

redge<sup>®</sup>  
FORMERLY  
LENNOX

New !

# Elevate

Reversible Propane Heat pump



R-290

**NOMINAL CAPACITY**

🔥 45 - 65 kW

**MODULAR CAPACITY**

🔥 up to 520 kW

- # **One solution, all applications:** full inverter, compact and reliable heat pumps
- # **Delivers high temperatures** with outstanding efficiency and intelligent control
- # **Built for safety:** Market leading safety pack with advanced ATEX components, trusted in the field

## SAFETY PACKAGE

- # External Electrical Cabinet External:  
Electrical cabinet outside the refrigerant circuit zone, compliant with safety regulations, making maintenance faster and safer for technicians.
- # ATEX-Certified Leak Detector:  
Propane (R290) leaks continuous monitoring, with instant safety protocols start preventing hazardous concentrations and protecting people.
- # Pressure Relief Valve:  
Critical safety component, automatically discharging excess refrigerant pressure to ensure safe & reliable operation under all conditions.
- # Visual & Acoustic alarm:  
Leak two-level alarm safety system : visual & acoustic activated in case of alert, ensuring safe intervention in ATEX environments.
- # ATEX-Certified Exhaust Fan:  
Automatically activated when a leak is detected, safely extracting flammable gases and minimizing ignition risk for a safe operating environment.
- # Water/Refrigerant Separator:  
Ensuring complete isolation, preventing any risk of refrigerant mixing with water, guaranteeing operational safety.
- # SIL2-certified safety chain: guaranteeing the highest level of reliability and protection.

## eDRIVE

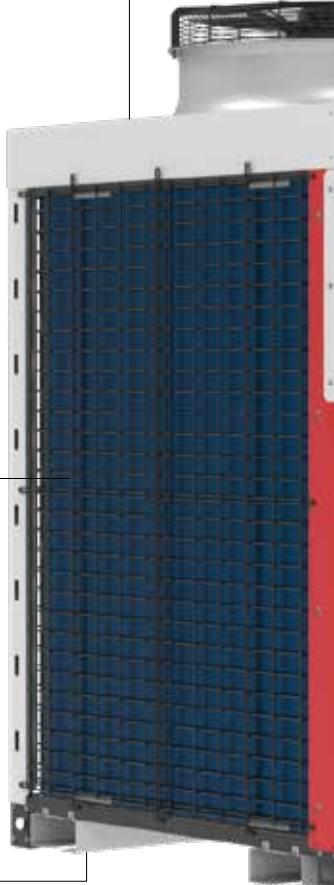
Variable speed drive pump option, which modulates the water flow through the plate heat exchanger and reduces energy costs:

- # Saves energy consumption especially at part-load conditions and during off period, reaching up to 75% reduction of the pump consumption.
- # Savings on the initial system cost, due to fewer pumps and piping connections than primary-secondary systems.
- # Flexibility and accuracy of the pump operation control: smooth start and stop, gradual change of speed, accuracy and stability of control.
- # Reduction of the repeated stress on the pump and piping resulting in longer equipment lifetime.
- # Elimination of the start-up current thanks to variable frequency drive that controls a gradual pump motor supply.



## CONTROL

- # eClimatic electronic controller and intelligent control parameters optimising part-load efficiency.
- # Integrated communication solutions offering flexibility (master/slave, Modbus, BACnet).
- # DC Advanced display, equipped with a graphic screen providing access to the main user parameters, with two optional displays:
  - Remote Display
  - Service Display



## ACOUSTIC COMFORT

Three different noise level configurations available:

- # **Quiet operation** (standard), achieved with compact design, silent compressors and pumps, and with high-performance propeller fans, all installed in a closed box.
- # **Low noise level option:** High performance acoustic compressor casing can halve the noise produced by the unit.
- # **Active Acoustic Attenuation System** with variable fan speed allows progressive adaptation of the unit to the building load while respecting the noise level constraints and the operating limits (as an option).



## CASING & DESIGN

- # Casing made of white painted galvanised steel.
- # Compact design.
- # All thermodynamic and hydraulic components installed below the coils.

## THERMODYNAMIC SYSTEM

- # High-efficiency coil design for faster heating response and long-term reliability
- # Stainless steel brazed plate heat exchanger for optimal transfer in low-temperature systems
- # EC fans for silent, adaptive airflow with ultra-low energy consumption
- # Inverter compressor that adapts to any condition, delivering stable heating, cooling, and DHW (even in coldest climates)

## SMART MONITORING & TOTAL CONTROL WITH REDGE CLOUD

- # **Complete Remote Monitoring:** Access and manage all your heat pump units, no matter their location or condition, from a single intuitive platform.
- # **Comprehensive Multi-Unit Management:** Centralized access to data from multiple installations, giving you a bird's-eye view of your entire operation, streamlining your maintenance efforts.
- # **Customizable Dashboard** to make your life easiest.
- # **User-Friendly Interface:** A self-explanatory, easy-to-navigate dashboard ensures you get the insights you need with minimal effort—just a glance is enough to stay on top of everything.
- # **Real-Time Data at Your Fingertips:** Effortlessly monitor critical heat pump parameters such as Inlet & Outlet temperatures, outdoor temperature, system status (ON/OFF), generic and safety alarms.



**Y<sub>(A)</sub> B<sub>(B)</sub> H<sub>(C)</sub> 45<sub>(D)</sub> S<sub>(E)</sub> Y<sub>(F)</sub> 1<sub>(G)</sub> M<sub>(H)</sub>**

(A) Y = Elevate  
 (B) A = Inverter compressor  
 (C) H = Heating optimized  
 (D) 45 = Approximate power in kW  
 (E) S = Single circuit  
 (F) Y = Refrigerant Propane  
 (G) 1 = Revision number  
 (H) M = 400V/3/50Hz

Elevate - YBH			45	60	
<b>Heating mode</b>					
Standard unit Full load performances *	HM1	Nominal capacity 30/35°C	kW	44,2	
		COP 30/35°C	kW/kW	3,68	
	HM2	Nominal capacity 40/45°C	kW	42,3	
		COP 40/45°C	kW/kW	3,07	
	HM3	Nominal capacity 47/55°C	kW	40,6	
		COP 47/55°C	kW/kW	2,6	
	HM4	Nominal capacity 55/65°C	kW	39,2	
		COP 55/65°C	kW/kW	2,19	
	HM1	SCOP 30/35°C	kWh/kWh	4,13	
		ηs heat 30/35°C	%	162	
		Energy label		A++	
Seasonal energy efficiency **	HM2	SCOP 40/45°C	kWh/kWh	3,56	
		ηs heat 40/45°C	%	139,3	
	HM3	SCOP 47/55°C	kWh/kWh	3,23	
		ηs heat 47/55°C	%	126	
	HM4	SCOP 55/65°C	kWh/kWh	2,90	
		ηs heat 55/65°C	%	113	
	HM1	SCOP 30/35°C	kWh/kWh	4,13	
		ηs heat 30/35°C	%	162	
		Energy label		A++	
<b>Cooling mode</b>					
Standart unit Full load performances *	CM1	Nominal capacity 12/7°C	kW	38,9	
		EER 12/7°C	kW/kW	2,77	
	CM2	Nominal capacity 23/18°C	kW	53,3	
		EER 23/18°C	kW/kW	3,6	
	CM3	Nominal capacity -2/-8°C	kW	22,2	
		EER -2/-8°C	kW/kW	1,72	
	HM1	SEER 12/7°C	kWh/kWh	4,9	
		ηs cool 12/7°C	%	193	
		SEER 23/18°C	kWh/kWh	6,61	
Seasonal energy efficiency **	HM2	SEPR 12/7°C	kWh/kWh	6,64	
		SEPR -2/-8°C	kWh/kWh	3,80	
<b>Sound levels - Standard unit</b>					
Sound power in heating mode <sup>①</sup> - Standard unit			dB(A)	80,6	
Sound pressure in heating mode at 10 m <sup>②</sup> - Standard unit			dB(A)	48,7	
Sound levels - Standard unit + LNCJ option <sup>③</sup>			dB(A)	74,9	
Sound levels - Standard unit + LNCJ option <sup>④</sup>				78,6	
<b>Dimensions - Standard unit</b>					
Length		mm	1350	1350	
Width		mm	1593	1593	
Height		mm	2120	2120	
<b>Operating weight ⑤</b>					
Standard unit		kg	411	500	
Standard unit + LNCJ <sup>⑥</sup>		kg	417	508	
Standard unit + LNCJ <sup>⑥</sup> + WTG <sup>⑦</sup> + DPEH <sup>⑧</sup>		kg	609	710	

\* In accordance with standard EN14511-3:2022.

\*\* In accordance with standard EN14825:2022, average climate

① Standard EN 12102-1

② Standard EN 12102-1, ISO 3744 enveloping surface calculation method

③ Option: LNCJ = Low noise

④ Option: WTG = Water Tank (100l)

⑤ Option: DPEH = Hydraulic module with eDrive high-pressure twin pump

⑥ Values are guidelines only. Refer to the unit name plate.

dbT

Dry bulb temperature

wbT

Wet bulb temperature

BPHE

Brazed plate heat exchanger