



Sintesis™ Advantage

Reversible air-to-water heat pumps

Model CXAF SE / HEat

Sizes 080 to 190

280 to 675 kW



SINTECIS™
ADVANTAGE

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TRANE
TECHNOLOGIES

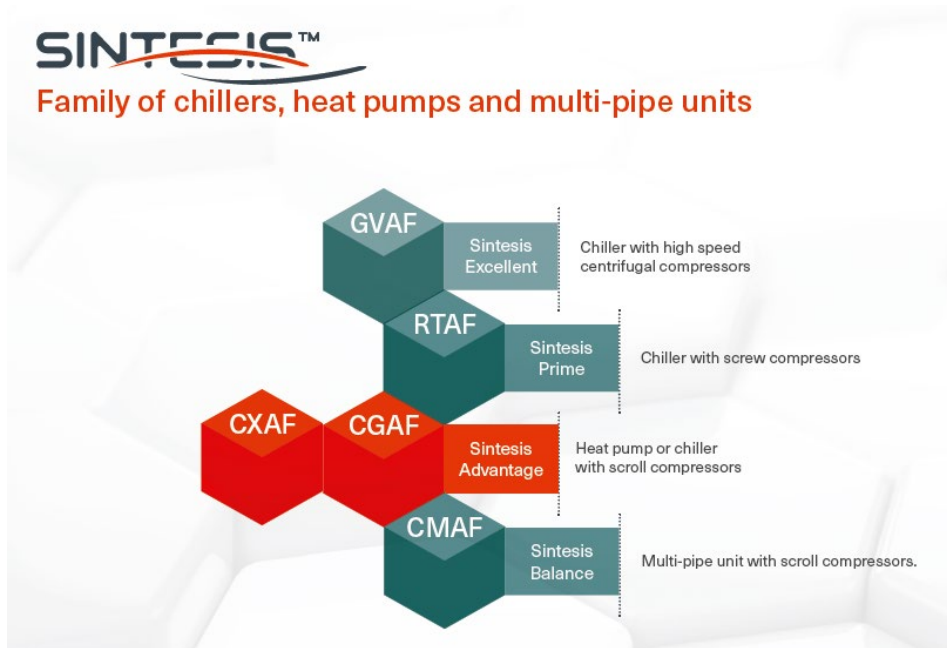


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Product overview

Trane is proud to introduce its newest generation of air-to-water scroll reversible heat pumps, a compact packaged solution designed for high efficiency all year round. Built off the proven Sintesis™ platform, the CXAF joins a family of end-to-end solutions for all comfort, sustainability, efficiency and budget needs.



Key CXAF features:

- Variable volume scroll technology compressors for high seasonal efficiency
- Trane V-design heat exchangers, to deliver high capacity in a smaller footprint
- Electronic expansion valve for tighter temperature coil
- Configurable fan deck with a choice between AC and EC fans
- Optional fan diffusers to deliver higher capacity or reduce sound power level
- Noise reduction packages for urban environments
- Easy access and maintenance on all components
- Advanced Tracer™ UC800 controller with embedded energy saving functions
- User-friendly TD7 touchscreen interface mounted on the unit

Sintesis Advantage heat pumps are ideal for



Office buildings



Healthcare

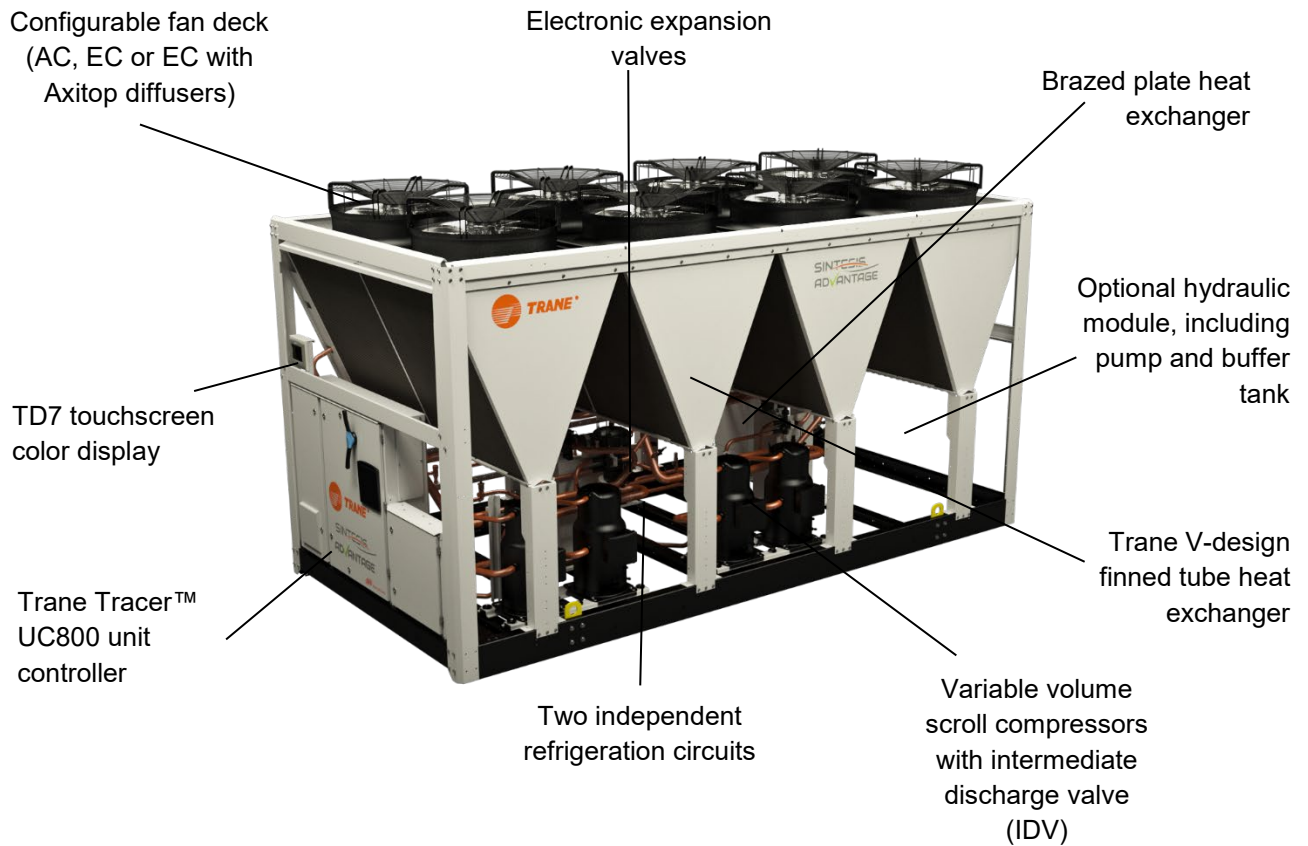


Food and
beverage industry



Hospitality industry

Main components



Ecodesign Directive – EC 125/2016

As part of its mission to reduce energy consumption in EU member states, the European Commission has set new efficiency requirements for space heaters and air-conditioners. Requirements depend on the declared rated capacity, as summarized in the table below.

Table 1 – Ecodesign seasonal efficiency requirements for air-to-water reversible heat pumps

Air-to-water heat pump	CXAF models concerned	Seasonal heating space efficiency, $\eta_{s,h}$	Seasonal cooling space efficiency, $\eta_{s,c}$	Required from
Prated < 400 kW (Tier 2)	080 to 130	125%	--	September 2017
Prated \geq 400 kW (Tier 1)	130 to 190	--	161%	January 2018
Prated \geq 400 kW (Tier 2)	130 to 190	--	179%	January 2021

All CXAF models comply with current EU thresholds, and even 2021 thresholds when equipped with variable speed fans. All documentation can be obtained through our website www.trane.eu, or by contacting your local Trane Sales Engineer.



Model number description

Digit 1,2,3,4 – Unit model

CXAF = Air-to-water Scroll packaged heat pump

Digit 5, 6, 7 - Unit Nominal Tonnage

Digit 8 - Unit Voltage

D = 400 Volt / 50 Hz / 3 Phase

Digit 9 - Manufacturing Plant

E = Europe

Digit 10, 11 – Design Sequence

** = Factory assigned

Digit 12 - Efficiency Level

N = Standard Efficiency

H = High Heat Efficiency

Digit 13 = Agency Listing

C = CE Certification

Digit 14 = Pressure Vessel Code

2 = Europe Standard (PED)

Digit 15 - Sound package

X = Standard

L = Low Noise

E = Extra Low Noise

Digit 16 = Unit Application

1= Comfort application

3= Process application

Digit 18 - Water connection

X = Standard Grooved pipe

W = Grooved pipe + Weld couplings

2 = Grooved Pipe w/ Coupling & Flange Adapter

Digit 19 - Evaporator Application

N = Standard Cooling (39,2 To 68F/4 To 20C)

Digit 20 - Evaporator type

B = Brazed Plate Heat Exchanger

Digit 21 - Insulation

N = Standard thermal insulation

Digit 22 - Condenser coating

N = Fin & tube standard

C = Fin & tube with anti-corrosion epoxy coating

Digit 24 - Hydraulic pump

X = Signal On/Off Pump

1 = Dual pump standard pressure

2 = Single pump standard pressure

3 = Dual pump high pressure

4 = Single pump high pressure

Digit 26 - Power Line Type Connection

B = Disconnect Switch

Digit 27 - Control Panel Accessories

X = No option

1 = Under/Over Voltage Protection

2 = Under/Over Voltage Protection And Ground

Fault Protection

Digit 28 - Unit Operator Interface

Digit 29 - Remote Interface

X = None Remote Interface

B = BACnet MS/TP interface

M = Modbus RTU interface

L = LonTalk interface

Digit 30 - External Set points & Capacity outputs

X = None

A = External Set points & Capacity outputs

Digit 31 - Flow Switch

X = No Flow Switch

F = Field installed Flow Switch

Digit 32 - Electrical Panel Protection

X = Enclosure with deadfront protection

1 = Enclosure with IP 20 internal protection

Digit 33 - Master Slave

X = Without

A = With

Digit 34 - Unit User interface

L = Standard, Local UI supplied

Digit 35 - Energy meter

X = No energy meter

M = Energy meter installed

Digit 37 - Variable Primary Flow

X = Constant speed pump - No VFD

A = Pump Flow Controlled by Triple Duty Valve

F = Constant speed pump - VFD Adjustment

T = Variable speed pump - Constant delta T

Digit 38 - Refrigerant Leak Detection

X = Not installed

Digit 40 - Electrical Accessories

X = Not supplied

P = 230V-100W convenience outlet

Digit 41 - Performance Test Options

X = Run test w/o customer

B = Visual inspection

E = Performance test with customer

Digit 42 - Unit isolation

X = None

1 = Neoprene Isolators

4 = Neoprene Pads

Digit 44 - Shipping Package

X = Standard

A = Unit Containerization Package

Digit 45 - Refrigerant

X = None

A = Full Factory Refrigerant charge (HFC-410A)

Digit 49 - Freeze Protection (Factory Installed Only)

X = Without Freeze Protection

2 = With Freeze Protection

Digit 50 - Buffer Tank

X = No Tank

1 = With Tank

Digit 51 - Water Strainer

X = No Strainer

A = With Strainer Factory Installed

Digit 52 - Appearance Options

X = No appearance options

Digit 54 - Starter Type

A = Across the Line Starter/Direct on Line

B = Soft starter

Digit 55 – Programmable (Annunciation) Relays

X = None

A = With

Digit 56 - Fans Type

1 = AC fans

2 = EC fans

3 = EC Axitop fans

Digit 57 – Night noise setback

X = None

1 = NNSB

Digit 58 - Special

X = Standard Catalog

S = Customized unit

Performance data

CXAF Standard Efficiency Models 080 – 190

CXAF SE (AC fans)		080	090	100	110	130
Net cooling capacity (1)	(kW)	278	306	338	384	421
Total power input (1)	(kW)	87	102	117	132	151
Net EER		3.19	3.01	2.90	2.90	2.79
Eurovent Efficiency Class - cooling		A	B	B	B	C
SEER	(kW)	4.40	4.47	4.31	4.12	4.13
Space cooling efficiency η_{sc}	(%)	173	176	169	162	162
Net heating capacity (2)	(kW)	276	313	343	389	421
Total power input (2)	(kW)	86	98	109	126	137
Net COP	(kW/kW)	3.21	3.20	3.16	3.10	3.07
Eurovent Efficiency Class - heating		A	A	B	B	B
P _{design,h}	(kW)	219	251	275	344	345
SCOP	(kW/kW)	3.38	3.44	3.43	3.29	3.34
Space heating efficiency η_{sh}	(%)	132	135	134	129	131

CXAF SE (AC fans)		140	150	165	180	190
Net cooling capacity (1)	(kW)	467	495	527	585	619
Total power input (1)	(kW)	164	178	195	207	224
EER		2.84	2.78	2.71	2.82	2.76
Eurovent Efficiency Class - cooling		C	C	C	C	C
SEER	(kW)	4.11	4.10	4.10	4.15	4.19
Space cooling efficiency η_{sc}	(%)	161	161	161	163	165
Net heating capacity (2)	(kW)	481	508	538	599	631
Total power input (2)	(kW)	155	166	178	194	205
Net COP	(kW/kW)	3.09	3.06	3.02	3.08	3.07
Eurovent Efficiency Class - heating		B	B	B	B	B

(1) At Eurovent conditions: 12/7°C entering/leaving water temperature and 35°C ambient temperature according to EN 14511-2018

(2) At Eurovent conditions: 40/45°C entering/leaving water temperature and 7°C ambient temperature according to EN 14511-2018

CXAF High Efficiency Models 080 – 190

CXAF HE (AC fans)		080	090	100	110	130
Net cooling capacity (1)	(kW)	278	307	338	384	421
Total power input (1)	(kW)	87	102	117	132	150
Net EER		3.20	3.02	2.90	2.90	2.80
Eurovent Efficiency Class - cooling		A	B	B	B	C
SEER	(kW)	4.48	4.54	4.37	4.25	4.21
Space cooling efficiency η_{sc}	(%)	176	179	172	167	165
Net heating capacity (2)	(kW)	278	315	346	401	436
Total power input (2)	(kW)	86	98	109	126	138
Net COP	(kW/kW)	3.22	3.22	3.18	3.19	3.17
Eurovent Efficiency Class - heating		A	A	B	B	B
P _{design,h}	(kW)	219	250	273	337	338
SCOP	(kW/kW)	3.33	3.39	3.37	3.23	3.28
Space heating efficiency η_{sh}	(%)	130	133	132	126	128

CXAF SE (AC fans)		140	150	165	180	190
Net cooling capacity (1)	(kW)	466	493	525	581	615
Total power input (1)	(kW)	164	179	194	206	223
EER		2.84	2.76	2.71	2.81	2.76
Eurovent Efficiency Class - cooling		C	C	C	C	C
SEER	(kW)	4.22	4.21	4.24	4.20	4.32
Space cooling efficiency η_{sc}	(%)	166	166	166	165	170
Net heating capacity (2)	(kW)	495	523	557	617	651
Total power input (2)	(kW)	156	167	179	195	206
Net COP	(kW/kW)	3.18	3.14	3.11	3.17	3.16
Eurovent Efficiency Class - heating		B	B	B	B	B

(1) At Eurovent conditions: 12/7°C entering/leaving water temperature and 35°C ambient temperature according to EN 14511-2018

(2) At Eurovent conditions: 40/45°C entering/leaving water temperature and 7°C ambient temperature according to EN 14511-2018

CXAF High Efficiency with EC fans / Models 080 – 190

CXAF HE (EC Axitop fans)		080	090	100	110	130
Net cooling capacity (1)	(kW)	279	310	344	385	423
Total power input (1)	(kW)	86	100	115	132	149
Net EER		3.24	3.09	2.98	2.92	2.85
Eurovent Efficiency Class - cooling		A	B	B	B	C
SEER	(kW)	4.84	4.76	4.53	4.54	4.39
Space cooling efficiency η_{sc}	(%)	191	187	178	179	173
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Net heating capacity (2)	(kW)	278	318	352	402	438
Total power input (2)	(kW)	85	99	111	124	137
Net COP	(kW/kW)	3.26	3.23	3.17	3.23	3.19
Eurovent Efficiency Class - heating		A	A	B	A	B
P _{design,h}	(kW)	219	234	280	343	345
SCOP	(kW/kW)	3.49	3.46	3.36	3.40	3.40
Space heating efficiency η_{sh}	(%)	136	135	131	133	133
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CXAF SE (AC fans)		140	150	165	180	190
Net cooling capacity (1)	(kW)	469	497	530	588	624
Total power input (1)	(kW)	162	177	194	203	221
EER		2.90	2.81	2.74	2.90	2.82
Eurovent Efficiency Class - cooling		B	C	C	B	C
SEER	(kW)	4.79	4.67	4.63	4.76	4.73
Space cooling efficiency η_{sc}	(%)	189	184	182	187	186
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Net heating capacity (2)	(kW)	497	526	560	623	658
Total power input (2)	(kW)	155	166	178	197	208
Net COP	(kW/kW)	3.20	3.17	3.15	3.16	3.15
Eurovent Efficiency Class - heating		A	B	B	B	B

(1) At Eurovent conditions: 12/7°C entering/leaving water temperature and 35°C ambient temperature according to EN 14511-2018

(2) At Eurovent conditions: 40/45°C entering/leaving water temperature and 7°C ambient temperature according to EN 14511-2018

Operating limits

The operation limits of a rooftop unit are influenced by the outdoor (ambient) air temperature and the desired leaving water temperature.

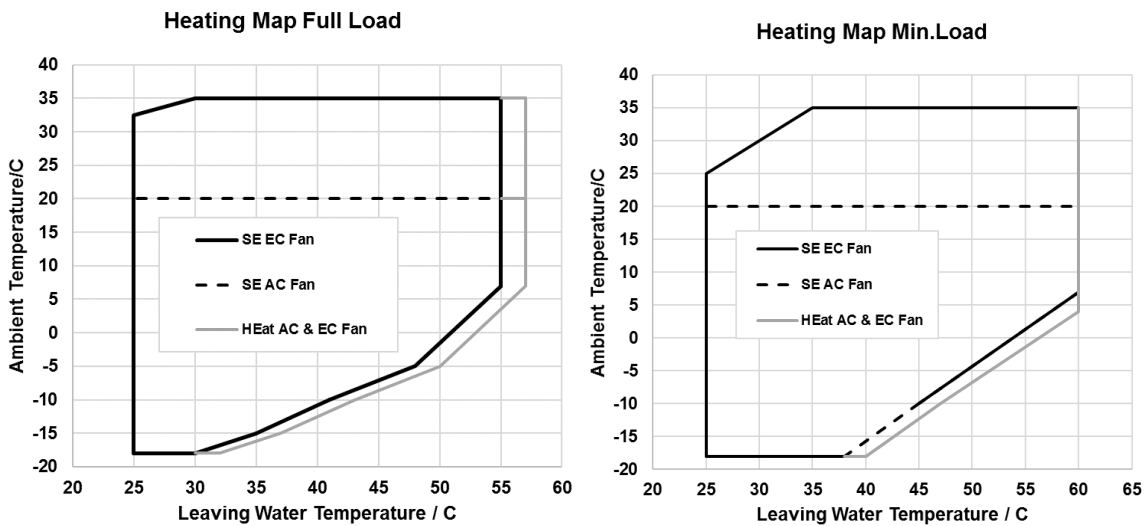
Operating map

Rated heat output at operating limits

Standard efficiency (CXAF SE)		080	090	100	110	130	140	150	165	180	190
Rated heat output	(kW)	219	250	273	337	338	415	438	431	500	507
Bivalent temperature (T _{biv})	(°C)	-5.0	-5.0	-5.0	-4.0	-5.0	-4.0	-4.0	-5.0	-4.5	-5.0
Heat output @ bivalent temperature	(kW)	177	202	221	259	273	319	337	348	394	409
Heat output @ operating limit	(kW)	162	185	202	232	250	293	301	327	354	374

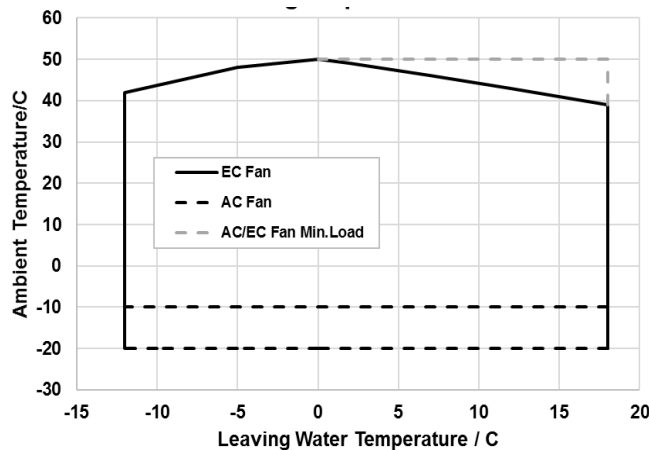
Heating mode

Figure 1 – Operating range in winter of CXAF units at full load (left) and minimum load (right)



Cooling mode

Figure 2 – Operating range in summer of CXAF units at full load (black line) and minimum load (grey dotted line)

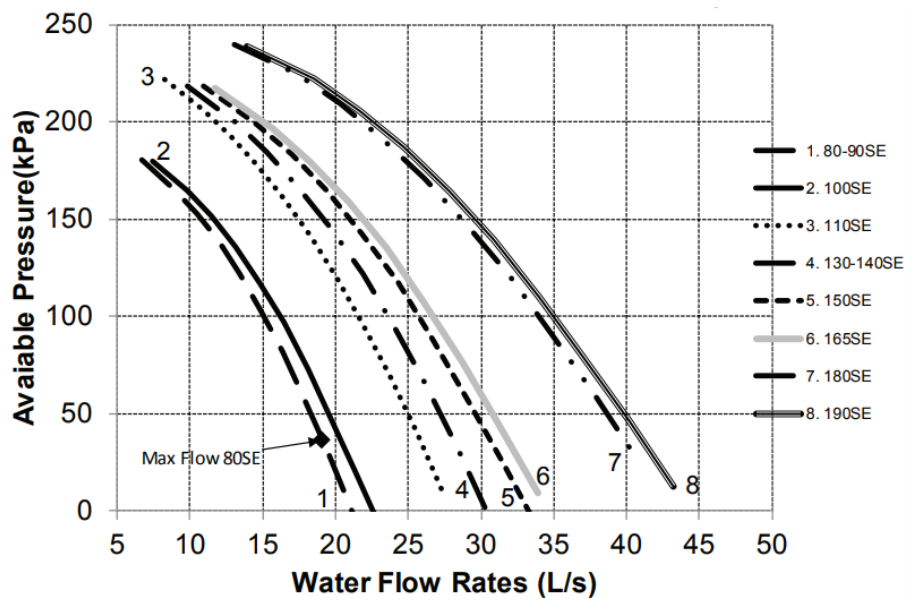


Evaporator water flow limits

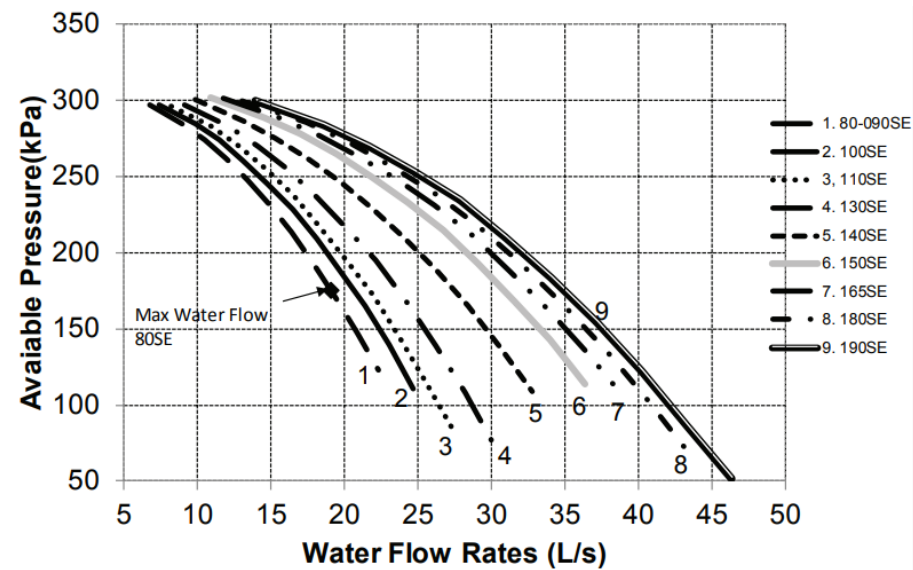
		080	090	100	110	130	140	150	165	180	190
Min. water flow	(l/s)	7.1	8.0	9.0	10.1	11.3	12.1	13.4	14.4	15.6	16.7
Max. water flow	(l/s)	28.4	32.2	35.8	40.4	45.0	48.2	53.5	57.7	62.4	66.8

Pump curves

Standard head



High head





Electrical data

SE version with AC fans (1)

	080	090	100	110	130	140	150	165	180	190
Max Power input (kW)	122	141	161	179	193	225	244	258	275	289
Max Amps (A)	206	238	270	298	320	375	407	429	457	479
Start up amp (A) Direct start	419	495	528	637	659	632	664	768	796	818
Start up amp (A) Soft starter	315	367	400	472	494	504	536	603	631	653
displacement power factor @ Fundamental (Cos φ)	0.85	0.86	0.86	0.87	0.87	0.87	0.87	0.87	0.87	0.87

Size (A)	315	400	400	500	500	630	630	630	800	800
Power cable cross section max (mm)	1*240	1*240	1*240	1*240	1*240	2*300	2*300	2*300	2*300	2*300

Voltage (V)	400	400	400	400	400	400	400	400	400	400
Phase Number	3	3	3	3	3	3	3	3	3	3
frequency (Hz)	50	50	50	50	50	50	50	50	50	50
Maximum Short Circuit Rating (kA) with fuse gG	15	15	15	15	15	15	15	15	15	15

Max Power Cable cross section (mm ²)	1*240	1*240	1*240	1*240	1*240	2*300	2*300	2*300	2*300	2*300
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Compressor - Circuit 1A

Size (T)	25	25	30	30	40	25	30	30	30	40
Max Power input (kW)	28.4	28.4	38.2	38.2	45.2	28.4	38.2	38.2	38.2	45.2
Max Amps (A)	47	47	63	63	74	47	63	63	63	74
Start up amp (A) / Direct start	260	260	320	320	413	260	320	320	320	413
Start up amp (A) / Soft starter	156	156	192	192	248	156	192	192	192	248

Compressor - Circuit 1B

Size (T)	25	30	30	40	40	30	30	30	40	40
Max Power input (kW)	28.4	38.2	38.2	45.2	45.2	38.2	38.2	38.2	45.2	45.2
Max Amps (A)	47	63	63	74	74	63	63	63	74	74
Start up amp (A) / Direct start	260	320	320	413	413	320	320	320	413	413
Start up amp (A) / Soft starter	156	192	192	248	248	192	192	192	248	248

Compressor - Circuit 1C

Size (T)						30	30	40	40	40
Max Power input (kW)						38.2	38.2	45.2	45.2	45.2
Max Amps (A)						63	63	74	74	74
Start up amp (A) / Direct start						320	320	413	413	413
Start up amp (A) / Soft starter						192	192	248	248	248

Compressor - Circuit 2A

Size (T)	25	25	30	30	40	25	30	30	30	40
Max Power input (kW)	28.4	28.4	38.2	38.2	45.2	28.4	38.2	38.2	38.2	45.2
Max Amps (A)	47	47	63	63	74	47	63	63	63	74
Start up amp (A) / Direct start	260	260	320	320	413	260	320	320	320	413
Start up amp (A) / Soft starter	156	156	192	192	248	156	192	192	192	248

Compressor - Circuit 2B

Size (T)	25	30	30	40	40	30	30	30	40	40
Max Power input (kW)	28.4	38.2	38.2	45.2	45.2	38.2	38.2	38.2	45.2	45.2
Max Amps (A)	47	63	63	74	74	63	63	63	74	74
Start up amp (A) / Direct start	260	320	320	413	413	320	320	320	413	413
Start up amp (A) / Soft starter	156	192	192	248	248	192	192	192	248	248

Compressor - Circuit 2C

Size (T)						30	30	40	40	40
Max Power input (kW)						38.2	38.2	45.2	45.2	45.2
Max Amps (A)						63	63	74	74	74
Start up amp (A) / Direct start						320	320	413	413	413
Start up amp (A) / Soft starter						192	192	248	248	248

(1) Electrical & system data are indicative and subject to change without notice. Please refer to unit nameplate data.



Electrical data

SE version with EC fans – with or without Axitop diffusers

For CXAF HE models, refer to the Installation, Operation and Maintenance Manual

	080	090	100	110	130	140	150	165	180	190
Max Power input (kW)	130	150	169	183	197	230	249	263	281	295
Max Amps (A)	212	244	277	299	321	376	408	430	458	480
Start up amp (A) Direct start	426	502	534	638	660	633	665	769	797	820
Start up amp (A) Soft starter	322	374	406	473	495	505	537	604	632	654
displacement power factor @ Fundamental (Cos φ)	0.88	0.88	0.88	0.88	0.89	0.88	0.88	0.88	0.89	0.89
Size (A)	315	400	400	500	500	630	630	630	800	800
Power cable cross section max (mm)	1*240	1*240	1*240	1*240	1*240	2*300	2*300	2*300	2*300	2*300
Voltage (V)	400	400	400	400	400	400	400	400	400	400
Phase Number	3	3	3	3	3	3	3	3	3	3
frequency (Hz)	50	50	50	50	50	50	50	50	50	50
Maximum Short Circuit Rating (kA) with fuse gG	15	15	15	15	15	15	15	15	15	15

Electrical & system data are indicative and subject to change without notice. Please refer to unit nameplate data for details.



Technical data

Sizes SE 080-090-100

For CXAF HE models, refer to the Installation, Operation and Maintenance Manual

CXAF Standard Efficiency		080	090	100
Compressor				
Compressor Number per Circuit	#	2	2	2
Type		Scroll	Scroll	Scroll
Nb of refrigerant circuit	#	2	2	2
Minimum cooling load % (6)	%	25	23	25
Water side heat exchanger				
Type		Stainless steel Copper Brazed plate Heat exchanger		
Quantity	#	1	1	1
Evaporator Water Content volume	(l)	40.4	40.4	48.6
Nominal water connection size (Grooved coupling) - Without HYM	(in) - (mm)	4" - 114.3	4" - 114.3	4" - 114.3
Nominal water connection size (Grooved coupling) - With HYM	(in) - (mm)	4" - 114.3	4" - 114.3	4" - 114.3
Airside heat exchanger				
Type		Fin and tube heat exchanger		
Quantity	#	8	8	8
Face area per circuit	(m ²)	9.3	9.3	9.3
Condenser/evaporator fans				
Quantity	#	8	8	8
Diameter	(mm)	800	800	800
AC fans (Digit 56=1)				
Airflow per fan	m ³ /h			
Max Power Input per Motor	kW	0.89	0.89	0.89
Max Amps per Motor	A	2.22	2.22	2.22
Motor RPM	(rpm)	686	686	686
EC fans (Digit 56=2)				
Airflow per fan	m ³ /h			
Max Power Input per Motor	kW	1.95	1.95	1.95
Max Amps per Motor	A	3	3	3
Motor RPM	(rpm)	700	770	820
EC with Axitop diffusers (Digit 56=3)				
Airflow per fan	m ³ /h			
Max Power Input per Motor	kW	1.95	1.95	1.95
Max Amps per Motor	A	3	3	3
Motor RPM		660	730	780



Sizes SE 110-130-140

For CXAF HE models, refer to the Installation, Operation and Maintenance Manual

CXAF Standard Efficiency		110	130	140
Compressor				
Compressor Number per Circuit	#	2	2	3
Type		Scroll	Scroll	Scroll
Nb of refrigerant circuit	#	2	2	2
Minimum cooling load % (6)	%	22	25	15
Water side heat exchanger				
Type		Stainless steel Copper Brazed plate Heat exchanger		
Quantity	#	1	1	1
Evaporator Water Content volume	(l)	56.7	64.9	73.1
Nominal water connection size (Grooved coupling) - Without HYM	(in) - (mm)	4" - 114.3	4" - 114.3	5" - 139.7
Nominal water connection size (Grooved coupling) - With HYM	(in) - (mm)	4" - 114.3	4" - 114.3	5" - 139.7
Airside heat exchanger				
Type		Fin and tube heat exchanger		
Quantity	#	8	8	10
Face area per circuit	(m ²)	9.29	9.29	11.61
Condenser/evaporator fans				
Quantity	#	8	8	10
Diameter		800		
AC fans (Digit 56=1)				
Airflow per fan	m ³ /h			
Max Power Input per Motor	kW	1.44	1.44	1.44
Max Amps per Motor	A	2.9	2.9	2.9
Motor RPM	(rpm)	900	900	900
EC fans (Digit 56=2)				
Airflow per fan	m ³ /h			
Max Power Input per Motor	kW	1.95	1.95	1.95
Max Amps per Motor	A	3	3	3
Motor RPM	(rpm)	860	890	900
EC with Axitop diffusers (Digit 56=3)				
Airflow per fan	m ³ /h			
Max Power Input per Motor	kW	1.95	1.95	1.95
Max Amps per Motor	A	3	3	3
Motor RPM		820	850	860



Sizes SE 150-160

For CXAF HE models, refer to the Installation, Operation and Maintenance Manual

CXAF Standard Efficiency		150	165
Compressor			
Compressor Number per Circuit	#	3	3
Type		Scroll	Scroll
Nb of refrigerant circuit	#	2	2
Minimum cooling load % (6)	%	17	15
Water side heat exchanger			
Type		Stainless steel Copper Brazed plate Heat exchanger	
Quantity	#	1	1
Evaporator Water Content volume	(l)	81.3	81.3
Nominal water connection size (Grooved coupling) - Without HYM	(in) - (mm)	5" - 139.7	5" - 139.7
Nominal water connection size (Grooved coupling) - With HYM	(in) - (mm)	5" - 139.7	5" - 139.7
Airside heat exchanger			
Type		Fin and tube heat exchanger	
Quantity	#	10	10
Face area per circuit	(m ²)	11.61	11.61
Condenser/evaporator fans			
Quantity	#	10	10
Diameter		800	
AC fans (Digit 56=1)			
Airflow per fan	m ³ /h		
Max Power Input per Motor	Kw	1.44	1.44
Max Amps per Motor	A	2.9	2.9
Motor RPM	(rpm)	900	900
EC fans (Digit 56=2)			
Airflow per fan	m ³ /h		
Max Power Input per Motor	Kw	1.95	1.95
Max Amps per Motor	A	3	3
Motor RPM	(rpm)	900	900
EC with Axitop diffusers (Digit 56=3)			
Airflow per fan	m ³ /h		
Max Power Input per Motor	Kw	1.95	1.95
Max Amps per Motor	A	3	3
Motor RPM		860	860



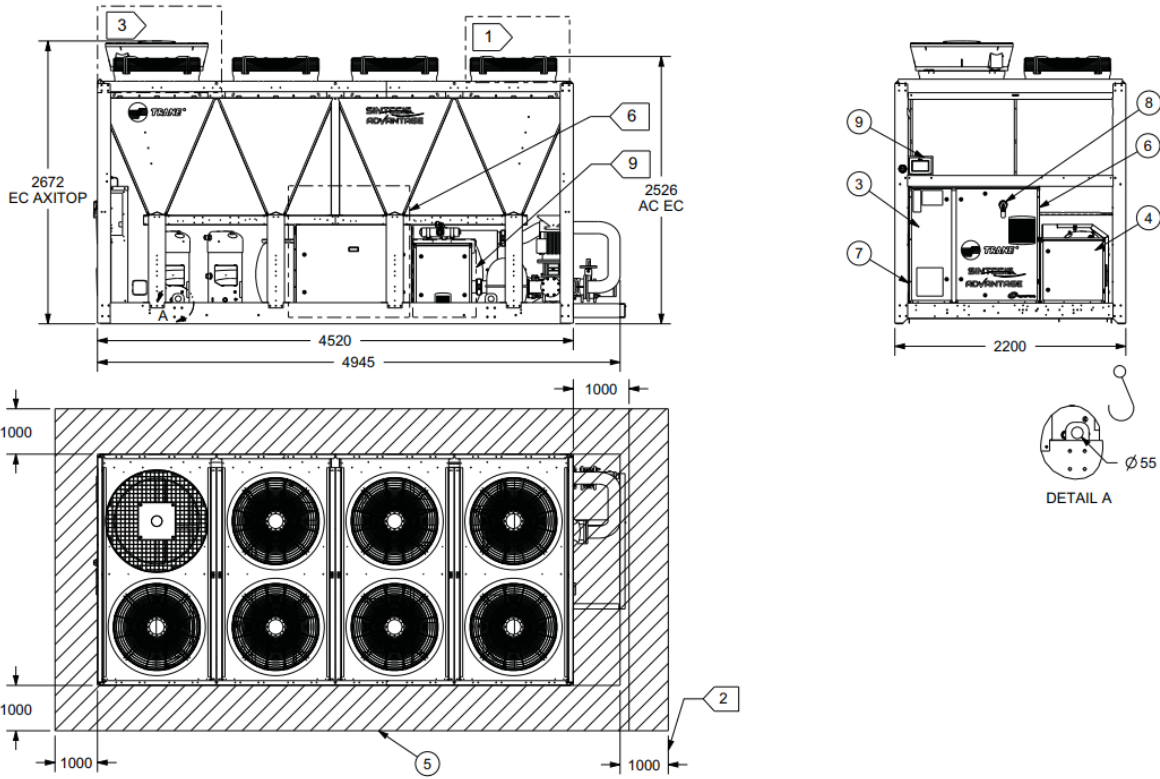
Sizes SE 180-190

For CXAF HE models, refer to the Installation, Operation and Maintenance Manual

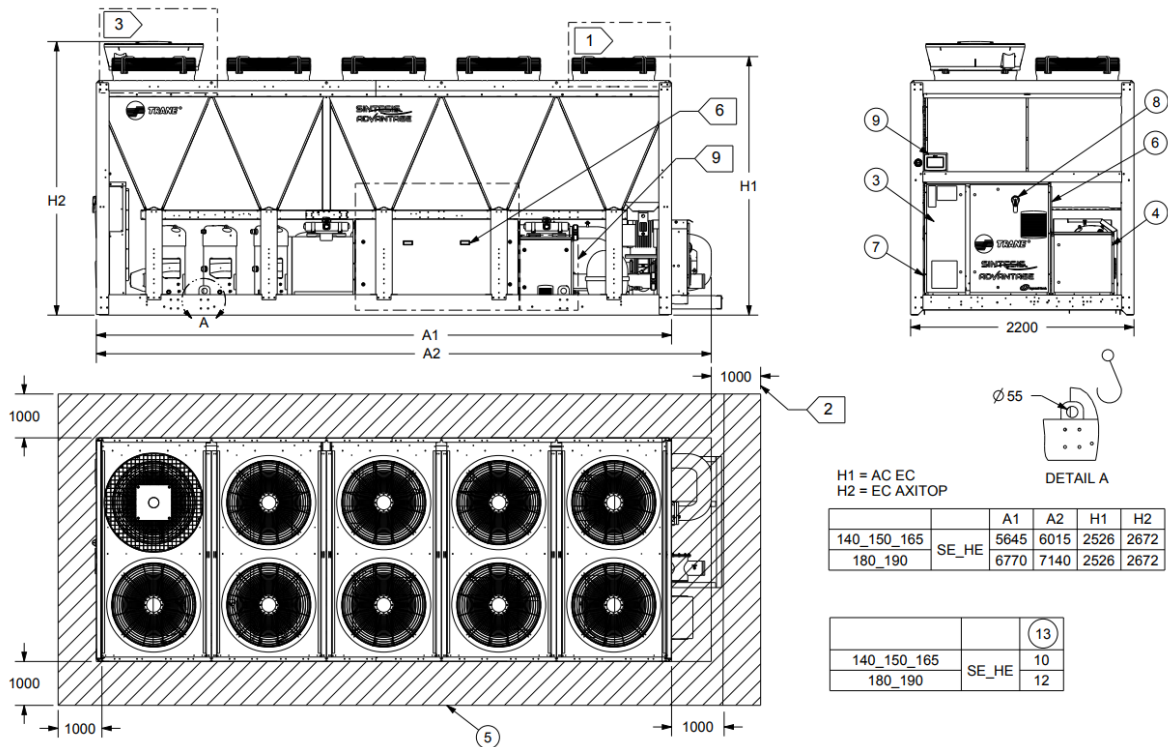
CXAF Standard Efficiency		180	190
Compressor			
Compressor Number per Circuit	#	3	3
Type		Scroll	Scroll
Nb of refrigerant circuit	#	2	2
Minimum cooling load % (6)	%	14	17
Water side heat exchanger			
Type		Stainless steel Copper Brazed plate Heat exchanger	
Quantity	#	1	1
Evaporator Water Content volume	(l)	81.3	86
Nominal water connection size (Grooved coupling) - Without HYM	(in) - (mm)	5" - 139.7	5" - 139.7
Nominal water connection size (Grooved coupling) - With HYM	(in) - (mm)	5" - 139.7	5" - 139.7
Airside heat exchanger			
Type		Fin and tube heat exchanger	
Quantity	#	12	12
Face area per circuit	(m ²)	13.93	13.93
Condenser/evaporator fans			
Quantity	#	12	12
Diameter	(mm)	800	
AC fans (Digit 56=1)			
Airflow per fan	m ³ /h		
Max Power Input per Motor	Kw	1.44	1.44
Max Amps per Motor	A	2.9	2.9
Motor RPM	(rpm)	900	900
EC fans (Digit 56=2)			
Airflow per fan	m ³ /h		
Max Power Input per Motor	Kw	1.95	1.95
Max Amps per Motor	A	3	3
Motor RPM	(rpm)	960	960
EC with Axitop diffusers (Digit 56=3)			
Airflow per fan	m ³ /h		
Max Power Input per Motor	Kw	1.95	1.95
Max Amps per Motor	A	3	3
Motor RPM		910	910

Unit dimensions

Sizes 080 – 130 (SE and HE)



Sizes 140 – 190 (SE and HE)



H1 = AC EC
H2 = EC AXITOP

	A1	A2	H1	H2
140_150_165	5645	6015	2526	2672
180_190	6770	7140	2526	2672

		13
140_150_165	SE_HE	10
180_190	SE_HE	12



Weights

Basic unit - Standard efficiency version (SE)

CXAF model	AC or EC fans		EC Axitop fans	
	Digit 56 = 1 or 2		Digit 56 = 3	
	Shipping weight (kg)	Operating weight (kg)	Shipping weight (kg)	Operating weight (kg)
080	2765	2835	2845	2915
090	2864	2934	2944	3014
100	2999	3078	3079	3158
110	3081	3168	3161	3248
130	3141	3235	3221	3315
140	3768	3876	3868	3976
150	3944	4060	4044	4160
165	3984	4100	4084	4200
180	4438	4554	4558	4674
190	4507	4628	4627	4748

Basic unit - High heat efficiency version (HE)

CXAF model	AC or EC fans		EC Axitop fans	
	Digit 56 = 1 or 2		Digit 56 = 3	
	Shipping weight (kg)	Operating weight (kg)	Shipping weight (kg)	Operating weight (kg)
080	2815	2885	2895	2965
090	2914	2984	2994	3064
100	3059	3138	3139	3218
110	3141	3228	3221	3308
130	3201	3295	3281	3375
140	3848	3956	3948	4056
150	4024	4140	4124	4240
165	4064	4180	4164	4280
180	4523	4639	4643	4759
190	4592	4713	4712	4833

Options – Pump package

CXAF model	Dual pump (Std)		Single pump (Std)		Dual pump (high)		Single pump (high)	
	Digit 24=1		Digit 24=2		Digit 24=3		Digit 24=3	
	Shipping (kg)	Operating (kg)	Shipping (kg)	Operating (kg)	Shipping (kg)	Operating (kg)	Shipping (kg)	Operating (kg)
080	315	395	225	305	395	475	270	350
090	315	395	225	305	395	475	270	350
100	315	395	225	305	395	475	270	350
110	335	415	235	315	395	475	270	350
130	335	415	235	315	395	475	270	350
140	345	445	245	350	480	580	320	425
150	345	445	245	350	480	580	320	425
165	455	555	310	410	480	580	320	425
180	470	585	325	440	495	610	335	455
190	470	585	325	440	495	610	335	455



Options – Others

CXAF model	Buffer tank		Extra low noise package	
	Digit 50=1		Digit 15=E	
	Shipping (kg)	Operating (kg)	Shipping (kg)	Operating (kg)
080	250	915	115	115
090	250	915	115	115
100	250	915	115	115
110	250	915	115	115
130	250	915	115	115
140	330	1120	150	150
150	330	1120	150	150
165	330	1120	150	150
180	330	1120	150	150
190	330	1120	150	150

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