

NHE

CHILLERS AND HEAT PUMPS AIR CONDENSED WITH SCROLL COMPRESSORS

92-688 kW

MULTI-PROTOCOL
COMMUNICATION
INTERFACE

VENTILATORI ASSIALI

CORROSION RESISTANT
MATERIAL

SCROLL COMPRESSORS

PLATE HEAT
EXCHANGER

NATURAL
REFRIGERANT

Natural Refrigerant
R290

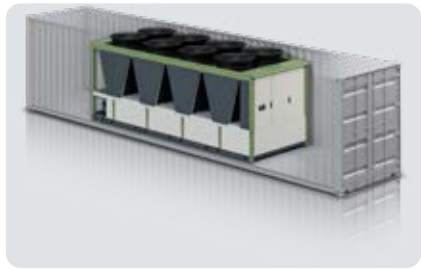
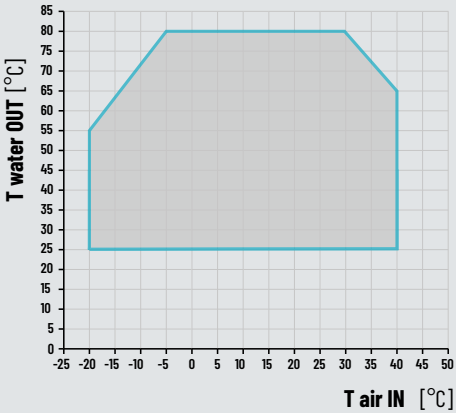
Safe Class A2L
R454C

NHE is the range of air/water units in chiller and reversible heat pump versions with natural refrigerant R290. The NHE range is designed to handle **the air conditioning of industrial plants and thermal loads in technological applications, where maximum system reliability is required in all operating conditions, 24/7**. The NHE range utilises state-of-the-art Scroll compressors, plate exchangers optimised for use with medium pressure refrigerants (R290) and low-noise axial fans. The unit lends itself to being installed in environments where it is essential to reduce noise emissions as much as possible; three soundproofing set-ups are available.

- Available in R290 or R454C
- 2 different soundproofing set-ups available: Standard and Low Noise
- Available versions: Chiller (C) and reversible heat pump (H)
- High power density units in both chiller and heat pump modes
- Electronic expansion valve
- Easy accessibility thanks to the optimisation of the internal space
- High-efficiency On-Off Scroll Compressors
- EC Fans

Production of hot water up to 80°C

The units of the range are capable of **producing water at 80°C** and operating at outside air temperatures as low as **-20°C**.



Easy shipping, everywhere!

Thanks to its small size, each unit in the NHE range can easily be placed in a High Cube container and shipped worldwide!

Precise control of the supply temperature

The units in the NHE range are equipped with 2-way motorized valves that ensure **precise control of the supply temperature even at partial loads**, preventing mixing that would compromise the unit's energy efficiency.



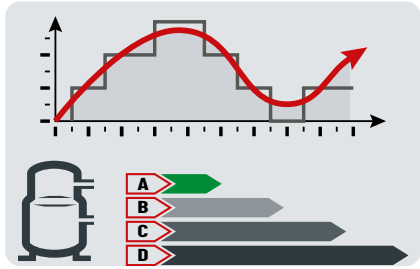
Plate heat exchangers

The NHE range uses brazed plate heat exchangers with asymmetrical channels, suitable for the use of high and medium pressure refrigerant gases. The asymmetrical channel configuration **allows high heat exchange efficiencies to be achieved** while maintaining low water-side pressure drops, **thus reducing pumping expenses**, both at full and partial load.



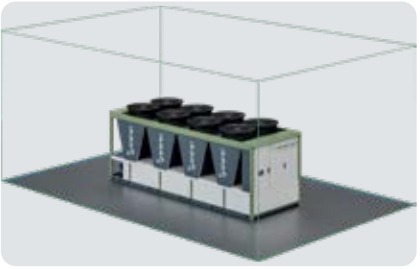
Modular design

The NHE range is designed with a high focus on efficiency and ease of use, features that are reflected **in the integration of a single pumping unit and a single electrical panel**. This configuration not only simplifies installation and maintenance, but also ensures reliable and continuous operation, minimising the risk of breakdowns and optimising system performance.



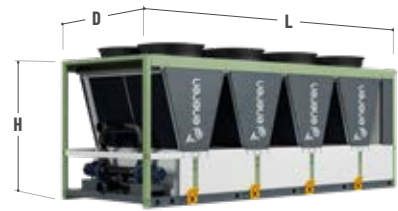
Modulation and redundancy

The units in the NHE range have 2 to 8 independent circuits, each with 2 high-efficiency On-Off Scroll compressors. This guarantees maximum redundancy and high efficiency at partial loads as well as precise control of the heating and cooling capacity delivered.



Safety first

Units loaded with **A3 (highly flammable) gas** must be installed away from drains, manholes, drainage channels and any other element that could act as a potential escape route for any leakage of said gases, **which must always be considered FLAMMABLE and heavier than air**. The minimum distance to be maintained with respect to these requirements is 2.5 metres. Within this safety zone, it is strictly forbidden to smoke, use open flames or carry out any work that may generate flames, arc discharges or sparks.



NHE	101	151	202	252	302	353	403	453	504	554	604
Cooling: User water values 12/7°C, 35°C outside air, 40% U.R.											
Cooling capacity	kW	91.8	163.3	183.5	228	272.5	319.8	364.3	408.8	456.1	500.6
Total absorbed power	kW	32.2	49.1	64.4	81.3	98.2	113.5	130.4	147.3	162.6	179.5
EER		2.85	2.78	2.85	2.8	2.78	2.82	2.79	2.78	2.8	2.79
Heating: User water values 30/35°C, 7°C outside air, 87% U.R.											
Thermal power	kW	116	172	232	288	344	404	460	516	576	632
Total absorbed power	kW	25.3	37.9	50.6	63.2	75.8	88.5	101.1	113.7	126.4	139
COP		4.58	4.54	4.58	4.56	4.54	4.56	4.55	4.54	4.56	4.55
Sound power [Standard]	dB(A)	83	84	86	87	87	88	89	89	90	90
Sound power [Low noise]	dB(A)	78	80	81	82	83	84	85	85	86	86
Dimensions [LxHxD]	mm	1905x2530x2256	3310x2530x2256			4715x2530x2256			6120x2530x2256		

Also available with 60 Hz power supply | Data referring to R290 versions