

TETI BS

13-1-1 PE ↔ 287-2-2 PE

R290

Refrigerant
R290 | GWP=3



Brazen plate
heat exchanger



Semi-hermetic
piston compressor



Axial fan



Cu/Al
condensing coils



SEPR

Air to water chillers for medium temperature applications

Standard efficiency



Solution

B - Base
I - Integrata

Version

ST - Standard
LN - Low Noise
SL - Super Low Noise

Equipment

AS - Standard equipment
DS - Desuperheater
HR - Total modulating Heat Recovery

Cooling capacity 12,5 - 286,5 kW

Safety system	To ensure high-safety-level the unit is equipped with an ATEX certified gas detector and an EC centrifugal extraction fan . The sensor, with external dedicated power supply and Modbus output signal, has an alarm threshold set at 10% of the lower flammable limit (LFL). The Propane alarm causes the immediate shutdown of the machine and the centrifugal extraction fan is switched on, which allows the ventilation of the compressor compartment and the dilution of the R290 concentration to values below the lower flammability limit.
Structure	Structure specifically designed and built to guarantee total resistance to atmospheric agents and corrosion. Basement and panels made of galvanized steel sheet, oven-painted with polyurethane powders. Frame made of anodized aluminium profiles, with aluminium alloy corner joints that guarantee excellent mechanical resistance and low weight. LN (Low Noise) version: the panels are internally lined with sound-absorbing material. SL (Super Low Noise) version: the panels are sandwich and insulated with rock wool.
Compressor	Reciprocating semi-hermetic type compressor equipped with: electronic control module and protection of the electric motor (installed inside the electrical panel); oil charge; oil level sight glass and oil crankcase heater; anti-vibration rubber supports; anti-vibration pipes (suction and discharge); suction and discharge valves. The compressor can be supplied with one or more RSH capacity control heads to guarantee an adaptation of the cooling capacity in case of thermal load's reduction: please see the list of accessories for further information.
EC Fan	Premium-Axial-Fans with bionic shaped blades and high-efficient EC (Electronically Commutated) external rotor motors, sealed in protection IP54 and thermal class THCL 155. The motor efficiency class complies with IE4.
Air heat exchanger	Finned coil made with copper pipes arranged on staggered rows, mechanically expanded inside a pack of aluminium fins offering a high exchange surface area.
Water heat exchanger	Brazen plate-type heat exchanger, stainless steel AISI 316 made, complete with water differential pressure switch, air vent valve and thermally insulated with closed-cell neoprene anti-condensate material. The heat exchanger design provides high thermal exchange and high performance results, furthermore it guarantees small dimensions and easy installation and maintenance.
Electrical board	Each unit is equipped with electric panel, built, wired and fully tested at the factory. Wiring numeration and optimized layout facilitate troubleshooting. The installed components are identified by nameplates to better identify the application and the type of action. Switchboard is 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 - Contactor and protection for compressor and fans - Cabinet minimum protection rating IP54. To ensure higher level of security, the cabinet is outside the machine and positioned on one side of the unit. 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.
Control	The microprocessor controls the unit capacity by timing the compressors and checks the operating alarms with the possibility to connect to BMS.
Refrigerant circuit	Filter drier, moisture-liquid sight glass, electronic expansion valve, high & low pressure gauge, high and low pressure transducers, high pressure switch, safety high pressure valve (when required by EN 378-2016 standard).
Water circuit (Integrata)	Base version: as interface to the plant, includes the water fittings of the evaporator only. Integrated version: Water storage tank, water pressure gauge, safety valve, water discharge valve, centrifugal pump(s) suitable for glycol solutions up to 40%, manual by-pass valve, manual air venting valve. The pump control equipment is fitted inside the electrical board of the unit and the microprocessor control manages the pump starting, timing and all the safety devices of the whole system.

ACCESSORI PRINCIPALI

- Anti-vibration rubber/spring mounts
- Air heat exchanger protection panel or filter
- Air heat exchanger with various coatings treatment
- Low pressure switch
- Low pressure safety valve
- Double safety valve
- Overpressure valve / automatic by-pass
- Double water pump (stand-by) - Standard/ High pressure
- Open / Closed expansion vessel with automatic filling unit
- RSH Capacity Control head / Inverter driven compressor
- Advanced control c.pCo

» For the complete list of accessories please see pages 44-45-46-47

TETI BS

Technical data

TETI BS R290 range		13-1-1 PE	16-1-1 PE	25-1-1 PE	32-1-1 PE	40-1-1 PE	49-1-1 PE
COOLING - A BP/ST/AS/OO/*S version							
Cooling capacity ⁽¹⁾	[kW]	12,58	16,34	25,19	31,88	40,28	48,87
Total power input ⁽¹⁾	[kW]	2,5	3,9	5,7	8,7	9,9	12,4
EER - Energy Efficiency Ratio	-	4,97	4,14	4,42	3,67	4,09	3,94
Saved CO2 equivalent Ton ^(*)	[CO ₂ Ton]	4,7	5	8,7	9,5	12,2	14,6
"Ecodesign" compliance for process application (SEPR)	-	5,53	5,00	5,77	5,01	5,81	5,26

REFRIGERANT CIRCUIT							
Refrigerant	-	R290					
GWP	-	3					
Charge of refrigerant - Base unit	[kg]	1,2	1,3	2,2	2,4	3,2	3,8
Independent gas circuits	[n°]	1	1	1	1	1	1
Compressors type	-	Semi-hermetic pistons					
Compressors quantity	[n°]	1	1	1	1	1	1
Available steps of capacity	-	1 (50%)			1 (75%); 2 (50%)		
Condensing coils type	-	Cu/Al					
Fans type	-	Axial AC					
Fans quantity	[n°]	1	1	1	1	1	2
Fans power input ⁽¹⁾ (total)	[kW]	0,4	0,4	0,7	0,7	0,7	1,5
Total air flow	[m ³ /h]	5.900	5.900	11.400	11.400	10.700	21.300
Expansion valve type	-	Electronic					
Evaporator water flow ⁽¹⁾	[m ³ /h]	2,2	2,8	4,3	5,5	6,9	8,4
Evaporator pressure drop ⁽¹⁾	[kPa]	25	20	43	65	60	58

DESUPERHEATER (option) - A BP/ST/DS/OO/*S							
Heating capacity ⁽²⁾	[kW]	1,3	2,2	3,1	5,1	5,5	6,8
Water flow	[m ³ /h]	0,22	0,38	0,54	0,88	0,97	1,17
Pressure drop (water side)	[kPa]	5,1	5,2	5,3	5,7	5,9	5,6

HEAT RECOVERY (option) - A BP/ST/HR/EC/*S							
Heating capacity ⁽²⁾	[kW]	15,1	20,3	30,8	40,5	50	61,1
Water flow	[m ³ /h]	2,6	3,5	5,3	7,0	8,6	10,5
Pressure drop (water side)	[kPa]	12,6	21,8	22,4	30,7	34,3	29,5

Electrical data							
Power supply	-	400/3/50					
Emergency power supply	-	230/1/50					
Maximum power input without pump	[kW]	3,9	5,4	9,0	12,8	13,8	17,3
Locked rotor current - LRA without pump	[A]	36,9	44,7	65,0	89,2	104,2	120,8
Maximum absorbed current - FLA without pump	[A]	7,4	10,0	15,7	22,5	23,5	32,4

HYDRONIC KIT (option)							
Buffer tank capacity	[L]	30	30	60	60	60	160
Pump type	-	Centrifugal					

Standard pump - 250 kPa useful head							
Motor Efficiency	-	-	-	IE3	IE3	IE3	IE3
Pump motor nominal power	[kW]	0,6	0,55	0,9	1,5	1,5	1,5
Pump motor nominal current	[A]	2,1	2	2,5	4,1	4,1	4,1

Standard pump - 450 kPa useful head							
Motor Efficiency	-	IE3	IE3	IE3	IE3	IE3	IE3
Pump motor nominal power	[kW]	1,1	1,1	1,3	1,3	2,2	2,2
Pump motor nominal current	[A]	3,3	3,3	3,3	3,3	4,7	4,7

Water connections							
Dimension (nominal external diameter)	[inch/DN]	1/2" (DN15)	1" (DN 25)	1" (DN 25)	1" (DN 25)	1" 1/4 (DN 32)	1" 1/4 (DN 32)

Noise levels ⁽³⁾							
Total sound power (ST version)	[dB(A)]	77	80	81	83	83	86
Total sound pressure (ST version) - at 1 m distance	[dB(A)]	61	64	64	66	66	68
Total sound pressure (ST version) - at 10 m distance	[dB(A)]	45	48	49	51	51	54
Total sound power (LN version)	[dB(A)]	74	77	78	80	80	83
Total sound pressure (LN version) - at 1 m distance	[dB(A)]	58	61	61	63	63	65
Total sound pressure (LN version) - at 10 m distance	[dB(A)]	42	45	46	48	48	51
Total sound power (SL version)	[dB(A)]	72	75	76	78	78	81
Total sound pressure (SL version) - at 1 m distance	[dB(A)]	56	59	59	61	61	63
Total sound pressure (SL version) - at 10 m distance	[dB(A)]	40	43	44	46	46	49

Reference conditions:

(1) Condenser air intake temperature = 25 °C - Evaporator water temperature IN/OUT = 20/15 °C - Fluid: water - 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 = 20/15°C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel

(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

TETI BS

Technical data

TETI BS R290 range		57-1-1 PE	73-1-1 PE	85-1-1 PE	101-1-1 PE	119-1-1 PE	100-2-2 PE
COOLING - A BP/ST/AS/OO/*S version							
Cooling capacity ⁽¹⁾	[kW]	56,89	73,37	84,91	100,7	119,1	99,7
Total power input ⁽¹⁾	[kW]	14,1	18,2	20,9	25,3	28,5	23,7
EER - Energy Efficiency Ratio	-	4,03	4,03	4,06	3,98	4,18	4,20
Saved CO2 equivalent Ton (*)	[CO ₂ Ton]	15,7	20,6	22	27,6	37,1	29,9
"Ecodesign" compliance for process application (SEPR)	-	5,54	5,07	5,09	5,04	5,83	5,84

REFRIGERANT CIRCUIT							
Refrigerant	-	R290					
GWP	-	3					
Charge of refrigerant - Base unit	[kg]	4,1	5,3	5,7	7,2	9,6	7,8
Independent gas circuits	[n°]	1	1	1	1	1	2
Compressors type	-	Semi-hermetic pistons					
Compressors quantity	[n°]	1	1	1	1	1	2
Available steps of capacity	-	1 (75%); 2 (50%)			1 (83%); 2 (67%); 3 (50%)		1 (75%); 2 (50%)
Condensing coils type	-	Cu/Al					
Fans type	-	Axial AC					
Fans quantity	[n°]	2	2	2	2	3	3
Fans power input ⁽¹⁾ (total)	[kW]	1,5	3,6	3,6	3,7	2,2	2,1
Total air flow	[m ³ /h]	21.300	34.700	34.700	32.100	33.400	35.400
Expansion valve type	-	Electronic					
Evaporator water flow ⁽¹⁾	[m ³ /h]	9,8	12,6	14,6	17,3	20,5	17,1
Evaporator pressure drop ⁽¹⁾	[kPa]	56	55	41	43	47	51

DESUPERHEATER (option) - A BP/ST/DS/OO/*S							
Heating capacity ⁽²⁾	[kW]	7,6	7,9	10	13,2	16,1	13,5
Water flow	[m ³ /h]	1,31	1,36	1,74	2,29	2,81	2,32
Pressure drop (water side)	[kPa]	5,8	5,6	5,9	6,1	6,4	5,6

HEAT RECOVERY (option) - A BP/ST/HR/EC/*S							
Heating capacity ⁽²⁾	[kW]	70,9	91,4	105,7	125,8	147,3	123,2
Water flow	[m ³ /h]	12,2	15,7	18,2	21,6	25,3	21,2
Pressure drop (water side)	[kPa]	29,8	38,7	40,4	47	47,8	27,7

Electrical data							
Power supply	-	400/3/50					
Emergency power supply	-	230/1/50					
Maximum power input without pump	[kW]	19,8	24,8	29,8	36,4	39,4	33,6
Locked rotor current - LRA without pump	[A]	139,9	211,9	233,6	248,4	278,6	151,4
Maximum absorbed current - FLA without pump	[A]	39,6	46,1	53,2	63,1	66,6	63,0

HYDRONIC KIT (option)							
Buffer tank capacity	[L]	160	290	290	290	290	290
Pump type	-	Centrifugal					

Standard pump - 250 kPa useful head							
Motor Efficiency	-	IE3					
Pump motor nominal power	[kW]	1,5	1,8	3	3	3	3
Pump motor nominal current	[A]	4,1	4,7	6,4	6,4	6,4	6,4

Standard pump - 450 kPa useful head							
Motor Efficiency	-	IE3					
Pump motor nominal power	[kW]	2,2	4	4	5,5	7,5	5,5
Pump motor nominal current	[A]	4,7	8,7	8,7	10,6	13,6	10,6

Water connections							
Dimension (nominal external diameter)	[inch/DN]	1" 1/4 (DN 32)	1" 1/2 (DN 40)	2" (DN 50)	2" (DN 50)	2" (DN 50)	2" (DN 50)

Noise levels ⁽³⁾							
Total sound power (ST version)	[dB(A)]	86	85	87	87	89	86
Total sound pressure (ST version) - at 1 m distance	[dB(A)]	68	67	69	69	70	67
Total sound pressure (ST version) - at 10 m distance	[dB(A)]	54	53	55	55	57	54
Total sound power (LN version)	[dB(A)]	83	82	84	84	86	83
Total sound pressure (LN version) - at 1 m distance	[dB(A)]	65	64	66	66	67	64
Total sound pressure (LN version) - at 10 m distance	[dB(A)]	51	50	52	52	54	51
Total sound power (SL version)	[dB(A)]	81	80	82	82	84	81
Total sound pressure (SL version) - at 1 m distance	[dB(A)]	63	62	64	64	65	62
Total sound pressure (SL version) - at 10 m distance	[dB(A)]	49	48	50	50	52	49

Reference conditions:

(1) Condenser air intake temperature = 25 °C - Evaporator water temperature IN/OUT = 20/15 °C - Fluid: water - 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 = 20/15°C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel

(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

TETI BS

Technical data

TETI BS R290 range		118-2-2 PE	144-2-2 PE	164-2-2 PE	199-2-2 PE	248-2-2 PE	287-2-2 PE
COOLING - A BP/ST/AS/OO/*S version							
Cooling capacity ⁽¹⁾	[kW]	118,4	144	164	199,4	248,2	286,5
Total power input ⁽¹⁾	[kW]	28,2	36,3	42,2	49,4	56,3	69,3
EER - Energy Efficiency Ratio	-	4,20	3,97	3,89	4,04	4,41	4,13
Saved CO2 equivalent Ton ^(*)	[CO ₂ Ton]	38,9	40,1	41,4	61,3	84,7	87,6
"Ecodesign" compliance for process application (SEPR)	-	5,99	5,01	5,00	5,08	5,62	5,29

REFRIGERANT CIRCUIT							
Refrigerant	-	R290					
GWP	-	3					
Charge of refrigerant - Base unit	[kg]	10,1	10,4	10,8	15,9	22,0	22,8
Independent gas circuits	[n°]	2	2	2	2	2	2
Compressors type	-	mi-hermetic pistons			Semi-hermetic pistons		
Compressors quantity	[n°]	2	2	2	2	2	2
Available steps of capacity	-	1 (75%); 2 (50%)			1 (83%); 2 (67%); 3 (50%)		
Condensing coils type	-	Cu/Al					
Fans type	-	Axial AC					
Fans quantity	[n°]	3	3	3	3	4	4
Fans power input ⁽¹⁾ (total)	[kW]	2,2	5,6	5,6	4,9	6,7	6,7
Total air flow	[m ³ /h]	33.400	46.800	46.900	59.900	77.351	77.400
Expansion valve type	-	Electronic					
Evaporator water flow ⁽¹⁾	[m ³ /h]	20,4	24,8	28,2	34,3	42,7	49,3
Evaporator pressure drop ⁽¹⁾	[kPa]	57	63	57	63	66	68

DESUPERHEATER (option) - A BP/ST/DS/OO/*S							
Heating capacity ⁽²⁾	[kW]	15	17,7	22,3	27,5	29,5	29,5
Water flow	[m ³ /h]	2,59	3,06	3,90	4,77	5,19	5,19
Pressure drop (water side)	[kPa]	5,7	5,7	6,1	6,2	6,1	6,1

HEAT RECOVERY (option) - A BP/ST/HR/EC/*S							
Heating capacity ⁽²⁾	[kW]	146,3	179,8	205,6	248	303,6	354,7
Water flow	[m ³ /h]	25,2	30,9	35,4	42,7	52,2	61,0
Pressure drop (water side)	[kPa]	38,3	41,4	42,9	43,7	38,7	39,8

Electrical data							
Power supply	-	400/3/50					
Emergency power supply	-	230/1/50					
Maximum power input without pump	[kW]	35,4	47,3	57,3	70,5	82,4	97,6
Locked rotor current - LRA without pump	[A]	216,3	253,4	282,2	306,9	352,4	414,4
Maximum absorbed current - FLA without pump	[A]	66,0	87,6	101,8	121,6	140,4	167,6

HYDRONIC KIT (option)							
Buffer tank capacity	[L]	290	290	290	500	470	470
Pump type	-	Centrifugal					

Standard pump - 250 kPa useful head							
Motor Efficiency	-	IE3					
Pump motor nominal power	[kW]	3	4	4	4	5,5	5,5
Pump motor nominal current	[A]	6,4	8,7	8,7	8,7	10,6	10,6

Standard pump - 450 kPa useful head							
Motor Efficiency	-	IE3					
Pump motor nominal power	[kW]	7,5	7,5	7,5	7,5	11	11
Pump motor nominal current	[A]	13,6	13,6	13,6	13,6	21,3	21,3

Water connections							
Dimension (nominal external diameter)	[inch/DN]	2" (DN 50)	2"1/2 (DN 65)	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)]	87	88	90	89	91	91
Total sound pressure (ST version) - at 1 m distance	[dB(A)]	68	69	71	70	71	71
Total sound pressure (ST version) - at 10 m distance	[dB(A)]	55	56	58	57	59	59
Total sound power (LN version)	[dB(A)]	84	85	87	86	88	88
Total sound pressure (LN version) - at 1 m distance	[dB(A)]	65	66	68	67	68	68
Total sound pressure (LN version) - at 10 m distance	[dB(A)]	52	53	55	54	56	56
Total sound power (SL version)	[dB(A)]	82	83	85	84	86	86
Total sound pressure (SL version) - at 1 m distance	[dB(A)]	63	64	66	65	66	66
Total sound pressure (SL version) - at 10 m distance	[dB(A)]	50	51	53	52	54	54

Reference conditions:

(1) Condenser air intake temperature = 25 °C - Evaporator water temperature IN/OUT = 20/15 °C - Fluid: water - 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 = 20/15°C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel

(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.

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TETI BS

309-2-2 PV ↔ 449-2-2 PV



Refrigerant
R290 | GWP=3



Brazen plate
heat exchanger



Semi-hermetic
piston compressor



Axial fan



Microchannel
condensing coils



SEPR

Air to water chillers for medium temperature applications
Standard efficiency



Solution

B - Base
I - Integrata

Version

ST - Standard
LN - Low Noise
SL - Super Low Noise

Equipment

AS - Standard equipment
DS - Desuperheater
HR - Total modulating Heat Recovery

Cooling capacity 308,9 - 449,6 kW

Safety system	To ensure high-safety-level the unit is equipped with an ATEX certified gas detector and an EC centrifugal extraction fan . The sensor, with external dedicated power supply and Modbus output signal, has an alarm threshold set at 10% of the lower flammable limit (LFL). The Propane alarm causes the immediate shutdown of the machine and the centrifugal extraction fan is switched on, which allows the ventilation of the compressor compartment and the dilution of the R290 concentration to values below the lower flammability limit.
Structure	Structure specifically designed and built to guarantee total resistance to atmospheric agents and corrosion. Basement and panels made of galvanized steel sheet, oven-painted with polyurethane powders. Frame made of anodized aluminium profiles, with aluminium alloy corner joints that guarantee excellent mechanical resistance and low weight. LN (Low Noise) version: the panels are internally lined with sound-absorbing material. SL (Super Low Noise) version: the panels are sandwich and insulated with rock wool.
Compressor	Reciprocating semi-hermetic type compressor equipped with: electronic control module and protection of the electric motor (installed inside the electrical panel); oil charge; oil level sight glass and oil crankcase heater; anti-vibration rubber supports; anti-vibration pipes (suction and discharge); suction and discharge valves. The compressor can be supplied with one or more RSH capacity control heads to guarantee an adaptation of the cooling capacity in case of thermal load's reduction: please see the list of accessories for further information.
EC Fan	Premium-Axial-Fans with bionic shaped blades and high-efficient EC (Electronically Commutated) external rotor motors, sealed in protection IP54 and thermal class THCL 155. The motor efficiency class complies with IE4.
Air heat exchanger	Microchannel technology increases the primary to secondary surface area ratio and reduces the tube's air shadow to provide maximum heat exchange through our condensers.
Water heat exchanger	Brazen plate-type heat exchanger, stainless steel AISI 316 made, complete with water differential pressure switch, air vent valve and thermally insulated with closed-cell neoprene anti-condensate material. The heat exchanger design provides high thermal exchange and high performance results, furthermore it guarantees small dimensions and easy installation and maintenance.
Electrical board	Each unit is equipped with electric panel, built, wired and fully tested at the factory. Wiring numeration and optimized layout facilitate troubleshooting. The installed components are identified by nameplates to better identify the application and the type of action. Switchboard is 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 - Contactor and protection for compressor and fans - Cabinet minimum protection rating IP54. To ensure higher level of security, the cabinet is outside the machine and positioned on one side of the unit. 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.
Control	The microprocessor controls the unit capacity by timing the compressors and checks the operating alarms with the possibility to connect to BMS.
Refrigerant circuit	Filter drier, moisture-liquid sight glass, electronic expansion valve, high & low pressure gauge, high and low pressure transducers, high pressure switch, safety high pressure valve (when required by EN 378-2016 standard).
Water circuit (Integrata)	Base version: as interface to the plant, includes the water fittings of the evaporator only. Integrated version: Water storage tank, water pressure gauge, safety valve, water discharge valve, centrifugal pump(s) suitable for glycol solutions up to 40%, manual by-pass valve, manual air venting valve. The pump control equipment is fitted inside the electrical board of the unit and the microprocessor control manages the pump starting, timing and all the safety devices of the whole system.

ACCESSORI PRINCIPALI

- Anti-vibration rubber/spring mounts
- Air heat exchanger protection panel or filter
- Air heat exchanger with various coatings treatment
- Low pressure switch
- Low pressure safety valve
- Double safety valve
- Overpressure valve / automatic by-pass
- Double water pump (stand-by) - Standard/ High pressure
- Open / Closed expansion vessel with automatic filling unit
- RSH Capacity Control head / Inverter driven compressor
- Advanced control c.pCo

» For the complete list of accessories please see pages 44-45-46-47

TETI BS

Technical data

TETI BS R290 range		309-2-2 PV	346-2-2 PV	393-2-2 PV	428-2-2 PV	449-2-2 PV
COOLING - A BP/ST/AS/OO/*S version						
Cooling capacity ⁽¹⁾	[kW]	308,9	346	392,8	428	448,6
Total power input ⁽¹⁾	[kW]	78,8	92,8	91,8	101,5	107,1
EER - Energy Efficiency Ratio	-	3,92	3,73	4,28	4,22	4,19
Saved CO2 equivalent Ton ^(*)	[CO ₂ Ton]	66,4	75,9	85,1	88,8	92,4
"Ecodesign" compliance for process application (SEPR)	-	5,01	5,11	5,46	5,26	5,20

REFRIGERANT CIRCUIT						
Refrigerant	-	R290				
GWP	-	3				
Charge of refrigerant - Base unit	[kg]	17,3	19,7	22,1	23,1	24,0
Independent gas circuits	[n°]	2	2	2	2	2
Compressors type	-	Semi-hermetic pistons				
Compressors quantity	[n°]	2	2	2	2	2
Available steps of capacity	-	2 (75%); 3 (62,5%); 4 (50%)				
Condensing coils type	-	Microchannel				
Fans type	-	Axial AC				
Fans quantity	[n°]	4	4	6	6	6
Fans power input ⁽¹⁾ (total)	[kW]	6,5	6,5	9,9	9,8	9,8
Total air flow	[m ³ /h]	79.700	79.700	119.600	119.600	119.600
Expansion valve type	-	Electronic				
Evaporator water flow ⁽¹⁾	[m ³ /h]	53,1	59,5	67,6	73,6	77,2
Evaporator pressure drop ⁽¹⁾	[kPa]	52	49	61	58	54

DESUPERHEATER (option) - A BP/ST/DS/OO/*S						
Heating capacity ⁽²⁾	[kW]	44,9	57,6	51,7	57,7	61,3
Water flow	[m ³ /h]	7,77	10,02	8,91	9,99	10,59
Pressure drop (water side)	[kPa]	7,0	8,2	22,0	25,8	28,0

HEAT RECOVERY (option) - A BP/ST/HR/EC/*S						
Heating capacity ⁽²⁾	[kW]	380	428	477	524	553
Water flow	[m ³ /h]	65,9	74,2	82,7	90,9	95,9
Pressure drop (water side)	[kPa]	39,4	42,8	46,6	45,6	50,3

Electrical data						
Power supply	-	400/3/50				
Emergency power supply	-	230/1/50				
Maximum power input without pump	[kW]	113,4	124,0	129,6	138,6	140,6
Locked rotor current – LRA without pump	[A]	474,7	573,2	678,9	719,5	722,8
Maximum absorbed current - FLA without pump	[A]	197,0	218,0	234,2	243,4	250,0

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

Standard pump - 250 kPa useful head						
Motor Efficiency	-	IE3				
Pump motor nominal power	[kW]	7,5	7,5	11	11	11
Pump motor nominal current	[A]	13,6	13,6	21,3	21,3	21,3

Standard pump - 450 kPa useful head						
Motor Efficiency	-	IE3				
Pump motor nominal power	[kW]	11	11	11	15	15
Pump motor nominal current	[A]	21,3	21,3	21,3	27,7	27,7

Water connections						
Dimension (nominal external diameter)	[inch/DN]	4" (DN 100)	4" (DN 100)	4" (DN 100)	4" (DN 100)	4" (DN 100)

Noise levels ⁽³⁾						
Total sound power (ST version)	[db(A)]	92	93	94	94	94
Total sound pressure (ST version) - at 1 m distance	[db(A)]	73	74	74	74	74
Total sound pressure (ST version) - at 10 m distance	[db(A)]	60	61	62	62	62
Total sound power (LN version)	[db(A)]	89	90	91	91	91
Total sound pressure (LN version) - at 1 m distance	[db(A)]	70	71	71	71	71
Total sound pressure (LN version) - at 10 m distance	[db(A)]	57	58	59	59	59
Total sound power (SL version)	[db(A)]	87	88	89	89	89
Total sound pressure (SL version) - at 1 m distance	[db(A)]	68	69	69	69	69
Total sound pressure (SL version) - at 10 m distance	[db(A)]	55	56	57	57	57

Reference conditions:

(1) Condenser air intake temperature = 25 °C - Evaporator water temperature IN/OUT = 20/15 °C - Fluid: water - 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 = 20/15°C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel

(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

TETI BS

Dimensions and weights

TETI BS R290 range		13-1-1 PE	16-1-1 PE	25-1-1 PE	32-1-1 PE	40-1-1 PE	49-1-1 PE
DIMENSIONS AND WEIGHTS - Standard unit							
Lenght	[mm]	1380	1380	1680	1680	1680	2330
Width	[mm]	835	835	1025	1025	1025	1025
Height (ST - LN)	[mm]	1820	1820	2121	2121	2121	2221
Height (SL)	[mm]	-	-	2208	2208	2208	2308
Shipping weight (A BP/ST/AS/OO/** version)	[kg]	230	302	380	360	410	550
Operating weight (A BP/ST/AS/OO/** version)	[kg]	235	307	385	365	415	555

DIMENSIONS - Large unit							
Lenght	[mm]	1980	1980	2330	2330	2330	2980
Width	[mm]	835	835	1025	1025	1025	1025
Height (ST - LN)	[mm]	1820	1820	2221	2221	2221	2221
Height (SL)	[mm]	-	-	2308	2308	2308	2308

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

TETI BS R290 range		57-1-1 PE	73-1-1 PE	85-1-1 PE	101-1-1 PE	119-1-1 PE	100-2-2 PE
DIMENSIONS AND WEIGHTS - Standard unit							
Lenght	[mm]	2330	2980	2980	2980	3920	3920
Width	[mm]	1025	1025	1025	1025	1025	1025
Height (ST - LN)	[mm]	2221	2300	2300	2300	2281	2281
Height (SL)	[mm]	2308	2360	2360	2360	2368	2368
Shipping weight (A BP/ST/AS/OO/** version)	[kg]	558	762	773	830	950	930
Operating weight (A BP/ST/AS/OO/** version)	[kg]	563	769	780	837	958	938

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

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

Reference conditions:

- (1) Condenser air intake temperature = 25 °C - Evaporator water temperature IN/OUT = 20/15 °C - Fluid: water - 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 = 20/15°C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel
 - (3) - (2) The declared cooling capacity are not taking into account the pump motor power input (where provided).
- (*) 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

TETI BS

Dimensions and weights

TETI BS R290 range		118-2-2 PE	144-2-2 PE	164-2-2 PE	199-2-2 PE	248-2-2 PE	287-2-2 PE
DIMENSIONS AND WEIGHTS - Standard unit							
Lenght	[mm]	3920	3920	3920	4200	5500	5500
Width	[mm]	1025	1025	1025	1185	1535	1535
Height (ST - LN)	[mm]	2281	2360	2360	2320	2350	2350
Height (SL)	[mm]	2368	2420	2420	2380	2410	2410
Shipping weight (A BP/ST/AS/OO/** version)	[kg]	1055	1134	1150	1460	1698	1686
Operating weight (A BP/ST/AS/OO/** version)	[kg]	1063	1142	1158	1470	1708	1701

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

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

TETI BS R290 range		309-2-2 PV	346-2-2 PV	393-2-2 PV	428-2-2 PV	449-2-2 PV
DIMENSIONS AND WEIGHTS - Standard unit						
Lenght	[mm]	2895	2895	4015	4015	4015
Width	[mm]	2280	2280	2280	2280	2280
Height (ST - LN)	[mm]	2535	2535	2535	2535	2535
Height (SL)	[mm]	2560	2560	2560	2560	2560
Shipping weight (A BP/ST/AS/OO/** version)	[kg]	1898	1908	2543	2557	2575
Operating weight (A BP/ST/AS/OO/** version)	[kg]	1913	1923	2561	2575	2593

DIMENSIONS - Large unit						
Lenght	[mm]	4015	4015	-	-	-
Width	[mm]	2280	2280	-	-	-
Height (ST - LN)	[mm]	2535	2535	-	-	-
Height (SL)	[mm]	2560	2560	-	-	-

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

Reference conditions:

- (1) Condenser air intake temperature = 25 °C - Evaporator water temperature IN/OUT = 20/15 °C - Fluid: water - 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 = 20/15°C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel
(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

TETI HE

13-1-1 PE ↔ 293-2-2 PE



Refrigerant
R290 | GWP=3



Brazed plate
heat exchanger



Semi-hermetic
piston compressor



Axial fan



Cu/Al
condensing coils



SEPR

Air to water chillers for medium temperature applications
High efficiency



Solution

B - Base
I - Integrata

Version

ST - Standard
LN - Low Noise
SL - Super Low Noise

Equipment

AS - Standard equipment
DS - Desuperheater
HR - Total modulating Heat Recovery

Cooling capacity 12,5 - 292,7 kW

Safety system	To ensure high-safety-level the unit is equipped with an ATEX certified gas detector and an EC centrifugal extraction fan . The sensor, with external dedicated power supply and Modbus output signal, has an alarm threshold set at 10% of the lower flammable limit (LFL). The Propane alarm causes the immediate shutdown of the machine and the centrifugal extraction fan is switched on, which allows the ventilation of the compressor compartment and the dilution of the R290 concentration to values below the lower flammability limit.
Structure	Structure specifically designed and built to guarantee total resistance to atmospheric agents and corrosion. Basement and panels made of galvanized steel sheet, oven-painted with polyurethane powders. Frame made of anodized aluminium profiles, with aluminium alloy corner joints that guarantee excellent mechanical resistance and low weight. LN (Low Noise) version: the panels are internally lined with sound-absorbing material. SL (Super Low Noise) version: the panels are sandwich and insulated with rock wool.
Compressor	Reciprocating semi-hermetic type compressor equipped with: electronic control module and protection of the electric motor (installed inside the electrical panel); oil charge; oil level sight glass and oil crankcase heater; anti-vibration rubber supports; anti-vibration pipes (suction and discharge); suction and discharge valves. The compressor can be supplied with one or more RSH capacity control heads to guarantee an adaptation of the cooling capacity in case of thermal load's reduction: please see the list of accessories for further information.
EC Fan	Premium-Axial-Fans with bionic shaped blades and high-efficient EC (Electronically Commutated) external rotor motors, sealed in protection IP54 and thermal class THCL 155. The motor efficiency class complies with IE4.
Air heat exchanger	Finned coil made with copper pipes arranged on staggered rows, mechanically expanded inside a pack of aluminium fins offering a high exchange surface area.
Water heat exchanger	Brazed plate-type heat exchanger, stainless steel AISI 316 made, complete with water differential pressure switch, air vent valve and thermally insulated with closed-cell neoprene anti-condensate material. The heat exchanger design provides high thermal exchange and high performance results, furthermore it guarantees small dimensions and easy installation and maintenance.
Electrical board	Each unit is equipped with electric panel, built, wired and fully tested at the factory. Wiring numeration and optimized layout facilitate troubleshooting. The installed components are identified by nameplates to better identify the application and the type of action. Switchboard is 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 - Contactor and protection for compressor and fans - Cabinet minimum protection rating IP54. To ensure higher level of security, the cabinet is outside the machine and positioned on one side of the unit. 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.
Control	The microprocessor controls the unit capacity by timing the compressors and checks the operating alarms with the possibility to connect to BMS.
Refrigerant circuit	Filter drier, moisture-liquid sight glass, electronic expansion valve, high & low pressure gauge, high and low pressure transducers, high pressure switch, safety high pressure valve (when required by EN 378-2016 standard).
Water circuit (Integrata)	Base version: as interface to the plant, includes the water fittings of the evaporator only. Integrated version: Water storage tank, water pressure gauge, safety valve, water discharge valve, centrifugal pump(s) suitable for glycol solutions up to 40%, manual by-pass valve, manual air venting valve. The pump control equipment is fitted inside the electrical board of the unit and the microprocessor control manages the pump starting, timing and all the safety devices of the whole system.

ACCESSORI PRINCIPALI

- Anti-vibration rubber/spring mounts
- Air heat exchanger protection panel or filter
- Air heat exchanger with various coatings treatment
- Low pressure switch
- Low pressure safety valve
- Double safety valve
- Overpressure valve / automatic by-pass
- Double water pump (stand-by) - Standard/ High pressure
- Open / Closed expansion vessel with automatic filling unit
- RSH Capacity Control head / Inverter driven compressor
- Advanced control c.pCo

» For the complete list of accessories please see pages 44-45-46-47

TETI HE

Technical data

TETI HE R290 range		13-1-1 PE	26-1-1 PE	34-1-1 PE	42-1-1 PE	52-1-1 PE	59-1-1 PE
COOLING - A BP/ST/AS/OO/*S version							
Cooling capacity ⁽¹⁾	[kW]	12,58	25,54	34,36	41,93	51,84	58,79
Total power input ⁽¹⁾	[kW]	2,529	5,678	8,151	9,72	11,95	13,02
EER - Energy Efficiency Ratio	-	4,97	4,50	4,22	4,31	4,34	4,52
Saved CO2 equivalent Ton ^(*)	[CO ₂ Ton]	4,7	9	11,4	14,6	14,9	19,6
"Ecodesign" compliance for process application (SEPR)	-	5,53	5,88	5,81	5,42	5,92	6,16

REFRIGERANT CIRCUIT							
Refrigerant	-	R290					
GWP	-	3					
Charge of refrigerant - Base unit	[kg]	1,2	2,3	3,0	3,8	3,9	5,1
Independent gas circuits	[n°]	1	1	1	1	1	1
Compressors type	-	Semi-hermetic pistons					
Compressors quantity	[n°]	1	1	1	1	1	1
Available steps of capacity	-	1 (50%)		1 (75%); 2 (50%)			
Condensing coils type	-	Cu/Al					
Fans type	-	Axial AC					
Fans quantity	[n°]	1	1	1	2	2	2
Fans power input ⁽¹⁾ (total)	[kW]	0,4366	0,7309	0,7545	1,538	1,529	1,399
Total air flow	[m ³ /h]	5.900	11.400	10.700	21.300	21.300	23.900
Expansion valve type	-	Electronic					
Evaporator water flow ⁽¹⁾	[m ³ /h]	2,2	4,4	5,9	7,2	8,9	10,1
Evaporator pressure drop ⁽¹⁾	[kPa]	25,33	26,62	44,93	43,87	47,29	46,08

DESUPERHEATER (option) - A BP/ST/DS/OO/*S							
Heating capacity ⁽²⁾	[kW]	1,3	3,2	4,8	5,1	6,4	6,6
Water flow	[m ³ /h]	0,22	0,55	0,84	0,87	1,11	1,16
Pressure drop (water side)	[kPa]	5,9	5,3	5,4	5,4	5,4	5,4

HEAT RECOVERY (option) - A BP/ST/HR/EC/*S							
Heating capacity ⁽²⁾	[kW]	15,1	31,2	42,4	51,6	63,7	71,6
Water flow	[m ³ /h]	2,6	5,4	7,3	8,9	11,0	12,3
Pressure drop (water side)	[kPa]	12,6	22,4	30,7	24,3	30,1	32,9

Electrical data							
Power supply	-	400/3/50					
Emergency power supply	-	230/1/50					
Maximum power input without pump	[kW]	3,9	9,0	12,8	14,8	17,3	19,8
Locked rotor current - LRA without pump	[A]	36,9	65,0	89,2	106,0	120,8	139,9
Maximum absorbed current - FLA without pump	[A]	7,4	15,7	22,5	25,3	32,4	39,6

HYDRONIC KIT (option)							
Buffer tank capacity	[L]	30	60	60	160	160	290
Pump type	-	Centrifugal					

Standard pump - 250 kPa useful head							
Motor Efficiency	-	-	IE3	IE3	IE3	IE3	IE3
Pump motor nominal power	[kW]	0,6	0,9	1,5	1,5	1,5	1,5
Pump motor nominal current	[A]	2,1	2,5	4,1	4,1	4,1	4,1

Standard pump - 450 kPa useful head							
Motor Efficiency	-	IE3					
Pump motor nominal power	[kW]	1,1	1,3	1,3	2,2	2,2	2,2
Pump motor nominal current	[A]	3,3	3,3	3,3	4,7	4,7	4,7

Water connections							
Dimension (nominal external diameter)	[inch/DN]	1/2" (DN15)	1" (DN 25)	1" (DN 25)	1" 1/4 (DN 32)	1" 1/4 (DN 32)	1" 1/2 (DN 40)

Noise levels ⁽³⁾							
Total sound power (ST version)	[dB(A)]	77	81	83	86	86	85
Total sound pressure (ST version) - at 1 m distance	[dB(A)]	61	64	66	68	68	67
Total sound pressure (ST version) - at 10 m distance	[dB(A)]	45	49	51	54	54	53
Total sound power (LN version)	[dB(A)]	74	78	80	83	83	82
Total sound pressure (LN version) - at 1 m distance	[dB(A)]	58	61	63	65	65	64
Total sound pressure (LN version) - at 10 m distance	[dB(A)]	42	46	48	51	51	50
Total sound power (SL version)	[dB(A)]	72	76	78	81	81	80
Total sound pressure (SL version) - at 1 m distance	[dB(A)]	56	59	61	63	63	62
Total sound pressure (SL version) - at 10 m distance	[dB(A)]	40	44	46	49	49	48

Reference conditions:

(1) Condenser air intake temperature = 25 °C - Evaporator water temperature IN/OUT = 20/15 °C - Fluid: water - 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 = 20/15°C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel

(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

TETI HE

Technical data

TETI HE R290 range		76-1-1 PE	88-1-1 PE	104-1-1 PE	124-1-1 PE	105-2-2 PE	116-2-2 PE
COOLING - A BP/ST/AS/OO/*S version							
Cooling capacity ⁽¹⁾	[kW]	75,89	88,27	104,3	124,2	105,3	116,1
Total power input ⁽¹⁾	[kW]	18,21	20,13	22,62	30,15	22,62	26,91
EER - Energy Efficiency Ratio	-	4,17	4,38	4,61	4,12	4,66	4,31
Saved CO2 equivalent Ton (*)	[CO ₂ Ton]	21,9	27,2	36	37,7	37,6	38,9
"Ecodesign" compliance for process application (SEPR)	-	5,27	5,46	6,22	5,18	6,47	6,02

REFRIGERANT CIRCUIT							
Refrigerant	-	R290					
GWP	-	3					
Charge of refrigerant - Base unit	[kg]	5,7	7,0	9,4	9,8	9,8	10,1
Independent gas circuits	[n°]	1	1	1	1	2	2
Compressors type	-	Semi-hermetic pistons					
Compressors quantity	[n°]	1	1	1	1	2	2
Available steps of capacity	-	1 (75%); 2 (50%)		1 (83%); 2 (67%); 3 (50%)		1 (75%); 2 (50%)	
Condensing coils type	-	Cu/Al					
Fans type	-	Axial AC					
Fans quantity	[n°]	2	2	3	3	3	3
Fans power input ⁽¹⁾ (total)	[kW]	3,602	3,716	2,21	5,646	2,206	2,198
Total air flow	[m ³ /h]	34.700	32.000	33.400	46.800	33.400	33.400
Expansion valve type	-	Electronic					
Evaporator water flow ⁽¹⁾	[m ³ /h]	13,1	15,2	17,9	21,4	18,1	20,0
Evaporator pressure drop ⁽¹⁾	[kPa]	33,34	33,94	36,98	42,04	36,21	43,06

DESUPERHEATER (option) - A BP/ST/DS/OO/*S							
Heating capacity ⁽²⁾	[kW]	8,5	10,1	12,8	15,3	12,6	15,3
Water flow	[m ³ /h]	1,48	1,73	2,20	2,65	2,19	2,69
Pressure drop (water side)	[kPa]	5,5	5,6	5,8	6,0	5,4	5,5

HEAT RECOVERY (option) - A BP/ST/HR/EC/*S							
Heating capacity ⁽²⁾	[kW]	94	108,3	126,8	154,1	127,7	142,8
Water flow	[m ³ /h]	16,2	18,6	21,8	26,5	22,0	24,6
Pressure drop (water side)	[kPa]	38,7	40,4	47	47,8	28	35,7

Electrical data							
Power supply	-	400/3/50					
Emergency power supply	-	230/1/50					
Maximum power input without pump	[kW]	24,8	29,8	34,6	43,5	33,6	38,6
Locked rotor current - LRA without pump	[A]	211,9	233,6	244,8	286,8	151,4	177,7
Maximum absorbed current - FLA without pump	[A]	46,1	53,2	59,5	74,8	63,0	77,4

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

Standard pump - 250 kPa useful head							
Motor Efficiency	-	IE3					
Pump motor nominal power	[kW]	1,8	3	3	3	3	3
Pump motor nominal current	[A]	4,7	6,4	6,4	6,4	6,4	6,4

Standard pump - 450 kPa useful head							
Motor Efficiency	-	IE3					
Pump motor nominal power	[kW]	4	4	5,5	7,5	5,5	7,5
Pump motor nominal current	[A]	8,7	8,7	10,6	13,6	10,6	13,6

Water connections							
Dimension (nominal external diameter)	[inch/DN]	1" 1/2 (DN 40)	2" (DN 50)	2" (DN 50)	2" (DN 50)	2" (DN 50)	2" (DN 50)

Noise levels ⁽³⁾							
Total sound power (ST version)	[dB(A)]	85	87	88	89	87	88
Total sound pressure (ST version) - at 1 m distance	[dB(A)]	67	69	69	70	68	69
Total sound pressure (ST version) - at 10 m distance	[dB(A)]	53	55	56	57	55	56
Total sound power (LN version)	[dB(A)]	82	84	85	86	84	85
Total sound pressure (LN version) - at 1 m distance	[dB(A)]	64	66	66	67	65	66
Total sound pressure (LN version) - at 10 m distance	[dB(A)]	50	52	53	54	52	53
Total sound power (SL version)	[dB(A)]	80	82	83	84	82	83
Total sound pressure (SL version) - at 1 m distance	[dB(A)]	62	64	64	65	63	64
Total sound pressure (SL version) - at 10 m distance	[dB(A)]	48	50	51	52	50	51

Reference conditions:

(1) Condenser air intake temperature = 25 °C - Evaporator water temperature IN/OUT = 20/15 °C - Fluid: water - 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 = 20/15°C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel

(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

TETI HE

Technical data

TETI HE R290 range		147-2-2 PE	175-2-2 PE	215-2-2 PE	248-2-2 PE	293-2-2 PE
COOLING - A BP/ST/AS/OO/*S version						
Cooling capacity ⁽¹⁾	[kW]	147	174,9	214,6	248,2	292,7
Total power input ⁽¹⁾	[kW]	36,35	38,74	45,29	56,32	69,71
EER - Energy Efficiency Ratio	-	4,04	4,51	4,74	4,41	4,20
Saved CO2 equivalent Ton ^(*)	[CO ₂ Ton]	41,3	60,4	80	84	87
"Ecodesign" compliance for process application (SEPR)	-	5,11	5,77	5,69	5,62	5,09

REFRIGERANT CIRCUIT						
Refrigerant	-	R290				
GWP	-	3				
Charge of refrigerant - Base unit	[kg]	10,7	15,7	20,8	21,8	22,6
Independent gas circuits	[n°]	2	2	2	2	2
Compressors type	-	Semi-hermetic pistons				
Compressors quantity	[n°]	2	2	2	2	2
Available steps of capacity	-	1 (75%); 2 (50%)		1 (83%); 2 (67%); 3 (50%)		
Condensing coils type	-	Cu/Al				
Fans type	-	Axial AC				
Fans quantity	[n°]	3	3	4	4	4
Fans power input ⁽¹⁾ (total)	[kW]	5,613	4,953	6,743	6,705	9,78
Total air flow	[m ³ /h]	46.800	59.800	77.300	77.300	95.700
Expansion valve type	-	Electronic				
Evaporator water flow ⁽¹⁾	[m ³ /h]	25,3	30,1	36,9	42,7	50,3
Evaporator pressure drop ⁽¹⁾	[kPa]	47,15	50,04	59,21	65,63	70,13

DESUPERHEATER (option) - A BP/ST/DS/OO/*S						
Heating capacity ⁽²⁾	[kW]	18,1	20,3	23,2	31,1	37
Water flow	[m ³ /h]	3,13	3,49	4,05	5,36	6,41
Pressure drop (water side)	[kPa]	5,7	5,7	5,6	6,0	6,4

HEAT RECOVERY (option) - A BP/ST/HR/EC/*S						
Heating capacity ⁽²⁾	[kW]	182,9	213,1	259,2	303,6	338
Water flow	[m ³ /h]	31,5	36,7	44,6	52,2	58,5
Pressure drop (water side)	[kPa]	41,1	42,9	43,7	38,7	42,8

Electrical data						
Power supply	-	400/3/50				
Emergency power supply	-	230/1/50				
Maximum power input without pump	[kW]	47,3	57,3	72,8	82,4	97,6
Locked rotor current - LRA without pump	[A]	253,4	282,2	311,5	352,4	414,4
Maximum absorbed current - FLA without pump	[A]	87,6	101,8	126,2	140,4	167,6

HYDRONIC KIT (option)						
Buffer tank capacity	[L]	290	500	470	470	470
Pump type	-	Centrifugal				

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

Standard pump - 450 kPa useful head						
Motor Efficiency	-	IE3				
Pump motor nominal power	[kW]	7,5	7,5	7,5	11	11
Pump motor nominal current	[A]	13,6	13,6	13,6	21,3	21,3

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)]	88	89	90	91	93
Total sound pressure (ST version) - at 1 m distance	[db(A)]	69	70	70	71	73
Total sound pressure (ST version) - at 10 m distance	[db(A)]	56	57	58	59	61
Total sound power (LN version)	[db(A)]	85	86	87	88	90
Total sound pressure (LN version) - at 1 m distance	[db(A)]	66	67	67	68	70
Total sound pressure (LN version) - at 10 m distance	[db(A)]	53	54	55	56	58
Total sound power (SL version)	[db(A)]	83	84	85	86	88
Total sound pressure (SL version) - at 1 m distance	[db(A)]	64	65	65	66	68
Total sound pressure (SL version) - at 10 m distance	[db(A)]	51	52	53	54	56

Reference conditions:

(1) Condenser air intake temperature = 25 °C - Evaporator water temperature IN/OUT = 20/15 °C - Fluid: water - 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 = 20/15°C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel

(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

TETI HE



Refrigerant
R290 | GWP=3



Brazen plate
heat exchanger



Semi-hermetic
piston compressor



Axial fan



Microchannel
condensing coils



SEPR

313-2-2 PV ↔ 484-2-2 PV

Air to water chillers for medium temperature applications
High efficiency



Solution

B - Base
I - Integrata

Version

ST - Standard
LN - Low Noise
SL - Super Low Noise

Equipment

AS - Standard equipment
DS - Desuperheater
HR - Total modulating Heat Recovery

Cooling capacity 312,9 - 483,8 kW

Safety system	To ensure high-safety-level the unit is equipped with an ATEX certified gas detector and an EC centrifugal extraction fan . The sensor, with external dedicated power supply and Modbus output signal, has an alarm threshold set at 10% of the lower flammable limit (LFL). The Propane alarm causes the immediate shutdown of the machine and the centrifugal extraction fan is switched on, which allows the ventilation of the compressor compartment and the dilution of the R290 concentration to values below the lower flammability limit.
Structure	Structure specifically designed and built to guarantee total resistance to atmospheric agents and corrosion. Basement and panels made of galvanized steel sheet, oven-painted with polyurethane powders. Frame made of anodized aluminium profiles, with aluminium alloy corner joints that guarantee excellent mechanical resistance and low weight. LN (Low Noise) version: the panels are internally lined with sound-absorbing material. SL (Super Low Noise) version: the panels are sandwich and insulated with rock wool.
Compressor	Reciprocating semi-hermetic type compressor equipped with: electronic control module and protection of the electric motor (installed inside the electrical panel); oil charge; oil level sight glass and oil crankcase heater; anti-vibration rubber supports; anti-vibration pipes (suction and discharge); suction and discharge valves. The compressor can be supplied with one or more RSH capacity control heads to guarantee an adaptation of the cooling capacity in case of thermal load's reduction: please see the list of accessories for further information.
EC Fan	Premium-Axial-Fans with bionic shaped blades and high-efficient EC (Electronically Commutated) external rotor motors, sealed in protection IP54 and thermal class THCL 155. The motor efficiency class complies with IE4.
Air heat exchanger	Microchannel technology increases the primary to secondary surface area ratio and reduces the tube's air shadow to provide maximum heat exchange through our condensers.
Water heat exchanger	Brazen plate-type heat exchanger, stainless steel AISI 316 made, complete with water differential pressure switch, air vent valve and thermally insulated with closed-cell neoprene anti-condensate material. The heat exchanger design provides high thermal exchange and high performance results, furthermore it guarantees small dimensions and easy installation and maintenance.
Electrical board	Each unit is equipped with electric panel, built, wired and fully tested at the factory. Wiring numeration and optimized layout facilitate troubleshooting. The installed components are identified by nameplates to better identify the application and the type of action. Switchboard is 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 - Contactor and protection for compressor and fans - Cabinet minimum protection rating IP54. To ensure higher level of security, the cabinet is outside the machine and positioned on one side of the unit. 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.
Control	The microprocessor controls the unit capacity by timing the compressors and checks the operating alarms with the possibility to connect to BMS.
Refrigerant circuit	Filter drier, moisture-liquid sight glass, electronic expansion valve, high & low pressure gauge, high and low pressure transducers, high pressure switch, safety high pressure valve (when required by EN 378-2016 standard).
Water circuit (Integrata)	Base version: as interface to the plant, includes the water fittings of the evaporator only. Integrated version: Water storage tank, water pressure gauge, safety valve, water discharge valve, centrifugal pump(s) suitable for glycol solutions up to 40%, manual by-pass valve, manual air venting valve. The pump control equipment is fitted inside the electrical board of the unit and the microprocessor control manages the pump starting, timing and all the safety devices of the whole system.

ACCESSORI PRINCIPALI

- Anti-vibration rubber/spring mounts
- Air heat exchanger protection panel or filter
- Air heat exchanger with various coatings treatment
- Low pressure switch
- Low pressure safety valve
- Double safety valve
- Overpressure valve / automatic by-pass
- Double water pump (stand-by) - Standard/ High pressure
- Open / Closed expansion vessel with automatic filling unit
- RSH Capacity Control head / Inverter driven compressor
- Advanced control c.pCo

For the complete list of accessories please see pages 44-45-46-47

TETI HE

Technical data

TETI HE R290 range		313-2-2 PV	350-2-2 PV	388-2-2 PV	449-2-2 PV	484-2-2 PV
COOLING - A BP/ST/AS/OO/*S version						
Cooling capacity ⁽¹⁾	[kW]	312,9	350,4	388,1	448,6	483,8
Total power input ⁽¹⁾	[kW]	66,82	74,92	85,89	95,08	101,8
EER - Energy Efficiency Ratio	-	4,68	4,68	4,52	4,72	4,75
Saved CO2 equivalent Ton ^(*)	[CO ₂ Ton]	81,9	81,7	86,2	98,7	102,3
"Ecodesign" compliance for process application (SEPR)	-	5,69	5,84	5,66	5,87	6,09

REFRIGERANT CIRCUIT						
Refrigerant	-	R290				
GWP	-	3				
Charge of refrigerant - Base unit	[kg]	21,3	21,2	22,4	25,6	26,6
Independent gas circuits	[n°]	2				
Compressors type	-	Semi-hermetic pistons				
Compressors quantity	[n°]	2				
Available steps of capacity	-	2 (75%); 3 (62,5%); 4 (50%)				
Condensing coils type	-	Microchannel				
Fans type	-	Axial AC				
Fans quantity	[n°]	6	6	6	8	8
Fans power input ⁽¹⁾ (total)	[kW]	9,95	9,91	9,87	13,23	13,2
Total air flow	[m ³ /h]	119.600	119.600	119.600	159.500	159.500
Expansion valve type	-	Electronic				
Evaporator water flow ⁽¹⁾	[m ³ /h]	53,8	60,3	66,8	77,2	83,2
Evaporator pressure drop ⁽¹⁾	[kPa]	40,94	49,97	49	53,92	54,13

DESUPERHEATER (option) - A BP/ST/DS/OO/*S						
Heating capacity ⁽²⁾	[kW]	34,4	38,8	46,6	46,5	52,5
Water flow	[m ³ /h]	5,95	6,75	8,18	8,05	9,04
Pressure drop (water side)	[kPa]	13,3	15,4	19,6	19,2	22,4

HEAT RECOVERY (option) - A BP/ST/HR/EC/*S						
Heating capacity ⁽²⁾	[kW]	341	384	432	485	531
Water flow	[m ³ /h]	59,2	66,5	74,8	84,0	92,1
Pressure drop (water side)	[kPa]	38,3	40,1	43,4	48	46,7

Electrical data						
Power supply	-	400/3/50				
Emergency power supply	-	230/1/50				
Maximum power input without pump	[kW]	118,0	128,6	129,6	143,2	145,2
Locked rotor current – LRA without pump	[A]	483,9	582,4	678,9	728,7	732,0
Maximum absorbed current - FLA without pump	[A]	206,2	227,2	234,2	252,6	259,2

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

Standard pump - 250 kPa useful head						
Motor Efficiency	-	IE3				
Pump motor nominal power	[kW]	7,5	7,5	11	11	11
Pump motor nominal current	[A]	13,6	13,6	21,3	21,3	21,3

Standard pump - 450 kPa useful head						
Motor Efficiency	-	IE3				
Pump motor nominal power	[kW]	11	11	15	18,5	18,5
Pump motor nominal current	[A]	21,3	21,3	27,7	35	35

Water connections						
Dimension (nominal external diameter)	[inch/DN]	4" (DN 100)	4" (DN 100)	4" (DN 100)	4" (DN 100)	4" (DN 100)

Noise levels ⁽³⁾						
Total sound power (ST version)	[db(A)]	93	93	94	94	95
Total sound pressure (ST version) - at 1 m distance	[db(A)]	73	73	74	73	74
Total sound pressure (ST version) - at 10 m distance	[db(A)]	61	61	62	62	63
Total sound power (LN version)	[db(A)]	90	90	91	91	92
Total sound pressure (LN version) - at 1 m distance	[db(A)]	70	70	71	70	71
Total sound pressure (LN version) - at 10 m distance	[db(A)]	58	58	59	59	60
Total sound power (SL version)	[db(A)]	88	88	89	89	90
Total sound pressure (SL version) - at 1 m distance	[db(A)]	68	68	69	68	69
Total sound pressure (SL version) - at 10 m distance	[db(A)]	56	56	57	57	58

Reference conditions:

(1) Condenser air intake temperature = 25 °C - Evaporator water temperature IN/OUT = 20/15 °C - Fluid: water - 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 = 20/15°C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel

(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

TETI HE

Dimensions and weights

TETI HE R290 range		13-1-1 PE	26-1-1 PE	34-1-1 PE	42-1-1 PE	52-1-1 PE	59-1-1 PE
DIMENSIONS AND WEIGHTS - Standard unit							
Lenght	[mm]	1380	1680	1680	2330	2330	2980
Width	[mm]	835	1025	1025	1025	1025	1025
Height (ST - LN)	[mm]	1820	2121	2121	2221	2221	2221
Height (SL)	[mm]	-	2208	2208	2308	2308	2308
Shipping weight (A BP/ST/AS/OO/** version)	[kg]	230	355	365	550	550	660
Operating weight (A BP/ST/AS/OO/** version)	[kg]	235	360	370	555	555	667

DIMENSIONS - Large unit							
Lenght	[mm]	1980	2330	2330	2980	2980	3920
Width	[mm]	835	1025	1025	1025	1025	1025
Height (ST - LN)	[mm]	1820	2221	2221	2221	2221	2281
Height (SL)	[mm]	-	2308	2308	2308	2308	2368

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

TETI HE R290 range		76-1-1 PE	88-1-1 PE	104-1-1 PE	124-1-1 PE	105-2-2 PE	116-2-2 PE
DIMENSIONS AND WEIGHTS - Standard unit							
Lenght	[mm]	2980	2980	3920	3920	3920	3920
Width	[mm]	1025	1025	1025	1025	1025	1025
Height (ST - LN)	[mm]	2300	2300	2281	2360	2281	2281
Height (SL)	[mm]	2360	2360	2368	2420	2368	2368
Shipping weight (A BP/ST/AS/OO/** version)	[kg]	750	790	940	1000	975	980
Operating weight (A BP/ST/AS/OO/** version)	[kg]	757	797	948	1008	983	988

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

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

Reference conditions:

- (1) Condenser air intake temperature = 25 °C - Evaporator water temperature IN/OUT = 20/15 °C - Fluid: water - 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 = 20/15°C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel
 - (3) - (2) The declared cooling capacity are not taking into account the pump motor power input (where provided).
- (*) CO2 equivalent tons saved to the Environment compared to the choice of an EUROKLIMAT unit with similar cooling capacity and HFC refrigerant

Dimensions and weights

TETI HE R290 range		147-2-2 PE	175-2-2 PE	215-2-2 PE	287-2-2 PE	248-2-2 PE	293-2-2 PE
DIMENSIONS AND WEIGHTS - Standard unit							
Lenght	[mm]	3920	4200	5500	5500	5500	5500
Width	[mm]	1025	1185	1535	1535	1535	1535
Height (ST - LN)	[mm]	2360	2320	2350	2350	2350	2350
Height (SL)	[mm]	2420	2380	2410	2410	2410	2410
Shipping weight (A BP/ST/AS/OO/** version)	[kg]	1145	1380	1690	1686	1700	1745
Operating weight (A BP/ST/AS/OO/** version)	[kg]	1153	1390	1700	1701	1710	1755

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

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

TETI HE R290 range		313-2-2 PV	350-2-2 PV	388-2-2 PV	449-2-2 PV	484-2-2 PV
DIMENSIONS AND WEIGHTS - Standard unit						
Lenght	[mm]	4015	4015	4015	5135	5135
Width	[mm]	2280	2280	2280	2280	2280
Height (ST - LN)	[mm]	2535	2535	2535	2535	2535
Height (SL)	[mm]	2560	2560	2560	2560	2560
Shipping weight (A BP/ST/AS/OO/** version)	[kg]	2495	2515	2560	2900	2915
Operating weight (A BP/ST/AS/OO/** version)	[kg]	2513	2533	2578	2920	2935

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

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

Reference conditions:

- (1) Condenser air intake temperature = 25 °C - Evaporator water temperature IN/OUT = 20/15 °C - Fluid: water - 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 = 20/15°C - Fluid: ethylene glycol - Condensing coil: Cu/Al or microchannel
 - (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