EUROVENT Class SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits	kW kW kW	736 131 5.62 734 135 5.42 6.04 A 5.93 229	868 154 5.64 866 159 5.45 6.03 A 5.94	980 174 5.63 977 180 5.44 5.98 A 5.96	1160 222 5.23 1157 229 5.06 5.97 A 5.88 227 2	1278 242 5.28 1274 250 5.10 6.01 A 5.89 228	1475 275 5.36 1469 285 5.16 5.99 A 5.91 228	1650 304 5.43 1644 314 5.23 6.42 A 6.33 245
Cooling Cooling (EN14511)	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1) EER (1) ESER EUROVENT Class SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits Capacity steps	kW kW kW	736 131 5.62 734 135 5.42 6.04 A 5.93 229 2	868 154 5.64 866 159 5.45 6.03 A 5.94 230 2	980 174 5.63 977 180 5.44 5.98 A 5.96 230 2	1160 222 5.23 1157 229 5.06 5.97 A 5.88 227 2 2 Stepless	1278 242 5.28 1274 250 5.10 6.01 A 5.89 228 2	1475 275 5.36 1469 285 5.16 5.99 A 5.91 228 2	1650 304 5.43 1644 314 5.23 6.42 A 6.33 245 2
Cooling Cooling (EN14511) Compressor	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1) EER (1) ESEER EUROVENT Class SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits Capacity steps Water flow	kW kW kW n° n° n° 1/s	736 131 5.62 734 135 5.42 6.04 A 5.93 229 2 2	868 154 5.64 866 159 5.45 6.03 A 5.94 230 2 2	980 174 5.63 977 180 5.44 5.98 A 5.96 230 2	1160 222 5.23 1157 229 5.06 5.97 A 5.88 227 2 2 Stepless 55.42	1278 242 5.28 1274 250 5.10 6.01 A 5.89 228 2 2	1475 275 5.36 1469 285 5.16 5.99 A 5.91 228 2 2	1650 304 5.43 1644 314 5.23 6.42 A 6.33 245 2
Cooling Cooling (EN14511) Compressor	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1) EER (1) ESEER EUROVENT Class SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops	kW kW kW hw ho	736 131 5.62 734 135 5.42 6.04 A 5.93 229 2 2 2 35.16	868 154 5.64 866 159 5.45 6.03 A 5.94 230 2 2 41.47 39	980 174 5.63 977 180 5.44 5.98 A 5.96 230 2 2	1160 222 5.23 1157 229 5.06 5.97 A 5.88 227 2 2 Stepless 55.42	1278 242 5.28 1274 250 5.10 6.01 A 5.89 228 2 2 61.06 49	1475 275 5.36 1469 285 5.16 5.99 A 5.91 228 2 2	1650 304 5.43 1644 314 5.23 6.42 A 6.33 245 2 2
Cooling Cooling (EN14511) Compressor	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1) EER (1) ESEER EUROVENT Class SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops Water connections	kW kW kW kW n° n° n° l/s kPa DN	736 131 5.62 734 135 5.42 6.04 A 5.93 229 2 2 2 35.16 45	868 154 5.64 866 159 5.45 6.03 A 5.94 230 2 2 41.47 39 200	980 174 5.63 977 180 5.44 5.98 A 5.96 230 2 2 46.82 38 250	1160 222 5.23 1157 229 5.06 5.97 A 5.88 227 2 Stepless 55.42 39 250	1278 242 5.28 1274 250 5.10 6.01 A 5.89 228 2 2 61.06 49 250	1475 275 5.36 1469 285 5.16 5.99 A 5.91 228 2 2 70.47 57 250	1650 304 5.43 1644 314 5.23 6.42 A 6.33 245 2 2 78.83 54 250
Cooling Cooling (EN14511) Compressor Evaporator	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1) EER (1) ESEER EUROVENT Class SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops Water connections Water flow	kW kW kW kW	736 131 5.62 734 135 5.42 6.04 A 5.93 229 2 2 35.16 45 200 41.42	868 154 5.64 866 159 5.45 6.03 A 5.94 230 2 2 41.47 39 200 48.83	980 174 5.63 977 180 5.44 5.98 A 5.96 230 2 2 46.82 38 250 55.14	1160 222 5.23 1157 229 5.06 5.97 A 5.88 227 2 Stepless 55.42 39 250 66.03	1278 242 5.28 1274 250 5.10 6.01 A 5.89 228 2 2 61.06 49 250 72.62	1475 275 5.36 1469 285 5.16 5.99 A 5.91 228 2 70.47 57 250 83.61	1650 304 5.43 1644 314 5.23 6.42 A 6.33 245 2 2 78.83 54 250 93.36
Cooling (EN14511) Compressor	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1) EER (1) ESEER EUROVENT Class SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops Water Connections Water flow Pressure drops	kW kW kW % n° n° l/s kPa DN l/s kPa	736 131 5.62 734 135 5.42 6.04 A 5.93 229 2 2 35.16 45 200 41.42 34	868 154 5.64 866 159 5.45 6.03 A 5.94 230 2 2 41.47 39 200 48.83 37	980 174 5.63 977 180 5.44 5.98 A 5.96 230 2 2 46.82 38 250 55.14 37	1160 222 5.23 1157 229 5.06 5.97 A 5.88 227 2 Stepless 55.42 39 250 66.03 37	1278 242 5.28 1274 250 5.10 6.01 A 5.89 228 2 2 61.06 49 250 72.62	1475 275 5.36 1469 285 5.16 5.99 A 5.91 228 2 2 70.47 57 250 83.61 35	1650 304 5.43 1644 314 5.23 6.42 A 6.33 245 2 2 78.83 54 250 93.36
Cooling (EN14511) Compressor	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1) EER (1) ESEER EUROVENT Class SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops Water connections Water connections Water connections	kW kW kW % n° n° n° l/s kPa DN l/s kPa DN	736 131 5.62 734 135 5.42 6.04 A 5.93 229 2 2 35.16 45 200 41.42	868 154 5.64 866 159 5.45 6.03 A 5.94 230 2 2 41.47 39 200 48.83	980 174 5.63 977 180 5.44 5.98 A 5.96 230 2 2 46.82 38 250 55.14	1160 222 5.23 1157 229 5.06 5.97 A 5.88 227 2 Stepless 55.42 39 250 66.03 37	1278 242 5.28 1274 250 5.10 6.01 A 5.89 228 2 2 61.06 49 250 72.62	1475 275 5.36 1469 285 5.16 5.99 A 5.91 228 2 70.47 57 250 83.61	1650 304 5.43 1644 314 5.23 6.42 A 6.33 245 2 2 78.83 54 250 93.36
Cooling Cooling (EN14511) Compressor Evaporator Condenser	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1) EER (1) ESEER EUROVENT Class SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops Water flow Pressure drops Water connections Water connections Power supply	kW kW kW % n° n° n° l/s kPa DN l/s kPa DN V/Ph/Hz	736 131 5.62 734 135 5.42 6.04 A 5.93 229 2 2 35.16 45 200 41.42 34 100	868 154 5.64 866 159 5.45 6.03 A 5.94 230 2 2 41.47 39 200 48.83 37	980 174 5.63 977 180 5.44 5.98 A 5.96 230 2 2 46.82 38 250 55.14 37	1160 222 5.23 1157 229 5.06 5.97 A 5.88 227 2 Stepless 55.42 39 250 66.03 37 125	1278 242 5.28 1274 250 5.10 6.01 A 5.89 228 2 2 61.06 49 250 72.62 37	1475 275 5.36 1469 285 5.16 5.99 A 5.91 228 2 2 70.47 57 250 83.61 35 125	1650 304 5.43 1644 314 5.23 6.42 A 6.33 2.45 2 2 78.83 54 2.50 93.36 93.36 3.32
Cooling Cooling (EN14511) Compressor Evaporator Condenser	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1) EER (1) ESEER EUROVENT Class SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops Water flow Pressure drops Water connections Water connections Power supply Max. running current	kW kW kW % n° n° n° l/s kPa DN l/s kPa DN V/Ph/Hz A	736 131 5.62 734 135 5.42 6.04 A 5.93 229 2 2 35.16 45 200 41.42 34 100	868 154 5.64 866 159 5.45 6.03 A 5.94 230 2 2 41.47 39 200 48.83 37 100	980 174 5.63 977 180 5.44 5.98 A 5.96 230 2 2 46.82 38 250 55.14 37 100	1160 222 5.23 1157 229 5.06 5.97 A 5.88 227 2 Stepless 55.42 39 250 66.03 37 125 400/3/50 701	1278 242 5.28 1274 250 5.10 6.01 A 5.89 228 2 2 61.06 49 250 72.62 37 125	1475 275 5.36 1469 285 5.16 5.99 A 5.91 228 2 2 70.47 57 250 83.61 35 125	1650 304 5.43 1644 314 5.23 6.42 A 6.33 245 2 2 2 78.83 54 250 93.36 32 150
Cooling Cooling (EN14511) Compressor Evaporator Condenser	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1) EER (1) ESER EUROVENT Class SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops Water connections Water flow Pressure drops Water connections Power supply Max. running current Max. starting current	kW kW kW % n° n° n° l/s kPa DN l/s kPa DN V/Ph/Hz A A	736 131 5.62 734 135 5.42 6.04 A 5.93 229 2 2 35.16 45 200 41.42 34 100	868 154 5.64 866 159 5.45 6.03 A 5.94 230 2 2 41.47 39 200 48.83 37 100	980 174 5.63 977 180 5.44 5.98 A 5.96 230 2 2 46.82 38 250 55.14 37 100	1160 222 5.23 1157 229 5.06 5.97 A 5.88 227 2 Stepless 55.42 39 250 66.03 37 125 400/3/50 701 1144	1278 242 5.28 1274 250 5.10 6.01 A 5.89 228 2 2 61.06 49 250 72.62 37 125	1475 275 5.36 1469 285 5.16 5.99 A 5.91 228 2 2 2 70.47 57 250 83.61 35 125	1650 304 5.43 1644 314 5.23 6.42 A 6.33 245 2 2 2 2 78.83 54 250 93.36 32 150
Cooling Cooling (EN14511) Compressor Evaporator Condenser Electrical characteristics	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1) EER (1) ESER EUROVENT Class SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops Water connections Water flow Pressure drops Water connections Pressure drops Water connections Water steps Water flow Pressure drops Water connections Water steps Water connections Water steps Water connections Water steps Water connections Power supply Max. running current Max. starting current STD version (3)	kW kW kW % n° n° n° l/s kPa DN l/s kPa DN V/Ph/Hz A A dB(A)	736 131 5.62 734 135 5.42 6.04 A 5.93 229 2 2 2 35.16 45 200 41.42 34 100 436 576 77	868 154 5.64 866 159 5.45 6.03 A 5.94 230 2 2 2 41.47 39 200 48.83 37 100	980 174 5.63 977 180 5.44 5.98 A 5.96 230 2 2 2 46.82 38 250 55.14 37 100	1160 222 5.23 1157 229 5.06 5.97 A 5.88 227 2 2 Stepless 55.42 39 250 66.03 37 125 400/3/50 701 1144 80	1278 242 5.28 1274 250 5.10 6.01 A 5.89 228 2 2 2 61.06 49 250 72.62 37 125	1475 275 5.36 1469 285 5.16 5.99 A 5.91 228 2 2 70.47 57 250 83.61 35 125	1650 304 5.43 1644 314 5.23 6.42 A 6.33 245 2 2 2 78.83 54 250 93.36 32 150
MODEL Cooling Cooling (EN14511) Compressor Evaporator Condenser Electrical characteristics Sound pressure	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1) EER (1) ESER EUROVENT Class SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops Water connections Water flow Pressure drops Water connections Power supply Max. running current Max. starting current	kW kW kW % n° n° n° l/s kPa DN l/s kPa DN V/Ph/Hz A A	736 131 5.62 734 135 5.42 6.04 A 5.93 229 2 2 35.16 45 200 41.42 34 100	868 154 5.64 866 159 5.45 6.03 A 5.94 230 2 2 41.47 39 200 48.83 37 100	980 174 5.63 977 180 5.44 5.98 A 5.96 230 2 2 46.82 38 250 55.14 37 100	1160 222 5.23 1157 229 5.06 5.97 A 5.88 227 2 Stepless 55.42 39 250 66.03 37 125 400/3/50 701 1144	1278 242 5.28 1274 250 5.10 6.01 A 5.89 228 2 2 61.06 49 250 72.62 37 125	1475 275 5.36 1469 285 5.16 5.99 A 5.91 228 2 2 2 70.47 57 250 83.61 35 125	1650 304 5.43 1644 314 5.23 6.42 A 6.33 245 2 2 2 2 78.83 54 250 93.36 32 150

DIMENSION	NS		1002	1202	1402	1602	1802	2202	2502	2802	3302	3602	4602	4802	5402	6002
L	STD/SSL	mm	3700	3700	3700	3800	3900	3900	3900	4900	4900	4900	5300	5300	5550	5500
W	STD/SSL	mm	1000	1100	1100	1150	1200	1200	1200	1200	1300	1300	1400	1400	2000	2000
Н	STD/SSL	mm	1800	1800	1900	1950	2000	2050	2150	2150	2250	2300	2450	2450	2500	2550

CLEARANCE AREA

CWW/H/A 1002÷6002

500 500 800 500



- Chilled water from 12 to 7 °C, water temperature at the condenser from 30 to 35 °C.
 Seasonal energy efficiency of cooling at low temperature. According to EU Regulation n. 2016/2281.

 Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.

 N.B. Weights of SSL version are specified on technical brochure.



CWW/Y/A 1302÷4802

A CLASS ENERGY EFFICIENCY WATERCOOLED LIQUID CHILLERS WITH (INVERTER) SCREW COMPRESSORS AND FLOODED SHELL AND TUBE EXCHANGERS.





















The A CLASS liquid chillers of the CWW/Y/A 1302÷4802 series, with R134a refrigerant, are designed to satisfy the needs of the service sector or industrial systems requiring high power. These units are characterized by an high efficiency (EER) and are equipped with latest generation Screw compressors, flooded shell and tube exchangers and connections for condensation with cooling tower water or well water or with a Dry-Cooler. Furthermore, they have a series of accessories which are factory fitted or supplied separately such as desuperheater, total heat recovery and, if neccessary, a device for operating a Heat Pump. Designed and produced to optimize the layout of each component so as to make any necessary maintenance operations more convenient, these units have an essential and compact structure intended for indoor installation. The units can be equipped with Inverter control on one or on both the Screw compressors, to significantly reduce the inrush current of the unit. The solution with double Inverter allows, in addition to the above described, to increase the power efficiency of the unit in the same size, adapting to the different needs and solutions.

The units are already compliant to ErP 2021 European Regulations.

CWW/J/A 1302÷4802

On request, units can be supplied with R513A refrigerant.

VERSION	V	Ε	R	S	IC) [
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CWW/Y/A	CWW/Y/A/SSL
Cooling only	Super silenced cooling only

FEATURES

- · Self-supporting galvanized steel frame protected with additional protection achieved via polyester powder painting.
- Screw compressors with suction filter, oil sight glass, thermal protection and stepless capacity steps. Oil separator and crankcase heater installed on cooling circuit.
- Shell and tube type condenser, with easily removable cast iron heads to enable access for maintenance operations. Water connections for cooling tower and Dry-Cooler operation; on request for well water.
- High efficiency flooded shell and tube type evaporator, with one circuit on the refrigerant side and one on the water side, complete with water differential
 pressure switch.
- Cooling circuit shut-off valves on suction, discharge and liquid line.
- Electronic expansion valve.
- Electronic high and low pressure gauges.
- R134a refrigerant. On request R513A refrigerant.
- · Electrical board includes: main switch with door safety interlock, fuses, thermal protection relays for compressors.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES

IM BT	Automatic circuit breakers Low water temperature Kit	ISB	BACnet MSTP protocol, RS485 serial interface
HR	Desuperheater	ISBT	BACnet TCP/IP protocol, Ethernet
HRT	Total heat recovery		port
FE	Antifreeze heater for evaporator	ISL	LonWorks protocol, FTT-10 serial
II	Inverter on one compressor		interface
ID	Inverter on all compressors	IAV	Remote set-point, 0-10 V signal
SS	Soft start	IAA	Remote set-point, 4-20 mA signal
DP	Device for heat pump operation	IAS	Remote signal for second set-point
WM	Web Monitoring - Wireless remote		activation
	monitoring (GPRS/EDGE/3G/TCP-IP)	IDL	Demand limit from digital input
IS	Modbus RTU protocol, RS485 serial interface	CP	Potential free contacts

LOOSE ACCESSORIES

MN	High and low pressure gauges
CR	Remote control panel
PV3	3-Way electronic pressostatic valv
AG	Rubber shock absorbers
AM	Spring shock absorbers
FL	Flow switch



CWW/Y/A 1302÷4802





MODEL			1302	1502	1702	1902	2002	2602	2802	3002	3602	4202	4802
	Cooling capacity (1)	kW	280	341	392	448	507	626	711	792	961	1126	1289
Cooling	Absorbed power (1)	kW	50	60	69	79	88	108	121	132	160	188	217
	EER (1)		5.60	5.68	5.68	5.67	5.76	5.80	5.88	6.00	6.01	5.99	5.94
	Cooling capacity (1)	kW	279	340	391	446	505	623	708	789	957	1122	1284
	Absorbed power (1)	kW	51	61	70	81	90	111	124	135	164	192	222
	EER (1)		5.47	5.57	5.59	5.51	5.61	5.61	5.71	5.84	5.84	5.84	5.78
Cooling (EN14511)	ESEER		6.80	6.84	6.87	6.53	6.56	6.65	6.60	6.80	6.83	6.82	6.69
	EUROVENT Class		Α	А	А	А	Α	А	Α	Α	А	Α	Α
	SEER (2)		7.03	7.20	7.25	7.11	7.27	7.34	7.46	7.63	7.66	7.67	7.62
	Energy Efficiency (2)	%	273	280	282	276	283	286	290	297	298	299	297
	Cooling capacity (1)	kW	329	401	459	527	595	734	833	928	1125	1319	1510
Cooling *	Absorbed power (1)	kW	60	73	84	96	107	131	148	161	194	228	263
	EER (1)		5.48	5.49	5.46	5.49	5.56	5.60	5.63	5.76	5.80	5.79	5.74
	Cooling capacity (1)	kW	328	399	458	524	592	730	828	923	1119	1312	1502
Cooling *	Absorbed power (1)	kW	61	75	85	99	110	135	153	166	200	235	271
(EN14511)	EER (1)		5.38	5.32	5.39	5.29	5.38	5.41	5.41	5.56	5.60	5.58	5.54
(EINT4311)	ESEER		7.86	7.87	7.92	7.44	7.63	7.62	7.68	7.81	7.75	7.85	7.68
	EUROVENT Class		Α	Α	Α	А	Α	А	А	А	А	Α	А
	Quantity	n°	2	2	2	2	2	2	2	2	2	2	2
Compressor	Refrigerant circuits	n°	1	1	1	1	1	1	1	1	1	1	1
	Capacity steps	n°						Stepless					
	Water flow	I/s	13.38	16.29	18.73	21.40	24.22	29.91	33.97	37.84	45.91	53.80	61.59
Evaporator	Pressure drops	kPa	28	32	26	60	54	57	57	54	56	57	61
	Water connections	DN	100	100	100	125	125	125	125	150	150	150	150
	Water flow	I/s	15.77	19.16	22.03	25.18	28.43	35.07	39.75	44.15	53.56	62.78	71.95
Condenser	Pressure drops	kPa	46	39	42	62	52	60	62	65	58	58	59
	Water connections	DN	80	100	100	100	125	125	125	125	150	150	150
Flectrical	Power supply	V/Ph/Hz						400/3/50					
characteristics	Max. running current	Α	178	214	238	270	292	354	398	438	456	536	622
characteristics	Max. starting current	Α	240	258	314	330	434	465	487	549	558	598	775
Sound pressure	STD version (3)	dB(A)	76	76	77	77	77	77	77	79	79	80	80
Sound pressure	SSL version (3)	dB(A)	72	72	73	73	73	73	73	75	75	76	76
Weights	Transport weight	Kg	2690	2830	2913	3215	3602	3980	4210	4745	5210	5675	6500
vveigins	Operating weight	Kg	2750	2900	3000	3500	3700	4100	4350	4900	5400	5900	6750

DIMENSION	NS		1302	1502	1702	1902	2002	2602	2802	3002	3602	4202	4802
L	STD/SSL	mm	3700	3700	3700	4200	4200	4200	4200	4200	4200	4500	4600
W	STD/SSL	mm	1300	1300	1300	1400	1400	1400	1400	1400	1600	1600	1600
Н	STD/SSL	mm	2100	2100	2100	2200	2200	2200	2200	2200	2250	2250	2250

CLEARANCE AREA

CWW/Y/A 1302÷4802

500 500 800 500



- Chilled water from 12 to 7 °C, water temperature at the condenser from 30 to 35 °C.

 Seasonal energy efficiency of cooling at low temperature. According to EU Regulation n. 2016/2281.

 Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.

 Weights of SSL version are specified on technical brochure.

 Unit provided with Inverter on both compressors.

CWW/Y 1302-B÷9003-B

WATERCOOLED LIQUID CHILLERS WITH SCREW COMPRESSORS AND SHELL AND TUBE EXCHANGERS.

















The liquid Chillers of the CWW/Y 1302-B÷9003-B series, with R134a refrigerant, are designed to satisfy the needs of the service sector or industrial systems requiring high power. Equipped with latest generation Screw compressors, shell and tube exchangers and connections for condensation with cooling tower water or well water or with a Dry-Cooler, these units can also be produced in super silent versions. Furthermore, they have a series of accessories which are factory fitted or supplied separately such as heat recovery in series or in parallel, soft start and, if necessary, a device for operating a Heat Pump. Designed and produced to optimize the layout of each component so as to make any necessary maintenance operations more convenient, these units have an essential and compact structure intended for indoor installation.

CWW/J 1302-B÷9003-B

On request, units can be supplied with R513A refrigerant.

VFRSION

CWW/Y	CWW/Y/SSL
Cooling only	Super silenced cooling only

FEATURES

- Self-supporting galvanized steel frame protected with additional protection achieved via polyester powder painting.
- Screw compressors with built-in oil separator, suction filter, crankcase heater, oil sight glass, thermal protection and stepless capacity steps.
- Shell and tube type condenser, with easily removable cast iron heads to enable access for maintenance operations. Each cooling circuit is supplied with an independent condenser. Water connections for cooling tower and Dry-Cooler operation; on request for well water.
- Shell and tube type evaporator, with two or three independent circuits on the refrigerant side and one on the water side, complete with water differential pressure switch.
- Cooling circuit shut-off valves on discharge and liquid line.
- Electronic expansion valve.
- Electronic high and low pressure gauges.
- R134a refrigerant. On request R513A refrigerant.
- Electrical board includes: main switch with door safety interlock, fuses, thermal protection relays for compressors.
- Microprocessor control and regulation system.

ACCESSORIES

ISB

ISBT

FA

serial interface

serial interface

BACnet MSTP protocol, RS485

BACnet TCP/IP protocol, Ethernet

FACTO	RY FITTED ACCESSORIES			LOOS	E ACCESSORIES
IM	Automatic circuit breakers	ISL	LonWorks protocol, FTT-10 serial	MN	High and low pressure gauges
ВТ	Low water temperature Kit		interface	CR	Remote control panel
HR	Desuperheater	IAV	Remote set-point, 0-10 V signal	PV3	3-Way electronic pressostatic valve
HRT	Total heat recovery	IAA	Remote set-point, 4-20 mA signal	AG	Rubber shock absorbers
FE	Antifreeze heater for evaporator	IAS	Remote signal for second set-point	AM	Spring shock absorbers
П	Inverter on one compressor		activation	FL	Flow switch
ID	Inverter on all compressors	IDL	Demand limit from digital input		
SS	Soft start	CP	Potential free contacts		
DP	Device for heat pump operation				
WM	Web Monitoring - Wireless remote monitoring (GPRS/EDGE/3G/TCP-IP)				
IS	Modbus RTU protocol, RS485				



CWW/Y 1302-B÷9003-B





MODEL			1302-B	1502-B	1702-B	1902-B	2002-B	2602-B	2802-B	3002-B	3602-B
	Cooling capacity (1)	kW	267	323	374	426	488	577	660	750	892
Cooling	Absorbed power (1)	kW	57	69	80	90	99	123	136	150	182
	EER (1)		4.68	4.68	4.68	4.73	4.93	4.69	4.85	5.00	4.90
	Cooling capacity (1)	kW	266	322	372	424	486	574	657	747	889
	Absorbed power (1)	kW	59	72	83	94	103	128	142	157	189
0 " (51)	EER (1)		4.47	4.48	4.46	4.51	4.74	4.48	4.62	4.77	4.70
Cooling (EN14511)	ESEER		5.40	5.43	5.27	5.27	5.51	5.26	5.17	5.29	5.45
	SEER (2)		5.66	5.71	5.71	5.95	6.11	5.93	5.95	6.15	6.07
	Energy Efficiency (2)	%	218	220	220	230	236	229	230	238	235
	Quantity	n°	2	2	2	2	2	2	2	2	2
Compressor	Refrigerant circuits	n°	2	2	2	2	2	2	2	2	2
00111p100001	Capacity steps	n°		_			Stepless		_		_
	Water flow	I/s	12.76	15.43	17.87	20.35	23.32	27.57	31.53	35.83	42.62
Evaporator	Pressure drops	kPa	51	43	55	60	48	61	67	66	47
Lvaporator	Water connections	DN	100	125	125	125	125	150	150	150	200
	Water flow	I/s	15.48	18.71	21.67	24.67	28.00	33.43	38.00	42.99	51.32
Condenser	Pressure drops	kPa	43	49	51	47	36	52	48	45	57
Condenser	Water connections	DN	65	65	65	65	80	80	80	80	80
	Power supply	V/Ph/Hz	03	03	00	0.0	400/3/50	00	00	00	00
Electrical	Max. running current	A A	178	214	238	270	306	354	398	438	518
characteristics	Max. starting current	A	240	258	314	330	374	465	487	549	723
	STD version (3)	dB(A)	76	76	76	76	76	76	76	77	78
Sound pressure	SSL version (3)	dB(A)	70	70	70	70	70	70	70	73	74
· · · · · · · · · · · · · · · · · · ·	Transport weight		2124	2183	2309	2340	2973	3121	3174	4274	4613
Weights	Operating weight	Kg	2240	2350	2480	2510	3160	3440	3490	4580	5050
	Operating weight	Kg	2240	2330	2400	2310	3100	3440	3430	4300] 3030
MODEL			4202-B	4402-B	4802-B	5402-B	6002-B	6603-B	7203-B	8103-B	9003-B
	Cooling capacity (1)	kW	1049	1159	1286	1438	1612	1789	1981	2204	2473
Cooling	Absorbed power (1)	kW	210	234	256	287	323	357	395	443	500
Ü	EER (1)		5.00	4.95	5.02	5.01	4.99	5.01	5.02	4.98	4.95
	Cooling capacity (1)	kW	1045	1155	1281	1432	1604	1780	1972	2195	0.450
	Absorbed power (1)	kW	010							Z 190 I	2456
0 1: (5)		I KVV i	719	244		299	339	374	415	463	
Cooling (EN14511)	EER (1)	KVV	219 4.78	244 4.73	269	299 4.79	339 4.73				528 4.65
		KVV	4.78	4.73	269 4.77	4.79	4.73	4.76	4.75	463 4.74	528 4.65
, , ,	ESEER	KVV	4.78 5.18	4.73 5.03	269 4.77 4.94	4.79 5.12	4.73 5.20	4.76 5.16	4.75 5.12	463 4.74 5.07	528 4.65 5.23
,	ESEER SEER (2)		4.78	4.73	269 4.77 4.94 6.20	4.79	4.73 5.20 6.45	4.76	4.75	463 4.74	528 4.65
	ESEER	% n°	4.78 5.18 6.24	4.73 5.03 6.13	269 4.77 4.94	4.79 5.12 6.37	4.73 5.20	4.76 5.16 6.45	4.75 5.12 6.33	463 4.74 5.07 6.33	528 4.65 5.23 6.33
	ESEER SEER (2) Energy Efficiency (2) Quantity	%	4.78 5.18 6.24 242	4.73 5.03 6.13 237	269 4.77 4.94 6.20 240 2	4.79 5.12 6.37 247	4.73 5.20 6.45 250	4.76 5.16 6.45 250	4.75 5.12 6.33 245	463 4.74 5.07 6.33 245	528 4.65 5.23 6.33 245
Compressor	ESEER SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits	% n° n°	4.78 5.18 6.24 242 2	4.73 5.03 6.13 237 2	269 4.77 4.94 6.20 240	4.79 5.12 6.37 247 2	4.73 5.20 6.45 250 2	4.76 5.16 6.45 250 3	4.75 5.12 6.33 245 3	463 4.74 5.07 6.33 245 3	528 4.65 5.23 6.33 245 3
	ESEER SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits Capacity steps	% n° n°	4.78 5.18 6.24 242 2 2	4.73 5.03 6.13 237 2	269 4.77 4.94 6.20 240 2	4.79 5.12 6.37 247 2	4.73 5.20 6.45 250 2 2 Stepless	4.76 5.16 6.45 250 3	4.75 5.12 6.33 245 3	463 4.74 5.07 6.33 245 3	528 4.65 5.23 6.33 245 3
Compressor	ESEER SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits Capacity steps Water flow	% n° n° n°	4.78 5.18 6.24 242 2 2 50.12	4.73 5.03 6.13 237 2 2 2 55.37	269 4.77 4.94 6.20 240 2 2	4.79 5.12 6.37 247 2 2 68.70	4.73 5.20 6.45 250 2 2 Stepless 77.02	4.76 5.16 6.45 250 3 3 85.47	4.75 5.12 6.33 245 3 3 94.65	463 4.74 5.07 6.33 245 3 3	528 4.65 5.23 6.33 245 3 3
	ESEER SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops	% n° n° n° I/s kPa	4.78 5.18 6.24 242 2 2 50.12	4.73 5.03 6.13 237 2 2 2 55.37	269 4.77 4.94 6.20 240 2 2 2 61.44 59	4.79 5.12 6.37 247 2 2 68.70 65	4.73 5.20 6.45 250 2 2 Stepless 77.02	4.76 5.16 6.45 250 3 3 85.47	4.75 5.12 6.33 245 3 3 94.65 74	463 4.74 5.07 6.33 245 3 3	528 4.65 5.23 6.33 245 3 3 118
Compressor	ESEER SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops Water connections	% n° n° n° I/s kPa	4.78 5.18 6.24 242 2 2 50.12 62 200	4.73 5.03 6.13 237 2 2 2 55.37 51 200	269 4.77 4.94 6.20 240 2 2 2 61.44 59 200	4.79 5.12 6.37 247 2 2 68.70 65 200	4.73 5.20 6.45 250 2 2 Stepless 77.02 81 200	4.76 5.16 6.45 250 3 3 85.47 77 250	4.75 5.12 6.33 245 3 3 94.65 74 250	463 4.74 5.07 6.33 245 3 3 105 65 250	528 4.65 5.23 6.33 245 3 3 118 119 250
Compressor	ESEER SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops Water connections Water flow	% n° n° n° I/s kPa DN I/s	4.78 5.18 6.24 242 2 2 50.12 62 200 60.17	4.73 5.03 6.13 237 2 2 2 55.37 51 200 66.55	269 4.77 4.94 6.20 240 2 2 2 61.44 59 200 73.67	4.79 5.12 6.37 247 2 2 68.70 65 200 82.42	4.73 5.20 6.45 250 2 2 Stepless 77.02 81 200 92.45	4.76 5.16 6.45 250 3 3 85.47 77 250 103	4.75 5.12 6.33 245 3 3 94.65 74 250	463 4.74 5.07 6.33 245 3 3 105 65 250 126	528 4.65 5.23 6.33 245 3 3 118 119 250 142
Compressor	ESEER SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops Water connections Water flow Pressure drops	% n° n° n° l/s kPa DN l/s kPa	4.78 5.18 6.24 242 2 2 50.12 62 200 60.17 49	4.73 5.03 6.13 237 2 2 2 55.37 51 200 66.55 66	269 4.77 4.94 6.20 240 2 2 61.44 59 200 73.67 77	4.79 5.12 6.37 247 2 2 68.70 65 200 82.42 66	4.73 5.20 6.45 250 2 2 Stepless 77.02 81 200 92.45 63	4.76 5.16 6.45 250 3 3 85.47 77 250 103 66	4.75 5.12 6.33 245 3 3 94.65 74 250 114 78	463 4.74 5.07 6.33 245 3 3 105 65 250 126 73	528 4.65 5.23 6.33 245 3 3 118 119 250 142 63
Compressor Evaporator Condenser	ESEER SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops Water connections Water flow Pressure drops Water connections Water connections	% n° n° n° k/a DN l/s kPa DN	4.78 5.18 6.24 242 2 2 50.12 62 200 60.17	4.73 5.03 6.13 237 2 2 2 55.37 51 200 66.55	269 4.77 4.94 6.20 240 2 2 2 61.44 59 200 73.67	4.79 5.12 6.37 247 2 2 68.70 65 200 82.42	4.73 5.20 6.45 250 2 Stepless 77.02 81 200 92.45 63 125	4.76 5.16 6.45 250 3 3 85.47 77 250 103	4.75 5.12 6.33 245 3 3 94.65 74 250	463 4.74 5.07 6.33 245 3 3 105 65 250 126	528 4.65 5.23 6.33 245 3 3 118 119 250 142
Compressor	ESEER SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops Water connections Water flow Pressure drops Water connections Power supply	% n° n° n° l/s kPa DN l/s kPa DN V/Ph/Hz	4.78 5.18 6.24 242 2 2 50.12 62 200 60.17 49 100	4.73 5.03 6.13 237 2 2 55.37 51 200 66.55 66 100	269 4.77 4.94 6.20 240 2 2 61.44 59 200 73.67 77	4.79 5.12 6.37 247 2 2 68.70 65 200 82.42 66 100	4.73 5.20 6.45 250 2 2 Stepless 77.02 81 200 92.45 63 125 400/3/50	4.76 5.16 6.45 250 3 3 85.47 77 250 103 66 100	4.75 5.12 6.33 245 3 3 94.65 74 250 114 78 100	463 4.74 5.07 6.33 245 3 3 105 65 250 126 73 100	528 4.65 5.23 6.33 245 3 3 118 119 250 142 63 125
Compressor Evaporator Condenser	ESEER SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops Water connections Water flow Pressure drops Water connections Power supply Max. running current	% n° n° n° I/s kPa DN I/s kPa DN V/Ph/Hz A	4.78 5.18 6.24 242 2 2 50.12 62 200 60.17 49 100	4.73 5.03 6.13 237 2 2 55.37 51 200 66.55 66 100	269 4.77 4.94 6.20 240 2 2 2 61.44 59 200 73.67 77 100	4.79 5.12 6.37 247 2 2 68.70 65 200 82.42 66 100	4.73 5.20 6.45 250 2 2 Stepless 77.02 81 200 92.45 63 125 400/3/50 834	4.76 5.16 6.45 250 3 3 85.47 77 250 103 66 100	4.75 5.12 6.33 245 3 3 94.65 74 250 114 78 100	463 4.74 5.07 6.33 245 3 3 3 105 65 250 126 73 100	528 4.65 5.23 6.33 245 3 3 118 119 250 142 63 125
Compressor Evaporator Condenser Electrical	ESEER SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops Water connections Water flow Pressure drops Water connections Power supply Max. running current Max. starting current	% n° n° n° l/s kPa DN l/s kPa DN V/Ph/Hz A	4.78 5.18 6.24 242 2 2 50.12 62 200 60.17 49 100 602 765	4.73 5.03 6.13 237 2 2 55.37 51 200 66.55 66 100	269 4.77 4.94 6.20 240 2 2 2 61.44 59 200 73.67 77 100	4.79 5.12 6.37 247 2 2 68.70 65 200 82.42 66 100	4.73 5.20 6.45 250 2 2 Stepless 77.02 81 200 92.45 63 125 400/3/50 834 1479	4.76 5.16 6.45 250 3 3 85.47 77 250 103 66 100 903 1066	4.75 5.12 6.33 245 3 3 94.65 74 250 114 78 100	463 4.74 5.07 6.33 245 3 3 3 105 65 250 126 73 100	528 4.65 5.23 6.33 245 3 3 118 119 250 142 63 125 1251 1896
Compressor Evaporator Condenser Electrical	ESEER SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops Water connections Water flow Pressure drops Water ronnections Water connections Power supply Max. running current Max. starting current STD version (3)	% n° n° l/s kPa DN l/s kPa DN V/Ph/Hz A A dB(A)	4.78 5.18 6.24 242 2 2 50.12 62 200 60.17 49 100 602 765 79	4.73 5.03 6.13 237 2 2 55.37 51 200 66.55 66 100	269 4.77 4.94 6.20 240 2 2 2 61.44 59 200 73.67 77 100	4.79 5.12 6.37 247 2 2 68.70 65 200 82.42 66 100 818 1610 81	4.73 5.20 6.45 250 2 Stepless 77.02 81 200 92.45 63 125 400/3/50 834 1479 82	4.76 5.16 6.45 250 3 3 85.47 77 250 103 66 100 903 1066 81	4.75 5.12 6.33 245 3 3 94.65 74 250 114 78 100 987 1122 82	463 4.74 5.07 6.33 245 3 3 105 65 250 126 73 100	528 4.65 5.23 6.33 245 3 3 118 119 250 142 63 125 1251 1896 85
Compressor Evaporator Condenser Electrical characteristics	ESEER SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops Water connections Water flow Pressure drops Water connections Power supply Max. running current Max. starting current STD version (3) SSL version (3)	% n° n° n° I/s kPa DN I/s kPa DN V/Ph/Hz A A GB(A) dB(A)	4.78 5.18 6.24 242 2 2 50.12 62 200 60.17 49 100 602 765 79 75	4.73 5.03 6.13 237 2 2 55.37 51 200 66.55 66 100 602 765 80 76	269 4.77 4.94 6.20 240 2 2 61.44 59 200 73.67 77 100 658 793 80 76	4.79 5.12 6.37 247 2 2 68.70 65 200 82.42 66 100 818 1610 81	4.73 5.20 6.45 250 2 Stepless 77.02 81 200 92.45 63 125 400/3/50 834 1479 82 78	4.76 5.16 6.45 250 3 3 85.47 77 250 103 66 100 903 1066 81	4.75 5.12 6.33 245 3 3 94.65 74 250 114 78 100 987 1122 82	463 4.74 5.07 6.33 245 3 3 105 65 250 126 73 100	528 4.65 5.23 6.33 245 3 3 118 119 250 142 63 125 1251 1896 85
Compressor Evaporator Condenser Electrical characteristics	ESEER SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops Water connections Water flow Pressure drops Water ronnections Water connections Power supply Max. running current Max. starting current STD version (3)	% n° n° l/s kPa DN l/s kPa DN V/Ph/Hz A A dB(A)	4.78 5.18 6.24 242 2 2 50.12 62 200 60.17 49 100 602 765 79	4.73 5.03 6.13 237 2 2 55.37 51 200 66.55 66 100	269 4.77 4.94 6.20 240 2 2 2 61.44 59 200 73.67 77 100	4.79 5.12 6.37 247 2 2 68.70 65 200 82.42 66 100 818 1610 81	4.73 5.20 6.45 250 2 Stepless 77.02 81 200 92.45 63 125 400/3/50 834 1479 82	4.76 5.16 6.45 250 3 3 85.47 77 250 103 66 100 903 1066 81	4.75 5.12 6.33 245 3 3 94.65 74 250 114 78 100 987 1122 82	463 4.74 5.07 6.33 245 3 3 105 65 250 126 73 100	528 4.65 5.23 6.33 245 3 3 118 119 250 142 63 125 1251 1896 85

DIMENSION	IS		1302-B	1502-B	1702-B	1902-B	2002-B	2602-B	2802-B	3002-B	3602-B
L	STD/SSL	mm	3550	3550	3300	3300	3300	3500	3500	3600	3600
W	STD/SSL	mm	800	800	1400	1400	1400	1450	1450	1650	1650
Н	STD/SSL	mm	2000	2000	2150	2150	2150	2150	2150	2150	2150
DIMENSION	IS		4202-B	4402-B	4802-B	5402-B	6002-B	6603-B	7203-B	8103-B	9003-B
L	STD/SSL	mm	3600	4800	4800	5200	5200	5200	5200	5500	5500
W	STD/SSL	mm	1650	1800	1800	1800	1800	2200	2200	2200	2200
Н	STD/SSL	mm	2150	2150	2150	2150	2150	2150	2150	2150	2150

CLEARANCE AREA

CWW/Y 1302-B÷9003-B

500 500 800 500



- Chilled water from 12 to 7 °C, water temperature at the condenser from 30 to 35 °C. Seasonal energy efficiency of cooling at low temperature. According to EU Regulation n. 2016/2281.
- Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.

 N.B. Weights of SSL version are specified on technical brochure.

MEA/Y 1302-B÷9003-B

CONDENSERLESS LIQUID CHILLERS WITH SCREW COMPRESSORS AND SHELL AND TUBE EXCHANGER.

















The liquid Chillers for remote condensation of MEA/Y 1302-B÷9003-B series, with R134a refrigerant, are designed to satisfy the needs of the service sector or industrial systems which require high power with continual refrigerant delivery, space-saving units and quiet operation. Combined with the remote condenser, these units are ideal for indoor installation and, equipped with a self-supporting structure that sustains the main components, they reduce the overall dimensions to a minimum while at the same time making installation and maintenance operations easier.

Equipped with latest generation Screw compressors and shell and tube exchanger, these units can also be produced in a super silent version. They have cooling and hydraulic circuits complete with everything necessary for quick installation and high energy efficiency. A series of accessories, factory fitted or supplied separately, rounds off the variety of equipment in this product range.

MEA/J 1302-B÷9003-B

On request, units can be supplied for R513A refrigerant.

VERSION

MEA/Y	MEA/Y/SSL
Cooling only	Super silenced cooling only

FEATURES

- · Self-supporting galvanized steel frame protected with additional protection achieved via polyester powder painting.
- Screw compressors with built-in oil separator, suction filter, crankcase heater, oil sight glass, thermal protection and stepless capacity steps.
- Shell and tube type evaporator, with two or three independent circuits on the refrigerant side and one on the water side, complete with water differential pressure switch.
- · Cooling circuit shut-off valves on discharge and liquid line.
- Electronic expansion valve.
- Electronic high and low pressure gauges.
- R134a refrigerant. On request R513A refrigerant.
- · Electrical board includes: main switch with door safety interlock, fuses, thermal protection relays for compressors.
- Microprocessor control and regulation system.

ACCESSORIES

EACTORY	FITTED	ACCESSORIES	à

serial interface

serial interface

interface

BACnet MSTP protocol, RS485

BACnet TCP/IP protocol, Ethernet

LonWorks protocol, FTT-10 serial

Remote set-point, 0-10 V signal

FACTO	RY FITTED ACCESSORIES			LOOS	E ACCESSORIES
IM	Automatic circuit breakers	IAA	Remote set-point, 4-20 mA signal	MN	High and low pressure gauges
ВТ	Low water temperature Kit	IAS	Remote signal for second set-point	CR	Remote control panel
HR	Desuperheater		activation	AG	Rubber shock absorbers
HRT	Total heat recovery	IDL	Demand limit from digital input	AM	Spring shock absorbers
FE	Antifreeze heater for evaporator	CP	Potential free contacts	FL	Flow switch
П	Inverter on one compressor				
ID	Inverter on all compressors				
SS	Soft start				
WM	Web Monitoring - Wireless remote				
	monitoring (GPRS/EDGE/3G/TCP-IP)				
IS	Modbus RTU protocol, RS485				



ISB

ISBT

ISL

IAV

MEA/Y 1302-B÷9003-B

MODEL			1302-B	1502-B	1702-B	1902-B	2002-B	2602-B	2802-B	3002-B	3602-B
Cooling	Cooling capacity (1)	kW	235	279	325	375	424	526	599	672	778
Cooling	Absorbed power (1)	kW	73	85	103	118	133	158	176	193	228
	Quantity	n°	2	2	2	2	2	2	2	2	2
Compressor	Refrigerant circuits	n°	2	2	2	2	2	2	2	2	2
	Capacity steps	n°					Stepless				
	Water flow	I/s	11.23	13.33	15.53	17.92	20.26	25.13	28.62	32.11	37.17
Evaporator	Pressure drops	kPa	49	34	39	41	34	50	48	55	51
	Water connections	DN	100	125	125	125	125	150	150	150	150
Connections	Delivery line	Ø mm	2 x 42	2 x 42	2 x 54	2 x 54	2 x 54	2 x 64	2 x 64	2 x 76	2 x 76
Connections	Liquid line	Ø mm	2 x 35	2 x 35	2 x 35	2 x 35	2 x 35	2 x 42	2 x 42	2 x 42	2 x 54
Electrical	Power supply	V/Ph/Hz					400/3/50	•			
	Max. running current	Α	178	214	238	270	306	354	398	438	518
characteristics	Max. starting current	А	240	258	314	330	374	465	487	549	723
Sound pressure	STD version (2)	dB(A)	76	76	76	76	76	76	76	77	78
Sound pressure	SSL version (2)	dB(A)	72	72	72	72	72	72	72	73	74
Weights	Transport weight	Kg	1480	1820	1840	1860	1900	2420	2540	2590	3190
vveignts	Operating weight	Kg	1570	1960	1990	2010	2040	2680	2820	2850	3460
MODEL			4202-B	4402-B	4802-B	5402-B	6002-B	6603-B	7203-B	8103-B	9003-B
	Cooling capacity (1)	kW	4202-B 905	4402-B 1015	4802-B	5402-B 1282	6002-B	6603-B	7203-B 1733	8103-B	9003-B 2168
MODEL Cooling	Cooling capacity (1) Absorbed power (1)	kW kW									
			905	1015	1140	1282	1433	1566	1733	1909	2168
	Absorbed power (1)	kW	905 262	1015 296	1140 327	1282 364	1433 417	1566 456	1733 498	1909 550	2168 631
Cooling	Absorbed power (1) Quantity	kW n°	905 262 2	1015 296 2	1140 327 2	1282 364 2	1433 417 2	1566 456 3	1733 498 3	1909 550 3	2168 631 3
Cooling	Absorbed power (1) Quantity Refrigerant circuits	kW n° n°	905 262 2	1015 296 2	1140 327 2	1282 364 2	1433 417 2 2	1566 456 3	1733 498 3	1909 550 3	2168 631 3 3
Cooling	Absorbed power (1) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops	kW n° n° n° l/s kPa	905 262 2 2 2 43.24 57	1015 296 2 2 2 48.49 55	1140 327 2 2	1282 364 2 2 61.25 52	1433 417 2 2 Stepless 68.47 69	1566 456 3 3 74.82	1733 498 3 3 82.80 57	1909 550 3 3 91.21 67	2168 631 3 3 104 95
Cooling Compressor	Absorbed power (1) Quantity Refrigerant circuits Capacity steps Water flow	kW n° n° n° l/s	905 262 2 2 2	1015 296 2 2 2	1140 327 2 2 2	1282 364 2 2	1433 417 2 2 Stepless 68.47	1566 456 3 3 74.82	1733 498 3 3	1909 550 3 3	2168 631 3 3
Cooling Compressor Evaporator	Absorbed power (1) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops	kW n° n° n° l/s kPa	905 262 2 2 2 43.24 57	1015 296 2 2 2 48.49 55	1140 327 2 2 2 54.47 56	1282 364 2 2 61.25 52	1433 417 2 2 Stepless 68.47 69	1566 456 3 3 74.82	1733 498 3 3 82.80 57	1909 550 3 3 91.21 67	2168 631 3 3 104 95
Cooling Compressor	Absorbed power (1) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops Water connections	kW n° n° n° l/s kPa DN	905 262 2 2 2 43.24 57 150	1015 296 2 2 2 48.49 55 200	1140 327 2 2 54.47 56 200	1282 364 2 2 61.25 52 200	1433 417 2 2 Stepless 68.47 69 200	1566 456 3 3 74.82 78 250	1733 498 3 3 3 82.80 57 250	1909 550 3 3 91.21 67 250	2168 631 3 3 104 95 250
Cooling Compressor Evaporator Connections	Absorbed power (1) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops Water connections Delivery line	kW n° n° n° l/s kPa DN Ø mm	905 262 2 2 2 43.24 57 150 2 x 76	1015 296 2 2 2 48.49 55 200 2 x 76	1140 327 2 2 2 54.47 56 200 2 x 89	1282 364 2 2 61.25 52 200 2 x 89	1433 417 2 2 Stepless 68.47 69 200 2 x 89	1566 456 3 3 74.82 78 250 3 x 76	1733 498 3 3 3 82.80 57 250 3 x 89	1909 550 3 3 3 91.21 67 250 3 x 89	2168 631 3 3 104 95 250 3 x 89
Cooling Compressor Evaporator Connections Electrical	Absorbed power (1) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops Water connections Delivery line Liquid line	kW n° n° n° l/s kPa DN Ø mm	905 262 2 2 2 43.24 57 150 2 x 76	1015 296 2 2 2 48.49 55 200 2 x 76	1140 327 2 2 2 54.47 56 200 2 x 89	1282 364 2 2 61.25 52 200 2 x 89	1433 417 2 2 Stepless 68.47 69 200 2 x 89 2 x 54	1566 456 3 3 74.82 78 250 3 x 76	1733 498 3 3 3 82.80 57 250 3 x 89	1909 550 3 3 3 91.21 67 250 3 x 89	2168 631 3 3 104 95 250 3 x 89
Cooling Compressor Evaporator Connections	Absorbed power (1) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops Water connections Delivery line Liquid line Power supply	kW n° n° n° I/s kPa DN Ø mm Ø mm V/Ph/Hz	905 262 2 2 43.24 57 150 2 x 76 2 x 54	1015 296 2 2 2 48.49 55 200 2 x 76 2 x 54	1140 327 2 2 2 54.47 56 200 2 x 89 2 x 54	1282 364 2 2 61.25 52 200 2 x 89 2 x 54	1433 417 2 2 Stepless 68.47 69 200 2 x 89 2 x 54 400/3/50	1566 456 3 3 74.82 78 250 3 x 76 3 x 54	1733 498 3 3 3 82.80 57 250 3 x 89 3 x 54	1909 550 3 3 3 91.21 67 250 3 x 89 3 x 54	2168 631 3 3 104 95 250 3 x 89 3 x 54
Cooling Compressor Evaporator Connections Electrical characteristics	Absorbed power (1) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops Water connections Delivery line Liquid line Power supply Max. running current Max. starting current STD version (2)	kW n° n° n° I/s kPa DN Ø mm Ø mm V/Ph/Hz A	905 262 2 2 43.24 57 150 2 x 76 2 x 54	1015 296 2 2 48.49 55 200 2 x 76 2 x 54	1140 327 2 2 54.47 56 200 2 x 89 2 x 54	1282 364 2 2 61.25 52 200 2 x 89 2 x 54	1433 417 2 2 Stepless 68.47 69 200 2 x 89 2 x 54 400/3/50 834	1566 456 3 3 74.82 78 250 3 x 76 3 x 54	1733 498 3 3 3 82.80 57 250 3 x 89 3 x 54	1909 550 3 3 3 91.21 67 250 3 x 89 3 x 54	2168 631 3 3 104 95 250 3 x 89 3 x 54
Cooling Compressor Evaporator Connections Electrical	Absorbed power (1) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops Water connections Delivery line Liquid line Power supply Max. running current Max. starting current	kW n° n° n° I/s kPa DN Ø mm Ø mm V/Ph/Hz A	905 262 2 2 43.24 57 150 2 x 76 2 x 54	1015 296 2 2 48.49 55 200 2 x 76 2 x 54 602 765 80 76	1140 327 2 2 2 54.47 56 200 2 x 89 2 x 54	1282 364 2 2 61.25 52 200 2 x 89 2 x 54	1433 417 2 2 Stepless 68.47 69 200 2 x 89 2 x 54 400/3/50 834 1479	1566 456 3 3 74.82 78 250 3 x 76 3 x 54	1733 498 3 3 82.80 57 250 3 x 89 3 x 54	1909 550 3 3 91.21 67 250 3 x 89 3 x 54	2168 631 3 3 104 95 250 3 x 89 3 x 54
Cooling Compressor Evaporator Connections Electrical characteristics	Absorbed power (1) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops Water connections Delivery line Liquid line Power supply Max. running current Max. starting current STD version (2)	kW n° n° n° l/s kPa DN Ø mm Ø mm V/Ph/Hz A dB(A)	905 262 2 2 43.24 57 150 2 x 76 2 x 54 602 765 79	1015 296 2 2 48.49 55 200 2 x 76 2 x 54 602 765 80	1140 327 2 2 2 54.47 56 200 2 x 89 2 x 54 658 793 80	1282 364 2 2 61.25 52 200 2 x 89 2 x 54 818 1610 81	1433 417 2 2 Stepless 68.47 69 200 2 x 89 2 x 54 400/3/50 834 1479 82	1566 456 3 3 74.82 78 250 3 x 76 3 x 54 903 1066 81	1733 498 3 3 82.80 57 250 3 x 89 3 x 54	1909 550 3 3 91.21 67 250 3 x 89 3 x 54 1228 2019 83	2168 631 3 3 104 95 250 3 x 89 3 x 54 1251 1896 85

DIMENSION	NS .		1302-B	1502-B	1702-B	1902-B	2002-B	2602-B	2802-B	3002-B	3602-B
L	STD/SSL	mm	3300	3300	3700	3700	3700	3800	4000	4000	4300
W	STD/SSL	mm	800	800	800	800	800	1080	1080	1080	1080
Н	STD/SSL	mm	1700	1700	1700	1700	1700	1700	2100	2100	2100
DIMENSION	NS .		4202-B	4402-B	4802-B	5402-B	6002-B	6603-B	7203-B	8103-B	9003-B
L	STD/SSL	mm	4300	4300	5100	5100	5100	4800	5300	5300	5300
W	STD/SSL	mm	1080	1080	1080	1080	1080	1600	1600	1600	1600
Н	STD/SSL	mm	2100	2100	2100	2100	2100	2100	2100	2100	2100

CLEARANCE AREA

MEA/Y 1302-B÷9003-B

500 500 800 500



- Chilled water from 12 to 7 °C, condensing temperature 50 °C.
 Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
 Weights of SSL version are specified on technical brochure.

RCA/Y 8141÷9282

REMOTE AIRCOOLED CONDENSERS WITH AXIAL FANS.









The Remote aircooled Condensers with axial fans of the RCA/Y series are designed to be combined with evaporating units with R134a refrigerant (MEA/Y).

These units, available in three configurations depending on the level of noiselessness required: Standard, Silenced (SL) and Super silenced (SSL), are equipped with latest generation axial fans, with motor fan shrouds having a large radius of curvature to eliminate all the air flow turbulence and with larger plenum to uniform the air distribution on the cooling coil.

The units, except the V shaped ones, can be installed with either horizontal or vertical air delivery, as needed.

RCA/J 8141÷9282

On request, units can be supplied for R513A refrigerant.

VERSION

RCA/Y

Base unit

FEATURES

- Frame in oven painted with a polyurethane resin and galvanised steel casework.
- The cowlings of the motorfans are made with a wide bending radius to eliminate any turbulence in the air flow.
- Heat exchanger is made with corrugated tubes with a greater heat exchange surface, fins cut with a special louver configuration to give the
 best external coefficient of heat exchange,

COMBINATIONS

MEA/Y	1302-B	1502 - B	1702-B	1902-B	2002-B	2602-B	2802-B	3002 - B	3602 - B	4202-B
RCA/Y	8141	8151	8161	8171	8172	8251	8261	8271	8281	8282
MEA/J	1302-B	1502 - B	1702-B	1902-B	2002-B	2602-B	2802-B	3002-B	3602-B	4202-B
RCA/J	8141	8151	8161	8171	8172	8251	8261	8271	8281	8282

MEA/Y	4402-B	4802-B	5402-B	6002-B	6603-B	7203-B	8103-B	9003-B	
RCA/Y	9261	9271	9281	9282	3x8251	3x8252	3x8262	3x8272	
MEA/J	4402-B	4802 - B	5402 - B	6002 - B	6603-B	7203-B	8103-B	9003 - B	
RCA/J	9261	9271	9281	9282	3x8251	3x8252	3x8262	3x8272	

ACCESSORIES

FACTORY FITTED ACCESSORIES

SD Wiring integrated in branch

circuit box

FR Fan speed control

LOOSE ACCESSORIES

SVV Supports for vertical air flow versions

RCA/Y 8141÷9282

MODEL			8141	8151	8161	8171	8172	8251	8252	8261	8262
Fan	Quantity	n°	4	5	6	7	7	10	10	12	12
Connections	In	Ø mm	2X64	2X64	2X76	2X76	2X76	2X64	2X64	2X76	2X76
COHHECTIONS	Out	Ø mm	2x42	2x42	2x42	2x54	2x54	2x42	2x42	2x42	2x42
Electrical	Power supply	V/Ph/Hz					400/3/50				
characteristics	Absorbed power	kW	7.20	9.00	10.80	12.60	12.60	18.00	68.40	21.60	21.60
criaracteristics	Absorbed current	Α	15.20	19.00	22.80	26.60	26.60	38.00	38.00	45.60	45.60
Sound pressure	STD version (1)	dB(A)	55	56	57	56	56	59	59	59	59
Weights	Transport weight	Kg	822	1016	1210	1302	1404	1590	1467	1754	1902
vveignts	Operating weight	Kg	854	1055	1282	1366	1489	1660	1521	1854	2033

MODEL			8271	8272	8281	8282	9261	9271	9281	9282
Fan	Quantity	n°	14	14	16	16	12	14	16	16
Connections	In	Ømm	2X76							
Connections	Out	Ø mm	2x54	2x54	2x54	2x54	2X64	2X64	2X64	2X64
Electrical	Power supply	V/Ph/Hz				400/	3/50			
characteristics	Absorbed power	kW	25.20	25.20	28.80	28.80	34.30	34.30	39.20	57.60
CHALACTELISTICS	Absorbed current	A	53.20	53.20	60.80	60.80	72.80	72.80	83.20	115.20
Sound pressure	STD version (1)	dB(A)	59	59	60	60	63	63	64	70
Weights	Transport weight	Kg	2043	2214	2331	2528	3971	4218	4769	4769
vveigins	Operating weight	Kg	2196	2367	2463	2702	4102	4369	4940	4940

DIME	NSIONS		8141	8151	8161	8171	8172	8251	8252	8261	8262	8271	8272	8281	8282	9261	9271	9281	9282
L	STD	mm	5930	7280	8630	9980	9980	7280	7280	8630	8630	9980	9980	11330	11330	7990	9240	10490	10490
W	STD	mm	1380	1380	1380	1380	1380	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400
Н	STD	mm	1565	1565	1565	1565	1565	1565	1565	1565	1565	1565	1565	1565	1565	2260	2260	2260	2260

CLEARANCE AREA

RCA/Y 8141÷8282

RCA/Y 9261÷9282





- Sound pressure level measured in free field conditions at 10 m from the unit. According to ISO 3744.
- N.B. Combinations are made at condensing temperature 50 °C, ambient
- air temperature 35 °C.

 N.B. Clearance areas are specified on installation, use and maintenance manual.

RCA/Y/SL 8231÷9282

SILENCED REMOTE AIRCOOLED CONDENSERS WITH AXIAL FANS.











The Remote aircooled Condensers with axial fans of the RCA/Y/SL series are designed to be combined with evaporating units with R134a refrigerant (MEA/Y).

These units, available in three configurations depending on the level of noiselessness required: Standard, Silenced (SL) and Super silenced (SSL), are equipped with latest generation axial fans, with motor fan shrouds having a large radius of curvature to eliminate all the air flow turbulence and with larger plenum to uniform the air distribution on the cooling coil.

The units, except the V shaped ones, can be installed with either horizontal or vertical air delivery, as needed.

RCA/J/SL 8231÷9282

On request, units can be supplied for R513A refrigerant.

VERSION

RCA/Y/SL

Silenced unit

FEATURES

- Frame in oven painted with a polyurethane resin and galvanised steel casework.
- The cowlings of the motorfans are made with a wide bending radius to eliminate any turbulence in the air flow.
- Heat exchanger is made with corrugated tubes with a greater heat exchange surface, fins cut with a special louver configuration to give the
 best external coefficient of heat exchange,

COMBINATIONS

MEA/Y	1302 - B	1502-B	1702-B	1902-B	2002 - B	2602-B	2802-B	3002-B	3602-B	4202 - B	MEA/Y
RCA/Y/SL	8231	8232	8241	8242	8251	8261	8271	8281	9261	9271	RCA/Y
MEA/J	1302-B	1502-B	1702-B	1902-B	2002-B	2602-B	2802-B	3002-B	3602-B	4202-B	MEA/J
RCA/J/SL	8231	8232	8241	8242	8251	8261	8271	8281	9261	9271	RCA/J

MEA/Y	4402-B	4802-B	5402-B	6002-B	6603-B	7203-B	8103-B	9003-B	
RCA/Y/SL	9281	9282	2x8272	2x8282	3x9171	3x9172	3x9251	3x9252	
MEA/J	4402-B	4802-B	5402 - B	6002-B	6603-B	7203-B	8103-B	9003-B	
RCA/J/SL	9281	9282	2x8272	2x8282	3x9171	3x9172	3x9251	3x9252	

ACCESSORIES

FACTORY FITTED ACCESSORIES

SD Wiring integrated in branch

circuit box

FR Fan speed control

LOOSE ACCESSORIES

SVV Supports for vertical air flow versions

RCA/Y/SL 8231÷9282

MODEL			8231	8232	8241	8242	8251	8261	8271	8272	8281
Fan	Quantity	n°	6	6	8	8	10	12	14	14	16
Connections	In	Ø mm	2x54	2x54	2x54	2x54	2X64	2X76	2X76	2X76	2X76
Connections	Out	Ø mm	2x42	2x42	2x35	2x42	2x42	2x42	2x54	2x54	2x54
Electrical	Power supply	V/Ph/Hz					400/3/50				
characteristics	Absorbed power	kW	6.90	6.90	9.20	9.20	11.50	13.80	16.10	16.10	18.40
Characteristics	Absorbed current	Α	13.20	13.20	17.60	17.60	22.00	26.40	30.80	30.80	35.20
Sound pressure	SL version (1)	dB(A)	50	50	51	51	52	52	52	52	53
Weights	Transport weight	Kg	891	965	1179	1278	1467	1754	2043	2214	2331
vveignts	Operating weight	Kg	924	1008	1222	1334	1521	1854	2160	2367	2463
MODEL			8282	9171	9172	9251	9252	9261	9271	9281	9282
Fan	Quantity	n°	16	7	7	10	10	12	14	16	16
Connections	In	Ø mm	2X76	2X76	2X76	2X76	2X76	2X76	2X76	2X76	2X76
Connections	Out	Ø mm	2x54	2x54	2x54	2x54	2x54	2x54	2X64	2X64	2X64
Electrical	Power supply	V/Ph/Hz		•			400/3/50				
	Absorbed power	kW	18.40	10.92	10.92	15.60	15.60	18.72	21.84	24.96	38.40
characteristics	Absorbed current	Α	35.20	20.30	20.30	29.00	29.00	34.80	40.60	46.40	65.60
Sound pressure	SL version (1)	dB(A)	53	53	53	55	55	56	56	57	65
Maiabta	Transport weight	Kg	2528	2097	2283	2942	3117	3668	4218	4769	4769
Weights	Operating weight	Kg	2702	2183	2396	3027	3227	3799	4369	4940	4940

DIN	1ENSIO	NS	8231	8232	8241	8242	8251	8261	8271	8272	8281	8282	9171	9172	9251	9252	9261	9271	9281	9282
L	SL	mm	4580	4580	5930	5930	7280	8630	9980	9980	11330	11330	10275	10275	6740	6740	7990	9240	10490	10490
W	SL	mm	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400	1170	1170	2400	2400	2400	2400	2400	2400
Н	SL	mm	1565	1565	1565	1565	1565	1565	1565	1565	1565	1565	1805	1805	2260	2260	2260	2260	2260	2260

CLEARANCE AREA

RCA/Y/SL 8231÷8282

RCA/Y/SL 9171÷9282





- Sound pressure level measured in free field conditions at 10 m from the unit. According to ISO 3744.
- N.B. Combinations are made at condensing temperature 50 °C, ambient
- air temperature 35 °C.

 N.B. Clearance areas are specified on installation, use and maintenance manual.

RCA/Y/SSL 8151÷9281

SUPER SILENCED REMOTE AIRCOOLED CONDENSERS WITH AXIAL FANS.











The Remote aircooled Condensers with axial fans of the RCA/Y/SSL series are designed to be combined with evaporating units with R134a refrigerant (MEA/Y).

These units, available in three configurations depending on the level of noiselessness required: Standard, Silenced (SL) and Super silenced (SSL), are equipped with latest generation axial fans, with motor fan shrouds having a large radius of curvature to eliminate all the air flow turbulence and with larger plenum to uniform the air distribution on the

The units, except the V shaped ones, can be installed with either horizontal or vertical air delivery, as needed.

RCA/J/SSL 8151÷9281

On request, units can be supplied for R513A refrigerant.

VERSION

RCA/Y/SSL

Super silenced unit

FEATURES

- Frame in oven painted with a polyurethane resin and galvanised steel casework.
- · The cowlings of the motorfans are made with a wide bending radius to eliminate any turbulence in the air flow.
- Heat exchanger is made with corrugated tubes with a greater heat exchange surface, fins cut with a special louver configuration to give the best external coefficient of heat exchange.

COMBINATIONS

MEA/Y	1302 - B	1502 - B	1702-B	1902 - B	2002-B	2602-B	2802-B	3002-B	3602-B	4202 - B	Ν	MEA/Y	4402-B	4802 - B	5402 - B	6002-B	6603-B	7203-B	8103-B	9003-B
RCA/Y/SSL	8151	8161	8171	8251	8251	8261	8272	8282	9271	9272	F	RCA/Y/SSL	9281	2x8271	2x8281	2x8282	3x8261	3x8271	3x8272	3x8281
MEA/J	1302 - B	1502 - B	1702-B	1902 - B	2002-B	2602-B	2802-B	3002-B	3602-B	4202 - B	Λ	MEA/J	4402-B	4802 - B	5402 - B	6002-B	6603-B	7203-B	8103-B	9003-B
RCA/J/SSL	8151	8161	8171	8251	8251	8261	8272	8282	9271	9272	F	RCA/J/SSL	9281	2x8271	2x8281	2x8282	3x8261	3x8271	3×8272	3x8281

ACCESSORIES

FACTORY FITTED ACCESSORIES

Wiring integrated in branch SD

circuit box

FR Fan speed control

LOOSE ACCESSORIES

Supports for vertical air flow versions

RCA/Y/SSL 8151÷9281

MODEL			8151	8161	8171	8251	8261	8271	8272	8281	8282	9271	9272	9281
Fan	Quantity	n°	5	6	7	10	12	14	14	16	16	14	14	16
Connections	In	Ø mm	2X64	2X76	2X76	2X64	2X76	2X76	2X76	2x54	2x54	2X76	2X76	2X76
COLLIBERTIONS	Out	Ø mm	2x42	2x42	2x54	2x42	2x42	2x54	2x54	2x54	2x54	2X64	2X64	2X64
Electrical	Power supply	V/Ph/Hz						400/	3/50					
characteristics	Absorbed power	kW	4.45	5.34	6.23	8.90	10.68	12.46	12.46	14.24	14.24	12.74	12.74	14.56
CHaracteristics	Absorbed current	А	11.10	13.32	15.54	22.20	26.64	31.08	31.08	35.52	35.52	31.78	31.78	36.32
Sound pressure	SSL version (1)	dB(A)	50	51	50	53	53	53	53	54	54	57	57	58
Weights	Transport weight	Kg	1016	1210	1404	1467	1902	2214	2043	2528	2331	3971	4218	3769
vvergnts	Operating weight	Kg	1055	1282	1489	1521	2033	2367	2156	2702	2463	4088	4369	3940

DIMENSION	NS .		8151	8161	8171	8251	8261	8271	8272	8281	8282	9271	9272	9281
L	SSL	mm	7280	8630	9980	7280	8630	9980	9980	11330	11330	9240	9240	10490
W	SSL	mm	1380	1380	1380	2400	2400	2400	2400	2400	2400	2400	2400	2400
Н	SSL	mm	1565	1565	1565	1565	1565	1565	1565	1565	1565	2262	2262	2262

CLEARANCE AREA

RCA/Y/SSL 8151÷8282

RCA/Y/SSL 9271÷9281





- Sound pressure level measured in free field conditions at 10 m from the unit. According to ISO 3744.
- N.B. Combinations are made at condensing temperature 50 °C, ambient
- air temperature 35 °C. N.B. Clearance areas are specified on installation, use and maintenance manual.

CWW/TTH 1701-1÷6606-1

A CLASS ENERGY EFFICIENCY WATERCOOLED LIQUID CHILLERS WITH TURBOCOR (MAGNETIC LEVITATION) COMPRESSORS AND FLOODED SHELL AND TUBE EXCHANGERS FOR COOLING TOWER OPERATION.

















The innovative CWW/TTH 1701-1÷6606-1 TURBOLINE units for cooling tower operation, featuring A CLASS energy efficiency and HFO-R1234ze refrigerant, are designed to provide an effective solution to highly selective system needs. The latest generation refrigerant HFO-R1234ze, with GWP<1 (Global warming Potential), is the most environmentally sustainable refrigerant on the market, and meets the strictest international environmental regulations. Furthermore, thanks to Turbocor compressors, the units perform with top efficiency at partial loads, low inrush currents, an excellent silent functioning and reduced weight.

Using TURBOCOR dynamic partial-load oil-free magnetic levitation compressors, managed by the TURBOSOFT self-adaptive electronic control and flooded shell and tube evaporators, provide high energy performance, with unbeatable SEER/ESEER/IPLV values, with minimum water content, and an excellent silent functioning. Compared to traditional Screw compressor units, TURBOLINE units have low operational costs during their entire use, with a savings that can even reach 50%. Besides, the units are equipped with the WEB MONITORING system, for remotely managing and monitoring the units by means of GPRS/EDGE/3G/TCP-IP communication protocol. The users enabled to use this service can, through dedicated Web page, access Monitoring, Management and Statistics activities.

The units are already compliant to ErP 2021 European Regulations.

VERSION

HFO R1234ze ₩

CWW/TTH

Cooling only for cooling tower

FEATURES

- · Self-supporting galvanized steel frame protected with additional protection achieved via polyester powder painting.
- Semi-hermetic centrifugal compressors with dual Turbocor turbine, oil free, magnetic rising rotor, thermal protection, continuous capacity adjustment system thanks to built-in INVERTER, automatic anti-cavitation system. The power circuit of the compressor is fitted with a set of electrolytic condensers to control the rising in the event of a power failure, reactor for the power factor correction, EMI filter for electromagnetic compatibility.
- Shell and tube type condenser, with easily removable cast iron heads to enable access for maintenance operations.
- High efficiency flooded shell and tube type evaporator, with one circuit on the refrigerant side and one on the water side, complete with water differential pressure switch.
- Cooling circuit shut-off valves on suction, discharge and liquid line.
- Electronic expansion valve.
- Electronic high and low pressure gauges.
- HFO-R1234ze refrigerant.
- Electrical board includes: main on-off switch with door lock, fuses, electronic/digital overload device to protect the compressors, interface relay and terminals for external connections.
- TURBOSOFT control and regulation system is fitted with RS485 serial interface and Web Monitoring device for remote monitoring via GPRS/ EDGE/3G/TCP-IP network.

ACCESSORIES

FACTOR	Y FITTED ACCESSORIES		
IM	Automatic circuit breakers	ISL	LonWorks protocol, FTT-10 serial
HR	Desuperheater		interface
HRT	Total heat recovery	IAV	Remote set-point, 0-10 V signal
FE	Antifreeze heater for evaporator	IAA	Remote set-point, 4-20 mA signal
TS	Touch screen Interface	IAS	Remote signal for second set-point
ISB	BACnet MSTP protocol, RS485		activation
	serial interface	IDL	Demand limit from digital input
ISBT	BACnet TCP/IP protocol, Ethernet	CP	Potential free contacts
	port		

LOOSE ACCESSORIES

LOCOLA	100L000IIIL0
MN	High and low pressure gauges
CR	Remote control panel
AG	Rubber shock absorbers
AM	Spring shock absorbers
FL	Flow switch



CWW/TTH 1701-1÷6606-1





MODEL			1701-1	2202-1	3303-1	4404-1	5505-1	6606-1		
	Cooling capacity (1)	kW	321	639	958	1279	1601	1922		
Cooling	Absorbed power (1)	kW	54	108	162	216	271	325		
, i	EER (1)		5.94	5.92	5.91	5.92	5.91	5.91		
	Cooling capacity (1)	kW	320	637	955	1276	1595	1916		
	Absorbed power (1)	kW	56	110	165	220	277	331		
	EER (1)		5.71	5.79	5.79	5.80	5.76	5.79		
Cooling (EN14511)	ESEER		8.51	8.85	8.87	8.93	8.99	9.03		
_	EUROVENT Class		А	Α	А	Α	А	Α		
	SEER (2)		7.16	7.63	7.72	7.85	7.90	7.97		
	Energy Efficiency (2)	%	278	297	301	306	308	311		
	Quantity	n°	1	2	3	4	5	6		
Compressor	Refrigerant circuits	n°	1	1	1	1	1	1		
· ·	Capacity steps	n°	Stepless							
	Water flow	I/s	15.34	30.53	45.77	61.11	76.49	91.83		
Evaporator	Pressure drops	kPa	45	46	45	34	52	50		
	Water connections	DN	100	125	150	150	200	200		
	Water flow	I/s	17.93	35.69	53.51	71.43	89.44	107		
Condenser	Pressure drops	kPa	49	50	49	50	55	52		
	Water connections	DN	100	125	150	150	200	200		
Electrical	Power supply	V/Ph/Hz			400/	3/50				
	Max. running current	А	150	300	450	600	750	900		
characteristics	Max. starting current	А	5	155	305	455	605	755		
Sound pressure (3)		dB(A)	72	74	76	76	77	78		
Maighta	Transport weight	Kg	1798	2837	3924	6408	7741	11474		
Weights	Operating weight	Kg	1930	3100	4340	7120	8780	13140		

DIMENSION	1S		1701-1	2202-1	3303-1	4404-1	5505-1	6606-1
L	STD	mm	3400	3400	3450	4550	5500	6500
W	STD	mm	1100	1150	1800	1800	1800	1800
Н	STD	mm	1800	1950	2050	2100	2100	2150

CLEARANCE AREA

CWW/TTH 1701-1÷6606-1

500 500 800 500



- Chilled water from 12 to 7 °C, water temperature at the condenser from 30 to 35 °C. Seasonal energy efficiency of cooling at low temperature. According to EU Regulation n. 2016/2281. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.

CWW/TTH/DR 1701-1÷6606-1

A CLASS ENERGY EFFICIENCY WATERCOOLED LIQUID CHILLERS WITH TURBOCOR (MAGNETIC LEVITATION) COMPRESSORS AND FLOODED SHELL AND TUBE EXCHANGERS FOR DRY-COOLER OPERATION.





HFO R1234ze ₩













The innovative CWW/TTH/DR 1701-1÷6606-1 TURBOLINE units for Dry-Cooler operation, featuring A CLASS energy efficiency and HFO-R1234ze refrigerant, are designed to provide an effective solution to highly selective system needs. The latest generation refrigerant HFO-R1234ze, with GWP<1 (Global warming Potential), is the most environmentally sustainable refrigerant on the market, and meets the strictest international environmental regulations. Furthermore, thanks to Turbocor compressors, the units perform with top efficiency at partial loads, low inrush currents, an excellent silent functioning and reduced weight. Using TURBOCOR dynamic partial-load oil-free magnetic levitation compressors, managed by the TURBOSOFT self-adaptive electronic control and flooded shell and tube evaporators, provide high energy performance, with unbeatable SEER/ESEER/IPLV values, with minimum water content, and an excellent silent functioning. Compared to traditional Screw compressor units, TURBOLINE units have low operational costs during their entire use, with a savings that can even reach 50%. Besides, the units are equipped with the WEB MONITORING system, for remotely managing and monitoring the units by means of GPRS/EDGE/3G/TCP-IP communication protocol. The users enabled to use this service can, through dedicated Web page, access Monitoring, Management and Statistics activities.

The units are already compliant to ErP 2021 European Regulations.

VERSION

CWW/TTH/DR

Cooling only for Dry-Cooler

FEATURES

- · Self-supporting galvanized steel frame protected with additional protection achieved via polyester powder painting.
- Semi-hermetic centrifugal compressors with dual Turbocor turbine, oil free, magnetic rising rotor, thermal protection, continuous capacity adjustment system thanks to built-in INVERTER, automatic anti-cavitation system. The power circuit of the compressor is fitted with a set of electrolytic condensers to control the rising in the event of a power failure, reactor for the power factor correction, EMI filter for electromagnetic compatibility.
- Shell and tube type condenser, with easily removable cast iron heads to enable access for maintenance operations.
- High efficiency flooded shell and tube type evaporator, with one circuit on the refrigerant side and one on the water side, complete with water differential
- Cooling circuit shut-off valves on suction, discharge and liquid line.
- Electronic expansion valve.
- Electronic high and low pressure gauges.
- HFO-R1234ze refrigerant.
- Electrical board includes: main on-off switch with door lock, fuses, electronic/digital overload device to protect the compressors, interface relay and terminals for external connections.
- TURBOSOFT control and regulation system is fitted with RS485 serial interface and Web Monitoring device for remote monitoring via GPRS/ EDGE/3G/TCP-IP network.

ACCESSORIES

FACTOR	Y FITTED ACCESSORIES		
IM	Automatic circuit breakers	ISL	LonWorks protocol, FTT-10 serial
HR	Desuperheater		interface
HRT	Total heat recovery	IAV	Remote set-point, 0-10 V signal
FE	Antifreeze heater for evaporator	IAA	Remote set-point, 4-20 mA signal
TS	Touch screen Interface	IAS	Remote signal for second set-point
ISB	BACnet MSTP protocol, RS485		activation
	serial interface	IDL	Demand limit from digital input
ISBT	BACnet TCP/IP protocol, Ethernet	CP	Potential free contacts
	port		

LOOSE ACCESSORIES

High and low pressure gauges
Remote control panel
Rubber shock absorbers
Spring shock absorbers
Flow switch



CWW/TTH/DR 1701-1÷6606-1





MODEL			1701-1	2202-1	3303-1	4404-1	5505-1	6606-1				
	Cooling capacity (1)	kW	301	603	899	1203	1499	1802				
Cooling	Absorbed power (1)	kW	71	142	212	283	354	424				
-	EER (1)		4.24	4.25	4.24	4.25	4.23	4.25				
	Cooling capacity (1)	kW	300	601	896	1200	1494	1797				
Cooling (EN14511)	Absorbed power (1)	kW	72	144	215	286	359	429				
	EER (1)		4.17	4.17	4.17	4.20	4.16	4.19				
	Quantity	n°	1	2	3	4	5	6				
Compressor	Refrigerant circuits	n°	1	1	1	1	1	1				
	Capacity steps	n°	Stepless									
	Water flow	I/s	14.38	28.81	42.95	57.48	71.62	86.10				
vaporator	Pressure drops	kPa	41	42	41	30	47	44				
	Water connections	DN	100	125	150	150	200	200				
	Water flow	I/s	19.4	38.8	58.0	77.7	96.7	116				
Condenser	Pressure drops	kPa	55	56	55	56	62	58				
	Water connections	DN	100	125	150	150	1494 359 4.16 5 1 71.62 47 200 96.7	200				
Electrical	Power supply	V/Ph/Hz	V/Ph/Hz 400/3/50									
	Max. running current	Α	150	300	450	600	750	900				
characteristics	Max. starting current	A	5	155	305	455	605	755				
Sound pressure (2)		dB(A)	72	74	76	76	77	78				
Weights	Transport weight	Kg	1849	2919	4065	6587	7942	11716				
veignis	Operating weight	Kg	1990	3200	4510	7340	9040	13460				

DIMENSION	NS .		1701-1	2202-1	3303-1	4404-1	5505-1	6606-1
L	STD	mm	3400	3400	3450	4550	5500	6500
W	STD	mm	1100	1150	1800	1800	1800	1800
Н	STD	mm	1800	1950	2050	2100	2100	2150

CLEARANCE AREA

CWW/TTH/DR 1701-1÷6606-1 500 500 800 500



- Chilled water from 12 to 7 °C, temperature at the condenser (with ethylene glycol at 35%) from 40 to 45 °C. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.

FROM 319 KW TO 3912 KW.



A CLASS ENERGY EFFICIENCY WATERCOOLED LIQUID CHILLERS WITH TURBOCOR (MAGNETIC LEVITATION) COMPRESSORS AND FLOODED SHELL AND TUBE EXCHANGERS FOR COOLING TOWER OPERATION.



















The innovative CWW/TTY 1601-1÷14406-1 TURBOLINE units for cooling tower operation, featuring A CLASS energy efficiency, are designed to provide an effective solution to highly selective system needs. Efficiency at partial loads, low breakaway starting current, low levels of operational noise, reduced weight and the specific design and handling every manufacturing aspect, make the TURBOLINE series the top of the range.

Using TURBOCOR dynamic partial-load oil-free magnetic levitation compressors, managed by the TURBOSOFT self-adaptive electronic control and flooded shell and tube evaporators, provide high energy performance, with unbeatable SEER/ESEER/IPLV values, with minimum water content, and an excellent silent functioning. Compared to traditional Screw compressor units, TURBOLINE units have low operational costs during their entire use, with a savings that can even reach 50%. Besides, the units are equipped with the WEB MONITORING system, for remotely managing and monitoring the units by means of GPRS/EDGE/3G/TCP-IP communication protocol. The users enabled to use this service can, through dedicated Web page, access Monitoring, Management and Statistics activities.

The units are already compliant to ErP 2021 European Regulations.

CWW/TTJ 1601-1÷14406-1

On request, units can be supplied for R513A refrigerant.

VERSION

CWW/TTY

Cooling only for cooling tower

FEATURES

- Self-supporting galvanized steel frame protected with additional protection achieved via polyester powder painting.
- Semi-hermetic centrifugal compressors with dual Turbocor turbine, oil free, magnetic rising rotor, thermal protection, continuous capacity adjustment system thanks to built-in INVERTER, automatic anti-cavitation system. The power circuit of the compressor is fitted with a set of electrolytic condensers to control the rising in the event of a power failure, reactor for the power factor correction, EMI filter for electromagnetic compatibility.
- Shell and tube type condenser, with easily removable cast iron heads to enable access for maintenance operations.
- High efficiency flooded shell and tube type evaporator, with one circuit on the refrigerant side and one on the water side, complete with water differential pressure switch.
- Cooling circuit shut-off valves on suction, discharge and liquid line.
- Electronic expansion valve.
- Electronic high and low pressure gauges.
- R134a refrigerant, On request R513A refrigerant,
- Electrical board includes: main on-off switch with door lock, fuses, electronic/digital overload device to protect the compressors, interface relay and terminals for external connections.
- TURBOSOFT control and regulation system is fitted with RS485 serial interface and Web Monitoring device for remote monitoring via GPRS/ EDGE/3G/TCP-IP network.

ACCESSORIES

FACTORY FITTED ACCESSORIES

IM Automatic circuit breakers HR Desuperheater HRT Total heat recovery FF Antifreeze heater for evaporator TS Touch screen Interface

ISB BACnet MSTP protocol, RS485 serial interface

ISBT BACnet TCP/IP protocol, Ethernet

port ISL LonWorks protocol, FTT-10 serial

interface IAV/ Remote set-point, 0-10 V signal IAA Remote set-point, 4-20 mA signal IAS Remote signal for second set-point activation

Demand limit from digital input IDI CP Potential free contacts

LOOSE ACCESSORIES

High and low pressure gauges MNCR Remote control panel ΑG Rubber shock absorbers ΑM Spring shock absorbers

FL Flow switch



CWW/TTY 1601-1÷14406-1





MODEL			1601-1	2001-1	2501-1	3002-1	3502-1	4002-1	4203-1	4602-1	5103-1	5202-1
	Cooling capacity (1)	kW	319	421	519	642	712	838	962	1040	1260	1302
Cooling	Absorbed power (1)	kW	55	71	85	110	121	141	166	170	213	206
	EER (1)		5.80	5.93	6.11	5.84	5.88	5.94	5.80	6.12	5.92	6.32
	Cooling capacity (1)	kW	318	420	517	640	710	835	958	1036	1255	1298
	Absorbed power (1)	kW	55	72	87	112	123	143	167	174	216	210
	EER (1)		5.78	5.83	5.94	5.71	5.77	5.84	5.74	5.95	5.81	6.18
Cooling (EN14511)	ESEER		8.12	8.29	8.51	8.57	8.66	8.70	8.55	8.97	8.70	9.21
	EUROVENT Class		Α	Α	А	А	Α	А	А	Α	А	А
	SEER (2)		7.01	7.36	7.69	7.48	7.65	7.71	7.55	7.97	7.79	8.31
	Energy Efficiency (2)	%	272	286	300	291	298	300	294	311	304	324
	Quantity	n°	1	1	1	2	2	2	3	2	3	2
Compressor	Refrigerant circuits	n°	1	1	1	1	1	1	1	1	1	1
·	Capacity steps	n°				•	Ster	oless	•			
	Water flow	I/s	15.24	20.11	24.80	30.67	34.02	40.04	45.96	49.69	60.20	62.21
Evaporator	Pressure drops	kPa	46	48	50	49	42	53	57	53	59	45
•	Water connections	DN	100	100	100	125	125	125	150	150	150	150
	Water flow	I/s	17.87	23.51	28.86	35.93	39.80	46.77	53.89	57.81	70.38	72.05
Condenser	Pressure drops	kPa	46	45	37	45	38	46	47	48	44	47
	Water connections	DN	100	100	125	125	125	125	150	150	150	150
Floatsiaal	Power supply	V/Ph/Hz					400/	/3/50				
Electrical	Max. running current	A	145	231	187	290	462	462	435	374	693	420
characteristics	Max. starting current	А	2	2	2	147	233	233	292	189	464	212
Sound pressure (3)		dB(A)	72	74	74	75	76	77	76	76	77	77
M/aiahta	Transport weight	Kg	1795	2060	2360	2870	3225	3325	3715	3540	4235	4155
Weights	Operating weight	Kg	1920	2230	2580	3120	3560	3660	4070	3940	4720	4740
MODEL			5303-1	5703-1	6204-1	7303-1	7603-1	8104-1	9704-1	10104-1	12605-1	14406-1
MODEL	Cooling capacity (1)	kW										
	Cooling capacity (1) Absorbed power (1)	kW kW	5303-1 1427 238	5703-1 1563 257	1676	1787	7603-1 1944 306	8104-1 2080 341	9704-1 2382 396	10104-1 2600 411	12605-1 3245 511	3912 617
MODEL Cooling	Cooling capacity (1) Absorbed power (1) EER (1)		1427 238	1563 257	1676 281	1787 295	1944 306	2080	2382 396	2600 411	3245 511	3912 617
	Absorbed power (1) EER (1)	kW	1427 238 6.00	1563 257 6.08	1676 281 5.96	1787 295 6.06	1944 306 6.35	2080 341 6.10	2382 396 6.02	2600 411 6.33	3245 511 6.35	3912 617 6.34
	Absorbed power (1) EER (1) Cooling capacity (1)		1427 238 6.00 1423	1563 257	1676 281 5.96 1671	1787 295 6.06 1783	1944 306	2080 341	2382 396	2600 411	3245 511 6.35 3234	3912 617
	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1)	kW	1427 238 6.00	1563 257 6.08 1559	1676 281 5.96	1787 295 6.06 1783 298	1944 306 6.35 1939	2080 341 6.10 2075	2382 396 6.02 2376	2600 411 6.33 2592	3245 511 6.35	3912 617 6.34 3898
Cooling	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1) EER (1)	kW	1427 238 6.00 1423 242 5.88	1563 257 6.08 1559 260 6.00	1676 281 5.96 1671 286 5.84	1787 295 6.06 1783 298 5.98	1944 306 6.35 1939 311 6.23	2080 341 6.10 2075 346 6.00	2382 396 6.02 2376 401 5.93	2600 411 6.33 2592 419 6.19	3245 511 6.35 3234 522 6.20	3912 617 6.34 3898 631 6.18
	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1) EER (1) ESEER	kW	1427 238 6.00 1423 242	1563 257 6.08 1559 260	1676 281 5.96 1671 286 5.84 8.77	1787 295 6.06 1783 298 5.98 9.16	1944 306 6.35 1939 311	2080 341 6.10 2075 346 6.00 8.96	2382 396 6.02 2376 401	2600 411 6.33 2592 419 6.19 9.24	3245 511 6.35 3234 522 6.20 9.26	3912 617 6.34 3898 631
Cooling	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1) EER (1)	kW	1427 238 6.00 1423 242 5.88 8.74	1563 257 6.08 1559 260 6.00 8.89	1676 281 5.96 1671 286 5.84 8.77	1787 295 6.06 1783 298 5.98	1944 306 6.35 1939 311 6.23 9.26	2080 341 6.10 2075 346 6.00 8.96 A	2382 396 6.02 2376 401 5.93 8.99	2600 411 6.33 2592 419 6.19 9.24 A	3245 511 6.35 3234 522 6.20	3912 617 6.34 3898 631 6.18 9.31
Cooling	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1) EER (1) ESEER EUROVENT Class SEER (2)	kW	1427 238 6.00 1423 242 5.88 8.74 A	1563 257 6.08 1559 260 6.00 8.89	1676 281 5.96 1671 286 5.84 8.77	1787 295 6.06 1783 298 5.98 9.16 A	1944 306 6.35 1939 311 6.23 9.26	2080 341 6.10 2075 346 6.00 8.96	2382 396 6.02 2376 401 5.93 8.99	2600 411 6.33 2592 419 6.19 9.24	3245 511 6.35 3234 522 6.20 9.26 A	3912 617 6.34 3898 631 6.18 9.31
Cooling	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1) EER (1) ESEER EUROVENT Class	kW kW kW	1427 238 6.00 1423 242 5.88 8.74 A 7.97	1563 257 6.08 1559 260 6.00 8.89 A	1676 281 5.96 1671 286 5.84 8.77 A 7.99	1787 295 6.06 1783 298 5.98 9.16 A 8.16	1944 306 6.35 1939 311 6.23 9.26 A 8.56	2080 341 6.10 2075 346 6.00 8.96 A 8.56	2382 396 6.02 2376 401 5.93 8.99 A	2600 411 6.33 2592 419 6.19 9.24 A 8.56	3245 511 6.35 3234 522 6.20 9.26 A 8.56	3912 617 6.34 3898 631 6.18 9.31 A
Cooling Cooling (EN14511)	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1) EER (1) EER (1) ESEER EUROVENT Class SEER (2) Energy Efficiency (2) Quantity	kW kW kW	1427 238 6.00 1423 242 5.88 8.74 A 7.97 311	1563 257 6.08 1559 260 6.00 8.89 A 8.06 314	1676 281 5.96 1671 286 5.84 8.77 A 7.99	1787 295 6.06 1783 298 5.98 9.16 A 8.16 318	1944 306 6.35 1939 311 6.23 9.26 A 8.56	2080 341 6.10 2075 346 6.00 8.96 A 8.56 334	2382 396 6.02 2376 401 5.93 8.99 A 8.56 334	2600 411 6.33 2592 419 6.19 9.24 A 8.56 334	3245 511 6.35 3234 522 6.20 9.26 A 8.56 334	3912 617 6.34 3898 631 6.18 9.31 A 8.56 334
Cooling	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1) EER (1) EER (1) ESEER EUROVENT Class SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits	kW kW kW	1427 238 6.00 1423 242 5.88 8.74 A 7.97 311 3	1563 257 6.08 1559 260 6.00 8.89 A 8.06 314	1676 281 5.96 1671 286 5.84 8.77 A 7.99 312	1787 295 6.06 1783 298 5.98 9.16 A 8.16 318	1944 306 6.35 1939 311 6.23 9.26 A 8.56 334 3	2080 341 6.10 2075 346 6.00 8.96 A 8.56 334 4	2382 396 6.02 2376 401 5.93 8.99 A 8.56 334	2600 411 6.33 2592 419 6.19 9.24 A 8.56 334	3245 511 6.35 3234 522 6.20 9.26 A 8.56 334 5	3912 617 6.34 3898 631 6.18 9.31 A 8.56 334 6
Cooling Cooling (EN14511)	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1) EER (1) ESEER EUROVENT Class SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits Capacity steps	kW kW kW n° n°	1427 238 6.00 1423 242 5.88 8.74 A 7.97 311 3	1563 257 6.08 1559 260 6.00 8.89 A 8.06 314 3	1676 281 5.96 1671 286 5.84 8.77 A 7.99 312	1787 295 6.06 1783 298 5.98 9.16 A 8.16 318 3	1944 306 6.35 1939 311 6.23 9.26 A 8.56 334 3 1	2080 341 6.10 2075 346 6.00 8.96 A 8.56 334 4 1	2382 396 6.02 2376 401 5.93 8.99 A 8.56 334	2600 411 6.33 2592 419 6.19 9.24 A 8.56 334	3245 511 6.35 3234 522 6.20 9.26 A 8.56 334 5	3912 617 6.34 3898 631 6.18 9.31 A 8.56 334 6
Cooling Cooling (EN14511) Compressor	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1) EER (1) ESEER EUROVENT Class SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits Capacity steps Water flow	kW kW kW n° n°	1427 238 6.00 1423 242 5.88 8.74 A 7.97 311 3	1563 257 6.08 1559 260 6.00 8.89 A 8.06 314 3 1	1676 281 5.96 1671 286 5.84 8.77 A 7.99 3112 4 1	1787 295 6.06 1783 298 5.98 9.16 A 8.16 318 3	1944 306 6.35 1939 311 6.23 9.26 A 8.56 334 3 1 Step	2080 341 6.10 2075 346 6.00 8.96 A 8.56 334 4 1 1 oless 99.38	2382 396 6.02 2376 401 5.93 8.99 A 8.56 334 4	2600 411 6.33 2592 419 6.19 9.24 A 8.56 334 4	3245 511 6.35 3234 522 6.20 9.26 A 8.56 334 5	3912 617 6.34 3898 631 6.18 9.31 A 8.56 334 6
Cooling Cooling (EN14511)	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1) EER (1) ESEER EUROVENT Class SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops	kW kW kW "% n° n° 1/s kPa	1427 238 6.00 1423 242 5.88 8.74 A 7.97 311 3 1	1563 257 6.08 1559 260 6.00 8.89 A 8.06 314 3 1	1676 281 5.96 1671 286 5.84 8.77 A 7.99 312 4 1	1787 295 6.06 1783 298 5.98 9.16 A 8.16 318 3 1	1944 306 6.35 1939 311 6.23 9.26 A 8.56 334 3 1 Stej 92.88	2080 341 6.10 2075 346 6.00 8.96 A 8.56 334 4 1 bless 99.38 36	2382 396 6.02 2376 401 5.93 8.99 A 8.56 334 4 1	2600 411 6.33 2592 419 6.19 9.24 A 8.56 334 4 1	3245 511 6.35 3234 522 6.20 9.26 A 8.56 334 5	3912 617 6.34 3898 631 6.18 9.31 A 8.56 334 6
Cooling Cooling (EN14511) Compressor	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1) EER (1) ESEER EUROVENT Class SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops Water connections	kW kW kW "% n° n° n° l/s kPa DN	1427 238 6.00 1423 242 5.88 8.74 A 7.97 311 3 1	1563 257 6.08 1559 260 6.00 8.89 A 8.06 314 3 1	1676 281 5.96 1671 286 5.84 8.77 A 7.99 312 4 1	1787 295 6.06 1783 298 5.98 9.16 A 8.16 318 3 1	1944 306 6.35 1939 311 6.23 9.26 A 8.56 334 3 1 Step	2080 341 6.10 2075 346 6.00 8.96 A 8.56 334 4 1 1 oless 99.38	2382 396 6.02 2376 401 5.93 8.99 A 8.56 334 4 1	2600 411 6.33 2592 419 6.19 9.24 A 8.56 334 4	3245 511 6.35 3234 522 6.20 9.26 A 8.56 334 5	3912 617 6.34 3898 631 6.18 9.31 A 8.56 334 6
Cooling Cooling (EN14511) Compressor	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1) EER (1) ESER (1) ESER EUROVENT Class SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops Water connections Water flow	kW kW kW "% n° n° 1/s kPa	1427 238 6.00 1423 242 5.88 8.74 A 7.97 311 3 1	1563 257 6.08 1559 260 6.00 8.89 A 8.06 314 3 1	1676 281 5.96 1671 286 5.84 8.77 A 7.99 312 4 1	1787 295 6.06 1783 298 5.98 9.16 A 8.16 318 3 1	1944 306 6.35 1939 311 6.23 9.26 A 8.56 334 3 1 Step 92.88 36 200	2080 341 6.10 2075 346 6.00 8.96 A 8.56 334 4 1 1 oless 99.38 36 200	2382 396 6.02 2376 401 5.93 8.99 A 8.56 334 4 1	2600 411 6.33 2592 419 6.19 9.24 A 8.56 334 4 1	3245 511 6.35 3234 522 6.20 9.26 A 8.56 334 5 1	3912 617 6.34 3898 631 6.18 9.31 A 8.56 334 6
Cooling Cooling (EN14511) Compressor Evaporator	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1) EER (1) ESEER EUROVENT Class SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops Water connections Water flow Pressure drops	kW kW kW % n° n° l's kPa DN l's kPa	1427 238 6.00 1423 242 5.88 8.74 A 7.97 311 3 1 68.18 45 200 79.55	1563 257 6.08 1559 260 6.00 8.89 A 8.06 314 3 1	1676 281 5.96 1671 286 5.84 8.77 A 7.99 312 4 1	1787 295 6.06 1783 298 5.98 9.16 A 8.16 318 3 1	1944 306 6.35 1939 311 6.23 9.26 A 8.56 334 3 1 Stej 92.88 36 200 108	2080 341 6.10 2075 346 6.00 8.96 A 8.56 334 4 1 1 1 1 1 1 1 1 1 1 1 1 1	2382 396 6.02 2376 401 5.93 8.99 A 8.56 334 4 1	2600 411 6.33 2592 419 6.19 9.24 A 8.56 334 4 1	3245 511 6.35 3234 522 6.20 9.26 A 8.56 334 5 1	3912 617 6.34 3898 631 6.18 9.31 A 8.56 334 6 1
Cooling Cooling (EN14511) Compressor Evaporator Condenser	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1) EER (1) ESEER EUROVENT Class SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops Water flow Pressure drops Water connections Water connections Water connections	kW kW kW % n° n° l/s kPa DN l/s kPa DN	1427 238 6.00 1423 242 5.88 8.74 A 7.97 311 3 1	1563 257 6.08 1559 260 6.00 8.89 A 8.06 314 3 1	1676 281 5.96 1671 286 5.84 8.77 A 7.99 312 4 1	1787 295 6.06 1783 298 5.98 9.16 A 8.16 318 3 1	1944 306 6.35 1939 311 6.23 9.26 A 8.56 334 3 1 Step 92.88 36 200 108 45	2080 341 6.10 2075 346 6.00 8.96 A 8.56 334 4 1 1 0less 99.38 36 200 116 46 250	2382 396 6.02 2376 401 5.93 8.99 A 8.56 334 4 1	2600 411 6.33 2592 419 6.19 9.24 A 8.56 334 4 1	3245 511 6.35 3234 522 6.20 9.26 A 8.56 334 5 1	3912 617 6.34 3898 631 6.18 9.31 A 8.56 334 6 1
Cooling Cooling (EN14511) Compressor Evaporator Condenser Electrical	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1) EER (1) ESEER EUROVENT Class SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops Water flow Pressure drops Water connections Water flow Pressure drops Water connections Power supply	kW kW kW % n° n° l/s kPa DN l/s kPa DN V/Ph/Hz	1427 238 6.00 1423 242 5.88 8.74 A 7.97 311 3 1 68.18 45 200 79.55 42	1563 257 6.08 1559 260 6.00 8.89 A 8.06 314 3 1 1 74.68 54 200 86.96 49 200	1676 281 5.96 1671 286 5.84 8.77 A 7.99 312 4 1 1 80.08 48 200 93.50 35 200	1787 295 6.06 1783 298 5.98 9.16 A 8.16 318 3 1 1 85.38 28 200 99.47 36 200	1944 306 6.35 1939 311 6.23 9.26 A 8.56 334 3 1 Stej 92.88 36 200 108 45 45	2080 341 6.10 2075 346 6.00 8.96 A 8.56 334 4 1 lless 99.38 36 200 116 46 250	2382 396 6.02 2376 401 5.93 8.99 A 8.56 334 4 1 1 114 37 250 133 36 250	2600 411 6.33 2592 419 6.19 9.24 A 8.56 334 4 1	3245 511 6.35 3234 522 6.20 9.26 A 8.56 334 5 1	3912 617 6.34 3898 631 6.18 9.31 A 8.56 334 6 1 1 87 62 300 216 52 300
Cooling Cooling (EN14511) Compressor Evaporator Condenser	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1) EER (1) ESEER EUROVENT Class SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops Water connections Water flow Pressure drops Water connections Power supply Max. running current	kW kW kW % n° n° l/s kPa DN l/s kPa DN V/Ph/Hz A	1427 238 6.00 1423 242 5.88 8.74 A 7.97 311 3 1 68.18 45 200 79.55 42 200	1563 257 6.08 1559 260 6.00 8.89 A 8.06 314 3 1 74.68 54 200 86.96 49 200	1676 281 5.96 1671 286 5.84 8.77 A 7.99 312 4 1 1 80.08 48 200 93.50 35 200	1787 295 6.06 1783 298 5.98 9.16 A 8.16 318 3 1 1 85.38 28 200 99.47 36 200	1944 306 6.35 1939 311 6.23 9.26 A 8.56 334 3 1 Stej 92.88 36 200 108 45 200 400/ 630	2080 341 6.10 2075 346 6.00 8.96 A 8.56 334 4 1 oless 99.38 36 200 116 46 250 3/50 748	2382 396 6.02 2376 401 5.93 8.99 A 8.56 334 4 1 1 114 37 250 133 36 250	2600 411 6.33 2592 419 6.19 9.24 A 8.56 334 4 1 1 124 48 250 144 46 250	3245 511 6.35 3234 522 6.20 9.26 A 8.56 334 5 1 155 58 300 179 50 300	3912 617 6.34 3898 631 6.18 9.31 A 8.56 334 6 1 187 62 300 216 52 300
Cooling Cooling (EN14511) Compressor Evaporator Condenser Electrical characteristics	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1) EER (1) ESEER EUROVENT Class SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops Water connections Water flow Pressure drops Water connections Power supply Max. running current Max. starting current	kW kW kW n° n° l/s kPa DN l/s kPa DN V/Ph/Hz A	1427 238 6.00 1423 242 5.88 8.74 A 7.97 311 3 1 68.18 45 200 79.55 42 200	1563 257 6.08 1559 260 6.00 8.89 A 8.06 314 3 1 74.68 54 200 86.96 49 200	1676 281 5.96 1671 286 5.84 8.77 A 7.99 312 4 1 1 80.08 48 200 93.50 35 200	1787 295 6.06 1783 298 5.98 9.16 A 8.16 318 3 1 85.38 28 200 99.47 36 200	1944 306 6.35 1939 311 6.23 9.26 A 8.56 334 3 1 Step 92.88 36 200 108 45 200 400,	2080 341 6.10 2075 346 6.00 8.96 A 8.56 334 4 1 1 obless 99.38 36 200 116 46 46 250 3/50 748	2382 396 6.02 2376 401 5.93 8.99 A 8.56 334 4 1 114 37 250 133 36 250	2600 411 6.33 2592 419 6.19 9.24 A 8.56 334 4 1 1 24 48 250 144 46 250	3245 511 6.35 3234 522 6.20 9.26 A 8.56 334 5 1 155 58 300 179 50 300	3912 617 6.34 3898 631 6.18 9.31 A 8.56 334 6 1 187 62 300 216 52 300
Cooling Cooling (EN14511) Compressor Evaporator Condenser Electrical	Absorbed power (1) EER (1) Cooling capacity (1) Absorbed power (1) EER (1) ESEER EUROVENT Class SEER (2) Energy Efficiency (2) Quantity Refrigerant circuits Capacity steps Water flow Pressure drops Water connections Water flow Pressure drops Water connections Power supply Max. running current Max. starting current	kW kW kW % n° n° l/s kPa DN l/s kPa DN V/Ph/Hz A	1427 238 6.00 1423 242 5.88 8.74 A 7.97 311 3 1 68.18 45 200 79.55 42 200	1563 257 6.08 1559 260 6.00 8.89 A 8.06 314 3 1 74.68 54 200 86.96 49 200	1676 281 5.96 1671 286 5.84 8.77 A 7.99 312 4 1 1 80.08 48 200 93.50 35 200	1787 295 6.06 1783 298 5.98 9.16 A 8.16 318 3 1 1 85.38 28 200 99.47 36 200	1944 306 6.35 1939 311 6.23 9.26 A 8.56 334 3 1 Stej 92.88 36 200 108 45 200 400/ 630	2080 341 6.10 2075 346 6.00 8.96 A 8.56 334 4 1 oless 99.38 36 200 116 46 250 3/50 748	2382 396 6.02 2376 401 5.93 8.99 A 8.56 334 4 1 1 114 37 250 133 36 250	2600 411 6.33 2592 419 6.19 9.24 A 8.56 334 4 1 1 124 48 250 144 46 250	3245 511 6.35 3234 522 6.20 9.26 A 8.56 334 5 1 155 58 300 179 50 300	3912 617 6.34 3898 631 6.18 9.31 A 8.56 334 6 1 187 62 300 216 52 300

DIMENSION	IS		1601-1	2001-1	2501-1	3002-1	3502-1	4002-1	4203-1	4602-1	5103-1	5202-1
L	STD	mm	3400	3400	3400	3400	3400	3400	3400	3400	3450	3450
W	STD	mm	1100	1150	1150	1150	1250	1250	1700	1300	1800	1400
Н	STD	mm	1800	1850	1950	1950	2000	2000	2000	2050	2050	2100
DIMENSION	IS		5303-1	5703-1	6204-1	7303-1	7603-1	8104-1	9704-1	10104-1	12605-1	14406-1
DIMENSION	I S STD	mm	5303-1 3450	5703-1 3450	6204-1 4500	7303-1 4500	7603-1 4500	8104-1 4500	9704-1 4750	10104-1 4750	12605-1 5750	14406-1 6750
DIMENSION L W		mm mm										

CLEARANCE AREA

CWW/TTY 1601-1÷14406-1 500 500 800 500



- Chilled water from 12 to 7 °C, water temperature at the condenser from 30 to 35 °C.

 Seasonal energy efficiency of cooling at low temperature. According to EU Regulation n. 2016/2281.

 Sound pressure level measured in free field conditions at 1 m from
- the unit. According to ISO 3744.



FROM 298 KW TO 1584 KW.



A CLASS ENERGY EFFICIENCY WATERCOOLED LIQUID CHILLERS WITH TURBOCOR (MAGNETIC LEVITATION) COMPRESSORS AND FLOODED SHELL AND TUBE EXCHANGERS FOR DRY-COOLER OPERATION.



















The innovative CWW/TTY/DR 1601-1÷6204-1 TURBOLINE units for Dry-Cooler operation, featuring A CLASS energy efficiency, are designed to provide an effective solution for highly selective system needs. Efficiency at partial loads, low breakaway starting current, low levels of operational noise, reduced weight and the specific design and handling every manufacturing aspect, make the TURBOLINE series the top of the range.

Using TURBOCOR dynamic partial-load oil-free magnetic levitation compressors, managed by the TURBOSOFT self-adaptive electronic control and flooded shell and tube evaporators, provide high energy performance, with unbeatable SEER/ESEER/IPLV values, with minimum water content, and an excellent silent functioning. Compared to traditional Screw compressor units, TURBOLINE units have low operational costs during their entire use, with a savings that can even reach 50%. Besides, the units are equipped with the WEB MONITORING system, for remotely managing and monitoring the units by means of GPRS/EDGE/3G/TCP-IP communication protocol. The users enabled to use this service can, through dedicated Web page, access Monitoring, Management and Statistics activities.

The units are already compliant to ErP 2021 European Regulations.

CWW/TTJ/DR 1601-1÷6204-1

On request, units can be supplied for R513A refrigerant.

VERSION

CWW/TTY/DR

Cooling only for Dry-Cooler

FEATURES

- Self-supporting galvanized steel frame protected with additional protection achieved via polyester powder painting.
- Semi-hermetic centrifugal compressors with dual Turbocor turbine, oil free, magnetic rising rotor, thermal protection, continuous capacity adjustment system thanks to built-in INVERTER, automatic anti-cavitation system. The power circuit of the compressor is fitted with a set of electrolytic condensers to control the rising in the event of a power failure, reactor for the power factor correction, EMI filter for electromagnetic compatibility.
- Shell and tube type condenser, with easily removable cast iron heads to enable access for maintenance operations.
- High efficiency flooded shell and tube type evaporator, with one circuit on the refrigerant side and one on the water side, complete with water differential
- Cooling circuit shut-off valves on suction, discharge and liquid line.
- Electronic expansion valve.
- Electronic high and low pressure gauges.
- R134a refrigerant. On request R513A refrigerant.
- Electrical board includes: main on-off switch with door lock, fuses, electronic/digital overload device to protect the compressors, interface relay and terminals for external connections.
- TURBOSOFT control and regulation system is fitted with RS485 serial interface and Web Monitoring device for remote monitoring via GPRS/ EDGE/3G/TCP-IP network.

ACCESSORIES

FACTORY FITTED ACCESSORIES

IM Automatic circuit breakers HR Desuperheater Total heat recovery HRT FF Antifreeze heater for evaporator TS Touch screen Interface ISB BACnet MSTP protocol, RS485 serial interface **ISBT** BACnet TCP/IP protocol, Ethernet port

ISL LonWorks protocol, FTT-10 serial interface

IAV Remote set-point, 0-10 V signal IAA Remote set-point, 4-20 mA signal IAS Remote signal for second set-point activation

Demand limit from digital input IDI CP Potential free contacts

LOOSE ACCESSORIES

High and low pressure gauges MNCR Remote control panel ΑG Rubber shock absorbers ΑM Spring shock absorbers

FL Flow switch



CWW/TTY/DR 1601-1÷6204-1





MODEL			1601-1	2001-1	3002-1	4002-1	4203-1	5103-1	6204-1
	Cooling capacity (1)	kW	298	395	598	792	894	1185	1584
Cooling	Absorbed power (1)	kW	70	92	141	186	211	277	372
ů .	EER (1)		4.26	4.29	4.24	4.26	4.24	4.28	4.26
	Cooling capacity (1)	kW	297	394	596	789	891	1180	1579
Cooling (EN14511)	Absorbed power (1)	kW	71	94	144	189	214	282	376
-	EER (1)		4.18	4.19	4.14	4.17	4.16	4.18	4.20
	Quantity	n°	1	1	2	2	3	3	4
Compressor	Refrigerant circuits	n°	1	1	1	1	1	1	1
·	Capacity steps	n°				Stepless			
	Water flow	I/s	14.24	18.87	28.57	37.84	42.71	56.62	75.68
Evaporator	Pressure drops	kPa	44	45	48	50	54	56	42
	Water connections	DN	100	100	125	125	150	150	200
	Water flow	I/s	19.20	25.40	38.55	51.02	57.64	76.26	102
Condenser	Pressure drops	kPa	58	52	57	53	59	52	40
	Water connections	DN	100	100	125	125	150	150	200
Electrical	Power supply	V/Ph/Hz				400/3/50			
	Max. running current	А	145	231	290	462	435	693	924
characteristics	Max. starting current	А	2	2	147	233	292	464	695
Sound pressure (2)		dB(A)	72	74	75	76	76	77	78
Majabta	Transport weight	Kg	1840	2115	2955	3430	3855	4415	7555
Weights	Operating weight	Kg	1980	2300	3220	3790	4240	4940	8450

DIMENSION	NS .		1601-1	2001-1	3002-1	4002-1	4203-1	5103-1	6204-1
L	STD	mm	3400	3400	3400	3400	3400	3450	4500
W	STD	mm	1100	1150	1150	1250	1700	1800	1750
Н	STD	mm	1800	1850	1950	2000	2000	2050	2100

CLEARANCE AREA

CWW/TTY/DR 1601-1÷6204-1 500 500 800 500



- Chilled water from 12 to 7 °C, temperature at the condenser (with ethylene glycol at 35%) from 40 to 45 °C. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.

CWW/CCY 4031÷11682

A CLASS ENERGY EFFICIENCY WATERCOOLED LIQUID CHILLERS WITH (INVERTER) CENTRIFUGAL COMPRESSORS AND FLOODED SHELL AND TUBE EXCHANGERS.



















The CWW / CCY 4031 ÷ 11682 CENTRITEK units, with R134a refrigerant and innovative technology, are the technologic and innovative heart of the most selective air conditioning and refrigeration systems. These units, provided with touch screen interface and featuring A CLASS energy efficiency, are designed especially for large size systems, intensively used throughout the year. The units, equipped with INVERTER technology (option), combined with the use of last generation Centrifugal compressors, reach outstanding EER and ESEER/IPLV energy coefficients: respectively up to 6,2 at full load and up to 10 at partial load. The extremely high reliability of the series is achieved through the careful control of power, even at partial loads, which minimizes the number of stops and starts and extends the useful life of the compressor. The solidity of the mechanical parts and the wide range of solutions in terms of accessories and system arrangements make the unit sturdy, but at the same time flexible, suitable for any type of application. In addition, the units are equipped with a WEB MONITORING system, for the monitoring and remote management of the units through the communication protocol GPRS/EDGE/3G/TCP-IP. Users enabled to the use of this service can, by using a specific webpage, have access to the Monitoring, Managing and Statistics activities.

VERSION

CWW/CCY

Cooling only

FEATURES

- · Self-supporting galvanized steel frame protected with additional protection achieved via polyester powder painting.
- · Single stage gear driven semi hermetic Centrifugal compressor with high strength aluminum alloy impeller. The compressor is complete with gear drive and loading and unloading mechanism consisting of inlet guide vanes. The electric motor is an accessible hermetically sealed liquid refrigerant cooled squirrel cage two pole induction motor.
- Shell and tube type condenser, with easily removable cast iron heads to enable access for maintenance operations.
- High efficiency flooded shell and tube type evaporator, with one circuit on the refrigerant side and one on the water side, complete with water differential pressure switch.
- R134a refrigerant.
- Lubrication system with submersible oil pump, to prevent any sudden changes in tension.
- Electrical board includes: main on-off switch with door lock, fuses, electronic/digital overload device to protect the compressors, interface relay and terminals for external connections.
- CENTRISOFT control and regulation system is fitted with RS485 serial interface and Web monitoring device for remote monitoring via GPRS/ EDGE/3G/TCP-IP network.

ACCESSORIES

FACTORY FITTED ACCESSORIES

MW Marine water boxes

PW High water pressure heat exchangers CK Cupro - Nickel or Stainless Steel tubes FE Antifreeze heater for evaporator

IV Inverter on compressor

SS Soft start