



Refrigerant
R290 | GWP=3



Semi-hermetic
piston
compressor



Axial fan



Brazen plate
heat exchanger

Air cooled water chillers



Solution

- B - Base
- I - Integrated

Version

- ST - Standard
- LN - Low noise

Equipment

- AS - Standard equipment
- DS - Desuperheater

Cooling Capacity 70,9 - 300,2 kW

Housing	Base and panels made of painted galvanised steel; panels mounted on aluminium profiles to ensure total weathering resistance. Panels are internally lined to reduce the noise level (LN Accessories only).
Compressor	Reciprocating SEMIHERMETIC type, fixed on anti-vibration system and complete with pressure lubrication system; oil crankcase heater, integral electronic protection and inlet plus outlet valves; capacity control head (from model 502), flexible joints on suction and discharge. The compressor is mechanically optimized for use with Hydrocarbons and built in according to Directive ATEX 94/9/EC for the safety requirements: Zone 2, Gas group IIB. Some components are ATEX certified.
Fan	Low speed, axial-flow fans fitted with accident-prevention protective grille; directly coupled motor with built-in thermal cutout and IP 54 protection degree; aerodynamic housing and wing profile blades increase efficiency and decrease noise level.
Air heat exchanger	Finned coil made with copper pipes and aluminium fins offering a high exchange surface area.
Water heat exchanger	Plate-type made of AISI 316 steel complete with water differential pressure switch. Shell covered with closed-cell neoprene anti-condensate material.
Electrical board	Switchboard to standards IEC 204-1/EN60204-1, complete with contactor and protection for compressor and fans. Main isolator and door interlock safety device. The cabinet is externally hung on one side of the unit.
Control	The microprocessor controls the unit capacity by timing the compressors and checks the operating alarms with the possibility to connect to BMS.
Refrigerant circuit	Filter drier, sight glass and liquid moisture, solenoid valve, shut-off valve on the liquid line, electronic expansion valve, safety pressure high / low switch, oil-pump differential pressure switch (from size 502). Some components are ATEX certified.
Additional safety device	To ensure high-safety-level the unit is equipped with a special gas detector for flammable gases, including two alarm levels and microprocessor control with LED status indicator.
Water circuit	(Integrated): Water pressure gauge, safety valve, centrifugal pump suitable for glycol solutions up to 20%, manual air venting valve, water tank.

ACCESSORIES

- Spring vibration isolation
- Rubber vibration isolation
- Modulating fan speed condensing control
- Part-winding soft start
- Wall mounted remote control panel
- Max and min voltage relay
- Refrigerant gauges (standard)
- Electromechanical flow switch
- Additional stand-by water pump

RKO.E	302 S	402 S	502 S	602 S	702 S	802 S	1002 S	1102 S	1202 S	1402 S	1502 S	1602 S
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ST VERSION													
Cooling capacity (1)	kW	70,9	78,8	100,4	114,5	141,1	166,6	195,8	218,6	243,5	268,9	288,7	300,2
Saved CO2 equivalent Ton (*)	Ton	20400	21290	40800	44350	60320	70960	78060	81600	83380	106440	111760	117080
Total compressors power input (1)	kW	21,3	24,8	29,7	35,6	43,3	50,6	63,1	70,8	81,4	86,1	94,0	98,6
Water flow (1)	m3/h	12,2	13,5	17,3	19,7	24,3	28,7	33,7	37,6	41,9	46,2	49,6	51,6
External pressure @ Pn (1)	bar	1,0	1,6	1,2	1,1	1,5	1,4	1,2	1,3	1,3	1,8	1,7	1,6
Total air flow	m3/h	28500	28500	40000	40000	48000	58500	80000	92000	92000	114000	114000	114000
Sound pressure (2)	dB(A)	74	74	76	76	76	78	78	80	81	81	81	82

LN VERSION													
Cooling capacity (1)	kW	68,4	76,0	96,9	110,5	136,2	160,8	189,0	210,9	235,0	259,5	278,6	289,7
Saved CO2 equivalent Ton (*)	Ton	20400	21290	40800	44350	60320	70960	78060	81600	83380	106440	111760	117080
Total compressors power input (1)	kW	21,8	25,3	30,3	36,3	44,1	51,6	64,3	72,2	83,0	87,9	95,9	100,5
Water flow (1)	m3/h	11,8	13,1	16,7	19,0	23,4	27,7	32,5	36,3	40,4	44,6	47,9	49,8
External pressure @ Pn (1)	bar	1,1	1,7	1,3	1,2	1,6	1,5	1,3	1,4	1,4	1,9	1,8	1,7
Total air flow	m3/h	24510	24510	34400	34400	41280	50310	68800	79120	79120	98040	98040	98040
Sound pressure (2)	dB(A)	71	71	73	73	73	75	75	77	78	78	78	79

Compressors type	-	Semihhermetic reciprocating											
Compressors quantity	n°	2	2	2	2	2	2	2	2	2	2	2	2
Indipendent gas circuit	n°	2	2	2	2	2	2	2	2	2	2	2	2

Fans type	-	Axial											
Fans quantity	n°	3	3	4	4	4	3	4	5	5	6	6	6
Fans power input	kW	2,6	2,6	3,4	3,4	3,4	6,0	8,0	10,0	10,0	12,0	12,0	12,0

Power supply	V/ph/Hz + T	400/3/50 + 230/1/50 (for gas detector)											
Maximum absorbed current (with pump)	A	64,7	79,8	83,4	97,8	119,2	138,8	170,8	204,4	226,4	238,3	248,3	254,3
Starting current (with pump)	A	153,0	179,9	249,5	277,8	304,2	350,8	416,8	482,4	581,4	683,3	724,3	727,3

INTEGRATED SOLUTION													
Pump type	-	Centrifugal											
Pump power input	kW	1,1	1,5	1,5	1,5	2,2	2,2	2,2	3,0	3,0	4,0	4,0	4,0
Water tank content	L	290	290	460	460	500	500	500	500	500	500	500	500

DESUPERHEATER (DS Equipment)													
Heat capacity (3)	kW	18,9	21,0	26,8	30,6	37,7	44,5	52,3	58,4	65,1	71,9	77,2	80,3
Water flow	m3/h	3,3	3,6	4,6	5,3	6,5	7,7	9,0	10,0	11,2	12,4	13,2	13,8
Pressure drop	kPa	33	35	29	31	30	26	28	33	32	34	38	27

DIMENSIONS AND WEIGHT - Base Solution													
Lenght (L)	mm	3030	3030	3970	3970	4250	4250	5450	5450	5450	5250	5250	5250
Depth (P)	mm	990	990	990	990	1150	1150	1500	1500	1500	2000	2000	2000
Height (H)	mm	2155	2155	2215	2215	2135	2250	2300	2300	2300	2250	2250	2250
Shipping weight	Kg	1200	1250	1800	1900	2000	2050	2300	2350	2400	2700	2750	2800

DIMENSIONS AND WEIGHT - Integrated Solution													
Lenght (L)	mm	3030	3030	3970	3970	5050	5050	5450	5450	5450	5250	5250	5250
Depth (P)	mm	990	990	990	990	1150	1150	1500	1500	1500	2000	2000	2000
Height (H)	mm	2155	2155	2215	2215	2135	2250	2300	2300	2300	2250	2250	2250
Shipping weight	Kg	1260	1310	1890	1990	2200	2250	2400	2460	2510	2820	2870	2920

Note:

(1) Condenser air 35°C - Evaporator water IN/OUT 12/7°C

(2) Sound pressure measured at 1 m in open field conditions

(3) Water IN/OUT 40/45°C - Evaporator water IN/OUT 12/7°C

(*) CO2 equivalent tonnes saved to the Environment compared to the choice of an EUROKLIMAT unit with similar cooling capacity and HFC refrigerant

Data relating to the pumps are referred to the "Integrated Solution"

THE DECLARED COOLING CAPACITY ARE NOT TAKING INTO ACCOUNT THE PUMP MOTOR POWER INPUT (WHERE PROVIDED).