

Technical Catalogue

CRIO



Air-Cooled liquid chillers for Medium Temperature applications

Ecodesign Regulation Tier 2 ready - Process MT



EUROKLIMAT®
Cooling System Solutions

CRIO Solutions

High efficiency air-cooled liquid chillers specifically developed for contexts that require high performance on the one hand and low operating costs on the other. In particular, these machines are optimized for use in the industrial sector where medium temperature process cooling is required.

The refrigerant fluid used is propane (R290), a natural hydrocarbon with very low GWP that guarantees machine operation in a wide range of operating limits and at the same time allows to meet the regulations on HFC refrigerants, such as the European regulation "F-gas". Given the flammability characteristic of this substance, units have important safety elements such as the robust and leak-tight refrigeration circuit, the choice of the most sensitive components with Atex certification, the electrical panel fitted in a separate compartment and the presence of a gas detection system. In addition, this range has been designed for outdoor installations and is in accordance with regulation (EU) 2015/1095 which implements Directive 2009/125/EC "Ecodesign".

The main components of these units are shown in the high efficiency semi-hermetic reciprocating compressor, in the EC axial fans and in the high efficiency condensing coil. Equipped with a microprocessor that manages the compressors in order to provide the exact cooling capacity required and that controls the operating alarms with the possibility of connecting to BMS.

The dimensions of CRIO units have been optimized in order to minimize the space occupied and the arrangement of the components has been studied in detail to allow any maintenance operation in the simplest and safest way. All units will be rigorously inspected and tested in the production plant before the shipment phase. In addition, once it reaches the installation site, the start-up will be simple thanks to the provision of hydraulic and electrical connections that allow quick connection to the power supply networks. These chillers are the result of Euroklimat's continuous improvement of the products, services and production processes that currently comply with the UNI EN ISO 9001:2015 international quality standard.



Main components

Structure (only PE units)

Structure specifically designed and built to guarantee total resistance to atmospheric agents and corrosion. Base made of galvanized steel sheet, oven-painted with polyester powders. Equipped with sturdy support feet that facilitate the handling of the unit and allow simple and quick installation. Frame made of anodized aluminium profiles, with aluminium alloy corner joints that guarantee excellent mechanical resistance and low weight. Panelling made of galvanized steel, oven-painted with polyester powders. (RAL 7035 standard colour, others on request). Fastening to the aluminium frame is made with stainless steel screws mounted flush on the panels. Internal carpentry in galvanized steel sheet. Rainwater collection tray, in case of outdoor installation, complete with a conveyable discharge without the disassembly of any panel. Sealing gaskets fitted on panels' edges, made coextruded plastic with differentiated consistency.

Structure (only PV units)

Structure specifically designed for outdoor installation. Basement and frame in galvanised shaped sheet steel with a suitable thickness. The load-bearing components are firmly assembled with rivets and bolts, to make the unit extremely solid and able to withstand even the most severe transport and handling stresses. All parts are polyester-powder painted to assure total weather resistance (RAL 7035 standard colour, others on request).

Compressor

Reciprocating semi-hermetic single-stage compressor specifically designed and optimized for operation with R290 refrigerant (propane). Compressor designed and manufactured in compliance with the safety requirements of directive 2014/34/EC (ATEX), suitable for installation in Zone 2 and Group IIB gas. Some components are ATEX certified. These compressors, built with robust construction, are specifically designed to guarantee high performance, reliability and efficiency. The three-phase electric motor is cooled by the refrigerant gas coming from the suction side and is protected against any operating anomalies with integral electronic protection and from excessive discharge temperature, with over-temperature and motor overcurrent devices. The compressor is complete with: ptc-probes connected to the protection system, electronic control module and protection of the electric motor (installed inside the electrical panel); oil level sight glass and oil crankcase heater; anti-vibration flexible joints (for suction and discharge pipes); suction and discharge shut-off valves. The compressor is fitted on rubber anti-vibration mountings in order to reduce vibrations towards the structure and facilitate installation. The compressor is supplied with lubricating oil charge. The electrical terminals of the motor are placed in a dedicated box realized with IP54 protection. The compressor can be supplied with one or more step-capacity control heads to guarantee an adaptation of the cooling capacity in case of thermal load's reduction. The number of step-capacity control heads supplied and/or available as accessories varies according to the selected chiller model: please see the list of accessories and unit data sheet for further information.

Fan(s)

Low speed axial fan directly coupled to an Electronically Communicated (EC) motor with external rotor. The regulation of the fan rotation speed (0-100%) occurs through the variation of a 0-10 V signal in order to considerably improve the efficiency in partial load conditions. The function of this component is to process the air axially, i.e. parallel to the rotating motor shaft. The selected model is optimized for operation in refrigeration and air conditioning applications at environmental conditions compatible with those of the selected unit. The main characteristics are the low sound level and high energy efficiency, features that can only be achieved through a high level of aerodynamic design of the fan blades. Equipped with integrated thermal protection and steel protection grille on the air inlet. The assembly consisting of fan, diffuser and protection grid complies with the current European ErP directive. The fan has an IP54 degree of protection and is dynamically balanced according to the ISO 1940 standard.

Air heat exchangers - Condenser (only PE units)

Finned coil, made with copper pipes arranged in staggered rows, mechanically expanded inside a pack of aluminum fins with a high exchange surface.

Air heat exchangers - Condenser (only PV units)

Heat exchanger realized with Microchannel technology, entirely made of aluminum, suitable for the selected refrigerant and for the required use. This type of heat exchanger is optimized for air conditioning and refrigeration applications. The main feature of the Microchannel technology is that of increasing the ratio between primary and secondary exchange surface to obtain the maximum heat exchange, while maintaining compact dimensions, lightness and high resistance to corrosion. In fact, thanks to the reduced hydraulic diameter of the Microchannel aluminum tubes, the heat can be transferred more effectively and efficiently than traditional copper tubes. Through the use of this component it is also possible to reduce the refrigerant charge of the machine, increase the operating efficiency and reduce the sound power associated with respect to the use of other types of batteries.

Water heat exchanger - Evaporator

Brazed plate heat exchanger suitable for the required function and for the selected refrigerant. Plates are made of stainless steel AISI 316 and the brazing filler of copper. This component comes from the application of the most advanced design technologies and from the most scrupulous controls that guarantee high performance and a particularly long-life cycle. The design of the heat exchanger, designed specifically for applications in refrigeration and air conditioning, guarantees good heat exchange capacity, optimal performance as well as compactness and simplicity of installation and maintenance. Equipped with an integrated distribution system that guarantees a uniform distribution of the refrigerant fluid through the plate pack. The exchanger complies with the Pressure Equipment Directive (PED) of the EU in terms of mechanical and material specifications. This component is also supplied with insulation coating of 9 mm thick, made of expanded polyurethane with closed cell (for MT-LT applications, the thickness is greater than the previous and equal to 19 mm). Equipped with differential pressure switch on the water side and a manual air vent valve.

Electric switchboard

Unit 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 made according to standards IEC 204-1/EN60204-1 and it is complete with the following main components:

- Main isolator switch;
- Door interlock safety device;
- Windproof door-lock device;
- Contactor and protection for compressor(s) and pump (if present);
- Magnetothermic switch for the protection of extractor fan;
- Power supply without neutral;
- Cabinet minimum protection rating IP54;
- Lamps for Propane leakage alarm and exhaust fan fault alarm.

To ensure higher level of security, the electrical panel is installed outside the machine. The separation of the panel is also ensured thanks to the use of a double barrier between the compressor compartment and the electrical panel realized through the use of special cable gland plates having a minimum degree of protection IP64. The propane sensor is equipped with separate power supply: this power supply must always be guaranteed in order to ensure the monitoring of any leakage.

Electronic regulation / control

The programmable electronic microprocessor control system allows you to automatically adjust the thermal or cooling power supplied by the unit and to manage malfunction alarms. Thanks to a multitasking operating system and the adoption of standard, local and remote connectivity protocols, the selected controller is a powerful control system that can be easily interfaced with the most common Building Management Systems (BMS) on the market.

Consisting of two integrated Ethernet interfaces, three serial interfaces, two optional communication cards, two USB ports and allows a wide choice of communication protocols available.

The objective of the control system is to optimize the power supplied by the compressors in order to increase the efficiency of the unit. The management of the power supply of the compressors changes according to the configuration, the number of circuits and the power ratio between the compressors themselves.

For units with two or more circuits and active prevention in one circuit, a rotation system is provided so as to compensate for the limited circuit, increasing the demand on the other available circuits. This microprocessor allows to manage the adjustment driver of the electronic expansion valve, ensuring optimal operation. In addition, the application software allows easy access to the configuration and machine management parameters via the device display. There are three different password levels, in order to allow three different modes of access to the parameters (modification for the user, modification for technical assistance, total access for the manufacturer). The main screen allows you to quickly access user functions without requiring a password, allowing you to have access to a lot of information such as the status of the machine components, the machine's operating mode, set point, display of the system variables and machine operation. Alarms can be viewed via the display, while alarms can be reset and the machine can be unlocked from the keyboard. The alarm history (up to 64 storable events) can be consulted with the data logger function. The microprocessor is connected to a semi-graphic terminal which allows the controller to interface with the user. This component is designed to offer high versatility, ease of use and quality of performance. Consisting of a 132x64 pixel backlit white display which guarantees high visibility and a 6-key keyboard that recalls the symbols used in the display. The connection with the controller is foreseen via the RS485 network in the pLAN protocol.

Other important features are listed below:

- PID control

There are two types of PID control: at the start-up on and during operation. The start-up control has the task of preventing an excess of required power. Since the size of the load is not known at start-up, but only the temperature is known, the power is gradually increased, pending the reaction of the system. During operation, on the other hand, the check must be rapid to follow any load variations and keep the water temperature as close as possible to the set-point value.

- Management of the operating range of the compressors

The compressor operating points are constantly monitored by the controller to avoid exceeding the operating limits (envelope) and this important control cannot be disabled. When the operating condition occurs outside the envelope, the alarm delay counter starts counting: if the operating condition remains beyond the envelope when the delay has elapsed, a specific alarm is activated, which stops the compressor; if, on the other hand, the operating conditions are within the envelope limits, the alarm delay counter is reset.

-Cloud services

The cloud services, immediately available after connecting to the Ethernet (LAN) and configuring the addresses, allow you to check and / or set the main operating parameters of the machine in real time, view alarm notifications and view reports and graphs on the system performance. All this simply from remote devices connected to the network with the unit. In order to connect remotely through an internet connection, a dedicated "Token" must be activated, which allows you to subscribe to the Cloud service annually.

Refrigerant circuit

The refrigerant circuit of the unit has been designed to function optimally with the selected refrigerant, minimizing pressure drops and ensuring high yields. The circuit is entirely made of copper pipes brazed with silver alloy and thermally insulated on the suction section, to avoid condensation. All circuit components are certified and approved for use with R290 (propane).

The main components of the circuit are:

- Molecular sieve dehydrator filter, capable of retaining impurities of mechanical origin and dehydrating the circuit to protect it from any traces of humidity;
- Indicator of the passage of liquid to check the charge and the moisture content of the gas, thanks to a color change indicator;
- High pressure safety valve, which guarantees opening of the circuit before reaching critical working conditions (if necessary, in accordance with EN-378-2:2016);

- High and low pressure transducers that transmit the values read directly to the machine microprocessor;
- Charging connections for refrigerant;
- Refrigerant charge;
- Anti-freezing oil charge;
- Valves on the suction and discharge sides of the compressor;
- Refrigerant circuit high/low pressure gauges;
- Standard electronic expansion valve (managed by a microprocessor mounted on board);

The evaporation control is entrusted to a lamination valve which regulates the opening on the refrigerant side according to the water temperature.

Some components are ATEX certified and the cooling circuit is made in compliance with the European Pressure Equipment Directive 2014/68/UE (PED).

Water circuit

The BASE solution provides the following main components which are supplied mounted on the machine:

- interface connections to the system (with female threaded or flanged connections) in correspondence with the heat exchanger on the user side;
- pre-painted carbon steel pipes with adequate thermal insulation;
- manual air vent valve positioned at the highest point of the hydraulic circuit;
- differential pressure switch installed in correspondence with the heat exchanger on the user side;
- NTC temperature probes placed at the inlet and outlet of the user side heat exchanger;

To allow the circulation of the fluid in the hydraulic circuit it will be necessary to add a pumping system to the BASE solution.

Safety system and devices

To ensure a high level of safety throughout the useful life of the selected propane unit, special measures have been introduced that make this product unique. In fact, the refrigeration circuit is watertight and sufficiently robust, the pipes have been designed to have few joints and welds and all the materials used are compatible with the R290 refrigerant (propane). The electrical panel is installed in a separate compartment and some of the most important components are ATEX certified. In addition, the unit is equipped with an ATEX certified refrigerant gas leak detector located in the compressor compartment and a centrifugal blower expulsion fan below the electrical panel. The sensor, equipped with a separate power supply and with remote signal via Modbus, provides an alarm level set at 10% of the propane's lower flammability limit (LFL). Safety devices are managed by the microprocessor. If a gas leak is detected, an LED status indicator (red) on the control panel lights up instantly and a series of emergency provisions are activated which guarantee the highest possible level of safety. Activation of the alarm involves the immediate shutdown of the machine and the switching on of the centrifugal extraction fan, which allows to ventilate the compressor compartment by diluting the concentration of R290 up to values below the flammability threshold. The structure is provided with dedicated air intake and exhaust air for ventilation fan, both equipped with special weather protection made of galvanized steel sheet. If present, the safety valves installed on the refrigerant circuit are conveyed outside the machine to ensure greater safety during unit operation.

Sound levels

Sound levels are obtained by means of theoretical calculations that could deviate from the real conditions of the place of installation of the unit.

Sound Power: this is the acoustic emission of the unit when operating. It is dependent on operating conditions.
Sound power level in compliance with ISO 3744.

Sound Pressure: this is the measurement of the effect of the acoustic emission generated by the unit at a certain distance and in the acoustic environment (reflection, absorption, directivity) in which it operates.

The value will depend on the sound power of the unit, the directivity of the source and the reflectivity of the surroundings. Sound pressure level (average value), calculated for unit in a free field on a reflective surface; non-binding value obtained from the sound power level.

It is assumed that sound power and sound pressure are linked together by defining the space and conditions as follows:

- the source is omnidirectional, i.e. the acoustic emission is the same in all directions
- hemispherical field conditions with the presence of the support plane considered perfectly reflective ($Q=2$).

Standard packaging

Standard packing consists of heat-shrinkable plastic film that covers the entire unit and protects it from dust, water and other atmospheric agents. Polystyrene corners are also provided in order to protect the unit from potential accidental damages caused during transports.



CARIO BS R290 range		7-1-1 PE	9-1-1 PE	12-1-1 PE	17-1-1 PE	19-1-1 PE
COOLING - A BP/ST/AS/EC/*S version						
Cooling capacity ⁽¹⁾	[kW]	6,9	8,8	12,3	17,1	19,4
Total power input ⁽¹⁾	[kW]	3,7	4,4	6	7,8	9,5
EER - Energy Efficiency Ratio	-	1,88	2,01	2,02	2,19	2,04
Saved CO2 equivalent Ton (*)	[CO ₂ Ton]	3,4	5,4	6	10,2	11,3
"Ecodesign" compliance for process application (SEPR)	-	2,85	3,16	2,96	3,26	3,18
REFRIGERANT CIRCUIT						
Refrigerant	-	R290				
GWP	-	3				
Charge of refrigerant - Base unit	[kg]	0,9	1,4	1,6	2,6	2,9
Independent gas circuits	[n°]	1	1	1	1	1
Compressors type	-	Semi-hermetic pistons				
Compressors quantity	[n°]	1	1	1	1	1
Steps of capacity for each compressor (std)	-	1 (50%)	1 (75%); 2 (50%)	1 (75%); 2 (50%)	1 (75%); 2 (50%)	1 (75%); 2 (50%)
Condensing coils type	-	Cu/Al				
Fans type	-	Axial EC				
Fans quantity	[n°]	1	1	1	1	1
Fans power input ⁽¹⁾ (total)	[kW]	0,5	0,5	0,5	0,7	0,8
Total air flow	[m ³ /h]	4.300	6.300	6.300	11.900	12.500
Expansion valve type	-	Electronic				
Evaporator water flow ⁽¹⁾	[m ³ /h]	1,7	2,1	3,0	4,1	4,7
Evaporator pressure drop ⁽¹⁾	[kPa]	28	22	23	27	26
DESUPERHEATER (option) - A BP/ST/DS/EC/*S						
Heating capacity ⁽²⁾	[kW]	1,7	2	2,8	3,6	4,3
Water flow	[m ³ /h]	0,30	0,34	0,48	0,61	0,74
Pressure drop (water side)	[kPa]	5,2	5,2	5,3	5,2	5,3
HEAT RECOVERY (option) - A BP/ST/HR/EC/*S						
Heating capacity ⁽²⁾	[kW]	10,5	13,1	18,4	24,2	28,9
Water flow	[m ³ /h]	1,8	2,3	3,2	4,2	5,0
Pressure drop (water side)	[kPa]	17,9	13,8	24,8	25,7	25,6
Electrical data						
Power supply	-	400/3/50				
Emergency power supply	-	230/1/50				
Maximum power input without pump	[kW]	7,0	8,7	12,5	14,1	16,6
Locked rotor current – LRA without pump	[A]	52,9	64,1	88,3	104,2	119,0
Maximum absorbed current - FLA without pump	[A]	12,7	14,8	21,6	23,5	30,6
HYDRONIC KIT (option)						
Buffer tank capacity	[L]	30	30	30	60	60
Pump type	-	Centrifugal				
Standard pump - 150 kPa useful head						
Motor Efficiency	-	-	-	-	-	-
Pump motor nominal power	[kW]	0,37	0,37	0,37	0,55	0,55
Pump motor nominal current	[A]	1,4	1,4	1,4	1,9	1,9
Standard pump - 250 kPa useful head						
Motor Efficiency	-	-	-	IE3	IE3	IE3
Pump motor nominal power	[kW]	0,55	0,55	0,75	0,9	0,9
Pump motor nominal current	[A]	2	2	1,9	2,5	2,5
Water connections						
Dimension (nominal external diameter)	[inch/DN]	1/2" (DN15)	1/2" (DN15)	1" (DN 25)	1" (DN 25)	1" (DN 25)
Noise levels ⁽³⁾						
Total sound power (ST version)	[db(A)]	82	79	79	82	83
Total sound pressure (ST version) - at 1 m distance	[db(A)]	67	63	63	65	66
Total sound pressure (ST version) - at 10 m distance	[db(A)]	51	48	48	51	52
Total sound power (LN version)	[db(A)]	79	76	76	79	80
Total sound pressure (LN version) - at 1 m distance	[db(A)]	64	60	60	62	63
Total sound pressure (LN version) - at 10 m distance	[db(A)]	48	45	45	48	49
Total sound power (SL version)	[db(A)]	77	74	74	77	78
Total sound pressure (SL version) - at 1 m distance	[db(A)]	62	58	58	60	61
Total sound pressure (SL version) - at 10 m distance	[db(A)]	46	43	43	46	47

Reference conditions:

(1) Condenser air intake temperature = 30 °C - Evaporator water temperature IN/OUT = -4/-8 °C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel according to models

(2) Plate heat exchanger water temp. IN/OUT = 40/45 °C - Condenser air intake temperature = 35 °C - Evaporator water temperature IN/OUT = -4/-8 °C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel according to models

(1) - (2) The declared cooling capacity are not taking into account the pump motor power input (where provided).

(3) Sound power level in compliance with ISO 3744 - Sound pressure level (average) at 10 meter distance, unit in a free field on a reflective surface; non-binding value obtained from the sound power level.

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

CARIO BS R290 range		23-1-1 PE	28-1-1 PE	33-1-1 PE	39-1-1 PE	48-1-1 PE
COOLING - A BP/ST/AS/EC/*S version						
Cooling capacity ⁽¹⁾	[kW]	23,4	28	32,6	39,1	48,3
Total power input ⁽¹⁾	[kW]	9,9	12,7	15,4	18,3	22,1
EER - Energy Efficiency Ratio	-	2,36	2,20	2,11	2,14	2,18
Saved CO2 equivalent Ton (*)	[CO ₂ Ton]	13,3	14,2	17,7	19,9	25,3
"Ecodesign" compliance for process application (SEPR)	-	3,31	3,23	3,35	3,09	3,32
REFRIGERANT CIRCUIT						
Refrigerant	-	R290				
GWP	-	3				
Charge of refrigerant - Base unit	[kg]	3,5	3,7	4,6	5,2	6,6
Independent gas circuits	[n°]	1	1	1	1	1
Compressors type	-	Semi-hermetic pistons				
Compressors quantity	[n°]	1	1	1	1	1
Steps of capacity for each compressor (std)	-	1 (75%); 2 (50%)	1 (75%); 2 (50%)	1 (75%); 2 (50%)	1 (83%); 2 (67%); 3 (50%)	1 (83%); 2 (67%); 3 (50%)
Condensing coils type	-	Cu/Al				
Fans type	-	Axial EC				
Fans quantity	[n°]	1	1	2	2	2
Fans power input ⁽¹⁾ (total)	[kW]	0,7	0,8	1,7	1,7	3
Total air flow	[m ³ /h]	11.100	11.800	23.500	23.500	36.100
Expansion valve type	-	Electronic				
Evaporator water flow ⁽¹⁾	[m ³ /h]	5,7	6,8	7,9	9,5	11,7
Evaporator pressure drop ⁽¹⁾	[kPa]	28	31	34	23	26
DESUPERHEATER (option) - A BP/ST/DS/EC/*S						
Heating capacity ⁽²⁾	[kW]	4,2	5,5	6,1	7,7	8,6
Water flow	[m ³ /h]	0,74	0,97	1,05	1,34	1,48
Pressure drop (water side)	[kPa]	5,3	5,3	5,4	5,5	5,5
HEAT RECOVERY (option) - A BP/ST/HR/EC/*S						
Heating capacity ⁽²⁾	[kW]	33	40,8	47,3	57	68,3
Water flow	[m ³ /h]	5,7	7,0	8,1	9,8	11,7
Pressure drop (water side)	[kPa]	25,4	30,6	34,2	42,3	28,3
Electrical data						
Power supply	-	400/3/50				
Emergency power supply	-	230/1/50				
Maximum power input without pump	[kW]	19,1	21,4	27,5	34,1	42,6
Locked rotor current – LRA without pump	[A]	138,1	204,6	228,2	243,0	282,3
Maximum absorbed current - FLA without pump	[A]	37,8	38,8	47,8	57,7	70,3
HYDRONIC KIT (option)						
Buffer tank capacity	[L]	60	60	160	160	290
Pump type	-	Centrifugal				
Standard pump - 150 kPa useful head						
Motor Efficiency	-	-	IE3	IE3	IE3	IE3
Pump motor nominal power	[kW]	0,55	0,9	0,9	0,9	1,1
Pump motor nominal current	[A]	1,9	2,5	2,5	2,5	3,3
Standard pump - 250 kPa useful head						
Motor Efficiency	-	IE3				
Pump motor nominal power	[kW]	1,5	1,5	1,5	1,5	2,2
Pump motor nominal current	[A]	4,1	4,1	4,1	4,1	4,7
Water connections						
Dimension (nominal external diameter)	[inch/DN]	1" (DN 25)	1" 1/2 (DN 40)	1" 1/2 (DN 40)	1" 1/2 (DN 40)	1" 1/2 (DN 40)
Noise levels ⁽³⁾						
Total sound power (ST version)	[dB(A)]	84	84	87	88	87
Total sound pressure (ST version) - at 1 m distance	[dB(A)]	67	67	70	71	69
Total sound pressure (ST version) - at 10 m distance	[dB(A)]	53	53	56	57	56
Total sound power (LN version)	[dB(A)]	81	81	84	85	84
Total sound pressure (LN version) - at 1 m distance	[dB(A)]	64	64	67	68	66
Total sound pressure (LN version) - at 10 m distance	[dB(A)]	50	50	53	54	53
Total sound power (SL version)	[dB(A)]	79	79	82	83	82
Total sound pressure (SL version) - at 1 m distance	[dB(A)]	62	62	65	66	64
Total sound pressure (SL version) - at 10 m distance	[dB(A)]	48	48	51	52	51
Reference conditions:						
(1) Condenser air intake temperature = 30 °C - Evaporator water temperature IN/OUT = -4/-8 °C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel according to models						
(2) Plate heat exchanger water temp. IN/OUT = 40/45 °C - Condenser air intake temperature = 35 °C - Evaporator water temperature IN/OUT = -4/-8 °C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel according to models						
(1) - (2) The declared cooling capacity are not taking into account the pump motor power input (where provided).						
(3) Sound power level in compliance with ISO 3744 - Sound pressure level (average) at 10 meter distance, unit in a free field on a reflective surface; non-binding value obtained from the sound power level.						
(*) CO ₂ equivalent tons saved to the Environment compared to the choice of an EUROLIMAT unit with similar cooling capacity and HFC refrigerant						

CARIO BS R290 range		55-1-1 PE	38-2-2 PE	49-2-2 PE	58-2-2 PE	68-2-2 PE
COOLING - A BP/ST/AS/EC/*S version						
Cooling capacity ⁽¹⁾	[kW]	55,3	38,4	48,9	58	68,1
Total power input ⁽¹⁾	[kW]	27,5	18,8	22,8	27,5	30,6
EER - Energy Efficiency Ratio	-	2,01	2,04	2,15	2,11	2,23
Saved CO2 equivalent Ton (*)	[CO ₂ Ton]	26,1	20,4	26,3	28,3	36,3
"Ecodesign" compliance for process application (SEPR)	-	3,12	2,95	3,45	3,37	3,37
REFRIGERANT CIRCUIT						
Refrigerant	-	R290				
GWP	-	3				
Charge of refrigerant - Base unit	[kg]	6,8	5,3	6,8	7,4	9,4
Independent gas circuits	[n°]	1	2	2	2	2
Compressors type	-	Semi-hermetic pistons				
Compressors quantity	[n°]	1	2	2	2	2
Steps of capacity for each compressor (std)	-	(83%; 2 (67%); 3 (50%)	1 (75%); 2 (50%)	1 (75%); 2 (50%)	1 (75%); 2 (50%)	1 (75%); 2 (50%)
Condensing coils type	-	Cu/Al				
Fans type	-	Axial EC				
Fans quantity	[n°]	2	2	2	2	2
Fans power input ⁽¹⁾ (total)	[kW]	3,8	1,6	3,3	4,2	4,1
Total air flow	[m ³ /h]	39.000	24.100	36.200	39.800	36.500
Expansion valve type	-	Electronic				
Evaporator water flow ⁽¹⁾	[m ³ /h]	13,4	9,3	11,9	14,1	16,5
Evaporator pressure drop ⁽¹⁾	[kPa]	28	24	25	24	25
DESUPERHEATER (option) - A BP/ST/DS/EC/*S						
Heating capacity ⁽²⁾	[kW]	11,4	9,6	8,5	10,6	11,7
Water flow	[m ³ /h]	1,99	1,65	1,47	1,83	2,03
Pressure drop (water side)	[kPa]	5,7	5,3	5,3	5,3	5,4
HEAT RECOVERY (option) - A BP/ST/HR/EC/*S						
Heating capacity ⁽²⁾	[kW]	80,4	56,7	68,3	81,9	95,9
Water flow	[m ³ /h]	13,8	9,8	11,7	14,1	16,5
Pressure drop (water side)	[kPa]	29,4	19,4	26,9	36,9	31,3
Electrical data						
Power supply	-	400/3/50				
Emergency power supply	-	230/1/50				
Maximum power input without pump	[kW]	50,2	33,1	38,6	46,4	56,4
Locked rotor current – LRA without pump	[A]	330,7	149,6	220,0	248,9	277,7
Maximum absorbed current - FLA without pump	[A]	83,9	61,2	69,7	83,1	97,3
HYDRONIC KIT (option)						
Buffer tank capacity	[L]	290	160	160	160	160
Pump type	-	Centrifugal				
Standard pump - 150 kPa useful head						
Motor Efficiency	-	IE3				
Pump motor nominal power	[kW]	1,1	0,9	1,1	1,1	2,2
Pump motor nominal current	[A]	3,3	2,5	3,3	3,3	4,7
Standard pump - 250 kPa useful head						
Motor Efficiency	-	IE3				
Pump motor nominal power	[kW]	2,2	1,5	2,2	2,2	2,2
Pump motor nominal current	[A]	4,7	4,1	4,7	4,7	4,7
Water connections						
Dimension (nominal external diameter)	[inch/DN]	1" 1/2 (DN 40)	1" 1/2 (DN 40)	1" 1/2 (DN 40)	2" (DN 50)	2" (DN 50)
Noise levels ⁽³⁾						
Total sound power (ST version)	[db(A)]	87	87	86	86	88
Total sound pressure (ST version) - at 1 m distance	[db(A)]	69	70	69	69	70
Total sound pressure (ST version) - at 10 m distance	[db(A)]	56	56	56	56	57
Total sound power (LN version)	[db(A)]	84	84	83	83	85
Total sound pressure (LN version) - at 1 m distance	[db(A)]	66	67	66	66	67
Total sound pressure (LN version) - at 10 m distance	[db(A)]	53	53	53	53	54
Total sound power (SL version)	[db(A)]	82	82	81	81	83
Total sound pressure (SL version) - at 1 m distance	[db(A)]	64	65	64	64	65
Total sound pressure (SL version) - at 10 m distance	[db(A)]	51	51	51	51	52

Reference conditions:

(1) Condenser air intake temperature = 30 °C - Evaporator water temperature IN/OUT = -4/-8 °C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel according to models

(2) Plate heat exchanger water temp. IN/OUT = 40/45 °C - Condenser air intake temperature = 35 °C - Evaporator water temperature IN/OUT = -4/-8 °C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel according to models

(1) - (2) The declared cooling capacity are not taking into account the pump motor power input (where provided).

(3) Sound power level in compliance with ISO 3744 - Sound pressure level (average) at 10 meter distance, unit in a free field on a reflective surface; non-binding value obtained from the sound power level.

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

CRIOS BS R290 range		79-2-2 PE	95-2-2 PE	108-2-2 PE	126-2-2 PE	137-2-2 PE
COOLING - A BP/ST/AS/EC/*S version						
Cooling capacity ⁽¹⁾	[kW]	79,2	94,8	108	126	137
Total power input ⁽¹⁾	[kW]	38,8	45,2	55,2	63,8	70,3
EER - Energy Efficiency Ratio	-	2,04	2,10	1,96	1,97	1,95
Saved CO2 equivalent Ton (*)	[CO ₂ Ton]	38,1	47,8	49,6	70,8	73,5
"Ecodesign" compliance for process application (SEPR)	-	3,16	3,18	3,00	2,70	2,68

REFRIGERANT CIRCUIT							
Refrigerant	-	R290					
GWP	-	3					
Charge of refrigerant - Base unit	[kg]	9,9	12,4	12,9	18,4	19,1	
Independent gas circuits	[n°]	2	2	2	2	2	
Compressors type	-	Semi-hermetic pistons					
Compressors quantity	[n°]	2	2	2	2	2	
Steps of capacity for each compressor (std)	-	1 (83%); 2 (67%); 3 (50%)	1 (83%); 2 (67%); 3 (50%)	1 (83%); 2 (67%); 3 (50%)	2 (75%); 3 (62,5%); 4 (50%)	2 (75%); 3 (62,5%); 4 (50%)	
Condensing coils type	-	Cu/Al					
Fans type	-	Axial Ec					
Fans quantity	[n°]	3	3	3	3	3	
Fans power input ⁽¹⁾ (total)	[kW]	5,9	5,8	6,5	5,3	5,7	
Total air flow	[m ³ /h]	57.800	52.700	55.400	66.600	68.400	
Expansion valve type	-	Electronic					
Evaporator water flow ⁽¹⁾	[m ³ /h]	19,2	23,0	26,2	30,5	33,2	
Evaporator pressure drop ⁽¹⁾	[kPa]	33	36	39	43	45	

DESUPERHEATER (option) - A BP/ST/DS/EC/*S						
Heating capacity ⁽²⁾	[kW]	15	17,7	24,3	29,1	32,6
Water flow	[m ³ /h]	2,60	3,14	4,19	5,04	5,61
Pressure drop (water side)	[kPa]	5,4	5,5	5,8	6,0	6,2

HEAT RECOVERY (option) - A BP/ST/HR/EC/*S						
Heating capacity ⁽²⁾	[kW]	114	137	161	186	205
Water flow	[m ³ /h]	19,6	23,6	27,7	32,0	35,3
Pressure drop (water side)	[kPa]	29,4	32,9	36,1	40	47,5

Electrical data							
Power supply	-	400/3/50					
Emergency power supply	-	230/1/50					
Maximum power input without pump	[kW]	72,6	82,2	97,4	92,0	111,2	
Locked rotor current – LRA without pump	[A]	307,1	348,0	410,0	385,7	468,3	
Maximum absorbed current - FLA without pump	[A]	121,8	136,0	163,2	161,4	188,6	

HYDRONIC KIT (option)							
Buffer tank capacity	[L]	290	290	290	500	500	
Pump type	-	Centrifugal					

Standard pump - 150 kPa useful head							
Motor Efficiency	-	IE3					
Pump motor nominal power	[kW]	2,2	2,2	2,2	3	3	
Pump motor nominal current	[A]	4,7	4,7	4,7	6,4	6,4	

Standard pump - 250 kPa useful head							
Motor Efficiency	-	IE3					
Pump motor nominal power	[kW]	3	3	4	4	4	
Pump motor nominal current	[A]	6,4	6,4	8,7	8,7	8,7	

Water connections						
Dimension (nominal external diameter)	[inch/DN]	2" (DN 50)	2"1/2 (DN 65)	2"1/2 (DN 65)	3" (DN 80)	3" (DN 80)

Noise levels ⁽³⁾						
Total sound power (ST version)	[dB(A)]	89	91	91	90	94
Total sound pressure (ST version) - at 1 m distance	[dB(A)]	71	73	73	71	75
Total sound pressure (ST version) - at 10 m distance	[dB(A)]	57	59	59	58	62
Total sound power (LN version)	[dB(A)]	86	88	88	87	91
Total sound pressure (LN version) - at 1 m distance	[dB(A)]	68	70	70	68	72
Total sound pressure (LN version) - at 10 m distance	[dB(A)]	54	56	56	55	59
Total sound power (SL version)	[dB(A)]	84	86	86	85	89
Total sound pressure (SL version) - at 1 m distance	[dB(A)]	66	68	68	66	70
Total sound pressure (SL version) - at 10 m distance	[dB(A)]	52	54	54	53	57

Reference conditions:

(1) Condenser air intake temperature = 30 °C - Evaporator water temperature IN/OUT = -4/-8 °C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel according to models

(2) Plate heat exchanger water temp. IN/OUT = 40/45 °C - Condenser air intake temperature = 35 °C - Evaporator water temperature IN/OUT = -4/-8 °C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel according to models

(1) - (2) The declared cooling capacity are not taking into account the pump motor power input (where provided).

(3) Sound power level in compliance with ISO 3744 - Sound pressure level (average) at 10 meter distance, unit in a free field on a reflective surface; non-binding value obtained from the sound power level.

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

CRIOS BS R290 range		157-2-2 PE	173-2-2 PE	158-2-2 PV	174-2-2 PV	182-2-2 PV
COOLING - A BP/ST/AS/EC/*S version						
Cooling capacity ⁽¹⁾	[kW]	157	173	158	174	182
Total power input ⁽¹⁾	[kW]	74,6	82,1	74,6	81,9	85,7
EER - Energy Efficiency Ratio	-	2,11	2,11	2,12	2,12	2,12
Saved CO2 equivalent Ton (*)	[CO ₂ Ton]	98,2	101,8	64,6	69,5	69,5
"Ecodesign" compliance for process application (SEPR)	-	2,83	2,80	2,82	2,80	2,79
REFRIGERANT CIRCUIT						
Refrigerant	-	R290				
GWP	-	3				
Charge of refrigerant - Base unit	[kg]	25,5	26,5	16,8	18,1	18,1
Independent gas circuits	[n°]	2	2	2	2	2
Compressors type	-	Semi-hermetic pistons				
Compressors quantity	[n°]	2	2	2	2	2
Steps of capacity for each compressor (std)	-	2 (75%); 3 (62,5%); 4 (50%)	2 (75%); 3 (62,5%); 4 (50%)	2 (75%); 3 (62,5%); 4 (50%)	2 (75%); 3 (62,5%); 4 (50%)	2 (75%); 3 (62,5%); 4 (50%)
Condensing coils type	-	Cu/Al	Cu/Al	Microchannel	Microchannel	Microchannel
Fans type	-	Axial EC				
Fans quantity	[n°]	4	4	4	4	4
Fans power input ⁽¹⁾ (total)	[kW]	5,4	6,1	4,9	5,4	5,7
Total air flow	[m ³ /h]	77.500	81.200	77.100	80.100	81.900
Expansion valve type	-	Electronic				
Evaporator water flow ⁽¹⁾	[m ³ /h]	38,1	41,9	38,3	42,2	44,1
Evaporator pressure drop ⁽¹⁾	[kPa]	42	37	42	38	41
DESUPERHEATER (option) - A BP/ST/DS/EC/*S						
Heating capacity ⁽²⁾	[kW]	33,1	37	32,7	36,1	38,4
Water flow	[m ³ /h]	5,75	6,40	5,66	6,24	6,66
Pressure drop (water side)	[kPa]	15,0	16,0	14,7	15,4	15,8
HEAT RECOVERY (option) - A BP/ST/HR/EC/*S						
Heating capacity ⁽²⁾	[kW]	228	250	228	250	263
Water flow	[m ³ /h]	39,2	43,0	39,2	43,0	45,2
Pressure drop (water side)	[kPa]	50,5	53,7	50,5	53,7	38,6
Electrical data						
Power supply	-	400/3/50				
Emergency power supply	-	230/1/50				
Maximum power input without pump	[kW]	113,5	119,1	113,5	119,1	127,3
Locked rotor current – LRA without pump	[A]	559,0	660,8	559,0	660,8	704,4
Maximum absorbed current - FLA without pump	[A]	189,4	207,0	189,4	207,0	222,2
HYDRONIC KIT (option)						
Buffer tank capacity	[L]	470	470	290	290	290
Pump type	-	Centrifugal				
Standard pump - 150 kPa useful head						
Motor Efficiency	-	IE3				
Pump motor nominal power	[kW]	3	3	3	3	3
Pump motor nominal current	[A]	6,4	6,4	6,4	6,4	6,4
Standard pump - 250 kPa useful head						
Motor Efficiency	-	IE3				
Pump motor nominal power	[kW]	5,5	5,5	5,5	5,5	5,5
Pump motor nominal current	[A]	10,6	10,6	10,6	10,6	10,6
Water connections						
Dimension (nominal external diameter)	[inch/DN]	3" (DN 80)				
Noise levels ⁽³⁾						
Total sound power (ST version)	[dB(A)]	95	95	95	95	97
Total sound pressure (ST version) - at 1 m distance	[dB(A)]	76	76	76	76	78
Total sound pressure (ST version) - at 10 m distance	[dB(A)]	63	63	63	63	65
Total sound power (LN version)	[dB(A)]	92	92	92	92	94
Total sound pressure (LN version) - at 1 m distance	[dB(A)]	73	73	73	73	75
Total sound pressure (LN version) - at 10 m distance	[dB(A)]	60	60	60	60	62
Total sound power (SL version)	[dB(A)]	90	90	90	90	92
Total sound pressure (SL version) - at 1 m distance	[dB(A)]	71	71	71	71	73
Total sound pressure (SL version) - at 10 m distance	[dB(A)]	58	58	58	58	60

Reference conditions:

(1) Condenser air intake temperature = 30 °C - Evaporator water temperature IN/OUT = -4/-8 °C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel according to models

(2) Plate heat exchanger water temp. IN/OUT = 40/45 °C - Condenser air intake temperature = 35 °C - Evaporator water temperature IN/OUT = -4/-8 °C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel according to models

(1) - (2) The declared cooling capacity are not taking into account the pump motor power input (where provided).

(3) Sound power level in compliance with ISO 3744 - Sound pressure level (average) at 10 meter distance, unit in a free field on a reflective surface; non-binding value obtained from the sound power level.

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

CARIO BS R290 range		7-1-1 PE	9-1-1 PE	12-1-1 PE	17-1-1 PE	19-1-1 PE
DIMENSIONS AND WEIGHTS - Standard unit						
Lenght	[mm]	1230	1380	1380	1680	1680
Width	[mm]	685	835	835	1025	1025
Height (ST - LN)	[mm]	1405	1820	1820	2121	2121
Height (SL)	[mm]	-	-	-	2208	2208
Shipping weight (A BP/ST/AS/EC/** version)	[kg]	190	300	300	410	420
Operating weight (A BP/ST/AS/EC/** version)	[kg]	195	305	305	415	425

DIMENSIONS - Large unit						
Lenght	[mm]	1730	1980	1980	2330	2330
Width	[mm]	685	835	835	1025	1025
Height (ST - LN)	[mm]	1405	1820	1820	2221	2221
Height (SL)	[mm]	-	-	-	2308	2308

Unit dimensions with hydronic kit						
Integrata LP 1-0 OO	-	Standard	Standard	Standard	Standard	Standard
Integrata LP 1-0 OO and HR equipment	-	Large	Large	Large	Large	Large
Integrata LP 1-1 OO	-	Large	Large	Large	Large	Large
Integrata LP 1-1 OO and HR equipment	-	Large	Large	Large	Large	Large
Integrata MP 1-0 OO	-	Standard	Standard	Standard	Standard	Standard
Integrata MP 1-0 OO and HR equipment	-	Large	Large	Large	Large	Large
Integrata MP 1-1 OO	-	Large	Large	Large	Large	Large
Integrata MP 1-1 OO and HR equipment	-	Large	Large	Large	Large	Large
Base-P LP 1-0 OO	-	Standard	Standard	Standard	Standard	Standard
Base-P LP 1-0 OO and HR equipment	-	Large	Standard	Standard	Standard	Standard
Base-P LP 1-1 OO	-	Standard	Standard	Standard	Standard	Standard
Base-P LP 1-1 OO and HR equipment	-	Large	Large	Large	Standard	Standard
Base-P MP 1-0 OO	-	Standard	Standard	Standard	Standard	Standard
Base-P MP 1-0 OO and HR equipment	-	Large	Standard	Standard	Standard	Standard
Base-P MP 1-1 OO	-	Standard	Standard	Standard	Standard	Standard
Base-P MP 1-1 OO and HR equipment	-	Large	Large	Large	Standard	Standard
Base-T	-	Standard	Standard	Standard	Standard	Standard
Base-T and HR equipment	-	Large	Large	Large	Large	Large

CARIO BS R290 range		23-1-1 PE	28-1-1 PE	33-1-1 PE	39-1-1 PE	48-1-1 PE
DIMENSIONS AND WEIGHTS - Standard unit						
Lenght	[mm]	1680	1680	2330	2330	2980
Width	[mm]	1025	1025	1025	1025	1025
Height (ST - LN)	[mm]	2121	2121	2221	2221	2300
Height (SL)	[mm]	2208	2208	2308	2308	2360
Shipping weight (A BP/ST/AS/EC/** version)	[kg]	440	510	660	630	830
Operating weight (A BP/ST/AS/EC/** version)	[kg]	445	515	665	635	837

DIMENSIONS - Large unit						
Lenght	[mm]	2330	2330	2980	2980	3920
Width	[mm]	1025	1025	1025	1025	1025
Height (ST - LN)	[mm]	2221	2221	2221	2221	2360
Height (SL)	[mm]	2308	2308	2308	2308	2420

Unit dimensions with hydronic kit						
Integrata LP 1-0 OO	-	Standard	Standard	Standard	Standard	Standard
Integrata LP 1-0 OO and HR equipment	-	Large	Large	Large	Large	Standard
Integrata LP 1-1 OO	-	Large	Large	Standard	Standard	Standard
Integrata LP 1-1 OO and HR equipment	-	Large	Large	Large	Large	Large
Integrata MP 1-0 OO	-	Standard	Standard	Standard	Standard	Standard
Integrata MP 1-0 OO and HR equipment	-	Large	Large	Large	Large	Standard
Integrata MP 1-1 OO	-	Large	Large	Standard	Standard	Standard
Integrata MP 1-1 OO and HR equipment	-	Large	Large	Large	Large	Large
Base-P LP 1-0 OO	-	Standard	Standard	Standard	Standard	Standard
Base-P LP 1-0 OO and HR equipment	-	Standard	Standard	Standard	Standard	Standard
Base-P LP 1-1 OO	-	Standard	Standard	Standard	Standard	Standard
Base-P LP 1-1 OO and HR equipment	-	Standard	Standard	Standard	Standard	Standard
Base-P MP 1-0 OO	-	Standard	Standard	Standard	Standard	Standard
Base-P MP 1-0 OO and HR equipment	-	Standard	Standard	Standard	Standard	Standard
Base-P MP 1-1 OO	-	Standard	Standard	Standard	Standard	Standard
Base-P MP 1-1 OO and HR equipment	-	Standard	Standard	Standard	Standard	Standard
Base-T	-	Standard	Standard	Standard	Standard	Standard
Base-T and HR equipment	-	Large	Large	Standard	Standard	Standard

CARIO BS R290 range		55-1-1 PE	38-2-2 PE	49-2-2 PE	58-2-2 PE	68-2-2 PE
DIMENSIONS AND WEIGHTS - Standard unit						
Lenght	[mm]	2980	2330	2980	2980	2980
Width	[mm]	1025	1025	1025	1025	1025
Height (ST - LN)	[mm]	2300	2221	2300	2300	2300
Height (SL)	[mm]	2360	2308	2360	2360	2360
Shipping weight (A BP/ST/AS/EC/** version)	[kg]	840	700	940	970	1000
Operating weight (A BP/ST/AS/EC/** version)	[kg]	847	705	947	977	1007

DIMENSIONS - Large unit						
Lenght	[mm]	3920	2980	3920	3920	3920
Width	[mm]	1025	1025	1025	1025	1025
Height (ST - LN)	[mm]	2360	2221	2360	2360	2360
Height (SL)	[mm]	2420	2308	2420	2420	2420

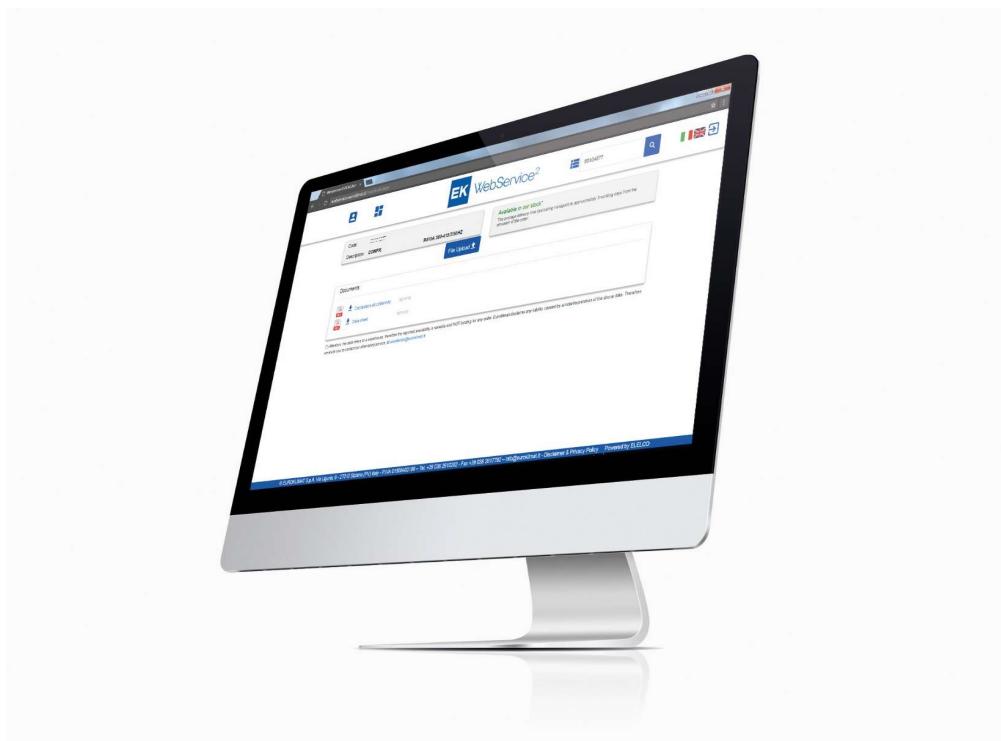
Unit dimensions with hydronic kit						
Integrata LP 1-0 OO	-	Standard	Standard	Standard	Standard	Standard
Integrata LP 1-0 OO and HR equipment	-	Standard	Large	Standard	Standard	Standard
Integrata LP 1-1 OO	-	Standard	Standard	Standard	Standard	Standard
Integrata LP 1-1 OO and HR equipment	-	Large	Large	Large	Large	Large
Integrata MP 1-0 OO	-	Standard	Standard	Standard	Standard	Standard
Integrata MP 1-0 OO and HR equipment	-	Standard	Large	Standard	Standard	Standard
Integrata MP 1-1 OO	-	Standard	Standard	Standard	Standard	Standard
Integrata MP 1-1 OO and HR equipment	-	Large	Large	Large	Large	Large
Base-P LP 1-0 OO	-	Standard	Standard	Standard	Standard	Standard
Base-P LP 1-0 OO and HR equipment	-	Standard	Standard	Standard	Standard	Standard
Base-P LP 1-1 OO	-	Standard	Standard	Standard	Standard	Standard
Base-P LP 1-1 OO and HR equipment	-	Standard	Standard	Standard	Standard	Standard
Base-P MP 1-0 OO	-	Standard	Standard	Standard	Standard	Standard
Base-P MP 1-0 OO and HR equipment	-	Standard	Standard	Standard	Standard	Standard
Base-P MP 1-1 OO	-	Standard	Standard	Standard	Standard	Standard
Base-P MP 1-1 OO and HR equipment	-	Standard	Standard	Standard	Standard	Standard
Base-T	-	Standard	Standard	Standard	Standard	Standard
Base-T and HR equipment	-	Standard	Standard	Standard	Standard	Standard

CARIO BS R290 range		79-2-2 PE	95-2-2 PE	108-2-2 PE	126-2-2 PE	137-2-2 PE
DIMENSIONS AND WEIGHTS - Standard unit						
Lenght	[mm]	3920	3920	3920	4200	4200
Width	[mm]	1025	1025	1025	1185	1185
Height (ST - LN)	[mm]	2360	2360	2360	2320	2320
Height (SL)	[mm]	2420	2420	2420	2380	2380
Shipping weight (A BP/ST/AS/EC/** version)	[kg]	1200	1260	1280	1630	1670
Operating weight (A BP/ST/AS/EC/** version)	[kg]	1208	1268	1288	1640	1680

DIMENSIONS - Large unit						
Lenght	[mm]	-	-	-	5000	5000
Width	[mm]	-	-	-	1185	1185
Height (ST - LN)	[mm]	-	-	-	2320	2320
Height (SL)	[mm]	-	-	-	2380	2380

Unit dimensions with hydronic kit						
Integrata LP 1-0 OO	-	Standard	Standard	Standard	Large	Large
Integrata LP 1-0 OO and HR equipment	-	Standard	Standard	Standard	Large	Large
Integrata LP 1-1 OO	-	Standard	Standard	Standard	Large	Large
Integrata LP 1-1 OO and HR equipment	-	Standard	Standard	Standard	Large	Large
Integrata MP 1-0 OO	-	Standard	Standard	Standard	Large	Large
Integrata MP 1-0 OO and HR equipment	-	Standard	Standard	Standard	Large	Large
Integrata MP 1-1 OO	-	Standard	Standard	Standard	Large	Large
Integrata MP 1-1 OO and HR equipment	-	Standard	Standard	Standard	Large	Large
Base-P LP 1-0 OO	-	Standard	Standard	Standard	Standard	Standard
Base-P LP 1-0 OO and HR equipment	-	Standard	Standard	Standard	Standard	Standard
Base-P LP 1-1 OO	-	Standard	Standard	Standard	Standard	Standard
Base-P LP 1-1 OO and HR equipment	-	Standard	Standard	Standard	Standard	Standard
Base-P MP 1-0 OO	-	Standard	Standard	Standard	Standard	Standard
Base-P MP 1-0 OO and HR equipment	-	Standard	Standard	Standard	Standard	Standard
Base-P MP 1-1 OO	-	Standard	Standard	Standard	Standard	Standard
Base-P MP 1-1 OO and HR equipment	-	Standard	Standard	Standard	Standard	Standard
Base-T	-	Standard	Standard	Standard	Standard	Standard
Base-T and HR equipment	-	Standard	Standard	Standard	Large	Large

CRIOS BS R290 range		157-2-2 PE	173-2-2 PE	158-2-2 PV	174-2-2 PV	182-2-2 PV
DIMENSIONS AND WEIGHTS - Standard unit						
Lenght	[mm]	5500	5500	3100	3100	3100
Width	[mm]	1535	1535	2345	2345	2345
Height (ST - LN)	[mm]	2350	2350	2465	2465	2465
Height (SL)	[mm]	2410	2410	2525	2525	2525
Shipping weight (A BP/ST/AS/EC/** version)	[kg]	1700	1920	1925	1940	1945
Operating weight (A BP/ST/AS/EC/** version)	[kg]	1710	1930	1940	1955	1960
DIMENSIONS - Large unit						
Lenght	[mm]	Contact EK	Contact EK	4450	4450	4450
Width	[mm]	Contact EK	Contact EK	2345	2345	2345
Height (ST - LN)	[mm]	Contact EK	Contact EK	2465	2465	2465
Height (SL)	[mm]	Contact EK	Contact EK	2525	2525	2525
Unit dimensions with hydronic kit						
Integrata LP 1-0 OO	-	Standard	Standard	Standard	Standard	Standard
Integrata LP 1-0 OO and HR equipment	-	Contact EK	Contact EK	Large	Large	Large
Integrata LP 1-1 OO	-	Standard	Standard	Large	Large	Large
Integrata LP 1-1 OO and HR equipment	-	Contact EK	Contact EK	Large	Large	Large
Integrata MP 1-0 OO	-	Standard	Standard	Standard	Standard	Standard
Integrata MP 1-0 OO and HR equipment	-	Contact EK	Contact EK	Large	Large	Large
Integrata MP 1-1 OO	-	Standard	Standard	Large	Large	Large
Integrata MP 1-1 OO and HR equipment	-	Contact EK	Contact EK	Large	Large	Large
Base-P LP 1-0 OO	-	Standard	Standard	Standard	Standard	Standard
Base-P LP 1-0 OO and HR equipment	-	Standard	Standard	Standard	Standard	Standard
Base-P LP 1-1 OO	-	Standard	Standard	Standard	Standard	Standard
Base-P LP 1-1 OO and HR equipment	-	Standard	Standard	Standard	Standard	Standard
Base-P MP 1-0 OO	-	Standard	Standard	Standard	Standard	Standard
Base-P MP 1-0 OO and HR equipment	-	Standard	Standard	Standard	Standard	Standard
Base-P MP 1-1 OO	-	Standard	Standard	Standard	Standard	Standard
Base-P MP 1-1 OO and HR equipment	-	Standard	Standard	Standard	Standard	Standard
Base-T	-	Standard	Standard	Standard	Standard	Standard
Base-T and HR equipment	-	Contact EK	Contact EK	Large	Large	Large



CRIo HE R290 range		10-1-1 PE	14-1-1 PE	17-1-1 PE	20-1-1 PE
COOLING - A BP/ST/AS/EC/*S version					
Cooling capacity ⁽¹⁾	[kW]	9,6	13,8	17,3	20,4
Total power input ⁽¹⁾	[kW]	4,2	5,9	7,6	9,9
EER - Energy Efficiency Ratio	-	2,30	2,36	2,28	2,06
Saved CO ₂ equivalent Ton (*)	[CO ₂ Ton]	8,3	10,7	11,5	15,5
"Ecodesign" compliance for process application (SEPR)	-	3,59	3,41	3,60	3,49
REFRIGERANT CIRCUIT					
Refrigerant	-	R290			
GWP	-	3			
Charge of refrigerant - Base unit	[kg]	2,2	2,8	3,0	4,0
Independent gas circuits	[n°]	1	1	1	1
Compressors type	-	Semi-hermetic pistons			
Compressors quantity	[n°]	1	1	1	1
Steps of capacity for each compressor (std)	-	1 (75%); 2 (50%)	1 (75%); 2 (50%)	1 (75%); 2 (50%)	1 (75%); 2 (50%)
Condensing coils type	-	Cu/Al			
Fans type	-	Axial EC			
Fans quantity	[n°]	1	1	1	2
Fans power input ⁽¹⁾ (total)	[kW]	0,2	0,3	0,7	1,4
Total air flow	[m ³ /h]	6.900	7.400	10.900	21.500
Expansion valve type	-	Electronic			
Evaporator water flow ⁽¹⁾	[m ³ /h]	2,3	3,3	4,2	4,9
Evaporator pressure drop ⁽¹⁾	[kPa]	24	27	29	29
DESUPERHEATER (option) - A BP/ST/DS/EC/*S					
Heating capacity ⁽²⁾	[kW]	1,8	2,35	3,13	3,65
Water flow	[m ³ /h]	0,31	0,40	0,54	0,63
Pressure drop (water side)	[kPa]	5,1	5,2	5,2	5,2
HEAT RECOVERY (option) - A BP/ST/HR/EC/*S					
Heating capacity ⁽²⁾	[kW]	13	18,2	23,8	28,6
Water flow	[m ³ /h]	2,2	3,1	4,1	4,9
Pressure drop (water side)	[kPa]	13,5	24,3	25,1	25,1
Electrical data					
Power supply	-	400/3/50			
Emergency power supply	-	230/1/50			
Maximum power input without pump	[kW]	9,3	13,1	14,1	17,7
Locked rotor current – LRA without pump	[A]	65,0	89,2	104,2	120,9
Maximum absorbed current - FLA without pump	[A]	15,7	22,5	23,5	32,5
HYDRONIC KIT (option)					
Buffer tank capacity	[L]	60	60	60	160
Pump type	-	Centrifugal			
Standard pump - 150 kPa useful head					
Motor Efficiency	-	-	-	-	-
Pump motor nominal power	[kW]	0,37	0,37	0,55	0,55
Pump motor nominal current	[A]	1,4	1,4	1,9	1,9
Standard pump - 250 kPa useful head					
Motor Efficiency	-	-	IE3	IE3	IE3
Pump motor nominal power	[kW]	0,55	0,75	0,9	0,9
Pump motor nominal current	[A]	2	1,9	2,5	2,5
Water connections					
Dimension (nominal external diameter)	[inch/DN]	1/2" (DN15)	1" (DN 25)	1" (DN 25)	1" (DN 25)
Noise levels ⁽³⁾					
Total sound power (ST version)	[db(A)]	73	76	79	82
Total sound pressure (ST version) - at 1 m distance	[db(A)]	56	59	62	65
Total sound pressure (ST version) - at 10 m distance	[db(A)]	43	45	48	51
Total sound power (LN version)	[db(A)]	70	73	76	79
Total sound pressure (LN version) - at 1 m distance	[db(A)]	53	56	59	62
Total sound pressure (LN version) - at 10 m distance	[db(A)]	40	42	45	48
Total sound power (SL version)	[db(A)]	68	71	74	77
Total sound pressure (SL version) - at 1 m distance	[db(A)]	51	54	57	60
Total sound pressure (SL version) - at 10 m distance	[db(A)]	38	40	43	46
Reference conditions:					
(1) Condenser air intake temperature = 30 °C - Evaporator water temperature IN/OUT = -4/-8 °C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel according to models					
(2) Plate heat exchanger water temp. IN/OUT = 40/45 °C - Condenser air intake temperature = 35 °C - Evaporator water temperature IN/OUT = -4/-8 °C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel according to models					
(1) - (2) The declared cooling capacity are not taking into account the pump motor power input (where provided).					
(3) Sound power level in compliance with ISO 3744 - Sound pressure level (average) at 10 meter distance, unit in a free field on a reflective surface; non-binding value obtained from the sound power level.					
(*) CO ₂ equivalent tons saved to the Environment compared to the choice of an EUROKLIMAT unit with similar cooling capacity and HFC refrigerant					

CRIo HE R290 range		24-1-1 PE	30-1-1 PE	35-1-1 PE	41-1-1 PE
COOLING - A BP/ST/AS/EC/*S version					
Cooling capacity ⁽¹⁾	[kW]	24,1	30,2	34,8	41,3
Total power input ⁽¹⁾	[kW]	10,4	12,4	14,2	19,8
EER - Energy Efficiency Ratio	-	2,31	2,44	2,46	2,08
Saved CO ₂ equivalent Ton (*)	[CO ₂ Ton]	15,5	20,4	23,5	24,5
"Ecodesign" compliance for process application (SEPR)	-	3,61	3,91	3,81	3,40
REFRIGERANT CIRCUIT					
Refrigerant	-	R290			
GWP	-	3			
Charge of refrigerant - Base unit	[kg]	4,0	5,3	6,1	6,3
Independent gas circuits	[n°]	1	1	1	1
Compressors type	-	Semi-hermetic pistons			
Compressors quantity	[n°]	1	1	1	1
Steps of capacity for each compressor (std)	-	1 (75%); 2 (50%)	1 (75%); 2 (50%)	1 (75%); 2 (50%)	1 (83%); 2 (67%); 3 (50%)
Condensing coils type	-	Cu/Al			
Fans type	-	Axial EC			
Fans quantity	[n°]	2	2	2	2
Fans power input ⁽¹⁾ (total)	[kW]	1	0,9	1,6	4,2
Total air flow	[m ³ /h]	18.600	21.200	26.200	40.150
Expansion valve type	-	Electronic			
Evaporator water flow ⁽¹⁾	[m ³ /h]	5,8	7,3	8,4	10,0
Evaporator pressure drop ⁽¹⁾	[kPa]	29	35	18	20
DESUPERHEATER (option) - A BP/ST/DS/EC/*S					
Heating capacity ⁽²⁾	[kW]	3,84	4,54	5,02	6,6
Water flow	[m ³ /h]	0,66	0,78	0,86	1,14
Pressure drop (water side)	[kPa]	5,2	5,2	5,3	5,3
HEAT RECOVERY (option) - A BP/ST/HR/EC/*S					
Heating capacity ⁽²⁾	[kW]	32,6	40,3	47,2	56,8
Water flow	[m ³ /h]	5,6	6,9	8,1	9,8
Pressure drop (water side)	[kPa]	24,8	30	34,1	42,1
Electrical data					
Power supply	-	400/3/50			
Emergency power supply	-	230/1/50			
Maximum power input without pump	[kW]	20,2	22,5	27,5	37,8
Locked rotor current – LRA without pump	[A]	140,0	206,5	228,2	248,5
Maximum absorbed current - FLA without pump	[A]	39,7	40,7	47,8	63,2
HYDRONIC KIT (option)					
Buffer tank capacity	[L]	160	290	290	290
Pump type	-	Centrifugal			
Standard pump - 150 kPa useful head					
Motor Efficiency	-	-	IE3	IE3	IE3
Pump motor nominal power	[kW]	0,55	0,9	0,9	0,9
Pump motor nominal current	[A]	1,9	2,5	2,5	2,5
Standard pump - 250 kPa useful head					
Motor Efficiency	-	IE3			
Pump motor nominal power	[kW]	1,5	1,5	1,5	1,5
Pump motor nominal current	[A]	4,1	4,1	4,1	4,1
Water connections					
Dimension (nominal external diameter)	[inch/DN]	1" (DN 25)	1" 1/2 (DN 40)	1" 1/2 (DN 40)	1" 1/2 (DN 40)
Noise levels ⁽³⁾					
Total sound power (ST version)	[dB(A)]	82	81	84	86
Total sound pressure (ST version) - at 1 m distance	[dB(A)]	65	63	66	68
Total sound pressure (ST version) - at 10 m distance	[dB(A)]	51	50	53	55
Total sound power (LN version)	[dB(A)]	79	78	81	83
Total sound pressure (LN version) - at 1 m distance	[dB(A)]	62	60	63	65
Total sound pressure (LN version) - at 10 m distance	[dB(A)]	48	47	50	52
Total sound power (SL version)	[dB(A)]	77	76	79	81
Total sound pressure (SL version) - at 1 m distance	[dB(A)]	60	58	61	63
Total sound pressure (SL version) - at 10 m distance	[dB(A)]	46	45	48	50

Reference conditions:

(1) Condenser air intake temperature = 30 °C - Evaporator water temperature IN/OUT = -4/-8 °C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel according to models

(2) Plate heat exchanger water temp. IN/OUT = 40/45 °C - Condenser air intake temperature = 35 °C - Evaporator water temperature IN/OUT = -4/-8 °C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel according to models

(1) - (2) The declared cooling capacity are not taking into account the pump motor power input (where provided).

(3) Sound power level in compliance with ISO 3744 - Sound pressure level (average) at 10 meter distance, unit in a free field on a reflective surface; non-binding value obtained from the sound power level.

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

CRIo HE R290 range		48-1-1 PE	56-1-1 PE	41-2-2 PE	48-2-2 PE
COOLING - A BP/ST/AS/EC/*S version					
Cooling capacity ⁽¹⁾	[kW]	48,4	56,4	41,1	48
Total power input ⁽¹⁾	[kW]	22,7	25	17,9	19,5
EER - Energy Efficiency Ratio	-	2,13	2,25	2,30	2,46
Saved CO ₂ equivalent Ton (*)	[CO ₂ Ton]	29,4	39	32,9	39,4
"Ecodesign" compliance for process application (SEPR)	-	3,50	3,61	3,69	3,74
REFRIGERANT CIRCUIT					
Refrigerant	-	R290			
GWP	-	3			
Charge of refrigerant - Base unit	[kg]	7,6	10,1	8,5	10,2
Independent gas circuits	[n°]	1	1	2	2
Compressors type	-	Semi-hermetic pistons			
Compressors quantity	[n°]	1	1	2	2
Steps of capacity for each compressor (std)	-	1 (83%); 2 (67%); 3 (50%)	1 (83%); 2 (67%); 3 (50%)	1 (75%); 2 (50%)	1 (75%); 2 (50%)
Condensing coils type	-	Cu/Al			
Fans type	-	Axial EC			
Fans quantity	[n°]	2	3	3	3
Fans power input ⁽¹⁾ (total)	[kW]	3,8	2,4	1,3	1,1
Total air flow	[m ³ /h]	35.500	36.000	30.900	27.150
Expansion valve type	-	Electronic			
Evaporator water flow ⁽¹⁾	[m ³ /h]	11,7	13,7	10,0	11,6
Evaporator pressure drop ⁽¹⁾	[kPa]	26	29	19	25
DESUPERHEATER (option) - A BP/ST/DS/EC/*S					
Heating capacity ⁽²⁾	[kW]	8,1	10,1	7,27	7,61
Water flow	[m ³ /h]	1,39	1,74	1,25	1,31
Pressure drop (water side)	[kPa]	5,4	5,6	5,2	5,2
HEAT RECOVERY (option) - A BP/ST/HR/EC/*S					
Heating capacity ⁽²⁾	[kW]	67,3	79,3	57,3	64,7
Water flow	[m ³ /h]	11,6	13,6	9,9	11,1
Pressure drop (water side)	[kPa]	27,6	28,7	19,8	24,4
Electrical data					
Power supply	-	400/3/50			
Emergency power supply	-	230/1/50			
Maximum power input without pump	[kW]	42,6	47,7	34,3	39,3
Locked rotor current – LRA without pump	[A]	282,3	327,1	151,5	177,8
Maximum absorbed current - FLA without pump	[A]	70,3	80,3	63,1	77,5
HYDRONIC KIT (option)					
Buffer tank capacity	[L]	290	290	290	290
Pump type	-	Centrifugal			
Standard pump - 150 kPa useful head					
Motor Efficiency	-	IE3			
Pump motor nominal power	[kW]	1,1	1,1	1,1	1,1
Pump motor nominal current	[A]	3,3	3,3	3,3	3,3
Standard pump - 250 kPa useful head					
Motor Efficiency	-	IE3			
Pump motor nominal power	[kW]	2,2	2,2	1,5	2,2
Pump motor nominal current	[A]	4,7	4,7	4,1	4,7
Water connections					
Dimension (nominal external diameter)	[inch/DN]	1" 1/2 (DN 40)	2" (DN 50)	1" 1/2 (DN 40)	1" 1/2 (DN 40)
Noise levels ⁽³⁾					
Total sound power (ST version)	[db(A)]	87	86	83	84
Total sound pressure (ST version) - at 1 m distance	[db(A)]	69	68	65	66
Total sound pressure (ST version) - at 10 m distance	[db(A)]	56	54	51	52
Total sound power (LN version)	[db(A)]	84	83	80	81
Total sound pressure (LN version) - at 1 m distance	[db(A)]	66	65	62	63
Total sound pressure (LN version) - at 10 m distance	[db(A)]	53	51	48	49
Total sound power (SL version)	[db(A)]	82	81	78	79
Total sound pressure (SL version) - at 1 m distance	[db(A)]	64	63	60	61
Total sound pressure (SL version) - at 10 m distance	[db(A)]	51	49	46	47
Reference conditions:					
(1) Condenser air intake temperature = 30 °C - Evaporator water temperature IN/OUT = -4/-8 °C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel according to models					
(2) Plate heat exchanger water temp. IN/OUT = 40/45 °C - Condenser air intake temperature = 35 °C - Evaporator water temperature IN/OUT = -4/-8 °C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel according to models					
(1) - (2) The declared cooling capacity are not taking into account the pump motor power input (where provided).					
(3) Sound power level in compliance with ISO 3744 - Sound pressure level (average) at 10 meter distance, unit in a free field on a reflective surface; non-binding value obtained from the sound power level.					
(*) CO ₂ equivalent tons saved to the Environment compared to the choice of an EUROKLIMAT unit with similar cooling capacity and HFC refrigerant					

CRIo HE R290 range		60-2-2 PE	70-2-2 PE	83-2-2 PE	97-2-2 PE
COOLING - A BP/ST/AS/EC/*S version					
Cooling capacity ⁽¹⁾	[kW]	60,1	70,4	83,2	97,2
Total power input ⁽¹⁾	[kW]	24,9	31,4	35,3	43,5
EER - Energy Efficiency Ratio	-	2,42	2,24	2,36	2,24
Saved CO2 equivalent Ton (*)	[CO ₂ Ton]	41,6	45,2	65,5	67,5
"Ecodesign" compliance for process application (SEPR)	-	3,94	3,65	3,58	3,56
REFRIGERANT CIRCUIT					
Refrigerant	-	R290			
GWP	-	3			
Charge of refrigerant - Base unit	[kg]	10,8	11,7	17,0	17,5
Independent gas circuits	[n°]	2	2	2	2
Compressors type	-	Semi-hermetic pistons			
Compressors quantity	[n°]	2	2	2	2
Steps of capacity for each compressor (std)	-	1 (75%); 2 (50%)	1 (75%); 2 (50%)	1 (83%); 2 (67%); 3 (50%)	1 (83%); 2 (67%); 3 (50%)
Condensing coils type	-	Cu/Al			
Fans type	-	Axial EC			
Fans quantity	[n°]	3	3	3	3
Fans power input ⁽¹⁾ (total)	[kW]	2,5	5,6	3,3	5,8
Total air flow	[m ³ /h]	36.800	51.500	55.550	68.400
Expansion valve type	-	Electronic			
Evaporator water flow ⁽¹⁾	[m ³ /h]	14,6	17,1	20,2	23,6
Evaporator pressure drop ⁽¹⁾	[kPa]	26	26	29	32
DESUPERHEATER (option) - A BP/ST/DS/EC/*S					
Heating capacity ⁽²⁾	[kW]	8,99	10,1	13,3	16,2
Water flow	[m ³ /h]	1,55	1,74	2,29	2,79
Pressure drop (water side)	[kPa]	5,2	5,3	5,3	5,4
HEAT RECOVERY (option) - A BP/ST/HR/EC/*S					
Heating capacity ⁽²⁾	[kW]	81	94,5	114	136
Water flow	[m ³ /h]	13,9	16,3	19,6	23,4
Pressure drop (water side)	[kPa]	36,1	30,5	29,2	27,2
Electrical data					
Power supply	-	400/3/50			
Emergency power supply	-	230/1/50			
Maximum power input without pump	[kW]	43,9	59,4	72,6	82,2
Locked rotor current – LRA without pump	[A]	245,3	282,4	307,1	348,0
Maximum absorbed current - FLA without pump	[A]	79,5	102,0	121,8	136,0
HYDRONIC KIT (option)					
Buffer tank capacity	[L]	290	290	500	500
Pump type	-	Centrifugal			
Standard pump - 150 kPa useful head					
Motor Efficiency	-	IE3			
Pump motor nominal power	[kW]	1,1	2,2	2,2	2,2
Pump motor nominal current	[A]	3,3	4,7	4,7	4,7
Standard pump - 250 kPa useful head					
Motor Efficiency	-	IE3			
Pump motor nominal power	[kW]	2,2	3	3	4
Pump motor nominal current	[A]	4,7	6,4	6,4	8,7
Water connections					
Dimension (nominal external diameter)	[inch/DN]	2" (DN 50)	2" (DN 50)	2" (DN 50)	2"1/2 (DN 65)
Noise levels ⁽³⁾					
Total sound power (ST version)	[dB(A)]	85	88	88	90
Total sound pressure (ST version) - at 1 m distance	[dB(A)]	67	70	69	71
Total sound pressure (ST version) - at 10 m distance	[dB(A)]	53	56	56	58
Total sound power (LN version)	[dB(A)]	82	85	85	87
Total sound pressure (LN version) - at 1 m distance	[dB(A)]	64	67	66	68
Total sound pressure (LN version) - at 10 m distance	[dB(A)]	50	53	53	55
Total sound power (SL version)	[dB(A)]	80	83	83	85
Total sound pressure (SL version) - at 1 m distance	[dB(A)]	62	65	64	66
Total sound pressure (SL version) - at 10 m distance	[dB(A)]	48	51	51	53

Reference conditions:

(1) Condenser air intake temperature = 30 °C - Evaporator water temperature IN/OUT = -4/-8 °C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel according to models

(2) Plate heat exchanger water temp. IN/OUT = 40/45 °C - Condenser air intake temperature = 35 °C - Evaporator water temperature IN/OUT = -4/-8 °C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel according to models

(1) - (2) The declared cooling capacity are not taking into account the pump motor power input (where provided).

(3) Sound power level in compliance with ISO 3744 - Sound pressure level (average) at 10 meter distance, unit in a free field on a reflective surface; non-binding value obtained from the sound power level.

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

CRIOD HE R290 range		116-2-2 PE	130-2-2 PV	142-2-2 PV	161-2-2 PV
COOLING - A BP/ST/AS/EC/*S version					
Cooling capacity ⁽¹⁾	[kW]	116	130	142	161
Total power input ⁽¹⁾	[kW]	49,5	61,8	67,7	73,3
EER - Energy Efficiency Ratio	-	2,34	2,10	2,10	2,20
Saved CO2 equivalent Ton (*)	[CO ₂ Ton]	87,6	55,8	61,1	77
"Ecodesign" compliance for process application (SEPR)	-	3,70	2,99	3,02	3,08
REFRIGERANT CIRCUIT					
Refrigerant	-	R290			
GWP	-	3			
Charge of refrigerant - Base unit	[kg]	22,8	14,5	15,9	20,0
Independent gas circuits	[n°]	2	2	2	2
Compressors type	-	Semi-hermetic pistons			
Compressors quantity	[n°]	2	2	2	2
Steps of capacity for each compressor (std)	-	1 (83%); 2 (67%); 3 (50%)	2 (75%); 3 (62,5%); 4 (50%)	2 (75%); 3 (62,5%); 4 (50%)	2 (75%); 3 (62,5%); 4 (50%)
Condensing coils type	-	Cu/Al	Microchannel	Microchannel	Microchannel
Fans type	-	Axial EC			
Fans quantity	[n°]	4	4	4	6
Fans power input ⁽¹⁾ (total)	[kW]	3,2	4,3	5,9	3,3
Total air flow	[m ³ /h]	63.800	72.600	82.700	83.400
Expansion valve type	-	Electronic			
Evaporator water flow ⁽¹⁾	[m ³ /h]	28,1	31,5	34,4	39,0
Evaporator pressure drop ⁽¹⁾	[kPa]	37	41	35	33
DESUPERHEATER (option) - A BP/ST/DS/EC/*S					
Heating capacity ⁽²⁾	[kW]	20,5	26,8	28,3	33
Water flow	[m ³ /h]	3,53	4,61	4,87	5,68
Pressure drop (water side)	[kPa]	5,6	5,8	6,0	14,7
HEAT RECOVERY (option) - A BP/ST/HR/EC/*S					
Heating capacity ⁽²⁾	[kW]	160	185	204	228
Water flow	[m ³ /h]	27,5	31,8	35,1	39,2
Pressure drop (water side)	[kPa]	35,7	39,5	47,1	50,4
Electrical data					
Power supply	-	400/3/50			
Emergency power supply	-	230/1/50			
Maximum power input without pump	[kW]	100,5	95,1	114,3	119,5
Locked rotor current – LRA without pump	[A]	414,6	390,3	472,9	568,3
Maximum absorbed current - FLA without pump	[A]	167,8	166,0	193,2	198,7
HYDRONIC KIT (option)					
Buffer tank capacity	[L]	470	290	290	290
Pump type	-	Centrifugal			
Standard pump - 150 kPa useful head					
Motor Efficiency	-	IE3			
Pump motor nominal power	[kW]	2,2	3	3	3
Pump motor nominal current	[A]	4,7	6,4	6,4	6,4
Standard pump - 250 kPa useful head					
Motor Efficiency	-	IE3			
Pump motor nominal power	[kW]	4	4	4	5,5
Pump motor nominal current	[A]	8,7	8,7	8,7	10,6
Water connections					
Dimension (nominal external diameter)	[inch/DN]	2"1/2 (DN 65)	3" (DN 80)	3" (DN 80)	3" (DN 80)
Noise levels ⁽³⁾					
Total sound power (ST version)	[dB(A)]	89	90	94	95
Total sound pressure (ST version) - at 1 m distance	[dB(A)]	70	71	75	75
Total sound pressure (ST version) - at 10 m distance	[dB(A)]	57	58	62	63
Total sound power (LN version)	[dB(A)]	86	87	91	92
Total sound pressure (LN version) - at 1 m distance	[dB(A)]	67	68	72	72
Total sound pressure (LN version) - at 10 m distance	[dB(A)]	54	55	59	60
Total sound power (SL version)	[dB(A)]	84	85	89	90
Total sound pressure (SL version) - at 1 m distance	[dB(A)]	65	66	70	70
Total sound pressure (SL version) - at 10 m distance	[dB(A)]	52	53	57	58

Reference conditions:

(1) Condenser air intake temperature = 30 °C - Evaporator water temperature IN/OUT = -4/-8 °C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel according to models

(2) Plate heat exchanger water temp. IN/OUT = 40/45 °C - Condenser air intake temperature = 35 °C - Evaporator water temperature IN/OUT = -4/-8 °C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel according to models

(1) - (2) The declared cooling capacity are not taking into account the pump motor power input (where provided).

(3) Sound power level in compliance with ISO 3744 - Sound pressure level (average) at 10 meter distance, unit in a free field on a reflective surface; non-binding value obtained from the sound power level.

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

CRIo HE R290 range		175-2-2 PV	185-2-2 PV
COOLING - A BP/ST/AS/EC/*S version			
Cooling capacity ⁽¹⁾	[kW]	175	185
Total power input ⁽¹⁾	[kW]	80,5	85
EER - Energy Efficiency Ratio	-	2,17	2,18
Saved CO ₂ equivalent Ton (*)	[CO ₂ Ton]	77,9	81,4
"Ecodesign" compliance for process application (SEPR)	-	3,05	3,07
REFRIGERANT CIRCUIT			
Refrigerant	-	R290	
GWP	-	3	
Charge of refrigerant - Base unit	[kg]	20,2	21,2
Independent gas circuits	[n°]	2	2
Compressors type	-	Semi-hermetic pistons	
Compressors quantity	[n°]	2	2
Steps of capacity for each compressor (std)	-	2 (75%); 3 (62,5%); 4 (50%)	2 (75%); 3 (62,5%); 4 (50%)
Condensing coils type	-	Microchannel	
Fans type	-	Axial EC	
Fans quantity	[n°]	6	6
Fans power input ⁽¹⁾ (total)	[kW]	4,3	5,3
Total air flow	[m ³ /h]	93.000	101.100
Expansion valve type	-	Electronic	
Evaporator water flow ⁽¹⁾	[m ³ /h]	42,4	44,8
Evaporator pressure drop ⁽¹⁾	[kPa]	38	34
DESUPERHEATER (option) - A BP/ST/DS/EC/*S			
Heating capacity ⁽²⁾	[kW]	35,5	37,4
Water flow	[m ³ /h]	6,11	6,43
Pressure drop (water side)	[kPa]	15,0	15,1
HEAT RECOVERY (option) - A BP/ST/HR/EC/*S			
Heating capacity ⁽²⁾	[kW]	247	262
Water flow	[m ³ /h]	42,5	45,1
Pressure drop (water side)	[kPa]	52,3	38,4
Electrical data			
Power supply	-	400/3/50	
Emergency power supply	-	230/1/50	
Maximum power input without pump	[kW]	125,1	133,3
Locked rotor current – LRA without pump	[A]	670,1	713,7
Maximum absorbed current - FLA without pump	[A]	216,3	231,5
HYDRONIC KIT (option)			
Buffer tank capacity	[L]	290	
Pump type	-	Centrifugal	
Standard pump - 150 kPa useful head			
Motor Efficiency	-	IE3	
Pump motor nominal power	[kW]	3	3
Pump motor nominal current	[A]	6,4	6,4
Standard pump - 250 kPa useful head			
Motor Efficiency	-	IE3	
Pump motor nominal power	[kW]	5,5	5,5
Pump motor nominal current	[A]	10,6	10,6
Water connections			
Dimension (nominal external diameter)	[inch/DN]	3" (DN 80)	3" (DN 80)
Noise levels ⁽³⁾			
Total sound power (ST version)	[db(A)]	95	97
Total sound pressure (ST version) - at 1 m distance	[db(A)]	75	77
Total sound pressure (ST version) - at 10 m distance	[db(A)]	63	65
Total sound power (LN version)	[db(A)]	92	94
Total sound pressure (LN version) - at 1 m distance	[db(A)]	72	74
Total sound pressure (LN version) - at 10 m distance	[db(A)]	60	62
Total sound power (SL version)	[db(A)]	90	92
Total sound pressure (SL version) - at 1 m distance	[db(A)]	70	72
Total sound pressure (SL version) - at 10 m distance	[db(A)]	58	60

Reference conditions:

(1) Condenser air intake temperature = 30 °C - Evaporator water temperature IN/OUT = -4/-8 °C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel according to models

(2) Plate heat exchanger water temp. IN/OUT = 40/45 °C - Condenser air intake temperature = 35 °C - Evaporator water temperature IN/OUT = -4/-8 °C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel according to models

(1) - (2) The declared cooling capacity are not taking into account the pump motor power input (where provided).

(3) Sound power level in compliance with ISO 3744 - Sound pressure level (average) at 10 meter distance, unit in a free field on a reflective surface; non-binding value obtained from the sound power level.

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

CARIO HE R290 range		10-1-1 PE	14-1-1 PE	17-1-1 PE	20-1-1 PE
DIMENSIONS AND WEIGHTS - Standard unit					
Lenght	[mm]	1680	1680	1680	2330
Width	[mm]	1025	1025	1025	1025
Height (ST - LN)	[mm]	2121	2121	2121	2221
Height (SL)	[mm]	2208	2208	2208	2308
Shipping weight (A BP/ST/AS/EC/** version)	[kg]	350	360	410	550
Operating weight (A BP/ST/AS/EC/** version)	[kg]	355	365	415	555

DIMENSIONS - Large unit					
Lenght	[mm]	2330	2330	2330	2980
Width	[mm]	1025	1025	1025	1025
Height (ST - LN)	[mm]	2221	2221	2221	2221
Height (SL)	[mm]	2308	2308	2308	2308

Unit dimensions with hydronic kit					
Integrata LP 1-0 OO	-	Standard	Standard	Standard	Standard
Integrata LP 1-0 OO and HR equipment	-	Large	Large	Large	Large
Integrata LP 1-1 OO	-	Large	Large	Large	Standard
Integrata LP 1-1 OO and HR equipment	-	Large	Large	Large	Large
Integrata MP 1-0 OO	-	Standard	Standard	Standard	Standard
Integrata MP 1-0 OO and HR equipment	-	Large	Large	Large	Large
Integrata MP 1-1 OO	-	Large	Large	Large	Standard
Integrata MP 1-1 OO and HR equipment	-	Large	Large	Large	Large
Base-P LP 1-0 OO	-	Standard	Standard	Standard	Standard
Base-P LP 1-0 OO and HR equipment	-	Standard	Standard	Standard	Standard
Base-P LP 1-1 OO	-	Standard	Standard	Standard	Standard
Base-P LP 1-1 OO and HR equipment	-	Standard	Standard	Standard	Standard
Base-P MP 1-0 OO	-	Standard	Standard	Standard	Standard
Base-P MP 1-0 OO and HR equipment	-	Standard	Standard	Standard	Standard
Base-P MP 1-1 OO	-	Standard	Standard	Standard	Standard
Base-P MP 1-1 OO and HR equipment	-	Standard	Standard	Standard	Standard
Base-T	-	Standard	Standard	Standard	Standard
Base-T and HR equipment	-	Large	Large	Large	Standard

CARIO HE R290 range		24-1-1 PE	30-1-1 PE	35-1-1 PE	41-1-1 PE
DIMENSIONS AND WEIGHTS - Standard unit					
Lenght	[mm]	2330	2980	2980	2980
Width	[mm]	1025	1025	1025	1025
Height (ST - LN)	[mm]	2221	2221	2221	2300
Height (SL)	[mm]	2308	2308	2308	2360
Shipping weight (A BP/ST/AS/EC/** version)	[kg]	560	720	740	810
Operating weight (A BP/ST/AS/EC/** version)	[kg]	565	727	747	817

DIMENSIONS - Large unit					
Lenght	[mm]	2980	3920	3920	3920
Width	[mm]	1025	1025	1025	1025
Height (ST - LN)	[mm]	2221	2281	2281	2360
Height (SL)	[mm]	2308	2368	2368	2420

Unit dimensions with hydronic kit					
Integrata LP 1-0 OO	-	Standard	Standard	Standard	Standard
Integrata LP 1-0 OO and HR equipment	-	Large	Standard	Standard	Standard
Integrata LP 1-1 OO	-	Standard	Standard	Standard	Standard
Integrata LP 1-1 OO and HR equipment	-	Large	Large	Large	Large
Integrata MP 1-0 OO	-	Standard	Standard	Standard	Standard
Integrata MP 1-0 OO and HR equipment	-	Large	Standard	Standard	Standard
Integrata MP 1-1 OO	-	Standard	Standard	Standard	Standard
Integrata MP 1-1 OO and HR equipment	-	Large	Large	Large	Large
Base-P LP 1-0 OO	-	Standard	Standard	Standard	Standard
Base-P LP 1-0 OO and HR equipment	-	Standard	Standard	Standard	Standard
Base-P LP 1-1 OO	-	Standard	Standard	Standard	Standard
Base-P LP 1-1 OO and HR equipment	-	Standard	Standard	Standard	Standard
Base-P MP 1-0 OO	-	Standard	Standard	Standard	Standard
Base-P MP 1-0 OO and HR equipment	-	Standard	Standard	Standard	Standard
Base-P MP 1-1 OO	-	Standard	Standard	Standard	Standard
Base-P MP 1-1 OO and HR equipment	-	Standard	Standard	Standard	Standard
Base-T	-	Standard	Standard	Standard	Standard
Base-T and HR equipment	-	Standard	Standard	Standard	Standard

CARIO HE R290 range		48-1-1 PE	56-1-1 PE	41-2-2 PE	48-2-2 PE
DIMENSIONS AND WEIGHTS - Standard unit					
Lenght	[mm]	2980	3920	3920	3920
Width	[mm]	1025	1025	1025	1025
Height (ST - LN)	[mm]	2300	2281	2281	2281
Height (SL)	[mm]	2360	2368	2368	2368
Shipping weight (A BP/ST/AS/EC/** version)	[kg]	850	960	940	970
Operating weight (A BP/ST/AS/EC/** version)	[kg]	857	968	948	978

DIMENSIONS - Large unit					
Lenght	[mm]	3920	-	-	-
Width	[mm]	1025	-	-	-
Height (ST - LN)	[mm]	2360	-	-	-
Height (SL)	[mm]	2420	-	-	-

Unit dimensions with hydronic kit					
Integrata LP 1-0 OO	-	Standard	Standard	Standard	Standard
Integrata LP 1-0 OO and HR equipment	-	Standard	Standard	Standard	Standard
Integrata LP 1-1 OO	-	Standard	Standard	Standard	Standard
Integrata LP 1-1 OO and HR equipment	-	Large	Standard	Standard	Standard
Integrata MP 1-0 OO	-	Standard	Standard	Standard	Standard
Integrata MP 1-0 OO and HR equipment	-	Standard	Standard	Standard	Standard
Integrata MP 1-1 OO	-	Standard	Standard	Standard	Standard
Integrata MP 1-1 OO and HR equipment	-	Large	Standard	Standard	Standard
Base-P LP 1-0 OO	-	Standard	Standard	Standard	Standard
Base-P LP 1-0 OO and HR equipment	-	Standard	Standard	Standard	Standard
Base-P LP 1-1 OO	-	Standard	Standard	Standard	Standard
Base-P LP 1-1 OO and HR equipment	-	Standard	Standard	Standard	Standard
Base-P MP 1-0 OO	-	Standard	Standard	Standard	Standard
Base-P MP 1-0 OO and HR equipment	-	Standard	Standard	Standard	Standard
Base-P MP 1-1 OO	-	Standard	Standard	Standard	Standard
Base-P MP 1-1 OO and HR equipment	-	Standard	Standard	Standard	Standard
Base-T	-	Standard	Standard	Standard	Standard
Base-T and HR equipment	-	Standard	Standard	Standard	Standard

CARIO HE R290 range		60-2-2 PE	70-2-2 PE	83-2-2 PE	97-2-2 PE
DIMENSIONS AND WEIGHTS - Standard unit					
Lenght	[mm]	3920	3920	4200	4200
Width	[mm]	1025	1025	1185	1185
Height (ST - LN)	[mm]	2281	2360	2320	2320
Height (SL)	[mm]	2368	2420	2380	2380
Shipping weight (A BP/ST/AS/EC/** version)	[kg]	1080	1150	1460	1510
Operating weight (A BP/ST/AS/EC/** version)	[kg]	1088	1158	1470	1520

DIMENSIONS - Large unit					
Lenght	[mm]	-	-	5000	5000
Width	[mm]	-	-	1185	1185
Height (ST - LN)	[mm]	-	-	2320	2320
Height (SL)	[mm]	-	-	2380	2380

Unit dimensions with hydronic kit					
Integrata LP 1-0 OO	-	Standard	Standard	Large	Large
Integrata LP 1-0 OO and HR equipment	-	Standard	Standard	Large	Large
Integrata LP 1-1 OO	-	Standard	Standard	Large	Large
Integrata LP 1-1 OO and HR equipment	-	Standard	Standard	Large	Large
Integrata MP 1-0 OO	-	Standard	Standard	Large	Large
Integrata MP 1-0 OO and HR equipment	-	Standard	Standard	Large	Large
Integrata MP 1-1 OO	-	Standard	Standard	Large	Large
Integrata MP 1-1 OO and HR equipment	-	Standard	Standard	Large	Large
Base-P LP 1-0 OO	-	Standard	Standard	Standard	Standard
Base-P LP 1-0 OO and HR equipment	-	Standard	Standard	Standard	Standard
Base-P LP 1-1 OO	-	Standard	Standard	Standard	Standard
Base-P LP 1-1 OO and HR equipment	-	Standard	Standard	Standard	Standard
Base-P MP 1-0 OO	-	Standard	Standard	Standard	Standard
Base-P MP 1-0 OO and HR equipment	-	Standard	Standard	Standard	Standard
Base-P MP 1-1 OO	-	Standard	Standard	Standard	Standard
Base-P MP 1-1 OO and HR equipment	-	Standard	Standard	Standard	Standard
Base-T	-	Standard	Standard	Standard	Standard
Base-T and HR equipment	-	Standard	Standard	Large	Large

CRIo HE R290 range		116-2-2 PE	130-2-2 PV	142-2-2 PV	161-2-2 PV
DIMENSIONS AND WEIGHTS - Standard unit					
Lenght	[mm]	5500	3100	3100	4450
Width	[mm]	1535	2345	2345	2345
Height (ST - LN)	[mm]	2350	2465	2465	2465
Height (SL)	[mm]	2410	2525	2525	2525
Shipping weight (A BP/ST/AS/EC/** version)	[kg]	1710	1855	1900	2560
Operating weight (A BP/ST/AS/EC/** version)	[kg]	1720	1870	1915	2578

DIMENSIONS - Large unit					
Lenght	[mm]	Contact EK	4450	4450	-
Width	[mm]	Contact EK	2345	2345	-
Height (ST - LN)	[mm]	Contact EK	2465	2465	-
Height (SL)	[mm]	Contact EK	2525	2525	-

Unit dimensions with hydronic kit					
Integrata LP 1-0 OO	-	Standard	Standard	Standard	Standard
Integrata LP 1-0 OO and HR equipment	-	Contact EK	Large	Large	Standard
Integrata LP 1-1 OO	-	Standard	Large	Large	Standard
Integrata LP 1-1 OO and HR equipment	-	Contact EK	Large	Large	Standard
Integrata MP 1-0 OO	-	Standard	Standard	Standard	Standard
Integrata MP 1-0 OO and HR equipment	-	Contact EK	Large	Large	Standard
Integrata MP 1-1 OO	-	Standard	Large	Large	Standard
Integrata MP 1-1 OO and HR equipment	-	Contact EK	Large	Large	Standard
Base-P LP 1-0 OO	-	Standard	Standard	Standard	Standard
Base-P LP 1-0 OO and HR equipment	-	Standard	Standard	Standard	Standard
Base-P LP 1-1 OO	-	Standard	Standard	Standard	Standard
Base-P LP 1-1 OO and HR equipment	-	Standard	Standard	Standard	Standard
Base-P MP 1-0 OO	-	Standard	Standard	Standard	Standard
Base-P MP 1-0 OO and HR equipment	-	Standard	Standard	Standard	Standard
Base-P MP 1-1 OO	-	Standard	Standard	Standard	Standard
Base-P MP 1-1 OO and HR equipment	-	Standard	Standard	Standard	Standard
Base-T	-	Standard	Standard	Standard	Standard
Base-T and HR equipment	-	Contact EK	Large	Large	Standard

CRIo HE R290 range		175-2-2 PV	185-2-2 PV
DIMENSIONS AND WEIGHTS - Standard unit			
Lenght	[mm]	4450	4450
Width	[mm]	2345	2345
Height (ST - LN)	[mm]	2465	2465
Height (SL)	[mm]	2525	2525
Shipping weight (A BP/ST/AS/EC/** version)	[kg]	2575	2590
Operating weight (A BP/ST/AS/EC/** version)	[kg]	2593	2608

DIMENSIONS - Large unit					
Lenght	[mm]	-	-	-	-
Width	[mm]	-	-	-	-
Height (ST - LN)	[mm]	-	-	-	-
Height (SL)	[mm]	-	-	-	-
Unit dimensions with hydronic kit					
Integrata LP 1-0 OO	-	Standard	Standard	Standard	Standard
Integrata LP 1-0 OO and HR equipment	-	Standard	Standard	Standard	Standard
Integrata LP 1-1 OO	-	Standard	Standard	Standard	Standard
Integrata LP 1-1 OO and HR equipment	-	Standard	Standard	Standard	Standard
Integrata MP 1-0 OO	-	Standard	Standard	Standard	Standard
Integrata MP 1-0 OO and HR equipment	-	Standard	Standard	Standard	Standard
Integrata MP 1-1 OO	-	Standard	Standard	Standard	Standard
Integrata MP 1-1 OO and HR equipment	-	Standard	Standard	Standard	Standard
Base-P LP 1-0 OO	-	Standard	Standard	Standard	Standard
Base-P LP 1-0 OO and HR equipment	-	Standard	Standard	Standard	Standard
Base-P LP 1-1 OO	-	Standard	Standard	Standard	Standard
Base-P LP 1-1 OO and HR equipment	-	Standard	Standard	Standard	Standard
Base-P MP 1-0 OO	-	Standard	Standard	Standard	Standard
Base-P MP 1-0 OO and HR equipment	-	Standard	Standard	Standard	Standard
Base-P MP 1-1 OO	-	Standard	Standard	Standard	Standard
Base-P MP 1-1 OO and HR equipment	-	Standard	Standard	Standard	Standard
Base-T	-	Standard	Standard	Standard	Standard
Base-T and HR equipment	-	Standard	Standard	Standard	Standard

CARIO HE+ R290 range		10-1-1 PE	14-1-1 PE	17-1-1 PE	21-1-1 PE	30-1-1 PE
COOLING - A BP/ST/AS/EC/*S version						
Cooling capacity ⁽¹⁾	[kW]	9,6	13,8	17,3	21,1	30,2
Total power input ⁽¹⁾	[kW]	4,2	5,9	7,6	9,2	12,4
EER - Energy Efficiency Ratio	-	2,30	2,36	2,28	2,28	2,44
Saved CO2 equivalent Ton (*)	[CO ₂ Ton]	8,3	10,7	11,5	15,1	20,4
"Ecodesign" compliance for process application (SEPR)	-	3,59	3,41	3,60	3,40	3,91
REFRIGERANT CIRCUIT						
Refrigerant	-	R290				
GWP	-	3				
Charge of refrigerant - Base unit	[kg]	2,2	2,8	3,0	3,9	5,3
Independent gas circuits	[n°]	1	1	1	1	1
Compressors type	-	Semi-hermetic pistons				
Compressors quantity	[n°]	1	1	1	1	1
Steps of capacity for each compressor (std)	-	1 (75%); 2 (50%)	1 (75%); 2 (50%)	1 (75%); 2 (50%)	1 (75%); 2 (50%)	1 (75%); 2 (50%)
Condensing coils type	-	Cu/Al				
Fans type	-	Axial EC				
Fans quantity	[n°]	1	1	1	2	2
Fans power input ⁽¹⁾ (total)	[kW]	0,2	0,3	0,7	0,4	0,9
Total air flow	[m ³ /h]	6.900	7.400	10.900	13.800	21.200
Expansion valve type	-	Electronic				
Evaporator water flow ⁽¹⁾	[m ³ /h]	2,3	3,3	4,2	5,1	7,3
Evaporator pressure drop ⁽¹⁾	[kPa]	24	27	29	28	35
DESUPERHEATER (option) - A BP/ST/DS/EC/*S						
Heating capacity ⁽²⁾	[kW]	1,8	2,35	3,13	3,72	4,54
Water flow	[m ³ /h]	0,31	0,40	0,54	0,64	0,78
Pressure drop (water side)	[kPa]	5,1	5,2	5,2	0,2	5,2
HEAT RECOVERY (option) - A BP/ST/HR/EC/*S						
Heating capacity ⁽²⁾	[kW]	13	18,2	23,8	28,2	40,3
Water flow	[m ³ /h]	2,2	3,1	4,1	4,9	6,9
Pressure drop (water side)	[kPa]	13,5	24,3	25,1	24,6	30
Electrical data						
Power supply	-	400/3/50				
Emergency power supply	-	230/1/50				
Maximum power input without pump	[kW]	9,3	13,1	14,1	17,7	22,5
Locked rotor current – LRA without pump	[A]	65,0	89,2	104,2	120,9	206,5
Maximum absorbed current - FLA without pump	[A]	15,7	22,5	23,5	32,5	40,7
HYDRONIC KIT (option)						
Buffer tank capacity	[L]	60	60	60	160	290
Pump type	-	Centrifugal				
Standard pump - 150 kPa useful head						
Motor Efficiency	-	-	-	-	-	IE3
Pump motor nominal power	[kW]	0,37	0,37	0,55	0,55	0,9
Pump motor nominal current	[A]	1,4	1,4	1,9	1,9	2,5
Standard pump - 250 kPa useful head						
Motor Efficiency	-	-	IE3	IE3	IE3	IE3
Pump motor nominal power	[kW]	0,55	0,75	0,9	0,9	1,5
Pump motor nominal current	[A]	2	1,9	2,5	2,5	4,1
Water connections						
Dimension (nominal external diameter)	[inch/DN]	1/2" (DN15)	1" (DN 25)	1" (DN 25)	1" (DN 25)	1" 1/2 (DN 40)
Noise levels ⁽³⁾						
Total sound power (ST version)	[db(A)]	73	76	79	80	81
Total sound pressure (ST version) - at 1 m distance	[db(A)]	56	59	62	63	63
Total sound pressure (ST version) - at 10 m distance	[db(A)]	43	45	48	49	50
Total sound power (LN version)	[db(A)]	70	73	76	77	78
Total sound pressure (LN version) - at 1 m distance	[db(A)]	53	56	59	60	60
Total sound pressure (LN version) - at 10 m distance	[db(A)]	40	42	45	46	47
Total sound power (SL version)	[db(A)]	68	71	74	75	76
Total sound pressure (SL version) - at 1 m distance	[db(A)]	51	54	57	58	58
Total sound pressure (SL version) - at 10 m distance	[db(A)]	38	40	43	44	45

Reference conditions:

(1) Condenser air intake temperature = 30 °C - Evaporator water temperature IN/OUT = -4/-8 °C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel according to models

(2) Plate heat exchanger water temp. IN/OUT = 40/45 °C - Condenser air intake temperature = 35 °C - Evaporator water temperature IN/OUT = -4/-8 °C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel according to models

(1) - (2) The declared cooling capacity are not taking into account the pump motor power input (where provided).

(3) Sound power level in compliance with ISO 3744 - Sound pressure level (average) at 10 meter distance, unit in a free field on a reflective surface; non-binding value obtained from the sound power level.

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

CRIo HE+ R290 range		36-1-1 PE	56-1-1 PE	41-2-2 PE	48-2-2 PE	83-2-2 PE
COOLING - A BP/ST/AS/EC/*S version						
Cooling capacity ⁽¹⁾	[kW]	36	56,4	41,1	48	83,2
Total power input ⁽¹⁾	[kW]	14,1	25,1	17,9	19,5	35,3
EER - Energy Efficiency Ratio	-	2,55	2,25	2,30	2,46	2,36
Saved CO2 equivalent Ton (*)	[CO ₂ Ton]	27,9	39	32,9	39,4	65,5
"Ecodesign" compliance for process application (SEPR)	-	3,69	3,61	3,69	3,74	3,58
REFRIGERANT CIRCUIT						
Refrigerant	-	R290				
GWP	-	3				
Charge of refrigerant - Base unit	[kg]	7,2	10,1	8,5	10,2	17,0
Independent gas circuits	[n°]	1	1	2	2	2
Compressors type	-	Semi-hermetic pistons				
Compressors quantity	[n°]	1	1	2	2	2
Steps of capacity for each compressor (std)	-	1 (75%); 2 (50%)	1 (83%); 2 (67%); 3 (50%)	1 (75%); 2 (50%)	1 (75%); 2 (50%)	1 (83%); 2 (67%); 3 (50%)
Condensing coils type	-	Cu/Al				
Fans type	-	Axial EC				
Fans quantity	[n°]	2	3	3	3	3
Fans power input ⁽¹⁾ (total)	[kW]	0,9	2,4	1,3	1,1	3,3
Total air flow	[m ³ /h]	19.700	36.000	30.900	27.150	55.550
Expansion valve type	-	Electronic				
Evaporator water flow ⁽¹⁾	[m ³ /h]	8,7	13,7	10,0	11,6	20,2
Evaporator pressure drop ⁽¹⁾	[kPa]	18	29	19	25	29
DESUPERHEATER (option) - A BP/ST/DS/EC/*S						
Heating capacity ⁽²⁾	[kW]	5,09	10,1	7,27	7,61	13,3
Water flow	[m ³ /h]	0,88	1,74	1,25	1,31	2,29
Pressure drop (water side)	[kPa]	0,3	5,6	5,2	5,2	5,3
HEAT RECOVERY (option) - A BP/ST/HR/EC/*S						
Heating capacity ⁽²⁾	[kW]	46,7	79,3	57,3	64,7	114
Water flow	[m ³ /h]	8,0	13,6	9,9	11,1	19,6
Pressure drop (water side)	[kPa]	8,1	28,7	19,8	24,4	29,2
Electrical data						
Power supply	-	400/3/50				
Emergency power supply	-	230/1/50				
Maximum power input without pump	[kW]	27,5	47,7	34,3	39,3	72,6
Locked rotor current – LRA without pump	[A]	228,2	327,1	151,5	177,8	307,1
Maximum absorbed current - FLA without pump	[A]	47,8	80,3	63,1	77,5	121,8
HYDRONIC KIT (option)						
Buffer tank capacity	[L]	290	290	290	290	500
Pump type	-	Centrifugal				
Standard pump - 150 kPa useful head						
Motor Efficiency	-	IE3				
Pump motor nominal power	[kW]	0,9	1,1	1,1	1,1	2,2
Pump motor nominal current	[A]	2,5	3,3	3,3	3,3	4,7
Standard pump - 250 kPa useful head						
Motor Efficiency	-	IE3				
Pump motor nominal power	[kW]	1,5	2,2	1,5	2,2	3
Pump motor nominal current	[A]	4,1	4,7	4,1	4,7	6,4
Water connections						
Dimension (nominal external diameter)	[inch/DN]	1" 1/2 (DN 40)	2" (DN 50)	1" 1/2 (DN 40)	1" 1/2 (DN 40)	2" (DN 50)
Noise levels ⁽³⁾						
Total sound power (ST version)	[dB(A)]	84	86	83	84	88
Total sound pressure (ST version) - at 1 m distance	[dB(A)]	66	68	65	66	69
Total sound pressure (ST version) - at 10 m distance	[dB(A)]	53	54	51	52	56
Total sound power (LN version)	[dB(A)]	81	83	80	81	85
Total sound pressure (LN version) - at 1 m distance	[dB(A)]	63	65	62	63	66
Total sound pressure (LN version) - at 10 m distance	[dB(A)]	50	51	48	49	53
Total sound power (SL version)	[dB(A)]	79	81	78	79	83
Total sound pressure (SL version) - at 1 m distance	[dB(A)]	61	63	60	61	64
Total sound pressure (SL version) - at 10 m distance	[dB(A)]	48	49	46	47	51
Reference conditions:						
(1) Condenser air intake temperature = 30 °C - Evaporator water temperature IN/OUT = -4/-8 °C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel according to models						
(2) Plate heat exchanger water temp. IN/OUT = 40/45 °C - Condenser air intake temperature = 35 °C - Evaporator water temperature IN/OUT = -4/-8 °C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel according to models						
(1) - (2) The declared cooling capacity are not taking into account the pump motor power input (where provided).						
(3) Sound power level in compliance with ISO 3744 - Sound pressure level (average) at 10 meter distance, unit in a free field on a reflective surface; non-binding value obtained from the sound power level.						
(*) CO ₂ equivalent tons saved to the Environment compared to the choice of an EUROLIMAT unit with similar cooling capacity and HFC refrigerant						

CARIO HE+ R290 range		99-2-2 PE	116-2-2 PE	130-2-2 PV	142-2-2 PV	161-2-2 PV
COOLING - A BP/ST/AS/EC/*S version						
Cooling capacity ⁽¹⁾	[kW]	99,4	116	130	142	161
Total power input ⁽¹⁾	[kW]	38,1	49,5	61,8	67,8	73,3
EER - Energy Efficiency Ratio	-	2,61	2,34	2,10	2,10	2,20
Saved CO2 equivalent Ton (*)	[CO ₂ Ton]	85,8	87,6	55,8	61,1	77
"Ecodesign" compliance for process application (SEPR)	-	3,62	3,70	2,99	3,02	3,08

REFRIGERANT CIRCUIT							
Refrigerant	-	R290					
GWP	-	3					
Charge of refrigerant - Base unit	[kg]	22,3	22,8	14,5	15,9	20,0	
Independent gas circuits	[n°]	2	2	2	2	2	
Compressors type	-	Semi-hermetic pistons					
Compressors quantity	[n°]	2	2	2	2	2	
Steps of capacity for each compressor (std)	-	1 (83%); 2 (67%); 3 (50%)	1 (83%); 2 (67%); 3 (50%)	2 (75%); 3 (62,5%); 4 (50%)	2 (75%); 3 (62,5%); 4 (50%)	2 (75%); 3 (62,5%); 4 (50%)	
Condensing coils type	-	Cu/Al	Cu/Al	Microchannel	Microchannel	Microchannel	
Fans type	-	Axial EC					
Fans quantity	[n°]	4	4	4	4	6	
Fans power input ⁽¹⁾ (total)	[kW]	1,8	3,2	4,3	5,9	3,3	
Total air flow	[m ³ /h]	51.100	63.800	72.600	82.700	83.400	
Expansion valve type	-	Electronic					
Evaporator water flow ⁽¹⁾	[m ³ /h]	24,1	28,1	31,5	34,4	39,0	
Evaporator pressure drop ⁽¹⁾	[kPa]	33	37	41	35	33	

DESUPERHEATER (option) - A BP/ST/DS/EC/*S						
Heating capacity ⁽²⁾	[kW]	17,1	20,5	26,8	28,3	33
Water flow	[m ³ /h]	2,94	3,53	4,61	4,87	5,68
Pressure drop (water side)	[kPa]	0,4	5,6	5,8	6,0	14,7

HEAT RECOVERY (option) - A BP/ST/HR/EC/*S						
Heating capacity ⁽²⁾	[kW]	137	160	185	204	228
Water flow	[m ³ /h]	23,6	27,5	31,8	35,1	39,2
Pressure drop (water side)	[kPa]	33,1	35,7	39,5	47,1	50,4

Electrical data							
Power supply	-	400/3/50					
Emergency power supply	-	230/1/50					
Maximum power input without pump	[kW]	85,3	100,5	95,1	114,3	119,5	
Locked rotor current – LRA without pump	[A]	352,6	414,6	390,3	472,9	568,3	
Maximum absorbed current - FLA without pump	[A]	140,6	167,8	166,0	193,2	198,7	

HYDRONIC KIT (option)							
Buffer tank capacity	[L]	470	470	290	290	290	
Pump type	-	Centrifugal					

Standard pump - 150 kPa useful head							
Motor Efficiency	-	IE3					
Pump motor nominal power	[kW]	2,2	2,2	3	3	3	
Pump motor nominal current	[A]	4,7	4,7	6,4	6,4	6,4	

Standard pump - 250 kPa useful head							
Motor Efficiency	-	IE3					
Pump motor nominal power	[kW]	4	4	4	4	5,5	
Pump motor nominal current	[A]	8,7	8,7	8,7	8,7	10,6	

Water connections						
Dimension (nominal external diameter)	[inch/DN]	2"1/2 (DN 65)	2"1/2 (DN 65)	3" (DN 80)	3" (DN 80)	3" (DN 80)

Noise levels ⁽³⁾						
Total sound power (ST version)	[dB(A)]	89	89	90	94	95
Total sound pressure (ST version) - at 1 m distance	[dB(A)]	70	70	71	75	75
Total sound pressure (ST version) - at 10 m distance	[dB(A)]	57	57	58	62	63
Total sound power (LN version)	[dB(A)]	86	86	87	91	92
Total sound pressure (LN version) - at 1 m distance	[dB(A)]	67	67	68	72	72
Total sound pressure (LN version) - at 10 m distance	[dB(A)]	54	54	55	59	60
Total sound power (SL version)	[dB(A)]	84	84	85	89	90
Total sound pressure (SL version) - at 1 m distance	[dB(A)]	65	65	66	70	70
Total sound pressure (SL version) - at 10 m distance	[dB(A)]	52	52	53	57	58

Reference conditions:

(1) Condenser air intake temperature = 30 °C - Evaporator water temperature IN/OUT = -4/-8 °C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel according to models

(2) Plate heat exchanger water temp. IN/OUT = 40/45 °C - Condenser air intake temperature = 35 °C - Evaporator water temperature IN/OUT = -4/-8 °C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel according to models

(1) - (2) The declared cooling capacity are not taking into account the pump motor power input (where provided).

(3) Sound power level in compliance with ISO 3744 - Sound pressure level (average) at 10 meter distance, unit in a free field on a reflective surface; non-binding value obtained from the sound power level.

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

CRIo HE+ R290 range		175-2-2 PV	185-2-2 PV
COOLING - A BP/ST/AS/EC/*S version			
Cooling capacity ⁽¹⁾	[kW]	175	185
Total power input ⁽¹⁾	[kW]	80,5	85
EER - Energy Efficiency Ratio	-	2,17	2,18
Saved CO2 equivalent Ton (*)	[CO ₂ Ton]	77,9	81,4
"Ecodesign" compliance for process application (SEPR)	-	3,05	3,07
REFRIGERANT CIRCUIT			
Refrigerant	-	R290	
GWP	-	3	
Charge of refrigerant - Base unit	[kg]	20,2	21,2
Independent gas circuits	[n°]	2	2
Compressors type	-	Semi-hermetic pistons	
Compressors quantity	[n°]	2	2
Steps of capacity for each compressor (std)	-	2 (75%); 3 (62,5%); 4 (50%)	2 (75%); 3 (62,5%); 4 (50%)
Condensing coils type	-	Microchannel	
Fans type	-	Axial EC	
Fans quantity	[n°]	6	6
Fans power input ⁽¹⁾ (total)	[kW]	4,3	5,3
Total air flow	[m ³ /h]	93.000	101.100
Expansion valve type	-	Electronic	
Evaporator water flow ⁽¹⁾	[m ³ /h]	42,4	44,8
Evaporator pressure drop ⁽¹⁾	[kPa]	38	34
DESUPERHEATER (option) - A BP/ST/DS/EC/*S			
Heating capacity ⁽²⁾	[kW]	35,5	37,4
Water flow	[m ³ /h]	6,11	6,43
Pressure drop (water side)	[kPa]	15,0	15,1
HEAT RECOVERY (option) - A BP/ST/HR/EC/*S			
Heating capacity ⁽²⁾	[kW]	247	262
Water flow	[m ³ /h]	42,5	45,1
Pressure drop (water side)	[kPa]	52,3	38,4
Electrical data			
Power supply	-	400/3/50	
Emergency power supply	-	230/1/50	
Maximum power input without pump	[kW]	125,1	133,3
Locked rotor current – LRA without pump	[A]	670,1	713,7
Maximum absorbed current - FLA without pump	[A]	216,3	231,5
HYDRONIC KIT (option)			
Buffer tank capacity	[L]	290	290
Pump type	-	Centrifugal	
Standard pump - 150 kPa useful head			
Motor Efficiency	-	IE3	
Pump motor nominal power	[kW]	3	3
Pump motor nominal current	[A]	6,4	6,4
Standard pump - 250 kPa useful head			
Motor Efficiency	-	IE3	
Pump motor nominal power	[kW]	5,5	5,5
Pump motor nominal current	[A]	10,6	10,6
Water connections			
Dimension (nominal external diameter)	[inch/DN]	3" (DN 80)	3" (DN 80)
Noise levels ⁽³⁾			
Total sound power (ST version)	[dB(A)]	95	97
Total sound pressure (ST version) - at 1 m distance	[dB(A)]	75	77
Total sound pressure (ST version) - at 10 m distance	[dB(A)]	63	65
Total sound power (LN version)	[dB(A)]	92	94
Total sound pressure (LN version) - at 1 m distance	[dB(A)]	72	74
Total sound pressure (LN version) - at 10 m distance	[dB(A)]	60	62
Total sound power (SL version)	[dB(A)]	90	92
Total sound pressure (SL version) - at 1 m distance	[dB(A)]	70	72
Total sound pressure (SL version) - at 10 m distance	[dB(A)]	58	60

Reference conditions:

(1) Condenser air intake temperature = 30 °C - Evaporator water temperature IN/OUT = -4/-8 °C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel according to models

(2) Plate heat exchanger water temp. IN/OUT = 40/45 °C - Condenser air intake temperature = 35 °C - Evaporator water temperature IN/OUT = -4/-8 °C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel according to models

(1) - (2) The declared cooling capacity are not taking into account the pump motor power input (where provided).

(3) Sound power level in compliance with ISO 3744 - Sound pressure level (average) at 10 meter distance, unit in a free field on a reflective surface; non-binding value obtained from the sound power level.

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

CRIo HE+ R290 range		10-1-1 PE	14-1-1 PE	17-1-1 PE	21-1-1 PE	30-1-1 PE
DIMENSIONS AND WEIGHTS - Standard unit						
Lenght	[mm]	1680	1680	1680	2330	2980
Width	[mm]	1025	1025	1025	1025	1025
Height (ST - LN)	[mm]	2121	2121	2121	2221	2221
Height (SL)	[mm]	2208	2208	2208	2308	2308
Shipping weight (A BP/ST/AS/EC/** version)	[kg]	350	360	410	560	720
Operating weight (A BP/ST/AS/EC/** version)	[kg]	355	365	415	565	727

DIMENSIONS - Large unit						
Lenght	[mm]	2330	2330	2330	2980	3920
Width	[mm]	1025	1025	1025	1025	1025
Height (ST - LN)	[mm]	2221	2221	2221	2221	2281
Height (SL)	[mm]	2308	2308	2308	2308	2368

Unit dimensions with hydronic kit						
Integrata LP 1-0 OO	-	Standard	Standard	Standard	Standard	Standard
Integrata LP 1-0 OO and HR equipment	-	Large	Large	Large	Large	Standard
Integrata LP 1-1 OO	-	Large	Large	Large	Standard	Standard
Integrata LP 1-1 OO and HR equipment	-	Large	Large	Large	Large	Large
Integrata MP 1-0 OO	-	Standard	Standard	Standard	Standard	Standard
Integrata MP 1-0 OO and HR equipment	-	Large	Large	Large	Large	Standard
Integrata MP 1-1 OO	-	Large	Large	Large	Standard	Standard
Integrata MP 1-1 OO and HR equipment	-	Large	Large	Large	Large	Large
Base-P LP 1-0 OO	-	Standard	Standard	Standard	Standard	Standard
Base-P LP 1-0 OO and HR equipment	-	Standard	Standard	Standard	Standard	Standard
Base-P LP 1-1 OO	-	Standard	Standard	Standard	Standard	Standard
Base-P LP 1-1 OO and HR equipment	-	Standard	Standard	Standard	Standard	Standard
Base-P MP 1-0 OO	-	Standard	Standard	Standard	Standard	Standard
Base-P MP 1-0 OO and HR equipment	-	Standard	Standard	Standard	Standard	Standard
Base-P MP 1-1 OO	-	Standard	Standard	Standard	Standard	Standard
Base-P MP 1-1 OO and HR equipment	-	Standard	Standard	Standard	Standard	Standard
Base-T	-	Standard	Standard	Standard	Standard	Standard
Base-T and HR equipment	-	Large	Large	Large	Standard	Standard

CRIo HE+ R290 range		36-1-1 PE	56-1-1 PE	41-2-2 PE	48-2-2 PE	83-2-2 PE
DIMENSIONS AND WEIGHTS - Standard unit						
Lenght	[mm]	2980	3920	3920	3920	4200
Width	[mm]	1025	1025	1025	1025	1185
Height (ST - LN)	[mm]	2221	2281	2281	2281	2320
Height (SL)	[mm]	2308	2368	2368	2368	2380
Shipping weight (A BP/ST/AS/EC/** version)	[kg]	760	960	940	970	1460
Operating weight (A BP/ST/AS/EC/** version)	[kg]	767	968	948	978	1470

DIMENSIONS - Large unit						
Lenght	[mm]	3920	-	-	-	5000
Width	[mm]	1025	-	-	-	1185
Height (ST - LN)	[mm]	2281	-	-	-	2320
Height (SL)	[mm]	2368	-	-	-	2380

Unit dimensions with hydronic kit						
Integrata LP 1-0 OO	-	Standard	Standard	Standard	Standard	Large
Integrata LP 1-0 OO and HR equipment	-	Standard	Standard	Standard	Standard	Large
Integrata LP 1-1 OO	-	Standard	Standard	Standard	Standard	Large
Integrata LP 1-1 OO and HR equipment	-	Large	Standard	Standard	Standard	Large
Integrata MP 1-0 OO	-	Standard	Standard	Standard	Standard	Large
Integrata MP 1-0 OO and HR equipment	-	Standard	Standard	Standard	Standard	Large
Integrata MP 1-1 OO	-	Standard	Standard	Standard	Standard	Large
Integrata MP 1-1 OO and HR equipment	-	Large	Standard	Standard	Standard	Large
Base-P LP 1-0 OO	-	Standard	Standard	Standard	Standard	Standard
Base-P LP 1-0 OO and HR equipment	-	Standard	Standard	Standard	Standard	Standard
Base-P LP 1-1 OO	-	Standard	Standard	Standard	Standard	Standard
Base-P LP 1-1 OO and HR equipment	-	Standard	Standard	Standard	Standard	Standard
Base-P MP 1-0 OO	-	Standard	Standard	Standard	Standard	Standard
Base-P MP 1-0 OO and HR equipment	-	Standard	Standard	Standard	Standard	Standard
Base-P MP 1-1 OO	-	Standard	Standard	Standard	Standard	Standard
Base-P MP 1-1 OO and HR equipment	-	Standard	Standard	Standard	Standard	Standard
Base-T	-	Standard	Standard	Standard	Standard	Standard
Base-T and HR equipment	-	Standard	Standard	Standard	Standard	Large

CARIO HE+ R290 range		99-2-2 PE	116-2-2 PE	130-2-2 PV	142-2-2 PV	161-2-2 PV
DIMENSIONS AND WEIGHTS - Standard unit						
Lenght	[mm]	5500	5500	3100	3100	4450
Width	[mm]	1535	1535	2345	2345	2345
Height (ST - LN)	[mm]	2350	2350	2465	2465	2465
Height (SL)	[mm]	2410	2410	2525	2525	2525
Shipping weight (A BP/ST/AS/EC/** version)	[kg]	1690	1710	1855	1900	2560
Operating weight (A BP/ST/AS/EC/** version)	[kg]	1700	1720	1870	1915	2578

DIMENSIONS - Large unit						
Lenght	[mm]	Contact EK	Contact EK	4450	4450	-
Width	[mm]	Contact EK	Contact EK	2345	2345	-
Height (ST - LN)	[mm]	Contact EK	Contact EK	2465	2465	-
Height (SL)	[mm]	Contact EK	Contact EK	2525	2525	-

Unit dimensions with hydronic kit						
Integrata LP 1-0 OO	-	Standard	Standard	Standard	Standard	Standard
Integrata LP 1-0 OO and HR equipment	-	Contact EK	Contact EK	Large	Large	Standard
Integrata LP 1-1 OO	-	Standard	Standard	Large	Large	Standard
Integrata LP 1-1 OO and HR equipment	-	Contact EK	Contact EK	Large	Large	Standard
Integrata MP 1-0 OO	-	Standard	Standard	Standard	Standard	Standard
Integrata MP 1-0 OO and HR equipment	-	Contact EK	Contact EK	Large	Large	Standard
Integrata MP 1-1 OO	-	Standard	Standard	Large	Large	Standard
Integrata MP 1-1 OO and HR equipment	-	Contact EK	Contact EK	Large	Large	Standard
Base-P LP 1-0 OO	-	Standard	Standard	Standard	Standard	Standard
Base-P LP 1-0 OO and HR equipment	-	Standard	Standard	Standard	Standard	Standard
Base-P LP 1-1 OO	-	Standard	Standard	Standard	Standard	Standard
Base-P LP 1-1 OO and HR equipment	-	Standard	Standard	Standard	Standard	Standard
Base-P MP 1-0 OO	-	Standard	Standard	Standard	Standard	Standard
Base-P MP 1-0 OO and HR equipment	-	Standard	Standard	Standard	Standard	Standard
Base-P MP 1-1 OO	-	Standard	Standard	Standard	Standard	Standard
Base-P MP 1-1 OO and HR equipment	-	Standard	Standard	Standard	Standard	Standard
Base-T	-	Standard	Standard	Standard	Standard	Standard
Base-T and HR equipment	-	Contact EK	Contact EK	Large	Large	Standard

CARIO HE+ R290 range		175-2-2 PV	185-2-2 PV
DIMENSIONS AND WEIGHTS - Standard unit			
Lenght	[mm]	4450	4450
Width	[mm]	2345	2345
Height (ST - LN)	[mm]	2465	2465
Height (SL)	[mm]	2525	2525
Shipping weight (A BP/ST/AS/EC/** version)	[kg]	2575	2590
Operating weight (A BP/ST/AS/EC/** version)	[kg]	2593	2608

DIMENSIONS - Large unit			
Lenght	[mm]	-	-
Width	[mm]	-	-
Height (ST - LN)	[mm]	-	-
Height (SL)	[mm]	-	-

Unit dimensions with hydronic kit			
Integrata LP 1-0 OO	-	Standard	Standard
Integrata LP 1-0 OO and HR equipment	-	Standard	Standard
Integrata LP 1-1 OO	-	Standard	Standard
Integrata LP 1-1 OO and HR equipment	-	Standard	Standard
Integrata MP 1-0 OO	-	Standard	Standard
Integrata MP 1-0 OO and HR equipment	-	Standard	Standard
Integrata MP 1-1 OO	-	Standard	Standard
Integrata MP 1-1 OO and HR equipment	-	Standard	Standard
Base-P LP 1-0 OO	-	Standard	Standard
Base-P LP 1-0 OO and HR equipment	-	Standard	Standard
Base-P LP 1-1 OO	-	Standard	Standard
Base-P LP 1-1 OO and HR equipment	-	Standard	Standard
Base-P MP 1-0 OO	-	Standard	Standard
Base-P MP 1-0 OO and HR equipment	-	Standard	Standard
Base-P MP 1-1 OO	-	Standard	Standard
Base-P MP 1-1 OO and HR equipment	-	Standard	Standard
Base-T	-	Standard	Standard
Base-T and HR equipment	-	Standard	Standard



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