

Unit Overview

Range	Sintesis Advantage	
Chiller model	Air-Water Heat Pump Scroll	
Model	CXAF 165 HEat XLN EC R454B	
Unit Application	Process (cool=-20C/50C \ heat=-15C/35C)	
Compressor type	Scroll	
Refrigerant Type	Full charge R454B	
Eta s,c / SEER	193.00 % / 4.91	
Eta s,h / SCOP	155.00 % / 3.95	
SEPR HT	5.71	Compliant
SEPR MT	3.93	Compliant
Type of free cooling	No Free Cooling	
Type of pump	Dual pump std pressure	
Pump configuration	HDM VAR	
Electrical supply	400V/50Hz/3Ph	



Note: Pictures are not binding, unit may be depicted with accessories upon request.

Project conditions

	Cooling	Heating
Outdoor air dry bulb temperature	35.0 C	-3.0 C
Relative humidity		90 %
Fluid entering temperature	16.0 C	42.0 C
Fluid leaving temperature	10.0 C	50.0 C
Fluid Type and concentration	Ethylene glycol / 34.00 %	
Fouling Factor	0.017615 m2-deg C/kW	0.017615 m2-deg C/kW
Elevation	0.0 m	0.0 m

Unit performance data

	Cooling	(1)	Heating	(2)
Gross capacity	552.57 kW		410.13 kW	
Net capacity	552.87 kW		410.06 kW	
Gross unit power	194.27 kW		174.50 kW	
Gross EER / COP	2.84 EER (kW/kW)		2.35 COP (kW/kW)	
Net EER / COP	2.87 EER (kW/kW)		2.35 COP (kW/kW)	
Design flow rate	24.43 L/s		13.35 L/s	
Evaporator Pressure drop (Design)	33.7 kPa		10.6 kPa	
Evaporator Min Flow	12.40 L/s		12.40 L/s	
Evaporator Max Flow	56.80 L/s		56.80 L/s	

Acoustic data

Outdoor sound power level, Lw(A)	92 dBA						(4)
Outdoor sound pressure level, Lp(A)	60 dBA						(3)
Sound power level at night, Lw(A)	89 dBA						(4)
Sound pressure level at night, Lp(A)	57 dBA						(3)
	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
Sound power spectrum (Lw)	95 dB	90 dB	90 dB	87 dB	80 dB	79 dB	71 dB

Hydraulic module Info

Type of pump	Dual pump std pressure
Pump Regulation Type	Variable speed pump Constant delta T
Design flow rate	24.43 L/s
Available head - user side	180.7 kPa
Pump power absorbed	9.54 kW



General data - refrigerant circuit

Refrigerant Type	Full charge R454B	
Refrigerant GWP (AR4)	466.00	
Number of circuits	2	
Number of compressors (circuit 1 / 2)	3 / 3	
Compressor type	Scroll	
Compressor regulation type	Fixed Speed	
Oil charge per circuit	26 kg	
Refrigerant charge per circuit	54 kg	54 kg

General data - fan section

Number of outdoor fans	10
Fan type	EC fans
Total condenser air flow	56.87 m3/s

Electrical Information

Electrical supply	400V/50Hz/3Ph
Power factor capacitor	Without
Current	314.36 A
Compressor soft starter	Not Included
Start-up current	755.00 A
Max amps	440.00 A
Maximum power at maximum current	269.00 kW
Displacement power factor (cos-phi)	0.88

Dimensions and weight

Length	6207 mm
Width	2200 mm
Height	2530 mm
Unit shipping weight	4939 kg
Operating weight	5155 kg

Note: Dimensions and weight include sound attenuation, hydraulic module, heat recovery and/or free cooling.

Applicable standards

(1) According to EN14825:2022, considering average climate
(2) According to EN14511:2022
(3) Average sound pressure at 10 meter distance, unit in a free field on a reflective surface; non-binding value calculated from the sound power level
(4) Sound power measurements in accordance with ISO 9614:2009 (part 1)
(5) Performance rating out of scope of Eurovent certification program
Eurovent certification does not apply to SEPR HT / SEPR MT values

More information

Ecodesign datasheet	https://www.trane.com/litweb/Litweb.aspx?
Model Number	CXAF165DE**RCXE3WWNBNE1XB1DCAF1XLMXTVXPX1DXBAXX2X AXXAA21X