

PACK IST EVO INDUSTRIALE

Factory-made hybrid system with condensing boiler and monobloc air/water heat pump to produce heating, air conditioning and domestic hot water for industrial users



Technical and construction characteristics

PACK IST EVO INDUSTRIALE it is a hybrid system designed to enhance the symbiosis between multiple energy carriers and therefore concretely contribute to the reduction of consumption and polluting emissions into the atmosphere.

This new system with monobloc R32 heat pump and very high efficiency backup boiler has been designed to be applied to newly built or existing industrial, commercial and tertiary buildings.

PACK IST EVO INDUSTRIALE is composed of:

- R32 inverter monobloc heat pump mod. HPE EVO 16T;
- Factory pre-assembled thermal module, consisting of a

inertial accumulation of 58 liters of technical water with enclosed 34.5 kW backup condensing boiler;

- Aeroclima mod. STYLE 15 hot/cold or LC 40 hot only as a system terminal.

This innovative technical solution, combined with our new advanced B-TOUCH command and control system, guarantees customers environmental comfort, energy savings, and allows them to take advantage of the Conto Termico 2.0 incentive or alternatively the ECOBONUS tax deduction.

PACK IST EVO INDUSTRIALE is supplied as standard with a thermal module consisting of inertial storage, boiler, inverter circulator, additional 8 liter expansion vessel, jolly air vent valve, safety valve, filling unit and antifreeze electric resistance.

PACK IST EVO INDUSTRIALE has been designed to be installed inside the room to be air conditioned or outside, for rooms subject to fire prevention, using the appropriate cover box to be chosen from the accessories.

THE REASONS FOR THE CHOICE:

- All in one factory made hybrid system capable of producing heating, cooling and DHW;
- Flexible installation even as a replacement for air generators existing hot;
- Works even with very rigid external air rich in humidity, thanks to the backup condensing boiler;
- Increases the value of the property where located, which acquires a higher energy class thanks to the priority use of renewable energies;
- 50 liter inertial storage tank inserted on board the thermal module;
- PACK IST EVO INDUSTRIALE is included among the products tax deductible (ECOBONUS for the replacement of the existing winter air conditioning system), alternatively the Conto Termico 2.0 incentive can be requested.



POWER RENEWABLE



COMPRESSOR DC INVERTER



INSTALLATION PLUG AND PLAY



STANDARD WI - FI



STANDARD CONTROLLER



GAS ECOLOGICAL R32



CONDITIONING UP TO 5°C



HEATING UP TO 80°C



DHW WITHOUT LEGIONELLA



SYSTEM HYBRID PdC

Model PACK IST EVO INDUSTRIALE U.I.

	Code	€
Internal unit PACK IST EVO INDUSTRIALE 16 / 34 wall installation	76851925	5.850,00
Internal unit PACK IST EVO INDUSTRIALE 16 / 34 built-in	76854026	6.300,00

Model external unit monobloc HP U.E.

	Thermal power kW	Cooling power kW		
HPE EVO 16T Three phase	16,00	15,40	37960008	9.680,00

Model air heater

Aeroclima STYLE 15 Cold/Hot	30410001	2.670,00
Aerotermo LC 40 only hot	30401030	1.950,00














PACK IST EVO INDUSTRIALE

Factory made hybrid system with condensing boiler and monobloc air/water heat pump for production heating, air conditioning and domestic hot water on industrial users

Accessories PACK IST EVO INDUSTRIALE		Code	€
	Advanced command and control system composed of an electronic board on the air heater wired in the factory and a smart user interface with B-TOUCH backlit display equipped with an electronic room probe	36205231	420,00
	3-speed electronic room thermostat (for aéroclima STYLE 15)	50005230	82,00
	Basic 3-speed control (for aéroclima STYLE 15)	36205212	52,00
	On/off room thermostat with display (for LC 40 air heater)	75100007	80,00
	Mechanical consensus thermostat	36205214	36,00
	Diverter valve kit	37920013	334,00
	PACK IST EVO INDUSTRIALE covering box mandatory for the installation of the internal unit outside the building made of insulated white painted galvanized steel Height 160 cm - Width 80 cm - Depth 35 cm	75101022	560,00
	ATC - Hot - cold thermal flywheel and 75 liter hydraulic separator, for monobloc heat pump with rigid polyurethane foam with high thermal insulation	37900838	1.380,00
	Additional 6 liter system expansion tank	10726306	98,00
	Expansion vessel installation kit on board the ATC hot - cold thermal flywheel with connection pipes and cover panel	76802021	140,00
	Anti-vibration floor base in vulcanized rubber (height from the ground 95 mm, length 600 mm) with screws (package of 2 pieces)	75100042	120,00
	ATC accumulation support Omega in galvanized sheet metal	75100043	80,00
	Automatic antifreeze valve, brass body, 1"1/4 threaded connections, opening temperature 3 °C	30403145	196,00
	Adjustable semi-automatic self-cleaning magnetic dirt separator for vertical and horizontal installations with 1"1/4 threaded connections	30403137	480,00
	Thermal and anti-condensation insulation for 1" 1/4 self-cleaning magnetic dirt separator	30403132	48,00

PACK IST EVO INDUSTRIALE

Factory-made hybrid system with condensing boiler and monobloc air/water heat pump to produce heating, air conditioning and domestic hot water for industrial users

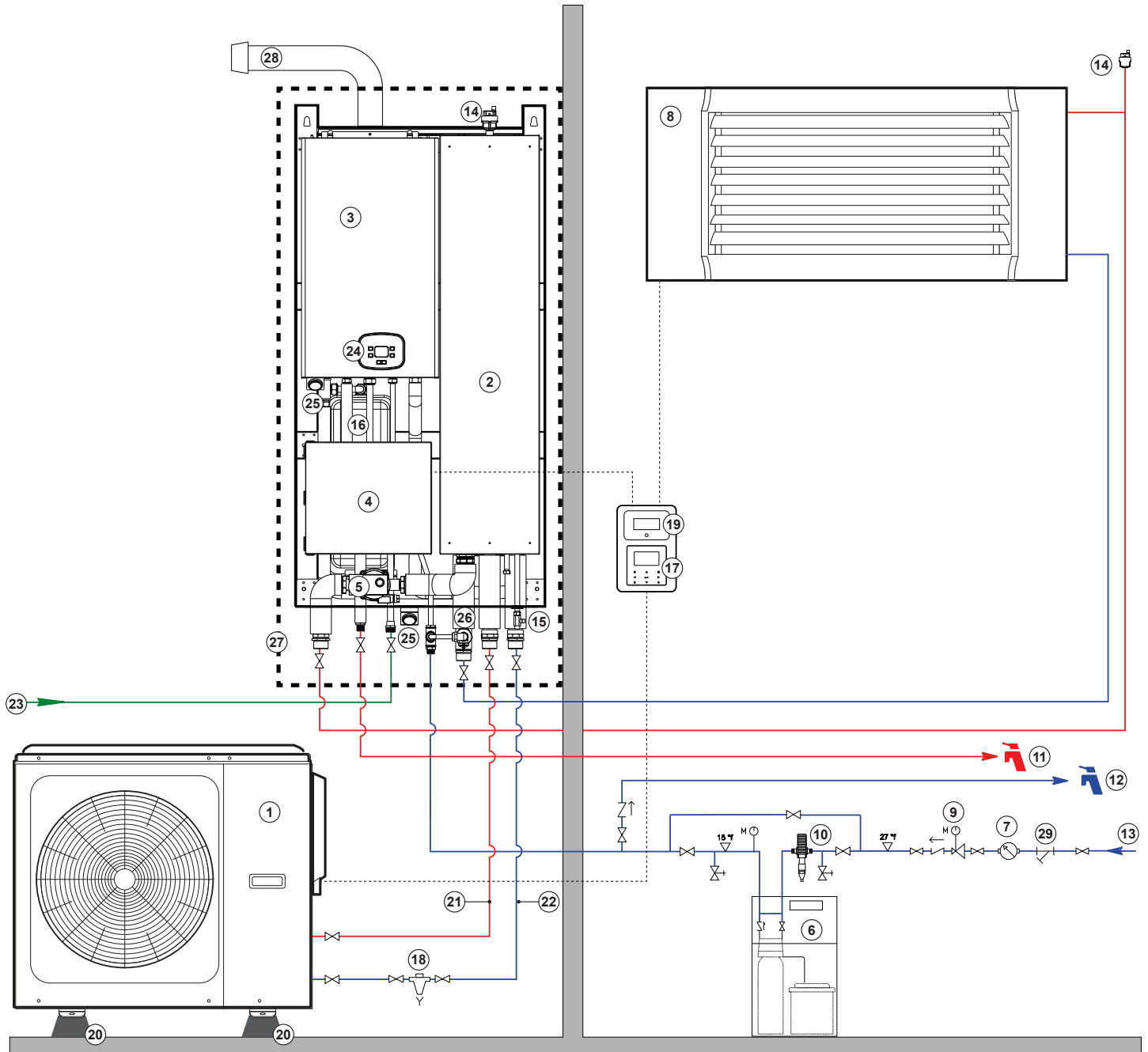
Accessories PACK IST EVO INDUSTRIALE		Code	€
	Three-phase air destratifier/mixer for the uniform distribution of heat inside the rooms to be air-conditioned	mod. ARIANNE 1 mod. ARIANNE 2	39500001 890,00 39600001 960,00
	Single-phase air destratifier/mixer for the uniform distribution of heat inside the rooms to be air-conditioned	mod. ARIANNE 3	39800000 850,00
	Coaxial vertical outlet Ø 60/100 with smoke extraction		30403124 32,00
	Coaxial starting curve Ø 60/100 at 90° with smoke extraction		30403123 38,00
	Separate duct kits Ø 80/80 with smoke extraction		30403022 50,00
	Curve 90° Ø 80 M/F		30403013 8,00
	Curve 45° Ø 80 M/F		30403012 8,00
	Extension Ø 80 M/F = 1000 mm		30403011 10,00
	Curve 90° coaxial Ø 60/100 M/F		30403004 38,00
	Curve 45° coaxial Ø 60/100 M/F		30403003 30,00
	Coaxial extension Ø 60/100 M/F = 1000 mm		30403002 28,00
	Coaxial fume exhaust kit Ø 60/100		30403000 60,00
	Coaxial roof terminal Ø 60/100		30403014 144,00

PACK IST EVO INDUSTRIALE

Factory made hybrid system with condensing boiler and monobloc air/water heat pump for production heating, air conditioning and domestic hot water on industrial users

Application example HUB RADIATOR PACK IST EVO INDUSTRIALE with external thermal module

Factory made hybrid system for the summer and winter air conditioning of an industrial premises with instant production of domestic hot water. This solution involves a 16 kW three-phase inverter monobloc heat pump that works on a 58 liter technical inertial storage tank located inside a thermal module where there is also a 34.4 kW condensing boiler and an inverter electronic circulator for power the secondary circuit both in summer and winter. A STYLE 15 model hot/cold air heater is provided as the system terminal, while DHW production is entrusted to the condensing boiler alone. In this application the thermal module is positioned outside the building to be air conditioned thanks to the application of the optional cover box. Everything is managed by the latest generation B-TOUCH electronic control which allows for high comfort with maximum energy efficiency, thanks to the monitoring of external climatic conditions and the continuous modulation control of the STYLE 15 fans.



- 1 HPE EVO 16T monobloc heat pump
- 2 58 liter technical inertial storage units
- 3 34.4 kW modulating condensing boiler
- 4 Electrical panel with connection terminal block
- 5 System inverter electronic circulator
- 6 Volumetric softener
- 7 Aqueduct meter
- 8 Aeroclima STYLE 15 system terminal hot Cold
- 9 Aqueduct pressure reducer
- 10 Sand trap filter
- 11 Domestic hot water delivery

- 12 Domestic cold water delivery
- 13 Water mains input
- 14 Automatic air vent jolly valve
- 15 Technical accumulation emptying cock inertial 1/4" F
- 16 8 liter system expansion vessel
- 17 Monobloc heat pump remote control with integrated WI-FI
- 18 Self-cleaning magnetic dirt separator with shell of insulation
- 19 Advanced command and control system B-TOUCH

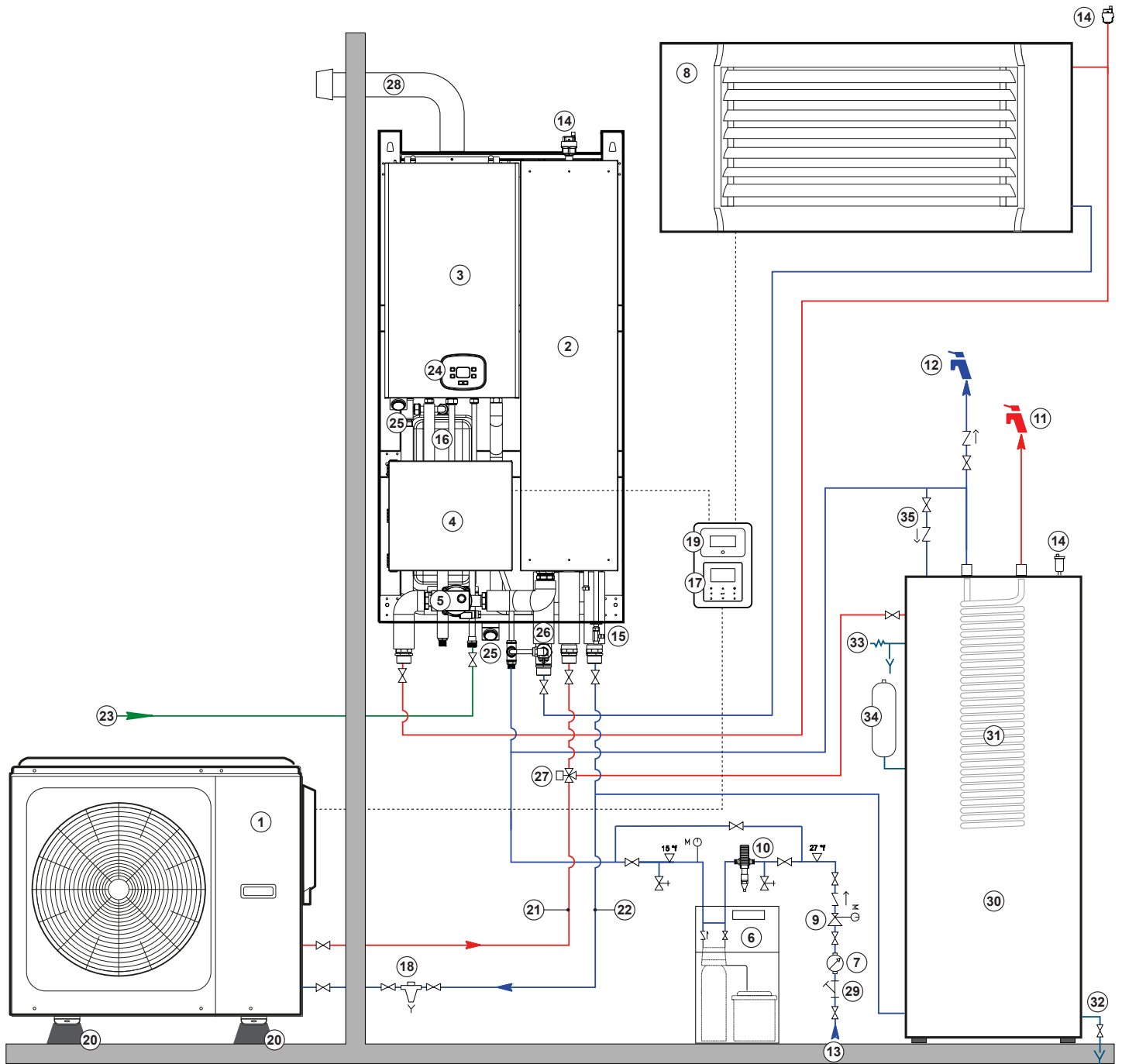
- 20 Vulcanized rubber anti-vibration base
- 21 1" 1/4 hydraulic line (HP delivery)
- 22 1" 1/4 hydraulic line (HP return)
- 23 Natural gas/LPG fuel inlet
- 24 Boiler digital electronic control unit
- 25 Pressure gauge
- 26 System make-up cock
- 27 Cover box for outdoor installation of the building to be air-conditioned
- 28 Boiler coaxial fume exhaust
- 29 "Y" mechanical filter

PACK IST EVO INDUSTRIALE

Factory made hybrid system with condensing boiler and monobloc air/water heat pump for production heating, air conditioning and domestic hot water on industrial users

Application example HUB RADIATOR PACK IST EVO INDUSTRIALE with indoor thermal module

Factory made hybrid system for the summer and winter air conditioning of an industrial premises with production of domestic hot water from a renewable source. This solution involves a 16 kW three-phase inverter monobloc heat pump that works on a 58 liter technical inertial storage tank located inside a thermal module where there is also a 34.4 kW condensing boiler and an inverter electronic circulator for power the secondary circuit both in summer and winter. A STYLE 15 model hot/cold air heater is provided as the system terminal, while the production of domestic hot water is entrusted only to the monobloc heat pump which also heats an additional 220 liter puffer (POWER UNIT) equipped with a rapid DHW exchanger in finned copper. Everything is managed by the latest generation B-TOUCH electronic control which allows for high comfort with maximum energy efficiency.



- 1 HPE EVO 16T monobloc heat pump
- 2 58 liter technical inertial storage units
- 3 34.5 kW modulating condensing boiler
- 4 Electrical panel with connection terminal block
- 5 System inverter electronic circulator
- 6 Volumetric softener
- 7 Aqueduct meter
- 8 Aeroclima STYLE 15 system terminal hot Cold
- 9 Aqueduct pressure reducer
- 10 Sand trap filter
- 11 Domestic hot water delivery
- 12 Domestic cold water delivery
- 13 Water mains inlet

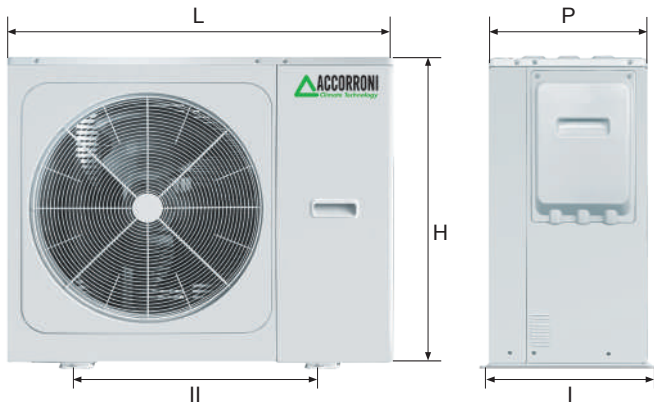
- 14 Automatic air vent jolly valve
- 15 Technical accumulation emptying cock inertial 1/4" F
- 16 8 liter system expansion vessel
- 17 Monobloc heat pump remote control with integrated WI-FI
- 18 Self-cleaning magnetic dirt separator with shell of insulation
- 19 Advanced command and control system B-TOUCH
- 20 Vulcanized rubber anti-vibration base
- 21 1" 1/4 hydraulic line (HP delivery)
- 22 1" 1/4 hydraulic line (HP return)
- 23 Methane gas/LPG fuel inlet

- 24 Boiler digital electronic control unit
- 25 Pressure gauge
- 26 System make-up cock
- 27 Motorized diverter valve for production of DHW from renewable sources
- 28 Boiler coaxial flue gas exhaust
- 29 "Y" mechanical filter
- 30 Puffer POWER UNIT mod. 220 LT - H 210 DOUBLE
- 31 Rapid DHW exchanger in finned copper
- 32 POWER UNIT puffer emptying cock
- 33 POWER UNIT puffer safety valve
- 34 POWER UNIT puffer expansion vessel
- 35 POWER UNIT manual filling group

PACK IST EVO INDUSTRIALE

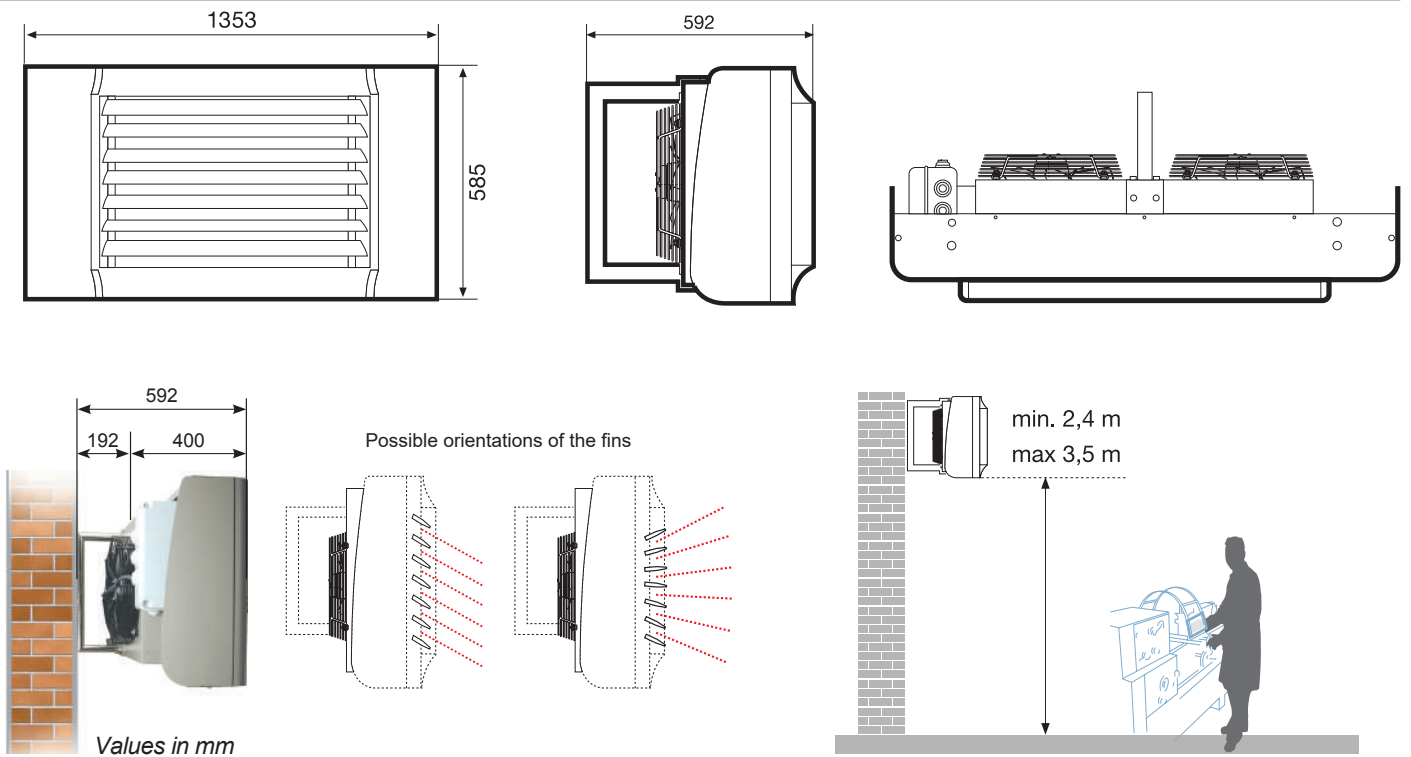
Factory made hybrid system with condensing boiler and monobloc air/water heat pump for production heating, air conditioning and domestic hot water on industrial users

External unit dimensions and weights PACK IST EVO INDUSTRIALE

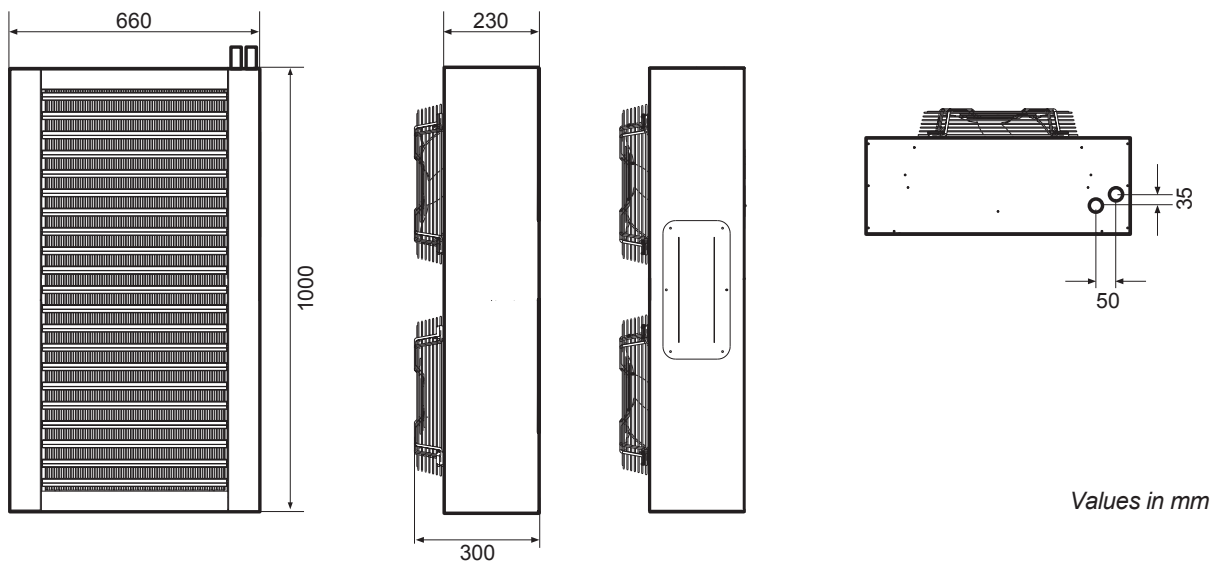


Model	L	H	P	I	II	Weight
	mm	mm	mm	mm	mm	Kg
HPE EVO 16T (U.E.)	1068	865	450	458	656	87

Dimensions and installation instructions for the STYLE 15 heating/air conditioning unit



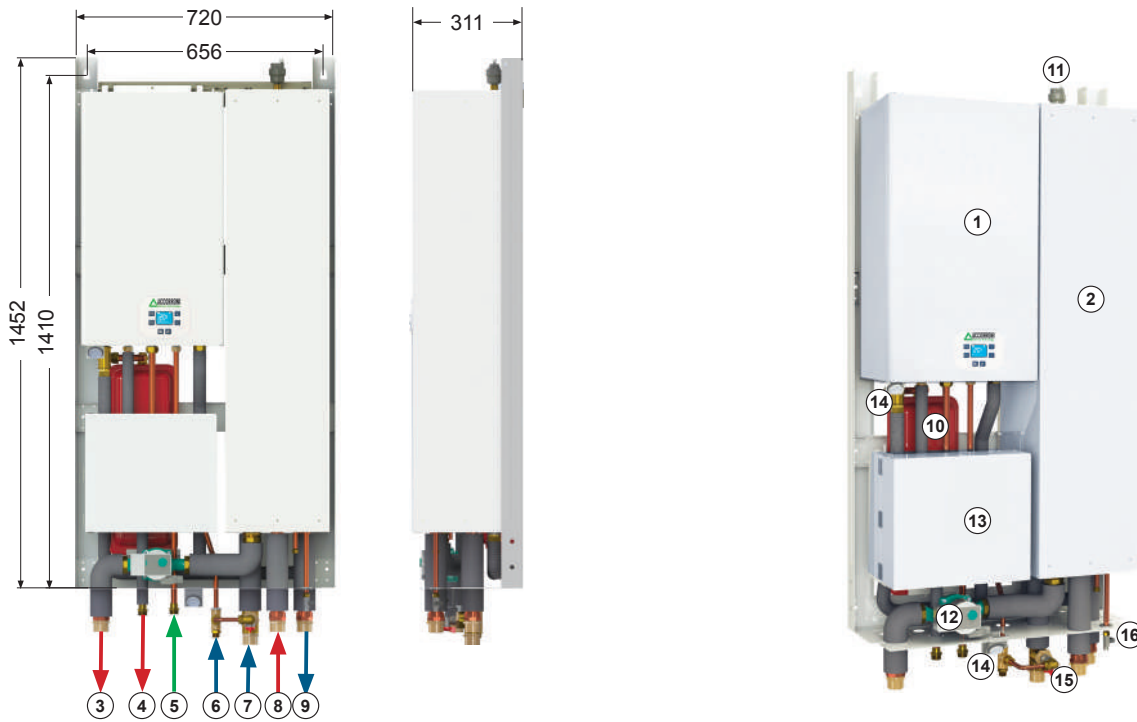
Dimensions Aerotermo LC 40 only heating



Values in mm

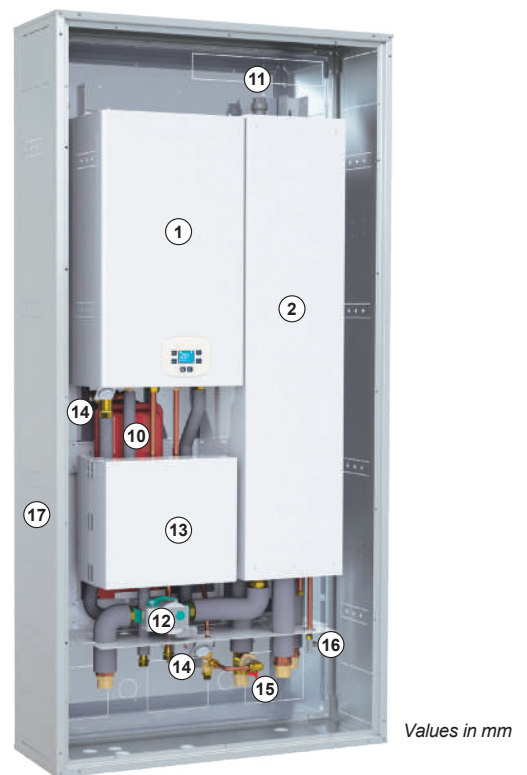
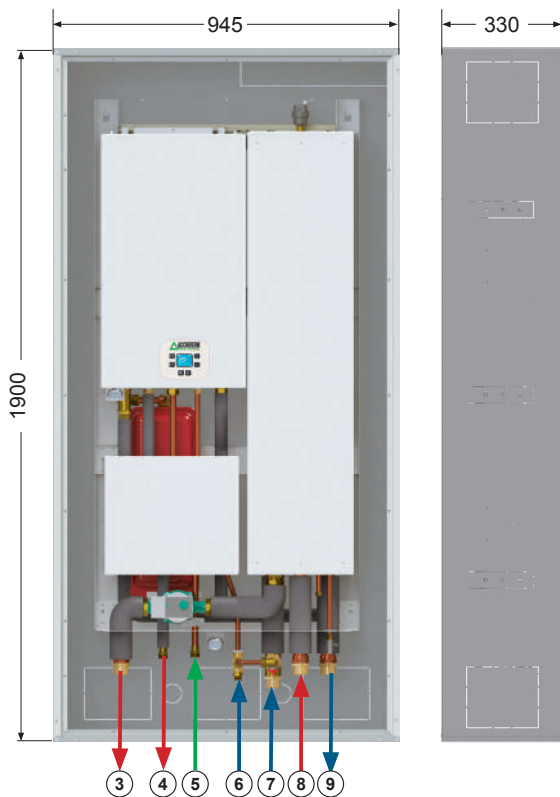
PACK IST EVO INDUSTRIALE

Factory made hybrid system with condensing boiler and monobloc air/water heat pump for production heating, air conditioning and domestic hot water on industrial users



Values in mm

Dimensions and axonometry internal unit PACK IST EVO INDUSTRIALE built-in



Values in mm

- 1 34.5 kW back-up condensing boiler
- 2 Inertial accumulation of technical water (puffer) of 58 litres
- 3 Summer and winter air conditioning circuit delivery 1"1/4 M
- 4 Domestic hot water circuit delivery 1/2" M
- 5 3/4" M methane/LPG gas inlet
- 6 Domestic cold water inlet 1/2" M
- 7 Summer and winter air conditioning circuit return 1"1/4 M
- 8 Monobloc heat pump hydronic line delivery HPE EVO 16 T da 1"1/4 M

- 9 HPE EVO monobloc heat pump hydronic line return 16 T of 1"1/4 M
- 10 8 liter expansion tank
- 11 Automatic air vent jolly valve in polymer material
- 12 System inverter electronic circulator
- 13 Electrical panel with connection terminal block
- 14 Puffer technical water pressure gauge
- 15 Manual puffer filling group tap
- 16 1/4" M puffer emptying tap
- 17 Wall recessed template

PACK IST EVO INDUSTRIALE

Factory made hybrid system with condensing boiler and monobloc air/water heat pump for production heating, air conditioning and domestic hot water on industrial users

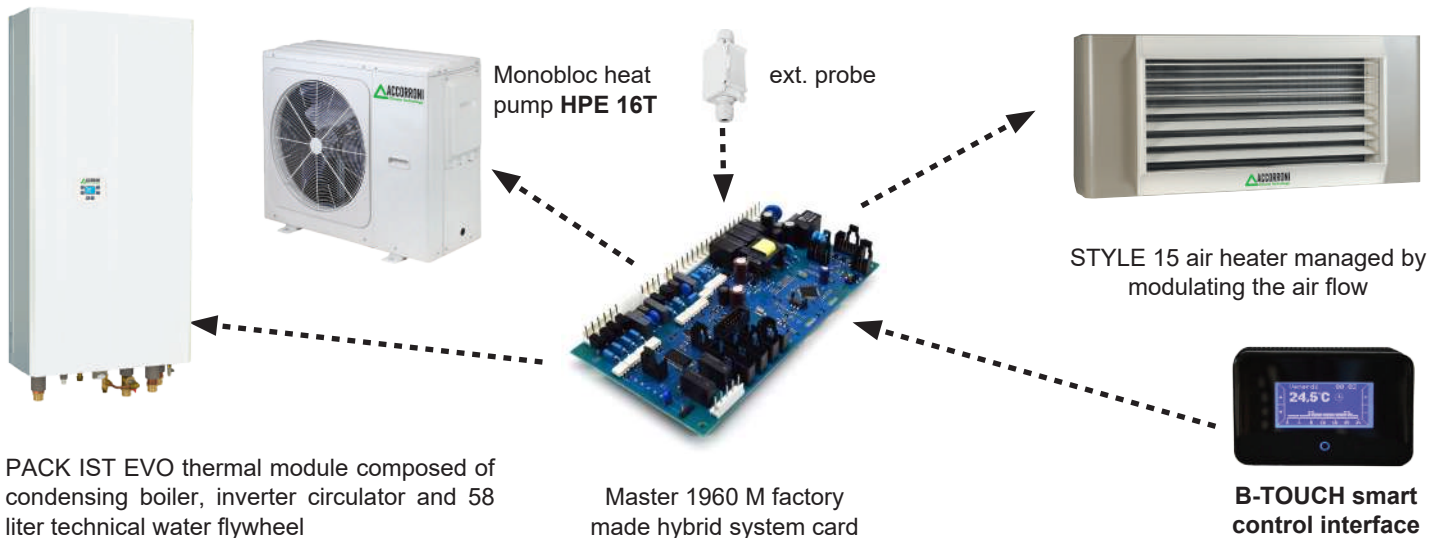
Advanced and self-adaptive command and control logic PACK IST EVO INDUSTRIALE

The PACK IST EVO INDUSTRIALE system can be combined with a latest generation SMART GEST electronic control, entirely developed by the technicians of A2B Accorroni E.G. S.r.l., thanks to their many years of experience in the world of industrial air conditioning, in the design of patented heat pump systems and in the GREEN ECONOMY sector.

This innovative electronic control (B-TOUCH) allows all the technological components present in the PACK IST EVO INDUSTRIALE system to communicate transversally via RS485 and OPENTHERM communication protocols, furthermore it allows the external climatic conditions to be constantly monitored in order to maximize the energy efficiency of the factory made hybrid system.

This control allows the system to be interfaced with any photovoltaic system present on site so as to dynamically parameterize the climate curve and the priority logic between the various energy carriers.

All the functions implemented can be managed manually via B-TOUCH control to be installed inside the room to be air conditioned or remotely via data cable connection (ethernet).



Factory made hybrid system management logic with ENERGY MANAGER function (ECO mode)

With the Economy (ECO) function active in winter mode, if the external air temperature (S_{air_est}) is higher than or equal to P13 ($4\text{ }^{\circ}\text{C}$) the storage water Set-Point must be equal to P15 ($54\text{ }^{\circ}\text{C}$), just the storage temperature drops to the value

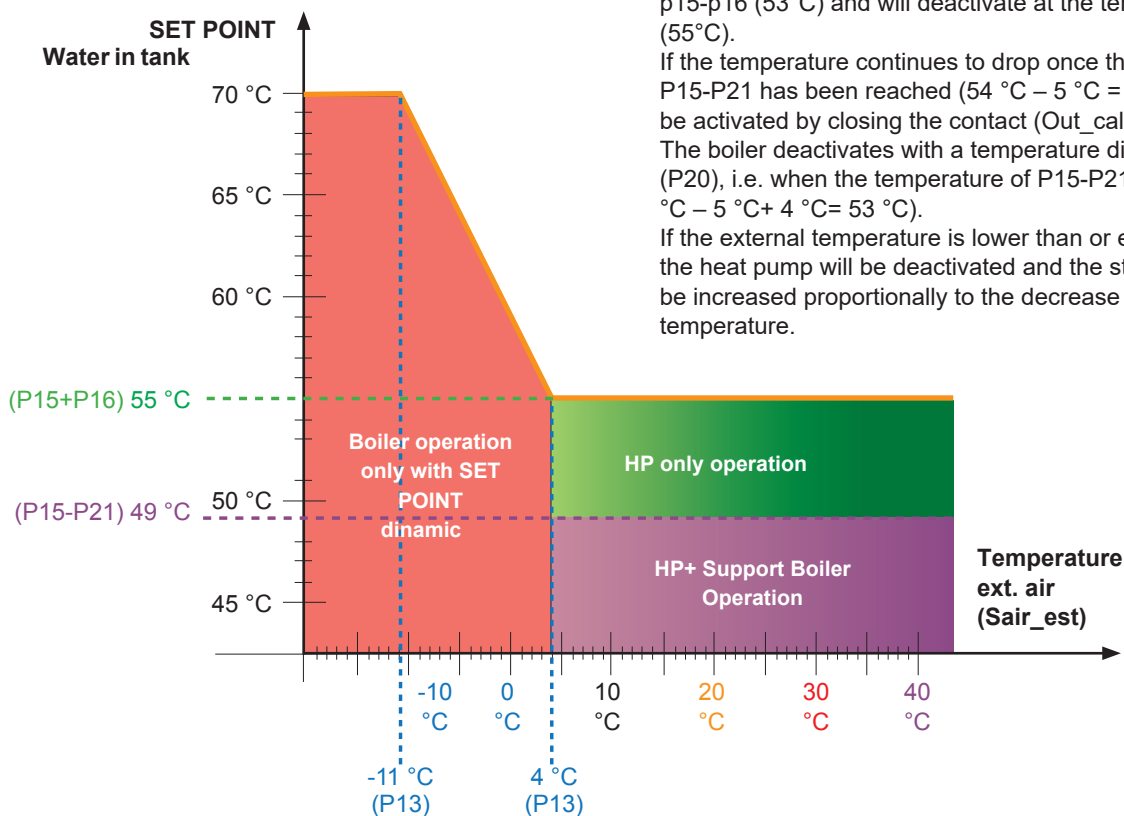
P15 - P16 ($54\text{ }^{\circ}\text{C} - 0,5\text{ }^{\circ}\text{C} = 53,5\text{ }^{\circ}\text{C}$) the inverter monobloc heat pump will be activated.

The hysteresis of the first level (heat pump) is negative and positive, i.e. the heat pump will activate at the temperature of p15-p16 ($53\text{ }^{\circ}\text{C}$) and will deactivate at the temperature p15+p16 ($55\text{ }^{\circ}\text{C}$).

If the temperature continues to drop once the temperature of P15-P21 has been reached ($54\text{ }^{\circ}\text{C} - 5\text{ }^{\circ}\text{C} = 49\text{ }^{\circ}\text{C}$) the boiler will be activated by closing the contact (Out_cald).

The boiler deactivates with a temperature differential of $4\text{ }^{\circ}\text{C}$ (P20), i.e. when the temperature of P15-P21+P20 is reached ($54\text{ }^{\circ}\text{C} - 5\text{ }^{\circ}\text{C} + 4\text{ }^{\circ}\text{C} = 53\text{ }^{\circ}\text{C}$).

If the external temperature is lower than or equal to P13 ($4\text{ }^{\circ}\text{C}$) the heat pump will be deactivated and the storage set-point will be increased proportionally to the decrease in the external temperature.



PACK IST EVO INDUSTRIALE

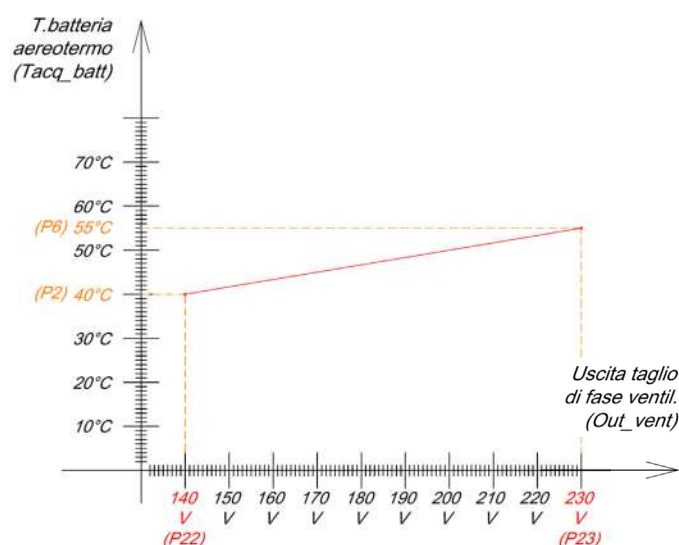
Factory-made hybrid system with condensing boiler and monobloc air/water heat pump to produce heating, air conditioning and domestic hot water for industrial users

Air heater fan management logic in winter mode

The internal unit fan (air heater) in the winter phase is activated if and only if the battery temperature (Sacq_batt) exceeds the temperature value defined by parameter P2, at minimum speed (140 Volt parameter P22) for at least 180 seconds (parameter P12).

Once 180 seconds have passed the fan begins to modulate based on the temperature reading on the air heater battery, a directly proportional link, as the battery temperature rises the fan increases the air flow proportionally and vice versa.

To make everything easier, it is possible to set a straight line with a minimum and a maximum with a proportional increase; the temperature P2 corresponds to a value of 140 Volt (industrial version parameter P22) and the temperature P6 or higher corresponds to the maximum speed of 230 Volt (industrial version parameter P23).



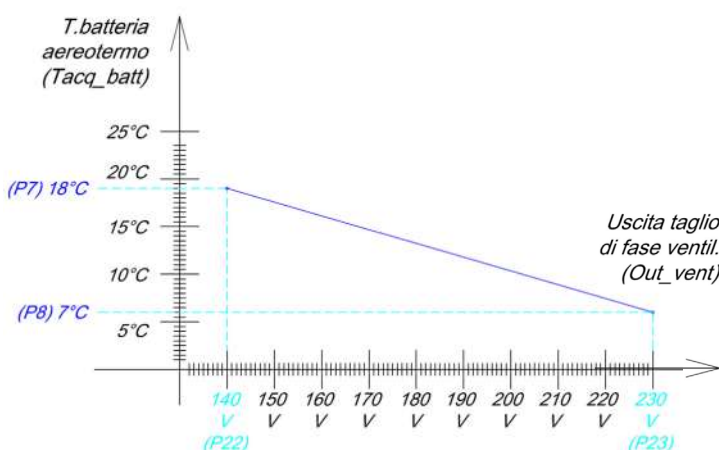
Air heater fan management logic in summer mode

The fan in the summer phase is activated when the battery drops below the temperature value defined by parameter P7 at minimum speed 140 Volt (parameter P22) for at least 180 seconds.

Once 180 seconds have passed the fan will begin to modulate based on the temperature reading of the air heater battery, an inversely proportional relationship, as the battery temperature drops the fan increases speed and vice versa.

To make everything easier, a straight line can be set with a minimum and a maximum with a proportional increase; the temperature P7 corresponds to a value of 140 Volt (parameter P22) and the temperature P8 or lower corresponds to the maximum speed of 230 Volt (parameter P23).

A proportional increase in the signal will be maintained between these 2 variable values.



Function SMART GRID

This function is designed to allow the user to maximize the self-consumption of electricity available on site (in case there is a photovoltaic system) or to make up for any prolonged boiler failure. The "SMART GRID" function can be activated both in manual mode by acting directly on the B-TOUCH control panel, and in automatic mode via a dedicated dry contact. Manual activation inhibits automatic dry contact activation. With this mode active (regardless of the external temperature) only the heat pump will operate.

Through this function it is also possible to activate a second HP set-point preparatory to maximizing self-consumption of electricity (up to a maximum of 65 °C).

Function SILENCE

Function that can only be activated in winter mode which involves the temporary deactivation of the heat pump, in this situation only the boiler remains active, a function that can be activated automatically via chrono programming on the B-TOUCH control panel.

Alternatively, via parameter P33 of the "Installer" menu, it is possible to choose whether to set the "SILENCE" function in manual mode, which can be activated via the screen that appears following a prolonged press of the ◀ button on the B-control TOUCH.

Function BOOST winter

When this function is activated, the circulator and fan of the air heater work at 100%.

If the battery temperature (Sacq_batt) falls below P2, ventilation will be temporarily interrupted (Out_vent output at Volts) and will be reactivated at the temperature P2 + P3 (hysteresis).

In this function, regardless of the external temperature, the thermal energy of the boiler will always be chosen as the sole heating source.

The BOOST function is intended only in winter mode with manual activation and has been designed to air condition industrial premises after a short period of inactivity (weekend) so as to reduce the time needed to bring it up to speed.

Function LOADING / UNLOADING GOODS

This function is activated only and exclusively by a dedicated external clean contact.

The purpose of this function is to inhibit the activation of the circulator when the contact is closed, so as to interrupt both the summer and winter air conditioning service in conjunction with the "unloading and loading of goods".

If the "door open" contact is CLOSED the circulator will remain stopped (PWM signal 0%).

If the "door open" contact is OPEN, the system will operate normally.

PACK IST EVO INDUSTRIALE

Factory made hybrid system with condensing boiler and monobloc air/water heat pump for production heating, air conditioning and domestic hot water on industrial users

PACK IST EVO INDUSTRIALE thermal module technical data table

DESCRIPTION	U.M.	PACK IST EVO INDUSTRIALE 16/34
Minimum heat output of the boiler in methane gas heating G20	kW	3,4
Maximum heat output of the boiler in G20 methane gas heating	kW	34,5
Minimum heat output of the boiler in methane gas heating LPG	kW	3,4
Maximum heat output of the boiler in LPG gas heating	kW	34,5
Minimum heat output of the boiler in heating (80-60 °C) methane gas G20	kW	3,3
Maximum boiler heat output in heating (80-60 °C) G20 methane gas	kW	33,3
Minimum boiler heat output in heating (80-60 °C) LPG gas	kW	3,3
Maximum boiler heat output in heating (80-60 °C) LPG gas	kW	33,3
Minimum heat output of the boiler in heating (50-30 °C) methane gas G20	kW	3,5
Maximum boiler heat output in heating (50-30 °C) methane gas G20	kW	36,1
Minimum boiler heat output in heating (50-30 °C) LPG gas	kW	3,5
Maximum boiler heat output in heating (50-30 °C) LPG gas	kW	36,1
Supply pressure for boiler powered by G20 methane gas	mbar	20
LPG gas boiler supply pressure	mbar	30/37
Diaphragm diameter of boiler powered by G20 methane gas	mm	6,3
Diaphragm diameter of boiler powered by LPG gas	mm	6,3
Minimum CO2 emission from boiler powered by G20 methane gas	%	8,5
Maximum CO2 emission from boiler powered by G20 methane gas	%	9,5
Minimum CO2 emission boiler powered by LPG gas	%	10,0
Maximum CO2 emission from boiler powered by LPG gas	%	10,9
Minimum pressure of the heating circuit	bar	0,5
Maximum pressure of the heating circuit	bar	3
Useful thermal efficiency of the boiler at maximum power (60/80 °C)	%	97,3
Useful thermal efficiency of the boiler at maximum power (30/50 °C)	%	104,5
Useful thermal efficiency of the boiler at min. power (60/80 °C)	%	92,9
Useful thermal efficiency of the boiler at min. power (30/50 °C)	%	102,8
Useful thermal efficiency of the boiler at 30% of the load	%	110,0
Emission class NO _x		6
Emission NO _x	mg/kWh	55
Smoke temperature	°C	74,5
Max operating temperature in heating	°C	85,0
Methane gas consumption at maximum flow rate in heating ⁽¹⁾	m ³ /h	3,55
LPG consumption at maximum flow rate in heating ⁽¹⁾	m ³ /h	1,35
Seasonal space heating boiler energy efficiency	%	94,0
Useful boiler efficiency at PN at high temperature regime ⁽²⁾	%	87,6
Boiler useful efficiency at 30% of PN at low temperature ⁽³⁾	%	98,9
Heat loss in boiler stand-by	kW	0,069
Boiler annual energy consumption	GJ	103,4
Boiler seasonal energy efficiency class		A
Inertial technical water storage volume	l	58
Expansion vessel volume	l	9+8
System delivery/return connections mod. 5 - 7 - 9		1"
System delivery/return connections mod. 12 - 14 - 16		1" 1/4
Domestic hot water and cold water connections		1"
Methane gas inlet connection G20/GPL		3/4"
Boiler condensate drain hose diameter	mm	22
Coaxial smoke extraction duct diameter	mm	60/100
Diameter of double rope evacuation ducts	mm	80
Maximum system circulator flow rate	m ³ /h	3,3
Maximum system circulator head	m	6,2
Maximum electrical power absorbed by the boiler	W	102
Power supply		230V/1/50Hz

⁽¹⁾ Value referred to the temperature of 15 °C external and 1013 mbar

⁽²⁾ High temperature regime with 60 °C return and 80 °C delivery

⁽³⁾ Low temperature regime 30 °C (return temperature at the boiler inlet)

PACK IST EVO INDUSTRIALE

Factory-made hybrid system with condensing boiler and monobloc air/water heat pump to produce heating, air conditioning and domestic hot water for industrial users

Heat pump technical data table HPE EVO 16T INVERTER R32

Model		U.M.	16-16T
Heating (1)	Thermal power	kW	16,00
	Absorbed power	kW	3,55
	COP	W/W	4,50
Heating (2)	Thermal power	kW	16,00
	Absorbed power	kW	5,61
	COP	W/W	2,85
Cooling (3)	Cooling power	kW	15,40
	Absorbed power	kW	3,66
	EER	W/W	4,20
Cooling (4)	Cooling power	kW	14,00
	Absorbed power	kW	4,82
	EER	W/W	2,90
Seasonal heating thermal efficiency class (5)	LWT at 35 °C		A+++
	LWT at 55 °C		A++
SCOP (5)	LWT at 35 °C		4,84
	LWT at 55 °C		3,59
SEER (5)	LWT at 7 °C		5,11
	LWT at 18 °C		7,49
Sound power level (6)		dB(A)	72
External fan	Air flow	m ³ /h	5200
Electrical supply			400V/3+N/50Hz
Water pipe connections			1"1/4
Pressure set in the safety valve		MPa	0,3
Total volume of water		l	5
Nominal head circulator		m c.a.	9
Operation limits	Cooling	°C	-5 / +43
	Heating	°C	-25 / +35
	DHW	°C	-25 / +43
LWT range	Cooling	°C	+5 / +30
	Heating	°C	+12 / +65
	DHW	°C	+10 / +60
Refrigerant	Type (GWP)		R32 (675)
	Volume loaded	Kg	1,25
Expansion valve			Electronic
Net dimensions (WxHxD)		mm	1040 x 865 x 410
Dimensions with packaging (WxHxD)		mm	1190 x 970 x 560
Net / gross weight		Kg	87 / 103

1) Outside air temperature 7 °C DB, 85% R.H.; EWT 30 °C, LWT 35 °C.

2) Outside air temperature 7 °C DB, 85% R.H.; EWT 47 °C, LWT 55 °C.

3) Outside air temperature 35 °C DB; EWT 23 °C, LWT 18 °C.

4) Outside air temperature 35 °C DB; EWT 12 °C, LWT 7 °C.

5) Seasonal energy efficiency for heating (average climate)

6) Maximum sound power level tested in conditions of:

a) Heating with external air temperature 7 °C DB, 6 °C WB; EWT 30 °C, LWT 35 °C;

b) Heating with external air temperature 7 °C DB, 6 °C WB; EWT 47 °C, LWT 55 °C;

c) Cooling with external air temperature 35 °C DB, 24 °C WB; EWT 12 °C, LWT 7 °C.

PACK IST EVO INDUSTRIALE

Factory made hybrid system with condensing boiler and monobloc air/water heat pump for production heating, air conditioning and domestic hot water on industrial users

Technical data table AEROCLIMA STYLE 15

DESCRIPTION	U.M.		STYLE 15
Inlet water heating power 70°C (ΔT 10°C) room air temperature 20°C	kW	max	42,50
		med	32,40
		min	26,70
Water flow	l/h		3655
Pressure drops	kPa		14,1
Hydraulic circuit volume	l		6,0
Air side temperature difference	°C	max	31,5
		med	34,9
		min	37,2
Inlet water heating power 50°C (ΔT 5°C) room air temperature 20°C	kW	max	25,80
		med	19,60
		min	16,20
Water flow	l/h		4438
Pressure drops	kPa		21,4
Air side temperature difference	°C	max	19,1
		med	21,1
		min	22,6
Total cooling capacity water in. 7°C (DT 5°C) d.b. air temperature 27°C, b.u. 19°C (47% R.H.)"	kW	max	17,40
		med	13,90
		min	11,80
Cooling capacity Sensitive water in. 7°C (DT 5°C) temp. low air 27°C, b.u. 19°C (47% R.H.)"	kW	max	14,50
		med	11,10
		min	9,20
Water flow	l/h		2993
Pressure drops	kPa		11,4
Air flow	m ³ /h	max	4000
		med	2750
		min	2130
Auxiliary speeds (*)	n. / (m ³ /h)		15 / (1080÷4600)
Number fans	n.		2
Sound pressure (5 meters in free field with directionality factor =2)	dB(A)	max	49,6
		med	42,3
		min	37,7
Sound power	dB(A)	max	71,6
		med	64,3
		min	59,7
Sound pressure auxiliary speed min-max (**)	dB(A)		34,8÷65,3
Power supply			230V/1/50Hz
Launch	m	vel. max	22
		vel. min	15
Electrical power absorbed	W	max	220
		med	200
		min	180
Max current absorbed	A		1,20
Degree of protection for fan(s).			IP44
Degree of protection of the device			IP24
OPERATING LIMITS			
Inlet water temperature min÷max	°C		3÷80
Pression max	kPa		800
Max. inlet air temperature	°C		45
Weight	Kg		59

(*) Selectable fan speeds in addition to the standard ones

(**) Sound pressure level at 1 meter, in free field with directionality factor 2, in the minimum and maximum value of the auxiliary speeds available.

PACK IST EVO INDUSTRIALE

Sistema ibrido factory made con caldaia a condensazione e pompa di calore aria/acqua monoblocco per produrre heating, air conditioning and domestic hot water on industrial users

LC 40 - Table 4 - heating yields ΔT 5 °C LC 40 - Table 5 - heating yields ΔT 10 °C

DESCRIPTION		Thermal capacity (kW) variable temp. air to db (°C)			
Inlet air temp °C		20	15	10	5
Air flow m ³ /h		4300			
Water inlet	45 °C	20,81	25,78	30,94	36,28
	50 °C	25,66	30,79	35,94	41,28
	55 °C	30,66	35,63	40,95	46,29

DESCRIPTION		Thermal capacity (kW) variable temp. air to db (°C)			
Inlet air temp °C		20	15	10	5
Air flow m ³ /h		4300			
Water inlet	60 °C	32,56	37,74	43,05	48,54
	65 °C	37,56	42,74	48,05	53,54
	70 °C	42,40	47,74	53,23	58,73
	80 °C	52,32	65,01	63,20	68,88

LC 40 - Table 6 - heating yields ΔT 15 °C

DESCRIPTION		Thermal capacity (kW) variable temp. air to db (°C)			
Inlet air temp °C		20	15	10	5
Air flow m ³ /h		4300			
Water	60 °C	43,88	51,50	57,54	67,34
	65 °C	51,28	58,92	66,80	72,95
Inlet	70 °C	58,62	64,72	70,44	78,17
	80 °C	69,08	76,44	81,63	89,32

LC 40 - Table 6 - heating yields ΔT 20 °C

DESCRIPTION		Thermal capacity (kW) variable temp. air to db (°C)			
Inlet air temp °C		20	15	10	5
Air flow m ³ /h		4300			
Water	60 °C	48,04	56,89	65,01	73,65
	65 °C	56,15	64,64	73,44	82,01
Inlet	70 °C	64,25	73,03	81,87	90,38
	80 °C	80,44	89,27	98,39	105,60

Air heater technical data table LC 40

DESCRIPTION	U.M.	LC 40
Thermal power (1)	kW	42,4
Thermal power (2)	kW	25,66
Air flow	m ³ /h	4300
Water flow	l/h	3640
Pressure drops	kPa	21,4
Number of fans		2
Speed number		1
Fan diameter	mm	350 x 2
Number of revolutions per minute	n.	1300 x 2
Launch	m	20
Sound pressure	dB(A)	65
Hydraulic connections		1"
Power supply		230V/1/50Hz
Electrical absorption	W	180
Max inlet water temperature	°C	80
Max inlet air temperature	°C	50
Max working pressure	kPa	800
Degree of protection		IP 24
Weight	Kg	63

(1) Winter heating: Ambient air temperature 20 °C - Inlet water temperature 70 °C, ΔT 10 °C

(2) Winter heating: Ambient air temperature 20 °C - Inlet water temperature 50 °C, ΔT 5 °C