

# Water heater in heat pump



## Dora Tech LT

Heat pump water heater for wall mounting and floor-standing installation with negative air temperatures

- Air heat pump and integrated storage tank for DHW production
- Active defrosting system for operating correctly to  $-7^{\circ}\text{C}$  air temperature
- R290 **ecological gas** for model 90-120 and **R134a** for model 200-260
- Possibility of ducting the expelled air
- Wall mounting (model 90-120) and floor-standing installation (model 200-260)
- **Support heating element** (1500 W floor-standing - 1200 W wall)
- Available operating modes: **Eco, Auto, Boost, Electric, Fan**
- **Wi-Fi card** installed as standard and control via smartphone using the "LAMBORGHINI CALORECLIMA HOME" App
- **Simple and intuitive touch control panel** on board machine
- Enameled steel water storage tank with 50 mm polyurethane insulation
- Aluminum main heat exchanger outside the tank
- Arrangement with **solar coil** (version "LT-S")
- Double anti-corrosion magnesium anode (model 200-260)
- Programmable **anti-legionella cycle**
- Arrangement (digital input) for **activation with availability of photovoltaic energy**
- Arrangement (digital input) for **activation with reduced electricity rates**
- Arrangement (digital input) for **combination with solar thermal systems** (models "LT-S").
- **Integrated management of forced circulation solar thermal system** (models "LT-S").

Code	Model
2CP0020L	<b>DORA TECH 90 LT</b>
2CP0021L	<b>DORA TECH 120 LT</b>
2CP0024L	<b>DORA TECH 200 LT</b>
2CP0025L	<b>DORA TECH 260 LT</b>
2CP0026L	<b>DORA TECH 200 LT-S</b>
2CP0027L	<b>DORA TECH 260 LT-S</b>
Code	Accessories
2CP00280	Cascade regulator kit (1 piece should be installed for each water heater in cascade)
043007X0	<b>FOR LT-S VERSIONS ONLY</b> Solar collectors probe (see solar thermal)

### Control panel

The simple and intuitive programmable control system on board the machine allows selection of the various Operating Modes: **Eco**: heat pump only (Max setpoint  $62^{\circ}\text{C}$ ) / **Auto**: heat pump with heating element for possible support (Max setpoint  $62^{\circ}\text{C}$ ) / **Boost**: heat pump and heating element at the same time (Max setpoint  $75^{\circ}\text{C}$ ) / **Electric**: heating element only (Max setpoint  $75^{\circ}\text{C}$ ) / **Fan**: active ventilation only. The DORA TECH electronics can manage and optimize the integration of energy from other sources: deactivating the heat pump if **solar thermal energy** is available (models LT-S), activating and exploiting any overproduction of **photovoltaic electricity** by raising the temperature of water in the storage tank up to a value set by the user (max  $75^{\circ}\text{C}$ ). The LT-S models can be combined with a solar thermal system whether managed by own control unit or, otherwise, the DORA TECH electronics can directly manage the components of the solar circuit.

### Connectivity

**CONNECTIVITY** Thanks to the "LAMBORGHINI CALORECLIMA HOME" App downloadable on smartphone, DORA TECH can be fully managed by changing its parameters and operating modes.



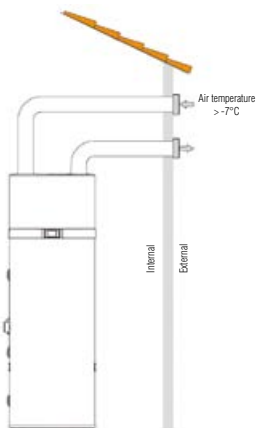
### Application

#### USE OF ENERGY PRESENT OUTSIDE

The air can be ducted both in and out in order to convey the flow appropriately in the different situations.

**SUPPLY VOLTAGE RANGE** The table below gives the variation conditions allowed for the power supply

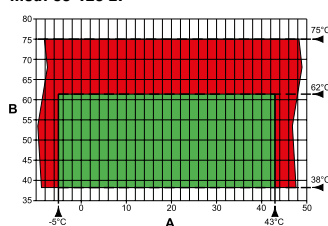
Standard power supply	V-ph-Hz	230-1-50
Admissible voltage range	V	207 - 254



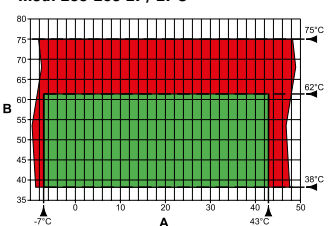
### Limits of use

**Temperature range.** The graph below gives the temperature range of the air and water produced within which correct operation is guaranteed.

mod. 90-120 LT



mod. 200-260 LT / LT-S



A Inlet air temperature  $^{\circ}\text{C}$

B Temperature of hot water produced  $^{\circ}\text{C}$

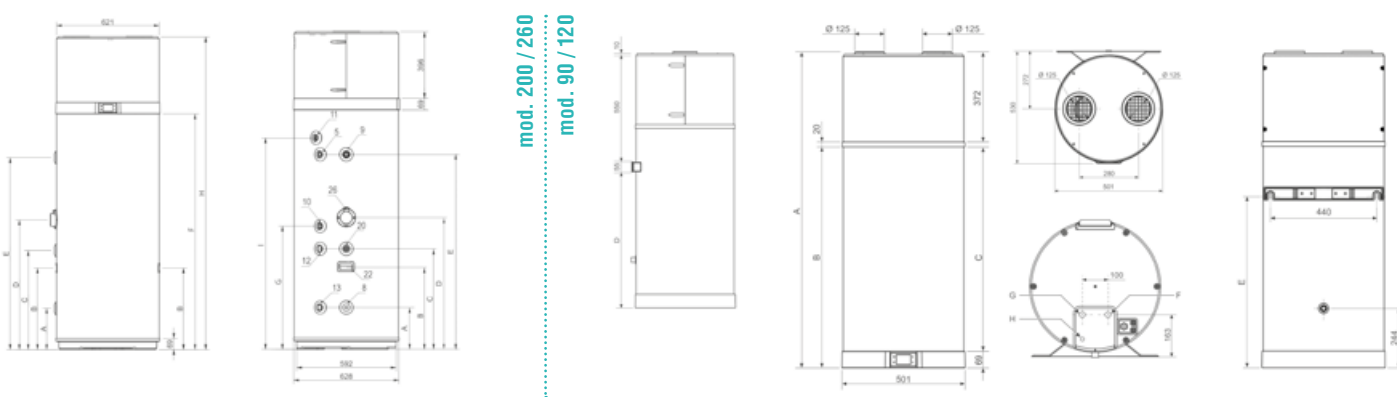
Working range for heat pump

Integration with heating element only

<b>DORA TECH</b>		<b>90 LT</b>	<b>120 LT</b>	<b>200 LT</b>	<b>260 LT</b>	<b>200 LT-S</b>	<b>260 LT-S</b>
Nominal storage capacity	L	89	118	192	250	187	247
Max. hot water capacity at 40°C	L	102	145	247	340	241	335
Storage dispersion	W	40	46	60	70	60	70
DHW max. temperature with heat pump only	°C	62	62	62	62	62	62
DHW max. temperature with supplementary electric booster	°C	75	75	75	75	75	75
Integrated heating element power	W	1200	1200	1500	1500	1500	1500
Average absorbed power in heating	W	270	270	430	430	430	430
Pump heat output	W	607	613	1339	1249	1339	1249
Dimensions (Ø x H)	mm	510 x 1333	510 x 1555	621 x 1607	621 x 1892	621 x 1607	621 x 1892
Empty weight	kg	49	55	88	100	97	109
Max. water pressure	bar	7	7	7	7	7	7
Max. air temperature	°C	43	43	43	43	43	43
Min. air temperature	°C	-5	-5	-7	-7	-7	-7
Nominal air flow	m³/h	170	170	450	450	450	450
Max. available head for cold air outlet	Pa	110	110	117	117	117	117
Duct diameter	mm	125	125	160	160	160	160
Required room volume	m³	15	15	>20	>20	>20	>20
Power supply parameters	V-Hz	230V - 50Hz	230V - 50Hz	230V - 50Hz	230V - 50Hz	230V - 50Hz	230V - 50Hz
Protection rating		IP24	IP24	IP24	IP24	IP24	IP24
Indoor sound power Lw(A)	dB(A)	54	53	53	51	53	51
Gas type		R290	R290	R134a	R134a	R134a	R134a
Charge quantity	g	150	150	1000	1000	1000	1000
Heating time 7°C in ECO mode	hh:mm	05:52*	08:15*	06:27*	09:29*	06:27*	09:29*
COP DHW 7°C		3.12	2.75	3.23	3.37	3.23	3.37
Internal coil for solar		--	--	--	--	0.72	0.72
Energy efficiency class for heating water in average climatic conditions		<b>A+</b>	<b>A+</b>	<b>A+</b>	<b>A+</b>	<b>A+</b>	<b>A+</b>
Energy efficiency of water heating in % in average climatic conditions	%	134	119	135	138	135	138
Annual energy consumption in average climatic conditions	kWh	383	458	761	1210	761	1210
Declared load profile		M	M	L	XL	L	XL

- Test in accordance with EN16147-2017 with air inlet temperature at 7°C (6°C), boiler storage ambient temperature 20°C, water heating from 10°C to 53°C. (\*)  
 - Test in accordance with EN16147-2017 with air inlet temperature at 14°C (13°C), boiler storage ambient temperature 20°C, water heating from 10°C to 53°C. (\*\*)

## Dimensions and hydraulic connections (in mm)



<b>DORA TECH</b>		<b>200 LT-S</b>	<b>260 LT-S</b>	<b>200 LT</b>	<b>260 LT</b>	<b>90 LT</b>	<b>120 LT</b>
<b>A</b>	mm	250	250	250	250	1303	1555
<b>B</b>	mm	490	490	490	490	912	1162
<b>C</b>	mm	600	600	-	-	843	1094
<b>D</b>	mm	705	785	705	785	690	940
<b>E</b>	mm	877	1162	877	1162	711	963
<b>F</b>	mm	1142	1427	1142	1427	-	-
<b>G</b>	mm	705	735	705	735	-	-
<b>H</b>	mm	1607	1892	1607	1892	-	-
<b>I</b>	mm	976	1261	976	1261	-	-