PRIMA.E

004 ⟷ 064 d

R290
Refrigerant
R290 | GWP=3

Scroll
compressor

Axial fan

Brazed 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 4,7 - 67,1 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	Hermetic scroll compressor ATEX certified, with spirals orbiting specially designed and optimized for use with the selected refrigerant. The compressor is complete with dedicated oil for Propane and has a fully hermetic design, safe for flammable refrigerants . The compressor is fitted on rubber antivibration mounts in order to reduce vibration to the structure. The electrical terminals of the motor are placed in a dedicated box realized with IP65 protection.
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. The grille on the air-inlet side reduces the noise emissions and minimizes disturbing low frequency tones (LN Accessory only).
Air heat exchanger	Finned coil made with copper pipes and aluminium fins offering a high exchange surface area.
Water heat exchanger	Brazed plate-type heat exchanger, stainless steel AISI 316 made. The heat exchanger design provides high thermal exchange and high performance results, furthermore it guarantees small dimensions and easy installation and maintenance. Heat exchangers that work at low temperature are thermally insulated with closed-cell neoprene anti-condensate material. Air vent valve included.
Electrical board	Each unit is equipped with electric panel, built, wired and fully tested at the factory. Wiring numeration and optimized layout facilitate troubleshooting. The installed components are identified by nameplates to better identify the application and the type of action. Switchboard is completely made according to standards IEC 204-1/EN60204-1 and and it is complete with contactor and protection for compressor and fans , main isolator switch and door interlock safety device. To ensure higher level of security the the panel is hung outside the unit, on one side of the machine.
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, moisture-liquid sight glass, solenoid valve, shut-off valve on the liquid line, electronic expansion valve, safety pressure high / low switch. Solenoid valves and pressure switches are ATEX certified.
Additional safety device	To ensure high-safety-level the unit is equipped with a special gas detector for flammable gases, explosion-proof ATEX certified, with external dedicated power supply and Modbus output signal. The sensor is provided with an alarm level set at 10% of Lower Flammability Limit (LFL). This alarm activates a red LED status indicator on the control panel and is managed by microprocessor to activate a series of emergency provisions which ensure the highest possible safety level.
Water circuit	(Integrated): Water pressure gauge, safety valve, centrifugal pump suitable for glycol solutions up to 20%, manual air venting valve, water tank. **NOTE:** in the integrated version of Propane chillers water pump is supplied separately from the machine; the price includes not only the pump itself but also the electrical control unit installed in the electrical panel of the chiller.

ACCESSORIES

- Spring vibration isolation
- Rubber vibration isolation
- Modulating fan speed condensing control
- EC condensing Fans
- Max and min voltage relay
- Refrigerant gauges (standard)
- Electromechanical flow switch
- Wall mounted remote control panel
- ModBus® (RS 485) interface

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Air cooled water chillers

									Available from Q3/2019							*Available from Q3/2019*			
PRIMA.E		**004**	**006**	**008**	**009**	**011**	**013**	**016**	**019**	**022**	**026**	**032**	**022 d**	**026 d**	**032 d**	**037 d**	**043 d**	**054 d**	**064 d**
COOLING																			
Cooling capacity (1)	kW	4,7	6,2	7,8	9,2	11,3	13,2	16,5	19,8	22,5	28,1	33,5	22,6	26,4	33,1	38,7	44,9	56,3	67,1
Cooling capacity (1) (EN 14511 VALUE)	kW	4,6	6,1	7,7	9,1	11,2	13,1	16,3	19,6	22,3	27,8	33,2	22,5	26,2	32,9	38,5	44,6	56,0	66,7
Total compressors power input (1)	kW	1,4	2,1	2,5	2,9	3,7	4,2	5,2	5,9	7,2	8,9	10,6	7,3	8,3	10,4	11,9	14,3	17,8	21,2
EER - Energy Efficiency Ratio	-	3,02	2,60	2,81	2,92	2,86	2,67	2,78	3,07	2,90	2,97	2,97	2,88	2,98	2,98	2,98	2,86	2,89	2,86
Saved CO2 equivalent Ton (*)	Ton	1.230	1.720	2.160	2.540	3.120	3.640	4.570	5.480	6.200	7.780	9.270	6.235	7.280	9.290	10.890	12.630	15.800	18.850
DESUPERHEATER (Option)																			
Heating capacity (2)	kW	-	-	-	2,1	2,6	3	3,8	4,5	5,1	6,4	7,7	5,2	6	7,6	8,9	10,3	12,9	15,3
Water flow	m3/h	-	-	-	0,4	0,4	0,5	0,7	0,8	0,9	1,1	1,3	0,9	1	1,3	1,5	1,8	2,2	2,7
Pressure drop	kPa	-	-	-	28	30	35	32	36	31	29	35	36	38	32	34	30	33	37
REFRIGERANT CIRCUIT																			
Refrigerant		R290	R290	R290	R290	R290	R290	R290	R290	R290	R290	R290	R290	R290	R290	R290	R290	R290	R290
Independent gas circuit	n°	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Compressors type	-	Hermetic scroll																	
Compressors quantity	n°	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2
Fans type	-	Axial (AC)																	
Fans quantity	n°	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	3	3
Total air flow	m3/h	2.900	3.650	3.650	4.900	4.900	5.300	5.300	8.600	8.600	8.250	11.500	8.600	8.250	11.500	17.200	23.000	24.750	31.000
Fans power input (1)	kW	0,15	0,28	0,28	0,25	0,25	0,74	0,74	0,55	0,55	0,56	0,69	0,55	0,56	0,69	1,1	1,38	1,69	2,28
Evaporator water flow (1)	m3/h	0,8	1,1	1,3	1,6	1,9	2,3	2,8	3,4	3,9	4,8	5,8	3,9	4,5	5,7	6,7	7,7	9,7	11,5
Evaporator pressure drop (1)	kPa	41	35	53	34	49	33	50	27	33	33	45	22	27	40	28	34	38	40
HYDRONIC KIT - 100 kPa useful head (Option)																			
Buffer tank capacity	L	30	30	30	30	30	30	30	60	60	60	60	60	60	60	150	150	150	150
Pump type	-	Centrifugal																	
Pump motor nominal power	kW	0,37	0,37	0,37	0,37	0,37	0,37	0,37	0,55	0,55	0,55	0,55	0,55	0,55	0,55	0,9	0,9	0,9	0,9
Electrical Data																			
Power supply	V/ph/Hz+T	400/3/50 + 230/1/50 (for gas detector)																	
Maximum power input without pump	kW	1,9	2,7	3,2	3,7	4,5	5,6	6,8	8	9	11,3	13,7	9	10,3	13,1	16	18,6	23,1	28,2
Locked rotor current – LRA without pump	A	26,4	32,6	46,6	64,7	64,7	75,4	103,4	120	132,9	160,7	187,9	75,8	87,5	120,2	140,4	156,4	188,8	221,2
Maximum absorbed current - FLA without pump	A	4,5	5,8	7,4	8,9	10,8	13,2	17,3	20,1	22,2	26,5	31,3	21,9	25,3	34,1	40,6	45,7	54,6	64,6
Noise levels (3)																			
Total sound pressure (3) - ST Version	dB(A)	53	54	54	55	55	56	56	55	55	55	57	56	56	57	57	57	58	58
Total sound pressure (3) - LN Version	dB(A)	49	50	50	51	51	52	52	51	51	51	53	52	52	53	53	53	54	54
DIMENSIONS AND WEIGHT - Base Solution																			
Length (L)	mm	1.230	1.230	1.230	1.380	1.380	1.380	1.380	1.680	1.680	1.680	1.680	1.680	1.680	1.680	2.330	2.330	3.030	3.030
Depth (P)	mm	650	650	650	800	800	800	800	990	990	990	990	990	990	990	990	990	990	990
Height (H)	mm	1.320	1.320	1.320	1.785	1.785	1.785	1.785	2.055	2.055	2.055	2.075	2.055	2.055	2.075	2.155	2.155	2.155	2.155
Shipping weight	Kg	185	190	205	250	255	265	270	480	490	495	510	560	570	585	750	760	980	1010
DIMENSIONS AND WEIGHT - Integrated Solution																			
Length (L)	mm	1.230	1.230	1.230	1.380	1.380	1.380	1.380	1.680	1.680	1.680	1.680	1.680	1.680	1.680	2.330	2.330	3.030	3.030
Depth (P)	mm	650	650	650	800	800	800	800	990	990	990	990	990	990	990	990	990	990	990
Height (H)	mm	1.320	1.320	1.320	1.785	1.785	1.785	1.785	2.055	2.055	2.055	2.075	2.055	2.055	2.075	2.155	2.155	2.155	2.155
Shipping weight	Kg	240	250	270	325	330	350	360	640	650	655	660	730	740	760	975	990	1270	1310

Reference conditions:

(1) Condenser air intake temperature = 35°C - Evaporator water temperature IN/OUT = 12/7°C - Fluid: pure water - Condensing coil: Cu/Al

(2) Plate heat exchanger water temp. IN/OUT = 40/45°C - Condenser air intake temperature = 35°C - Evaporator water temperature IN/OUT = 12/7°C - Fluid: pure water - Condensing coil: Cu/Al

(3) Sound pressure level (average) at 10 m, unit in a free field on a reflective surface

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

Compliance with "Eco-Design"

The units comply with the European Directive 2009/125/EU, the Commission Regulation (EU) 2016/2281 and with the Harmonized Directives.
The relevant information related to each model (eg.: **$SEER_{on}$, Rated cooling capacity, Seasonal space cooling energy efficiency, ….**) are published on our website **www.euroklimat.it**

wEKool Web Product Selector

Euroklimat has developed an online software called "wEKool" that allows you to select the most suitable solution to meet the specific request and all the available accessories for each model. For more information, please contact your sales representative.