Penmann
INNOVATIVE CLIMATIC SOLUTIONS FOR THE FOOD INDUSTRY

NR-HP440

NR-HP440 Heat Pump

Product Overview

Reversible – Designed for a complete range of heating & cooling applications – both comfort and industrial process

Ecodesign compliant – all models fully comply with minimum efficiency directive (EU) 813/2013

Wide operating range – capable of hot water production of up to +55°C in most conditions – or up to +42°C while operating in minimum ambient condition of -15°C

Eco-friendly – built around the latest high-efficiency scroll compressors utilising low GWP R454B refrigerant

Shell & tube evaporator – a robust solution providing greater dependability compared to more traditional designs

Dual independent refrigeration circuits – additional resilience provides greater peace of mind

Isolation valves & strainers – fitted to fluid connections

Performance Data

Performance Data - Heating

Nominal Heating Capacity (1)	415 kW
Nominal Power Consumption (1)	135 kW
COP (1)	3.08 kW/kW

Performance Data - Cooling

Nominal Heating Capacity (2)	409 kW
Nominal Power Consumption (2)	131 kW
EER 2)	3.12 kW/kW

Operating Limits

Minimum/Maximum Heating/Cooling Fluid Flow Rate	43/105 m^3/hr

Electrical Data

Power Supply	400/3/50 V/ph/Hz
Power Connections - Hard Wired	120 mm^2 cables
Maximum Running Current	317 A
Maximum Starting Current	638 A
IP Rating	IP54

Refrigerant Circuit

Refrigerant / Compressor Type	R454B/Scroll
Number of Compressors / Circuits / Fans	4/2/6

Hydraulic Circuit

Nominal Heating Fluid Flow Rate (1)	72.0 m^3/hr
Nominal Heat Exchanger Pressure Drop (1)	54 kPa
Connections	4" Flanged

Physical Data

Length	3,905 mm
Width	2,260 mm
Height	2,450 mm
Operating Weight	3,500 kg
Sound Pressure Level	76 dB(A)

(1) Heating performance data based on operating conditions of +45°C heating fluid outlet temperature / +40°C cooling fluid inlet temperature / +7°C ambient temperature

(2) Cooling performance data based on operating conditions of +7°C cooling fluid outlet temperature / +12°C cooling fluid inlet temperature / +30°C ambient temperature

(3) Sound pressure at 1m average value obtained in a free field on a reflecting plane at a distance of 10m from the unit, non-binding value calculated from the sound power level

Still have a question?

Get in touch with one of our expert team today.

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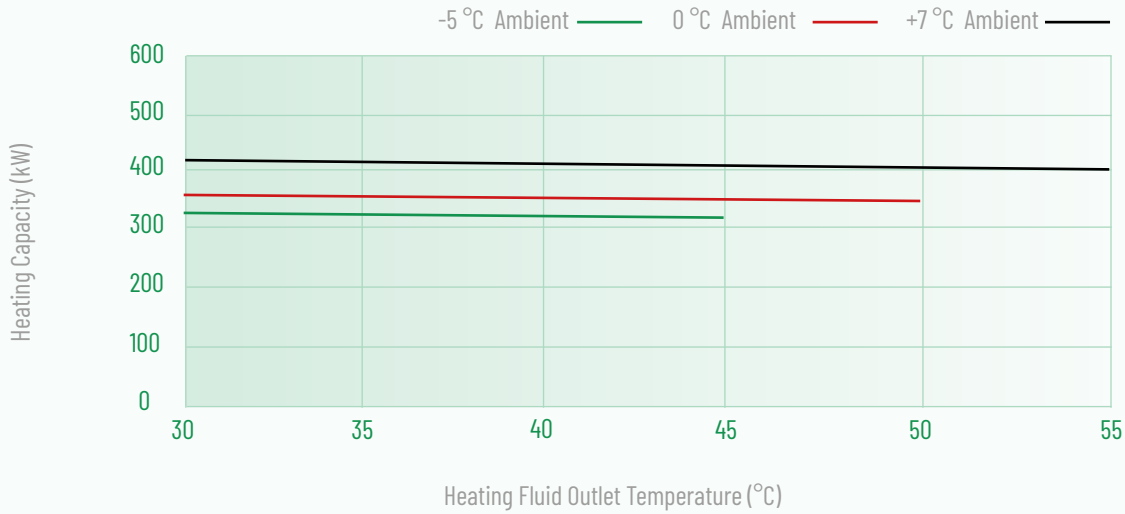
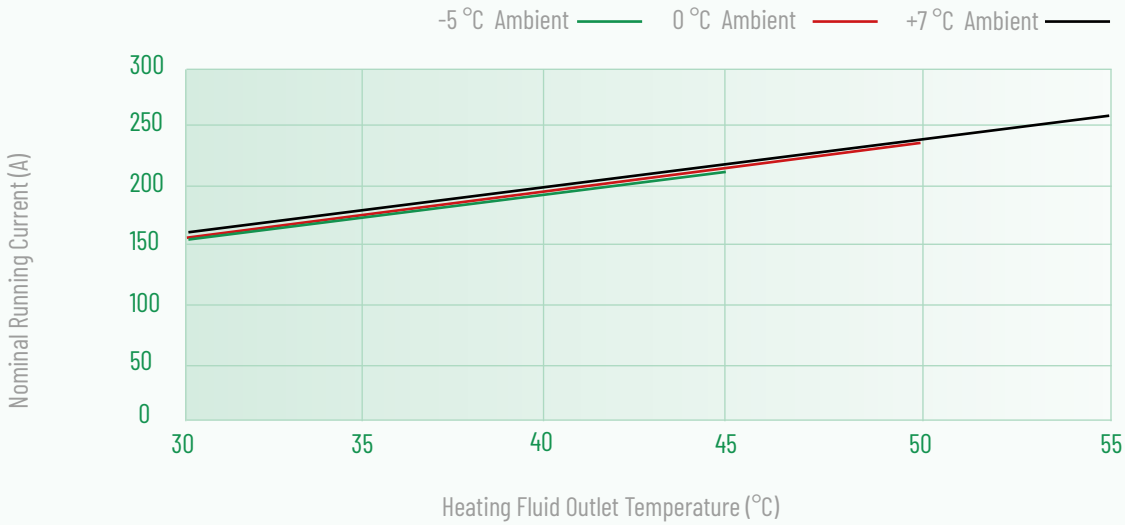
Cooling Capacity



Nominal Running Capacity - Heating



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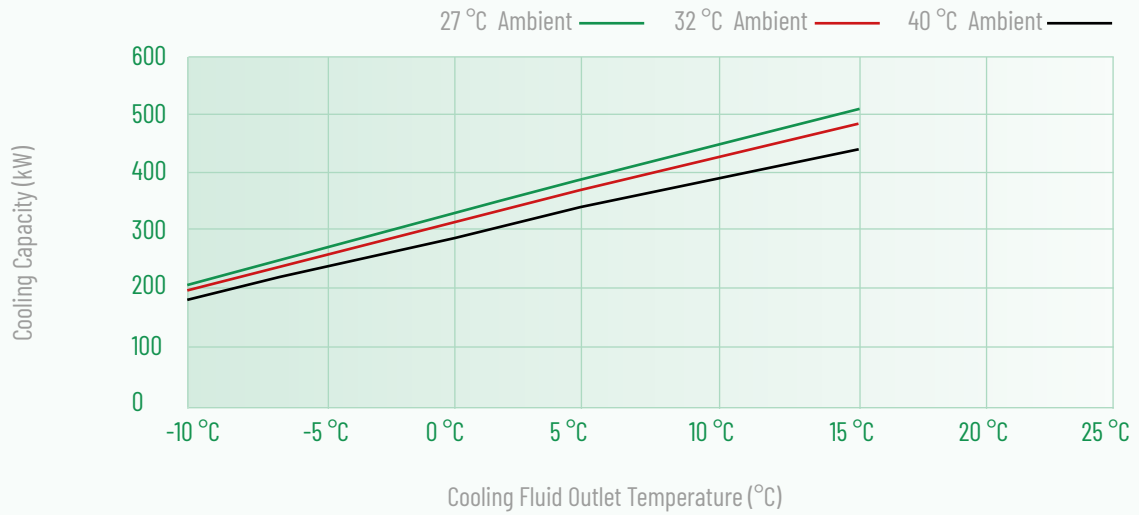
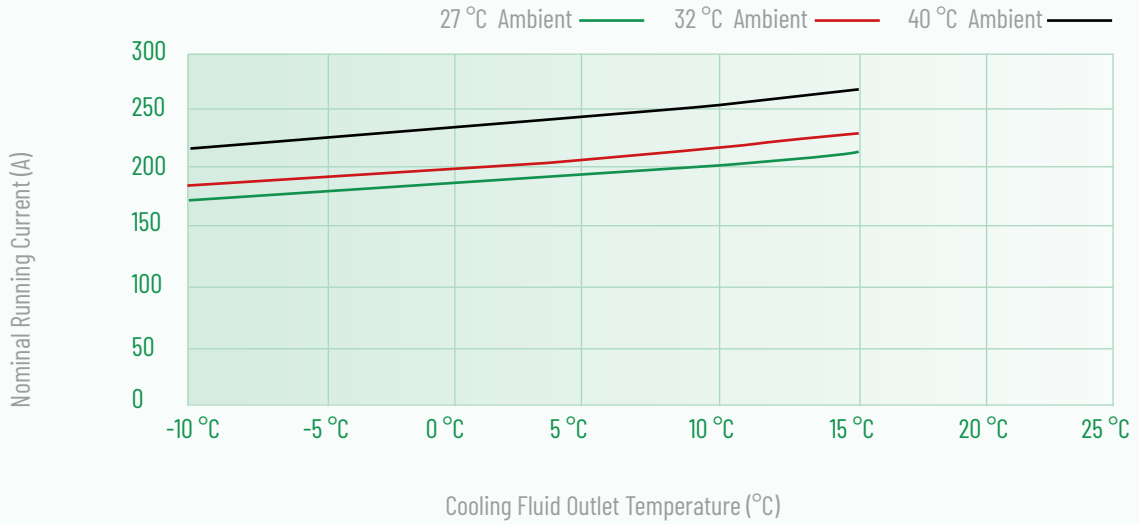
Cooling Capacity



Nominal Running Capacity - Heating



The level of performance provided by each machine depends on the conditions at which it is operating. The two factors determining performance are ambient air temperature and the required heating / cooling fluid outlet temperature.
The above graphs illustrate the heating / cooling capacities and nominal running current – at three different operating ambient temperatures – based on differing fluid outlet temperatures.