



Idola ST 3.2

Reversible and split system heat pumps with DC inverter compressor and built-in DHW tank

- New range of Full Inverter split system heat pumps with **R32 refrigerant gas**, with its low environmental impact.
- The range consists of an Outdoor Unit housing the most important elements of the refrigeration circuit, from the compressor to the air-side heat exchanger, which will be connected with the refrigerant pipes to the Indoor Unit. The Indoor Unit on the other hand houses the main components of the heat source's water circuit, with the pre-installation of all essential parts such as the high-performance circulator and expansion tank, to allow safe, fast and practical installation.
- The Indoor Unit is also equipped with electrical integration, which will be 3kW for single-phase models and 6kW for three-phase models. IDOLA ST 3.2 models differ from IDOLA S 3.2 models because they feature a built-in Domestic Hot Water tank directly in the Indoor Unit.
- The sizes from 4 to 10 feature a **190L DHW tank**, while the sizes from 12 to 16T feature a **240L tank**. This tank can then be integrated with an electric heater (accessory) or a solar thermal system (supplied separately).
- Installing a split system also offers the undeniable advantage of avoiding the problem of freezing, even at the lowest temperatures (**down to -25°C**) and in the absence of electricity (the only real problem with anti-freeze heating elements in outdoor packaged machines). All units meet the most extreme **winter and summer air conditioning requirements of small and medium power systems**; they can indeed produce **hot water up to 65°C**, which makes them suitable for basically all heating systems, whether of the radiant, fan coil or radiator type.
- Lamborghini CaloreClima's new **Full Inverter design** uses DC inverter modulation on the machine's 3 main power-consuming components, i.e., the compressor, fan, and pump. This allows modulation of the distributed power by finely tracking the heat load, thus allowing **very high energy efficiency and important power savings** for the end user. Moreover, **Lamborghini CaloreClima's Full Inverter design** reduces the inrush current, avoiding power grid fluctuations and thus improving the service life of the components. **The sound levels are among the lowest on the market**, so it can be used as the only heat source in the system, instead of being integrated with other heat sources, such as a boiler (**see our Factory Made Hybrid Systems**).



R32

New Heat Pump with R32, an eco-friendly refrigerant gas with a low GWP.

Up to 75% less CO₂ equivalent emissions into the environment compared to an R410a machine.



FACTORY MADE

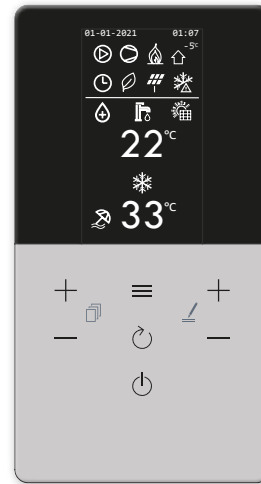
Product suitable for Factory Made Hybrid Systems

System code	System model
OXHT4SWD	IDOLA ST 3.2 04
OXHT6SWD	IDOLA ST 3.2 06
OXHT8SWD	IDOLA ST 3.2 08
OXHTASWD	IDOLA ST 3.2 10
OXHTCSWD	IDOLA ST 3.2 12
OXHTESWD	IDOLA ST 3.2 14
OXHTGSWD	IDOLA ST 3.2 16
OXHUCSWD	IDOLA ST 3.2 12T
OXHUESWD	IDOLA ST 3.2 14T
OXHUGSWD	IDOLA ST 3.2 16T

The control system

- The multilingual user interface comes with **Capsense** technology with a 2.8" graphic display, which allows the user to interact with the product in an extremely simple way. The on-board interface communicates easily with the new smart **Connect CRP** systems, which can manage **up to 8 thermostats** (7 **Connect Evo Zones** + 1 **Connect CRP** which in turn has all the programmable thermostat functions) divided into 2 zones, one direct and one mixed.
- The main control functions include:
 - **MODBUS PROTOCOL** for smart control via an external **BMS**.
 - **HEATING AND COOLING** with the heat pump as the only heat source. Full Inverter modulation means the setpoints can be maintained in both heating and cooling, thus optimising consumption for the user. The temperature curve setting (standard) can improve comfort and further reduce consumption.
 - **DOMESTIC HOT WATER PRODUCTION (DHW)**. When the DHW Temperature probe falls below a certain value, the machine enters DHW mode, i.e. Heating with a dedicated Setpoint by diverting to the built-in DHW tank.
 - **ADDITIONAL ENERGY SOURCES** (boiler or heating element). The heat pump can activate these additional sources as an Integration or as a Replacement, based on customisable parameters. In addition to these settings, the additional sources can be activated in an emergency, if the heat pump is not working.
 - **SMART GRID INPUT FROM PHOTOVOLTAIC SYSTEM AND GRID**. The unit is equipped with 2 digital contacts to manage an input from a photovoltaic system and the grid. These are the famous **Smart Grid** contacts used to **optimise consumption and save on bills**. The first contact (EVU) will tell the heat pump when the photovoltaic system is producing. The heat pump will raise the DHW setpoint with a view to improving self-consumption (making it as advantageous as possible for the user). The contact toward the grid (SG) warns the heat pump when the electrical power costs more (if allowed by the operator), which will then be limited in accordance with customised settings. We invite you to read the manuals for more details.
 - **REMOTE CONTROL VIA APP**. Available for iOS and Android, with the use of Connect CRP (optional). **DHW CYLINDER HEATING ELEMENT**. In DHW mode, the unit manages a heating element inserted in the cylinder as an integration, anti-legionella function, or reserve source in case of a failure.
 - **FAST DHW**. A function making it possible to give priority to DHW production by activating all available power sources, to bring the DHW cylinder to the setpoint in the shortest possible time.
 - **ANTI-LEGIONELLA FUNCTION**. Allows the setting of weekly anti-legionella cycles. For correct operation, the boiler will be used as an integration or the heating element on the DHW cylinder, if any.
 - **SILENT MODE**. When activated, reduces the maximum compressor frequency and fan speed so as to significantly reduce noise levels. 2 different levels available, which can be programmed according to daily time slots (e.g. night).
 - **ON/OFF** from external contact. The unit can be activated and deactivated via an external contact (e.g. a zone thermostat): in this case the operating mode will follow the controller settings.
 - **WARM/COOL** from external contacts. The unit can receive an external summer/winter switching signal (e.g. from a zone thermostat).
 - **ECO**. Dedicated setpoint for "Eco" mode. Settable also by time slots.
 - **WEEKLY HOURLY PROGRAMMING**. The **Connect CRP** (optional) allows differentiated hourly programming for each day of the week, defining the mode (COOL/WARM/DHW) and operating setpoints for each time slot.
 - **ANTI-FREEZE PROTECTION** with hot operation of the heat pump with circulator ON and electric booster, if any.

2.8" GRAPHIC INTERFACE WITH CAPSENSE TECHNOLOGY



OUTDOOR UNIT		4	6	8	10	12	14	16	12T	14T	16T	
Low temperature seasonal efficiency (produced water 35°C)	η (%)	191	195	205	204	189	185	182	189	185	182	
ERP class in heating mode	Class	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++	A+++	
Medium temperature seasonal efficiency (produced water 55°C)	η (%)	129	138	131	136	135	135	133	135	135	133	
ERP class in heating mode	Class	A++	A++	A++	A++	A++	A++	A++	A++	A++	A++	
Low temperature SCOP (produced water 35°C)	W/W	4.85	4.95	5.21	5.19	4.81	4.72	4.62	4.81	4.72	4.62	
SEER (produced water 7°C)	W/W	4.99	5.34	5.83	5.98	4.89	4.86	4.69	4.86	4.83	4.67	
Declared DHW profile	ηs (%)	L	L	L	L	XL	XL	XL	XL	XL	XL	
DHW production energy efficiency class	Class	A+	A+	A+	A+	A+	A+	A+	A+	A+	A+	
Power supply	V-ph-Hz	220/240-1-50							380/415-3-50			
No. compressors / No. refrigeration circuits	no.	1 x DC Twin Rotary / 1 circuit										
Exchanger type	-	finned coil										
No. and type of fans	-	1 x DC axial										
Refrigerant type / GWP	-	R32 / GWP 675										
Factory refrigerant charge ***	kg	1.5		1.65			1.84					
Refrigeration lines (max length/vert. lift) ***	m	30 / 20										
SWL - Sound power level in heating mode*	A7W35	dB(A)	55	58	59	60	65	65	69	65	65	69
SWL - Sound power level in cooling mode*	A35W18	dB(A)	56	58	60	60	64	64	69	64	64	69
Maximum input current	A	12	14	16	17	25	26	27	10	11	12	
Net weight	kg	58		77			96			112		

INDOOR UNIT		10	16	16T
Power supply	V-ph-Hz	220/240-1-50		380/415-3-50
Exchanger type	-	Braze stainless steel plate type		
System expansion tank volume	L	10		
System water safety valve calibration	bar	3		
Minimum system water content	L	40		
DHW cylinder volume	L	190		240
DHW cylinder/system electric heat. (access.)	kW	3 / 1.5		6 / 1.5
DHW expansion tank volume (accessory)	L	8		
DHW cylinder water safety valve calibration	bar	9		
SWL - Sound power level indoor unit	dB(A)	42		43
Maximum input current	A	14		10
Net weight	kg	192		224







* SWL = Sound power levels, referred to 1x10⁻¹² W with unit operating in the following conditions: **A7W35** = source: air in 7°C d.b. 6°C w.b. / system: water in 30°C out 35°C. **A35W18** = source: air in 35°C d.b. / system: water in 23°C out 18°C. The Total sound power level in dB(A) is measured according to Standard ISO 9614. ** For combination with outdoor units mod. 4-6, an adapter from 3/8" SAE to 1/4" SAE is supplied for the liquid line Ø 6.35. *** The factory refrigerant charge allows for a maximum length of the refrigerant lines of 15 metres. IT IS possible to go up to 30 metres with an additional charge during installation.

PERFORMANCE DATA			4	6	8	10	12	14	16	12T	14T	16T
A7W35	Nominal heat output	kW	4.2	6.35	8.4	10	12.1	14.5	15.9	12.1	14.5	15.9
	Nominal input power	kW	0.82	1.28	1.63	2.02	2.44	3.15	3.53	2.44	3.15	3.53
	COP	W/W	5.1	4.95	5.15	4.95	4.95	4.6	4.5	4.95	4.6	4.5
A7W45	Nominal heat output	kW	4.3	6.3	8.3	10	12.3	14.1	16	12.3	14.1	16
	Nominal input power	kW	1.13	1.7	2.16	2.67	3.32	3.92	4.57	3.32	3.92	4.57
	COP	W/W	3.8	3.7	3.85	3.75	3.7	3.6	3.5	3.7	3.6	3.5
A35W18	Designed cooling capacity	kW	4.5	6.5	8.3	9.9	12	12.9	13.6	12.0	12.9	13.6
	Nominal input power	kW	0.82	1.35	1.64	2.18	3.04	3.49	3.77	3.04	3.49	3.77
	EER	W/W	5.5	4.8	5.05	4.55	3.95	3.70	3.61	3.95	3.70	3.61
A35W7	Designed cooling capacity	kW	4.7	6.5	7.45	8.2	11.5	12.4	14	11.5	12.4	14
	Nominal input power	kW	1.36	2.17	2.22	2.52	4.18	4.96	5.6	4.18	4.96	5.6
	EER	W/W	3.45	3	3.35	3.25	2.75	2.5	2.5	2.75	2.5	2.5

The values refer to a unit without any optionals or accessories. Data declared pursuant to **EN 14511**: **EER** (Energy Efficiency Ratio) = ratio of cooling power to input power **COP** (Coefficient Of Performance) = ratio of heat output to input power **A7W35** = source: air in 7°C d.b. 6°C w.b. / system: water in 30°C out 35°C **A7W45** = source: air in 7°C d.b. 6°C w.b. / system: water in 40°C out 45°C **A35W18** = source: air in 35°C d.b. / system: water in 23°C out 18°C **A35W7** = source: air in 35°C d.b. / system: water in 12°C out 7°C

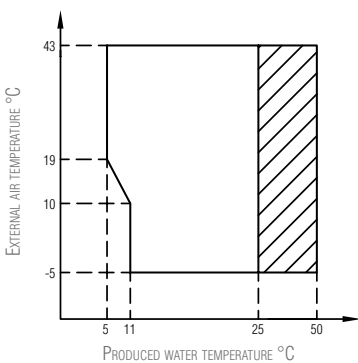
Accessories

	DESCRIPTION	CODE
	Connect CRP Advanced remote control with programmable thermostat function. Can manage up to 7 additional CRP ZONES in 2 separate zones. Also accessible via App	013054XD
	Connect CRP Zone Zone thermostat with RF connection towards Connect CRP. Wall-mounted or table-top installation, powered with 2 x AA batteries	013055XD
	System flow temperature probe or for hybrid solar/hybrid system integration	2CP000NF
	Rubber anti-vibration kit for outdoor unit	2CP000ZF
	18L inertial storage kit	012084W0

	DESCRIPTION	CODE
	Solar pipe kit	012094W0
	PHE solar kit	012095W0
	2-Zone kit (direct and mixed)	012091W0
	Wall connection pipe kit	012092W0
	1.5 kW DHW heating element	012090W0
	Expansion tank for 8L DHW	012093W0

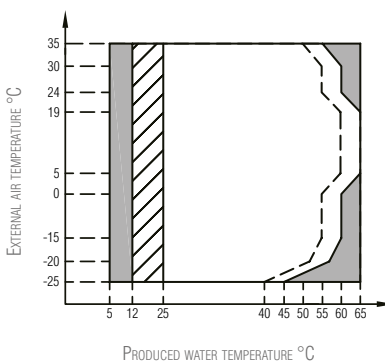
Operational limits

COOL MODE




 Operating range with heat pump with possible limitation and protection

WARM MODE

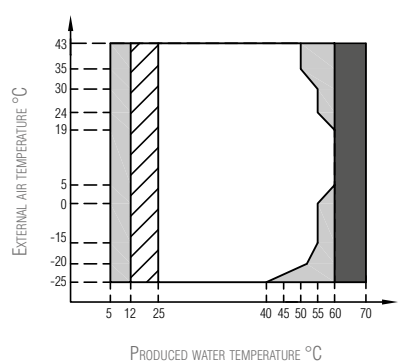


 Operating range with heat pump with possible limitation and protection

 With IBH (system heating element heat.) installed

 Maximum inlet water temperature for heat pump operation

DHW MODE



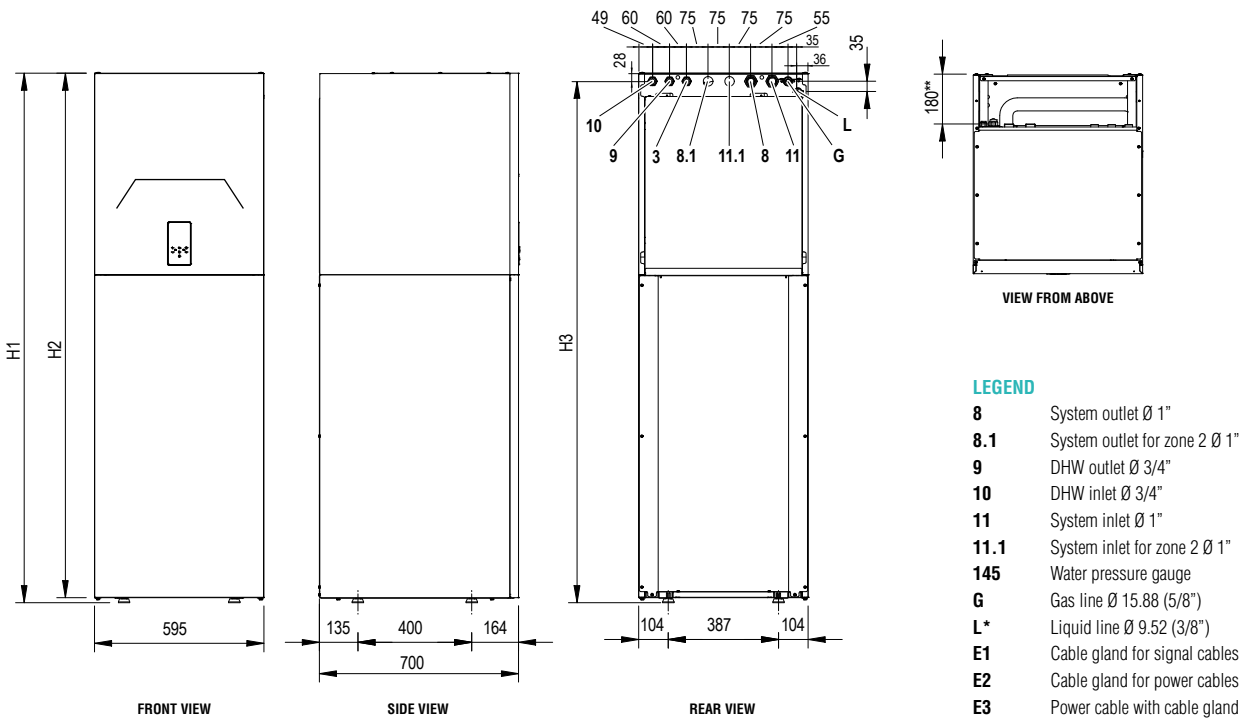
 Operating range with heat pump with possible limitation and protection

 With IBH (system heating element heat.) installed

 With TBH (DHW heating element heat.) installed

NOTE DHW MODE: the produced water temperature is the temperature of the water produced by the unit and not the DHW temperature available to the user, which is a function of this parameter and of the surface of the coil of the DHW cylinder, if any.

Overall dimensions of indoor unit (in mm)

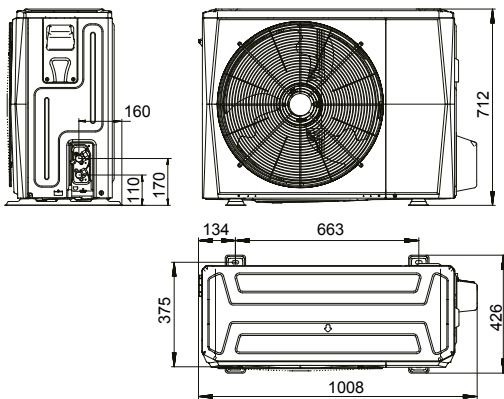


MODELS		10	16
H1	mm	1860	2110
H2	mm	1842	2092
H3	mm	1832	2082

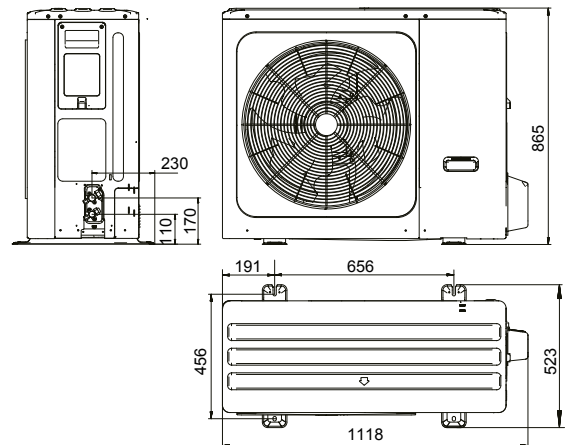
* For combination with outdoor units mod. 4-6, an adapter from 3/8" SAE to 1/4" SAE is supplied for the liquid line Ø 6.35.
 ** Distance between hydraulic connections and refrigeration connections from the rear support point.

Overall dimensions of outdoor unit (in mm)

mod. 4 - 6



mod. 8 - 10 - 12 - 12T - 14 - 14T - 16 - 16T



MODELS		4	6	8	10	12	14	16	12T	14T	16T	
Packaging (WxHxD)	mm	1065x800x485						1190x970x560				
Packaging weight	kg	65		94		114			130			