CHAPTER 3

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

FROM 4,6 KW TO 49 KW.

CWW/K 15÷151

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

AQUA PLUS

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.

VERSION

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)
VV	Pressure valve and solenoid valve (for WP versions)
AG	Rubber shock absorbers

CWW/K 15÷151

MODEL			15	18	21	25	31	41	51
Cooling	Cooling capacity (1)	kW	4.6	5.8	7.1	8.3	9.6	11.6	14.3
	Absorbed power (1)	kW	1.1	1.4	1.8	2.0	2.3	2.9	3.4
	EER (1)		4.18	4.14	3.94	4.15	4.17	4.00	4.21
Cooling (EN14511)	Cooling capacity (1)	kW	4.6	5.7	7.0	8.2	9.5	11.5	14.2
	Absorbed power (1)	kW	1.2	1.5	2.0	2.2	2.5	3.2	3.7
	EER (1)		3.83	3.70	3.47	3.80	3.78	3.58	3.80
	ESEER		4.45	4.25	4.16	4.40	4.45	4.26	4.51
	SEER (2)		5.17	5.11	5.16	5.11	5.23	5.21	5.31
	Energy Efficiency (2)	%	199	196	198	196	201	200	204
Heating	Heating capacity (3)	kW	5.9	7.2	8.8	10.4	12.5	14.9	17.5
	Absorbed power (3)	kW	1.4	1.7	2.2	2.5	3.0	3.5	4.3
	COP (3)		4.21	4.24	4.00	4.16	4.17	4.26	4.07
Heating (EN14511)	Heating capacity (3)	kW	5.1	6.7	8.4	9.8	11.9	13.7	17.1
	Absorbed power (3)	kW	1.5	1.8	2.5	2.8	3.7	3.9	4.5
	COP (3)		3.38	3.64	3.31	3.51	3.25	3.56	3.81
	SCOP (4)		4.20	4.15	3.85	4.18	4.31	4.38	4.34
	Energy Efficiency (4)	%	160	158	146	159	164	167	166
	Energy Class (4)		A++	A++	A+	A++	A++	A++	A++
Compressor	Type		Rotary				Scroll		
	Quantity	n°	1	1	1	1	1	1	1
Evaporator	Water flow	l/s	0.22	0.28	0.34	0.40	0.46	0.55	0.68
	Pressure drops	kPa	21	30	44	26	30	45	42
	Water connections	"G	1"	1"	1"	1"	1"	1"	1"
Condenser	Water flow	l/s	0.07	0.09	0.11	0.12	0.14	0.17	0.21
	Pressure drops	kPa	3	4	5	6	8	10	5
	Water connections	"G	1"	1"	1"	1"	1"	1"	1"
Electrical characteristics	Power supply	V/Ph/Hz	230/1/50						400/3+N/50
	Max. running current	A	8	10	13	14	16	22	9
	Max. starting current	A	37	43	62	62	75	86	50
Unit SP version	Water flow	l/s	0.22	0.28	0.34	0.40	0.46	0.55	0.68
	Pump available static pressure	kPa	40	33	38	55	50	35	128
	Tank water volume	l	50	50	50	50	50	50	50
	Water connections	"G	1"	1"	1"	1"	1"	1"	1"
Sound pressure	STD/SP version (5)	dB(A)	36	36	36	36	37	39	39
Weights	Transport weight (6)	Kg	77	78	80	84	87	90	93
	Operating weight (6)	Kg	78	79	81	85	88	91	95

MODEL			61	71	81	91	101	131	151
Cooling	Cooling capacity (1)	kW	17.1	20.0	23.0	27.7	33.6	39.7	49.2
	Absorbed power (1)	kW	4.1	4.8	5.5	6.8	7.9	9.3	11.5
	EER (1)		4.17	4.17	4.18	4.07	4.25	4.27	4.28
Cooling (EN14511)	Cooling capacity (1)	kW	17.0	19.8	22.8	27.5	33.3	39.4	48.8
	Absorbed power (1)	kW	4.4	5.2	6.0	7.4	8.7	10.1	12.1
	EER (1)		3.86	3.79	3.79	3.72	3.83	3.92	4.03
	ESEER		4.39	4.48	4.42	4.40	4.64	4.65	4.67
	SEER (2)		5.61	6.37	6.35	5.53	6.10	6.49	6.25
	Energy Efficiency (2)	%	216	247	246	213	236	252	242
Heating	Heating capacity (3)	kW	20.8	24.3	28.4	33.8	39.8	47.0	59.5
	Absorbed power (3)	kW	5.4	6.1	7.0	8.2	10.1	11.7	14.4
	COP (3)		3.85	3.98	4.06	4.12	3.94	4.02	4.13
Heating (EN14511)	Heating capacity (3)	kW	19.7	22.5	26.3	31.8	37.9	44.5	56.4
	Absorbed power (3)	kW	5.6	6.3	7.2	8.9	10.8	12.4	15.2
	COP (3)		3.50	3.59	3.67	3.56	3.50	3.58	3.71
	SCOP (4)		3.95	4.05	4.05	4.31	3.94	4.18	4.28
	Energy Efficiency (4)	%	150	154	154	164	150	159	163
	Energy Class (4)		A+	A++	A++	A++	A+	A++	A++
Compressor	Type		Scroll						
	Quantity	n°	1	1	1	1	1	1	1
Evaporator	Water flow	l/s	0.82	0.96	1.10	1.32	1.61	1.90	2.35
	Pressure drops	kPa	29	40	47	48	60	49	54
	Water connections	"G	1"	1"	1"	1"	1"	1"	1"
Condenser	Water flow	l/s	0.25	0.30	0.34	0.41	0.50	0.58	0.73
	Pressure drops	kPa	8	10	13	20	21	22	22
	Water connections	"G	1"	1"	1"	1"	1"	1"	1"
Electrical characteristics	Power supply	V/Ph/Hz	400/3+N/50						
	Max. running current	A	11	14	15	18	20	23	29
	Max. starting current	A	71	74	74	142	142	147	197
Unit SP version	Water flow	l/s	0.82	0.96	1.10	1.32	1.61	1.90	2.35
	Pump available static pressure	kPa	131	100	93	187	160	131	155
	Tank water volume	l	50	50	50	150	150	150	150
	Water connections	"G	1"	1"	1"	1"	1"	1"	1"
Sound pressure	STD/SP version (5)	dB(A)	40	41	43	43	43	44	44
Weights	Transport weight (6)	Kg	96	98	100	190	198	204	218
	Operating weight (6)	Kg	98	100	102	193	201	207	221

DIMENSIONS			15	18	21	25	31	41	51	61	71	81	91	101	131	151
L	STD	mm	550	550	550	550	550	550	550	550	550	550	550	550	550	550
	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
H	STD/SP	mm	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200

CLEARANCE AREA

CWW/K 15÷151

200	500	800	500

CWW/K/SP 91÷151

500	800	800	800

Electrical board side

NOTES

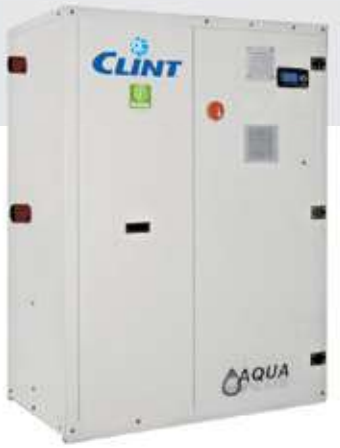
1. Chilled water from 12 to 7 °C, water temperature at the condenser from 15 to 35 °C.
2. Seasonal energy efficiency of cooling at medium temperature. According to EU Regulation n. 2016/2281.
3. Heated water from 40 to 45 °C, water temperature at the evaporator from 15 to 10 °C.
4. Seasonal energy efficiency of heating at low temperature with average climatic conditions. According to EU Regulation n. 811/2013.
5. 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 versions are specified on technical brochure.

FROM 55 KW TO 195 KW.

CWW/K 182-P÷604-P

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



AQUA PLUS

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.

VERSION

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
BT	Low water temperature Kit
DS	Desuperheater
RT	Total heat recovery
FE	Antifreeze heater for evaporator
FA	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 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	Cooling capacity (1)	kW	55.4	62.5	72.1	82.5	97.2	112	130	149	170	195
	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 (EN14511)	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
	EER (1)		4.04	4.06	4.06	4.13	4.22	4.08	4.33	4.32	4.31	4.26
	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	Heating capacity (3)	kW	72.5	80.1	93.3	105	121	140	159	180	205	237
	Absorbed power (3)	kW	18.0	20.0	23.2	25.7	28.8	33.2	38.4	42.7	51.7	56.7
	COP		4.03	4.01	4.02	4.09	4.20	4.22	4.14	4.22	3.97	4.18
Heating (EN14511)	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
	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
Compressor	Quantity	n°	2	2	2	2	2	3	3	3	4	4
	Refrigerant circuits	n°	1	1	1	1	1	1	1	1	2	2
	Capacity steps	n°			2				3		4	
Evaporator	Water flow	l/s	2.65	2.99	3.44	3.94	4.64	5.38	6.23	7.14	8.12	9.33
	Pressure drops	kPa	54	48	49	51	44	57	53	59	49	48
	Water connections	"G	1 ¼"	1 ¼"	1 ¼"	1 ¼"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
Condenser	Water flow	l/s	3.26	3.67	4.24	4.84	5.69	6.60	7.59	8.71	9.92	11.41
	Pressure drops	kPa	47	51	52	43	46	54	36	39	43	48
	Water connections	"G	1 ¼"	1 ¼"	1 ¼"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50									
	Max. running current	A	33	39	43	49	60	64	73	90	98	120
	Max. starting current	A	128	137	139	164	204	161	189	234	213	264
Unit with tank and pump	Pump available static pressure	kPa	100	100	90	130	115	120	105	75	110	65
	Tank water volume	l	300	300	300	300	300	300	300	300	300	300
	Water connections	"G	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
Sound pressure	STD version (5)	dB(A)	55	56	56	57	58	57	57	59	59	60
	With SL accessory (5)	dB(A)	50	51	51	52	53	52	52	54	54	55
Weights	Transport weight (6)	Kg	384	393	411	423	453	622	658	681	767	803
	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
UNIT	L	mm	1200	1200	1200	1200	1200	2285	2285	2285	2285	2285
	W	mm	680	680	680	680	680	680	680	680	680	680
	H	mm	1520	1520	1520	1520	1520	1520	1520	1520	1520	1520
UNIT + SPU/SPD	L	mm	2310	2310	2310	2310	2310	3395	3395	3395	3395	3395
	W	mm	680	680	680	680	680	680	680	680	680	680
	H	mm	1520	1520	1520	1520	1520	1520	1520	1520	1520	1520

CLEARANCE AREA

CWW/K 182-P÷604-P

0	300	800	300

NOTES

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

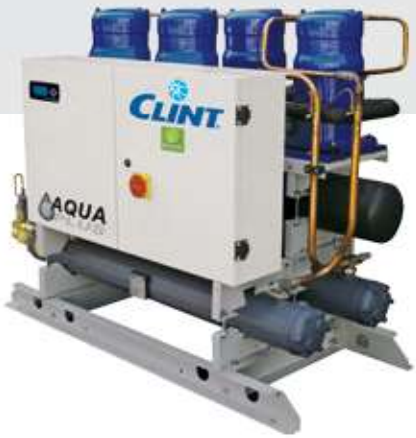
N.B. Weights of WP version are specified on technical brochure.

Electrical board side

FROM 57 KW TO 196 KW.

CWW/K 182÷604

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



AQUA PLUS

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	Cooling capacity (1)	kW	57.0	62.6	70.9	82.9	98.3	111	129	151	172	196
	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 (EN14511)	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
	EER (1)		4.14	4.17	4.10	4.14	4.23	4.10	4.36	4.36	4.31	4.27
	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 (EN14511)	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
	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
Compressor	Quantity	n°	2	2	2	2	2	3	3	3	4	4
	Refrigerant circuits	n°	1	1	1	1	1	1	1	1	2	2
	Capacity steps	n°			2				3		4	
Evaporator	Water flow	l/s	2.72	2.99	3.39	3.96	4.70	5.30	6.16	7.21	8.22	9.36
	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"
Condenser	Water flow	l/s	3.35	3.67	4.17	4.86	5.75	6.53	7.51	8.80	10.04	11.47
	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 characteristics	Power supply	V/Ph/Hz	400/3/50									
	Max. running current	A	33	39	43	49	60	64	73	90	98	120
	Max. starting current	A	128	137	139	164	204	161	189	234	213	264
Unit with tank and pump	Pump available static pressure	kPa	150	145	130	140	110	165	165	140	135	105
	Tank water volume	l	470	470	470	470	470	470	470	470	660	660
	Water connections	"G	2"	2"	2"	2"	2"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
Sound pressure	STD version (5)	dB(A)	57	57	58	59	60	60	61	62	62	63
	With SL accessory (5)	dB(A)	54	54	55	56	57	57	58	59	59	60
	SSL version (5)	dB(A)	52	52	53	54	55	55	56	57	57	58
Weights	Transport weight (6)	Kg	465	470	478	488	504	590	606	657	840	856
	Operating weight (6)	Kg	495	500	510	520	540	630	650	710	900	920

DIMENSIONS			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
H	STD/SSL	mm	1300	1300	1300	1300	1300	1300	1300	1300	1450	1450

CLEARANCE AREA

CWW/K 182÷604

500	500	800	1500

NOTES

1. Chilled water from 12 to 7 °C, water temperature at the condenser from 30 to 35 °C.
2. Seasonal energy efficiency of cooling at medium temperature. According to EU Regulation n. 2016/2281.
3. Heated water from 40 to 45 °C, water temperature at the evaporator from 15 to 10 °C.
4. Seasonal energy efficiency of heating at low temperature with average climatic conditions. According to EU Regulation n. 811/2013.
5. 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 SSL and WP versions are specified on technical brochure.

Electrical board side

FROM 4,0 KW TO 42 KW.

MEA/K 15÷151

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

AQUA PLUS

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.
- 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
IS	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
	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
	Absorbed power (2)	kW	1.5	1.9	2.4	2.7	3.0	4.2	4.5
Compressor	Type		Rotary				Scroll		
	Quantity	n°	1	1	1	1	1	1	1
Evaporator	Water flow	l/s	0.19	0.24	0.30	0.35	0.41	0.48	0.58
	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
	Liquid line	Ø mm	10	10	10	10	10	10	12
Electrical characteristics	Power supply	V/Ph/Hz	230/1/50						400/3+N/50
	Max. running current	A	8	10	13	14	16	22	9
	Max. starting current	A	37	43	62	62	75	86	50
Unit SP version	Water flow	l/s	0.19	0.24	0.30	0.35	0.41	0.48	0.58
	Pump available static pressure	kPa	50	45	75	70	70	60	180
	Tank water volume	l	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
	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
	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
	Absorbed power (2)	kW	5.5	6.5	7.7	8.3	10.1	11.7	14.2
Compressor	Type		Scroll						
	Quantity	n°	1	1	1	1	1	1	1
Evaporator	Water flow	l/s	0.69	0.81	0.96	1.15	1.38	1.62	1.98
	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
	Liquid line	Ø mm	12	12	12	12	12	12	16
Electrical characteristics	Power supply	V/Ph/Hz	400/3+N/50						
	Max. running current	A	11	14	15	18	20	23	29
	Max. starting current	A	71	74	74	142	142	147	197
Unit SP version	Water flow	l/s	0.69	0.81	0.96	1.15	1.38	1.62	1.98
	Pump available static pressure	kPa	170	140	110	215	130	155	235
	Tank water volume	l	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
	Operating weight (4)	Kg	91	93	95	186	192	198	209

DIMENSIONS			15	18	21	25	31	41	51	61	71	81	91	101	131	151
L	STD	mm	550	550	550	550	550	550	550	550	550	550	550	550	550	550
	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
H	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

NOTES

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.

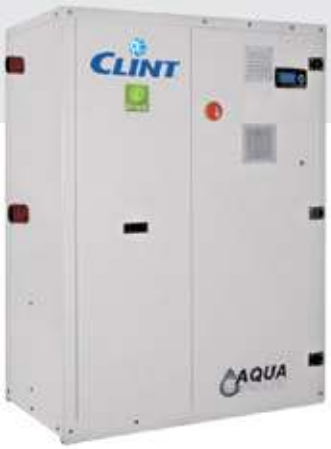
N.B. Weights of WP versions are specified on technical brochure.

Electrical board side

FROM 51 KW TO 176 KW.

MEA/K 182-P÷604-P

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



AQUA PLUS

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 plate-type 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

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
DS	Desuperheater
RT	Total heat recovery
FE	Antifreeze heater for evaporator
FA	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 pump
SPD	Inertial tank and double circulating pump
AG	Rubber shock absorbers
AM	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
	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
	Absorbed power (2)	kW	18.0	20.0	22.3	24.7	27.8	32.8	37.2	41.1	50.8	56.5
Compressor	Quantity	n°	2	2	2	2	2	3	3	3	4	4
	Refrigerant circuits	n°	1	1	1	1	1	1	1	1	2	2
	Capacity steps	n°	2					3			4	
Evaporator	Water flow	l/s	2.43	2.73	3.07	3.52	4.16	4.72	5.42	6.41	7.10	8.41
	Pressure drops	kPa	47	42	41	42	40	48	44	51	41	40
	Water connections	"G	1 ¼"	1 ¼"	1 ¼"	1 ¼"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
Connections	Delivery line	Ø mm	28	28	28	28	28	28	28	28	2 x 28	2 x 28
	Liquid line	Ø mm	22	22	22	22	22	22	22	22	2 x 22	2 x 22
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50									
	Max. running current	A	33	39	43	49	60	64	73	90	98	120
	Max. starting current	A	128	137	139	164	204	161	189	234	213	264
Unit with tank and pump	Pump available static pressure	kPa	105	110	100	135	120	130	120	110	120	100
	Tank water volume	l	300	300	300	300	300	300	300	300	300	300
	Water connections	"G	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
Sound pressure	STD version (3)	dB(A)	55	56	56	57	58	57	57	59	59	60
	With SL accessory (3)	dB(A)	50	51	51	52	53	52	52	54	54	55
Weights	Transport weight (4)	Kg	347	357	376	386	397	562	581	595	669	708
	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
UNIT	L	mm	1200	1200	1200	1200	1200	2285	2285	2285	2285	2285
	W	mm	680	680	680	680	680	680	680	680	680	680
	H	mm	1520	1520	1520	1520	1520	1520	1520	1520	1520	1520
UNIT + SPU/SPD	L	mm	2310	2310	2310	2310	2310	3395	3395	3395	3395	3395
	W	mm	680	680	680	680	680	680	680	680	680	680
	H	mm	1520	1520	1520	1520	1520	1520	1520	1520	1520	1520

CLEARANCE AREA

MEA/K 182-P÷604-P

0	300	800	300

NOTES

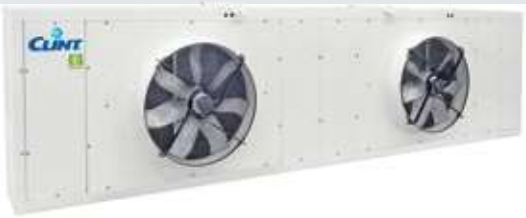
1. Chilled water from 12 to 7 °C, condensing temperature 50 °C.
2. Heated water from 40 to 45 °C, evaporating temperature 0 °C.
3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
4. Unit without tank and pump.

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

Electrical board side

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
	Out	Ø mm	18	18	18	18	18	28	22	22	22	28
Electrical characteristics	Power supply	V/Ph/Hz	230/1/50									400/3/50
	Absorbed power	kW	0.22	0.22	0.83	0.83	0.83	1.90	0.63	1.90	1.90	1.90
	Absorbed current	A	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
	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
	Out	Ø mm	28	35	28	35	35	35	35	2x28	2x28
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50								
	Absorbed power	kW	1.26	1.26	3.80	3.80	3.80	5.70	5.70	5.76	7.20
	Absorbed current	A	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
	Operating weight	Kg	184	207	184	207	230	313	336	573	569

DIMENSIONS			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
H	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

NOTES

1. Sound pressure level measured in free field conditions at 10 m from the unit. According to ISO 3744.

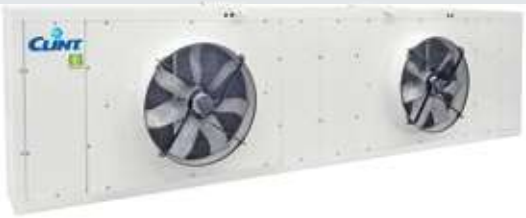
N.B. Combinations are made at condensing temperature 50 °C, ambient air temperature 35 °C.

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

Electrical board side

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
	Out	Ø mm	18	18	18	18	18	18	22	28	28	22
Electrical characteristics	Power supply	V/Ph/Hz	230/1/50									
	Absorbed power	kW	0.22	0.22	0.22	0.22	0.55	0.55	0.55	1.35	1.35	1.15
	Absorbed current	A	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
	Operating weight	Kg	90	91	92	90	90	96	105	161	174	221

MODEL			6121	6122	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
	Out	Ø mm	28	35	28	35	35	35	35	35	2x28	2x35
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50									
	Absorbed power	kW	0.88	0.88	2.70	2.70	1.89	4.05	4.05	4.05	4.60	4.60
	Absorbed current	A	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
	Operating weight	Kg	184	207	184	207	313	313	336	369	569	625

DIMENSIONS			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
H	SL	mm	980	980	980	980	980	980	980	990	990	990

DIMENSIONS			6121	6122	6123	6124	6131	6132	6133	6134	8221	8222
L	SL	mm	2630	2630	2630	2630	3770	3770	3770	3770	3230	3230
W	SL	mm	1260	1260	1260	1260	1260	1260	1260	1260	2400	2400
H	SL	mm	990	990	990	990	990	990	990	990	1565	1565

CLEARANCE AREA

RCA/K/SL 4111÷8222

NOTES

1. Sound pressure level measured in free field conditions at 10 m from the unit. According to ISO 3744.

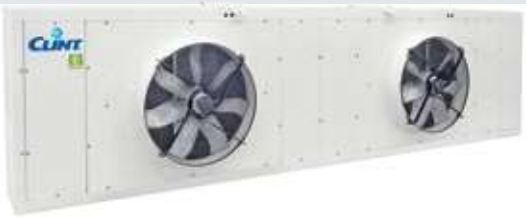
N.B. Combinations are made at condensing temperature 50 °C, ambient air temperature 35 °C.

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

Electrical board side

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
	Out	Ø mm	18	18	22	28	28	35	35	35
Electrical characteristics	Power supply	V/Ph/Hz	230/1/50					400/3/50		
	Absorbed power	kW	0.13	0.94	0.24	0.24	0.47	0.47	0.42	0.71
	Absorbed current	A	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
	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
	Out	Ø mm	35	28	35	35	42	2x28	2x28
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50						
	Absorbed power	kW	0.71	0.94	1.78	2.67	2.67	3.56	3.56
	Absorbed current	A	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
	Operating weight	Kg	336	419	450	557	604	569	625

DIMENSIONS			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
H	SSL	mm	980	980	990	990	990	990	990	990	990	990	1565	1565	1565	1565	1565

CLEARANCE AREA

RCA/K/SSL 5111÷8222

NOTES

1. 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.

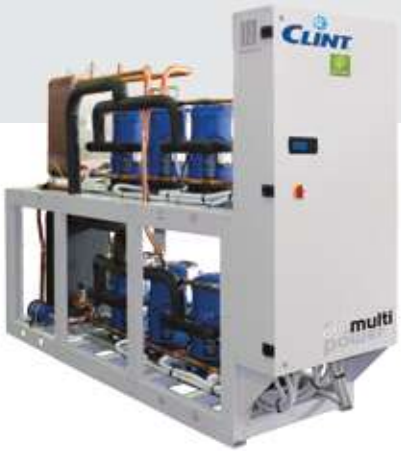
N.B. Clearance areas are specified on installation, use and maintenance manual.

Electrical board side

FROM 224 KW TO 1242 KW.

CWW/K 726-P÷36012-P

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



multi power

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

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
DS	Desuperheater
RT	Total heat recovery
FE	Antifreeze heater for evaporator
SS	Soft start
IS	Modbus RTU protocol, RS485 serial 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
IDL	Demand limit from digital input

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

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	Cooling capacity (1)	kW	224	250	274	308	345	383	422	462	509
	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 (EN14511)	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
	EER (1)		4.08	4.16	4.11	4.17	4.20	4.26	4.23	4.21	4.20
	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)		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
Heating	Heating capacity (3)	kW	290	320	349	394	437	484	534	584	640
	Absorbed power (3)	kW	66	74	80	88	101	111	119	135	144
	COP (3)		4.39	4.32	4.36	4.48	4.33	4.36	4.49	4.33	4.44
Heating (EN14511)	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
	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)		5.23	5.36	5.49	5.50	5.77	5.71	5.78	5.78	5.74
	Energy Efficiency (4)	%	201	206	212	212	223	220	223	223	222
Compressor	Quantity	n°	3+3	3+3	3+3	3+3	4+4	4+4	4+4	5+5	5+5
	Refrigerant circuits	n°	2	2	2	2	2	2	2	2	2
	Capacity steps	n°	6				8				
Evaporator	Water flow	l/s	10.70	11.94	13.09	14.72	16.48	18.30	20.16	22.07	24.32
	Pressure drops	kPa	54	51	56	56	60	47	52	60	57
	Water connections	DN	80	80	80	80	80	80	80	80	80
Condenser	Water flow	l/s	13.19	14.67	16.10	18.06	20.21	22.41	24.70	27.04	29.81
	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 characteristics	Power supply	V/Ph/Hz	400/3/50								
	Max. running current	A	136	151	163	176	201	218	234	251	293
	Max. starting current	A	261	284	331	344	334	385	402	384	461
Sound pressure	STD version (5)	dB(A)	62	64	65	65	65	66	66	66	67
	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
	Operating weight	Kg	1080	1140	1160	1200	1400	1480	1500	1700	1800

MODEL			16812-P	18012-P	21012-P	24012-P	27012-P	30012-P	33012-P	36012-P
Cooling	Cooling capacity (1)	kW	562	622	696	786	895	1015	1129	1242
	Absorbed power (1)	kW	129	144	157	176	204	230	261	287
	EER (1)		4.36	4.32	4.43	4.47	4.39	4.41	4.33	4.33
Cooling (EN14511)	Cooling capacity (1)	kW	559	619	693	783	891	1011	1124	1236
	Absorbed power (1)	kW	135	151	164	183	213	239	273	301
	EER (1)		4.13	4.11	4.24	4.29	4.18	4.22	4.12	4.11
	ESEER		5.30	5.38	4.56	4.70	4.39	4.49	4.26	4.10
	EUROVENT Class		D	D	D	C	D	D	D	D
	SEER (2)		5.95	5.96	5.91	6.22	6.08	6.16	6.03	6.03
	Energy Efficiency (2)	%	230	230	228	241	235	238	233	233
Heating	Heating capacity (3)	kW	710	783	874	986	1113	1255	1391	1531
	Absorbed power (3)	kW	164	181	203	224	259	289	321	357
	COP (3)		4.33	4.33	4.31	4.40	4.30	4.34	4.33	4.29
Heating (EN14511)	Heating capacity (3)	kW	713	787	875	987	1114	1257	1393	1533
	Absorbed power (3)	kW	167	185	204	225	260	291	323	359
	COP (3)		4.28	4.26	4.29	4.39	4.28	4.32	4.31	4.27
	EUROVENT Class		D	D	D	C	D	D	D	D
	SCOP (4)		-	-	-	-	-	-	-	-
	Energy Efficiency (4)	%	-	-	-	-	-	-	-	-
Compressor	Quantity	n°	6+6	6+6	6+6	6+6	6+6	6+6	6+6	6+6
	Refrigerant circuits	n°	2	2	2	2	2	2	2	2
	Capacity steps	n°	10							
Evaporator	Water flow	l/s	26.85	29.72	33.25	37.55	42.76	48.49	53.94	59.34
	Pressure drops	kPa	70	59	60	53	66	61	70	79
	Water connections	DN	80	80	150	150	150	150	150	150
Condenser	Water flow	l/s	33.01	36.60	40.75	45.98	52.51	59.48	66.41	73.05
	Pressure drops	kPa	70	77	60	53	65	61	70	78
	Water connections	DN	80	80	150	150	150	150	150	150
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50							
	Max. running current	A	326	352	399	454	506	559	629	699
	Max. starting current	A	494	519	576	631	720	773	891	961
Sound pressure	STD version (5)	dB(A)	67	68	71	72	73	73	74	74
	With SL accessory (5)	dB(A)	63	63	67	68	69	69	70	70
	SSL version (5)	dB(A)	59	59	63	64	65	65	66	66
Weights	Transport weight	Kg	1930	1968	2806	2884	3184	3558	3658	3708
	Operating weight	Kg	2000	2050	2900	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/SSL	mm	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900

CLEARANCE AREA

CWW/K 726-P÷36012-P

500	500	800	500

Electrical board side

NOTES

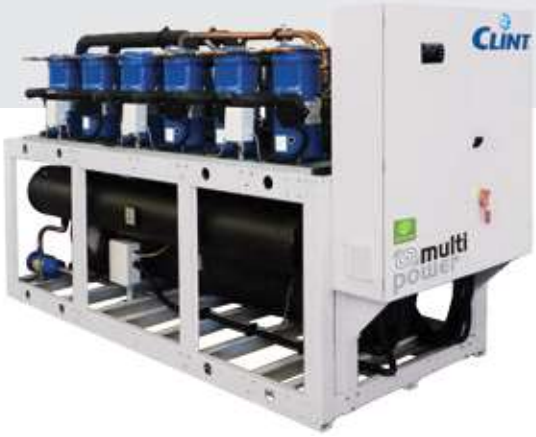
1. Chilled water from 12 to 7 °C, water temperature at the condenser from 30 to 35 °C.
2. Seasonal energy efficiency of cooling at low temperature. According to EU Regulation n. 2016/2281.
3. Heated water from 40 to 45 °C, water temperature at the evaporator from 15 to 10 °C.
4. Seasonal energy efficiency of heating at low temperature with average climatic conditions. According to EU Regulation n. 811/2013.
5. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.

N.B. Weights of SSL and WP versions are specified on technical brochure.

FROM 225 KW TO 1254 KW.

CWW/K 726÷36012

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



multi power

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

- 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.
- 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.

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
FE	Antifreeze heater for evaporator
SS	Soft start
IS	Modbus RTU protocol, RS485 serial 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
IDL	Demand limit from digital input

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 726÷36012

MODEL			726	786	826	906	1048	1128	1208	13010	15010
Cooling	Cooling capacity (1)	kW	225	248	271	302	343	375	422	464	511
	Absorbed power (1)	kW	53	57	64	72	79	88	94	107	117
	EER (1)		4.25	4.35	4.23	4.19	4.34	4.26	4.49	4.34	4.37
Cooling (EN14511)	Cooling capacity (1)	kW	225	248	271	302	343	375	422	464	511
	Absorbed power (1)	kW	53	57	64	72	79	88	94	107	117
	EER (1)		4.25	4.35	4.23	4.19	4.34	4.26	4.49	4.34	4.37
	ESEER		5.22	5.30	5.40	5.46	5.38	5.50	5.92	5.35	5.71
	EUROVENT Class		D	C	D	D	C	C	C	C	C
	SEER (2)		5.31	5.52	5.52	5.67	5.58	5.81	6.26	6.03	6.19
	Energy Efficiency (2)	%	204	213	213	219	215	224	242	233	240
Heating	Heating capacity (3)	kW	291	317	345	386	434	474	534	586	642
	Absorbed power (3)	kW	67	74	81	91	102	113	118	139	147
	COP (3)		4.34	4.28	4.26	4.24	4.25	4.19	4.53	4.22	4.37
Heating (EN14511)	Heating capacity (3)	kW	293	319	346	387	436	476	536	589	644
	Absorbed power (3)	kW	69	77	83	93	105	116	121	143	151
	COP (3)		4.25	4.14	4.17	4.16	4.15	4.10	4.43	4.12	4.26
	EUROVENT Class		B	C	B	B	C	C	B	C	B
	SCOP (4)		4.93	5.20	5.13	4.97	5.26	5.04	5.28	5.31	5.16
	Energy Efficiency (4)	%	189	200	197	191	202	194	203	204	198
Compressor	Quantity	n°	3+3	3+3	3+3	3+3	4+4	4+4	4+4	5+5	5+5
	Refrigerant circuits	n°	2	2	2	2	2	2	2	2	2
	Capacity steps	n°	6				8				
Evaporator	Water flow	l/s	10.75	11.85	12.95	14.43	16.39	17.92	20.16	22.17	24.41
	Pressure drops	kPa	38	38	24	27	31	25	25	36	31
	Water connections	DN	125	125	150	150	150	150	150	150	150
Condenser	Water flow	l/s	13.28	14.57	16.01	17.87	20.16	22.12	24.65	27.28	30.00
	Pressure drops	kPa	31	28	31	36	35	36	31	35	44
	Water connections	DN	65	65	65	65	65	65	65	80	80
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50								
	Max. running current	A	136	151	163	176	201	218	234	251	293
	Max. starting current	A	261	284	331	344	334	385	402	384	461
Sound pressure	STD version (5)	dB(A)	62	64	65	65	65	66	66	66	67
	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	1370	1399	1544	1554	1819	2024	2076	2449	2493
	Operating weight	Kg	1470	1500	1680	1690	1950	2230	2280	2650	2700

MODEL			16812	18012	21012	24012	27012	30012	33012	36012
Cooling	Cooling capacity (1)	kW	579	628	710	801	913	1035	1152	1254
	Absorbed power (1)	kW	132	146	159	181	208	233	264	290
	EER (1)		4.39	4.30	4.47	4.43	4.39	4.44	4.36	4.32
Cooling (EN14511)	Cooling capacity (1)	kW	579	628	710	801	913	1035	1152	1254
	Absorbed power (1)	kW	132	146	160	182	208	233	265	291
	EER (1)		4.39	4.30	4.44	4.40	4.39	4.44	4.35	4.31
	ESEER		5.59	5.61	5.81	5.28	5.19	4.96	5.08	4.97
	EUROVENT Class		C	C	C	C	C	C	C	C
	SEER (2)		6.11	6.04	6.02	6.25	6.22	6.29	6.22	6.16
	Energy Efficiency (2)	%	236	234	233	242	241	244	241	238
Heating	Heating capacity (3)	kW	731	791	891	1005	1135	1280	1419	1546
	Absorbed power (3)	kW	168	183	206	231	264	292	325	361
	COP (3)		4.35	4.32	4.33	4.35	4.30	4.38	4.37	4.28
Heating (EN14511)	Heating capacity (3)	kW	734	794	894	1009	1140	1287	1425	1554
	Absorbed power (3)	kW	173	189	212	238	273	303	335	373
	COP (3)		4.24	4.20	4.22	4.24	4.18	4.25	4.25	4.17
	EUROVENT Class		B	B	B	B	B	B	B	B
	SCOP (4)		-	-	-	-	-	-	-	-
	Energy Efficiency (4)	%	-	-	-	-	-	-	-	-
Compressor	Quantity	n°	6+6	6+6	6+6	6+6	6+6	6+6	6+6	6+6
	Refrigerant circuits	n°	2	2	2	2	2	2	2	2
	Capacity steps	n°	10							
Evaporator	Water flow	l/s	27.66	30.00	33.92	38.27	43.62	49.45	55.04	59.91
	Pressure drops	kPa	34	34	27	38	38	59	45	53
	Water connections	DN	150	150	150	150	200	200	200	200
Condenser	Water flow	l/s	33.97	36.98	41.52	46.92	53.56	60.58	67.65	73.77
	Pressure drops	kPa	42	47	49	43	55	30	35	40
	Water connections	DN	80	80	80	80	80	100	100	100
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50							
	Max. running current	A	326	352	399	454	506	559	629	699
	Max. starting current	A	494	519	576	631	720	773	891	961
Sound pressure	STD version (5)	dB(A)	67	68	71	72	73	73	74	74
	With SL accessory (5)	dB(A)	63	63	67	68	69	69	70	70
	SSL version (5)	dB(A)	59	59	63	64	65	65	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

DIMENSIONS			726	786	826	906	1048	1128	1208	13010	15010	16812	18012	21012	24012	27012	30012	33012	36012
L	STD/SSL	mm	3000	3000	3000	3000	3000	3000	3000	3000	3000	3300	3300	3300	4000	4000	4000	4000	4000
W	STD/SSL	mm	800	800	800	800	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350	1350
H	STD/SSL	mm	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900

CLEARANCE AREA

CWW/K 726÷36012

500	500	800	500

Electrical board side

NOTES

1. Chilled water from 12 to 7 °C, water temperature at the condenser from 30 to 35 °C.
2. Seasonal energy efficiency of cooling at low temperature. According to EU Regulation n. 2016/2281.
3. Heated water from 40 to 45 °C, water temperature at the evaporator from 15 to 10 °C.
4. Seasonal energy efficiency of heating at low temperature with average climatic conditions. According to EU Regulation n. 811/2013.
5. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.

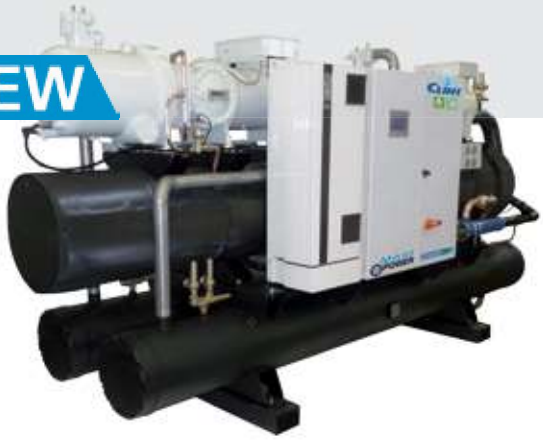
N.B. Weights of SSL and WP versions are specified on technical brochure.

FROM 234 KW TO 1650 KW.

CWW/H/A 1002÷6002

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

NEW



MAXI POWER

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

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.
- 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

FACTORY FITTED ACCESSORIES

IM	Automatic circuit breakers
BT	Low water temperature Kit
HR	Desuperheater
HRT	Total heat recovery
FE	Antifreeze heater for evaporator
II	Inverter on one compressor
ID	Inverter on all compressors
SS	Soft start
DP	Device for heat pump operation
WM	Web Monitoring - Wireless remote monitoring (GPRS/EDGE/3G/TCP-IP)
IS	Modbus RTU protocol, RS485 serial 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
IDL	Demand limit from digital input
CP	Potential free contacts

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	Cooling capacity (1)	kW	234	310	375	437	488	558	655
	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 (EN14511)	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
	ESEER		5.75	5.80	6.00	5.97	6.01	6.02	6.05
	EUROVENT Class		A	A	A	A	A	A	A
	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
Compressor	Quantity	n°	2	2	2	2	2	2	2
	Refrigerant circuits	n°	2	2	2	2	2	2	2
	Capacity steps	n°	Stepless						
Evaporator	Water flow	l/s	11.18	14.81	17.92	20.88	23.32	26.66	31.29
	Pressure drops	kPa	36	37	42	39	32	31	35
	Water connections	DN	125	150	150	150	200	200	200
Condenser	Water flow	l/s	13.28	17.53	21.07	24.70	27.57	31.44	36.88
	Pressure drops	kPa	17	28	34	36	36	35	32
	Water connections	DN	80	80	80	80	80	80	100
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50						
	Max. running current	A	144	190	220	260	290	334	384
	Max. starting current	A	199	257	318	373	420	504	492
Sound pressure	STD version (3)	dB(A)	76	76	76	76	76	76	76
	SSL version (3)	dB(A)	72	72	72	72	72	72	72
Weights	Transport weight	Kg	2140	2445	2640	2860	3090	3230	4180
	Operating weight	Kg	2300	2660	2840	3100	3420	3550	4590

MODEL			2802	3302	3602	4602	4802	5402	6002
Cooling	Cooling capacity (1)	kW	736	868	980	1160	1278	1475	1650
	Absorbed power (1)	kW	131	154	174	222	242	275	304
	EER (1)		5.62	5.64	5.63	5.23	5.28	5.36	5.43
Cooling (EN14511)	Cooling capacity (1)	kW	734	866	977	1157	1274	1469	1644
	Absorbed power (1)	kW	135	159	180	229	250	285	314
	EER (1)		5.42	5.45	5.44	5.06	5.10	5.16	5.23
	ESEER		6.04	6.03	5.98	5.97	6.01	5.99	6.42
	EUROVENT Class		A	A	A	A	A	A	A
	SEER (2)		5.93	5.94	5.96	5.88	5.89	5.91	6.33
	Energy Efficiency (2)	%	229	230	230	227	228	228	245
Compressor	Quantity	n°	2	2	2	2	2	2	2
	Refrigerant circuits	n°	2	2	2	2	2	2	2
	Capacity steps	n°	Stepless						
Evaporator	Water flow	l/s	35.16	41.47	46.82	55.42	61.06	70.47	78.83
	Pressure drops	kPa	45	39	38	39	49	57	54
	Water connections	DN	200	200	250	250	250	250	250
Condenser	Water flow	l/s	41.42	48.83	55.14	66.03	72.62	83.61	93.36
	Pressure drops	kPa	34	37	37	37	37	35	32
	Water connections	DN	100	100	100	125	125	125	150
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50						
	Max. running current	A	436	489	549	701	761	873	961
	Max. starting current	A	576	692	782	1144	1174	1372	1416
Sound pressure	STD version (3)	dB(A)	77	78	79	80	80	81	82
	SSL version (3)	dB(A)	73	74	75	76	76	77	78
Weights	Transport weight	Kg	4560	5205	5670	6950	7080	9060	10050
	Operating weight	Kg	5110	5880	6470	7220	7880	10030	11230

DIMENSIONS			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
H	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

Electrical board side

NOTES

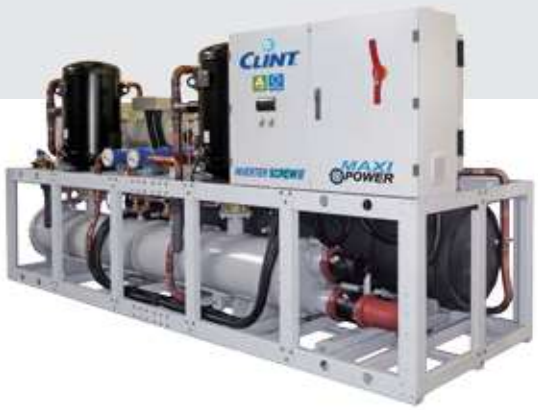
1. Chilled water from 12 to 7 °C, water temperature at the condenser from 30 to 35 °C.
2. Seasonal energy efficiency of cooling at low temperature. According to EU Regulation n. 2016/2281.
3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.

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

FROM 280 KW TO 1289 KW.

CWW/Y/A 1302÷4802

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



MAXI POWER

INVERTER SCREW

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

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	Automatic circuit breakers
BT	Low water temperature Kit
HR	Desuperheater
HRT	Total heat recovery
FE	Antifreeze heater for evaporator
II	Inverter on one compressor
ID	Inverter on all compressors
SS	Soft start
DP	Device for heat pump operation
WM	Web Monitoring - Wireless remote monitoring (GPRS/EDGE/3G/TCP-IP)
IS	Modbus RTU protocol, RS485 serial 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
IDL	Demand limit from digital input
CP	Potential free contacts

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/Y/A 1302÷4802

MODEL			1302	1502	1702	1902	2002	2602	2802	3002	3602	4202	4802
Cooling	Cooling capacity (1)	kW	280	341	392	448	507	626	711	792	961	1126	1289
	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 (EN14511)	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
	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		A	A	A	A	A	A	A	A	A	A	A
	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 *	Cooling capacity (1)	kW	329	401	459	527	595	734	833	928	1125	1319	1510
	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 * (EN14511)	Cooling capacity (1)	kW	328	399	458	524	592	730	828	923	1119	1312	1502
	Absorbed power (1)	kW	61	75	85	99	110	135	153	166	200	235	271
	EER (1)		5.38	5.32	5.39	5.29	5.38	5.41	5.41	5.56	5.60	5.58	5.54
	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		A	A	A	A	A	A	A	A	A	A	A
Compressor	Quantity	n°	2	2	2	2	2	2	2	2	2	2	2
	Refrigerant circuits	n°	1	1	1	1	1	1	1	1	1	1	1
	Capacity steps	n°	Stepless										
Evaporator	Water flow	l/s	13.38	16.29	18.73	21.40	24.22	29.91	33.97	37.84	45.91	53.80	61.59
	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
Condenser	Water flow	l/s	15.77	19.16	22.03	25.18	28.43	35.07	39.75	44.15	53.56	62.78	71.95
	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
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50										
	Max. running current	A	178	214	238	270	292	354	398	438	456	536	622
	Max. starting current	A	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
	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
	Operating weight	Kg	2750	2900	3000	3500	3700	4100	4350	4900	5400	5900	6750

DIMENSIONS			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
H	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

NOTES

1. Chilled water from 12 to 7 °C, water temperature at the condenser from 30 to 35 °C.
2. Seasonal energy efficiency of cooling at low temperature. According to EU Regulation n. 2016/2281.
3. 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.

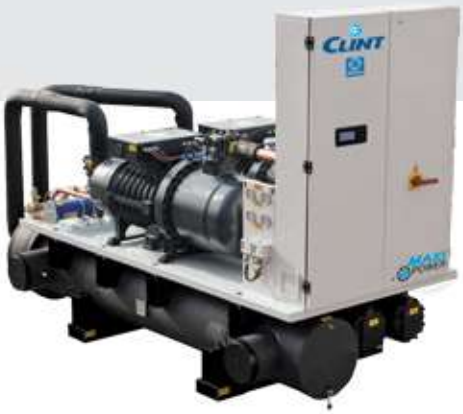
* Unit provided with Inverter on both compressors.

Electrical board side

FROM 267 KW TO 2473 KW.

CWW/Y 1302-B÷9003-B

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



MAXI POWER

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.

VERSION

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

FACTORY FITTED ACCESSORIES

IM	Automatic circuit breakers
BT	Low water temperature Kit
HR	Desuperheater
HRT	Total heat recovery
FE	Antifreeze heater for evaporator
II	Inverter on one compressor
ID	Inverter on all compressors
SS	Soft start
DP	Device for heat pump operation
WM	Web Monitoring - Wireless remote monitoring (GPRS/EDGE/3G/TCP-IP)
IS	Modbus RTU protocol, RS485 serial 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
IDL	Demand limit from digital input
CP	Potential free contacts

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/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	267	323	374	426	488	577	660	750	892
	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 (EN14511)	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
	EER (1)		4.47	4.48	4.46	4.51	4.74	4.48	4.62	4.77	4.70
	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
Compressor	Quantity	n°	2	2	2	2	2	2	2	2	2
	Refrigerant circuits	n°	2	2	2	2	2	2	2	2	2
	Capacity steps	n°	Stepless								
Evaporator	Water flow	l/s	12.76	15.43	17.87	20.35	23.32	27.57	31.53	35.83	42.62
	Pressure drops	kPa	51	43	55	60	48	61	67	66	47
	Water connections	DN	100	125	125	125	125	150	150	150	200
Condenser	Water flow	l/s	15.48	18.71	21.67	24.67	28.00	33.43	38.00	42.99	51.32
	Pressure drops	kPa	43	49	51	47	36	52	48	45	57
	Water connections	DN	65	65	65	65	80	80	80	80	80
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50								
	Max. running current	A	178	214	238	270	306	354	398	438	518
	Max. starting current	A	240	258	314	330	374	465	487	549	723
Sound pressure	STD version (3)	dB(A)	76	76	76	76	76	76	76	77	78
	SSL version (3)	dB(A)	72	72	72	72	72	72	72	73	74
Weights	Transport weight	Kg	2124	2183	2309	2340	2973	3121	3174	4274	4613
	Operating weight	Kg	2240	2350	2480	2510	3160	3440	3490	4580	5050

MODEL			4202-B	4402-B	4802-B	5402-B	6002-B	6603-B	7203-B	8103-B	9003-B
Cooling	Cooling capacity (1)	kW	1049	1159	1286	1438	1612	1789	1981	2204	2473
	Absorbed power (1)	kW	210	234	256	287	323	357	395	443	500
	EER (1)		5.00	4.95	5.02	5.01	4.99	5.01	5.02	4.98	4.95
Cooling (EN14511)	Cooling capacity (1)	kW	1045	1155	1281	1432	1604	1780	1972	2195	2456
	Absorbed power (1)	kW	219	244	269	299	339	374	415	463	528
	EER (1)		4.78	4.73	4.77	4.79	4.73	4.76	4.75	4.74	4.65
	ESEER		5.18	5.03	4.94	5.12	5.20	5.16	5.12	5.07	5.23
	SEER (2)		6.24	6.13	6.20	6.37	6.45	6.45	6.33	6.33	6.33
	Energy Efficiency (2)	%	242	237	240	247	250	250	245	245	245
Compressor	Quantity	n°	2	2	2	2	2	3	3	3	3
	Refrigerant circuits	n°	2	2	2	2	2	3	3	3	3
	Capacity steps	n°	Stepless								
Evaporator	Water flow	l/s	50.12	55.37	61.44	68.70	77.02	85.47	94.65	105	118
	Pressure drops	kPa	62	51	59	65	81	77	74	65	119
	Water connections	DN	200	200	200	200	200	250	250	250	250
Condenser	Water flow	l/s	60.17	66.55	73.67	82.42	92.45	103	114	126	142
	Pressure drops	kPa	49	66	77	66	63	66	78	73	63
	Water connections	DN	100	100	100	100	125	100	100	100	125
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50								
	Max. running current	A	602	602	658	818	834	903	987	1228	1251
	Max. starting current	A	765	765	793	1610	1479	1066	1122	2019	1896
Sound pressure	STD version (3)	dB(A)	79	80	80	81	82	81	82	83	85
	SSL version (3)	dB(A)	75	76	76	77	78	---	---	---	---
Weights	Transport weight	Kg	4645	4650	5360	5440	6000	7050	8450	8600	9250
	Operating weight	Kg	5100	5220	5940	6100	6690	7800	9350	9550	10270

DIMENSIONS			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
H	STD/SSL	mm	2000	2000	2150	2150	2150	2150	2150	2150	2150

DIMENSIONS			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
H	STD/SSL	mm	2150	2150	2150	2150	2150	2150	2150	2150	2150

CLEARANCE AREA

CWW/Y 1302-B÷9003-B

500	500	800	500

Electrical board side

NOTES

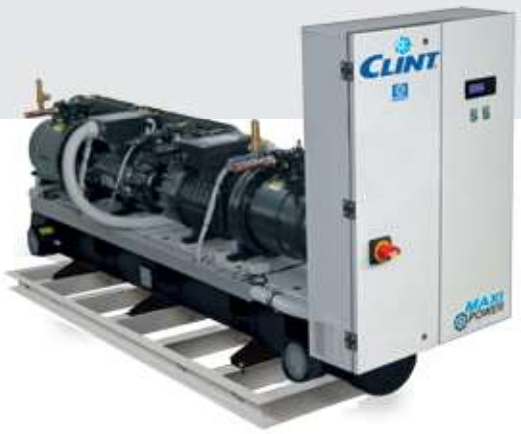
1. Chilled water from 12 to 7 °C, water temperature at the condenser from 30 to 35 °C.
2. Seasonal energy efficiency of cooling at low temperature. According to EU Regulation n. 2016/2281.
3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.

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

FROM 235 KW TO 2168 KW.

MEA/Y 1302-B÷9003-B

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



MAXI POWER

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

FACTORY FITTED ACCESSORIES

IM	Automatic circuit breakers
BT	Low water temperature Kit
HR	Desuperheater
HRT	Total heat recovery
FE	Antifreeze heater for evaporator
II	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 serial 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
IDL	Demand limit from digital input
CP	Potential free contacts

LOOSE ACCESSORIES

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

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
	Absorbed power (1)	kW	73	85	103	118	133	158	176	193	228
Compressor	Quantity	n°	2	2	2	2	2	2	2	2	2
	Refrigerant circuits	n°	2	2	2	2	2	2	2	2	2
	Capacity steps	n°	Stepless								
Evaporator	Water flow	l/s	11.23	13.33	15.53	17.92	20.26	25.13	28.62	32.11	37.17
	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
	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 characteristics	Power supply	V/Ph/Hz	400/3/50								
	Max. running current	A	178	214	238	270	306	354	398	438	518
	Max. starting current	A	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
	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
	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	Cooling capacity (1)	kW	905	1015	1140	1282	1433	1566	1733	1909	2168
	Absorbed power (1)	kW	262	296	327	364	417	456	498	550	631
Compressor	Quantity	n°	2	2	2	2	2	3	3	3	3
	Refrigerant circuits	n°	2	2	2	2	2	3	3	3	3
	Capacity steps	n°	Stepless								
Evaporator	Water flow	l/s	43.24	48.49	54.47	61.25	68.47	74.82	82.80	91.21	104
	Pressure drops	kPa	57	55	56	52	69	78	57	67	95
	Water connections	DN	150	200	200	200	200	250	250	250	250
Connections	Delivery line	Ø mm	2 x 76	2 x 76	2 x 89	2 x 89	2 x 89	3 x 76	3 x 89	3 x 89	3 x 89
	Liquid line	Ø mm	2 x 54	2 x 54	2 x 54	2 x 54	2 x 54	3 x 54	3 x 54	3 x 54	3 x 54
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50								
	Max. running current	A	602	602	658	818	834	903	987	1228	1251
	Max. starting current	A	765	765	793	1610	1479	1066	1122	2019	1896
Sound pressure	STD version (2)	dB(A)	79	80	80	81	82	81	82	83	85
	SSL version (2)	dB(A)	75	76	76	77	78	---	---	---	---
Weights	Transport weight	Kg	3225	3525	4445	4530	4600	4980	6430	6555	6740
	Operating weight	Kg	3480	3980	4980	5040	5100	5570	7130	7290	7440

DIMENSIONS			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
H	STD/SSL	mm	1700	1700	1700	1700	1700	1700	2100	2100	2100

DIMENSIONS			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
H	STD/SSL	mm	2100	2100	2100	2100	2100	2100	2100	2100	2100

CLEARANCE AREA

MEA/Y 1302-B÷9003-B

500	500	800	500

NOTES

1. Chilled water from 12 to 7 °C, condensing temperature 50 °C.
2. 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.

Electrical board side

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
	Out	Ø mm	2x42	2x42	2x42	2x54	2x54	2x42	2x42	2x42	2x42
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50								
	Absorbed power	kW	7.20	9.00	10.80	12.60	12.60	18.00	68.40	21.60	21.60
	Absorbed current	A	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
	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	Ø mm	2X76	2X76	2X76	2X76	2X76	2X76	2X76	2X76
	Out	Ø mm	2x54	2x54	2x54	2x54	2X64	2X64	2X64	2X64
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50							
	Absorbed power	kW	25.20	25.20	28.80	28.80	34.30	34.30	39.20	57.60
	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
	Operating weight	Kg	2196	2367	2463	2702	4102	4369	4940	4940

DIMENSIONS			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
H	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

NOTES

1. 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.

Electrical board side

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
RCA/Y/SL	8231	8232	8241	8242	8251	8261	8271	8281	9261	9271

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

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
	Out	Ø mm	2x42	2x42	2x35	2x42	2x42	2x42	2x54	2x54	2x54
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50								
	Absorbed power	kW	6.90	6.90	9.20	9.20	11.50	13.80	16.10	16.10	18.40
	Absorbed current	A	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
	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
	Out	Ø mm	2x54	2x54	2x54	2x54	2x54	2x54	2X64	2X64	2X64
Electrical characteristics	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
	Absorbed current	A	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
Weights	Transport weight	Kg	2528	2097	2283	2942	3117	3668	4218	4769	4769
	Operating weight	Kg	2702	2183	2396	3027	3227	3799	4369	4940	4940

DIMENSIONS			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
H	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

NOTES

1. 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.

Electrical board side

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 cooling coil.
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
RCA/Y/SSL	8151	8161	8171	8251	8251	8261	8272	8282	9271	9272

MEA/Y	4402-B	4802-B	5402-B	6002-B	6603-B	7203-B	8103-B	9003-B		
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
RCA/J/SSL	8151	8161	8171	8251	8251	8261	8272	8282	9271	9272

MEA/J	4402-B	4802-B	5402-B	6002-B	6603-B	7203-B	8103-B	9003-B		
RCA/J/SSL	9281	2x8271	2x8281	2x8282	3x8261	3x8271	3x8272	3x8281		

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/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
	Out	Ø mm	2x42	2x42	2x54	2x42	2x42	2x54	2x54	2x54	2x54	2X64	2X64	2X64
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50											
	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
	Absorbed current	A	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
	Operating weight	Kg	1055	1282	1489	1521	2033	2367	2156	2702	2463	4088	4369	3940

DIMENSIONS			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
H	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

NOTES

1. 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.

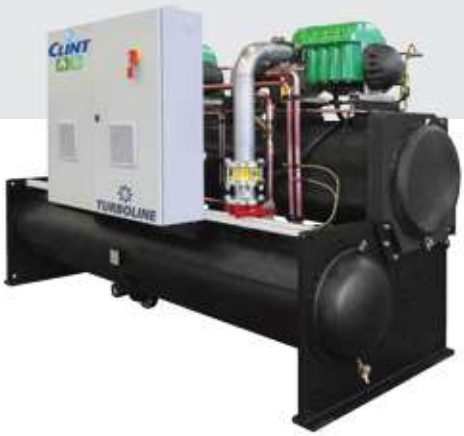
N.B. Clearance areas are specified on installation, use and maintenance manual.

Electrical board side

FROM 321 KW TO 1922 KW.

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.



TURBOLINE

HFO R1234ze

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

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

FACTORY FITTED ACCESSORIES

IM	Automatic circuit breakers
HR	Desuperheater
HRT	Total heat recovery
FE	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
IDL	Demand limit from digital input
CP	Potential free contacts

LOOSE ACCESSORIES

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

DIMENSIONS			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
H	STD	mm	1800	1950	2050	2100	2100	2150

CLEARANCE AREA

CWW/TTH 1701-1÷6606-1

500	500	800	500

NOTES

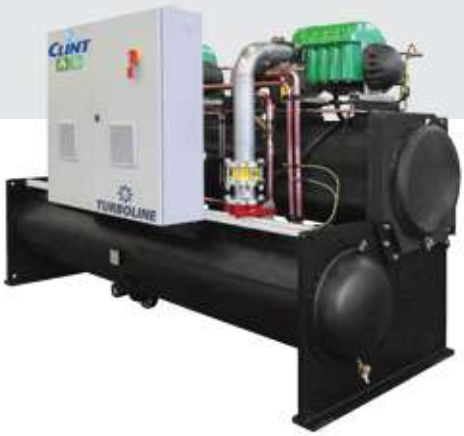
1. Chilled water from 12 to 7 °C, water temperature at the condenser from 30 to 35 °C.
2. Seasonal energy efficiency of cooling at low temperature. According to EU Regulation n. 2016/2281.
3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.

Electrical board side

FROM 301 KW TO 1802 KW.

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.



TURBOLINE

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 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

FACTORY FITTED ACCESSORIES

IM	Automatic circuit breakers
HR	Desuperheater
HRT	Total heat recovery
FE	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
IDL	Demand limit from digital input
CP	Potential free contacts

LOOSE ACCESSORIES

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

CWW/TTH/DR 1701-1÷6606-1

MODEL			1701-1	2202-1	3303-1	4404-1	5505-1	6606-1
Cooling	Cooling capacity (1)	kW	301	603	899	1203	1499	1802
	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 (EN14511)	Cooling capacity (1)	kW	300	601	896	1200	1494	1797
	Absorbed power (1)	kW	72	144	215	286	359	429
	EER (1)		4.17	4.17	4.17	4.20	4.16	4.19
Compressor	Quantity	n°	1	2	3	4	5	6
	Refrigerant circuits	n°	1	1	1	1	1	1
	Capacity steps	n°	Stepless					
Evaporator	Water flow	l/s	14.38	28.81	42.95	57.48	71.62	86.10
	Pressure drops	kPa	41	42	41	30	47	44
	Water connections	DN	100	125	150	150	200	200
Condenser	Water flow	l/s	19.4	38.8	58.0	77.7	96.7	116
	Pressure drops	kPa	55	56	55	56	62	58
	Water connections	DN	100	125	150	150	200	200
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50					
	Max. running current	A	150	300	450	600	750	900
	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
	Operating weight	Kg	1990	3200	4510	7340	9040	13460

DIMENSIONS			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
H	STD	mm	1800	1950	2050	2100	2100	2150

CLEARANCE AREA

CWW/TTH/DR 1701-1÷6606-1

500	500	800	500

NOTES

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

Electrical board side

FROM 319 KW TO 3912 KW.

CWW/TTY 1601-1÷14406-1

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

TURBOLINE

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
FE	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
IDL	Demand limit from digital input
CP	Potential free contacts

LOOSE ACCESSORIES

MN	High and low pressure gauges
CR	Remote control panel
AG	Rubber shock absorbers
AM	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	Cooling capacity (1)	kW	319	421	519	642	712	838	962	1040	1260	1302
	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 (EN14511)	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
	ESEER		8.12	8.29	8.51	8.57	8.66	8.70	8.55	8.97	8.70	9.21
	EUROVENT Class		A	A	A	A	A	A	A	A	A	A
	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
Compressor	Quantity	n°	1	1	1	2	2	2	3	2	3	2
	Refrigerant circuits	n°	1	1	1	1	1	1	1	1	1	1
	Capacity steps	n°	Stepless									
Evaporator	Water flow	l/s	15.24	20.11	24.80	30.67	34.02	40.04	45.96	49.69	60.20	62.21
	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
Condenser	Water flow	l/s	17.87	23.51	28.86	35.93	39.80	46.77	53.89	57.81	70.38	72.05
	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
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50									
	Max. running current	A	145	231	187	290	462	462	435	374	693	420
	Max. starting current	A	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
Weights	Transport weight	Kg	1795	2060	2360	2870	3225	3325	3715	3540	4235	4155
	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
Cooling	Cooling capacity (1)	kW	1427	1563	1676	1787	1944	2080	2382	2600	3245	3912
	Absorbed power (1)	kW	238	257	281	295	306	341	396	411	511	617
	EER (1)		6.00	6.08	5.96	6.06	6.35	6.10	6.02	6.33	6.35	6.34
Cooling (EN14511)	Cooling capacity (1)	kW	1423	1559	1671	1783	1939	2075	2376	2592	3234	3898
	Absorbed power (1)	kW	242	260	286	298	311	346	401	419	522	631
	EER (1)		5.88	6.00	5.84	5.98	6.23	6.00	5.93	6.19	6.20	6.18
	ESEER		8.74	8.89	8.77	9.16	9.26	8.96	8.99	9.24	9.26	9.31
	EUROVENT Class		A	A	A	A	A	A	A	A	A	A
	SEER (2)		7.97	8.06	7.99	8.16	8.56	8.56	8.56	8.56	8.56	8.56
	Energy Efficiency (2)	%	311	314	312	318	334	334	334	334	334	334
Compressor	Quantity	n°	3	3	4	3	3	4	4	4	5	6
	Refrigerant circuits	n°	1	1	1	1	1	1	1	1	1	1
	Capacity steps	n°	Stepless									
Evaporator	Water flow	l/s	68.18	74.68	80.08	85.38	92.88	99.38	114	124	155	187
	Pressure drops	kPa	45	54	48	28	36	36	37	48	58	62
	Water connections	DN	200	200	200	200	200	200	250	250	300	300
Condenser	Water flow	l/s	79.55	86.96	93.50	99.47	108	116	133	144	179	216
	Pressure drops	kPa	42	49	35	36	45	46	36	46	50	52
	Water connections	DN	200	200	200	200	200	250	250	250	300	300
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50									
	Max. running current	A	561	561	924	630	630	748	840	840	1050	1260
	Max. starting current	A	376	376	695	422	422	563	632	632	842	1052
Sound pressure (3)		dB(A)	78	78	79	78	78	78	79	79	80	80
Weights	Transport weight	Kg	4725	4825	7355	7730	7880	8350	9330	9430	14440	18420
	Operating weight	Kg	5310	5410	8190	8760	8910	9400	10520	10620	16590	21260

DIMENSIONS			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
H	STD	mm	1800	1850	1950	1950	2000	2000	2000	2050	2050	2100

DIMENSIONS			5303-1	5703-1	6204-1	7303-1	7603-1	8104-1	9704-1	10104-1	12605-1	14406-1
L	STD	mm	3450	3450	4500	4500	4500	4500	4750	4750	5750	6750
W	STD	mm	1800	1800	1750	1800	1800	1800	1800	1800	1950	2100
H	STD	mm	2100	2100	2100	2150	2150	2150	2200	2200	2350	2400

CLEARANCE AREA

CWW/TTY 1601-1÷14406-1

500	500	800	500

Electrical board side

NOTES

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

FROM 298 KW TO 1584 KW.

CWW/TTY/DR 1601-1÷6204-1

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

TURBOLINE

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 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
FE	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
IDL	Demand limit from digital input
CP	Potential free contacts

LOOSE ACCESSORIES

MN	High and low pressure gauges
CR	Remote control panel
AG	Rubber shock absorbers
AM	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	Cooling capacity (1)	kW	298	395	598	792	894	1185	1584
	Absorbed power (1)	kW	70	92	141	186	211	277	372
	EER (1)		4.26	4.29	4.24	4.26	4.24	4.28	4.26
Cooling (EN14511)	Cooling capacity (1)	kW	297	394	596	789	891	1180	1579
	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
Compressor	Quantity	n°	1	1	2	2	3	3	4
	Refrigerant circuits	n°	1	1	1	1	1	1	1
	Capacity steps	n°	Stepless						
Evaporator	Water flow	l/s	14.24	18.87	28.57	37.84	42.71	56.62	75.68
	Pressure drops	kPa	44	45	48	50	54	56	42
	Water connections	DN	100	100	125	125	150	150	200
Condenser	Water flow	l/s	19.20	25.40	38.55	51.02	57.64	76.26	102
	Pressure drops	kPa	58	52	57	53	59	52	40
	Water connections	DN	100	100	125	125	150	150	200
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50						
	Max. running current	A	145	231	290	462	435	693	924
	Max. starting current	A	2	2	147	233	292	464	695
Sound pressure (2)		dB(A)	72	74	75	76	76	77	78
Weights	Transport weight	Kg	1840	2115	2955	3430	3855	4415	7555
	Operating weight	Kg	1980	2300	3220	3790	4240	4940	8450

DIMENSIONS			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
H	STD	mm	1800	1850	1950	2000	2000	2050	2100

CLEARANCE AREA

CWW/TTY/DR 1601-1÷6204-1

500	500	800	500

NOTES

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

Electrical board side

FROM 1050 KW TO 9000 KW.

CWW/CCY 4031÷11682

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

CENTRITEK

INVERTER CENTRIFUGAL

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