



XSTREAM



Water-Cooled Screw Chillers and Water/Water Heat Pumps



Model RTWF (R134a / R513A)
370 - 1860 kW
Model RTWF G (R1234ze)
355 - 1420 kW
Model RTHF (R134a)
1140 - 3670 kW
Model RTHF G (R1234ze)
750 - 2670 kW
SEER up to 10.1

TRANE
TECHNOLOGIES

Trane XStream™

Water-Cooled Chillers and Water/Water Heat Pumps

There is world-wide demand for increasingly efficient products to reduce energy and resource consumption. As part of our sustainable product policy, Trane has always been committed to respecting the environment by reducing energy consumption through the delivery of high performing and efficient products and systems.

Trane XStream™ series provides reliable temperature control in the most demanding applications. Exceptional efficiency keeps your operating costs and environmental impact low. Smart and easy to use controls ensure you get the best out of your system day after day, year after year.

Trane XStream are available with a choice of 3 refrigerants: R134a, R513A or R1234ze which has a GWP value of less than one to exceed current F-Gas legislation requirements and help customers reduce carbon dioxide (CO₂) emissions and achieve extreme part load and full load efficiencies.

XStream chillers and heat pumps are ideal for

- Cooling and heating applications
- High and medium temperature industrial process applications



Office buildings



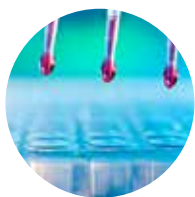
Healthcare



Data Centers



Automotive industry



Pharmaceutical industry



Food and beverage industry



Hospitality industry

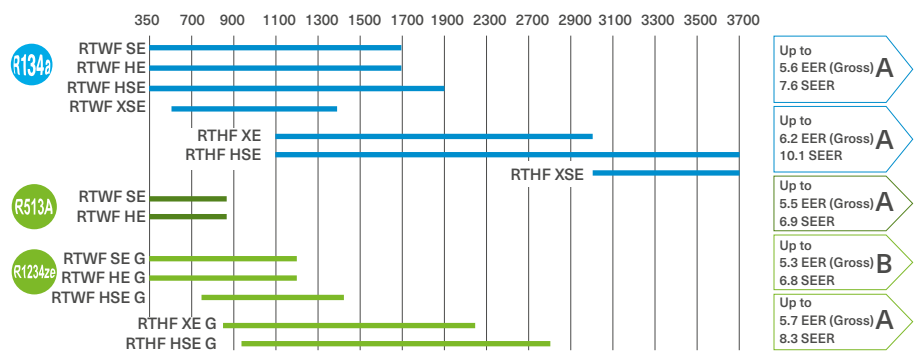


District Cooling
District Heating

Range Description

A model for every need

Whether your priority is to reach ultra high efficiencies, benefit from low first costs, or have a quicker return on investment, there is a model in the Trane XStream range that will meet your needs.



Outstanding energy efficiency



The design of our new XStream chillers and heat pumps has been guided by the need to achieve the lowest energy consumption. Units deliver market leading part load and full load efficiency performance.

You can choose from five efficiency levels:

- Standard Efficiency (SE)
- High Efficiency (HE)
- Extra High Efficiency (XE)
- High Seasonal Efficiency (HSE) with integrated variable speed: Trane Adaptive Frequency™ Drive
- Extra High Seasonal Efficiency (XSE) with Variable Vi compressor and integrated variable speed: Trane Adaptive Frequency™ Drive.

Trane exceptional reliability



With equipment as critical as an HVAC system or industrial process, quality is non-negotiable. At Trane we manufacture and design the core components and put our systems through extremely rigorous performance and reliability tests. All Trane units are given a complete test before leaving our factory. As a result, Trane customers benefit from proven, industry-leading reliability and durability.

Extreme versatility



Whether you have seasonal comfort requirements or a sensitive industrial application there is a model from the XStream range that will satisfy your needs.

By selecting the appropriate efficiency version, you can minimize your Total Cost of Ownership.

For even greater system efficiency, Trane XStream units are fully compatible with Variable Primary Flow (VPF) applications and Series chiller arrangements.

The Future of F-Gases

The fluorinated refrigerants phase-down, as defined in the new EU F-Gas Regulation, is a step-by-step approach where the quantities of HFCs expressed in CO₂ equivalent that are placed on the market are gradually reduced. As a result of the phase-down, HFC consumption will be reduced by 79% by 2030.

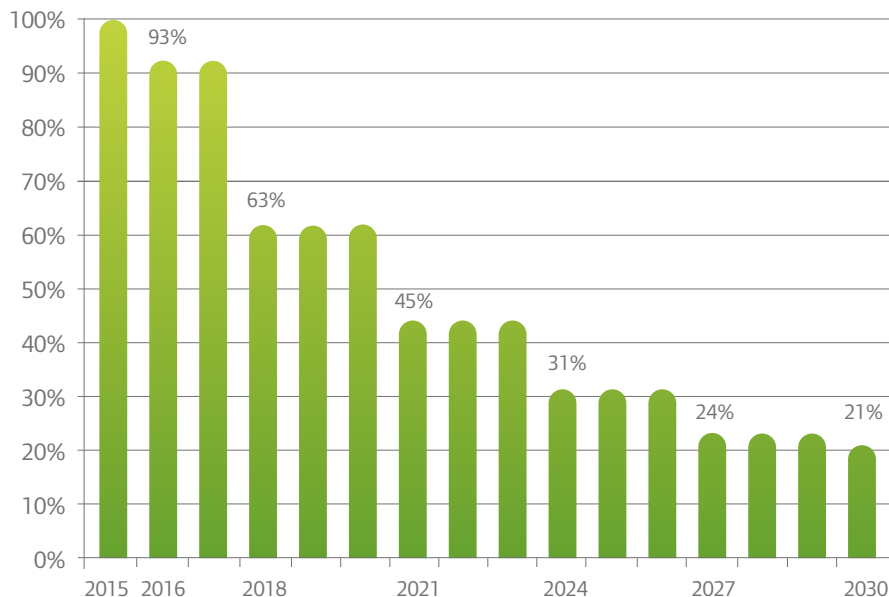
This is an unprecedented reduction and means that industry and users need to make, over time, the

transition to refrigerants with a lower global warming potential.

Trane, recognized as a leading innovator in the HVAC industry, introduces this new, next generation, lower GWP refrigerant in Sintesis and other products to be front running in the marketplace and to support your strong sustainability objectives.

Trane - provider of sustainable solutions.

HFC consumption



Baseline value (100%) is the annual average of total quantity of CO₂ equivalents placed on the EU market from 2009 to 2012.

An environmentally sustainable solution

EcoWise™

XStream™ chillers and heat pumps with low GWP refrigerants are part of the EcoWise™ portfolio of products that are designed to lower their environmental impact with next-generation, low global warming potential (GWP) refrigerants and high-efficiency operation.



New R1234ze

Ozone depletion potential = 0

Low global warming potential (GWP<1)

Refrigerant	Global Warming Potential (GWP)
R410A	1924
R407C	1774
R134a	1300
R513A	572
R1233zd	1
R1234ze	<1

What is GWP?

GWP is the global warming impact relative to the impact of the same quantity of carbon dioxide over a 100 year period.

What is ODP?

Ozone depletion potential of a chemical is the amount of degradation to the ozone layer it can cause.

XStream chillers

The smart choice for cooling applications

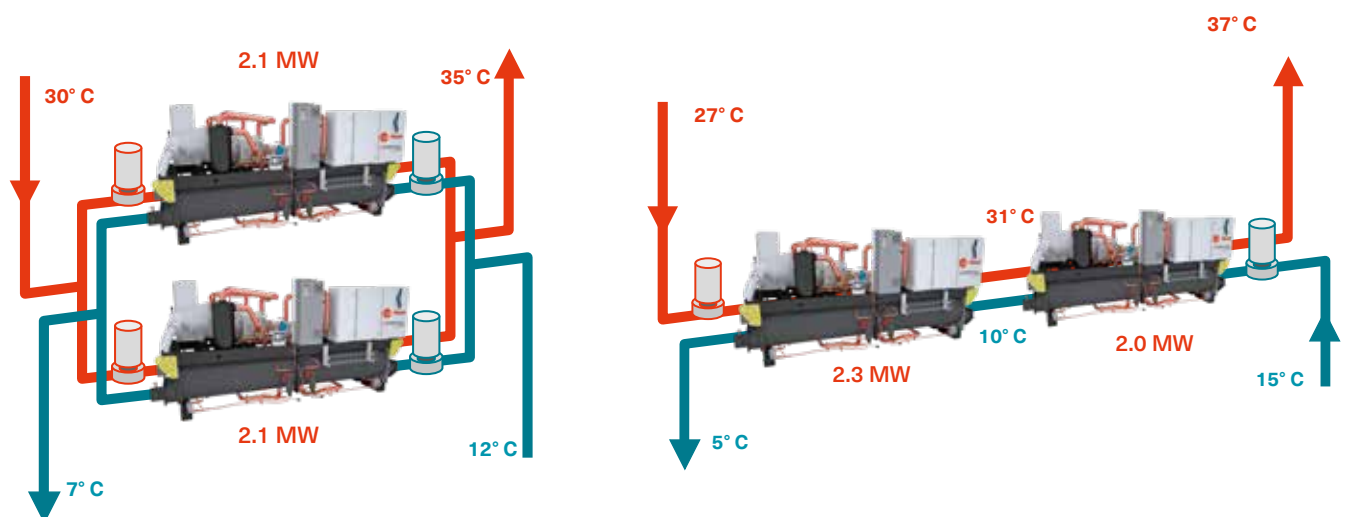
Because chillers rarely operate at design conditions, Trane developed the XStream range to achieve industry-leading part load efficiencies without compromising the environment.

Unique and innovative features



- Multiple compressor design allows outstanding part load efficiencies by switching compressors off while utilizing the entire heat exchanging surface for the remaining compressor(s)
- XStream chillers and heat pumps take advantage of crossflow serial heat exchanger design to reduce compressor workload under all operating conditions.

Multiple chiller plants



Overall efficiency can be further improved by using an alternative chiller lay-out to the conventional parallel-piped configuration. For example, chillers can be piped in series, on the evaporator side, on the condenser side or both.

This layout provides the opportunity for

- Lower chilled water design temperature with larger ΔT
- Reduced design flow
- Installation and operational cost savings by fewer installed pumps and valves, reduced pipe diameters and chiller downsizing
- Maximized system efficiency
- Continuous temperatures allow better stability of controls

By combining series configuration with Variable Primary Flow (VPF) it is possible to further increase system efficiency.

VPF

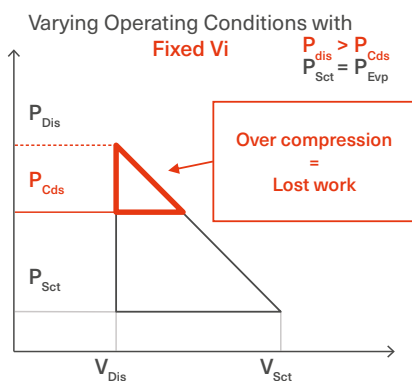
Variable Primary Flow (VPF) capabilities

VPF systems provide building owners with multiple cost savings derived directly from pump operation. The XStream series is designed to make VPF easy to use.

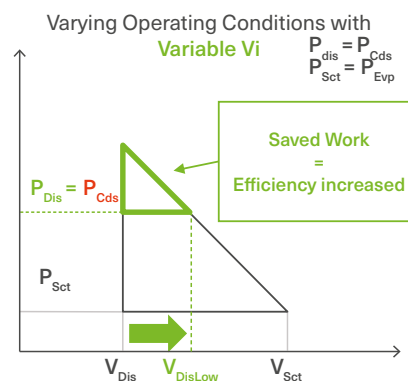
- The evaporator on the XStream series can run safely with up to 50% water flow reduction
- The microprocessor and capacity control algorithms are designed to handle a maximum of 10% change in water flow rate per minute in order to maintain $\pm 0.3^{\circ}\text{C}$ temperature control leaving the evaporator.
- For applications in which system energy savings are the priority and tight temperature control is classified as $\pm 1.1^{\circ}\text{C}$, up to 30% change in flow per minute is possible.
- With the help of a TRANE software analysis tool, you can determine whether the anticipated energy savings justify the use of VPF in a particular application.

Variable Vi capabilities on RTWF XSE and RTHF XSE

We take part load efficiency one step further by using the latest Trane screw compressor with Variable Volume Index (Variable Vi) that allows the chiller to operate at the most appropriate pressure ratio to reach remarkable efficiency levels. Variable Vi increases part load efficiency (SEER) by 10% vs. the equivalent model at Fixed Vi. RTHF XSE can reach SEER's as high as 10.1.



Volume variation delivers **more** pressure increase than is needed



Volume variation is adapted to deliver the **required** pressure increase

XStream heat pumps

Ideal for heating applications

The market for heat pumps in Europe has grown substantially year over year as the advantages of heat pumps are proven. Trane introduces new technologies creating sustainable solutions using renewable energy.

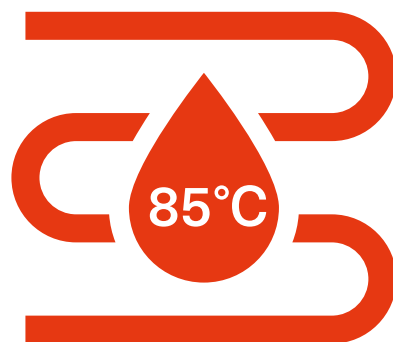
Unique and innovative features



Trane XStream heat pumps are a smart alternative to traditional boilers with features which effectively address the needs of geothermal and district heating applications:

- Compressors specially designed for high temperature applications
- Large capacities up to 2020 kW (at Eurovent Air Conditioning heating conditions)
- High condensing water temperatures of up to 85°C (RTWF G) allowing operation as a high temperature heat pump or a high condensing temperature cooling system.
- High performance up to 4.8 COP (at Eurovent Air Conditioning heating conditions)
- Operates down to 10% part load requirements.

High condensing water temperatures of up to **85°C**.

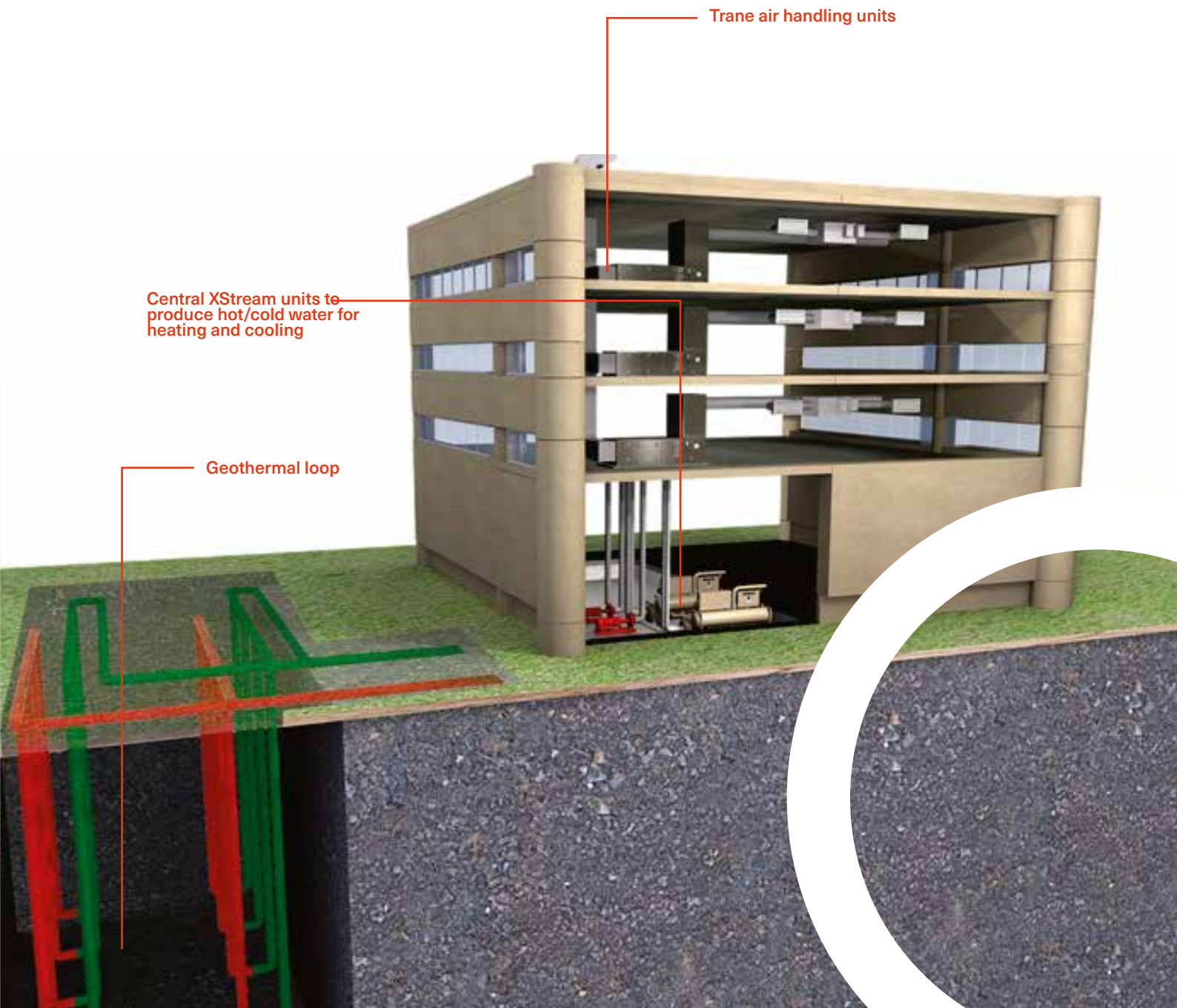


Peace of mind while saving energy costs

Thanks to the high leaving-condenser temperatures that RTWF/RTWF G models are able to achieve, costly auxiliary heating sources to treat Legionella bacteria can now be scaled back or totally eliminated.

Geothermal applications

The technologies built into Trane's XStream series heat pumps make them ideally suited to geothermal applications.



Features

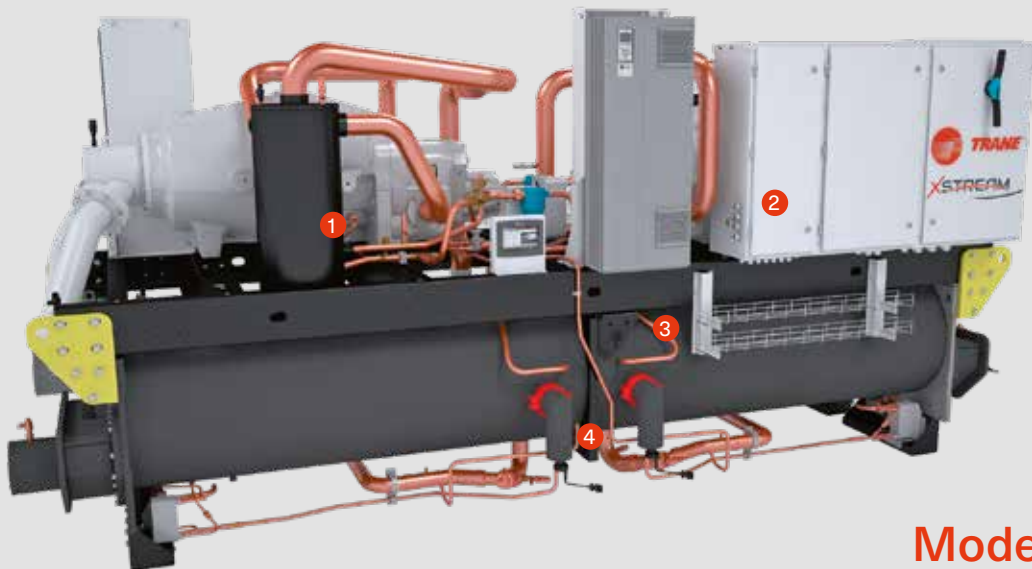
Innovative solutions to your needs

1 Trane industry-leading compressor*

- Direct drive, twin screw helical rotary design
- Variable Vi on RTWF and RTHF XSE version
- Infinite capacity modulation
- Semi hermetic design eliminating shaft seals
- Trane unequaled reliability

Two different refrigerant alternatives on RTWF

- R134a
- R1234ze with GWP<1



Model RTHF

3 Trane combined smart control and interface*

- Leading TD7 touch screen with 7" color display
- Clear presentation of critical information
- Monitor settings, data trending, reports and alarms
- Simple, intuitive navigation
- Effective operation, monitoring and management
- Durable construction for both indoor and outdoor use

4 Heat exchangers*

- Single pass
- Counter flow configuration

Connectivity

- Full interoperability via SmartCom interface Lontalk®, BACnet® and Modbus
- Full remote control capability via Trane BMS or Chiller Plant Controls



* Trane Proprietary Technology



② Adaptive Frequency™ Drive on HSE and XSE version*

- Improved efficiency under part load conditions
- Improved capacity modulation



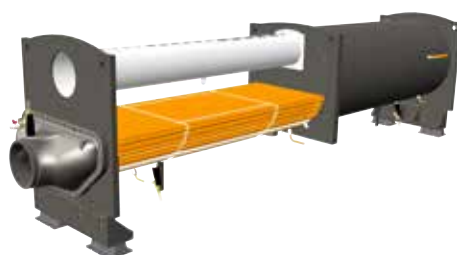
Model RTWF

Trane patented Compact - High performance - Integrated design - Low charge (CHIL) flooded evaporator*

- Reduced refrigerant volume
- Increased efficiency
- Reduced carbon footprint

Trane controller*

- New generation Trane control platform for chillers
- Advanced algorithms for the most challenging conditions
- Maintains efficient and reliable operation



General specifications

General Data for cooling performances

		RTWF	RTWF G	RTHF	RTHF G
Refrigerant		R134a / R513A	R1234ze	R134a	R1234ze
Condenser leaving water temperature (Min/Max)	(°C)	+10 / +68	+10 / +80 (1) +10 / +85 (2)	+10 / +50	+10 / +50
Evaporator leaving water temperature (Min/Max)	(°C)	-12 / +20	-12 / +27	-12 / +20	-12 / +20
Power Supply	(V/Ph/Hz)	400/3/50			

(1) Sizes 095 to 165

(2) Sizes 220 to 420

RTWF SE (Standard Efficiency)



Unit size		RTWF	RTWF	RTWF	RTWF	RTWF	RTWF	RTWF	RTWF	RTWF	RTWF	RTWF	RTWF	RTWF	RTWF	RTWF	RTWF	RTWF
		100 SE	120 SE	140 SE	150 SE	170 SE	180 SE	190 SE	210 SE	230 SE	275 SE	290 SE	310 SE	330 SE	370 SE	410 SE	450 SE	490 SE
Net cooling capacity (1) (2)	(kW)	368	417	487	544	591	646	702	777	845	939	983	1043	1112	1250	1397	1537	1676
Net EER (1) (2)		5.18	5.11	5.02	5.15	5.2	5.14	4.98	5.03	5.01	4.88	4.86	4.88	4.88	4.83	4.9	4.88	4.89
Eurovent Energy class - Cooling		A	A	B	A	A	A	B	B	B	B	B	B	B	B	B	B	B
SEER (3)		6.83	6.85	6.90	6.93	7.03	7.03	7.00	6.95	6.88	6.90	6.88	6.78	6.95	6.90	7.38	7.43	7.33
Space cooling efficiency $\eta_{s,c}$ (3)	(%)	270	271	273	274	278	278	277	275	272	273	272	268	275	273	292	294	290
Number of refrigerant circuits		1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2
Number of compressors		2	2	2	2	2	2	2	2	2	3	3	3	3	3	4	4	4
Sound Power Level	(dB(A))	99	99	96	96	96	99	101	101	101	100	100	101	101	101	102	102	102
Weights and dimensions																		
Length	(mm)	3080	3080	3080	3080	3080	3160	3160	3160	3160	4754	4754	4784	4784	4784	4774	4774	4774
Width	(mm)	1190	1190	1190	1190	1190	1225	1250	1250	1250	1727	1727	1727	1727	1727	1823	1823	1823
Height	(mm)	1900	1900	1900	1935	1935	1935	2035	2035	2080	2032	2032	2032	2032	2032	2135	2135	2135
Operating Weight	(kg)	2622	2641	3048	3194	3215	3456	3783	3884	3988	5276	5273	5456	5511	5574	6945	7025	7109

RTWF HE (High Efficiency)



Unit size		RTWF	RTWF	RTWF	RTWF	RTWF	RTWF	RTWF	RTWF	RTWF	RTWF	RTWF	RTWF	RTWF	RTWF	RTWF	RTWF	RTWF
		100 HE	120 HE	140 HE	150 HE	170 HE	180 HE	190 HE	210 HE	230 HE	275 HE	290 HE	310 HE	330 HE	370 HE	410 HE	450 HE	490 HE
Net cooling capacity (1) (2)	(kW)	371	429	499	552	600	658	716	787	854	957	1003	1066	1134	1267	1423	1563	1706
Net EER (1) (2)		5.33	5.35	5.21	5.36	5.43	5.32	5.18	5.21	5.12	5.26	5.26	5.24	5.24	5.22	5.29	5.23	5.23
Eurovent Energy class - Cooling		A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
SEER (3)		6.93	7.03	7.10	7.13	7.20	7.23	7.13	7.03	6.93	7.33	7.30	7.15	7.28	7.20	7.75	7.68	7.53
Space cooling efficiency $\eta_{s,c}$ (3)	(%)	274	278	281	282	285	286	282	278	274	290	289	283	288	285	307	304	298
Number of refrigerant circuits		1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2
Number of compressors		2	2	2	2	2	2	2	2	2	3	3	3	3	3	4	4	4
Sound Power Level	(dB(A))	99	99	96	96	96	99	101	101	101	100	100	101	101	101	102	102	102
Weights and dimensions																		
Length	(mm)	3080	3080	3080	3160	3160	3160	3160	3160	3160	4754	4754	4784	4784	4784	4774	4774	4774
Width	(mm)	1190	1190	1190	1215	1215	1250	1250	1250	1250	1727	1727	1727	1727	1727	1823	1823	1823
Height	(mm)	1900	1935	1935	2055	2055	2080	2080	2080	2080	2032	2032	2032	2032	2032	2135	2135	2135
Operating Weight	(kg)	2696	2819	3196	3490	3564	3790	3969	4139	4139	5687	5683	5886	5950	6123	7446	7571	7694

(1) Evaporator 12/7°C and 0.0 m²K/kW, and condenser at 30/35°C and 0.0 m²K/kW

(2) Net performances calculated as per EN 14511-2013.

(3) $\eta_{s,c}$ / SEER as defined in Directive 2009/125/EC of the European Parliament and of the Council with regard to Ecodesign requirements for Comfort Chillers with 2000 kW maximum capacity - COMMISSION REGULATION (EU) N° 2016/2281 of 20 December 2016

RTWF HSE (High Seasonal Efficiency)

R134a

Unit size		RTWF 100 HSE	RTWF 120 HSE	RTWF 140 HSE	RTWF 150 HSE	RTWF 170 HSE	RTWF 180 HSE	RTWF 190 HSE	RTWF 210 HSE	RTWF 230 HSE	RTWF 250 HSE	RTWF 275 HSE	RTWF 290 HSE	RTWF 310 HSE	RTWF 330 HSE	RTWF 370 HSE	RTWF 410 HSE	RTWF 450 HSE	RTWF 490 HSE	RTWF 515 HSE
Net cooling capacity (1) (2)	(kW)	374	432	501	555	603	658	716	782	849	930	959	1005	1066	1134	1258	1423	1563	1697	1859
Net EER (1) (2)		5.24	5.28	5.18	5.32	5.4	5.21	5.09	5.1	5.02	4.85	5.17	5.17	5.12	5.12	5.1	5.19	5.15	5.14	4.95
Eurovent Energy class - Cooling		A	A	A	A	A	A	A	A	B	B	A	A	A	A	A	A	A	A	B
SEER (3)		6.95	7.15	7.20	7.25	7.33	7.33	7.20	7.10	7.18	7.13	7.33	7.35	7.53	7.48	7.48	7.58	7.40	7.38	7.33
Space cooling efficiency $\eta_{s,c}$ (3)	(%)	275	283	285	287	290	290	285	281	284	282	290	291	298	296	296	300	293	292	290
Number of refrigerant circuits		1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2
Number of compressors		2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	4	4	4	4
Sound Power Level	(dB(A))	99	99	96	96	96	99	101	101	101	103	100	100	101	101	101	102	102	102	107
Weights and dimensions																				
Length	(mm)	3080	3080	3080	3160	3160	3160	3160	3160	3160	3160	4754	4754	4784	4784	4784	4774	4774	4774	4774
Width	(mm)	1260	1260	1260	1285	1285	1380	1380	1380	1380	1380	1727	1727	1727	1727	1727	1823	1823	1823	1823
Height	(mm)	1900	1935	1935	2055	2055	2080	2080	2080	2080	2080	2032	2032	2032	2032	2032	2135	2135	2135	2135
Operating Weight	(kg)	2796	2919	3296	3590	3670	3890	4069	4239	4239	4239	5862	5858	6100	6164	6337	7660	7785	7908	7907

RTWF XSE (Extra High Seasonal Efficiency)

R134a

Unit size		RTWF 115 XSE	RTWF 175 XSE	RTWF 235 XSE	RTWF 305 XSE	RTWF 375 XSE
Net cooling capacity (1) (2)	(kW)	407	646	822	1058	1314
Net EER (1) (2)		5.54	5.27	5.66	5.48	5.53
Eurovent Energy class - Cooling		A	A	A	A	A
SEER (3)		8.41	8.49	8.73	8.74	8.91
Space cooling efficiency $\eta_{s,c}$ (3)	(%)	333	337	346	346	353
Number of refrigerant circuits		1	1	2	2	2
Number of compressors		1	1	2	2	2
Sound Power Level	(dB(A))	94	96	97	98	99
Weights and dimensions						
Length	(mm)	2683	2683	4586	4586	4586
Width	(mm)	1152	1152	1190	1190	1190
Height	(mm)	1995	2045	2110	2130	2130

RTHF XE (Extra Efficiency)

R134a

Unit size		RTHF 330 XE	RTHF 360 XE	RTHF 410 XE	RTHF 460 XE	RTHF 500 XE	RTHF 540 XE	RTHF 600 XE	RTHF 650 XE	RTHF 700 XE	RTHF 750 XE	RTHF 800 XE	RTHF 840 XE
Net cooling capacity (1) (2)	(kW)	1155.5	1268.5	1467.0	1583.7	1777.3	1897.3	2109.1	2248.9	2509.4	2644.4	2824.8	3007.9
Net EER (1) (2)		5.97	5.84	5.83	5.81	5.76	5.77	6.21	6.03	6.15	6.02	5.88	5.77
Eurovent Energy class - Cooling		A	A	A	A	A	A	A	A	A	A	A	A
SEER (3)		7.53	7.40	7.35	7.30	7.43	7.53	8.03	7.88	8.00	7.60	7.55	7.35
Space cooling efficiency $\eta_{s,c}$ (3)	(%)	298	993	291	289	294	298	318	312	317	301	299	291
Number of refrigerant circuits		2	2	2	2	2	2	2	2	2	2	2	2
Number of compressors		2	2	2	2	2	2	2	2	2	2	2	2
Sound Power Level	(dB(A))	97	97	98	98	99	99	102	103	103	103	103	103
Weights and dimensions													
Length	(mm)	4586	4586	4586	4586	4586	4586	5521	5521	5521	5521	5521	5521
Width	(mm)	1840	1840	1840	1840	1840	1840	2088	2088	2088	2088	2088	2088
Height	(mm)	2395	2395	2395	2395	2395	2395	2457	2457	2457	2457	2457	2457
Operating Weight	(kg)	7350	7450	7450	8590	8590	9630	9680	13380	13380	13380	13490	13610

(1) Evaporator 12/7°C and 0.0 m²K/kW, and condenser at 30/35°C and 0.0 m²K/kW

(2) Net performances calculated as per EN 14511-2013.

(3) $\eta_{s,c}$ / SEER as defined in Directive 2009/125/EC of the European Parliament and of the Council with regard to Ecodesign requirements for Comfort Chillers with 2000 kW maximum capacity - COMMISSION REGULATION (EU) N° 2016/2281 of 20 December 2016

RTHF HSE (High Seasonal Efficiency)



Unit size	RTHF 330 HSE	RTHF 360 HSE	RTHF 410 HSE	RTHF 460 HSE	RTHF 500 HSE	RTHF 540 HSE	RTHF 590 HSE	RTHF 640 HSE	RTHF 600 HSE	RTHF 650 HSE	RTHF 700 HSE	RTHF 750 HSE	RTHF 800 HSE	RTHF 840 HSE	RTHF 850 HSE	RTHF 900 HSE	RTHF 950 HSE	RTHF K00 HSE
Net cooling capacity (1) (2) (kW)	1153.2	1267.0	1466.0	1581.1	1771.7	1890.7	2083.4	2270.6	2104.0	2238.9	2499.2	2635.3	2815.0	2995.1	2995.1	3219.9	3445.1	3671.7
Net EER (1) (2)	5.81	5.71	5.72	5.69	5.66	5.65	5.48	5.30	6.09	5.90	6.03	5.91	5.78	5.66	5.64	5.33	5.07	4.84
Eurovent Energy class - Cooling	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	B
SEER (3)	8.73	8.73	8.70	8.83	8.88	9.05	8.88	8.73	9.63	9.43	9.45	9.35	9.28	9.13	9.10	8.95	8.83	8.68
Space cooling efficiency $\eta_{s.c}$ (3) (%)	346	346	345	350	352	359	352	346	382	374	375	371	368	362	361	355	350	344
Number of refrigerant circuits	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Number of compressors	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Sound Power Level (dB(A))	97	97	98	98	99	99	102	104	102	103	103	103	103	103	103	103	107	109
Weights and dimensions																		
Length (mm)	4586	4586	4586	4586	4586	4586	4586	4586	5521	5521	5521	5521	5521	5521	5521	5521	5521	5521
Width (mm)	1940	1940	1940	1940	1940	1940	1940	1940	2088	2088	2088	2088	2088	2088	2305	2305	2305	2305
Height (mm)	2395	2395	2395	2395	2395	2395	2395	2395	2457	2457	2457	2457	2457	2457	2457	2457	2457	2457
Operating Weight (kg)	7520	7620	8820	8820	9920	9970	9970	9970	13440	13740	13740	13740	13850	13970	14570	14570	14570	14570

RTHF XSE (Extra High Seasonal Efficiency)



Unit size	RTHF 855 XSE	RTHF 905 XSE	RTHF 945 XSE	RTHF 995 XSE
Net cooling capacity (1) (2) (kW)	2972	3188	3407	3633
Net EER (1) (2)	5,55	5,27	5,06	4,79
Eurovent Energy class - Cooling	A	A	A	B
SEER (3)	10,13	9,88	9,70	9,50
Space cooling efficiency $\eta_{s.c}$ (3) (%)	402	392	385	377
Number of refrigerant circuits	2	2	2	2
Number of compressors	2	2	2	2
Sound Power Level (dB(A))	103	109	110	111
Weights and dimensions				
Length (mm)	5521	5521	5521	5521
Width (mm)	2305	2305	2305	2305
Height (mm)	2457	2457	2457	2457
Operating weight (kg)	14360	14470	14590	14590

RTWF SE (Standard Efficiency)



Unit size	RTWF 140 SE	RTWF 150 SE	RTWF 170 SE	RTWF 180 SE	RTWF 190 SE	RTWF 210 SE	RTWF 230 SE
Net cooling capacity (1) (2) (kW)	485.0	542.0	589.0	643.0	700.0	774.0	841.0
Net EER (1) (2)	4.82	4.94	4.98	4.93	4.77	4.81	4.79
Eurovent Energy class - Cooling	B	B	B	B	B	B	B
SEER (3)	6.55	6.58	6.58	6.75	6.73	6.65	6.55
Space cooling efficiency $\eta_{s.c}$ (3) (%)	259	260	260	267	266	263	259
Number of refrigerant circuits	1	1	1	1	1	1	1
Number of compressors	2	2	2	2	2	2	2
Sound Power Level (dB(A))	96	96	96	99	101	101	101
Weights and dimensions							
Length (mm)	3080	3080	3080	3160	3160	3160	3160
Width (mm)	1190	1190	1190	1225	1250	1250	1250
Height (mm)	1900	1935	1935	1935	2035	2035	2080
Operating Weight (kg)	3048	3194	3215	3456	3783	3884	3988

(1) Evaporator 12/7°C and 0.0 m²K/kW, and condenser at 30/35°C and 0.0 m²K/kW

(2) Net performances calculated as per EN 14511-2013.

(3) $\eta_{s.c}$ / SEER as defined in Directive 2009/125/EC of the European Parliament and of the Council with regard to Ecodesign requirements for Comfort Chillers with 2000 kW maximum capacity - COMMISSION REGULATION (EU) N° 2016/2281 of 20 December 2016

RTWF HE (High Efficiency)

R513A

Unit size		RTWF 140 HE	RTWF 150 HE	RTWF 170 HE	RTWF 180 HE	RTWF 190 HE	RTWF 210 HE	RTWF 230 HE
Net cooling capacity (1) (2)	(kW)	498.0	550.0	598.0	656.0	713.0	783.0	850.0
Net EER (1) (2)		5.06	5.12	5.19	5.09	4.95	4.97	4.88
Eurovent Energy class - Cooling		A	A	A	A	B	B	B
SEER (3)		6.83	6.85	6.90	6.90	6.80	6.68	6.60
Space cooling efficiency $\eta_{s,c}$ (3)	(%)	270	271	273	273	269	264	261
Number of refrigerant circuits		1	1	1	1	1	1	1
Number of compressors		2	2	2	2	2	2	2
Sound Power Level	(dB(A))	96	96	96	99	101	101	101
Weights and dimensions								
Length	(mm)	3080	3160	3160	3160	3160	3160	3160
Width	(mm)	1190	1215	1215	1250	1250	1250	1250
Height	(mm)	1935	2055	2055	2080	2080	2080	2080
Operating Weight	(kg)	3196	3490	3564	3790	3969	4139	4139

RTWF SE G (Standard Efficiency)

R1234ze

Unit size		RTWF 95 SE G	RTWF 105 SE G	RTWF 125 SE G	RTWF 135 SE G	RTWF 155 SE G	RTWF 165 SE G	RTWF 220 SE G	RTWF 240 SE G	RTWF 280 SE G	RTWF 300 SE G	RTWF 320 SE G	RTWF 360 SE G
Net cooling capacity (1) (2)	(kW)	343	374	449	480	524	582	736	789	877	996	1084	1187
Net EER (1) (2)		4.34	4.32	4.5	4.53	4.54	4.67	4.67	4.64	4.59	4.75	4.66	4.68
Eurovent Energy class - Cooling		C	C	C	C	C	B	B	C	C	B	B	B
SEER (3)		5.78	5.85	6.33	6.33	6.50	6.65	6.00	6.08	5.98	6.63	6.65	6.65
Space cooling efficiency $\eta_{s,c}$ (3)	(%)	228	231	250	250	257	263	237	240	236	262	263	267
Number of refrigerant circuits		1	1	1	1	1	1	2	2	2	2	2	2
Number of compressors		2	2	2	2	2	2	3	3	3	4	4	4
Sound Power Level	(dB(A))	96	96	95	93	93	93	96	96	96	97	97	97
Weights and dimensions													
Length	(mm)	3080	3080	3160	3160	3160	3160	4784	4784	4784	4784	4784	4784
Width	(mm)	1190	1190	1225	1225	1250	1250	1727	1727	1727	1823	1823	1823
Height	(mm)	1900	1900	1935	1935	2035	2080	2032	2032	2032	2135	2135	2135
Operating Weight	(kg)	2959	2959	3128	3164	3452	3579	5135	5228	5373	6554	6676	6885

RTWF HE G (High Efficiency)

R1234ze

Unit size		RTWF 95 HE G	RTWF 105 HE G	RTWF 125 HE G	RTWF 135 HE G	RTWF 155 HE G	RTWF 165 HE G	RTWF 220 HE G	RTWF 240 HE G	RTWF 280 HE G	RTWF 300 HE G	RTWF 320 HE G	RTWF 360 HE G
Net cooling capacity (1) (2)	(kW)	356	391	461	494	545	595	747.0	802.0	893.0	1010.0	1101.0	1206.0
Net EER (1) (2)		4.55	4.56	4.7	4.75	4.78	4.92	4.88	4.9	4.86	5.03	4.97	4.99
Eurovent Energy class - Cooling		C	C	B	B	B	B	B	B	B	B	B	B
SEER (3)		5.93	6.00	6.45	6.48	6.68	6.80	6.33	6.53	6.38	6.63	6.75	6.93
Space cooling efficiency $\eta_{s,c}$ (3)	(%)	234	237	255	256	264	269	250	258	252	262	267	274
Number of refrigerant circuits		1	1	1	1	1	1	2	2	2	2	2	2
Number of compressors		2	2	2	2	2	2	3	3	3	4	4	4
Sound Power Level	(dB(A))	96	96	95	93	93	93	96	96	96	97	97	97
Weights and dimensions													
Length	(mm)	3080	3080	3160	3160	3160	3160	4784	4784	4784	4784	4784	4784
Width	(mm)	1190	1190	1225	1225	1250	1250	1727	1727	1727	1823	1823	1823
Height	(mm)	1935	1935	1935	1935	2035	2080	2032	2032	2032	2135	2135	2135
Operating Weight	(kg)	3176	3176	3271	3307	3622	3796	5517	5610	5804	7007	7129	7353

(1) Evaporator 12/7°C and 0.0 m²K/kW, and condenser at 30/35°C and 0.0 m²K/kW

(2) Net performances calculated as per EN 14511-2013.

(3) $\eta_{s,c}$ / SEER as defined in Directive 2009/125/EC of the European Parliament and of the Council with regard to Ecodesign requirements for Comfort Chillers with 2000 kW maximum capacity - COMMISSION REGULATION (EU) N° 2016/2281 of 20 December 2016

RTWF HSE G (High Seasonal Efficiency)

R1234ze

Unit size		RTWF 095 HSE G	RTWF 105 HSE G	RTWF 125 HSE G	RTWF 135 HSE G	RTWF 155 HSE G	RTWF 165 HSE G	RTWF 185 HSE G	RTWF 205 HSE G	RTWF 220 HSE G	RTWF 240 HSE G	RTWF 280 HSE G	RTWF 300 HSE G	RTWF 320 HSE G	RTWF 360 HSE G	RTWF 380 HSE G	RTWF 420 HSE G
Net cooling capacity (1) (2)	(kW)	356	392	461	495	548	598	646	695	747.0	803.0	898.0	1010.0	1101.0	1211.0	1308.0	1417.0
Net EER (1) (2)		4.54	4.53	4.63	4.69	4.73	4.87	4.74	4.6	4.85	4.90	4.84	5.01	4.96	4.98	4.80	4.71
Eurovent Energy class - Cooling		C	C	C	B	B	B	B	B	B	B	B	B	B	B	B	B
SEER (3)		5.75	5.63	5.93	5.98	6.03	6.15	6.13	6.08	6.35	6.35	6.25	6.43	6.55	6.70	6.63	6.55
Space cooling efficiency $\eta_{s,c}$ (3)	(%)	227	222	234	236	238	243	242	240	251	251	247	254	259	265	262	259
Number of refrigerant circuits		1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2
Number of compressors		2	2	2	2	2	2	2	2	3	3	3	4	4	4	4	4
Sound Power Level	(dB(A))	96	96	95	93	93	93	95	97	96	96	96	97	97	97	99	101
Weights and dimensions																	
Length	(mm)	3080	3080	3160	3160	3160	3160	3160	3160	4784	4784	4784	4784	4784	4784	4784	4784
Width	(mm)	1260	1260	1350	1350	1380	1380	1380	1380	1727	1727	1727	1823	1823	1823	1823	1823
Height	(mm)	1935	1935	1935	1935	2035	2080	2080	2080	2032	2032	2032	2135	2135	2135	2135	2135
Operating Weight	(kg)	3276	3276	3371	3407	3722	3896	4025	4025	5731	5824	6018	7221	7343	7567	7567	7653

RTHF XE G (Extra Efficiency)

R1234ze

Unit size		RTHF 250 XE G	RTHF 270 XE G	RTHF 305 XE G	RTHF 335 XE G	RTHF 370 XE G	RTHF 400 XE G	RTHF 445 XE G	RTHF 490 XE G	RTHF 520 XE G	RTHF 560 XE G	RTHF 595 XE G	RTHF 630 XE G
Net cooling capacity (1) (2)	(kW)	853.0	943.0	1087.0	1170.0	1313.0	1400.0	1579.0	1685.0	1882.0	1964.0	2070.0	2178.0
Net EER (1) (2)		5.79	5.77	5.74	5.71	5.67	5.67	6.2	6.02	6.27	6.1	5.91	5.77
Eurovent Energy class - Cooling		A	A	A	A	A	A	A	A	A	A	A	A
SEER (3)		7.25	7.13	7.15	7.25	7.06	7.17	7.75	7.23	7.76	7.54	7.54	7.32
Space cooling efficiency $\eta_{s,c}$ (3)	(%)	287	282	283	287	279	284	307	286	308	298	299	293
Number of refrigerant circuits		2	2	2	2	2	2	2	2	2	2	2	2
Number of compressors		2	2	2	2	2	2	2	2	2	2	2	2
Sound Power Level	(dB(A))	97	97	98	98	98	98	102	103	103	103	103	103
Weights and dimensions													
Length	(mm)	4586	4586	4586	4586	4586	4586	5521	5521	5521	5521	5521	5521
Width	(mm)	1840	1840	1840	1840	1840	1840	2088	2088	2088	2088	2088	2088
Height	(mm)	2395	2395	2395	2395	2395	2395	2457	2457	2457	2457	2457	2457
Operating Weight	(kg)	7508	7560	8745	8745	9679	9679	12881	13356	13356	13356	13456	13566

RTHF HSE G (High Seasonal Efficiency)

R1234ze

Unit size		RTHF 270 HSE G	RTHF 295 HSE G	RTHF 320 HSE G	RTHF 355 HSE G	RTHF 405 HSE G	RTHF 440 HSE G	RTHF 480 HSE G	RTHF 535 HSE G	RTHF 560 HSE G	RTHF 595 HSE G	RTHF 630 HSE G	RTHF 680 HSE G	RTHF 720 HSE G	RTHF 780 HSE G
Net cooling capacity (1) (2)	(kW)	928.0	1016.0	1104.0	1212.0	1396.0	1523.0	1657.0	1810.0	1964.0	2109.0	2254.0	2413	2585	2755
Net EER (1) (2)		5.54	5.32	5.15	4.88	5.21	5.27	5.1	4.77	6.12	5.97	5.82	5.60	5.36	5.15
Eurovent Energy class - Cooling		A	A	A	B	A	A	A	B	A	A	A	A	A	A
SEER (3)		7.38	7.36	7.29	7.23	7.99	8.08	7.98	7.87	8.15	8.11	8.08	8.29	8.10	8.02
Space cooling efficiency $\eta_{s,c}$ (3)	(%)	292	291	289	286	316	320	316	312	323	321	320	329	321	318
Number of refrigerant circuits		2	2	2	2	2	2	2	2	2	2	2	2	2	2
Number of compressors		2	2	2	2	2	2	2	2	2	2	2	2	2	2
Sound Power Level	(dB(A))	97	100	102	105	102	100	102	106	103	103	103	106	107	109
Weights and dimensions															
Length	(mm)	4586	4586	4586	4586	4586	4586	4586	4586	5521	5521	5521	5521	5521	5521
Width	(mm)	1940	1940	1940	1940	1940	1940	1940	1940	2088	2088	2088	2088	2088	2088
Height	(mm)	2395	2395	2395	2395	2395	2395	2395	2395	2457	2457	2457	2457	2457	2457
Operating Weight	(kg)	7730	7720	7720	7720	8960	9959	9959	9959	13676	13816	13926	13926	13926	13926

(1) Evaporator 12/7°C and 0.0 m²K/kW, and condenser at 30/35°C and 0.0 m²K/kW

(2) Net performances calculated as per EN 14511-2013.

(3) $\eta_{s,c}$ / SEER as defined in Directive 2009/125/EC of the European Parliament and of the Council with regard to Ecodesign requirements for Comfort Chillers with 2000 kW maximum capacity - COMMISSION REGULATION (EU) N° 2016/2281 of 20 December 2016

General Data for heating performances

RTWF SE (Standard Efficiency)



Unit size		RTWF 100 SE	RTWF 120 SE	RTWF 140 SE	RTWF 150 SE	RTWF 170 SE	RTWF 180 SE	RTWF 190 SE	RTWF 210 SE	RTWF 230 SE	RTWF 275 SE	RTWF 290 SE	RTWF 310 SE	RTWF 330 SE	RTWF 370 SE	RTWF 410 SE	RTWF 450 SE	RTWF 490 SE
Air Conditioning (1)																		
Net Heating Capacity (2)	(kW)	389.5	453.9	523.8	584.1	636.0	695.2	758.1	826.1	889.6	1035.4	1085.9	1149.3	1215.3	1346.4	1537.4	1669.7	1800.7
Net COP (2)		4.19	4.22	4.33	4.39	4.39	4.35	4.31	4.39	4.42	4.40	4.37	4.38	4.40	4.42	4.39	4.42	4.46
High Temperature Heating (4)																		
Net Heating Capacity (2)	(kW)	372.9	438.1	492.8	567.5	599.5	655.6	716.2	780.1	840.5	975.8	1023.9	1083.1	1146.0	1270.6	1449.0	1574.7	1699.0
Net COP (2)		3.56	3.62	3.58	3.78	3.67	3.64	3.61	3.67	3.68	3.67	3.66	3.67	3.69	3.71	3.68	3.71	3.74
SCOP(4)		4.59	4.83	3.83	5.08	3.90	3.83	4.73	3.93	5.98	5.13	5.10	5.05	5.13	5.15	5.23	5.35	5.35
Space Heating efficiency $\eta_{s,h}$ (3)	(%)	176	185	145	195	148	145	181	149	195	197	196	194	197	198	201	206	206

RTWF HE (High Efficiency)



Unit size		RTWF 100 HE	RTWF 120 HE	RTWF 140 HE	RTWF 150 HE	RTWF 170 HE	RTWF 180 HE	RTWF 190 HE	RTWF 210 HE	RTWF 230 HE	RTWF 275 HE	RTWF 290 HE	RTWF 310 HE	RTWF 330 HE	RTWF 370 HE	RTWF 410 HE	RTWF 450 HE	RTWF 490 HE
Air Conditioning (1)																		
Net Heating Capacity (2)	(kW)	391.1	463.3	533.8	589.9	641.9	695.6	750.2	822.2	892.6	1045.6	1097.1	1164.3	1228.0	1352.9	1551.0	1683.2	1817.0
Net COP (2)		4.27	4.38	4.46	4.54	4.56	4.61	4.66	4.68	4.73	4.61	4.59	4.59	4.62	4.64	4.60	4.63	4.67
High Temperature Heating (4)																		
Net Heating Capacity (2)	(kW)	369.2	442.9	512.1	564.4	610.9	657.3	711.3	778.2	845.1	986.2	1035.3	1098.3	1158.8	1276.5	1462.8	1588.7	1715.1
Net COP (2)		3.55	3.69	3.75	3.81	3.82	3.82	3.87	3.88	3.93	3.82	3.81	3.82	3.84	3.86	3.83	3.85	3.88
SCOP(4)		4.63	4.88	5.03	5.08	5.10	4.03	5.28	4.05	5.38	5.20	5.20	5.15	5.20	5.20	5.28	5.38	5.38
Space Heating efficiency $\eta_{s,h}$ (3)	(%)	177	187	193	195	196	153	203	154	207	200	200	198	200	200	203	207	207

(1) At 40/45°C Entering/Leaving Condenser and 10/7°C Entering/Leaving Evaporator

(2) Net performances calculated as per EN 14511-2013.

(3) $\eta_{s,h}$ / SCOP as defined in Directive 2009/125/EC of the European Parliament and of the Council with regard to Ecodesign requirements for space heaters with 400 kW maximum rated capacity - COMMISSION REGULATION (EU) N° 813/2013/EU of 2 August 2013

(4) At 47/55°C Entering/Leaving Condenser and 10/7°C Entering/Leaving Evaporator

R134a

RTWF HSE (High Seasonal Efficiency)

Unit size		RTWF 100 HSE	RTWF 120 HSE	RTWF 140 HSE	RTWF 150 HSE	RTWF 170 HSE	RTWF 180 HSE	RTWF 190 HSE	RTWF 210 HSE	RTWF 230 HSE	RTWF 250 HSE	RTWF 275 HSE	RTWF 290 HSE	RTWF 310 HSE	RTWF 330 HSE	RTWF 370 HSE	RTWF 410 HSE	RTWF 450 HSE	RTWF 490 HSE	RTWF 515 HSE
Air Conditioning (1)																				
Net Heating Capacity (2)	(kW)	396.9	465.9	534.2	592.2	644.2	692.3	746.9	818.3	888.7	966.1	1048.6	1102.1	1169.8	1233.4	1376.5	1556.6	1688.8	1841.0	2019.0
Net COP (2)		4.22	4.32	4.43	4.50	4.52	4.54	4.58	4.60	4.65	4.54	4.55	4.53	4.52	4.54	4.52	4.54	4.57	4.58	4.49
High Temperature Heating (3)																				
Net Heating Capacity (2)	(kW)	375.5	446.2	512.8	567.3	613.8	653.8	707.8	774.0	841.0	917.5	990.3	1041.5	1105.2	1165.7	1300.9	1469.8	1595.8	1739.8	1912.3
Net COP (2)		3.50	3.63	3.73	3.78	3.79	3.73	3.78	3.79	3.85	3.78	3.76	3.76	3.74	3.77	3.76	3.77	3.80	3.81	3.76
SCOP(4)		4.58	4.75	5.03	5.00	5.03	3.90	3.90	3.90	3.98	3.90	5.25	5.23	5.25	5.25	5.25	5.30	5.35	5.38	5.30
Space Heating efficiency $\eta_{s,h}$ (4)	(%)	175	182	193	192	193	148	148	148	151	148	202	201	202	202	202	204	206	207	204

RTWF XSE (Extra High Seasonal Efficiency)

Unit size		RTWF 115	RTWF 175	RTWF 235	RTWF 305	RTWF 375
Air Conditioning (1)						
		XSE	XSE	XSE	XSE	XSE
Net Heating Capacity (2)	(kW)	452	714	904	1173	1429
Net COP (2)		5,04	4,86	5,09	4,97	5,08
High Temperature Heating (3)						
Net Heating Capacity (2)	(kW)	433	694	867	1128	1394
Net COP (2)		4,16	3,97	4,21	4,09	4,13
SCOP(4)		5,85	5,89	5,87	5,93	6,10
Space Heating efficiency $\eta_{s,h}$ (4)	(%)	226	228	227	229	236

RTWF SE (Standard Efficiency)

R513A

Unit size		RTWF 100 SE	RTWF 120 SE	RTWF 140 SE	RTWF 150 SE	RTWF 170 SE	RTWF 180 SE	RTWF 190 SE	RTWF 210 SE	RTWF 230 SE
Air Conditioning (1)										
Net Heating Capacity (2)	(kW)	386.2	449.9	513.1	575.3	628.5	688.3	752.2	828.9	901.2
Net COP (2)		4.05	4.08	4.18	4.24	4.25	4.22	4.19	4.26	4.27
High Temperature Heating (3)										
Net Heating Capacity (2)	(kW)	366.5	430.2	492.0	555.6	606.1	657.7	726.4	749.9	772.5
Net COP (2)		3.41	3.47	3.53	3.63	3.64	3.58	3.60	3.60	3.58
SCOP(4)		4.70	4.70	4.80	4.90	5.00	4.90	4.90	5.00	5.00
Space Heating efficiency $\eta_{s,h}$ (4)	(%)	180	180	184	188	192	188	188	192	192

RTWF HE (High Efficiency)

R513A

Unit size		RTWF 100 HE	RTWF 120 HE	RTWF 140 HE	RTWF 150 HE	RTWF 170 HE	RTWF 180 HE	RTWF 190 HE	RTWF 210 HE	RTWF 230 HE
Air Conditioning (1)										
Net Heating Capacity (2)	(kW)	387.7	459.4	523.3	580.8	634.1	688.1	742.9	813.9	883.6
Net COP (2)		4.13	4.23	4.30	4.38	4.40	4.46	4.50	4.52	4.57
High Temperature Heating (3)										
Net Heating Capacity (2)	(kW)	362.2	435.0	498.8	552.0	598.8	655.3	712.9	769.9	839.1
Net COP (2)		3.39	3.53	3.59	3.65	3.65	3.74	3.81	3.76	3.83
SCOP(4)		4.43	4.53	4.65	4.70	4.73	4.95	4.95	4.98	5.03
Space Heating efficiency $\eta_{s,h}$ (4)	(%)	169	173	178	180	181	190	190	191	193

(1) At 40/45°C Entering/Leaving Condenser and 10/7°C Entering/Leaving Evaporator

(2) Net performances calculated as per EN 14511-2013.

(3) $\eta_{s,h}$ / SCOP as defined in Directive 2009/125/EC of the European Parliament and of the Council with regard to Ecodesign requirements for space heaters with 400 kW maximum rated capacity - COMMISSION REGULATION (EU) N° 813/2013/EU of 2 August 2013

(4) At 47/55°C Entering/Leaving Condenser and 10/7°C Entering/Leaving Evaporator

RTWF SE G (Standard Efficiency)

Unit size		RTWF 95 SE G	RTWF 105 SE G	RTWF 125 SE G	RTWF 135 SE G	RTWF 155 SE G	RTWF 165 SE G	RTWF 220 SE G	RTWF 240 SE G	RTWF 280 SE G	RTWF 300 SE G	RTWF 320 SE G	RTWF 360 SE G
Air Conditioning (1)													
Net Heating Capacity (2)	(kW)	390	425.9	507.7	542.5	592.8	655.4	819.1	878.1	979.3	1103	1205	1317
Net COP (2)		4.27	4.23	4.36	4.36	4.36	4.44	4.57	4.58	4.51	4.68	4.59	4.62
High Temperature Heating (3)													
Net Heating Capacity (2)	(kW)	363.4	397.0	473.7	507.0	570.6	612.2	766.2	821.3	916.8	1027.4	1123.3	1227.5
Net COP (2)		3.50	3.49	3.59	3.60	3.73	3.73	3.69	3.68	3.66	3.72	3.67	3.69
SCOP(4)		4.33	4.73	3.90	4.75	5.00	4.88	4.90	4.98	4.95	5.24	5.20	5.05
Space Heating efficiency $\eta_{s,h}$ (4)	(%)	165	181	148	182	192	187	188	191	190	202	200	194

RTWF HE G (High Efficiency)

Unit size		RTWF 95 HE G	RTWF 105 HE G	RTWF 125 HE G	RTWF 135 HE G	RTWF 155 HE G	RTWF 165 HE G	RTWF 220 HE G	RTWF 240 HE G	RTWF 280 HE G	RTWF 300 HE G	RTWF 320 HE G	RTWF 360 HE G
Air Conditioning (1)													
Net Heating Capacity (2)	(kW)	401	440	516.3	552.8	608.5	663.3	824.3	883.9	986	1108	1210	1324
Net COP (2)		4.49	4.49	4.57	4.59	4.63	4.67	4.79	4.83	4.78	4.91	4.84	4.88
High Temperature Heating (3)													
Net Heating Capacity (2)	(kW)	379	415	479	514	566	616	770.8	827.2	922.7	1030.4	1129.1	1234.5
Net COP (2)		5.27	3.72	3.72	3.74	3.77	3.87	3.79	3.82	3.80	3.88	3.85	3.87
SCOP(4)		4.75	4.80	3.90	5.13	3.93	5.23	4.90	5.03	4.98	5.10	5.25	5.15
Space Heating efficiency $\eta_{s,h}$ (4)	(%)	182	184	148	197	149	201	188	193	191	196	202	198

RTWF HSE G (High Seasonal Efficiency)

Unit size		RTWF 095 HSE G	RTWF 105 HSE G	RTWF 125 HSE G	RTWF 135 HSE G	RTWF 155 HSE G	RTWF 165 HSE G	RTWF 185 HSE G	RTWF 205 HSE G	RTWF 220 HSE G	RTWF 240 HSE G	RTWF 280 HSE G	RTWF 300 HSE G	RTWF 320 HSE G	RTWF 360 HSE G	RTWF 380 HSE G	RTWF 420 HSE G
Air Conditioning (1)																	
Net Heating Capacity (2)	(kW)	400.5	440.9	518.5	555	613.8	668.6	727.4	787.4	828.1	887.9	994.8	1111	1215	1333	1453	1578
Net COP (2)		4.47	4.46	4.53	4.56	4.58	4.62	4.55	4.45	4.70	4.73	4.59	4.88	4.71	4.82	4.67	4.74
High Temperature Heating (3)																	
Net Heating Capacity (2)	(kW)	370	408	480	514	568	618	674	731	769	825	922	1031	1129	1238	1353	1470
Net COP (2)		3.61	3.61	3.69	3.71	3.71	3.82	3.77	3.7	3.78	3.82	3.75	3.88	3.85	3.85	3.77	3.72
SCOP(4)		4.8	4.9	5.08	5.1	5.1	5.2	5.1	5.1	5.05	5.18	5.08	5.30	5.30	5.33	5.25	5.28
Space Heating efficiency $\eta_{s,h}$ (4)	(%)	184	188	195	196	196	200	196	196	194	199	195	204	204	205	202	203

(1) At 40/45°C Entering/Leaving Condenser and 10/7°C Entering/Leaving Evaporator

(2) Net performances calculated as per EN 14511-2013.

(3) $\eta_{s,h}$ / SCOP as defined in Directive 2009/125/EC of the European Parliament and of the Council with regard to Ecodesign requirements for space heaters with 400 kW maximum rated capacity - COMMISSION REGULATION (EU) N° 813/2013/EU of 2 August 2013

(4) At 47/55°C Entering/Leaving Condenser and 10/7°C Entering/Leaving Evaporator

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Trane innovative solutions optimize indoor environments with the **broadest portfolio** of energy efficient heating, ventilating and air conditioning systems, building services, parts support and advanced controls in the industry.

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