Water-cooled Screw Chillers and Water/Water Heat pumps

Refrigerant R1234ze

RTWD 100 G – 250 G (365 to 815 kW)

April 2020 **RLC-PRC063C-GB**

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Introduction

To meet a wide range of applications in the water-cooled market, Trane is proud to offer the model RTWD G chiller. RTWD G models are leading the industry in terms of sustainability energy efficiency, application versatility, ease of installation, control precision, reliability and operational cost-effectiveness.

The units are designed to deliver proven performance, plus all the benefits of an advanced heat transfer design with two low-speed, direct-drive compressors.

EcoWise™

RTWD G chillers with **R1234ze** 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.

Important Design Advances and Features

- Very low environmental impact thanks to near zero GWP (<1) R1234ze refrigerant and optimized design.
- High Seasonal Efficiency (HSE) version with Adaptive Frequency™ Drive for premier part load efficiency reducing both operating and life cycle costs.
- Variable evaporator flow compensation for improved control stability with energy saving variable flow applications.
- Single chiller time of day scheduling communication option for easier control of small jobs.
- Dual independent refrigerant circuits.
- The industrial-grade design of the chiller is ideal for both industrial and commercial markets, in applications such as office buildings, hospitals, schools, retail buildings, and industrial facilities. The reliable compressors, wide operating temperature range, advanced controls, electronic expansion valve, short anti-recycle timers, and industry leading efficiencies mean that this chiller is the perfect choice for tight temperature control in almost any application temperatures, and under widely varying loads.

Features and Benefits

Reliability

- The Trane screw compressor is a proven design resulting from years of research and thousands of test hours, including extensive testing under extraordinarily severe operating conditions.
- Trane is the world's largest manufacturer of large screw compressors, with more than 240,000 compressors installed worldwide.
- Direct drive, low-speed compressors—a simple design with only four moving parts—provides maximum efficiency, high reliability, and low maintenance requirements.
- Suction gas-cooled motor stays at a uniformly low temperature for long motor life.
- Electronic expansion valve, with fewer moving parts than alternative valve designs, provides highly reliable operation.

High Performance

- Advanced design enables chilled water temperature control to ±0.3°C for flow changes up to 10 percent per minute, plus handling of flow changes up to 30 percent per minute for variable flow applications.
- Two minute stop-to-start and five minute start-to-start anti-recycle timer allows tight chilled water temperature control in constant or transient low-load applications.
- High compressor lift capabilities for use with heat recovery and waterside heat pump applications allows highly efficient system design with minimal operational concerns.
- Tight water temperature control extends to operation of multiple chillers in parallel or series configurations, offering further system design flexibility for maximum efficiency.
- Optional LonTalk/Tracer Summit communications interface provides excellent, trouble-free inter-operability.

Life Cycle Cost-Effectiveness

- Precise compressor rotor tip clearance ensures optimal efficiency.
- Condenser and evaporator tubes use the latest heat transfer technology for increased efficiency.
- Electronic expansion valve enables exceptionally tight temperature control and extremely low superheat, resulting in more efficient full-load and part-load operation than previously available.
- Chilled water reset based on return water temperature is standard.
- Electrical current-limiting is available as an option.

Application Versatility

- **Industrial/low temperature process cooling** – Excellent operating temperature range and precise control capabilities enable tight control with single chiller or series configuration.
- **Ice/thermal storage** – Specifiers and operators benefit from dual setpoint control and industry-leading temperature, efficiency, and control capabilities, plus outstanding support through partnership with Calmac, a strong Trane partner providing proven installation examples, templates, and references that minimize design time and energy costs.
- **Heat recovery and water/water heat pump** – Maximum condenser temperature (75°C condenser leaving water temp.) exceeds those of previous technologies, providing hot water and tight control that minimizes operating costs for the chilled water plant and boiler/hot water heater, while also providing consistent dehumidification.
  For multi-chiller systems where there is a base or year-round heating load the RTWD G can be used as a water side heat pump by utilizing ground or surface water as a heat source. Leaving condenser temperature control option allows for the chiller to be used and controlled primarily for the heat produced in the condenser.
- **Dry Cooler** – Allows for use with a closed condenser loop system that minimizes the potential for cross contamination of the condenser loop.
- **Variable primary flow** – Variable evaporator flow compensation allows multi-chiller systems to vary the flow of water throughout the entire system (from the evaporator through the cooling coils). This feature also provides additional system efficiency as the number of pumps and the flow rate in the system are reduced.
  Standard 2 pass or optional 3 pass evaporator allows for a wider range of flow capabilities.
- **Series chiller configuration** – For two-chiller systems all the system water passes through the evaporators and/or condensers of both chillers to take advantage of system efficiency gains due to thermodynamic staging as well as downsizing the upstream chiller.
- **EarthWise system** – Low flow and high temperature differential installations allow for reduced pump and cooling-tower energy by decreasing the amount of water flow pumped through the system. This results in downsizing of all HVAC and ancillary equipment which provides installation and operational savings.
- **Extended Partial Load Efficiency, HSE versions** – For applications where there is significant variation in the cooling load and where high part load efficiency is required, the HSE version with factory mounted Adaptive Frequency™ Drive (AFD), provides considerable advantages and savings.

Simple, Economical Installation

- All units fit through standard double-width doors. Units are designed with bolt-together construction for disassembly to fit through smaller openings.
- Small footprint saves valuable equipment room space and alleviates access concerns for most retrofit jobs.
- Lightweight design simplifies rigging requirements, further reducing installation time requirements and costs.
- Full factory refrigerant and oil charges reduce required field labor, materials, and installation cost.
- Integrated forklift channels on the unit base allow for easy movement of the chiller at the job site.
- Single or dual point power connection options simplify overall installation.
- Unit-mounted starter eliminates additional job site installation considerations and labor requirements.
- Trane CH530 controls easily interface with Trane or LonTalk™ building automation systems through single twisted-pair wire.
- Trane has conducted extensive factory testing during manufacturing, and also offers options for in-person and/or documented system performance verification.

Precision Control

- Microprocessor-based Trane CH530 controls monitor and maintain optimal operation of the chiller and its associated sensors, actuators, relays, and switches, all of which are factory assembled and extensively tested.
- Easy interface with computers hosting Trane or LonTalk™ building automation/energy management systems allows the operator to efficiently optimize comfort system performance and minimize operating costs.
- Proportional Integral Derivative (PID) control strategy ensures stable, efficient chilled water temperature, maintaining ±0.56°C by reacting to instantaneous load changes.
- Adaptive Control™ attempts to maintain chiller operation under adverse conditions, when many other chillers might simply shut down. This is accomplished by unloading the compressor due to high condensing pressure, low suction pressure and/or overcurrent.
- Easy-to-use operator interface displays all operating and safety messages, with complete diagnostics information, on a easily readable panel with a scrolling touch-screen display.
- New variable evaporator flow compensation maintains improved control stability of the leaving water temperature.

Application Considerations

Variable Evaporator Flow and Short Evaporator Water Loops

Variable evaporator flow is an energy-saving design strategy which has quickly gained acceptance as advances in chiller and controls technology have made it possible. With its superior unloading compressor design and advanced Trane CH530 controls, the RTWD G have excellent capability to maintain leaving water temperature control within +/-0.3°C, even for systems with variable evaporator flow.

Some basic rules should be followed whenever using these system design and operational savings methods with the RTWD G. The proper location of the chilled water temperature control sensor is in the supply (outlet) water. This location allows the building to act as a buffer, and it assures a slowly changing return water temperature. If there is insufficient water volume in the system to provide an adequate buffer, temperature control can be lost, resulting in erratic system operation and excessive compressor cycling. To ensure consistent operation and tight temperature control, the chilled water loop should be at least two minutes. If this recommendation cannot be followed, and tight leaving water temperature control is necessary, a storage tank or larger header pipe should be installed to increase the volume of water in the system.

For variable primary flow applications, the rate of chilled water flow change should not exceed 10 percent of design per minute to maintain +/-0.3°C leaving evaporator temperature control. For applications in which system energy savings is most important and tight temperature control is classified as +/-1.1°C, up to 30 percent change in flow per minute are possible.

Flow rates should be maintained between the minimum and maximum allowed for any particular chiller configuration.

For applications designed to operate with changes in the water flow rate, the new evaporator waterflow compensation improves the ability of the chiller to respond to increasing or decreasing water flow. This new standard control feature works by varying the leaving evaporator temperature control gains in response to changes in evaporator waterflow. By measuring the refrigerant flow in each circuit and using this value to calculate the resulting waterside temperature drop, the CH530 can estimate the water flow rate through the evaporator.

Series Chiller Arrangements

Another energy-saving strategy is to design the system around chillers arranged in series, on the evaporator, condenser, or both. It is possible to operate a pair of chillers more efficiently in a series chiller arrangement than in a parallel arrangement. It is also possible to achieve higher entering-to-leaving chiller differentials, which may, in turn, provide the opportunity for lower chilled water design temperature, lower design flow, and resulting installation and operational cost savings (including downsizing a chiller).

The Trane screw compressor also has excellent “lift” capabilities which afford an opportunity for savings on the evaporator and condenser water loops. Like series arrangements on the evaporator, series arrangements on the condenser may enable savings. This approach may allow reductions in pump and tower installation and operating costs.

Maximizing system efficiency requires that the designer balance performance considerations for all system components; the best approach may or may not involve multiple chillers, or series arrangement of the evaporators and/or condensers. This ideal balance of design integrity with installation and operating cost considerations should be researched by consulting a Trane systems solutions provider and applying the Trace™ building energy and economic analysis program.

Heat Recovery

At a time when energy costs are high and continue to rise, reducing energy usage has become increasingly important. By using a RTWD G chiller with heat recovery, utilization of energy can be improved by using heat from the condenser that would otherwise be wasted. The use of heat recovery should be considered in any building with simultaneous heating and cooling requirements or in facilities where heat can be stored and used at a later time. Buildings with high year-round internal cooling loads are excellent opportunities for heat recovery. Heat recovery can be accomplished with the RTWD G by recovering heat from the water leaving the standard condenser and using it in conjunction with a third party heat exchanger.

Water-to-Water Heat Pump

The RTWD G can be used as a water side heat pump by using ground or surface water as a heat source. Leaving condenser water control option provides the ability to control the heating setpoint. Local regulation concerning limitation on minimum/maximum rejected water temperature needs to be checked before using this method.

If a multiple-chiller building needs both heating and cooling, then a dedicated chiller such as a RTWD G can be piped in side stream arrangement and thus be loaded to any capacity by varying its chilled-water setpoint.

When operating, it cools the return chilled water temperature to the other chillers. An advantage of the side stream configuration is that the side stream chiller does not need to produce the design system supply water temperature. It can produce the exact water temperature necessary to meet the required heating load. This allows the chiller to operate more efficiently because the cooling is produced at a higher chilled-water temperature.

Dry Cooler

The RTWD G can be used with dry coolers. Generally this application is selected to minimize the spread of airborne contaminates associated with open tower systems. In addition, other drawbacks of cooling towers are avoided: water consumption, production of vapor, need of water treatment, etc. Another benefit of dry coolers is the ability to operate in low ambient conditions. With the use of a third party heat exchanger this design can also be used to provide free cooling to the chilled water loop during cold weather.

Water Treatment

The use of untreated or improperly treated water in chillers may result in scaling, erosion, corrosion, and algae or slime buildup. It is recommended that the services of a qualified water treatment specialist be engaged to determine what treatment, if any, is advisable.

Water Pumps

Where noise limitation and vibration-free operation are important, Trane strongly encourages the use of 1450 RPM pumps. Specifying or using 3000 RPM condenser water and chilled water pumps must be avoided, because such pumps may operate with objectionable levels of noise and vibration. In addition, a low frequency beat may occur due to the slight difference in operating rpm between 3000 RPM water pumps and chiller motors.

Note: The chilled water pump must not be used to stop the chiller.

Base unit description

	RTWD HE G	RTWD HSE G
Power supply	400 V - 3 Ph - 50 Hz - Single point	
Compressor type	Trane CHHP	
Compressor technology	Fixed speed	Adaptive Frequency™ Drive (AFD)
Number of circuits	2	2
Compliance	CE - PED	
Refrigerant	R1234ze	
Relief valve	Single relief valve on condenser	
Evaporator water connections	Direct Connection - Grooved pipes	
Evaporator water side pressure	10 bars	
Condenser water connections	Direct Connection - Grooved pipes	
Condenser water side pressure	10 bars	
Flow Control	Constant Flow - Pump signal On/Off (Condenser + Evaporator)	
Power protection	Fused	
Electrical IP protection	Enclosure with Dead Front protection	
Installation accessories	Optional	

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Options description

Option description		Application	
Condenser application			
Water to water HP operation	Condenser Leaving water temperature control	Heat pump applications with Leaving water up to 75°C	•
Evaporator application			
3 Pass evaporator	Additional pass on evaporator side	Evaporator application with large Delta T	•
Ice Making	Dual setpoint (Comfort / Ice making)	Ice storage applications for Ice making temperatures as low as -7°C	•
Compressor			
Sound Attenuation Package	Additional compressor sound enclosure	Unit Sound Power reduction of 5 dB(A)	•
Relief Valve			
Dual Relief valve on condenser	2 relief valve with by 3 way valve on high pressure side	Maintenance	•
Electrical			
Circuit breaker	Unit protection by Circuit Breaker	Protection of compressors against over current	•
Under/Over voltage protection	Phase monitoring device	Protection of unit against voltage unbalance (Standard feature on HSE variable speed units)	•
Electrical IP Protection of panel	IP 20 protection	Electrical safety	•
Pressure Gauges			
HP and LP pressure gauges	Pressure gauges fitted on the two refrigerant circuits	Maintenance	•
Smart Com protocol			
LonTalk Interface	Communication card	Communication with BMS through LonTalk Protocol	•
BACNet MSTP interface	Communication card	Communication with BMS through BACNet MSTP Protocol	•
ModBus RTU interface	Communication card	Communication with BMS through Modbus Protocol	•
External water and current limits setpoints	Input card 4-20 mA	Remote Control	•
External water and current limits setpoints	Input card 2-10 Vdc	Remote Control	•
Programmable relays	Communication card	Remote Control	•
Condenser Refrigerant pressure output	Communication card	- Condenser water control output, or - Condenser pressure output, or - Differential pressure output	•
Outdoor Air Temperature sensor	Additional air Sensor	Chilled water temperature offset	•
Energy metering	Additional energy meter	Monitors electricity consumption (kWh) of the full unit	•
Installation accessories & options			
Base Rail		Forklifting	•
Elastomeric isolators		Eliminates vibration transmission risk to building	▲
Grooved pipe with coupling & pipe stub	4 Grooved pipe adapters	Allows welded connection to unit	▲
Evap or Condenser Flow switch	One Flow Switch delivered to be installed either on Evaporator or Condenser side	Allows flow detection	▲
Evap and Condenser Flow switch	Two Flow Switches delivered to be installed respectively on Evaporator and Condenser side	Allows flow detection	▲

• = Factory Mounted ▲ = Accessory (Not Fitted)

General Data

RTWD HE G (High Efficiency)

Unit Size		100 HE G	110 HE G	120 HE G*	130 HE G	140 HE G	160 HE G	170 HE G
Net Cooling capacity (1)(3)	(kW)	363.6	399.1	436	475.7	533.9	583.5	635.4
Net EER (1) (3)		4.65	4.67	4.70	4.89	5.26	5.21	5.19
Eurovent Energy Class - Cooling		B	B	B	B	A	A	A
SEER (4)		5.55	5.57	5.61	6.18	6.72	6.74	6.75
Space Cooling efficiency hs,c (4)	(%)	214	215	216	239	261	262	262
Compressor								
Circuit 1		1	1	1	1	1	1	1
Circuit 2		1	1	1	1	1	1	1
Evaporator								
Pass					2			
Nominal Flow (1)	l/s	16.8	18.5	20.2	22.0	24.7	27.0	29.4
Pressure Drop (1)	kPa	24	28	33	38	47	54	60
Minimum Flow	l/s	11.8	11.8	11.8	11.8	12.7	12.7	12.7
Maximum Flow	l/s	43.1	43.1	43.1	43.1	46.6	46.6	46.6
Water Connection Type					Grooved end			
Water Connection Size	in	5	5	5	5	6	6	6
Condenser								
Pass					2			
Nominal Flow (1)	l/s	20.9	22.9	25.0	27.0	29.9	32.7	35.6
Pressure Drop (1)	kPa	23	27	31	36	38	44	51
Minimum Flow	l/s	13.0	13.0	13.0	13.0	15.4	15.4	15.4
Maximum Flow	l/s	48.0	48.0	48.0	48.0	56.5	56.5	56.5
Water Connection Type					Grooved end			
Water Connection Size	in	6	6	6	6	6	6	6
Refrigerant								
Type					R1234ze			
Charge Circuit 1	kg	60	60	60	60	80	80	80
Charge Circuit 2	kg	60	60	60	60	80	80	80
Dimensions & Weight								
Length	mm	3400	3400	3400	3400	3490	3490	3490
Width	mm	1280	1280	1280	1280	1310	1310	1310
Height	mm	1950	1950	1950	1950	1970	1970	1970
Operating weight	kg	3820	3820	3820	3820	4525	4525	4525

(1) Evaporator 12/7°C and 0.0 m²K/kW, and condenser at 30/35°C and 0.0 m²K/kW.
(2) According to AHRI Standard 550/590, based on TOPSS (Trane Official Product Selection Software).
(3) Net performances calculated as per EN 14511-2013.
(4) ηs,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.
* Not available for comfort applications for countries adopting the Ecodesign directive.

RTWD HSE G (High Seasonal Efficiency)

Unit Size		100 HSE G	110 HSE G	120 HSE G	130 HSE G	140 HSE G	160 HSE G	170 HSE G	180 HSE G	200 HSE G	220 HSE G	250 HSE G
Net Cooling capacity (1)(3)	(kW)	364.7	399.1	438.9	477.3	533.6	586	640.9	688.1	717.2	764.8	813.5
Net EER (1) (3)		4.63	4.61	4.65	4.79	5.10	5.07	5.06	4.86	4.72	4.60	4.51
Eurovent Energy Class - Cooling		C	C	C	B	A	A	A	B	B	C	C
SEER (4)		5.82	5.83	5.95	6.25	6.51	6.51	6.59	6.49	6.41	6.30	6.23
Space Cooling efficiency ηs,c (4)	(%)	225	225	230	242	252	252	256	252	248	244	241
Compressor												
Circuit 1		1	1	1	1	1	1	1	1	1	1	1
Circuit 2		1	1	1	1	1	1	1	1	1	1	1
Evaporator												
Pass		2										
Nominal Flow (1)	l/s	16.9	18.6	20.3	22.1	24.7	27.1	29.7	31.9	33.2	35.4	37.7
Pressure Drop (1)	kPa	23	27	32	37	45	52	61	68	49	54	60
Minimum Flow	l/s	11.8	11.8	11.8	11.8	12.7	12.7	12.7	12.7	15.1	15.1	15.1
Maximum Flow	l/s	43.1	43.1	43.1	43.1	46.6	46.6	46.6	46.6	55.5	55.5	55.5
Water Connection Type		Grooved end										
Water Connection Size	in	5	5	5	5	6	6	6	6	6	6	6
Condenser												
Pass		2										
Nominal Flow (1)	l/s	21.0	23.0	25.1	27.1	30.0	32.9	35.9	38.8	40.7	43.6	46.5
Pressure Drop (1)	kPa	23	27	32	36	38	45	52	60	36	41	46
Minimum Flow	l/s	13.0	13.0	13.0	13.0	15.4	15.4	15.4	15.4	20.5	20.5	20.5
Maximum Flow	l/s	48.0	48.0	48.0	48.0	56.5	56.5	56.5	56.5	75.3	75.3	75.3
Water Connection Type		Grooved end										
Water Connection Size	in	6	6	6	6	6	6	6	6	6	6	6
Refrigerant												
Type		R1234ze										
Charge Circuit 1	kg	60	60	60	60	80	80	80	80	80	80	80
Charge Circuit 2	kg	60	60	60	60	80	80	80	80	80	80	80
Dimensions & Weight												
Length	mm	3395	3395	3395	3395	3810	3810	3810	3810	3490	3490	3490
Width	mm	1300	1300	1300	1300	1330	1330	1330	1330	1340	1340	1340
Height	mm	1945	1945	1945	1945	2005	2005	2005	2005	2005	2005	2005
Operating weight	kg	4030	4030	4030	4189	4720	4720	4720	4720	4780	4780	4780

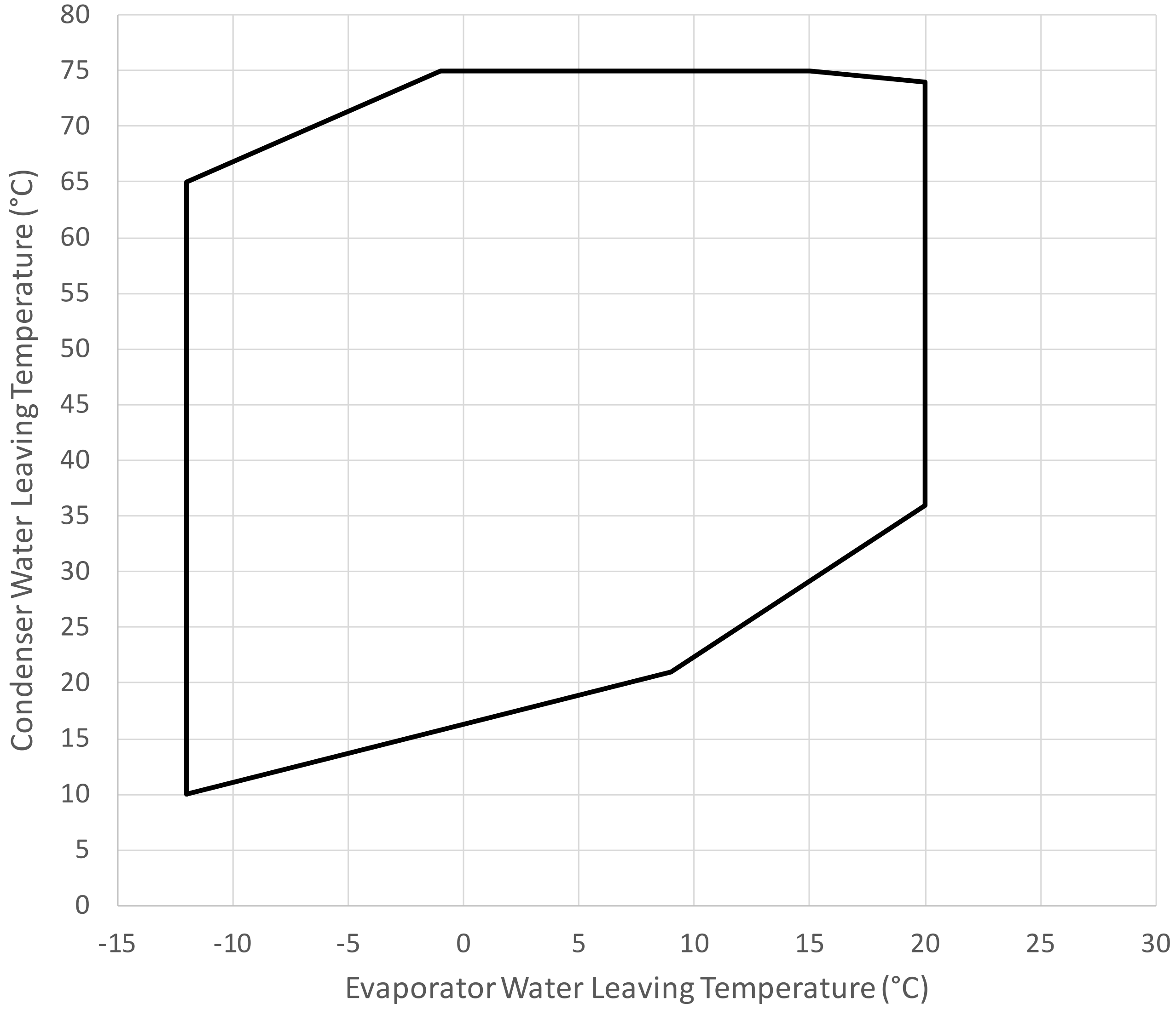
(1) Evaporator 12/7°C and 0.0 m²K/kW, and condenser at 30/35°C and 0.0 m²K/kW.
(2) According to AHRI Standard 550/590, based on TOPSS (Trane Official Product Selection Software).
(3) Net performances calculated as per EN 14511-2013.
(4) ηs,c / SEER as defined in Directive 2009/125/EC of the European 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.
* Not available for comfort applications for countries adopting the Ecodesign directive.

Heating Performance

	30/35°C Entering/Leaving Condenser 10/7°C Entering/Leaving Evaporator				40/45°C Entering/ Leaving Condenser 10/7°C Entering/ Leaving Evaporator		47/55°C Entering/Leaving Condenser 10/7°C Entering/Leaving Evaporator			
	Net Heating Cap (kW) (1)	Net COP(1)	SCOP(2)	Space Heating efficiency ηs,h (%) (2)	Net Heating Cap (kW) (1)	Net COP(1)	Net Heating Cap (kW) (1)	Net COP(1)	SCOP(2)	Space Heating efficiency ηs,h (%) (2)
100 HE G	433.1	5.44	5.55	214	404.6	4.53	-	-	-	-
110 HE G	474.2	5.43	5.54	214	443.3	4.53	-	-	-	-
120 HE G	516.0	5.43	5.50	212	482.6	4.54	455.8	3.75	4.54	174
130 HE G	558.4	5.57	5.64	218	522.7	4.65	493.6	3.85	4.72	181
140 HE G	618.5	5.88	5.96	230	577.3	4.92	544.3	4.08	4.93	189
160 HE G	676.3	5.80	5.81	224	631.4	4.86	595.7	4.04	4.87	187
170 HE G	734.9	5.72	5.67	219	686.5	4.82	647.8	4.01	4.80	184
100 HSE G	433.4	5.40	5.83	225	402.5	4.48	-	-	-	-
110 HSE G	475.8	5.38	5.74	221	442.2	4.47	-	-	-	-
120 HSE G	518.9	5.36	5.69	220	482.6	4.46	454.0	3.67	4.64	178
130 HSE G	560.3	5.47	5.61	216	523.0	4.58	492.8	3.78	4.75	182
140 HSE G	619.5	5.72	5.93	229	577.9	4.84	544.5	4.01	4.92	189
160 HSE G	680.1	5.65	5.62	217	634.9	4.76	597.7	3.94	4.86	186
170 HSE G	741.6	5.60	5.56	214	693.0	4.70	651.8	3.90	4.78	183
180 HSE G	800.8	5.38	5.35	206	750.8	4.55	709.1	3.80	4.69	180
200 HSE G	838.7	5.34	5.63	217	789.8	4.49	749.9	3.73	4.75	182
220 HSE G	897.9	5.21	5.51	212	847.0	4.40	804.9	3.66	4.72	181
250 HSE G	957.5	5.10	5.39	207	904.8	4.33	860.2	3.61	4.69	180

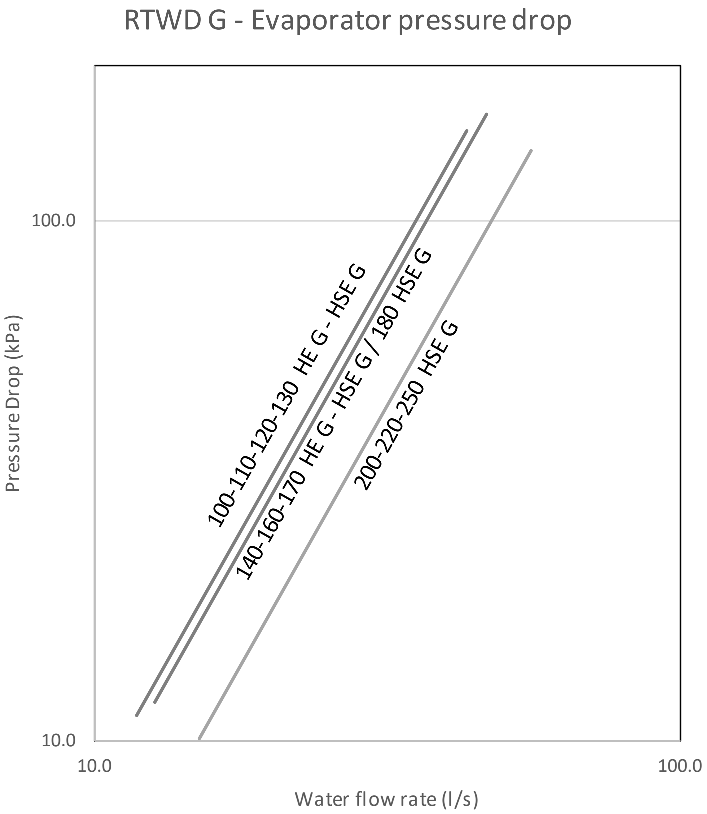
(1) Net performances calculated as per EN 14511-2013.
(2) ηs,h / SCOP as defined in Directive 2009/125/EC of the European Parliament and of the Council with regard to Ecodesign requirements for space heaters with 400 kW maximum rated capacity - COMMISSION REGULATION (EU) N° 813/2013/EU of 2 August 2013.

Operating Map

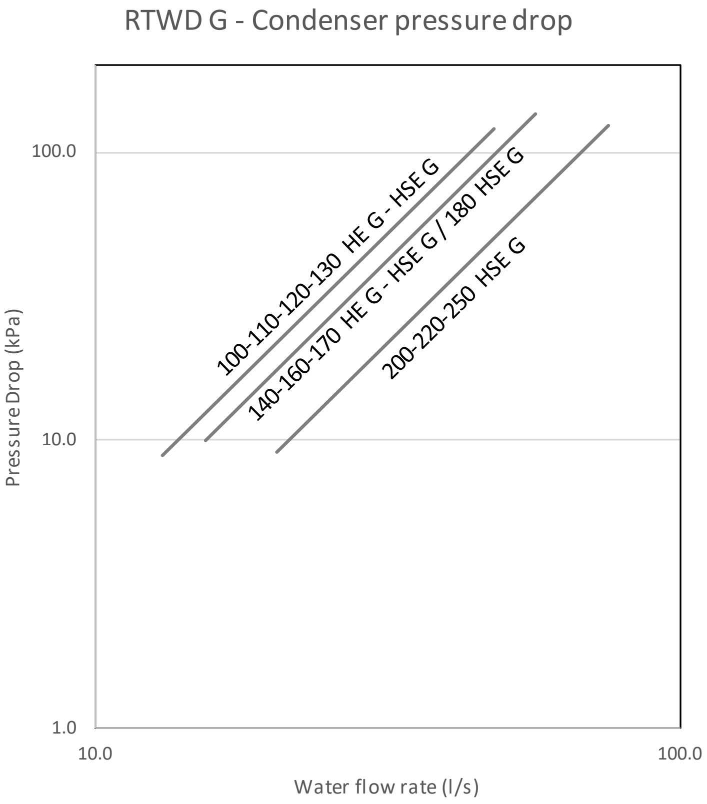


Pressure drop

Evaporator pressure drop



Condenser pressure drop



RTWD HE G

		RTWD 100 HE G	RTWD 110 HE G	RTWD 120 HE G	RTWD 130 HE G	RTWD 140 HE G	RTWD 160 HE G	RTWD 170 HE G
Max current	(A)	160	177	194	207	220	245	270
Starting current	(A)	258	294	311	335	348	395	420

RTWF HSE G

		RTWD 100 HSE G	RTWD 110 HSE G	RTWD 120 HSE G	RTWD 130 HSE G	RTWD 140 HSE G	RTWD 160 HSE G	RTWD 170 HSE G	RTWD 180 HSE G	RTWD 200 HSE G	RTWD 220 HSE G	RTWD 250 HSE G
Max current	(A)	148	165	182	196	210	230	250	276	303	324	346
Starting current	(A)	148	165	182	196	210	230	250	276	303	324	346

Acoustic Data

	Global Sound Power SWL (dB(A))	Global Sound pressure level at 10 m SPL (dB(A))
RTWD 100 HE G	96	78
RTWD 110 HE G	96	78
RTWD 120 HE G	96	78
RTWD 130 HE G	96	78
RTWD 140 HE G	94	76
RTWD 160 HE G	94	76
RTWD 170 HE G	94	76
RTWD 100 HSE G	96	78
RTWD 110 HSE G	96	78
RTWD 120 HSE G	96	78
RTWD 130 HSE G	96	78
RTWD 140 HSE G	94	76
RTWD 160 HSE G	94	76
RTWD 170 HSE G	94	76
RTWD 180 HSE G	95	77
RTWD 200 HSE G	96	78
RTWD 220 HSE G	96	78
RTWD 250 HSE G	96	78

Notes

Notes

Notes

Trane - by Trane Technologies (NYSE: TT), a global climate innovator - creates comfortable, energy efficient indoor environments for commercial and residential applications. For more information, please visit trane.com or tranetechnologies.com.

Trane has a policy of continuous product and product data improvement and reserves the right to change design and specifications without notice. We are committed to using environmentally conscious print practices.

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