Chiller

WQL/WQH/WQRC 20-190

Water Cooled Water Chillers Cooling Only, Heat Pump and Condenserless Versions Engineering Data Manual

21 to 193 kW

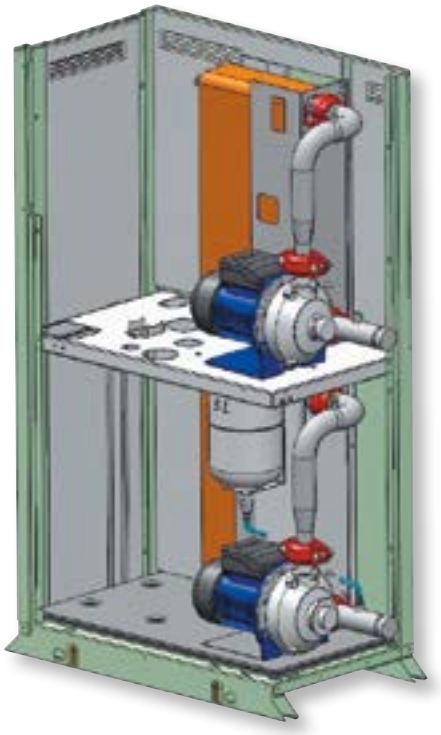
24 to 212 kW

R410A

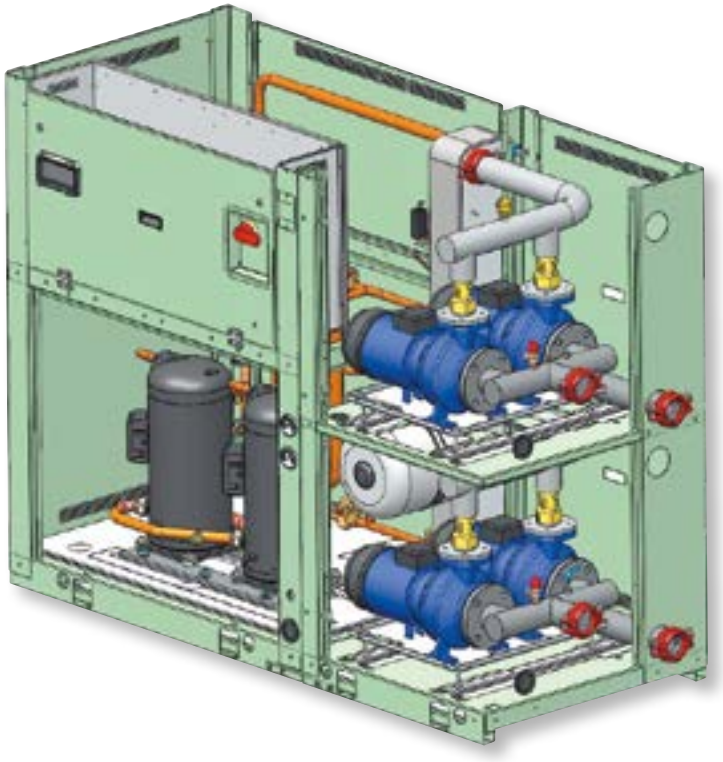
systemair

Key point

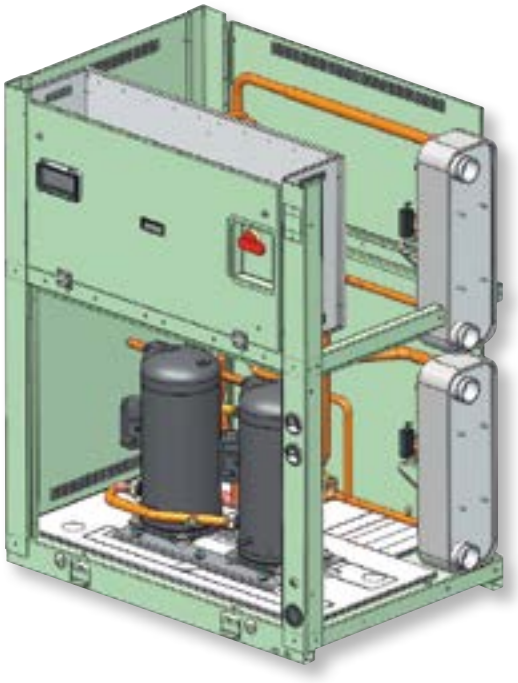
- 14 sizes from 20 kW up to 190 kW
- R410A refrigerant circuit with single or tandem Scroll compressors
- 2 different frames/configurations : 1 compressor/1 circuit up to 45 kW and 2 compressors/1 circuit from 50 kW to 190 kW
- Reduced refrigerant charge (less than 10 kg per circuit for units up to size 90 kW)
- New electronic controller with auto-adaptive function to reduce water content in the piping system
- Condensing pressure control available as option for well application
- Wide range of hydrokit for "Plug and Play" units
- DHW (Domestic Hot Water) function available on the controller with 3-way valve available as accessory
- Victaulic joints for all internal water piping connections
- Desuperheater heat exchanger available as option (50-190 sizes)



Sizes from 20 kW to 45 kW with factory mounted hydrokit



Sizes from 50 kW to 190 kW with factory mounted hydrokit



Sizes from 50 kW to 190 kW without hydrokit

Specifications

General

WQL/WQH/WQRC are new water to water units equipped with Scroll compressors, optimized to work with **R410A** refrigerant.

3 different versions are available :

- Cooling only units **WQL**
- Heat pump units **WQH**
- Remote condenser units **WQRC**

2 different acoustic options are available :

- **Standard (STD) :** units are supplied with compressors box to reduce noise emissions
- **Super Low Noise (S) :** units are supplied with compressors box and additional insulation panels on the cabinet in order to furtherly reduce noise impact

WQL/WQH/WQRC units are available in totally **14 sizes** (20, 25, 30, 35, 40, 45, 50, 60, 75, 90, 120, 150, 170, 190), ranging from **20 to 190 kW** in cooling operation and from **25 to 210 kW** in heating operation.

WQL/WQH/WQRC units are available on **two different structural frames** (F1 for 20-45 sizes, F2 for 50-190 sizes). Each unit is equipped with single refrigerant circuit, single hermetic scroll compressor for F1 sizes, and two hermetic scroll compressors (tandem) for F2 sizes.

Evaporators and condensers are brazed plate heat exchanger type.

Heat pump units **(WQH)** are equipped with reversible valve, thus allowing to reverse cycle on refrigerant side and not on water side.

Remote condenser units **(WQRC)** are not equipped with condenser heat exchangers, but equipped with stop valves on discharge and liquid lines in order to allow connection to remote condensers.

Cabinet and structure

Cabinet and structure are made of galvanized steel. All galvanized steel components are individually painted by a special painting process before assemblying of the unit. This painting system performs a homogeneous protection to the corrosion. The painting is a polyester powder based type, coloured in **RAL 9001**. The units are suitable for indoor installation.

Refrigerant circuit

Refrigerant circuit is equipped with one or two hermetic scroll compressors (depending on the frame), sight glass, filter-drier and mechanical expansion valve (electronic expansion valve is available as an option).

Heat pump units **(WQH)** refrigerant circuit is also provided with 4-way reversing valve and check valves system in order to always run liquid line in the same direction (both in cooling and in heating mode).

Remote condenser units **(WQRC)** refrigerant circuit is supplied without condenser and it is provided with liquid receiver, stop valves both on discharge and liquid lines, solenoid valve on liquid line.

The functional diagram of each circuit is shown in section "Refrigerant flow diagram".

Compressors

Compressors are hermetic scroll type fitted with an electronic control device ensuring protection of compressors against :

- Overheating
- Overloading
- Reversal rotation
- Phase loss

All compressors have direct-on-line starting and are mounted on rubber vibration isolators in order to minimize noise and vibration transmission.

Evaporators and condensers

Evaporator and condenser heat exchangers are brazed stainless steel plate type. They are insulated with a 10 mm thick closed cell polyethylene foam material and provide with Victaulic connections.

Electrical board

Electric equipment is built in compliance with CE standards. Easy accessible in front of the unit - through an access panel fixed with screws - the equipment is complete with :

- Door lock main isolating switch
- Compressor contactors and fuses
- Compressor overload protection (optional only on F2 units)
- Automatic circuit breaker switches (Standard on F1 units, optional on F2 units)
- Phase sequence control
- Clamps for remote start/stop switch
- Clamps for remote summer/winter switch
- Clamps for external flow switches (both exchangers)
- Clamps for remote double set-point
- Clamps for external interlock
- Clamps for remote general alarm
- Connection clamps to remote keyboard (optional)
- Clamps for evaporator/condenser pump relay control (optional)
- Clamps for boiler relay control (optional)
- Clamps for dynamic set-point compensation (4-20 mA, 0-1 V, 0-5 V, 0-10 V)
- Clamps for DHW 3-way valve (accessory)
- Clamps for outdoor air temperature probe (accessory)
- Electronic control SBW655
- Soft-starter (optional)
- Power factor correction capacitors (optional)
- 0-10 V clamps for condensing control (optional)

Control

A new optimized control is supplied on all the units with a simple user interface (possibility to customize keys functions and to set menus visibility).

In addition to standard features as water temperature control (with possibility to choose LWT/EWT probe), the control can also manage following functions :

- DHW control with anti-legionella function daily and weekly activated
- Dynamic set point (4-20 mA, 0-1V, 0-5V, 0-10V)
- Double set point
- OAT compensation
- Boiler/Electrical heater integration
- Condensing control
- Auto adaptative function to reduce the water content of the plant
- Managing of DHW 3-way valve (accessory)
- Advanced pump management (both primary circuit and source side)
- Remote keyboard (accessory) with possibility to connect (up to 100 m distance) without any serial interface

Safety

Each unit is equipped with following electrical / refrigerant / hydraulic safety devices :

- Door lock main isolating switch
- Phase monitor control
- High pressure switch with manual reset
- Discharge safety valve
- Low pressure switch with automatic / manual reset
- Anti-freeze probe (leaving water temperature)
- Differential pressure switch (source / plant side)

Standards

WQL/WQH/WQRC are built in compliance with following standards :

- Machinery Directive : 2006/42/EC
- Low Voltage Directive : 2006/95/EC
- Electromagnetic Compatibility Directive : 2014/30/EU
- Pressure Equipment Directive : 2014/68/EU

And following harmonized European standards :

- Safety of machinery - Basic concepts, general principles for design: UNI EN ISO 12100-1 / 2
- Safety of machinery - Safety Distances To Prevent Hazard Zones Being Reached By Upper And Lower Limbs : EN ISO 13857
- Safety of machinery - Electrical equipment of machines : EN 60204-1
- Low-voltage switchgear and controlgear assemblies : EN 60439-1
- Electromagnetic compatibility (EMC) - Immunity for industrial environments : IEC EN 61000-6-2
- Electromagnetic compatibility (EMC) - Emission standard for residential, commercial and light-industrial environments : IEC EN 61000-6-3
- Refrigerating systems and heat pumps. Safety and environmental requirements : EN 378-1 / 2
- Metallic products - Types of inspection documents : EN 10204
- Copper and copper alloys. Seamless, round copper tubes for air conditioning and refrigeration : BS EN 12735-1 / 2
- Pressure equipment for refrigerating systems and heat pumps. General requirements : BS EN 14276-1 / 2
- Refrigerating systems and heat pumps - Pressure relief devices and their associated piping - Methods for calculation : BS EN 13136
- Metallic industrial piping : BS EN 13480-3

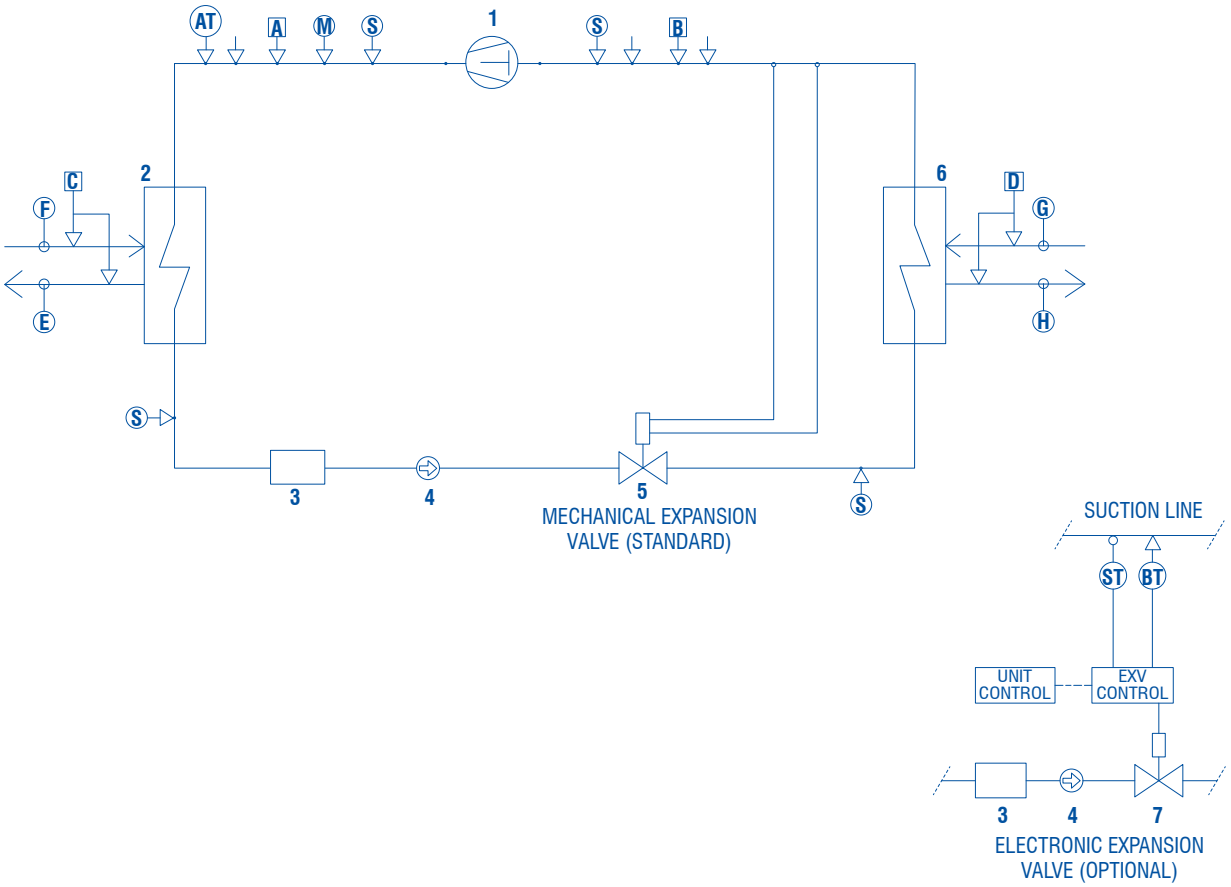
Factory installed options

- ModBus protocol kit for BMS
- Compressor soft starter
- Power factor correction capacitors
- Electronic expansion valve
- Compressor overload protection (only for F2 units)
- Automatic circuit breaker (only for F2 units)
- Condensing control kit
- Electric heater wiring kit
- Additional heating device wiring kit
- Mechanical gauges kit
- Compressor jacket
- On board hydrokit (1P/both exchangers/SP for F1 units, 1P/2P/both exchangers/SP-HP for F2 units)
- Desuperheater (only for F2 units)

Field installed accessories

- Remote ON-OFF
- Remote keyboard panel
- Sequencer up to 4 units
- Condensing control kit
- Water temperature sensor for DHW tank
- Outdoor air sensor for weather compensation
- Electric heater wiring kit
- Additional heating device wiring kit
- Pressostatic water valve for well application (only for F1 units)
- Compressor jacket
- Flow switch
- Pressure switch
- Victaulic to threaded pipe connection
- 3-way valve for DHW production
- Spring type anti-vibration mounts (only for F2 units)
- Water filter
- Valves IN/OUT (only for F1 units)

Refrigerant Flow Diagram - WQL 20 to 45



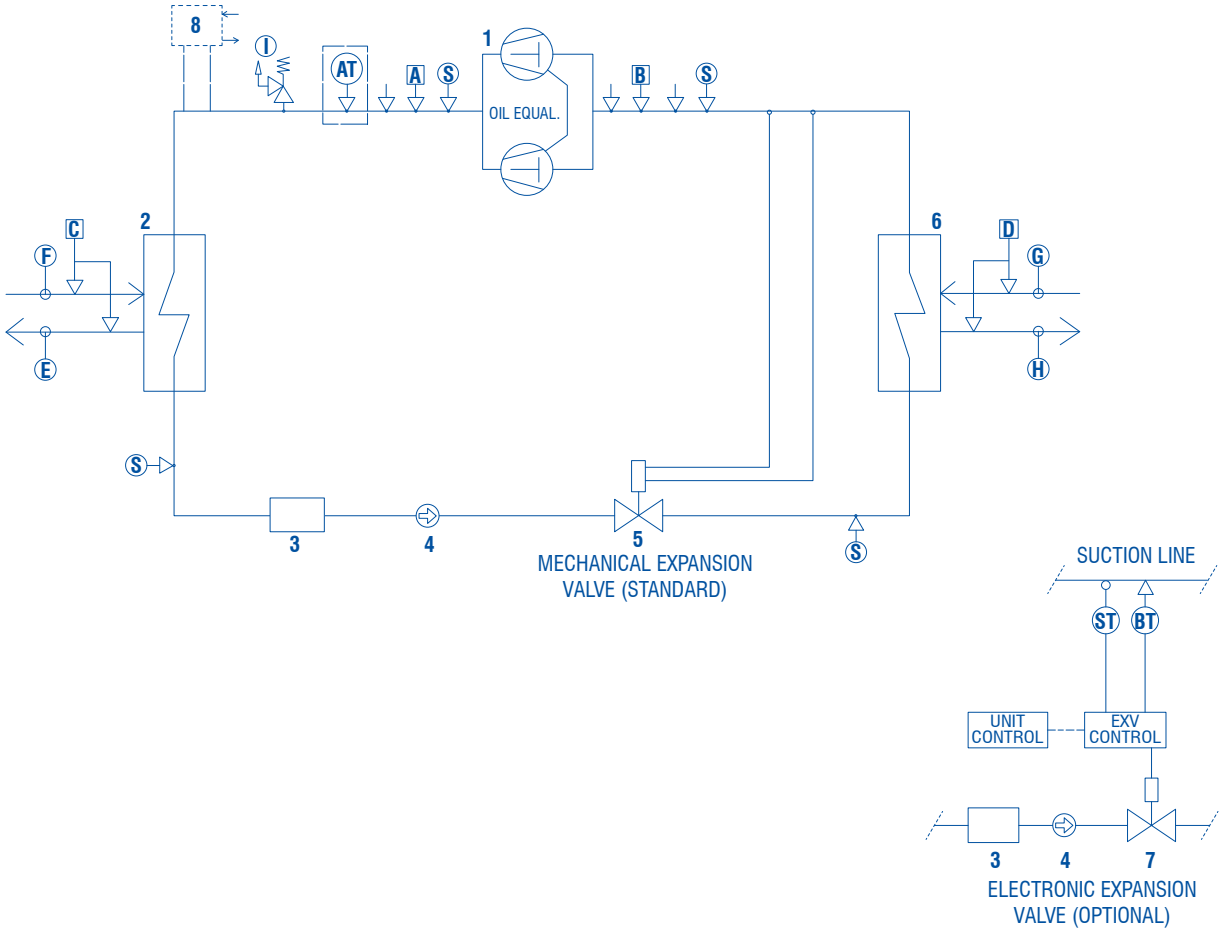
COMPONENTS

1	Compressor
2	Condenser
3	Drier filter
4	Sight glass
5	Mechanical expansion valve
6	Evaporator
7	Electronic expansion valve

SAFETY / CONTROL DEVICES

A	High pressure switch (42 bar)
B	Low pressure switch (2 bar)
AT	High pressure transducer (optional)
BT	Low pressure transducer
C	Water differential pressure switch
D	Water differential pressure switch
E	Outlet water temperature sensor
F	Inlet water temperature sensor
G	Inlet water temperature sensor
H	Outlet water temperature sensor
S	5/16" Shrader connection (service only)
ST	Suction temperature probe
	Pipe connection with Shrader valve

Refrigerant Flow Diagram - WQL 50 to 190



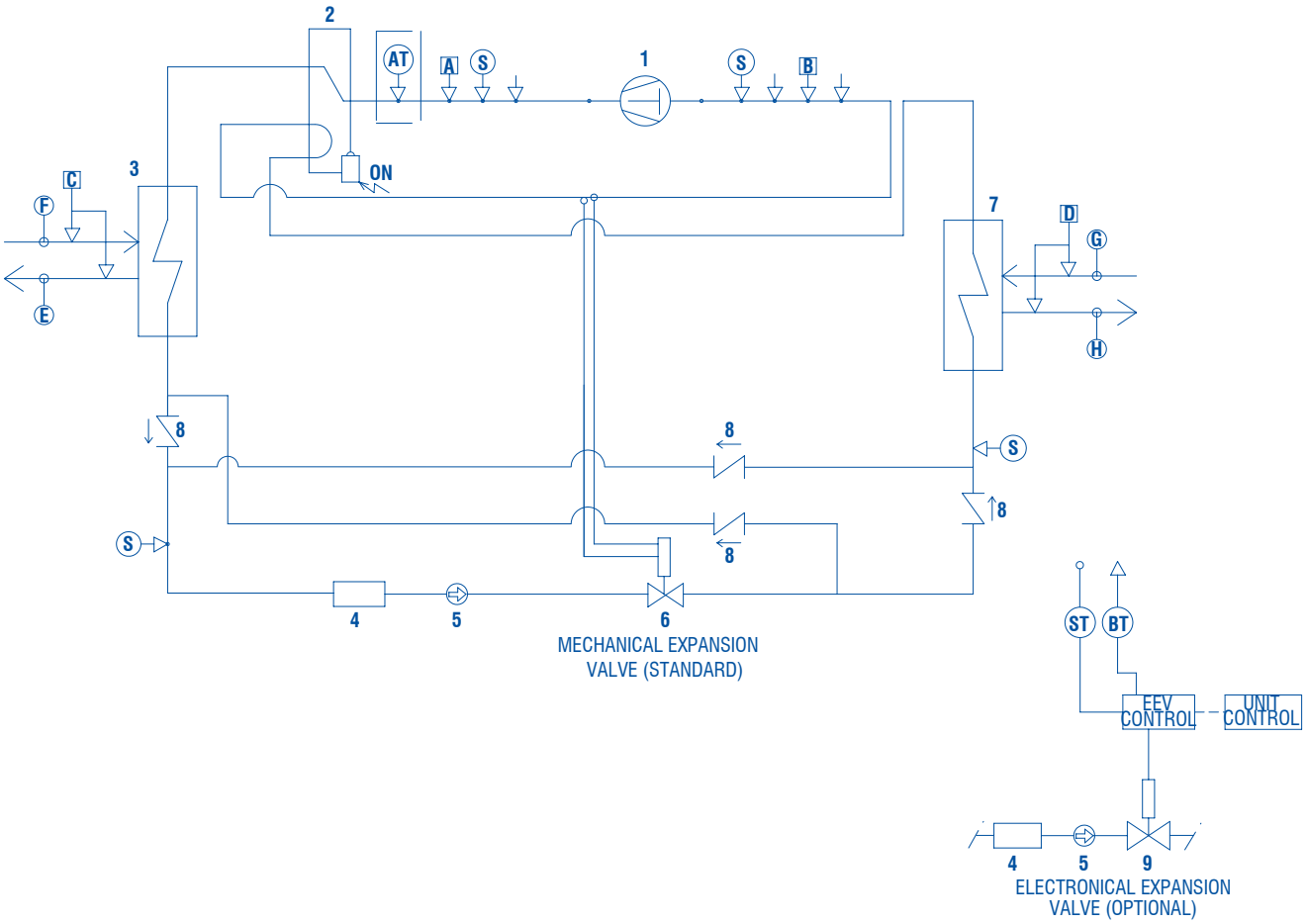
COMPONENTS

1	Compressors
2	Condenser
3	Drier filter
4	Sight glass
5	Mechanical expansion valve
6	Evaporator
7	Electronic expansion valve
8	Desuperheater

SAFETY / CONTROL DEVICES

A	High pressure switch (40.5 bar)
B	Low pressure switch (2 bar)
AT	High pressure transducer (optional)
BT	Low pressure transducer
C	Water differential pressure switch
D	Water differential pressure switch
E	Outlet water temperature sensor
F	Inlet water temperature sensor
G	Inlet water temperature sensor
H	Outlet water temperature sensor
I	PED pressure valve (45 bar)
S	5/16" Shrader connection (service only)
	Pipe connection with Shrader valve

Refrigerant Flow Diagram - WQH 20 to 45



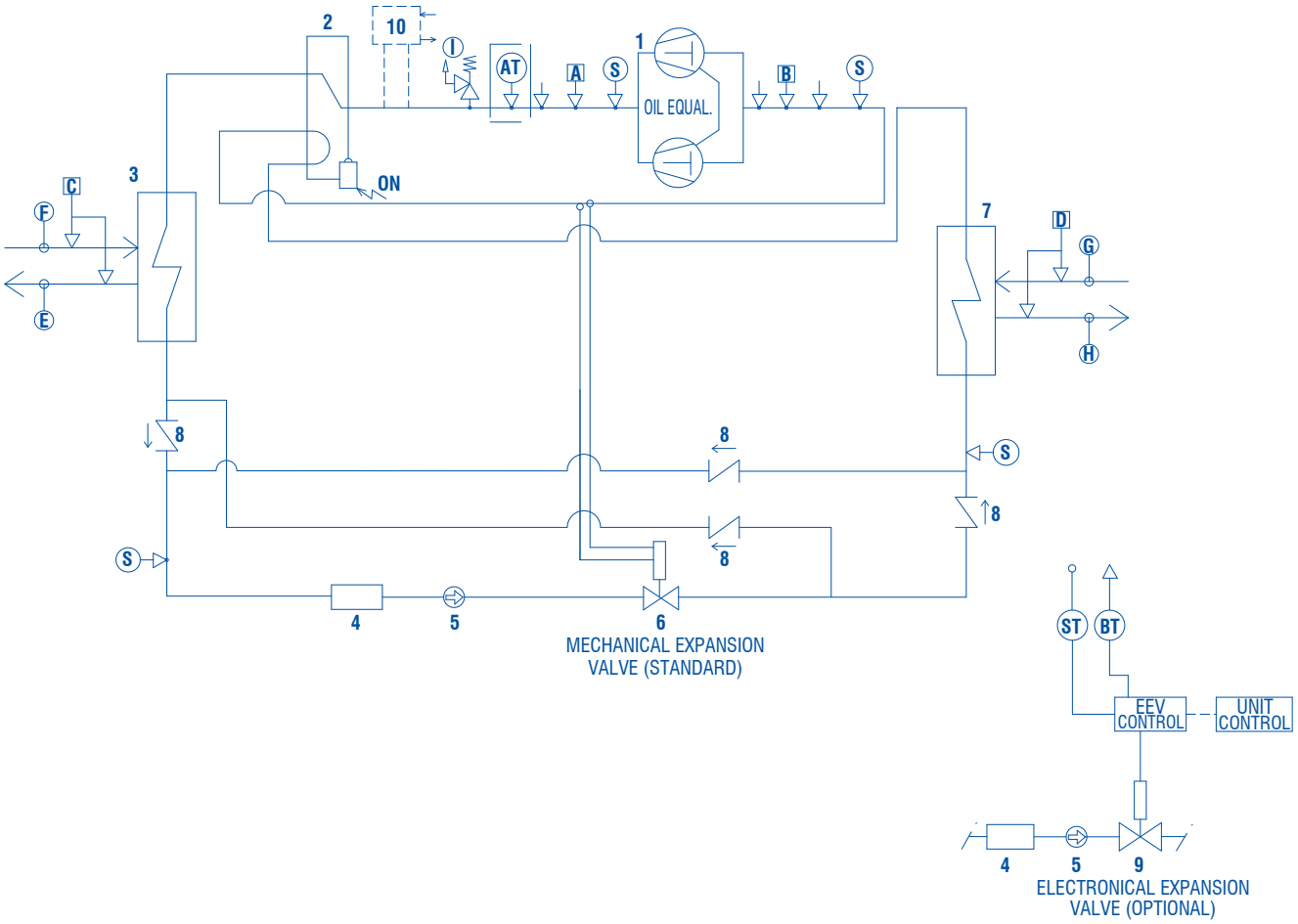
COMPONENTS

1	Compressor
2	4-way valve
3	Condenser
4	Drier filter
5	Sight glass
6	Mechanical expansion valve
7	Evaporator
8	Check valve
9	Electronic expansion valve

SAFETY / CONTROL DEVICES

A	High pressure switch (42 bar)
B	Low pressure switch (2 bar)
AT	High pressure transducer (optional)
BT	Low pressure transducer
C	Water differential pressure switch
D	Water differential pressure switch
E	Outlet water temperature sensor
F	Inlet water temperature sensor
G	Inlet water temperature sensor
H	Outlet water temperature sensor
S	5/16" Shrader connection (service only)
	Pipe connection with Shrader valve

Refrigerant Flow Diagram - WQH 50 to 190



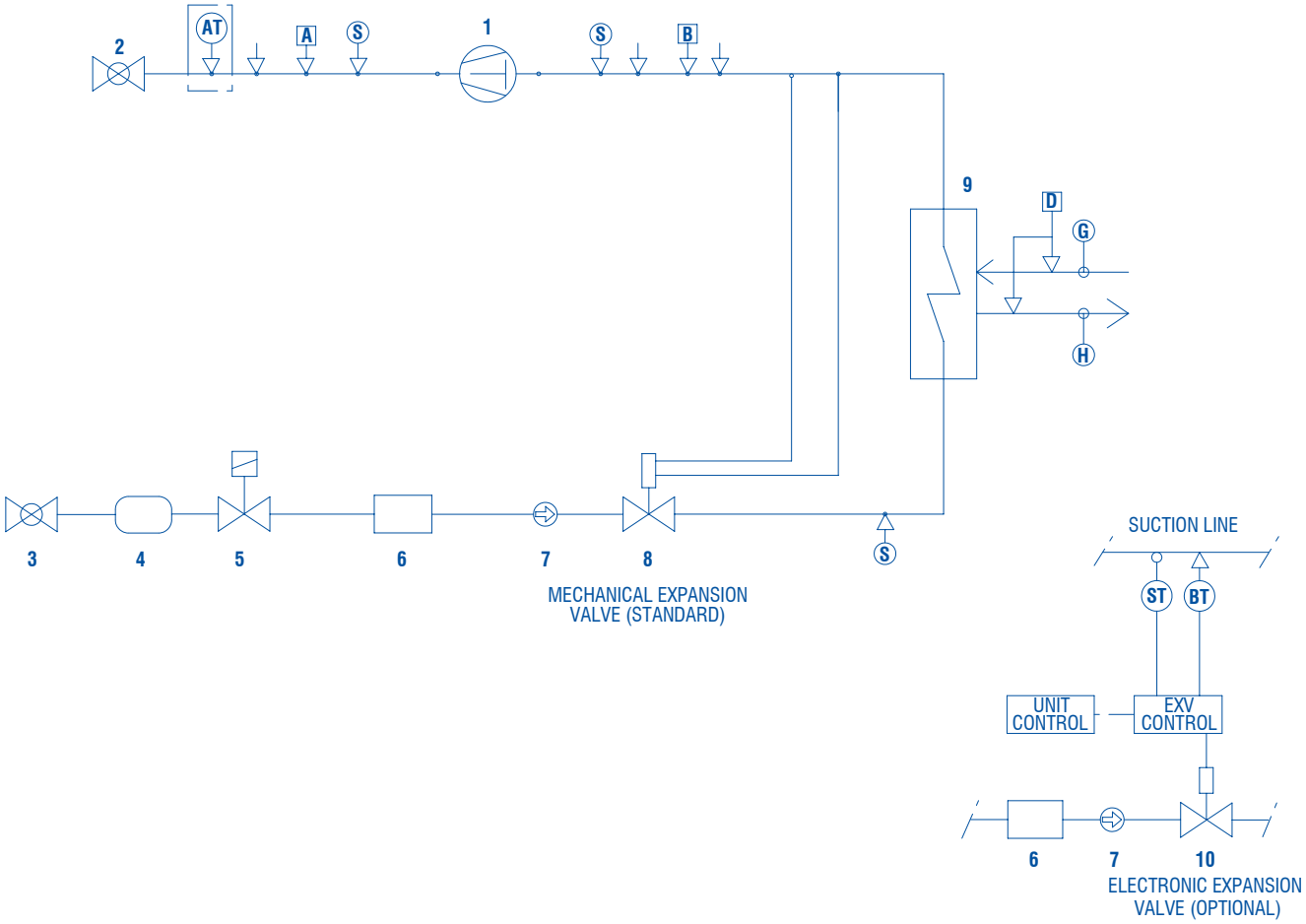
COMPONENTS

1	Compressors
2	4-way valve
3	Condenser
4	Drier filter
5	Sight glass
6	Mechanical expansion valve
7	Evaporator
8	Check valve
9	Electronic expansion valve
10	Desuperheater

SAFETY / CONTROL DEVICES

A	High pressure switch (40.5 bar)
B	Low pressure switch (2 bar)
AT	High pressure transducer (optional)
BT	Low pressure transducer
C	Water differential pressure switch
D	Water differential pressure switch
E	Outlet water temperature sensor
F	Inlet water temperature sensor
G	Inlet water temperature sensor
H	Outlet water temperature sensor
I	PED pressure relief valve (45 bar)
S	5/16" Shrader connection (service only)
	Pipe connection with Shrader valve

Refrigerant Flow Diagram - WQRC 20 to 45



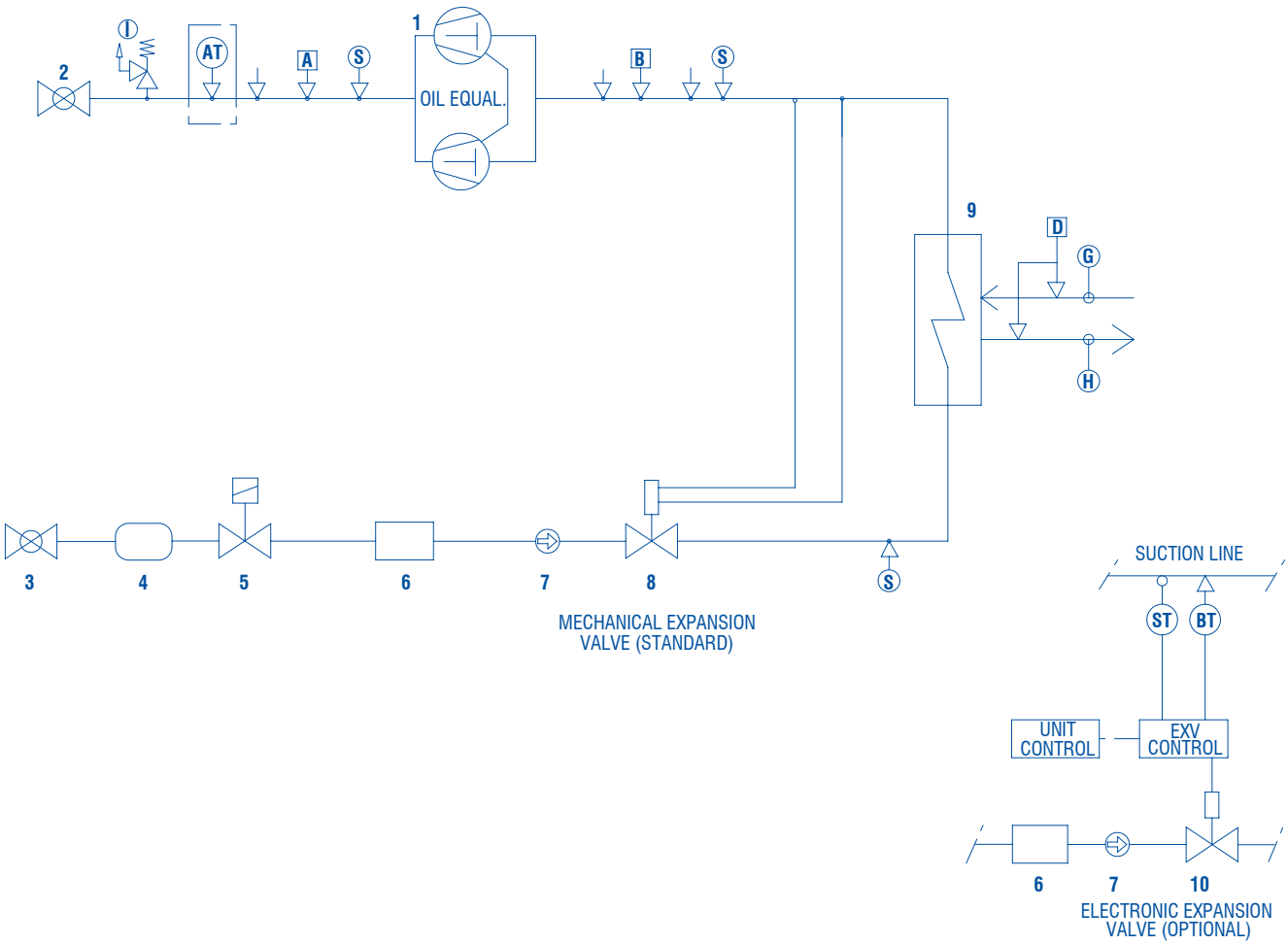
COMPONENTS

1	Compressor
2	Globe valve
3	Globe valve
4	Liquid receiver
5	Solenoid valve
6	Drier filter
7	Sight glass
8	Mechanical expansion valve
9	Evaporator
10	Electronic expansion valve

SAFETY / CONTROL DEVICES

A	High pressure switch (42 bar)
B	Low pressure switch (2 bar)
AT	High pressure transducer (optional)
BT	Low pressure transducer
D	Water differential pressure switch
G	Inlet water temperature sensor
H	Outlet water temperature sensor
S	5/16" Shrader connection (service only)
ST	Suction temperature probe
	Pipe connection with Shrader valve

Refrigerant Flow Diagram - WQRC 50 to 190



COMPONENTS

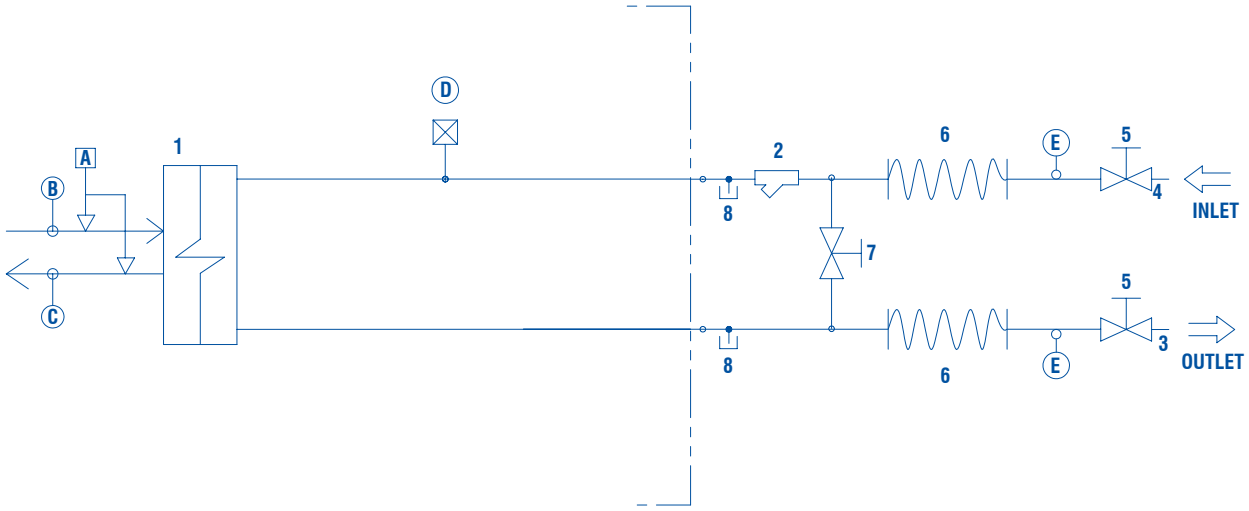
1	Compressors
2	Globe valve
3	Globe valve
4	Liquid receiver
5	Solenoid valve
6	Drier filter
7	Sight glass
8	Mechanical expansion valve
9	Evaporator
10	Electronic expansion valve

SAFETY / CONTROL DEVICES

A	High pressure switch (40.5 bar)
B	Low pressure switch (2 bar)
AT	High pressure transducer (optional)
BT	Low pressure transducer
D	Water differential pressure switch
G	Inlet water temperature sensor
H	Outlet water temperature sensor
I	PED pressure valve (45 bar)
S	5/16" Shrader connection (service only)
ST	Suction temperature probe
	Pipe connection with Shrader valve

Hydraulic Circuit Diagram - WQL/WQH 20 to 45

Hydraulic system basic



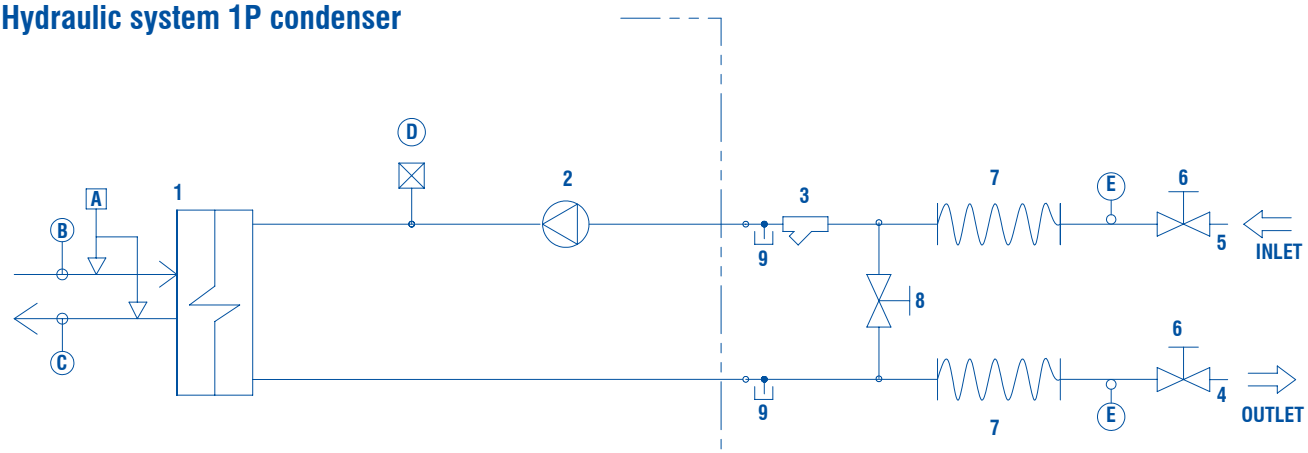
COMPONENTS

1 Plate heat exchanger
2 Water filter
3 Water outlet
4 Water inlet
5 Globe valve
6 Flexible pipes
7 By-pass valve
8 Pressure point/drainage

SAFETY / CONTROL DEVICES

A Water differential pressure switch
B Inlet water temperature sensor
C Outlet water temperature sensor
D Vent valve
E Thermometer
Unit side
Probes

Hydraulic system 1P condenser



COMPONENTS

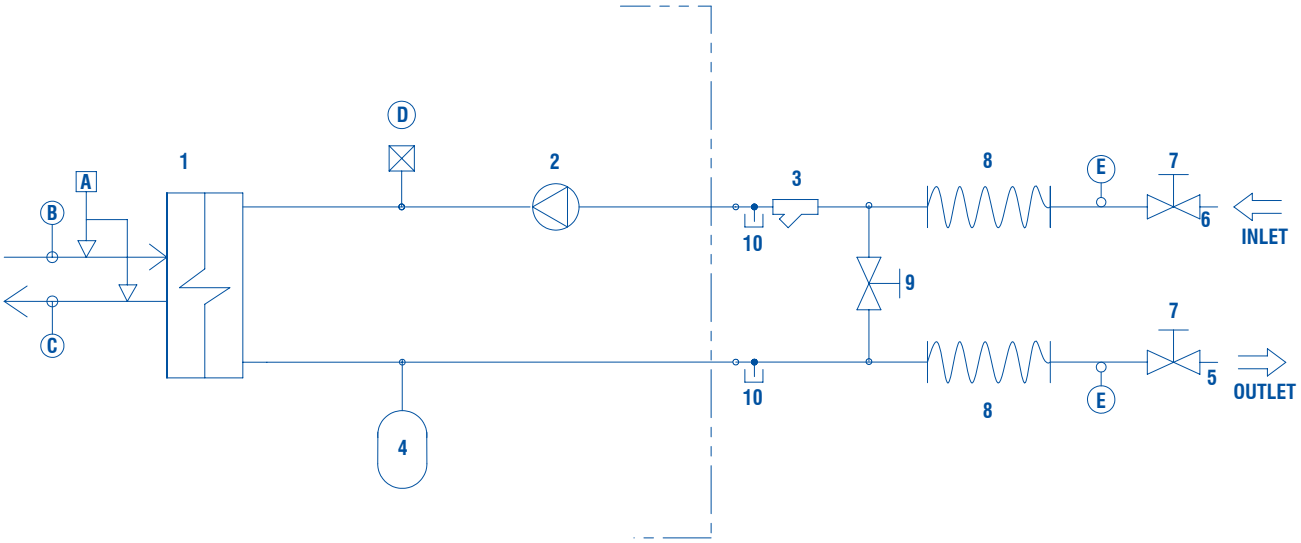
1 Plate heat exchanger
2 Pump
3 Water filter
4 Water outlet
5 Water inlet
6 Globe valve
7 Flexible pipes
8 By-pass valve
9 Pressure point/drainage

SAFETY / CONTROL DEVICES

A Water differential pressure switch
B Inlet water temperature sensor
C Outlet water temperature sensor
D Vent valve
E Thermometer
Unit side
Probes

Hydraulic Circuit Diagram - WQL/WQH 20 to 45 (continued)

Hydraulic system 1P evaporator



COMPONENTS

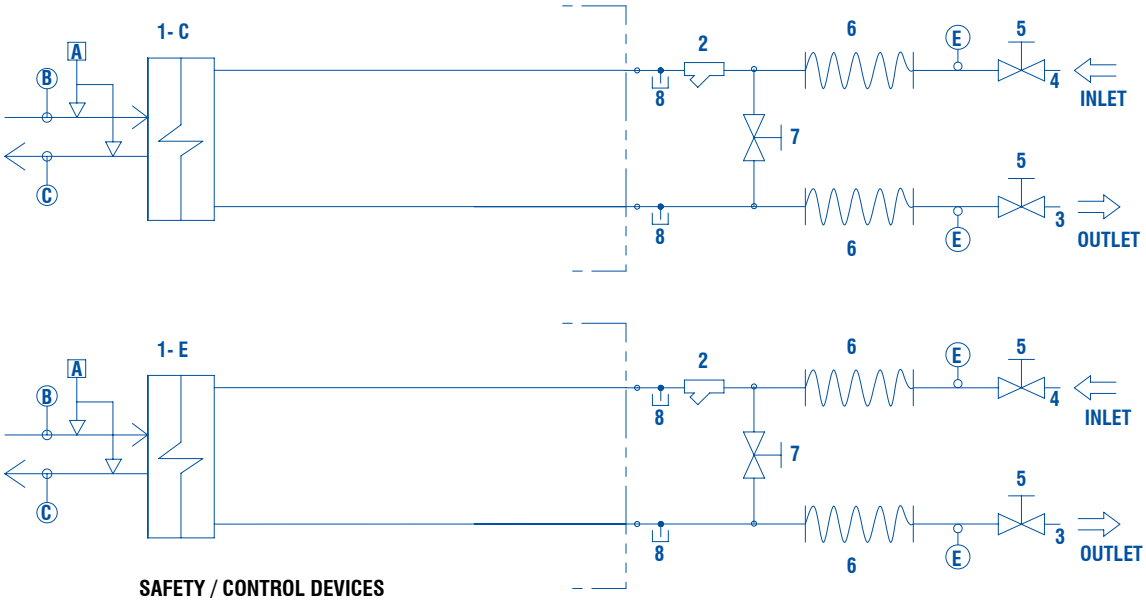
1 Plate heat exchanger
2 Pump
3 Water filter
4 Pressure expansion tank
5 Water outlet
6 Water inlet
7 Globe valve
8 Flexible pipes
9 By-pass valve
10 Pressure point/drainage

SAFETY / CONTROL DEVICES

A Water differential pressure switch
B Inlet water temperature sensor
C Outlet water temperature sensor
D Vent valve
E Thermometer
—·— Unit side
O Probes

Hydraulic Circuit Diagram - WQL/WQH 50 to 190

Hydraulic system basic



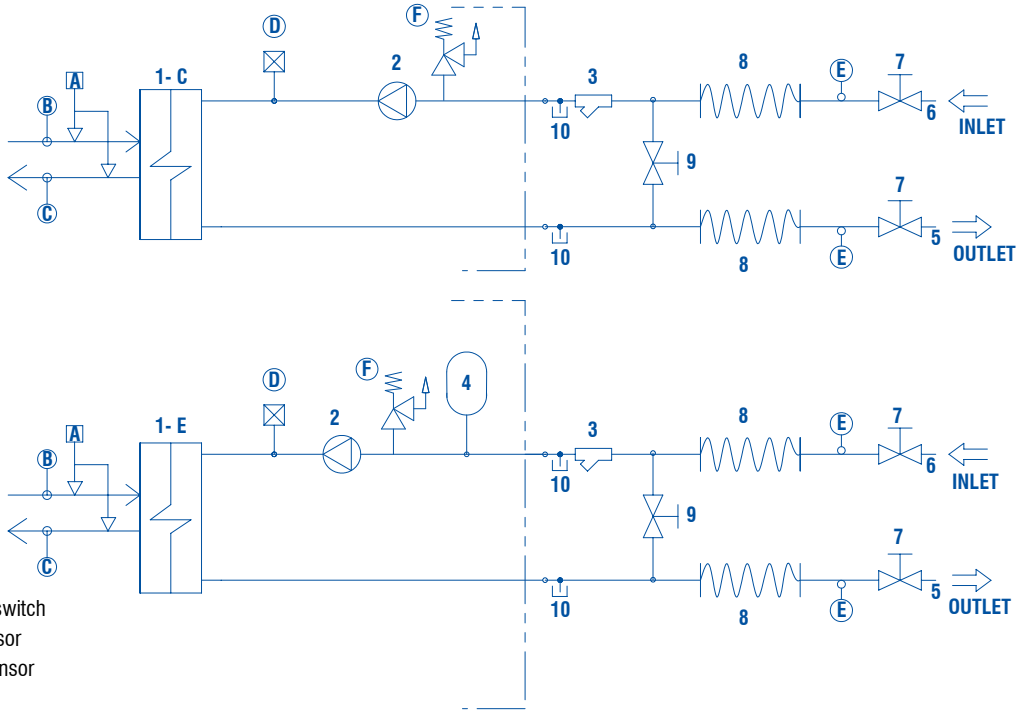
COMPONENTS

1C Condenser
1E Evaporator
2 Water filter
3 Water outlet
4 Water inlet
5 Globe valve
6 Flexible pipes
7 By-pass valve
8 Pressure point/drainage

SAFETY / CONTROL DEVICES

A Water differential pressure switch
B Inlet water temperature sensor
C Outlet water temperature sensor
D Vent valve
E Thermometer
Unit side
Probes

Hydraulic system 1P condenser and 1P evaporator



COMPONENTS

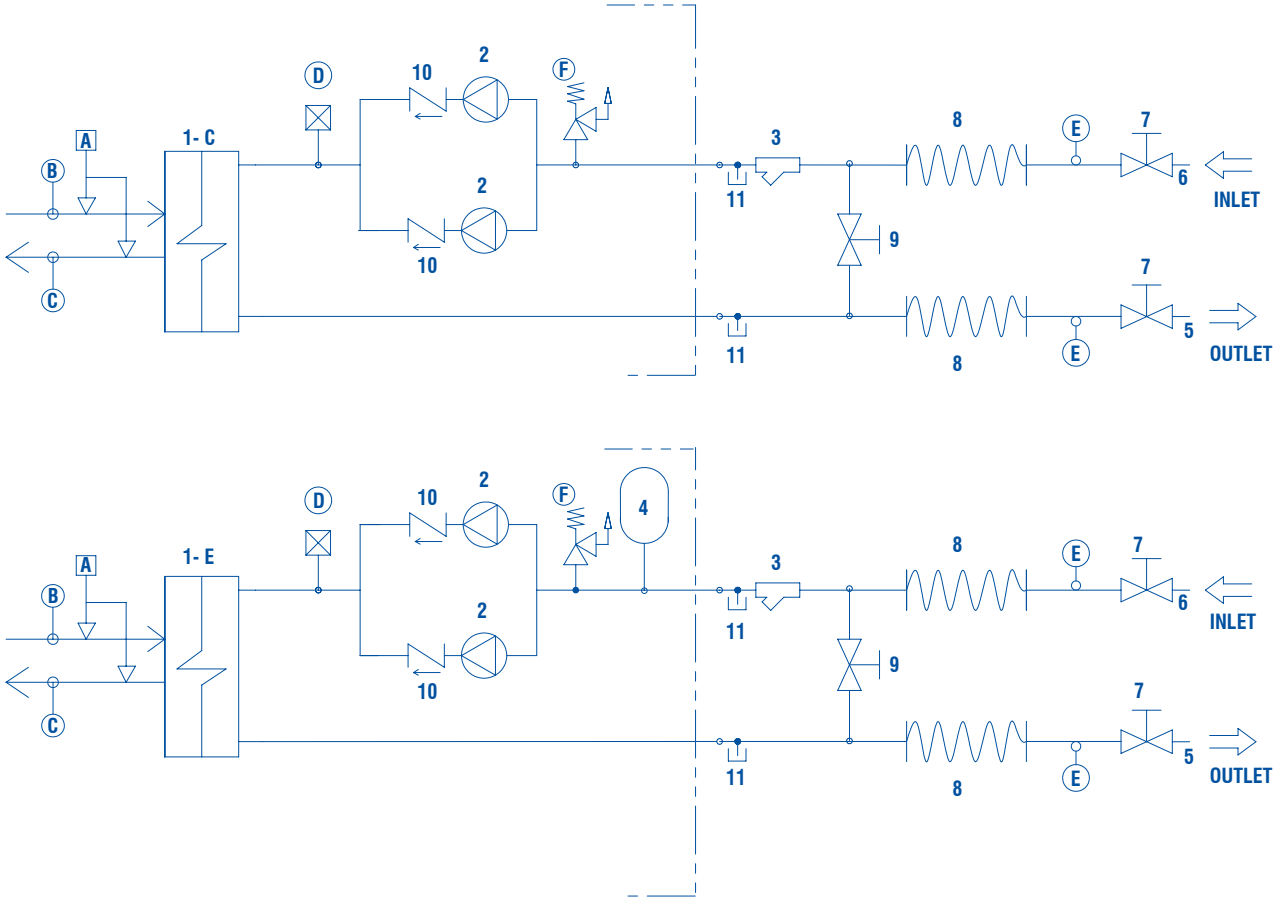
1C Condenser
1E Evaporator
2 Pump
3 Water filter
4 Pressure expansion tank
5 Water outlet
6 Water inlet
7 Globe valve
8 Flexible pipes
9 By-pass valve
10 Pressure point/drainage

SAFETY / CONTROL DEVICES

A Water differential pressure switch
B Inlet water temperature sensor
C Outlet water temperature sensor
D Vent valve
E Thermometer
F Water safety valve (6 bar)
Unit side
Probes

Hydraulic Circuit Diagram - WQL/WQH 50 to 190 (continued)

Hydraulic system 2P condenser and 2P evaporator



COMPONENTS

1C Condenser
1E Evaporator
2 Pump
3 Water filter
4 Pressure expansion tank
5 Water outlet
6 Water inlet
7 Globe valve
8 Flexible pipes
9 By-pass valve
10 Non-return valve
11 Pressure point/drainage

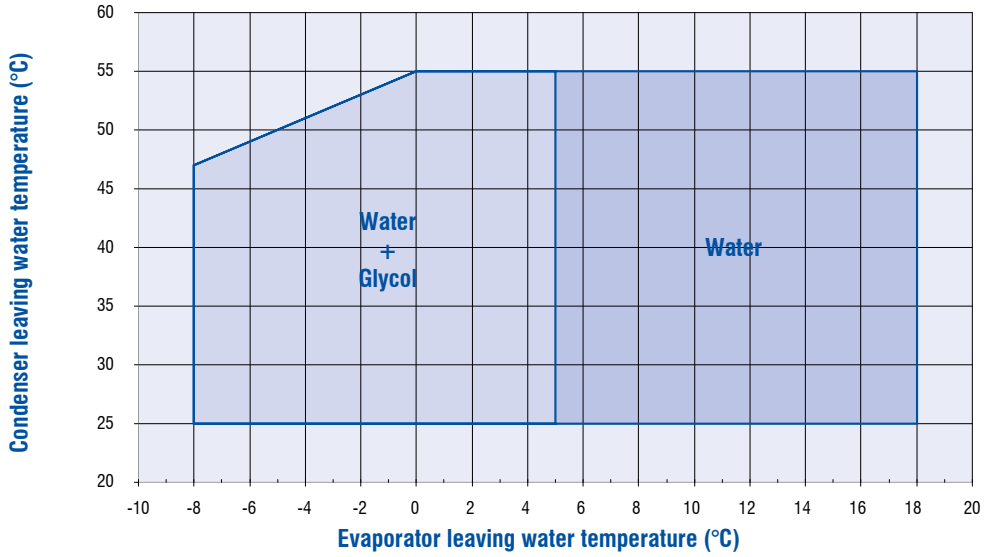
SAFETY / CONTROL DEVICES

A Water differential pressure switch
B Inlet water temperature sensor
C Outlet water temperature sensor
D Vent valve
E Thermometer
F Water safety valve (6 bar)
—·— Unit side
O Probes

Operating Limits

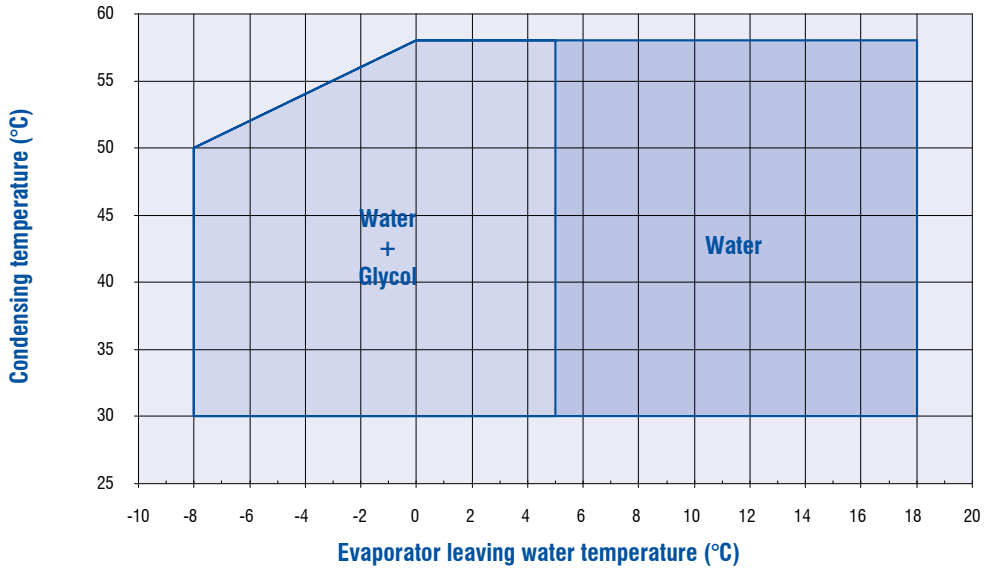
WQL/WQH 20 - 190				
Chilled liquid	Leaving water temperature	Water	°C	+5 to +18
		Brine	°C	-8 / +5 (with glycol and electronic expansion valve); +5/+18 (standard application)
		ΔT water	°K	3 to 8
	Maximum operating pressure		bar	6
Heated liquid	Leaving water temperature	Water	°C	+25 to +55
		ΔT water	°K	3 to 15
	Maximum operating pressure		bar	6
Power supply voltage				400 V, 3 ph, 50 Hz (+/- 10%)

Note : Maximum % glycol (ethylenic or propilenic) : 40%.



WQRC 20 - 190				
Chilled liquid	Leaving water temperature	Water	°C	+5 to +18
		Brine	°C	-8 / +5 (with glycol and electronic expansion valve); +5/+18 (standard application)
		Temperature spread	°K	3 to 8
	Maximum operating pressure		bar	6
Condensing temperature			°C	+30 to +58
Power supply voltage				400 V, 3 ph, 50 Hz (+/- 10%)

Note : Maximum % glycol (ethylenic or propilenic) : 40%.



Correction Factors

Unit capacity, absorbed power, brine flow rate, brine pressure drop, have to be corrected according to following formula :

Corrected unit capacity

$$Q_{CORRECTED/GLYCOL} = Q_{NOMINAL} \times K_c \times K_c^{E,P}$$

where :

K_c = capacity corrective factor according to LWT ($\Delta T = 5$ [K]) → refer to Table 1

K_c^E = capacity corrective factor according to glycol percentage (ETHYLENE GLYCOL) → refer to Table 2

K_c^P = capacity corrective factor according to glycol percentage (PROPYLENE GLYCOL) → refer to Table 4

Corrected unit absorbed power

$$P_{CORRECTED/GLYCOL} = P_{NOMINAL} \times K_i \times K_i^{E,P}$$

where :

K_i = absorbed power corrective factor according to LWT ($\Delta T = 5$ [K]) → refer to Table 1

K_i^E = absorbed power corrective factor according to glycol percentage (ETHYLENE GLYCOL) → refer to Table 2

K_i^P = absorbed power corrective factor according to glycol percentage (PROPYLENE GLYCOL) → refer to Table 4

Corrected brine flow rate

$$G_{CORRECTED/GLYCOL} = G_{RE\text{-}CALCULATED} \times K_f^{E,P}$$

where :

$G_{RE\text{-}CALCULATED}$ = flow rate according to $P_{CORRECTED/GLYCOL}$ ($P_{CORRECTED/GLYCOL} \times 860 / \Delta T / 3600$)

K_f^E = flow rate corrective factor according to glycol percentage (ETHYLENE GLYCOL) → refer to Table 2

K_f^P = flow rate corrective factor according to glycol percentage (PROPYLENE GLYCOL) → refer to Table 4

Corrected brine pressure drop

$$\Delta P_{CORRECTED/GLYCOL} = \Delta P_{RE\text{-}CALCULATED} \times K_p^{E,P}$$

where :

$\Delta P_{RE\text{-}CALCULATED}$ = pressure drop according to $G_{CORRECTED/GLYCOL}$ ($K_{BPHE} \times (G_{CORRECTED/GLYCOL})^2$)

K_p^E = pressure drop corrective factor according to glycol percentage (ETHYLENE GLYCOL) → refer to Table 2

K_p^P = pressure drop corrective factor according to glycol percentage (PROPYLENE GLYCOL) → refer to Table 5

Table 1		K_c	K_i
Leaving water temperature [LWT] (°C) (ΔT=5 [K])	7	1.000	1.000
	4	0.887	0.940
	2	0.816	0.900
	0	0.748	0.865
	-2	0.685	0.826
	-4	0.624	0.788
	-6	0.568	0.753
	-8	0.513	0.718
	-10	0.461	0.683

Table 2							
Ethylene Glycol Percentage	%	0	10	20	30	35	40
Freezing point (1)	°C	0	-4	-10	-17	-21	-25
Minimum leaving water temperature allowed	°C	6	2	-2	-6	-8	-8
Capacity corrective factor (2)	K_c^E	1	0.995	0.985	0.970	0.963	0.955
Absorbed power corrective factor (2)	K_i^E	1	0.998	0.995	0.985	0.983	0.980
Flow rate corrective factor	K_f^E	1	1.015	1.050	1.085	1.123	1.160
Pressure drop corrective factor (3)	K_p^E	1	1.070	1.160	1.235	1.283	1.330

(1) ASHRAE Handbook Fundamentals.
(2) Valid for LWT=7 °C. If LWT < 7°C consider $K_c \times K_c^E$ and $K_i \times K_i^E$.
(3) Valid for LWT > 5 °C. If LWT < 5 °C then refer to Table 3.

Correction Factors (continued)

Table 3			
Ethylene Glycol Percentage	**LWT (°C)**	**Corrective factor K_f^E**	**Corrective factor K_p^E**
10%	5	1.0154	1.0710
	4	1.0154	1.0760
	3	1.0154	1.0810
	2	1.0154	1.0850
20%	1	1.0417	1.1930
	0	1.0423	1.2000
	-1	1.0428	1.2080
	-2	1.0434	1.2150
30%	-3	1.0927	1.2990
	-4	1.0936	1.3060
	-5	1.0945	1.3200
	-6	1.0954	1.3330

Table 4						
Propylene Glycol Percentage	%	0	10	20	30	40
Freezing point **(1)**	°C	0	-3	-7	-13	-22
Capacity corrective factor **(2)**	K_c^P	1	0.991	0.977	0.945	0.911
Absorbed power corrective factor **(2)**	K_i^P	1	0.994	0.991	0.975	0.966
Flow rate corrective factor	K_f^P	1	1.005	1.030	1.067	1.130

(1) ASHRAE Handbook Fundamentals.
(2) Valid for LWT=7 °C. If LWT < 7°C consider $K_c \times K_c^P$ and $K_i \times K_i^P$.

Table 5		
Ethylene Glycol Percentage	**LWT (°C)**	**Corrective factor K_p^P**
10%	5	1.112
	4	1.134
20%	5	1.175
	4	1.196
	3	1.206
30%	5	1.290
	4	1.300
	3	1.310
	0	1.362
	-2	1.393
	-4	1.414
40%	5	1.433
	4	1.435
	3	1.456
	0	1.497
	-2	1.549
	-4	1.580
	-6	1.612
	-8	1.653

Physical Data - WQL 20 to 45

WQL		20	25	30	35	40	45
Cooling Capacity [1]	kW	21,2	26,2	31,1	34,8	39,2	46,6
Input Power [1]	kW	4,56	5,67	6,84	7,54	8,60	10,1
Total EER[1]	kW/kW	4,67	4,65	4,57	4,64	4,58	4,65
SEER [2]		5,58	5,60	5,45	5,50	5,35	5,83
$\eta_{s,c}$ [2]		220	221	215	217	211	230
Number of Refrigerant Circuits		1	1	1	1	1	1
Part Load Steps	%	0-100	0-100	0-100	0-100	0-100	0-100
Power Supply		400V/3/50Hz					
Startup Type		Direct					
Maximum Absorbed Power	kW	8	10	12	14	15	17
Maximum Corrent (FLA)	A	15	21	22	25	31	34
Startup Corrent (LRA)	A	101	111	118	118	140	174
REFRIGERANT							
Type		R410A					
Charge	kg	2,8	2,8	2,8	2,8	2,9	5,2
COMPRESSOR							
Number/Type		1 / Scroll					
Crankcase Heater	W	70	90	90	90	90	90
EVAPORATOR							
Number/Type		1 / Plate					
Water Flow Rate	l/s	1,02	1,26	1,50	1,68	1,89	2,24
Water Pressure Drop	kPa	17,7	26,2	35,6	43,9	40,5	39,7
EVAPORATOR WATER CONNECTIONS							
Inlet Diameter - Outlet Diameter / Type	inch	1"1/2-1"1/2 / Victaulic					
EVAPORATOR PUMP							
Input Power	kW	1,06	1,06	1,06	1,32	1,32	1,32
Available Static Pressure	kPa	Refer to pump curves					
CONDENSER							
Number/Type		1 / Plate					
Water Flow Rate	l/s	1,23	1,52	1,80	2,02	2,28	2,70
Water Pressure Drop	kPa	14,5	21,4	57,4	35,8	44,8	26,5
CONDENSER WATER CONNECTIONS							
Inlet Diameter - Outlet Diameter / Type	inch	1"1/2-1"1/2 / Victaulic					
CONDENSER PUMP							
Input Power	kW	1,06	1,06	1,32	1,32	1,32	1,32
Available Static Pressure	kPa	Refer to pump curves					
WEIGHT							
Shipping Weight	kg	156	176	174	179	185	203
Operating Weight	kg	162	182	179	185	191	214
DIMENSIONS							
Length	mm	821	821	821	821	821	821
Width	mm	455	455	455	455	455	455
Height	mm	1.350	1.350	1.350	1.350	1.350	1.350
ACOUSTIC DATA							
Sound Power Level [3]*	dB(A)	65	67	67	68	68	70
Sound Pressure Level [4] *	dB(A)	34	36	36	37	38	39
Sound Power Level [3]**	dB(A)	62	64	64	65	66	67
Sound Pressure Level [4]**	dB(A)	31	33	33	34	35	36

[1] According to EN14511 standard: Cooling mode conditions: evaporator EWT/LWT 12°C/7°C, condenser EWT/LWT 30°C/35°C.
[2] According to EN14825 standard and following COMMISSION REGULATION (EU) No 2016/2281 for comfort application chillers.
[3] Sound levels are at fully loaded conditions. Sound power level values refer to ISO 3744 standard.
[4] Sound pressure levels calculated at 10m refer to ISO 3744 standard, parallelepiped shape.
* STD version.
** S version.

Physical Data - WQH 20 to 45

WQH		20	25	30	35	40	45
Cooling Capacity [1]	kW	20,8	26,0	30,1	34,0	38,1	45,5
Input Power [1]	kW	4,67	5,82	7,03	7,82	8,80	10,4
Total EER [1]	kW/kW	4,45	4,47	4,28	4,35	4,34	4,39
SEER [2]		5,13	5,00	4,88	5,10	5,00	5,47
$\eta_{s,c}$ [2]		202	197	192	201	197	216
Heating Capacity [3]	kW	23,7	28,9	33,6	38,5	42,9	51,2
Input Power [3]	kW	6,11	7,51	9,01	10,2	11,4	13,3
Total COP [3]	kW/kW	3,88	3,85	3,73	3,79	3,77	3,85
SCOP/ $\eta_{s,h}$ [4]		5,17/199	5,45/210	5,33/205	5,05/194	4,83/185	5,28/203
SCOP/ $\eta_{s,h}$ [5]		4,00/152	4,48/171	4,45/170	4,30/164	4,28/163	4,45/170
Number of Refrigerant Circuits		1	1	1	1	1	1
Part Load Steps	%	0-100	0-100	0-100	0-100	0-100	0-100
Power Supply		400V/3/50Hz					
Startup Type		Direct					
Maximum Absorbed Power	kW	8	10	12	14	15	17
Maximum Corrent (FLA)	A	15	21	22	25	31	34
Startup Corrent (LRA)	A	101	111	118	118	140	174
REFRIGERANT							
Type		R410A					
Charge	kg	3,0	3,1	3,1	3,1	3,2	5,5
COMPRESSOR							
Number/Type		1 / Scroll					
Crankcase Heater	W	70	90	90	90	90	90
INTERNAL HEAT EXCHANGER							
Number/Type		1 / Plate					
Water Flow Rate - Cooling operation	l/s	1,00	1,25	1,45	1,63	1,83	2,19
Water Pressure Drop - Cooling operation	kPa	17,0	25,6	33,4	41,7	38,3	38,2
Water Flow Rate - Heating operation	l/s	1,13	1,38	1,61	1,84	2,05	2,45
Water Pressure Drop - Heating operation	kPa	21,8	31,4	41,1	52,8	47,8	47,7
INTERNAL HEAT EXCHANGER WATER CONNECTIONS							
Inlet Diameter - Outlet Diameter / Type	inch	1"1/2-1"1/2 / Victaulic					
INTERNAL HEAT EXCHANGER PUMP							
Input Power	kW	1,06	1,06	1,06	1,32	1,32	1,32
Available Static Pressure - Cooling operation	kPa	Refer to pump curves					
Available Static Pressure - Heating operation	kPa						
EXTERNAL HEAT EXCHANGER							
Number/Type		1 / Plate					
Water Flow Rate - Cooling operation	l/s	1,21	1,51	1,76	1,98	2,23	2,66
Water Pressure Drop - Cooling operation	kPa	13,6	20,5	54,8	33,8	42,2	25,5
Water Flow Rate - Heating operation	l/s	1,44	1,75	2,03	2,33	2,60	3,11
Water Pressure Drop - Heating operation	kPa	19,2	27,4	73,2	46,7	57,1	34,7
EXTERNAL HEAT EXCHANGER WATER CONNECTIONS							
Inlet Diameter - Outlet Diameter / Type	inch	1"1/2-1"1/2 / Victaulic					
EXTERNAL HEAT EXCHANGER PUMP							
Input Power	kW	1,06	1,06	1,32	1,32	1,32	1,32
Available Static Pressure	kPa	Refer to pump curves					
WEIGHT							
Shipping Weight	kg	159	181	179	184	190	208
Operating Weight	kg	165	187	184	190	195	219
DIMENSIONS							
Length	mm	821	821	821	821	821	821
Width	mm	455	455	455	455	455	455
Height	mm	1.350	1.350	1.350	1.350	1.350	1.350
ACOUSTIC DATA							
Sound Power Level [6]*	dB(A)	65	67	67	68	68	70
Sound Pressure Level [7]*	dB(A)	34	36	36	37	38	39
Sound Power Level [6]**	dB(A)	62	64	64	65	66	67
Sound Pressure Level [7]**	dB(A)	31	33	33	34	35	36

[1] According to EN14511 standard: Cooling mode conditions: evaporator EWT/LWT 12°C/7°C, condenser EWT/LWT 30°C/35°C.
[2] According to EN14825 standard and following COMMISSION REGULATION (EU) No 2016/2281 for comfort application chillers.
[3] According to EN14511 standard: Heating mode conditions: evaporator EWT/LWT 10°C/7°C, condenser EWT/LWT 40°C/45°C.
[4] According to EN14825 standard - low temperature application (35°C) and following COMMISSION REGULATION (EU) No 813/2013 for heat pumps.
[5] According to EN14825 standard - medium temperature application (55°C) and following COMMISSION REGULATION (EU) No 813/2013 for heat pumps.
[6] Sound levels are at fully loaded conditions. Sound power level values refer to ISO 3744 standard.
[7] Sound pressure levels calculated at 10m refer to ISO 3744 standard, parallelepiped shape.
* STD version.
** S version.

Physical Data - WQRC 20 to 45

WQRC		20	25	30	35	40	45
Cooling Capacity [1]	kW	18,3	22,7	27,1	30	34,2	43,1
Input Power [1]	kW	5,70	6,97	8,07	9,15	10,1	12,2
Number of Refrigerant Circuits		1	1	1	1	1	1
Part Load Steps	%	0-100	0-100	0-100	0-100	0-100	0-100
Power Supply		400V/3/50Hz					
Startup Type		Direct					
Maximum Absorbed Power	kW	8	10	12	14	15	17
Maximum Corrent (FLA)	A	15	21	22	25	31	34
Startup Corrent (LRA)	A	101	111	118	118	140	174
REFRIGERANT							
Type		R410A					
COMPRESSOR							
Number		1	1	1	1	1	1
Type		Scroll					
Crankcase Heater	W	70	90	90	90	90	90
EVAPORATOR							
Number		1	1	1	1	1	1
Type		Plate					
Water Flow Rate	l/s	1,00	1,24	1,50	1,66	1,88	2,21
Water Pressure Drop	kPa	17,1	25,4	35,6	43,7	34,3	38,9
EVAPORATOR WATER CONNECTIONS							
Type		Victaulic					
Inlet Diameter	inch	1"1/2	1"1/2	1"1/2	1"1/2	1"1/2	1"1/2
Outlet Diameter	inch	1"1/2	1"1/2	1"1/2	1"1/2	1"1/2	1"1/2
EVAPORATOR PUMP							
Number		1	1	1	1	1	1
Input Power	kW	1,06	1,06	1,06	1,32	1,32	1,32
Available Static Pressure	kPa	Refer to pump curves					
REMOTE CONDENSER REFRIGERANT CONNECTIONS							
Type		To be brazed					
Inlet Diameter	inch	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"
Outlet Diameter	inch	5/8"	7/8"	7/8"	7/8"	7/8"	7/8"
WEIGHT							
Shipping Weight	kg	142	161	163	163	169	168
Operating Weight	kg	144	164	166	166	172	172
DIMENSIONS							
Length	mm	821	821	821	821	821	821
Width	mm	455	455	455	455	455	455
Height	mm	1.350	1.350	1.350	1.350	1.350	1.350
ACOUSTIC DATA							
Sound Power Level [2]*	dB(A)	65	67	67	68	69	70
Sound Pressure Level [3]*	dB(A)	34	36	36	37	38	39
Sound Power Level [2]**	dB(A)	62	64	64	65	66	67
Sound Pressure Level [3]**	dB(A)	31	33	33	34	35	36

[1] Data referred to evaporator water temperature 12/7°C and condensing temperature 50°C.
[2] Sound levels are at fully loaded conditions. Sound power level values refer to ISO 3744 standard.
[3] Sound pressure levels calculated at 10m refer to ISO 3744 standard, parallelepiped shape.
* STD version.
** S version.

Physical Data - WQL 50 to 190

WQL		50	60	75	90	120	150	170	190
Cooling Capacity [1]	kW	50,9	61,1	77,3	91,1	118,4	147,1	170,0	192,7
Input Power [1]	kW	11,7	13,5	17,1	20,7	26,5	33,0	37,7	42,8
Total EER[1]	kW/kW	4,35	4,53	4,52	4,40	4,48	4,47	4,51	4,51
SEER [2]		6,13	6,38	5,95	6,7	5,90	6,13	6,08	6,2
$\eta_{s,c}$ [2]		242	252	235	265	233	242	240	245
Number of Refrigerant Circuits		1	1	1	1	1	1	1	1
Part Load Steps	%	0-50-100	0-50-100	0-50-100	0-50-100	0-50-100	0-50-100	0-50-100	0-50-100
Power Supply		400V/3/50Hz							
Startup Type		Direct							
Maximum Absorbed Power	kW	21	25	31	35	48	60	65	71
Maximum Corrent (FLA)	A	50	54	66	77	102	130	144	158
Startup Corrent (LRA)	A	135	167	191	236	266	325	385	399
REFRIGERANT									
Type		R410A							
Charge	kg	4,4	5,7	6,9	8,3	11,3	13,8	15,5	18,1
COMPRESSOR									
Number/Type		2 / Scroll							
Crankcase Heater	W	90+90	90+90	90+90	90+90	120+120	150+150	150+150	150+150
EVAPORATOR									
Number/Type		1 / Plate							
Water Flow Rate	l/s	2,44	2,93	3,71	4,37	5,68	7,05	8,15	9,24
Water Pressure Drop	kPa	25,1	20,2	21,4	20,7	21,2	22,6	24,4	25,0
EVAPORATOR WATER CONNECTIONS									
Inlet Diameter - Outlet Diameter / Type		2"1/2-2"1/2 / Victaulic							
EVAPORATOR PUMP									
Input Power/SP	kW	1,10	1,10	1,99	1,99	2,45	2,45	3,00	3,00
Available Static Pressure/SP	kPa	Refer to pump curves							
Input Power/HP	kW	2,20	2,20	3,26	3,26	3,00	3,00	4,00	4,00
Available Static Pressure/HP	kPa	Refer to pump curves							
CONDENSER									
Number/Type		1 / Plate							
Water Flow Rate	l/s	2,98	3,55	4,50	5,33	6,90	8,57	9,89	11,21
Water Pressure Drop	kPa	35,0	27,0	29,0	28,0	29,0	32,0	34,0	35,0
CONDENSER WATER CONNECTIONS									
Inlet Diameter - Outlet Diameter / Type		2"1/2-2"1/2 / Victaulic							
CONDENSER PUMP									
Input Power/SP	kW	1,10	1,10	1,99	1,99	2,45	3,00	3,00	4,00
Input Power/HP	kW	2,20	2,20	3,26	3,26	3,00	4,00	5,50	5,50
Available Static Pressure SP / HP	kPa	Refer to pump curves							
DESUPERHEATER									
Number/Type		1 / Plate							
Heat recovery	kW	11,0	14,2	18,1	21,0	25,2	34,1	39,1	41,0
Water flow rate	l/s	0,53	0,68	0,86	1,00	1,20	1,63	1,87	1,96
Water pressure drop	kPa	8,3	4,5	5,1	5,7	5,0	8,7	10,3	7,5
WEIGHT									
Shipping Weight	kg	345	361	380	397	578	642	673	713
Operating Weight	kg	352	371	392	411	597	666	701	745
DIMENSIONS									
Length	mm	1.210	1.210	1.210	1.210	1.210	1.210	1.210	1.210
Width	mm	850	850	850	850	850	850	850	850
Height	mm	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500
ACOUSTIC DATA									
Sound Power Level [3]*	dB(A)	70	70	72	73	78	81	81	81
Sound Pressure Level [4] *	dB(A)	39	39	40	42	47	50	50	50
Sound Power Level [3]**	dB(A)	68	68	70	71	76	79	79	79
Sound Pressure Level [4]**	dB(A)	37	37	39	40	45	48	48	48

[1] According to EN14511 standard: Cooling mode conditions: evaporator EWT/LWT 12°C/7°C, condenser EWT/LWT 30°C/35°C.
[2] According to EN14825 standard and following COMMISSION REGULATION (EU) No 2016/2281 for comfort application chillers.
[3] Sound levels are at fully loaded conditions. Sound power level values refer to ISO 3744 standard.
[4] Sound pressure levels calculated at 10m refer to ISO 3744 standard, parallelepiped shape.
* STD version.
** S version.

Physical Data - WQH 50 to 190

WQH		50	60	75	90	120	150	170	190
Cooling Capacity [1]	kW	49,9	58,9	76,1	88,6	114,9	144,3	165,7	185,4
Input Power [1]	kW	12,0	13,9	17,5	21,1	27,0	33,3	38,2	43,3
Total EER [1]	kW/kW	4,15	4,24	4,36	4,20	4,26	4,34	4,34	4,28
SEER [2]		4,70	4,88	4,47	4,83	4,92	4,97	5,65	5,10
$\eta_{s,c}$ [2]		185	192	176	190	194	196	223	201
Heating Capacity [3]	kW	57,7	68,2	86,3	102,2	132,0	164,2	190,1	212,3
Input Power [3]	kW	15,1	17,9	22,0	26,3	33,7	41,6	48,4	54,0
Total COP [3]	kW/kW	3,83	3,81	3,92	3,89	3,92	3,95	3,93	3,93
SCOP/ $\eta_{s,h}$ [4]		5,70/220	5,88/227	5,70/220	5,78/223	5,75/222	5,63/217	5,95/230	5,63/217
SCOP/ $\eta_{s,h}$ [5]		4,63/177	4,78/183	4,75/182	4,75/182	4,73/181	4,48/171	4,88/187	4,68/179
Number of Refrigerant Circuits		1	1	1	1	1	1	1	1
Part Load Steps	%	0-50-100	0-50-100	0-50-100	0-50-100	0-50-100	0-50-100	0-50-100	0-50-100
Power Supply		400V/3/50Hz							
Startup Type		Direct							
Maximum Absorbed Power	kW	21	25	31	35	48	60	65	71
Maximum Corrent (FLA)	A	50	54	66	77	102	130	144	158
Startup Corrent (LRA)	A	135	167	191	236	266	325	385	399
REFRIGERANT									
Type		R410A							
Charge	kg	4,7	6,0	7,2	8,6	11,8	14,3	16,0	18,6
COMPRESSOR									
Number/Type		2 / Scroll							
Crankcase Heater	W	90+90	90+90	90+90	90+90	120+120	150+150	150+150	150+150
INTERNAL HEAT EXCHANGER									
Number/Type		1 / Plate							
Water Flow Rate - Cooling operation	l/s	2,40	2,83	3,65	4,25	5,51	6,92	7,95	8,89
Water Pressure Drop - Cooling operation	kPa	24,1	18,8	20,7	19,7	20,0	21,8	23,2	23,3
Water Flow Rate - Heating operation	l/s	2,73	3,23	4,09	4,84	6,24	7,78	9,00	10,05
Water Pressure Drop - Heating operation	kPa	31,3	24,4	26,0	25,5	25,7	27,6	29,8	29,7
INTERNAL HEAT EXCHANGER WATER CONNECTIONS									
Inlet Diameter - Outlet Diameter / Type		2"1/2-2"1/2 / Victaulic							
INTERNAL HEAT EXCHANGER PUMP									
Input Power/SP	kW	1,10	1,10	1,99	1,99	2,45	2,45	3,00	3,00
Input Power/HP	kW	2,20	2,20	3,26	3,26	3,00	3,00	4,00	4,00
Available Static Pressure SP/HP - Cooling operation	kPa	Refer to pump curves							
Available Static Pressure SP/HP - Heating operation	kPa								
EXTERNAL HEAT EXCHANGER									
Number/Type		1 / Plate							
Water Flow Rate	l/s	2,94	3,46	4,45	5,22	6,75	8,45	9,70	10,9
Water Pressure Drop	kPa	37,3	28,7	31,2	29,2	29,5	32,1	34,8	34,1
EXTERNAL HEAT EXCHANGER WATER CONNECTIONS									
Inlet Diameter - Outlet Diameter / Type		2"1/2-2"1/2 / Victaulic							
EXTERNAL HEAT EXCHANGER PUMP									
Input Power/SP	kW	1,10	1,10	1,99	1,99	2,45	3,00	3,00	4,00
Available Static Pressure/SP	kPa	Refer to pump curves							
Input Power/HP	kW	2,20	2,20	3,26	3,26	3,00	4,00	5,50	5,50
Available Static Pressure/HP	kPa	Refer to pump curves							
DESUPERHEATER									
Number/Type		1 / Plate							
Heat recovery	kW	11,0	14,2	18,1	21,0	25,2	34,1	39,1	41,0
Water flow rate	l/s	0,53	0,68	0,86	1,00	1,20	1,63	1,87	1,96
Water pressure drop	kPa	8,3	4,5	5,1	5,7	5,0	8,7	10,3	7,5
WEIGHT									
Shipping Weight	kg	353	369	391	408	591	659	691	730
Operating Weight	kg	360	379	403	422	610	683	718	762
DIMENSIONS									
Length	mm	1.210	1.210	1.210	1.210	1.210	1.210	1.210	1.210
Width	mm	850	850	850	850	850	850	850	850
Height	mm	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500
ACOUSTIC DATA									
Sound Power Level [6]*	dB(A)	70	70	72	73	78	81	81	81
Sound Pressure Level [7]*	dB(A)	39	39	40	42	47	50	50	50
Sound Power Level [6]**	dB(A)	68	68	70	71	76	79	79	79
Sound Pressure Level [7]**	dB(A)	37	37	39	40	45	48	48	48

[1] According to EN14511 standard: Cooling mode conditions: evaporator EWT/LWT 12°C/7°C, condenser EWT/LWT 30°C/35°C.
[2] According to EN14825 standard and following COMMISSION REGULATION (EU) No 2016/2281 for comfort application chillers.
[3] According to EN14511 standard: Heating mode conditions: evaporator EWT/LWT 10°C/7°C, condenser EWT/LWT 40°C/45°C.
[4] According to EN14825 standard - low temperature application (35°C) and following COMMISSION REGULATION (EU) No 813/2013 for heat pumps.
[5] According to EN14825 standard - medium temperature application (55°C) and following COMMISSION REGULATION (EU) No 813/2013 for heat pumps.
[6] Sound levels are at fully loaded conditions. Sound power level values refer to ISO 3744 standard.
[7] Sound pressure levels calculated at 10m refer to ISO 3744 standard, parallelepiped shape.
* STD version.
** S version.

Physical Data - WQRC 50 to 190

WQRC		50	60	75	90	120	150	170	190
Cooling Capacity [1]	kW	45	53,4	67,5	80,1	104	128	148	168
Input Power [1]	kW	13,7	16	20,1	23,9	30,8	38,1	44,2	49,7
Number of Refrigerant Circuits		1	1	1	1	1	1	1	1
Part Load Steps	%	0-50-100	0-50-100	0-50-100	0-50-100	0-50-100	0-50-100	0-50-100	0-50-100
Power Supply		400V/3/50Hz							
Startup Type		Direct							
Maximum Absorbed Power	kW	21	25	31	35	48	60	65	71
Maximum Corrent (FLA)	A	50	54	66	77	102	130	144	158
Startup Corrent (LRA)	A	135	167	191	236	266	325	385	399
REFRIGERANT									
Type		R410A							
COMPRESSOR									
Number		2	2	2	2	2	2	2	2
Type		Scroll							
Crankcase Heater	W	90+90	90+90	90+90	90+90	120+120	150+150	150+150	150+150
EVAPORATOR									
Number		1	1	1	1	1	1	1	1
Type		Plate							
Water Flow Rate	l/s	2,45	2,95	3,72	4,37	5,67	7,05	8,09	9,23
Water Pressure Drop	kPa	25,2	20,5	21,5	20,7	21,2	22,6	24,1	24,9
EVAPORATOR WATER CONNECTIONS									
Type		Victaulic							
Inlet Diameter	inch	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2
Outlet Diameter	inch	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2	2"1/2
EVAPORATOR PUMP									
Number		1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Input Power/SP	kW	1,10	1,10	1,99	1,99	2,45	2,45	3,00	3,00
Available Static Pressure/SP	kPa	Refer to pump curves							
Input Power/HP	kW	2,20	2,20	3,26	3,26	3,00	3,00	4,00	4,00
Available Static Pressure/HP	kPa	Refer to pump curves							
REMOTE CONDENSER REFRIGERANT CONNECTIONS									
Type		To be brazed							
Inlet Diameter	inch	5/8"	5/8"	7/8"	7/8"	7/8"	7/8"	1 1/8"	1 1/8"
Outlet Diameter	inch	7/8"'	7/8"'	1 1/8"	1 1/8"	1 3/8"	1 5/8"	1 5/8"	1 5/8"
WEIGHT									
Shipping Weight	kg	329	339	359	369	548	600	629	658
Operating Weight	kg	332	344	365	376	558	612	643	674
DIMENSIONS									
Length	mm	1.210	1.210	1.210	1.210	1.210	1.210	1.210	1.210
Width	mm	850	850	850	850	850	850	850	850
Height	mm	1.500	1.500	1.500	1.500	1.500	1.500	1.500	1.500
ACOUSTIC DATA									
Sound Power Level [2]*	dB(A)	70	70	72	73	78	81	81	81
Sound Pressure Level [3]*	dB(A)	39	39	41	42	47	50	50	50
Sound Power Level [2]**	dB(A)	68	68	70	71	76	79	79	79
Sound Pressure Level [3]**	dB(A)	37	37	39	40	45	48	48	48

[1] Data referred to evaporator water temperature 12/7°C and condensing temperature 50°C.
[2] Sound levels are at fully loaded conditions. Sound power level values refer to ISO 3744 standard.
[3] Sound pressure levels calculated at 10m refer to ISO 3744 standard, parallelepiped shape.
* STD version.
** S version.

Electrical Data - WQL/WQH/WQRC 20 to 45

Compressors - 400 V / 3 Ph / 50 Hz

Sizes	Nominal $P_{NOM-CPS}$ (kW)	Nominal $I_{NOM-CPS}$ (A)	Maximum $P_{MAX-CPS}$ (kW)	Maximum $I_{MAX-CPS}$ (A)	$I_{START-CPS}$ LRA (A)	PF (NOM)	PFC*
20	4,6	9,3	8,3	15	101	0,71	> 0.90
25	5,8	12,1	10,0	18	128	0,68	> 0.90
30	6,7	14,2	11,6	22	139	0,68	> 0.90
35	7,4	13,5	13,1	25	118	0,79	> 0.90
40	8,5	15,5	14,8	31	140	0,79	> 0.90
45	10,1	21,4	17,0	34	174	0,68	> 0.90

(*) Power factor correction capacitor option installed.

Standard unit without pump option - 400 V / 3Ph / 50 Hz

Sizes	Nominal power input (kW)	Maximum power input (kW)	Nominal current input (A)	Maximum current input (A)	Start-up current (A)
20	5	8	9	15	101
25	6	10	12	18	128
30	7	12	14	22	139
35	7	13	13	25	118
40	9	15	15	31	140
45	10	17	21	34	174

(*) Soft-starter option installed.

Pump data - 400 V / 3 Ph / 50 Hz

Sizes	1PSP/E		1PSP/C	
	$P_{MAX-PUMP}$ (kW)	$I_{MAX-PUMP}$ FLA (A)	$P_{MAX-PUMP}$ (kW)	$I_{MAX-PUMP}$ FLA (A)
20	1.02	1.87	1.02	1.87
25	1.02	1.87	1.02	1.87
30	1.02	1.87	1.32	2.35
35	1.32	2.35	1.32	2.35
40	1.32	2.35	1.32	2.35
45	1.32	2.35	1.32	2.35

Electrical Data - WQL/WQH/WQRC 50 to 190

Compressors - 400 V / 3 Ph / 50 Hz

Sizes	Nominal $P_{NOM-CPS}$ (kW)	Nominal $I_{NOM-CPS}$ (A)	Maximum $P_{MAX-CPS}$ (kW)	Maximum $I_{MAX-CPS}$ (A)	$I_{START-CPS}$ LRA (A)	PF (NOM)	PFC*
50	5,8	12,1	10,0	18,2	128	0,68	> 0.90
	5,8	12,1	10,0	18,2	128	0,68	> 0.90
60	6,7	14,2	11,6	21,6	139	0,68	> 0.90
	6,7	14,2	11,6	21,6	139	0,68	> 0.90
75	8,5	15,5	14,8	31	140	0,79	> 0.90
	8,5	15,5	14,8	31	140	0,79	> 0.90
90	10,1	21,4	17,0	34	174	0,68	> 0.90
	10,1	21,4	17,0	34	174	0,68	> 0.90
120	13,6	23,0	25,0	44	210	0,86	> 0.90
	13,6	23,0	25,0	44	210	0,86	> 0.90
150	16,5	27,0	30,5	53	210	0,88	> 0.90
	16,5	27,0	30,5	53	210	0,88	> 0.90
170	16,5	27,0	30,5	53	210	0,88	> 0.90
	21,1	35,1	39,0	66	326	0,87	> 0.90
190	21,1	35,1	39,0	66	326	0,87	> 0.90
	21,1	35,1	39,0	66	326	0,87	> 0.90

(*) Power factor correction capacitor option installed.

Standard unit without pump option - 400 V/ 3Ph / 50 Hz

Sizes	Nominal power input (kW)	Maximum power input (kW)	Nominal current input (A)	Maximum current input (A)	Start-up current (A)
50	12	20	24	36	146
60	13	23	28	43	161
75	17	30	31	62	171
90	20	34	43	68	208
120	27	50	46	88	254
150	33	61	54	106	263
170	38	70	62	119	379
190	42	78	70	132	392

Pump data - 400 V / 3 Ph / 50 Hz

Sizes	1-2P/SP/E		1-2P/SP/C		1-2P/HP/E		1-2P/HP/C	
	$P_{MAX-PUMP}$ (kW)	$I_{MAX-PUMP}$ FLA (A)	$P_{MAX-PUMP}$ (kW)	$I_{MAX-PUMP}$ FLA (A)	$P_{MAX-PUMP}$ (kW)	$I_{MAX-PUMP}$ FLA (A)	$P_{MAX-PUMP}$ (kW)	$I_{MAX-PUMP}$ FLA (A)
50	1.10	1.96	1.10	1.96	2.20	4.24	2.20	4.24
60	1.10	1.96	1.10	1.96	2.20	4.24	2.20	4.24
75	1.99	3.41	1.99	3.41	3.26	5.86	3.26	5.86
90	1.99	3.41	1.99	3.41	3.26	5.86	3.26	5.86
120	2.45	4.53	2.45	4.53	3.00	6.25	3.00	6.25
150	2.45	4.53	3.00	6.25	3.00	6.25	4.00	7.71
170	3.00	6.25	3.00	6.25	4.00	7.71	5.50	10.40
190	3.00	6.25	4.00	7.71	4.00	7.71	5.50	10.40

Sound Data - WQL/WQH/WQRC

WQL/WQH/WQRC 20 to 190 - STD Version

Sizes	Octave Band (Hz)								Sound Power dB(A)	Sound Pressure dB(A)*
	63	125	250	500	1000	2000	4000	8000		
	Sound Power Level dB									
20	59	61	64	63	61	56	54	44	65	34
25	61	63	66	65	63	58	56	46	67	36
30	61	63	66	65	63	58	56	46	67	36
35	62	64	67	66	64	59	57	47	68	37
40	63	65	68	67	65	60	58	48	69	38
45	64	66	69	68	66	61	59	49	70	39
50	63	66	68	68	66	61	59	49	70	39
60	63	66	68	68	66	61	59	49	70	39
75	65	68	70	70	68	63	61	51	72	41
90	66	69	71	71	69	64	62	52	73	42
120	71	74	76	76	74	69	67	57	78	47
150	74	77	79	79	77	72	70	60	81	50
170	74	77	79	79	77	72	70	60	81	50
190	74	77	79	79	77	72	70	60	81	50

(*) Sound pressure levels are given at 10 meters distance according to ISO standard 3744 with parallepiped shape.

WQL/WQH/WQRC 20 to 190 - S Version

Sizes	Octave Band (Hz)								Sound Power dB(A)	Sound Pressure dB(A)*
	63	125	250	500	1000	2000	4000	8000		
	Sound Power Level dB									
20	56	58	61	60	58	53	51	41	62	31
25	58	60	63	62	60	55	53	43	64	33
30	58	60	63	62	60	55	53	43	64	33
35	59	61	64	63	61	56	54	44	65	34
40	60	62	65	64	62	57	55	45	66	35
45	61	63	66	65	63	58	56	46	67	36
50	61	64	66	66	64	59	57	47	68	37
60	61	64	66	66	64	59	57	47	68	37
75	63	66	68	68	66	61	59	49	70	39
90	64	67	69	69	67	62	60	50	71	40
120	69	72	74	74	72	67	65	55	76	45
150	72	75	77	77	75	70	68	58	79	48
170	72	75	77	77	75	70	68	58	79	48
190	72	75	77	77	75	70	68	58	79	48

(*) Sound pressure levels are given at 10 meters distance according to ISO standard 3744 with parallepiped shape.

Performance Data - WQL 20 to 45

Cooling Capacities - CO Mode

WQL models	Evap. LWT (°C)	Condenser LWT (°C)													
		25		30		35		40		45		50		55	
		Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)
WQL 20	5	22.0	3.53	21.0	3.89	19.8	4.34	18.5	4.92	17.0	5.65	15.5	6.54	14.6	7.10
	6	22.9	3.60	21.7	3.96	20.5	4.39	19.3	4.91	18.0	5.54	16.7	6.28	16.2	6.65
	7	23.8	3.65	22.5	3.97	**21.3**	**4.43**	19.8	4.80	18.7	5.51	17.3	6.32	16.9	6.40
	8	24.7	3.68	23.4	4.03	22.1	4.44	20.8	4.94	19.4	5.52	18.0	6.17	17.5	6.45
	9	25.6	3.71	24.3	4.04	22.9	4.45	21.6	4.96	20.2	5.60	18.7	6.34	18.2	6.72
	10	26.5	3.73	25.2	4.06	23.8	4.46	22.1	5.01	20.3	5.69	18.4	6.52	17.3	6.99
	11	27.3	3.80	26.0	4.10	24.7	4.50	23.2	5.06	21.8	5.77	20.2	6.64	19.7	7.15
	12	28.1	3.87	26.8	4.18	25.5	4.56	24.1	5.11	22.6	5.82	21.0	6.68	20.4	7.19
	13	28.8	3.98	27.6	4.26	26.3	4.64	24.9	5.16	23.4	5.83	21.7	6.67	21.1	7.14
	14	29.5	4.10	28.4	4.36	27.2	4.71	25.7	5.19	24.2	5.83	22.5	6.63	21.8	7.05
	15	30.2	4.23	29.2	4.45	28.0	4.76	26.2	5.20	24.2	5.81	21.9	6.56	20.6	6.95
	16	30.8	4.36	29.9	4.53	28.8	4.78	27.4	5.18	25.7	5.76	24.0	6.50	23.3	6.89
	17	31.5	4.48	30.7	4.59	29.6	4.77	28.2	5.13	26.5	5.69	24.7	6.44	24.0	6.85
	18	32.3	4.61	31.6	4.64	30.3	4.76	28.5	5.09	26.1	5.63	23.5	6.37	21.9	6.82
WQL 25	5	27.4	4.43	26.1	4.85	24.6	5.37	22.9	6.06	21.1	6.93	19.2	7.97	18.3	8.58
	6	28.5	4.50	27.0	4.92	25.5	5.43	23.9	6.05	22.3	6.78	20.7	7.64	20.2	8.02
	7	29.7	4.56	28.0	4.93	**26.4**	**5.48**	24.5	5.92	23.1	6.74	21.5	7.69	21.2	7.70
	8	30.9	4.60	29.1	5.02	27.4	5.50	25.7	6.08	24.0	6.75	22.4	7.50	21.9	7.77
	9	32.0	4.61	30.2	5.02	28.4	5.51	26.7	6.11	24.9	6.84	23.2	7.70	22.7	8.08
	10	33.1	4.65	31.4	5.05	29.4	5.53	27.3	6.17	25.0	6.97	22.7	7.92	21.6	8.41
	11	34.2	4.71	32.3	5.11	30.5	5.59	28.7	6.23	26.8	7.07	24.9	8.07	24.4	8.60
	12	35.1	4.81	33.4	5.20	31.6	5.68	29.7	6.32	27.8	7.13	25.7	8.13	25.2	8.65
	13	36.0	4.95	34.4	5.31	32.6	5.76	30.7	6.38	28.7	7.17	26.5	8.12	25.9	8.61
	14	36.8	5.09	35.4	5.44	33.7	5.86	31.8	6.43	29.6	7.18	27.2	8.08	26.5	8.51
	15	37.7	5.25	36.5	5.55	34.7	5.92	32.4	6.46	29.5	7.16	26.3	8.03	24.7	8.43
	16	38.5	5.40	37.3	5.64	35.8	5.96	33.8	6.44	31.4	7.12	28.5	7.96	27.6	8.37
	17	39.3	5.57	38.4	5.74	36.9	5.97	34.8	6.41	32.2	7.06	29.0	7.91	28.0	8.35
	18	40.3	5.72	39.6	5.81	38.0	5.97	35.3	6.36	31.6	7.01	27.2	7.86	25.1	8.35
WQL 30	5	32.4	5.15	30.9	5.66	29.2	6.32	27.1	7.18	24.7	8.27	22.2	9.59	21.6	10.0
	6	33.6	5.24	32.0	5.76	30.2	6.39	28.3	7.17	26.2	8.10	24.0	9.19	23.8	9.37
	7	34.9	5.30	33.1	5.76	**31.3**	**6.44**	28.9	7.00	27.1	8.05	24.8	9.24	24.9	8.99
	8	36.2	5.33	34.4	5.85	32.4	6.46	30.4	7.19	28.2	8.03	25.8	9.00	25.8	9.06
	9	37.5	5.36	35.6	5.85	33.6	6.45	31.5	7.21	29.3	8.14	26.8	9.23	26.8	9.40
	10	38.7	5.40	37.0	5.86	34.8	6.46	32.3	7.26	29.4	8.27	26.3	9.49	25.5	9.77
	11	39.9	5.47	38.1	5.93	36.0	6.53	33.9	7.33	31.5	8.37	28.9	9.63	29.0	9.97
	12	40.9	5.60	39.2	6.03	37.2	6.60	35.1	7.40	32.7	8.42	30.0	9.66	30.0	10.0
	13	41.9	5.75	40.3	6.15	38.4	6.70	36.3	7.45	33.8	8.44	31.1	9.61	31.0	9.96
	14	42.7	5.91	41.3	6.28	39.6	6.78	37.4	7.49	34.9	8.41	32.2	9.51	32.0	9.84
	15	43.5	6.09	42.4	6.41	40.7	6.84	38.1	7.48	34.9	8.36	31.4	9.38	30.1	9.71
	16	44.4	6.28	43.3	6.51	41.8	6.86	39.7	7.44	37.2	8.27	34.4	9.25	33.9	9.61
	17	45.2	6.45	44.3	6.59	42.9	6.84	40.9	7.36	38.3	8.15	35.6	9.12	34.9	9.56
	18	46.2	6.62	45.5	6.66	44.0	6.82	41.3	7.27	37.7	8.04	33.8	9.00	31.7	9.52

Performance Data - WQL 20 to 45 (continued)

Cooling Capacities - CO Mode

WQL models	Evap. LWT (°C)	Condenser LWT (°C)													
		25		30		35		40		45		50		55	
		Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)
WQL 35	5	36.3	5.83	34.7	6.35	32.7	7.04	30.4	7.97	27.7	9.18	24.8	10.7	23.6	11.4
	6	37.7	5.94	35.9	6.45	33.9	7.11	31.7	7.96	29.3	8.99	26.7	10.2	26.1	10.6
	7	39.1	6.02	37.1	6.46	**35.1**	**7.17**	32.4	7.77	30.3	8.93	27.7	10.3	27.3	10.2
	8	40.6	6.06	38.6	6.56	36.3	7.18	34.0	7.97	31.5	8.91	28.8	10.02	28.2	10.3
	9	42.1	6.09	40.0	6.56	37.7	7.18	35.3	8.00	32.7	9.03	29.9	10.3	29.4	10.7
	10	43.5	6.13	41.5	6.57	39.0	7.19	36.1	8.05	32.9	9.17	29.3	10.6	28.0	11.1
	11	44.9	6.22	42.7	6.64	40.4	7.25	37.9	8.12	35.2	9.28	32.3	10.7	31.7	11.3
	12	46.1	6.34	44.0	6.75	41.7	7.34	39.2	8.19	36.5	9.34	33.4	10.8	32.9	11.4
	13	47.2	6.51	45.3	6.88	43.1	7.43	40.6	8.25	37.7	9.36	34.6	10.8	34.1	11.3
	14	48.3	6.70	46.5	7.02	44.4	7.52	41.9	8.28	39.0	9.34	35.8	10.7	35.2	11.1
	15	49.4	6.90	47.9	7.14	45.7	7.57	42.7	8.27	39.0	9.28	34.8	10.6	33.2	11.0
	16	50.4	7.10	48.9	7.25	47.0	7.59	44.5	8.22	41.5	9.17	38.1	10.4	37.6	10.9
	17	51.5	7.31	50.2	7.33	48.3	7.56	45.8	8.13	42.7	9.05	39.3	10.3	38.7	10.8
	18	52.7	7.49	51.6	7.40	49.6	7.52	46.3	8.03	42.1	8.93	37.3	10.2	35.3	10.7
WQL 40	5	40.5	6.74	38.9	7.27	36.8	7.97	34.3	8.96	31.3	10.3	28.0	11.8	26.9	12.5
	6	42.1	6.88	40.2	7.40	38.1	8.08	35.8	8.96	33.2	10.1	30.3	11.4	29.8	11.8
	7	43.7	7.00	41.7	7.43	**39.5**	**8.16**	36.6	8.77	34.3	10.0	31.3	11.5	31.1	11.3
	8	45.4	7.08	43.3	7.55	40.9	8.19	38.4	9.00	35.7	10.0	32.7	11.2	32.2	11.4
	9	47.1	7.13	44.9	7.57	42.4	8.20	39.8	9.06	37.0	10.2	34.0	11.5	33.5	11.9
	10	48.7	7.22	46.6	7.62	44.0	8.24	40.8	9.14	37.2	10.3	33.3	11.8	32.0	12.4
	11	50.2	7.35	48.0	7.72	45.5	8.32	42.8	9.23	39.9	10.5	36.6	12.1	36.3	12.6
	12	51.6	7.53	49.5	7.87	47.0	8.44	44.3	9.32	41.3	10.5	38.0	12.1	37.7	12.7
	13	52.9	7.76	50.9	8.05	48.5	8.58	45.8	9.41	42.8	10.6	39.4	12.1	39.1	12.6
	14	54.1	8.01	52.3	8.24	50.0	8.70	47.3	9.47	44.3	10.6	40.8	12.0	40.4	12.4
	15	55.3	8.29	53.8	8.42	51.5	8.78	48.3	9.46	44.2	10.5	39.7	11.8	38.2	12.2
	16	56.5	8.57	54.9	8.57	53.0	8.82	50.3	9.41	47.2	10.4	43.5	11.7	43.2	12.1
	17	57.7	8.85	56.4	8.70	54.4	8.81	51.8	9.31	48.6	10.2	44.9	11.5	44.6	12.0
	18	59.1	9.11	58.0	8.81	55.9	8.78	52.4	9.20	47.8	10.1	42.7	11.4	40.6	11.8
WQL 45	5	48.6	7.73	46.0	8.53	43.8	9.47	41.8	10.6	40.0	12.0	38.7	13.6	37.8	14.6
	6	50.4	7.80	47.6	8.65	45.3	9.58	43.6	10.6	42.4	11.8	41.8	13.1	41.7	13.7
	7	52.4	7.83	49.3	8.63	**46.9**	**9.65**	44.5	10.4	43.8	11.7	43.1	13.2	43.5	13.2
	8	54.4	7.82	51.2	8.72	48.7	9.67	46.8	10.7	45.5	11.8	44.9	12.9	44.9	13.3
	9	56.3	7.78	53.1	8.68	50.4	9.65	48.5	10.7	47.2	11.9	46.6	13.2	46.6	13.9
	10	58.2	7.75	55.1	8.67	52.3	9.65	49.7	10.8	47.4	12.1	45.6	13.7	44.3	14.5
	11	60.0	7.76	56.7	8.70	54.1	9.71	52.1	10.9	50.8	12.3	50.1	13.9	50.1	14.8
	12	61.6	7.83	58.4	8.78	55.9	9.79	53.9	11.0	52.6	12.4	51.9	14.0	51.9	14.9
	13	63.1	7.91	60.1	8.87	57.6	9.9	55.7	11.1	54.4	12.5	53.7	14.0	53.6	14.8
	14	64.5	8.02	61.7	8.98	59.4	10.0	57.5	11.1	56.2	12.4	55.5	13.9	55.4	14.7
	15	65.8	8.14	63.4	9.05	61.1	10.0	58.6	11.1	56.1	12.4	53.9	13.8	52.1	14.5
	16	67.2	8.24	64.8	9.09	62.8	9.9	61.1	11.0	59.8	12.3	59.0	13.7	58.8	14.4
	17	68.6	8.31	66.4	9.08	64.5	9.8	62.8	10.8	61.5	12.1	60.8	13.6	60.5	14.4
	18	70.2	8.36	68.3	9.05	66.1	9.7	63.5	10.6	60.5	11.9	57.7	13.5	55.1	14.4

Performance Data - WQH 20 to 45

Cooling capacities

WQH models	Evap. LWT (°C)	Condenser LWT (°C)													
		25		30		35		40		45		50		55	
		Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)
WQH 20	5	21.5	3.60	20.5	3.95	19.4	4.39	18.1	4.96	16.7	5.68	15.2	6.57	14.4	7.12
	6	22.4	3.68	21.3	4.03	20.1	4.44	18.9	4.96	17.7	5.59	16.4	6.31	15.9	6.68
	7	23.2	3.73	22.0	4.04	**20.9**	**4.49**	19.4	4.86	18.3	5.55	17.0	6.36	16.6	6.42
	8	24.1	3.77	22.9	4.10	21.6	4.51	20.4	4.98	19.0	5.56	17.7	6.20	17.2	6.48
	9	25.0	3.79	23.8	4.12	22.5	4.51	21.1	5.02	19.8	5.64	18.4	6.38	17.8	6.75
	10	25.9	3.82	24.7	4.13	23.3	4.53	21.7	5.06	19.9	5.74	18.0	6.56	17.0	7.03
	11	26.7	3.89	25.4	4.19	24.1	4.58	22.8	5.11	21.3	5.82	19.8	6.69	19.3	7.19
	12	27.4	3.98	26.2	4.27	24.9	4.65	23.6	5.18	22.1	5.88	20.5	6.73	20.0	7.23
	13	28.1	4.10	27.0	4.36	25.7	4.72	24.4	5.23	22.9	5.90	21.3	6.72	20.7	7.19
	14	28.7	4.22	27.7	4.46	26.5	4.79	25.2	5.27	23.7	5.90	22.0	6.67	21.4	7.11
	15	29.4	4.36	28.5	4.56	27.3	4.85	25.6	5.28	23.6	5.87	21.4	6.62	20.2	7.01
	16	30.0	4.49	29.2	4.65	28.1	4.86	26.7	5.26	25.2	5.82	23.4	6.56	22.8	6.95
	17	30.7	4.64	29.9	4.71	28.8	4.87	27.5	5.22	25.9	5.76	24.1	6.49	23.5	6.91
	18	31.4	4.77	30.8	4.77	29.6	4.87	27.8	5.17	25.5	5.70	22.9	6.43	21.4	6.89
WQH 25	5	27.1	4.46	25.8	4.88	24.3	5.41	22.7	6.11	20.9	6.98	19.0	8.03	18.0	8.64
	6	28.2	4.53	26.7	4.96	25.2	5.47	23.7	6.10	22.1	6.83	20.5	7.69	20.0	8.08
	7	29.3	4.59	27.7	4.97	**26.1**	**5.52**	24.2	5.96	22.8	6.79	21.2	7.75	20.9	7.76
	8	30.5	4.63	28.8	5.05	27.1	5.54	25.4	6.12	23.8	6.80	22.1	7.56	21.6	7.82
	9	31.7	4.65	29.9	5.06	28.1	5.55	26.4	6.16	24.7	6.89	23.0	7.76	22.5	8.14
	10	32.8	4.69	31.0	5.08	29.1	5.57	27.0	6.22	24.8	7.02	22.5	7.98	21.3	8.47
	11	33.8	4.75	32.0	5.14	30.2	5.63	28.3	6.28	26.5	7.12	24.6	8.13	24.1	8.67
	12	34.7	4.85	33.0	5.23	31.2	5.72	29.4	6.36	27.4	7.19	25.4	8.19	24.9	8.71
	13	35.6	4.99	34.0	5.35	32.3	5.80	30.4	6.42	28.4	7.22	26.2	8.18	25.6	8.67
	14	36.4	5.13	35.0	5.48	33.3	5.90	31.4	6.48	29.3	7.23	26.9	8.14	26.2	8.57
	15	37.2	5.29	36.0	5.59	34.4	5.97	32.0	6.50	29.2	7.21	26.0	8.08	24.5	8.49
	16	38.1	5.44	36.9	5.68	35.4	6.00	33.4	6.49	31.0	7.17	28.2	8.02	27.3	8.43
	17	38.9	5.61	37.9	5.78	36.5	6.02	34.4	6.46	31.9	7.11	28.7	7.97	27.7	8.41
	18	39.8	5.76	39.1	5.85	37.6	6.02	34.9	6.41	31.2	7.06	26.9	7.92	24.8	8.41
WQH 30	5	31.4	5.23	30.0	5.75	28.2	6.39	26.2	7.25	23.9	8.34	21.4	9.66	20.8	10.1
	6	32.6	5.32	31.0	5.84	29.2	6.47	27.4	7.24	25.3	8.17	23.1	9.25	23.0	9.44
	7	33.9	5.39	32.1	5.85	**30.3**	**6.52**	28.0	7.08	26.2	8.12	23.9	9.31	24.0	9.07
	8	35.1	5.44	33.3	5.93	31.4	6.53	29.4	7.25	27.2	8.11	24.9	9.08	24.8	9.13
	9	36.4	5.46	34.5	5.94	32.6	6.54	30.5	7.29	28.2	8.22	25.9	9.31	25.8	9.48
	10	37.6	5.50	35.8	5.97	33.7	6.56	31.2	7.35	28.4	8.34	25.3	9.56	24.6	9.86
	11	38.7	5.58	36.9	6.02	34.9	6.61	32.7	7.42	30.4	8.45	27.9	9.71	27.9	10.1
	12	39.7	5.70	38.0	6.14	36.0	6.70	33.9	7.49	31.5	8.51	28.9	9.75	28.9	10.1
	13	40.6	5.86	39.0	6.26	37.2	6.80	35.0	7.55	32.6	8.52	30.0	9.70	29.8	10.0
	14	41.4	6.03	40.0	6.39	38.3	6.88	36.2	7.58	33.7	8.51	31.0	9.60	30.8	9.92
	15	42.3	6.22	41.1	6.52	39.4	6.95	36.8	7.58	33.7	8.45	30.2	9.48	29.0	9.78
	16	43.1	6.42	42.0	6.63	40.5	6.97	38.4	7.54	35.9	8.36	33.1	9.34	32.7	9.70
	17	43.9	6.61	43.0	6.72	41.5	6.96	39.5	7.46	36.9	8.24	34.2	9.22	33.6	9.64
	18	44.9	6.78	44.1	6.79	42.6	6.93	39.9	7.36	36.3	8.13	32.5	9.09	30.6	9.60

Performance Data - WQH 20 to 45 (continued)

Cooling capacities

WQH models	Evap. LWT (°C)	Condenser LWT (°C)													
		25		30		35		40		45		50		55	
		Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)
WQH 35	5	35.4	5.98	33.8	6.49	31.9	7.18	29.6	8.12	27.0	9.33	24.2	10.8	23.1	11.5
	6	36.8	6.09	35.0	6.59	33.0	7.26	30.9	8.11	28.6	9.14	26.1	10.4	25.5	10.8
	7	38.2	6.17	36.2	6.61	**34.2**	**7.32**	31.6	7.92	29.6	9.08	27.0	10.4	26.7	10.4
	8	39.6	6.21	37.6	6.70	35.4	7.34	33.2	8.12	30.7	9.07	28.1	10.17	27.6	10.4
	9	41.1	6.24	39.0	6.71	36.7	7.34	34.4	8.16	31.9	9.19	29.2	10.4	28.7	10.9
	10	42.4	6.29	40.4	6.73	38.1	7.35	35.2	8.22	32.0	9.33	28.6	10.7	27.3	11.3
	11	43.7	6.38	41.6	6.81	39.4	7.42	36.9	8.29	34.3	9.45	31.5	10.9	31.0	11.5
	12	44.9	6.52	42.9	6.93	40.7	7.50	38.2	8.37	35.6	9.51	32.6	11.0	32.1	11.6
	13	46.0	6.69	44.1	7.06	42.0	7.61	39.5	8.43	36.8	9.54	33.8	10.9	33.2	11.5
	14	47.1	6.89	45.3	7.21	43.3	7.70	40.8	8.47	38.0	9.52	34.9	10.9	34.3	11.3
	15	48.1	7.09	46.6	7.34	44.5	7.77	41.6	8.47	38.0	9.46	33.9	10.7	32.4	11.2
	16	49.1	7.31	47.7	7.45	45.8	7.78	43.3	8.41	40.4	9.36	37.1	10.6	36.6	11.1
	17	50.2	7.52	48.8	7.55	47.0	7.76	44.6	8.32	41.6	9.25	38.3	10.5	37.7	11.0
	18	51.4	7.72	50.3	7.61	48.2	7.72	45.1	8.21	41.0	9.13	36.3	10.4	34.3	10.9
WQH 40	5	39.4	6.84	37.8	7.36	35.8	8.07	33.4	9.05	30.5	10.3	27.3	11.9	26.2	12.6
	6	41.0	6.99	39.1	7.50	37.1	8.18	34.8	9.05	32.3	10.1	29.5	11.4	29.0	11.8
	7	42.5	7.11	40.5	7.54	**38.4**	**8.26**	35.6	8.86	33.4	10.1	30.5	11.6	30.3	11.4
	8	44.2	7.19	42.1	7.67	39.8	8.30	37.3	9.11	34.7	10.1	31.8	11.3	31.3	11.5
	9	45.8	7.24	43.6	7.69	41.3	8.31	38.7	9.16	36.0	10.3	33.0	11.6	32.6	12.0
	10	47.4	7.33	45.3	7.74	42.8	8.35	39.7	9.25	36.2	10.4	32.4	11.9	31.1	12.5
	11	48.8	7.46	46.7	7.84	44.2	8.45	41.6	9.35	38.8	10.6	35.6	12.2	35.3	12.7
	12	50.2	7.65	48.1	8.00	45.7	8.56	43.1	9.44	40.2	10.7	37.0	12.2	36.6	12.8
	13	51.4	7.88	49.4	8.19	47.2	8.71	44.5	9.53	41.6	10.7	38.3	12.2	37.9	12.7
	14	52.6	8.14	50.8	8.38	48.6	8.83	46.0	9.60	43.0	10.7	39.6	12.1	39.3	12.5
	15	53.7	8.42	52.2	8.56	50.0	8.92	46.9	9.60	43.0	10.6	38.6	12.0	37.1	12.3
	16	54.9	8.70	53.4	8.72	51.4	8.96	48.9	9.55	45.8	10.5	42.3	11.8	41.9	12.2
	17	56.1	8.99	54.7	8.85	52.8	8.95	50.3	9.45	47.2	10.4	43.6	11.7	43.3	12.1
	18	57.4	9.26	56.3	8.96	54.2	8.92	50.8	9.33	46.4	10.2	41.4	11.5	39.5	12.0
WQH 45	5	47.0	7.98	44.8	8.74	42.7	9.64	40.8	10.8	39.1	12.1	37.8	13.7	36.9	14.7
	6	48.8	8.08	46.3	8.88	44.2	9.76	42.6	10.8	41.4	11.9	40.8	13.2	40.7	13.8
	7	50.7	8.14	47.9	8.87	**45.8**	**9.84**	43.5	10.5	42.8	11.9	42.1	13.3	42.5	13.3
	8	52.6	8.14	49.8	8.98	47.4	9.88	45.7	10.8	44.5	11.9	43.8	13.0	43.8	13.4
	9	54.5	8.12	51.6	8.96	49.2	9.87	47.3	10.9	46.1	12.1	45.5	13.4	45.5	14.0
	10	56.3	8.13	53.5	8.96	50.9	9.89	48.5	11.0	46.3	12.3	44.5	13.8	43.2	14.6
	11	58.0	8.18	55.1	9.02	52.7	9.96	50.9	11.1	49.6	12.5	49.0	14.1	48.9	15.0
	12	59.5	8.27	56.7	9.12	54.4	10.1	52.6	11.2	51.4	12.6	50.7	14.2	50.6	15.1
	13	60.9	8.40	58.3	9.26	56.1	10.2	54.4	11.3	53.2	12.7	52.5	14.2	52.3	15.0
	14	62.2	8.56	59.9	9.39	57.8	10.3	56.2	11.4	54.9	12.7	54.2	14.1	54.0	14.9
	15	63.5	8.71	61.6	9.50	59.5	10.3	57.2	11.4	54.8	12.6	52.7	14.0	50.9	14.7
	16	64.8	8.87	62.9	9.57	61.2	10.3	59.6	11.3	58.4	12.5	57.7	13.9	57.4	14.6
	17	66.2	9.01	64.4	9.60	62.8	10.2	61.3	11.1	60.1	12.4	59.4	13.8	59.1	14.6
	18	67.7	9.11	66.2	9.60	64.4	10.1	62.0	11.0	59.2	12.2	56.4	13.8	53.8	14.6

Performance Data - WQH 20 to 45 (continued)

Heating capacities

WQH models	Evap. LWT (°C)	Condenser LWT (°C)													
		25		30		35		40		45		50		55	
		Heating cap. (kW)	Input power (kW)	Heating cap. (kW)	Input power (kW)	Heating cap. (kW)	Input power (kW)	Heating cap. (kW)	Input power (kW)	Heating cap. (kW)	Input power (kW)	Heating cap. (kW)	Input power (kW)	Heating cap. (kW)	Input power (kW)
WQH 20	5	26.2	3.68	25.3	4.00	24.5	4.41	23.6	4.93	22.7	5.68	21.8	6.71	21.4	7.43
	6	26.9	3.73	26.0	4.04	25.1	4.44	24.2	4.95	23.3	5.67	22.3	6.67	21.9	7.34
	7	27.7	3.78	26.9	4.09	25.8	4.42	24.8	4.96	**23.9**	**5.67**	23.3	6.46	22.5	7.28
	8	28.5	3.84	27.5	4.11	26.5	4.47	25.5	4.96	24.6	5.65	23.6	6.63	23.2	7.28
	9	29.3	3.90	28.3	4.15	27.3	4.48	26.3	4.94	25.3	5.63	24.3	6.62	23.9	7.32
	10	30.1	3.97	29.1	4.19	28.1	4.48	27.1	4.92	26.1	5.60	25.1	6.62	24.6	7.35
	11	31.0	4.03	30.0	4.22	29.0	4.48	28.0	4.90	26.9	5.56	25.7	6.59	25.2	7.34
	12	31.9	4.09	31.0	4.26	30.0	4.49	28.9	4.88	27.7	5.54	26.4	6.55	25.7	7.30
	13	32.8	4.16	31.9	4.30	30.9	4.52	29.8	4.89	28.5	5.51	27.0	6.50	26.1	7.24
	14	33.8	4.24	32.9	4.37	31.9	4.57	30.7	4.91	29.3	5.51	27.6	6.47	26.5	7.18
	15	34.7	4.33	33.9	4.46	32.9	4.64	31.7	4.97	30.1	5.54	28.2	6.47	26.9	7.13
	16	35.5	4.45	34.8	4.57	33.9	4.75	32.6	5.07	31.0	5.61	28.9	6.49	27.5	7.10
	17	36.3	4.58	35.7	4.70	34.8	4.88	33.6	5.18	31.9	5.71	29.7	6.54	28.1	7.08
	18	37.1	4.73	36.6	4.85	35.8	5.03	34.6	5.32	32.8	5.82	30.5	6.60	28.7	7.08
WQH 25	5	32.1	4.52	31.1	4.91	30.0	5.41	28.9	6.05	27.8	6.94	26.7	8.19	26.1	8.97
	6	33.1	4.57	31.9	4.95	30.7	5.43	29.6	6.07	28.4	6.93	27.3	8.12	26.8	8.85
	7	34.0	4.62	32.9	5.00	31.5	5.40	30.3	6.07	**29.1**	**6.91**	28.6	7.87	27.6	8.75
	8	35.0	4.68	33.7	5.04	32.4	5.47	31.1	6.06	30.0	6.89	28.9	8.04	28.4	8.74
	9	36.0	4.75	34.7	5.07	33.3	5.48	32.1	6.03	30.9	6.86	29.7	8.04	29.4	8.79
	10	37.1	4.82	35.7	5.10	34.4	5.48	33.1	6.01	31.8	6.82	30.6	8.02	30.2	8.81
	11	38.2	4.88	36.8	5.14	35.5	5.48	34.1	5.98	32.7	6.78	31.4	7.99	30.8	8.80
	12	39.3	4.95	38.0	5.19	36.6	5.49	35.2	5.97	33.7	6.74	32.0	7.93	31.3	8.76
	13	40.5	5.01	39.2	5.23	37.9	5.52	36.3	5.97	34.6	6.72	32.6	7.89	31.6	8.68
	14	41.6	5.10	40.5	5.32	39.1	5.59	37.5	6.01	35.5	6.72	33.2	7.86	31.9	8.61
	15	42.7	5.21	41.7	5.42	40.4	5.67	38.7	6.09	36.5	6.78	33.7	7.86	32.2	8.57
	16	43.7	5.34	42.9	5.55	41.7	5.82	39.9	6.21	37.4	6.87	34.3	7.90	32.6	8.56
	17	44.7	5.50	44.1	5.71	43.0	5.99	41.1	6.37	38.4	7.00	34.8	7.98	32.9	8.57
	18	45.7	5.65	45.3	5.90	44.3	6.18	42.4	6.56	39.4	7.16	35.4	8.09	33.3	8.60
WQH 30	5	37.5	5.16	36.4	5.63	35.2	6.22	33.9	7.01	32.6	8.11	31.1	9.59	30.6	10.3
	6	38.5	5.21	37.3	5.67	36.1	6.26	34.7	7.02	33.3	8.09	31.8	9.50	31.3	10.2
	7	39.5	5.26	38.5	5.72	37.0	6.23	35.6	7.03	**34.1**	**8.06**	33.2	9.18	32.1	10.1
	8	40.6	5.33	39.3	5.75	38.0	6.28	36.5	7.01	35.0	8.01	33.5	9.37	33.1	10.1
	9	41.7	5.41	40.4	5.79	39.0	6.28	37.6	6.97	36.0	7.98	34.5	9.34	34.1	10.2
	10	42.8	5.47	41.5	5.82	40.1	6.27	38.7	6.92	37.1	7.92	35.5	9.29	35.0	10.2
	11	43.9	5.55	42.7	5.85	41.4	6.26	39.8	6.88	38.2	7.85	36.4	9.22	35.8	10.2
	12	45.1	5.62	44.0	5.89	42.6	6.26	41.0	6.84	39.2	7.78	37.3	9.13	36.3	10.1
	13	46.3	5.70	45.2	5.94	43.9	6.28	42.3	6.83	40.3	7.73	38.1	9.03	36.8	10.0
	14	47.5	5.79	46.5	6.01	45.2	6.33	43.5	6.84	41.4	7.72	38.9	8.95	37.3	9.95
	15	48.6	5.90	47.7	6.11	46.5	6.41	44.8	6.91	42.5	7.74	39.8	8.91	37.8	9.88
	16	49.6	6.05	48.9	6.25	47.8	6.53	46.1	7.01	43.7	7.81	40.8	8.91	38.5	9.83
	17	50.6	6.21	50.1	6.41	49.1	6.70	47.4	7.16	44.8	7.92	41.8	8.94	39.3	9.82
	18	51.5	6.39	51.2	6.60	50.3	6.88	48.7	7.32	46.1	8.05	42.9	8.98	40.1	9.81

Performance Data - WQH 20 to 45 (continued)

Heating capacities

WQH models	Evap. LWT (°C)	Condenser LWT (°C)													
		25		30		35		40		45		50		55	
		Heating cap. (kW)	Input power (kW)	Heating cap. (kW)	Input power (kW)	Heating cap. (kW)	Input power (kW)	Heating cap. (kW)	Input power (kW)	Heating cap. (kW)	Input power (kW)	Heating cap. (kW)	Input power (kW)	Heating cap. (kW)	Input power (kW)
WQH 35	5	43.1	6.04	41.8	6.52	40.3	7.16	38.8	8.03	37.1	9.27	35.3	11.0	34.7	11.9
	6	44.3	6.10	42.8	6.57	41.3	7.20	39.7	8.05	37.9	9.25	36.1	10.9	35.5	11.7
	7	45.5	6.17	44.2	6.63	42.3	7.15	40.6	8.05	**38.9**	**9.22**	37.7	10.6	36.5	11.6
	8	46.8	6.26	45.2	6.66	43.5	7.23	41.7	8.03	39.9	9.18	38.0	10.8	37.6	11.6
	9	48.1	6.34	46.4	6.70	44.7	7.22	42.9	7.99	41.1	9.13	39.2	10.8	38.8	11.7
	10	49.4	6.44	47.8	6.74	46.0	7.22	44.2	7.93	42.3	9.07	40.4	10.8	40.0	11.7
	11	50.8	6.53	49.2	6.79	47.5	7.21	45.6	7.88	43.6	8.99	41.4	10.7	40.9	11.6
	12	52.3	6.61	50.7	6.83	48.9	7.20	47.0	7.85	44.8	8.92	42.4	10.6	41.6	11.6
	13	53.8	6.70	52.2	6.89	50.5	7.22	48.4	7.83	46.0	8.87	43.3	10.5	42.3	11.4
	14	55.2	6.82	53.8	6.98	52.0	7.28	49.9	7.85	47.3	8.85	44.3	10.5	42.9	11.4
	15	56.6	6.94	55.3	7.09	53.6	7.37	51.4	7.92	48.6	8.89	45.3	10.4	43.5	11.3
	16	58.0	7.11	56.7	7.24	55.1	7.52	52.9	8.05	50.0	8.98	46.4	10.4	44.3	11.3
	17	59.2	7.30	58.2	7.44	56.6	7.70	54.5	8.21	51.4	9.12	47.6	10.5	45.2	11.3
	18	60.5	7.52	59.6	7.65	58.2	7.91	56.0	8.41	52.9	9.27	48.9	10.6	46.2	11.3
WQH 40	5	47.8	6.95	46.5	7.43	44.9	8.08	43.3	8.99	41.4	10.3	39.3	12.2	38.5	13.3
	6	49.2	7.03	47.7	7.50	46.1	8.13	44.3	9.02	42.3	10.3	40.3	12.1	39.5	13.1
	7	50.6	7.14	49.2	7.57	47.2	8.10	45.4	9.04	**43.4**	**10.3**	42.1	11.7	40.6	13.0
	8	52.0	7.26	50.3	7.64	48.5	8.20	46.6	9.02	44.6	10.3	42.5	12.0	41.9	13.0
	9	53.5	7.38	51.7	7.71	49.9	8.21	48.0	9.00	45.9	10.2	43.8	12.0	43.2	13.1
	10	55.0	7.52	53.3	7.78	51.4	8.21	49.4	8.96	47.3	10.2	45.1	12.0	44.6	13.1
	11	56.6	7.65	54.9	7.83	53.0	8.22	51.0	8.90	48.7	10.1	46.4	12.0	45.6	13.1
	12	58.2	7.77	56.5	7.90	54.7	8.24	52.5	8.87	50.2	10.0	47.5	11.9	46.5	13.0
	13	59.9	7.90	58.3	7.99	56.4	8.28	54.2	8.87	51.6	9.98	48.6	11.8	47.3	12.9
	14	61.6	8.06	60.0	8.11	58.1	8.35	55.8	8.91	53.0	9.96	49.7	11.7	48.0	12.8
	15	63.1	8.25	61.7	8.27	59.9	8.48	57.5	8.99	54.5	9.99	50.8	11.7	48.8	12.6
	16	64.6	8.48	63.3	8.48	61.6	8.66	59.2	9.14	56.1	10.1	52.1	11.7	49.8	12.6
	17	66.0	8.73	64.9	8.72	63.3	8.88	61.0	9.34	57.7	10.2	53.4	11.7	50.9	12.5
	18	67.3	9.01	66.5	8.98	65.0	9.14	62.7	9.55	59.3	10.4	54.8	11.8	52.0	12.4
WQH 45	5	53.6	8.18	51.8	8.90	50.5	9.74	49.5	10.8	49.1	12.2	49.0	14.2	48.5	15.4
	6	55.0	8.22	53.2	8.97	51.7	9.81	50.7	10.8	50.2	12.2	50.2	14.1	49.7	15.2
	7	56.5	8.27	54.8	9.03	53.1	9.76	52.0	10.9	**51.5**	**12.2**	52.5	13.7	51.1	15.1
	8	58.0	8.34	56.1	9.07	54.5	9.88	53.5	10.9	53.0	12.2	53.1	14.0	52.7	15.1
	9	59.6	8.41	57.6	9.11	56.1	9.87	55.1	10.8	54.7	12.2	54.8	14.0	54.5	15.2
	10	61.2	8.47	59.3	9.13	57.8	9.85	56.8	10.8	56.4	12.1	56.5	14.0	56.1	15.3
	11	62.9	8.52	61.0	9.15	59.6	9.83	58.6	10.7	58.1	12.1	58.1	14.0	57.5	15.3
	12	64.7	8.56	62.9	9.17	61.5	9.82	60.5	10.7	59.8	12.0	59.5	13.9	58.6	15.3
	13	66.4	8.61	64.7	9.21	63.4	9.83	62.4	10.7	61.6	12.0	61.0	13.9	59.6	15.2
	14	68.2	8.66	66.6	9.26	65.4	9.9	64.3	10.7	63.4	12.0	62.5	13.9	60.6	15.1
	15	69.8	8.74	68.5	9.36	67.3	10.0	66.3	10.8	65.2	12.0	64.0	13.9	61.7	15.0
	16	71.4	8.84	70.2	9.50	69.3	10.2	68.3	11.0	67.2	12.2	65.7	14.0	63.0	15.0
	17	72.8	8.97	71.9	9.68	71.2	10.4	70.3	11.2	69.2	12.4	67.6	14.1	64.4	15.1
	18	74.2	9.11	73.6	9.9	73.1	10.6	72.4	11.4	71.3	12.6	69.5	14.3	66.1	15.1

Performance Data - WQRC 20 to 45

Cooling capacities

WQRC models	Evap. LWT (°C)	Condensing temperature (°C)													
		30		35		40		45		50		55		60	
		Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)
WQRC 20	5	21.6	3.62	20.6	3.98	19.5	4.45	18.1	5.04	16.7	5.79	15.2	6.71	14.4	7.28
	6	22.5	3.69	21.3	4.06	20.2	4.50	19.0	5.04	17.7	5.68	16.4	6.44	15.9	6.82
	7	23.3	3.74	22.1	4.07	**20.9**	**4.54**	19.4	4.93	18.3	5.65	17.0	6.49	16.6	6.56
	8	24.2	3.77	23.0	4.14	21.7	4.55	20.4	5.07	19.1	5.66	17.7	6.33	17.2	6.62
	9	25.1	3.80	23.8	4.14	22.5	4.56	21.2	5.09	19.8	5.74	18.4	6.50	17.9	6.89
	10	26.0	3.83	24.8	4.16	23.4	4.58	21.7	5.13	19.9	5.83	18.0	6.68	17.0	7.17
	11	26.8	3.89	25.5	4.21	24.2	4.62	22.8	5.19	21.4	5.92	19.9	6.81	19.3	7.33
	12	27.6	3.97	26.3	4.29	25.0	4.68	23.6	5.24	22.2	5.97	20.6	6.85	20.0	7.37
	13	28.3	4.08	27.1	4.37	25.9	4.76	24.5	5.29	23.0	5.98	21.3	6.84	20.7	7.32
	14	28.9	4.20	27.9	4.47	26.7	4.83	25.3	5.32	23.7	5.98	22.1	6.80	21.4	7.23
	15	29.6	4.34	28.7	4.56	27.5	4.88	25.8	5.33	23.7	5.96	21.5	6.73	20.2	7.13
	16	30.3	4.47	29.4	4.65	28.2	4.90	26.9	5.31	25.3	5.91	23.5	6.66	22.9	7.07
	17	31.0	4.60	30.1	4.70	29.0	4.89	27.6	5.27	26.0	5.84	24.2	6.60	23.6	7.02
	18	31.7	4.73	31.0	4.76	29.8	4.88	27.9	5.22	25.6	5.77	23.0	6.54	21.5	7.00
WQRC 25	5	27.0	4.54	25.7	4.96	24.2	5.50	22.5	6.20	20.7	7.09	18.9	8.16	18.0	8.78
	6	28.1	4.60	26.6	5.04	25.1	5.56	23.5	6.20	22.0	6.94	20.4	7.82	19.9	8.21
	7	29.2	4.67	27.5	5.05	**26.0**	**5.61**	24.1	6.05	22.7	6.90	21.1	7.87	20.8	7.88
	8	30.3	4.71	28.6	5.13	26.9	5.63	25.3	6.22	23.6	6.90	22.0	7.68	21.5	7.95
	9	31.5	4.72	29.7	5.14	27.9	5.64	26.2	6.26	24.5	7.00	22.8	7.88	22.4	8.27
	10	32.6	4.76	30.8	5.16	29.0	5.66	26.9	6.32	24.6	7.13	22.3	8.11	21.2	8.61
	11	33.6	4.82	31.8	5.23	30.0	5.72	28.2	6.38	26.4	7.23	24.5	8.26	24.0	8.80
	12	34.5	4.93	32.8	5.32	31.0	5.81	29.2	6.46	27.3	7.30	25.3	8.32	24.7	8.85
	13	35.4	5.07	33.8	5.44	32.1	5.90	30.2	6.53	28.2	7.34	26.1	8.31	25.4	8.81
	14	36.2	5.21	34.8	5.56	33.1	6.00	31.2	6.58	29.1	7.35	26.8	8.27	26.1	8.71
	15	37.0	5.38	35.9	5.68	34.2	6.06	31.9	6.61	29.0	7.33	25.8	8.21	24.3	8.62
	16	37.8	5.53	36.7	5.77	35.2	6.10	33.3	6.59	30.9	7.29	28.0	8.15	27.1	8.57
	17	38.7	5.70	37.7	5.87	36.3	6.11	34.3	6.56	31.7	7.23	28.6	8.10	27.6	8.54
	18	39.6	5.85	38.9	5.94	37.4	6.11	34.7	6.51	31.1	7.17	26.8	8.05	24.7	8.54
WQRC 30	5	32.4	5.10	31.0	5.61	29.2	6.25	27.1	7.11	24.8	8.19	22.2	9.49	21.6	9.92
	6	33.7	5.18	32.0	5.70	30.2	6.33	28.3	7.09	26.2	8.02	24.0	9.09	23.9	9.27
	7	34.9	5.25	33.2	5.70	**31.3**	**6.37**	29.0	6.93	27.1	7.97	24.8	9.15	25.0	8.90
	8	36.2	5.28	34.4	5.79	32.5	6.39	30.4	7.11	28.2	7.95	25.9	8.91	25.8	8.97
	9	37.5	5.30	35.7	5.79	33.7	6.38	31.6	7.14	29.3	8.06	26.9	9.13	26.9	9.31
	10	38.8	5.34	37.0	5.80	34.9	6.40	32.3	7.19	29.4	8.18	26.3	9.39	25.6	9.67
	11	39.9	5.42	38.1	5.87	36.1	6.46	33.9	7.25	31.6	8.28	29.0	9.53	29.0	9.87
	12	40.9	5.54	39.2	5.97	37.3	6.54	35.1	7.32	32.7	8.33	30.1	9.56	30.0	9.92
	13	42.0	5.69	40.3	6.09	38.4	6.63	36.3	7.38	33.8	8.35	31.2	9.51	31.0	9.86
	14	42.7	5.84	41.3	6.22	39.6	6.72	37.5	7.41	35.0	8.33	32.3	9.41	32.0	9.74
	15	43.6	6.02	42.5	6.34	40.7	6.77	38.2	7.40	34.9	8.28	31.5	9.28	30.1	9.61
	16	44.4	6.21	43.4	6.44	41.8	6.79	39.8	7.36	37.2	8.18	34.5	9.16	34.0	9.52
	17	45.3	6.39	44.4	6.52	42.9	6.77	40.9	7.28	38.3	8.07	35.6	9.03	35.0	9.46
	18	46.2	6.56	45.5	6.59	44.0	6.75	41.3	7.19	37.7	7.95	33.9	8.91	31.8	9.42

Performance Data - WQRC 20 to 45 (continued)

Cooling capacities

WQRC models	Evap. LWT (°C)	Condensing temperature (°C)													
		30		35		40		45		50		55		60	
		Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)
WQRC 35	5	36.0	5.89	34.4	6.41	32.4	7.10	30.1	8.05	27.4	9.26	24.5	10.8	23.4	11.5
	6	37.4	5.99	35.5	6.51	33.6	7.18	31.4	8.03	29.0	9.07	26.5	10.3	25.9	10.7
	7	38.8	6.07	36.8	6.52	**34.8**	**7.24**	32.1	7.85	30.0	9.02	27.4	10.4	27.1	10.3
	8	40.3	6.12	38.2	6.62	36.0	7.24	33.7	8.04	31.2	8.99	28.5	10.1	28.0	10.4
	9	41.7	6.14	39.6	6.62	37.3	7.24	34.9	8.08	32.4	9.11	29.7	10.4	29.1	10.8
	10	43.2	6.18	41.1	6.63	38.7	7.26	35.8	8.12	32.6	9.26	29.1	10.7	27.7	11.2
	11	44.5	6.28	42.3	6.70	40.0	7.31	37.6	8.20	34.9	9.37	32.0	10.8	31.5	11.5
	12	45.7	6.40	43.6	6.81	41.4	7.41	38.9	8.26	36.1	9.43	33.1	10.9	32.6	11.5
	13	46.8	6.57	44.9	6.94	42.7	7.50	40.2	8.33	37.4	9.44	34.3	10.9	33.8	11.4
	14	47.9	6.77	46.1	7.09	44.0	7.59	41.5	8.36	38.6	9.43	35.5	10.8	34.9	11.2
	15	48.9	6.97	47.4	7.21	45.3	7.64	42.3	8.35	38.6	9.37	34.5	10.7	32.9	11.1
	16	50.0	7.17	48.5	7.32	46.6	7.66	44.1	8.30	41.1	9.26	37.8	10.5	37.2	11.0
	17	51.1	7.38	49.7	7.40	47.8	7.63	45.4	8.21	42.4	9.14	38.9	10.4	38.4	10.9
	18	52.3	7.56	51.2	7.47	49.1	7.59	45.9	8.10	41.7	9.02	36.9	10.3	34.9	10.8
WQRC 40	5	40.3	6.74	38.7	7.26	36.7	7.97	34.2	8.95	31.2	10.2	27.9	11.8	26.8	12.5
	6	41.9	6.88	40.1	7.40	38.0	8.07	35.6	8.96	33.0	10.1	30.2	11.4	29.7	11.7
	7	43.6	7.00	41.5	7.42	**39.3**	**8.15**	36.4	8.77	34.2	10.0	31.2	11.5	31.0	11.3
	8	45.2	7.07	43.1	7.54	40.8	8.18	38.2	9.00	35.5	10.0	32.5	11.2	32.1	11.4
	9	46.9	7.13	44.7	7.57	42.3	8.20	39.7	9.05	36.9	10.2	33.8	11.5	33.4	11.9
	10	48.5	7.21	46.4	7.61	43.8	8.23	40.7	9.13	37.1	10.3	33.2	11.8	31.8	12.4
	11	50.0	7.34	47.8	7.72	45.3	8.31	42.6	9.22	39.7	10.5	36.5	12.0	36.2	12.6
	12	51.4	7.53	49.3	7.87	46.9	8.43	44.2	9.31	41.2	10.5	37.9	12.1	37.5	12.7
	13	52.7	7.76	50.7	8.05	48.4	8.57	45.7	9.40	42.6	10.6	39.3	12.1	38.9	12.6
	14	53.9	8.00	52.1	8.23	49.8	8.69	47.2	9.46	44.1	10.6	40.6	12.0	40.3	12.4
	15	55.1	8.29	53.6	8.41	51.3	8.77	48.1	9.46	44.1	10.5	39.6	11.8	38.0	12.2
	16	56.3	8.56	54.7	8.56	52.8	8.81	50.1	9.40	47.0	10.4	43.4	11.7	43.0	12.1
	17	57.5	8.84	56.2	8.69	54.2	8.80	51.6	9.30	48.4	10.2	44.7	11.5	44.4	11.9
	18	58.9	9.10	57.8	8.80	55.7	8.77	52.2	9.19	47.7	10.1	42.5	11.4	40.5	11.8
WQRC 45	5	47.8	7.92	45.3	8.74	43.1	9.70	41.1	10.9	39.4	12.3	38.1	13.9	37.2	14.9
	6	49.6	7.99	46.9	8.86	44.6	9.81	42.9	10.9	41.7	12.1	41.1	13.4	41.0	14.0
	7	51.5	8.03	48.5	8.84	**46.2**	**9.89**	43.8	10.6	43.1	12.0	42.5	13.5	42.8	13.5
	8	53.5	8.01	50.4	8.94	47.9	9.90	46.0	10.9	44.8	12.0	44.2	13.2	44.2	13.6
	9	55.4	7.97	52.2	8.90	49.6	9.88	47.7	11.0	46.5	12.2	45.8	13.6	45.8	14.2
	10	57.3	7.94	54.2	8.88	51.4	9.89	48.9	11.1	46.7	12.4	44.9	14.0	43.6	14.8
	11	59.0	7.95	55.8	8.91	53.2	9.95	51.3	11.2	50.0	12.6	49.3	14.2	49.3	15.2
	12	60.6	8.02	57.5	8.99	55.0	10.0	53.0	11.3	51.7	12.7	51.1	14.4	51.0	15.3
	13	62.1	8.11	59.1	9.09	56.7	10.1	54.8	11.3	53.5	12.8	52.8	14.4	52.8	15.2
	14	63.4	8.22	60.7	9.19	58.4	10.2	56.6	11.4	55.3	12.8	54.6	14.3	54.5	15.0
	15	64.8	8.33	62.4	9.27	60.1	10.2	57.7	11.3	55.2	12.7	53.1	14.2	51.3	14.9
	16	66.1	8.44	63.8	9.31	61.8	10.2	60.1	11.2	58.8	12.6	58.1	14.1	57.9	14.8
	17	67.5	8.52	65.4	9.30	63.4	10.1	61.8	11.1	60.5	12.4	59.8	14.0	59.6	14.8
	18	69.0	8.57	67.2	9.27	65.1	10.0	62.5	10.9	59.6	12.2	56.8	13.9	54.2	14.7

Performance Data - WQL 50 to 190

Cooling capacities - CO Mode

WQL models	Evap. LWT (°C)	Condenser LWT (°C)													
		25		30		35		40		45		50		55	
		Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)
WQL 50	5	53.1	8.85	50.7	9.91	47.8	11.2	44.6	12.7	41.1	14.5	37.5	16.5	36.5	17.0
	6	54.8	8.84	52.2	9.94	49.5	11.2	46.7	12.8	43.8	14.5	40.9	16.5	40.7	17.0
	7	56.4	8.85	54.0	9.97	**51.1**	**11.3**	47.7	12.8	44.9	13.8	40.2	16.4	38.7	17.0
	8	57.9	8.88	55.4	9.99	52.7	11.3	49.9	12.8	47.0	14.6	44.1	16.4	43.7	17.0
	9	59.4	8.91	57.0	10.0	54.4	11.3	51.5	12.8	48.5	14.5	45.7	16.4	45.2	17.0
	10	60.6	8.96	58.6	10.0	55.9	11.3	52.3	12.8	48.2	14.5	44.0	16.3	41.8	17.0
	11	61.8	9.00	59.8	10.1	57.4	11.3	54.6	12.8	51.5	14.5	48.5	16.3	47.7	17.0
	12	62.8	9.05	61.0	10.1	58.8	11.3	56.0	12.8	52.8	14.5	49.7	16.2	48.8	17.0
	13	63.7	9.11	62.2	10.1	60.1	11.3	57.4	12.8	54.1	14.5	50.8	16.2	49.7	17.0
	14	64.5	9.17	63.3	10.2	61.6	11.4	58.7	12.8	55.3	14.5	51.8	16.2	50.5	17.0
	15	65.3	9.24	64.5	10.3	62.8	11.4	59.4	12.9	54.8	14.6	50.1	16.2	47.3	17.1
	16	66.0	9.30	65.5	10.3	64.1	11.6	61.4	13.0	57.5	14.7	53.5	16.3	51.6	17.2
	17	66.7	9.38	66.6	10.4	65.4	11.7	62.7	13.1	58.5	14.8	54.2	16.4	52.0	17.3
	18	67.5	9.44	67.8	10.6	66.7	11.8	63.3	13.3	57.9	15.0	52.2	16.5	48.4	17.5
WQL 60	5	63.7	10.2	60.8	11.5	57.3	13.0	53.2	14.9	48.5	17.1	44.0	19.4	42.2	20.3
	6	65.6	10.2	62.6	11.5	59.3	13.1	55.7	14.9	51.7	17.1	48.0	19.4	47.0	20.3
	7	67.5	10.2	64.8	11.6	**61.3**	**13.1**	57.0	15.0	53.1	16.3	47.0	19.3	44.7	20.3
	8	69.3	10.3	66.5	11.6	63.3	13.1	59.7	15.0	55.5	17.1	51.7	19.3	50.4	20.3
	9	70.9	10.3	68.4	11.6	65.3	13.1	61.6	15.0	57.4	17.1	53.5	19.2	52.1	20.2
	10	72.4	10.4	70.3	11.6	67.2	13.1	62.6	14.9	57.1	17.0	51.6	19.1	48.3	20.2
	11	73.7	10.4	71.7	11.6	68.9	13.1	65.4	14.9	61.1	17.0	57.1	19.0	55.2	20.2
	12	74.8	10.5	73.1	11.6	70.6	13.1	67.1	14.8	62.7	16.9	58.8	18.9	56.7	20.1
	13	75.9	10.5	74.5	11.7	72.2	13.1	68.8	14.8	64.4	16.9	60.4	18.8	58.1	20.1
	14	76.7	10.6	75.9	11.7	73.7	13.1	70.4	14.8	66.0	16.8	62.0	18.7	59.5	20.1
	15	77.5	10.7	77.1	11.8	75.2	13.2	71.3	14.8	65.7	16.9	60.4	18.7	56.3	20.1
	16	78.3	10.8	78.1	11.9	76.7	13.2	73.6	14.9	69.2	16.9	65.2	18.7	62.2	20.1
	17	79.1	10.8	79.3	12.0	78.1	13.3	75.2	15.0	70.8	17.0	66.9	18.7	63.6	20.2
	18	79.9	10.9	80.6	12.1	79.6	13.5	76.0	15.1	70.4	17.1	65.2	18.8	60.3	20.3
WQL 75	5	79.9	13.4	76.6	14.7	72.5	16.4	67.5	18.6	61.6	21.2	55.1	24.2	53.7	24.9
	6	82.4	13.4	79.0	14.8	75.0	16.5	70.6	18.7	65.6	21.3	60.1	24.3	59.8	24.9
	7	84.9	13.5	81.8	14.9	**77.6**	**16.6**	72.2	18.8	67.3	20.3	58.9	24.3	56.8	25.0
	8	87.3	13.5	84.0	14.9	80.1	16.7	75.6	18.8	70.4	21.4	64.8	24.3	64.2	25.0
	9	89.4	13.7	86.4	15.0	82.6	16.7	78.1	18.8	72.7	21.4	67.1	24.2	66.4	25.1
	10	91.4	13.8	88.9	15.0	85.0	16.7	79.3	18.8	72.3	21.3	64.8	24.2	61.6	25.1
	11	93.2	13.9	90.7	15.1	87.3	16.7	82.8	18.7	77.4	21.3	71.7	24.1	70.5	25.1
	12	94.7	14.0	92.6	15.2	89.4	16.7	85.0	18.7	79.5	21.3	73.9	24.0	72.5	25.1
	13	96.2	14.2	94.4	15.2	91.5	16.7	87.2	18.7	81.7	21.2	76.1	23.9	74.4	25.1
	14	97.4	14.3	96.1	15.3	93.5	16.8	89.3	18.7	83.8	21.2	78.2	23.8	76.2	25.1
	15	98.7	14.4	98.0	15.5	95.4	16.9	90.5	18.8	83.5	21.2	76.3	23.8	72.2	25.1
	16	99.8	14.6	99.4	15.6	97.4	17.0	93.5	18.9	87.9	21.3	82.4	23.8	79.9	25.2
	17	101.0	14.7	100.9	15.8	99.3	17.2	95.6	19.0	90.0	21.4	84.5	23.8	81.7	25.3
	18	102.2	14.9	102.8	15.9	101.2	17.3	96.6	19.2	89.6	21.5	82.5	23.9	77.5	25.3
WQL 90	5	94.4	15.8	90.3	17.7	85.4	19.9	79.7	22.4	73.3	25.1	66.3	28.1	64.6	28.9
	6	97.3	15.8	93.0	17.8	88.4	20.0	83.4	22.5	78.0	25.2	72.1	28.2	72.0	28.9
	7	100.2	15.7	96.3	17.8	**91.4**	**20.1**	85.3	22.6	80.0	24.1	70.6	28.3	68.5	28.9
	8	102.9	15.7	98.9	17.8	94.3	20.1	89.2	22.7	83.5	25.4	77.4	28.3	77.4	28.9
	9	105.5	15.6	101.7	17.8	97.2	20.1	92.1	22.7	86.3	25.4	80.1	28.3	79.9	29.0
	10	107.8	15.6	104.6	17.8	100.0	20.1	93.6	22.6	85.7	25.4	77.2	28.3	74.0	29.0
	11	109.8	15.6	106.7	17.7	102.7	20.1	97.6	22.6	91.7	25.4	85.3	28.2	84.6	29.1
	12	111.7	15.5	108.9	17.7	105.2	20.0	100.2	22.6	94.2	25.3	87.7	28.2	86.8	29.1
	13	113.3	15.5	111.0	17.7	107.6	20.0	102.7	22.5	96.6	25.3	90.1	28.2	88.9	29.2
	14	114.8	15.5	113.2	17.7	109.9	20.0	105.1	22.6	98.9	25.4	92.4	28.2	90.9	29.3
	15	116.2	15.4	115.2	17.7	112.1	20.0	106.4	22.6	98.4	25.5	90.0	28.3	85.9	29.5
	16	117.6	15.4	116.8	17.7	114.4	20.1	109.8	22.7	103.6	25.7	97.0	28.4	94.8	29.7
	17	118.9	15.3	118.6	17.7	116.6	20.2	112.2	22.9	105.9	25.9	99.3	28.7	96.8	30.0
	18	120.3	15.2	120.8	17.7	118.8	20.2	113.3	23.1	105.2	26.1	96.6	28.9	91.5	30.4

Performance Data - WQL 50 to 190 (continued)

Cooling capacities - CO Mode

WQL models	Evap. LWT (°C)	Condenser LWT (°C)													
		25		30		35		40		45		50		55	
		Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)
WQL 120	5	123.7	20.9	117.4	23.0	110.6	25.4	102.9	28.4	94.6	32.2	85.7	36.8	83.6	37.8
	6	127.7	20.9	121.3	23.1	114.7	25.6	107.9	28.6	100.8	32.4	93.4	36.9	93.4	37.7
	7	131.8	21.0	125.7	23.1	**118.8**	**25.7**	110.6	28.8	103.7	30.8	91.5	37.0	88.9	37.7
	8	135.5	21.0	129.4	23.2	122.8	25.8	115.9	28.8	108.5	32.5	100.6	37.0	100.4	37.8
	9	139.1	21.1	133.2	23.3	126.8	25.8	119.8	28.8	112.3	32.5	104.3	36.9	103.8	37.9
	10	142.3	21.2	137.2	23.3	130.7	25.8	122.0	28.8	111.6	32.5	100.6	36.9	96.4	38.0
	11	145.2	21.3	140.2	23.4	134.3	25.8	127.4	28.8	119.5	32.5	111.3	36.8	110.3	38.0
	12	147.8	21.5	143.4	23.4	137.9	25.8	131.0	28.8	123.0	32.5	114.7	36.7	113.3	38.1
	13	150.2	21.6	146.3	23.5	141.2	25.9	134.5	28.8	126.3	32.5	118.0	36.6	116.1	38.2
	14	153.1	21.7	149.1	23.6	144.5	25.9	137.8	28.8	129.6	32.5	121.2	36.6	118.9	38.3
	15	154.4	21.8	152.2	23.7	147.6	26.1	139.7	29.0	129.1	32.6	118.1	36.7	112.5	38.5
	16	156.3	22.0	154.5	23.9	150.8	26.2	144.4	29.2	136.0	32.9	127.5	36.8	124.4	38.7
	17	158.4	22.1	157.2	24.1	153.9	26.4	147.7	29.4	139.2	33.1	130.7	37.0	127.1	39.1
	18	160.4	22.2	160.2	24.3	156.9	26.7	149.4	29.7	138.6	33.4	127.3	37.3	120.3	39.5
WQL 150	5	154.5	26.4	146.6	28.6	137.8	31.6	128.1	35.3	117.4	39.9	106.5	45.4	103.8	46.6
	6	159.6	26.4	151.3	28.8	142.7	31.7	133.9	35.5	125.0	40.1	115.9	45.5	115.8	46.6
	7	164.6	26.5	156.6	28.9	**147.5**	**31.9**	137.0	35.6	128.3	38.1	113.4	45.6	110.1	46.5
	8	169.2	26.7	161.0	29.0	152.4	32.0	143.4	35.7	134.1	40.2	124.5	45.6	124.4	46.6
	9	173.5	26.8	165.6	29.1	157.1	32.0	148.1	35.7	138.6	40.2	128.9	45.5	128.4	46.7
	10	177.3	27.0	170.4	29.2	161.7	32.0	150.6	35.6	137.7	40.2	124.2	45.4	119.1	46.7
	11	180.7	27.2	173.9	29.2	166.1	32.0	157.2	35.6	147.4	40.1	137.3	45.3	136.1	46.7
	12	183.6	27.3	177.6	29.3	170.4	32.0	161.6	35.6	151.6	40.1	141.3	45.1	139.7	46.7
	13	186.2	27.4	181.0	29.4	174.4	32.1	165.9	35.7	155.7	40.1	145.1	45.0	143.0	46.8
	14	188.4	27.5	184.3	29.5	178.4	32.2	170.1	35.8	159.7	40.1	148.9	45.0	146.3	46.8
	15	190.4	27.6	187.9	29.7	182.3	32.4	172.4	36.0	159.1	40.3	144.9	45.0	138.2	46.9
	16	192.3	27.6	190.5	29.8	186.1	32.7	178.4	36.3	167.7	40.6	156.2	45.1	152.5	47.1
	17	194.2	27.6	193.6	30.0	190.1	33.0	182.6	36.6	171.7	40.9	159.9	45.3	155.5	47.4
	18	196.2	27.6	197.1	30.2	194.0	33.3	185.0	37.1	170.9	41.4	155.5	45.5	146.9	47.7
WQL 170	5	176.5	29.6	168.4	32.6	159.1	36.2	148.5	40.5	136.6	45.7	124.0	51.9	119.5	54.0
	6	182.2	29.7	173.8	32.7	164.8	36.4	155.4	40.8	145.4	46.0	134.9	52.0	133.2	54.0
	7	187.8	29.7	179.9	32.8	**170.5**	**36.5**	159.1	40.9	149.3	43.8	132.0	52.1	126.6	54.0
	8	193.1	29.8	185.1	32.9	176.2	36.6	166.6	41.0	156.1	46.2	144.8	52.1	143.2	54.0
	9	198.1	30.0	190.5	33.0	181.8	36.6	172.1	41.0	161.5	46.2	149.8	52.2	148.1	54.0
	10	202.6	30.1	196.1	33.1	187.2	36.6	175.1	41.0	160.4	46.1	144.2	52.2	137.6	54.0
	11	206.7	30.3	200.3	33.2	192.3	36.7	182.8	40.9	171.6	46.1	159.3	52.1	157.6	53.9
	12	210.4	30.5	204.7	33.3	197.3	36.7	187.7	40.9	176.5	46.0	163.8	52.1	162.1	53.9
	13	213.7	30.7	208.8	33.4	201.9	36.7	192.6	40.9	181.2	46.1	168.3	52.1	166.5	53.8
	14	216.8	30.8	212.7	33.5	206.4	36.9	197.3	41.0	185.8	46.1	172.6	52.2	170.9	53.9
	15	219.6	31.0	217.0	33.7	210.8	37.1	199.8	41.3	185.0	46.3	168.0	52.4	162.0	54.0
	16	222.4	31.2	220.2	34.0	215.2	37.3	206.5	41.6	194.9	46.7	181.3	52.7	179.5	54.2
	17	225.1	31.4	223.9	34.3	219.5	37.7	211.0	42.0	199.4	47.1	185.6	53.1	183.9	54.6
	18	228.1	31.6	228.1	34.6	223.8	38.1	213.4	42.4	198.4	47.6	180.9	53.6	174.4	55.1
WQL 190	5	202.1	34.2	191.7	37.2	180.2	41.0	167.3	45.9	153.3	52.0	138.7	59.2	135.0	60.9
	6	209.1	34.2	198.1	37.3	186.7	41.3	175.1	46.2	163.2	52.2	151.1	59.4	150.8	60.9
	7	216.0	34.3	205.4	37.4	**193.3**	**41.4**	179.3	46.4	167.7	49.8	148.0	59.6	143.5	60.9
	8	222.4	34.3	211.4	37.5	199.8	41.5	187.8	46.5	175.4	52.5	162.6	59.7	162.4	60.9
	9	228.3	34.5	217.6	37.6	206.2	41.6	194.1	46.5	181.4	52.6	168.3	59.7	168.1	61.0
	10	233.5	34.6	224.2	37.7	212.4	41.6	197.6	46.5	180.4	52.5	162.3	59.6	156.0	61.1
	11	238.1	34.8	228.8	37.8	218.4	41.6	206.5	46.5	193.2	52.5	179.4	59.4	178.3	61.1
	12	241.9	35.0	233.8	37.9	224.1	41.7	212.3	46.5	198.9	52.4	184.5	59.2	182.8	61.2
	13	245.2	35.2	238.4	38.1	229.6	41.8	218.2	46.6	204.3	52.5	189.4	59.1	187.0	61.2
	14	248.0	35.5	242.7	38.3	235.0	42.0	223.9	46.8	209.7	52.5	194.1	59.0	191.1	61.2
	15	250.4	35.7	247.4	38.7	240.3	42.4	227.2	47.0	208.9	52.8	188.6	59.0	180.1	61.3
	16	252.5	36.0	250.9	39.0	245.7	42.7	235.3	47.4	220.2	53.1	202.9	59.1	198.2	61.6
	17	254.4	36.4	254.9	39.5	251.1	43.3	241.1	47.9	225.4	53.5	207.1	59.3	201.5	61.8
	18	256.3	36.7	259.6	39.9	256.5	43.8	244.5	48.5	224.3	54.0	200.9	59.5	189.4	62.1

Performance Data - WQH 50 to 190

Cooling capacities

WQH models	Evap. LWT (°C)	Condenser LWT (°C)													
		25		30		35		40		45		50		55	
		Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)
WQH 50	5	52.1	8.92	49.7	9.99	47.0	11.3	43.8	12.8	40.3	14.6	36.8	16.5	35.8	17.1
	6	53.7	8.93	51.2	10.0	48.6	11.3	45.8	12.8	43.0	14.6	40.1	16.5	39.9	17.0
	7	55.3	8.94	53.0	10.1	**50.2**	**11.4**	46.9	12.9	44.1	13.9	39.4	16.5	38.0	17.0
	8	56.8	8.97	54.4	10.1	51.8	11.4	49.0	12.9	46.1	14.6	43.3	16.5	43.0	17.0
	9	58.2	9.01	55.9	10.1	53.3	11.4	50.6	12.9	47.7	14.6	44.8	16.4	44.4	17.0
	10	59.4	9.05	57.5	10.1	54.9	11.4	51.4	12.9	47.3	14.6	43.2	16.4	41.1	17.0
	11	60.5	9.11	58.6	10.2	56.3	11.4	53.6	12.8	50.5	14.6	47.6	16.3	46.9	17.1
	12	61.5	9.17	59.8	10.2	57.7	11.4	55.0	12.8	51.9	14.5	48.8	16.3	48.0	17.0
	13	62.4	9.24	60.9	10.2	59.0	11.4	56.3	12.8	53.1	14.5	50.0	16.2	48.9	17.0
	14	63.2	9.30	62.0	10.3	60.3	11.5	57.6	12.9	54.3	14.6	51.0	16.2	49.7	17.1
	15	63.9	9.36	63.3	10.4	61.5	11.5	58.3	12.9	53.9	14.6	49.3	16.3	46.6	17.1
	16	64.6	9.44	64.1	10.4	62.7	11.6	60.2	13.1	56.5	14.7	52.7	16.3	51.0	17.2
	17	65.3	9.51	65.2	10.6	64.0	11.8	61.4	13.2	57.5	14.9	53.4	16.5	51.4	17.4
	18	66.1	9.59	66.4	10.7	65.3	11.9	62.0	13.4	56.9	15.0	51.4	16.6	47.9	17.5
WQH 60	5	61.5	10.4	58.7	11.7	55.4	13.2	51.4	15.1	46.9	17.3	42.5	19.5	40.8	20.5
	6	63.4	10.4	60.5	11.7	57.3	13.3	53.8	15.1	50.0	17.3	46.4	19.5	45.5	20.4
	7	65.2	10.4	62.5	11.7	**59.2**	**13.3**	55.1	15.2	51.3	16.4	45.4	19.5	43.2	20.4
	8	66.9	10.5	64.2	11.8	61.1	13.3	57.6	15.2	53.6	17.3	49.9	19.4	48.8	20.4
	9	68.5	10.5	66.0	11.8	63.1	13.3	59.5	15.1	55.5	17.3	51.7	19.4	50.3	20.4
	10	69.9	10.6	67.8	11.8	64.8	13.3	60.5	15.1	55.1	17.2	49.8	19.3	46.7	20.4
	11	71.1	10.6	69.2	11.8	66.5	13.3	63.1	15.0	58.9	17.2	55.0	19.2	53.3	20.4
	12	72.3	10.7	70.6	11.9	68.1	13.3	64.7	15.0	60.5	17.1	56.6	19.1	54.8	20.3
	13	73.2	10.8	71.9	11.9	69.6	13.3	66.4	15.0	62.1	17.1	58.2	19.0	56.1	20.3
	14	74.1	10.9	73.1	12.0	71.1	13.3	67.9	15.0	63.7	17.0	59.7	18.9	57.4	20.3
	15	74.9	10.9	74.4	12.0	72.5	13.4	68.7	15.1	63.3	17.1	58.2	18.9	54.3	20.3
	16	75.7	11.0	75.4	12.1	73.9	13.5	71.0	15.1	66.7	17.1	62.8	18.9	60.0	20.3
	17	76.4	11.1	76.5	12.2	75.3	13.6	72.5	15.2	68.2	17.2	64.3	19.0	61.3	20.4
	18	77.2	11.2	77.8	12.3	76.7	13.7	73.2	15.4	67.8	17.3	62.6	19.0	58.0	20.5
WQH 75	5	78.8	13.4	75.5	14.8	71.4	16.5	66.5	18.6	60.7	21.2	54.3	24.3	52.9	25.0
	6	81.2	13.4	77.8	14.8	73.9	16.6	69.5	18.7	64.6	21.3	59.2	24.3	58.9	25.0
	7	83.7	13.5	80.5	14.9	**76.4**	**16.7**	71.1	18.8	66.3	20.3	58.0	24.3	56.0	25.0
	8	85.9	13.6	82.7	15.0	78.9	16.7	74.4	18.8	69.3	21.4	63.8	24.3	63.2	25.1
	9	88.1	13.7	85.1	15.0	81.4	16.7	76.9	18.9	71.6	21.4	66.1	24.3	65.3	25.1
	10	90.0	13.8	87.5	15.1	83.7	16.7	78.1	18.8	71.2	21.4	63.8	24.2	60.6	25.2
	11	91.7	13.9	89.3	15.2	85.9	16.7	81.5	18.8	76.1	21.4	70.6	24.2	69.4	25.2
	12	93.4	14.1	91.1	15.2	88.0	16.8	83.7	18.8	78.3	21.3	72.7	24.1	71.3	25.2
	13	94.7	14.2	92.9	15.3	90.0	16.8	85.8	18.8	80.4	21.3	74.8	24.0	73.2	25.2
	14	95.9	14.3	94.6	15.4	92.0	16.9	87.9	18.8	82.4	21.3	76.9	23.9	75.0	25.2
	15	97.1	14.5	96.4	15.5	93.9	17.0	89.0	18.9	82.1	21.3	75.0	23.9	71.0	25.2
	16	98.2	14.6	97.8	15.7	95.8	17.1	92.0	19.0	86.5	21.4	81.0	23.9	78.6	25.3
	17	99.4	14.8	99.3	15.8	97.7	17.2	94.0	19.1	88.5	21.5	83.1	24.0	80.4	25.4
	18	100.5	14.9	101.2	16.0	99.6	17.4	95.0	19.3	88.1	21.6	81.0	24.0	76.2	25.5
WQH 90	5	92.0	16.1	88.0	17.9	83.3	20.1	77.7	22.5	71.5	25.2	64.7	28.2	63.0	29.0
	6	94.9	16.0	90.7	18.0	86.2	20.2	81.3	22.6	76.0	25.3	70.3	28.3	70.2	29.0
	7	97.6	16.0	93.8	18.0	**89.0**	**20.3**	83.1	22.7	78.0	24.1	68.8	28.3	66.7	29.0
	8	100.3	16.0	96.3	18.1	91.9	20.3	87.0	22.8	81.5	25.5	75.5	28.4	75.4	29.0
	9	102.7	16.0	99.0	18.1	94.7	20.3	89.8	22.8	84.2	25.5	78.0	28.4	77.9	29.0
	10	104.9	16.0	101.8	18.1	97.4	20.3	91.1	22.8	83.5	25.5	75.2	28.4	72.2	29.1
	11	106.9	16.0	103.8	18.1	100.0	20.3	95.1	22.8	89.3	25.5	83.0	28.3	82.4	29.1
	12	108.7	16.0	106.0	18.1	102.4	20.3	97.6	22.7	91.7	25.5	85.4	28.3	84.6	29.2
	13	110.2	16.0	108.0	18.1	104.7	20.3	100.0	22.7	94.1	25.5	87.7	28.3	86.6	29.2
	14	111.7	16.0	110.0	18.1	106.9	20.3	102.3	22.8	96.4	25.5	89.9	28.3	88.5	29.4
	15	113.1	16.0	112.0	18.1	109.1	20.3	103.5	22.8	95.8	25.6	87.5	28.4	83.7	29.5
	16	114.3	16.0	113.6	18.1	111.3	20.4	106.9	23.0	100.8	25.8	94.3	28.6	92.4	29.8
	17	115.6	15.9	115.4	18.1	113.4	20.5	109.1	23.1	103.0	26.0	96.5	28.8	94.2	30.1
	18	116.9	15.9	117.5	18.2	115.5	20.6	110.3	23.3	102.4	26.3	93.9	29.1	89.1	30.4

Performance Data - WQH 50 to 190 (continued)

Cooling capacities

WQH models	Evap. LWT (°C)	Condenser LWT (°C)													
		25		30		35		40		45		50		55	
		Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)
WQH 120	5	119.8	21.2	114.0	23.2	107.5	25.6	100.1	28.7	92.1	32.4	83.4	37.0	81.4	38.0
	6	123.7	21.2	117.6	23.3	111.4	25.8	104.9	28.8	98.1	32.6	90.8	37.1	90.8	38.0
	7	127.5	21.3	121.9	23.4	**115.3**	**26.0**	107.4	29.0	100.8	31.0	89.0	37.2	86.4	38.0
	8	131.1	21.4	125.4	23.5	119.2	26.0	112.6	29.1	105.4	32.8	97.8	37.2	97.7	38.0
	9	134.5	21.5	129.1	23.6	123.0	26.1	116.3	29.1	109.0	32.8	101.3	37.2	100.9	38.1
	10	137.5	21.6	132.9	23.7	126.7	26.1	118.4	29.1	108.4	32.8	97.7	37.2	93.7	38.2
	11	140.3	21.8	135.7	23.7	130.2	26.1	123.6	29.1	116.0	32.7	108.0	37.1	107.1	38.3
	12	142.8	21.9	138.7	23.8	133.5	26.1	127.0	29.1	119.4	32.7	111.2	37.0	109.9	38.4
	13	145.1	22.0	141.5	23.9	136.7	26.2	130.4	29.1	122.5	32.8	114.3	37.0	112.7	38.4
	14	147.1	22.2	144.2	24.0	139.8	26.3	133.5	29.2	125.7	32.8	117.4	37.0	115.5	38.5
	15	149.2	22.4	147.1	24.2	142.8	26.4	135.3	29.3	125.1	33.0	114.4	37.0	109.2	38.7
	16	150.8	22.5	149.3	24.4	145.8	26.6	139.8	29.5	131.8	33.2	123.4	37.2	120.6	39.0
	17	152.7	22.7	151.8	24.6	148.7	26.9	142.9	29.8	134.9	33.5	126.4	37.4	123.2	39.4
	18	154.6	22.8	154.7	24.8	151.7	27.1	144.5	30.1	134.1	33.8	123.2	37.7	116.6	39.8
WQH 150	5	151.3	26.5	143.8	28.8	135.4	31.8	125.8	35.5	115.5	40.1	104.7	45.6	102.1	46.8
	6	156.3	26.6	148.3	29.0	140.0	32.0	131.6	35.7	122.9	40.2	113.9	45.7	113.8	46.8
	7	161.1	26.8	153.5	29.1	**144.8**	**32.1**	134.6	35.9	126.1	38.4	111.5	45.8	108.2	46.8
	8	165.6	26.9	157.8	29.2	149.5	32.2	140.8	35.9	131.7	40.5	122.3	45.8	122.3	46.8
	9	169.8	27.1	162.2	29.3	154.1	32.2	145.4	35.9	136.2	40.4	126.6	45.8	126.3	46.9
	10	173.4	27.3	166.9	29.4	158.6	32.3	147.8	35.9	135.2	40.4	122.0	45.7	117.1	46.9
	11	176.7	27.4	170.2	29.5	162.9	32.3	154.3	35.9	144.7	40.3	134.8	45.5	133.7	47.0
	12	179.6	27.6	173.9	29.6	166.9	32.3	158.5	35.9	148.8	40.3	138.7	45.4	137.2	47.0
	13	182.1	27.7	177.2	29.7	170.9	32.4	162.6	35.9	152.8	40.3	142.4	45.3	140.5	47.0
	14	184.3	27.9	180.4	29.9	175.0	32.5	166.6	36.0	156.6	40.4	146.0	45.2	143.6	47.1
	15	186.3	28.0	183.9	30.0	178.5	32.7	168.9	36.2	156.0	40.6	142.1	45.3	135.6	47.2
	16	188.3	28.1	186.5	30.2	182.2	33.0	174.7	36.5	164.3	40.9	153.1	45.4	149.7	47.4
	17	190.2	28.1	189.5	30.4	186.0	33.3	178.7	36.9	168.1	41.2	156.6	45.6	152.6	47.7
	18	192.2	28.2	193.0	30.7	189.8	33.7	180.9	37.4	167.3	41.6	152.3	45.8	144.0	48.0
WQH 170	5	172.1	30.0	164.2	32.9	155.2	36.4	144.9	40.8	133.4	46.0	121.2	52.1	116.7	54.3
	6	177.5	30.0	169.4	33.0	160.8	36.7	151.7	41.0	142.1	46.2	131.7	52.2	130.1	54.2
	7	182.9	30.1	175.4	33.2	**166.3**	**36.8**	155.2	41.2	145.8	44.0	128.9	52.3	123.6	54.2
	8	188.0	30.2	180.3	33.3	171.8	36.9	162.5	41.3	152.4	46.4	141.4	52.4	139.7	54.2
	9	192.8	30.4	185.5	33.4	177.2	37.0	167.9	41.3	157.5	46.4	146.2	52.4	144.5	54.3
	10	197.1	30.6	191.0	33.5	182.4	37.0	170.7	41.3	156.5	46.4	140.7	52.4	134.2	54.3
	11	201.0	30.7	194.9	33.6	187.4	37.0	178.1	41.2	167.3	46.4	155.4	52.4	153.6	54.2
	12	204.5	30.9	199.1	33.7	192.0	37.0	182.9	41.2	172.0	46.3	159.7	52.3	158.0	54.2
	13	207.7	31.1	203.1	33.8	196.6	37.1	187.6	41.3	176.6	46.3	164.0	52.3	162.2	54.1
	14	210.6	31.4	206.8	34.0	200.9	37.3	192.1	41.4	181.0	46.4	168.2	52.4	166.3	54.2
	15	213.3	31.6	211.0	34.2	205.1	37.5	194.5	41.6	180.2	46.6	163.7	52.6	157.6	54.3
	16	215.9	31.8	214.0	34.5	209.3	37.8	201.0	41.9	189.7	47.0	176.4	53.0	174.6	54.6
	17	218.5	32.0	217.5	34.8	213.4	38.1	205.4	42.3	194.1	47.4	180.6	53.4	178.8	54.9
	18	221.3	32.3	221.6	35.1	217.6	38.5	207.6	42.8	193.1	47.9	175.9	53.9	169.6	55.4
WQH 190	5	193.8	34.7	184.4	37.6	173.7	41.4	161.5	46.3	148.1	52.3	133.9	59.5	130.3	61.3
	6	200.4	34.7	190.4	37.8	179.9	41.7	168.9	46.6	157.6	52.6	145.8	59.7	145.4	61.3
	7	206.9	34.7	197.2	37.9	**186.1**	**41.9**	172.9	46.8	161.8	50.1	142.8	59.9	138.4	61.3
	8	213.0	34.8	203.0	38.0	192.2	42.0	181.0	46.9	169.2	52.9	156.9	60.0	156.6	61.3
	9	218.6	35.0	208.8	38.1	198.3	42.0	186.9	47.0	174.9	52.9	162.4	60.0	162.1	61.4
	10	223.6	35.2	215.1	38.2	204.2	42.1	190.2	46.9	173.8	52.9	156.4	60.0	150.5	61.4
	11	228.0	35.4	219.5	38.3	209.8	42.1	198.5	47.0	186.1	52.9	172.9	59.9	172.0	61.5
	12	231.8	35.6	224.3	38.5	215.2	42.2	204.1	47.0	191.3	52.9	177.8	59.7	176.3	61.6
	13	235.1	35.8	228.7	38.7	220.3	42.3	209.5	47.1	196.5	52.9	182.5	59.6	180.5	61.6
	14	238.0	36.1	232.9	38.9	225.4	42.6	214.8	47.2	201.5	53.0	187.0	59.5	184.4	61.7
	15	240.6	36.4	237.4	39.3	230.4	42.9	217.9	47.5	200.7	53.2	181.6	59.6	173.8	61.9
	16	243.0	36.7	240.9	39.6	235.4	43.3	225.4	47.9	211.3	53.6	195.3	59.7	191.4	62.1
	17	245.3	37.1	244.9	40.1	240.5	43.8	230.8	48.4	216.2	54.0	199.3	59.9	194.6	62.4
	18	247.8	37.5	249.5	40.6	245.6	44.4	233.7	49.0	215.0	54.5	193.2	60.2	183.0	62.7

Performance Data - WQH 50 to 190 (continued)

Heating capacities

WQH models	Evap. LWT (°C)	Condenser LWT (°C)													
		25		30		35		40		45		50		55	
		Heating cap. (kW)	Input power (kW)	Heating cap. (kW)	Input power (kW)	Heating cap. (kW)	Input power (kW)	Heating cap. (kW)	Input power (kW)	Heating cap. (kW)	Input power (kW)	Heating cap. (kW)	Input power (kW)	Heating cap. (kW)	Input power (kW)
WQH 50	5	60.6	8.83	59.8	9.72	58.8	10.8	57.6	12.1	56.1	13.8	54.3	16.0	53.4	17.2
	6	62.1	8.81	61.3	9.71	60.3	10.8	59.1	12.1	57.5	13.8	55.5	15.9	54.3	17.1
	7	63.5	8.81	62.8	9.70	61.0	11.0	60.5	12.1	**58.8**	**13.8**	56.7	15.9	55.3	17.0
	8	65.1	8.83	64.3	9.73	63.2	10.8	61.8	12.1	60.0	13.8	57.8	15.8	56.2	17.0
	9	66.6	8.87	65.7	9.76	64.5	10.8	63.1	12.1	61.2	13.8	58.8	15.8	57.2	17.0
	10	68.1	8.93	67.1	9.80	65.9	10.9	64.3	12.1	62.3	13.8	59.9	15.9	58.2	17.0
	11	69.6	8.98	68.5	9.85	67.3	10.9	65.7	12.2	63.6	13.8	61.0	15.9	59.3	17.0
	12	71.1	9.03	70.1	9.88	68.8	10.9	67.1	12.2	64.9	13.8	62.2	15.9	60.4	17.0
	13	72.7	9.07	71.6	9.92	70.3	10.9	68.6	12.2	66.3	13.8	63.3	15.9	61.4	17.1
	14	74.3	9.08	73.2	9.94	71.9	10.9	70.0	12.2	67.6	13.8	64.4	15.9	62.4	17.1
	15	75.9	9.06	74.8	9.94	73.5	11.0	71.5	12.3	68.8	13.9	65.4	16.0	63.3	17.1
	16	77.6	9.01	76.5	9.92	75.0	11.0	72.9	12.3	70.0	13.9	66.2	16.0	64.1	17.1
	17	79.4	8.89	78.1	9.86	76.5	11.0	74.2	12.4	71.0	14.0	66.8	16.0	64.7	17.1
	18	81.3	8.72	79.9	9.77	78.0	11.0	75.5	12.4	72.0	14.1	67.4	16.1	65.2	17.1
WQH 60	5	68.6	10.4	67.6	11.5	66.4	12.8	64.8	14.5	62.9	16.6	60.4	19.2	59.6	20.3
	6	70.3	10.4	69.4	11.5	68.2	12.8	66.6	14.5	64.4	16.5	61.7	19.2	60.5	20.2
	7	72.0	10.4	71.1	11.5	69.0	13.1	68.3	14.4	**65.9**	**16.5**	62.9	19.1	61.5	20.1
	8	73.6	10.5	72.8	11.5	71.5	12.8	69.8	14.4	67.3	16.5	64.0	19.1	62.6	20.1
	9	75.3	10.5	74.4	11.6	73.1	12.9	71.2	14.4	68.6	16.5	65.2	19.1	63.6	20.0
	10	77.0	10.6	76.0	11.6	74.6	12.9	72.6	14.5	69.9	16.5	66.4	19.0	64.8	20.0
	11	78.7	10.7	77.6	11.7	76.2	12.9	74.2	14.5	71.3	16.5	67.7	19.1	66.1	20.0
	12	80.4	10.7	79.4	11.7	77.9	12.9	75.8	14.5	72.9	16.4	69.0	19.0	67.4	20.0
	13	82.1	10.8	81.1	11.7	79.6	12.9	77.4	14.5	74.4	16.4	70.5	19.0	68.8	20.0
	14	83.9	10.8	82.9	11.8	81.4	12.9	79.1	14.5	76.0	16.4	71.9	19.0	70.2	20.0
	15	86.1	10.8	84.7	11.7	83.1	12.9	80.7	14.5	77.5	16.4	73.3	19.0	71.5	20.0
	16	87.7	10.7	86.5	11.7	84.7	12.9	82.3	14.5	78.9	16.4	74.6	18.9	72.8	19.9
	17	89.6	10.6	88.3	11.6	86.4	12.9	83.8	14.5	80.3	16.5	75.9	18.9	74.0	19.9
	18	91.7	10.4	90.1	11.5	88.0	12.9	85.2	14.5	81.6	16.5	77.2	18.8	75.2	19.8
WQH 75	5	91.4	13.4	90.2	14.6	88.6	16.0	86.4	17.9	83.6	20.4	80.1	23.6	78.5	25.2
	6	93.7	13.4	92.6	14.6	91.0	16.0	88.7	17.9	85.7	20.4	81.8	23.6	79.9	25.2
	7	96.0	13.5	94.9	14.6	92.1	16.4	91.0	17.9	**87.7**	**20.4**	83.5	23.6	81.3	25.1
	8	98.3	13.5	97.2	14.6	95.5	16.1	93.0	17.9	89.6	20.4	85.1	23.6	82.7	25.1
	9	100.6	13.6	99.4	14.7	97.6	16.1	94.9	18.0	91.4	20.4	86.7	23.6	84.2	25.2
	10	103.0	13.7	101.6	14.8	99.6	16.2	96.9	18.0	93.2	20.5	88.4	23.7	85.9	25.2
	11	105.4	13.9	103.9	14.9	101.8	16.2	99.0	18.0	95.1	20.5	90.2	23.7	87.7	25.2
	12	107.8	14.0	106.3	15.0	104.1	16.3	101.2	18.1	97.2	20.5	92.2	23.7	89.6	25.3
	13	110.3	14.1	108.7	15.0	106.5	16.3	103.4	18.1	99.4	20.5	94.2	23.7	91.5	25.3
	14	112.8	14.1	111.1	15.1	108.9	16.3	105.7	18.1	101.5	20.5	96.2	23.8	93.5	25.3
	15	115.4	14.1	113.6	15.1	111.2	16.4	107.9	18.1	103.6	20.5	98.1	23.7	95.4	25.3
	16	118.1	14.1	116.1	15.0	113.5	16.4	110.1	18.1	105.6	20.5	100.0	23.7	97.3	25.2
	17	120.9	13.9	118.7	15.0	115.8	16.3	112.1	18.2	107.4	20.6	101.7	23.7	99.0	25.0
	18	123.9	13.7	121.3	14.8	118.1	16.3	114.1	18.2	109.3	20.6	103.5	23.6	100.8	24.8
WQH 90	5	107.5	16.2	106.1	17.8	104.3	19.6	101.9	21.8	98.7	24.4	94.8	27.6	93.0	29.4
	6	110.1	16.2	108.8	17.8	107.1	19.6	104.6	21.8	101.2	24.4	96.8	27.6	94.5	29.3
	7	112.6	16.2	111.6	17.8	108.4	20.1	107.3	21.8	**103.6**	**24.4**	98.8	27.6	96.1	29.3
	8	115.3	16.2	114.1	17.8	112.3	19.7	109.6	21.8	105.8	24.4	100.6	27.6	97.7	29.3
	9	117.9	16.2	116.6	17.9	114.7	19.7	111.9	21.9	107.8	24.5	102.5	27.6	99.4	29.4
	10	120.5	16.2	119.2	17.9	117.1	19.8	114.1	22.0	109.9	24.6	104.4	27.7	101.3	29.4
	11	123.1	16.3	121.8	18.0	119.6	19.8	116.5	22.0	112.2	24.6	106.5	27.8	103.3	29.5
	12	125.8	16.3	124.4	18.0	122.3	19.9	119.1	22.0	114.6	24.7	108.7	27.9	105.5	29.6
	13	128.6	16.3	127.2	18.0	125.0	19.9	121.7	22.1	117.0	24.7	111.0	28.0	107.7	29.8
	14	131.4	16.2	129.9	17.9	127.7	19.9	124.3	22.1	119.5	24.8	113.3	28.1	109.9	29.9
	15	134.6	16.1	132.7	17.9	130.3	19.8	126.8	22.1	121.9	24.8	115.5	28.2	112.1	30.0
	16	137.3	15.8	135.5	17.7	132.9	19.8	129.2	22.1	124.1	24.9	117.6	28.3	114.2	30.0
	17	140.4	15.5	138.3	17.5	135.5	19.7	131.5	22.2	126.2	25.0	119.6	28.4	116.3	30.0
	18	143.6	15.1	141.2	17.3	138.0	19.6	133.7	22.2	128.3	25.1	121.6	28.5	118.3	30.0

Performance Data - WQH 50 to 190 (continued)

Heating capacities

WQH models	Evap. LWT (°C)	Condenser LWT (°C)													
		25		30		35		40		45		50		55	
		Heating cap. (kW)	Input power (kW)	Heating cap. (kW)	Input power (kW)	Heating cap. (kW)	Input power (kW)	Heating cap. (kW)	Input power (kW)	Heating cap. (kW)	Input power (kW)	Heating cap. (kW)	Input power (kW)	Heating cap. (kW)	Input power (kW)
WQH 120	5	140.8	21.3	137.9	23.0	134.8	25.1	131.3	27.8	127.4	31.4	123.0	36.3	121.2	38.5
	6	144.5	21.3	141.8	23.0	138.7	25.1	135.0	27.8	130.7	31.5	125.7	36.3	123.3	38.4
	7	148.1	21.3	145.5	23.0	140.5	25.8	138.6	27.9	**134.0**	**31.4**	128.4	36.2	125.5	38.3
	8	151.8	21.4	149.1	23.1	145.9	25.2	141.9	27.9	136.9	31.5	130.9	36.3	127.8	38.3
	9	155.7	21.5	152.7	23.2	149.3	25.3	145.0	28.0	139.8	31.6	133.4	36.4	130.2	38.4
	10	159.3	21.6	156.2	23.3	152.6	25.4	148.2	28.1	142.7	31.7	136.1	36.5	132.8	38.5
	11	163.1	21.8	159.9	23.4	156.2	25.5	151.5	28.1	145.8	31.7	138.9	36.6	135.5	38.6
	12	166.9	21.9	163.7	23.5	159.8	25.5	155.0	28.2	149.1	31.8	142.0	36.7	138.5	38.7
	13	170.8	22.0	167.6	23.6	163.6	25.6	158.7	28.2	152.5	31.8	145.1	36.8	141.5	38.8
	14	174.9	22.0	171.5	23.6	167.4	25.6	162.3	28.3	155.9	31.9	148.2	36.9	144.6	38.9
	15	179.0	22.0	175.5	23.6	171.2	25.7	165.9	28.3	159.2	32.0	151.3	37.0	147.6	39.0
	16	183.3	21.8	179.4	23.5	174.9	25.7	169.2	28.4	162.3	32.1	154.1	37.1	150.4	39.0
	17	187.8	21.5	183.5	23.4	178.5	25.6	172.5	28.5	165.3	32.2	156.9	37.1	153.1	39.0
	18	192.4	21.0	187.6	23.1	182.1	25.6	175.7	28.6	168.1	32.4	159.7	37.2	155.7	39.0
WQH 150	5	177.3	26.4	173.3	28.3	169.0	30.9	164.3	34.2	159.0	38.7	153.3	44.5	151.0	47.3
	6	181.9	26.4	178.0	28.3	173.6	30.8	168.7	34.2	163.0	38.6	156.5	44.5	153.5	47.1
	7	186.6	26.4	182.6	28.3	175.7	31.6	172.9	34.2	**166.8**	**38.6**	159.7	44.4	156.1	47.0
	8	191.3	26.5	187.0	28.4	182.3	30.9	176.8	34.2	170.3	38.6	162.8	44.4	158.8	47.0
	9	195.8	26.7	191.3	28.5	186.3	31.0	180.5	34.3	173.7	38.7	165.8	44.5	161.7	47.0
	10	200.4	26.9	195.6	28.7	190.3	31.1	184.3	34.3	177.2	38.7	169.0	44.5	164.8	47.0
	11	205.0	27.1	200.0	28.8	194.6	31.2	188.3	34.4	181.0	38.8	172.4	44.6	168.1	47.1
	12	209.5	27.2	204.5	28.9	199.0	31.2	192.7	34.4	185.0	38.8	176.0	44.6	171.5	47.2
	13	214.1	27.2	209.2	28.9	203.7	31.3	197.1	34.5	189.2	38.9	179.7	44.7	175.1	47.3
	14	218.8	27.2	213.9	28.9	208.4	31.3	201.7	34.5	193.4	38.9	183.4	44.7	178.7	47.3
	15	223.7	27.0	218.6	28.9	213.1	31.3	206.2	34.6	197.6	39.0	186.9	44.8	182.1	47.3
	16	228.3	26.7	223.4	28.7	217.7	31.4	210.6	34.7	201.5	39.2	190.1	44.8	185.4	47.2
	17	233.3	26.2	228.2	28.5	222.2	31.4	214.8	34.9	205.2	39.3	193.2	44.8	188.6	47.0
	18	238.4	25.6	233.2	28.1	226.9	31.3	219.0	35.0	208.9	39.5	196.2	44.8	191.6	46.8
WQH 170	5	201.8	30.2	198.2	32.7	194.1	35.9	189.4	39.8	183.6	44.9	176.9	51.5	174.0	54.8
	6	207.0	30.1	203.6	32.7	199.6	35.8	194.6	39.8	188.3	44.9	180.6	51.5	176.9	54.7
	7	212.1	30.2	208.9	32.7	202.1	36.7	199.6	39.8	**192.8**	**44.9**	184.3	51.4	179.8	54.6
	8	217.4	30.2	214.0	32.8	209.7	35.9	204.2	39.9	196.9	44.9	187.8	51.4	182.9	54.6
	9	222.8	30.4	219.0	32.9	214.4	36.0	208.5	39.9	200.9	45.0	191.4	51.5	186.3	54.6
	10	227.9	30.6	224.0	33.0	219.1	36.1	212.9	40.1	204.9	45.1	195.0	51.6	189.8	54.7
	11	233.3	30.8	229.2	33.2	224.1	36.2	217.6	40.1	209.3	45.2	199.0	51.7	193.7	54.9
	12	238.7	30.9	234.5	33.3	229.3	36.3	222.5	40.2	213.9	45.2	203.3	51.9	197.9	55.0
	13	244.3	31.0	240.0	33.4	234.6	36.4	227.6	40.2	218.7	45.3	207.8	52.0	202.2	55.2
	14	250.0	31.1	245.5	33.5	240.0	36.4	232.8	40.3	223.5	45.4	212.2	52.1	206.5	55.3
	15	255.9	31.0	251.2	33.4	245.3	36.5	237.8	40.4	228.3	45.5	216.6	52.3	210.9	55.4
	16	262.0	30.8	256.8	33.3	250.5	36.5	242.6	40.5	232.7	45.7	220.8	52.4	215.1	55.4
	17	268.4	30.3	262.5	33.1	255.5	36.5	247.2	40.6	237.0	45.9	224.9	52.5	219.2	55.3
	18	275.1	29.7	268.4	32.8	260.7	36.4	251.8	40.8	241.1	46.2	228.8	52.7	223.3	55.2
WQH 190	5	227.3	34.5	222.7	37.0	217.6	40.2	211.8	44.6	205.2	50.3	197.8	57.9	194.3	62.0
	6	233.4	34.4	228.8	36.9	223.6	40.2	217.6	44.5	210.3	50.3	202.1	57.8	197.7	61.8
	7	239.5	34.4	234.8	36.9	226.4	41.2	223.1	44.5	**215.4**	**50.3**	206.3	57.8	201.2	61.7
	8	245.6	34.4	240.6	36.9	234.9	40.3	228.2	44.6	220.0	50.4	210.4	57.9	204.8	61.7
	9	251.6	34.6	246.2	37.1	240.1	40.4	233.0	44.7	224.4	50.5	214.4	58.0	208.6	61.8
	10	257.6	34.8	251.8	37.2	245.3	40.5	237.9	44.8	229.0	50.6	218.6	58.2	212.6	62.0
	11	263.5	35.0	257.5	37.4	250.9	40.6	243.1	44.9	233.9	50.7	223.0	58.3	216.9	62.1
	12	269.4	35.1	263.4	37.6	256.7	40.8	248.8	45.0	239.1	50.8	227.6	58.4	221.3	62.3
	13	275.3	35.3	269.4	37.7	262.7	40.9	254.6	45.1	244.5	50.9	232.3	58.5	225.7	62.4
	14	281.3	35.3	275.5	37.8	268.9	41.0	260.5	45.3	250.0	51.0	236.8	58.6	230.0	62.5
	15	287.9	35.3	281.7	37.8	275.0	41.1	266.4	45.4	255.3	51.1	241.1	58.7	234.1	62.4
	16	293.6	35.0	287.9	37.7	281.0	41.2	272.0	45.6	260.2	51.3	244.9	58.7	237.8	62.3
	17	300.0	34.6	294.3	37.5	287.1	41.2	277.5	45.7	264.8	51.5	248.3	58.6	241.1	62.0
	18	306.4	33.9	300.7	37.2	293.2	41.2	283.0	45.9	269.3	51.7	251.4	58.5	244.2	61.7

Performance Data - WQRC 50 to 190

Cooling capacities

WQRC models	Evap. LWT (°C)	Condensing temperature (°C)													
		30		35		40		45		50		55		60	
		Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)
WQRC 50	5	53.2	8.78	50.7	9.84	47.9	11.10	44.7	12.61	41.1	14.39	37.6	16.37	36.5	16.88
	6	54.9	8.78	52.3	9.86	49.5	11.16	46.7	12.67	43.8	14.43	41.0	16.35	40.8	16.87
	7	56.5	8.79	54.1	9.90	**51.2**	**11.20**	47.8	12.71	45.0	13.73	40.2	16.33	38.8	16.85
	8	58.0	8.82	55.5	9.92	52.8	11.22	50.0	12.72	47.0	14.46	44.2	16.29	43.8	16.86
	9	59.5	8.85	57.1	9.94	54.4	11.21	51.6	12.72	48.6	14.44	45.7	16.25	45.2	16.87
	10	60.7	8.89	58.7	9.96	56.0	11.22	52.4	12.69	48.2	14.42	44.0	16.20	41.9	16.87
	11	61.9	8.94	59.9	9.98	57.5	11.21	54.7	12.67	51.5	14.39	48.5	16.14	47.8	16.86
	12	62.9	8.99	61.1	10.02	58.9	11.22	56.1	12.67	52.9	14.37	49.8	16.09	48.9	16.86
	13	63.8	9.05	62.3	10.05	60.2	11.25	57.5	12.67	54.2	14.37	50.9	16.06	49.8	16.87
	14	64.6	9.10	63.4	10.11	61.7	11.30	58.8	12.72	55.4	14.39	51.9	16.05	50.6	16.90
	15	65.4	9.17	64.7	10.18	62.9	11.37	59.5	12.79	54.9	14.46	50.1	16.08	47.4	16.96
	16	66.1	9.23	65.6	10.27	64.2	11.47	61.5	12.90	57.6	14.57	53.6	16.17	51.7	17.07
	17	66.8	9.31	66.7	10.36	65.5	11.60	62.8	13.03	58.6	14.70	54.3	16.28	52.1	17.22
	18	67.6	9.38	67.9	10.48	66.8	11.72	63.4	13.19	58.0	14.87	52.3	16.41	48.5	17.37
WQRC 60	5	64.1	10.03	61.2	11.29	57.7	12.81	53.5	14.63	48.9	16.81	44.3	19.04	42.5	19.96
	6	66.1	10.04	63.0	11.32	59.7	12.86	56.1	14.69	52.1	16.85	48.3	19.02	47.3	19.93
	7	68.0	10.05	65.2	11.35	**61.7**	**12.89**	57.4	14.72	53.4	16.01	47.3	18.99	45.0	19.91
	8	69.8	10.07	67.0	11.37	63.7	12.89	60.1	14.72	55.9	16.84	52.0	18.93	50.7	19.91
	9	71.4	10.12	68.8	11.38	65.7	12.89	62.0	14.69	57.8	16.80	53.9	18.86	52.4	19.89
	10	72.9	10.17	70.8	11.40	67.6	12.87	63.1	14.64	57.4	16.75	52.0	18.77	48.6	19.87
	11	74.2	10.23	72.1	11.41	69.4	12.86	65.8	14.59	61.5	16.67	57.4	18.67	55.6	19.83
	12	75.3	10.29	73.6	11.44	71.1	12.84	67.6	14.57	63.2	16.62	59.1	18.56	57.1	19.79
	13	76.3	10.34	75.0	11.48	72.7	12.85	69.3	14.54	64.8	16.57	60.8	18.47	58.5	19.74
	14	77.2	10.42	76.4	11.53	74.2	12.87	70.9	14.55	66.5	16.55	62.4	18.40	59.9	19.71
	15	78.0	10.49	77.6	11.59	75.7	12.92	71.8	14.57	66.2	16.58	60.8	18.36	56.7	19.72
	16	78.8	10.57	78.6	11.67	77.2	13.01	74.1	14.66	69.7	16.63	65.7	18.37	62.6	19.78
	17	79.6	10.65	79.8	11.76	78.6	13.11	75.7	14.76	71.3	16.71	67.3	18.40	64.0	19.86
	18	80.4	10.73	81.1	11.87	80.1	13.22	76.5	14.87	70.9	16.82	65.6	18.45	60.7	19.94
WQRC 75	5	80.2	13.25	76.9	14.62	72.8	16.32	67.7	18.45	61.8	21.04	55.3	24.06	53.9	24.71
	6	82.7	13.31	79.3	14.69	75.3	16.42	70.8	18.55	65.8	21.13	60.3	24.09	60.0	24.75
	7	85.2	13.36	82.0	14.76	**77.8**	**16.50**	72.4	18.63	67.5	20.12	59.1	24.11	57.0	24.80
	8	87.5	13.45	84.3	14.82	80.4	16.53	75.8	18.67	70.6	21.23	65.0	24.10	64.4	24.85
	9	89.7	13.55	86.7	14.86	82.9	16.55	78.3	18.65	73.0	21.22	67.4	24.06	66.6	24.90
	10	91.7	13.66	89.2	14.93	85.3	16.56	79.6	18.63	72.5	21.18	65.0	24.00	61.8	24.93
	11	93.5	13.78	91.0	14.98	87.6	16.57	83.1	18.59	77.6	21.13	72.0	23.91	70.8	24.93
	12	95.1	13.91	92.9	15.05	89.7	16.58	85.3	18.59	79.8	21.10	74.2	23.82	72.7	24.92
	13	96.5	14.05	94.7	15.13	91.8	16.61	87.5	18.58	81.9	21.06	76.3	23.73	74.6	24.91
	14	97.8	14.18	96.4	15.23	93.8	16.67	89.6	18.61	84.1	21.06	78.4	23.65	76.4	24.93
	15	99.0	14.33	98.3	15.35	95.7	16.77	90.7	18.66	83.7	21.08	76.5	23.62	72.4	24.93
	16	100.1	14.47	99.7	15.49	97.7	16.89	93.8	18.77	88.2	21.17	82.7	23.63	80.2	24.99
	17	101.3	14.62	101.3	15.65	99.6	17.04	95.9	18.90	90.3	21.27	84.8	23.65	82.0	25.07
	18	102.6	14.77	103.2	15.81	101.6	17.20	96.9	19.06	89.9	21.39	82.7	23.68	77.8	25.14
WQRC 90	5	94.5	15.72	90.4	17.65	85.5	19.81	79.8	22.24	73.3	24.98	66.4	28.0	64.7	28.7
	6	97.4	15.67	93.1	17.70	88.4	19.92	83.4	22.39	78.0	25.11	72.2	28.1	72.1	28.7
	7	100.3	15.61	96.3	17.72	**91.4**	**20.01**	85.3	22.51	80.1	23.94	70.6	28.1	68.5	28.7
	8	103.0	15.58	99.0	17.72	94.4	20.05	89.3	22.56	83.6	25.28	77.5	28.2	77.5	28.8
	9	105.6	15.55	101.8	17.71	97.3	20.03	92.2	22.55	86.4	25.29	80.2	28.2	79.9	28.8
	10	107.9	15.52	104.7	17.69	100.1	20.02	93.7	22.53	85.8	25.26	77.2	28.1	74.1	28.9
	11	109.9	15.50	106.8	17.66	102.7	19.97	97.7	22.49	91.7	25.24	85.3	28.1	84.7	28.9
	12	111.8	15.46	109.0	17.62	105.3	19.93	100.3	22.46	94.3	25.22	87.8	28.1	86.9	29.0
	13	113.4	15.43	111.1	17.61	107.7	19.91	102.8	22.44	96.7	25.21	90.2	28.0	88.9	29.0
	14	114.9	15.38	113.3	17.58	110.0	19.90	105.2	22.46	99.0	25.26	92.5	28.1	91.0	29.1
	15	116.3	15.33	115.3	17.57	112.2	19.93	106.5	22.52	98.5	25.36	90.0	28.2	86.0	29.3
	16	117.7	15.28	116.9	17.57	114.5	19.99	109.9	22.63	103.7	25.52	97.1	28.3	94.9	29.6
	17	119.0	15.21	118.7	17.57	116.7	20.06	112.3	22.77	106.0	25.73	99.4	28.5	96.8	29.9
	18	120.4	15.14	120.9	17.58	118.9	20.15	113.4	22.94	105.3	25.96	96.7	28.8	91.6	30.2

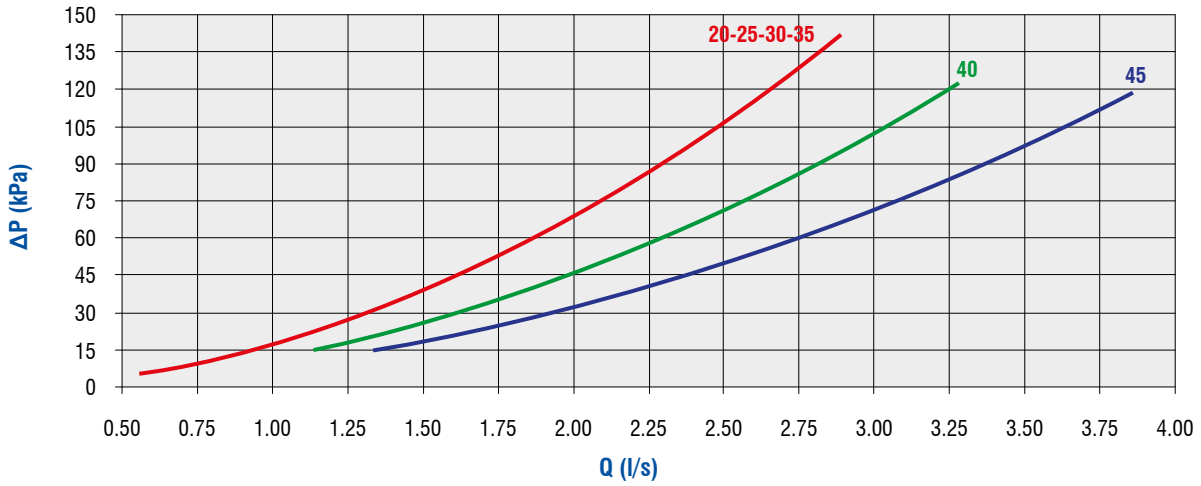
Performance Data - WQRC 50 to 190 (continued)

Cooling capacities

WQRC models	Evap. LWT (°C)	Condensing temperature (°C)													
		30		35		40		45		50		55		60	
		Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)	Cooling cap. (kW)	Input power (kW)
WQRC 120	5	123.7	20.89	117.4	22.94	110.6	25.39	102.9	28.42	94.6	32.2	85.7	36.8	83.6	37.7
	6	127.7	20.91	121.2	23.05	114.7	25.55	107.9	28.60	100.8	32.3	93.3	36.9	93.4	37.7
	7	131.7	20.96	125.7	23.13	**118.7**	**25.67**	110.5	28.75	103.6	30.8	91.5	37.0	88.9	37.7
	8	135.5	21.02	129.3	23.20	122.8	25.74	115.9	28.80	108.5	32.5	100.6	37.0	100.4	37.8
	9	139.0	21.12	133.2	23.26	126.8	25.76	119.8	28.82	112.2	32.5	104.3	36.9	103.8	37.9
	10	142.3	21.22	137.2	23.31	130.7	25.77	122.0	28.80	111.6	32.5	100.6	36.9	96.4	38.0
	11	145.2	21.34	140.2	23.37	134.3	25.79	127.4	28.77	119.5	32.5	111.3	36.8	110.3	38.0
	12	147.8	21.45	143.3	23.43	137.8	25.79	131.0	28.75	123.0	32.4	114.7	36.7	113.3	38.1
	13	150.2	21.59	146.3	23.50	141.2	25.84	134.5	28.76	126.3	32.5	117.9	36.6	116.1	38.2
	14	153.1	21.73	149.1	23.61	144.4	25.90	137.8	28.83	129.6	32.5	121.2	36.6	118.9	38.3
	15	154.4	21.83	152.2	23.73	147.6	26.04	139.7	28.94	129.1	32.6	118.1	36.7	112.5	38.4
	16	156.3	21.97	154.5	23.88	150.7	26.20	144.4	29.14	136.0	32.8	127.5	36.8	124.4	38.7
	17	158.3	22.09	157.2	24.06	153.8	26.41	147.7	29.37	139.2	33.1	130.6	37.0	127.1	39.0
	18	160.4	22.23	160.2	24.25	156.9	26.65	149.4	29.66	138.5	33.4	127.3	37.3	120.3	39.4
WQRC 150	5	154.6	26.31	146.7	28.57	137.9	31.50	128.1	35.2	117.5	39.8	106.6	45.3	103.9	46.6
	6	159.7	26.40	151.4	28.71	142.8	31.68	134.0	35.4	125.1	40.0	115.9	45.4	115.9	46.5
	7	164.7	26.50	156.7	28.85	**147.6**	**31.84**	137.1	35.6	128.4	38.1	113.5	45.5	110.2	46.5
	8	169.3	26.65	161.1	28.96	152.5	31.91	143.5	35.6	134.2	40.2	124.6	45.5	124.5	46.5
	9	173.6	26.80	165.7	29.04	157.2	31.95	148.2	35.6	138.7	40.2	129.0	45.5	128.5	46.6
	10	177.4	26.96	170.5	29.13	161.9	31.96	150.7	35.6	137.8	40.1	124.3	45.4	119.2	46.6
	11	180.8	27.12	174.0	29.19	166.2	31.97	157.3	35.6	147.5	40.0	137.4	45.2	136.2	46.7
	12	183.7	27.26	177.7	29.28	170.5	32.0	161.7	35.6	151.7	40.0	141.4	45.1	139.8	46.7
	13	186.3	27.36	181.1	29.38	174.5	32.1	166.0	35.6	155.8	40.0	145.2	44.9	143.1	46.7
	14	188.5	27.46	184.4	29.48	178.5	32.2	170.2	35.7	159.8	40.1	149.0	44.9	146.4	46.7
	15	190.6	27.53	188.0	29.61	182.4	32.4	172.5	35.9	159.2	40.3	145.0	44.9	138.3	46.8
	16	192.5	27.56	190.6	29.77	186.2	32.6	178.5	36.2	167.8	40.5	156.3	45.0	152.6	47.0
	17	194.3	27.58	193.7	29.94	190.2	32.9	182.7	36.6	171.8	40.9	160.0	45.2	155.6	47.3
	18	196.3	27.55	197.2	30.14	194.1	33.3	185.1	37.0	171.0	41.3	155.6	45.5	147.0	47.6
WQRC 170	5	175.4	29.95	167.3	32.91	158.0	36.52	147.5	40.9	135.7	46.2	123.2	52.4	118.7	54.6
	6	181.0	29.98	172.6	33.03	163.7	36.73	154.3	41.2	144.5	46.4	134.0	52.5	132.3	54.5
	7	186.6	30.05	178.7	33.16	**169.4**	**36.90**	158.0	41.4	148.3	44.2	131.1	52.6	125.8	54.5
	8	191.9	30.14	183.9	33.24	175.1	36.98	165.5	41.4	155.1	46.7	143.9	52.7	142.2	54.5
	9	196.8	30.28	189.2	33.32	180.6	37.01	171.0	41.4	160.4	46.6	148.8	52.7	147.1	54.5
	10	201.2	30.45	194.8	33.41	186.0	37.00	173.9	41.4	159.3	46.6	143.3	52.7	136.7	54.5
	11	205.3	30.61	198.9	33.49	191.1	37.02	181.6	41.3	170.5	46.6	158.2	52.7	156.5	54.5
	12	209.0	30.79	203.3	33.59	196.0	37.0	186.5	41.3	175.3	46.5	162.8	52.6	161.0	54.4
	13	212.3	30.97	207.4	33.71	200.6	37.1	191.3	41.4	180.0	46.5	167.2	52.6	165.4	54.4
	14	215.3	31.16	211.3	33.87	205.1	37.2	196.0	41.5	184.6	46.6	171.5	52.7	169.7	54.4
	15	218.1	31.35	215.6	34.08	209.4	37.4	198.5	41.7	183.8	46.8	166.9	52.9	160.9	54.5
	16	220.9	31.56	218.8	34.31	213.8	37.7	205.1	42.0	193.6	47.1	180.1	53.2	178.3	54.8
	17	223.6	31.77	222.4	34.60	218.1	38.1	209.6	42.4	198.1	47.6	184.4	53.7	182.6	55.1
	18	226.6	31.96	226.6	34.91	222.3	38.5	212.0	42.8	197.1	48.1	179.7	54.1	173.3	55.6
WQRC 190	5	202.0	34.20	191.7	37.17	180.1	41.02	167.3	45.9	153.2	51.9	138.6	59.2	135.0	60.9
	6	209.1	34.19	198.0	37.27	186.7	41.23	175.0	46.2	163.2	52.2	151.0	59.4	150.7	60.9
	7	215.9	34.23	205.3	37.40	**193.2**	**41.40**	179.2	46.4	167.7	49.7	148.0	59.5	143.5	60.9
	8	222.4	34.30	211.3	37.48	199.7	41.50	187.8	46.5	175.4	52.5	162.5	59.6	162.4	60.9
	9	228.2	34.43	217.5	37.57	206.2	41.54	194.1	46.5	181.4	52.5	168.2	59.6	168.1	60.9
	10	233.4	34.60	224.1	37.65	212.3	41.57	197.5	46.5	180.3	52.5	162.2	59.5	155.9	61.0
	11	238.0	34.78	228.7	37.77	218.3	41.59	206.4	46.5	193.1	52.4	179.3	59.4	178.2	61.1
	12	241.9	34.99	233.7	37.91	224.0	41.7	212.3	46.5	198.8	52.4	184.4	59.2	182.7	61.1
	13	245.1	35.21	238.4	38.08	229.5	41.8	218.1	46.5	204.2	52.4	189.3	59.0	187.0	61.1
	14	248.0	35.45	242.7	38.32	234.9	42.0	223.8	46.7	209.6	52.5	194.0	58.9	191.0	61.2
	15	250.3	35.71	247.4	38.63	240.2	42.3	227.1	47.0	208.8	52.7	188.5	58.9	180.0	61.3
	16	252.4	36.01	250.8	39.01	245.6	42.7	235.2	47.4	220.1	53.0	202.8	59.0	198.1	61.5
	17	254.3	36.34	254.9	39.42	251.0	43.2	241.1	47.9	225.4	53.5	207.0	59.2	201.4	61.7
	18	256.2	36.69	259.5	39.91	256.4	43.8	244.4	48.5	224.3	54.0	200.8	59.5	189.4	62.0

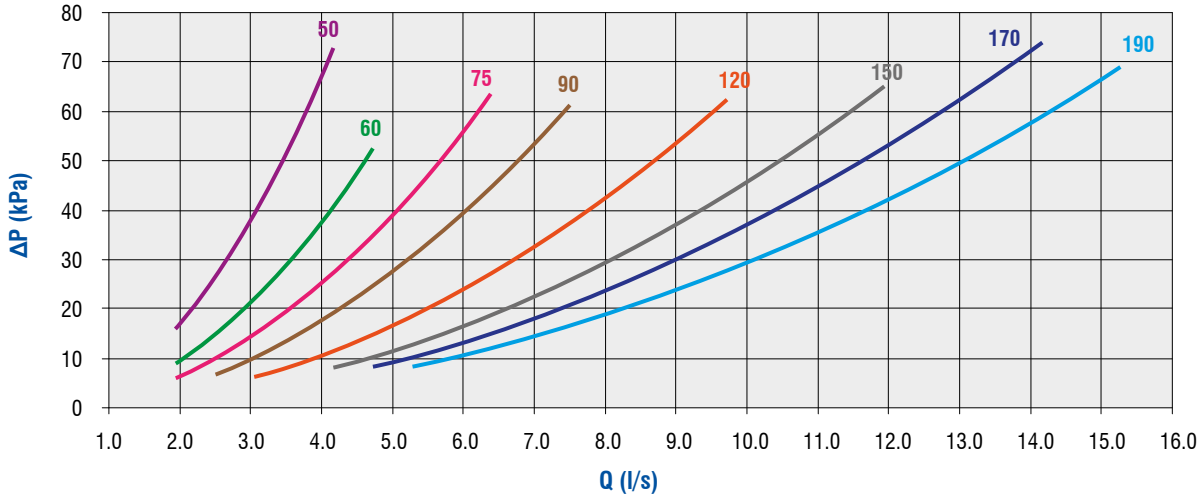
Evaporator Water Pressure Drop Curves

Sizes 20 to 45



Unit size	Qnom (l/s)	Qmax (l/s)	Qmin (l/s)	ΔPnom (kPa)	ΔPmax (kPa)	ΔPmin (kPa)
20	1.00	1.66	0.62	17.0	47.2	6.6
25	1.25	2.08	0.78	25.6	71.2	10.0
30	1.45	2.41	0.90	33.4	92.8	13.0
35	1.63	2.72	1.02	41.7	115.8	16.3
40	1.83	3.06	1.15	38.3	106.4	15.0
45	2.19	3.65	1.37	38.2	106.0	14.9

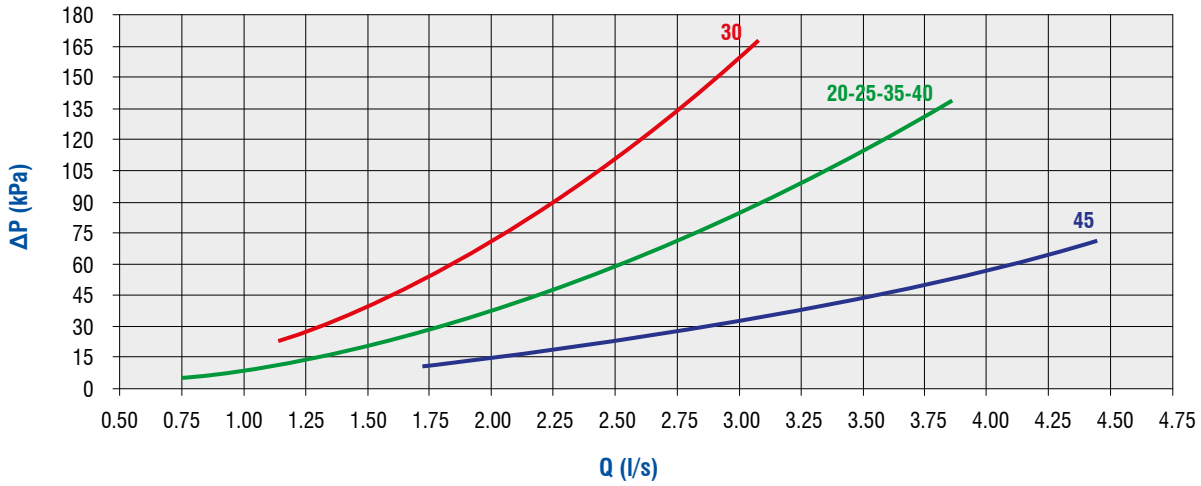
Sizes 50 to 190



Unit size	Qnom (l/s)	Qmax (l/s)	Qmin (l/s)	ΔPnom (kPa)	ΔPmax (kPa)	ΔPmin (kPa)
50	2.40	4.00	1.50	24.1	67.0	9.4
60	2.83	4.71	1.77	18.8	52.2	7.3
75	3.65	6.08	2.28	20.7	57.6	8.1
90	4.25	7.09	2.66	19.7	54.8	7.7
120	5.51	9.18	3.44	20.0	55.7	7.8
150	6.92	11.53	4.32	21.8	60.6	8.5
170	7.95	13.24	4.97	23.2	64.5	9.1
190	8.89	14.82	5.56	23.3	64.6	9.1

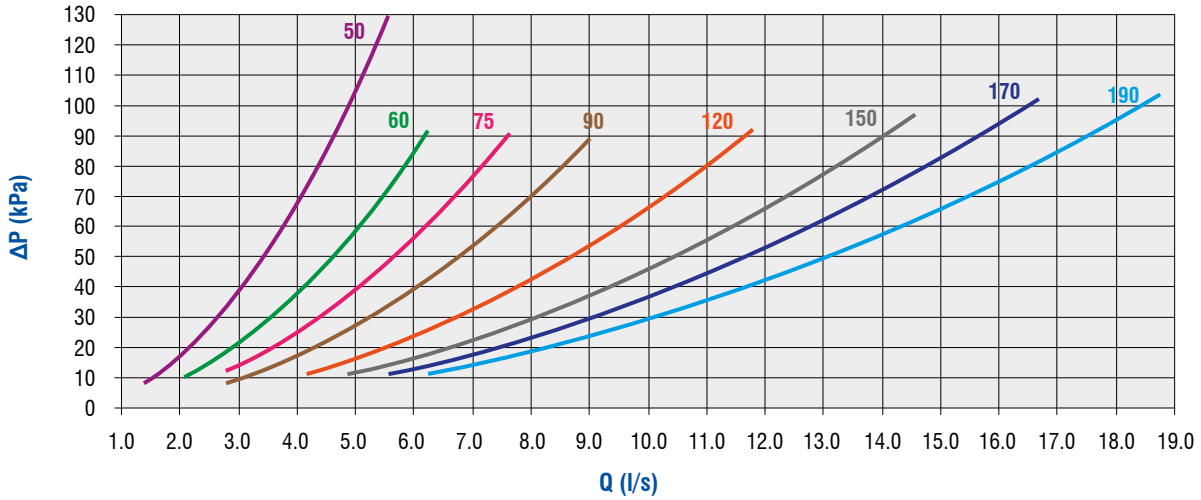
Condenser Water Pressure Drop Curves

Sizes 20 to 45



Unit size	Qnom (l/s)	Qmax (l/s)	Qmin (l/s)	ΔPnom (kPa)	ΔPmax (kPa)	ΔPmin (kPa)
20	1.21	2.02	0.76	13.7	38.1	5.4
25	1.51	2.52	0.94	20.4	56.7	8.0
30	1.76	2.93	1.10	54.8	152.1	21.4
35	1.98	3.31	1.24	33.8	93.9	13.2
40	2.23	3.72	1.39	42.1	117.0	16.5
45	2.66	4.43	1.66	25.4	70.6	9.9

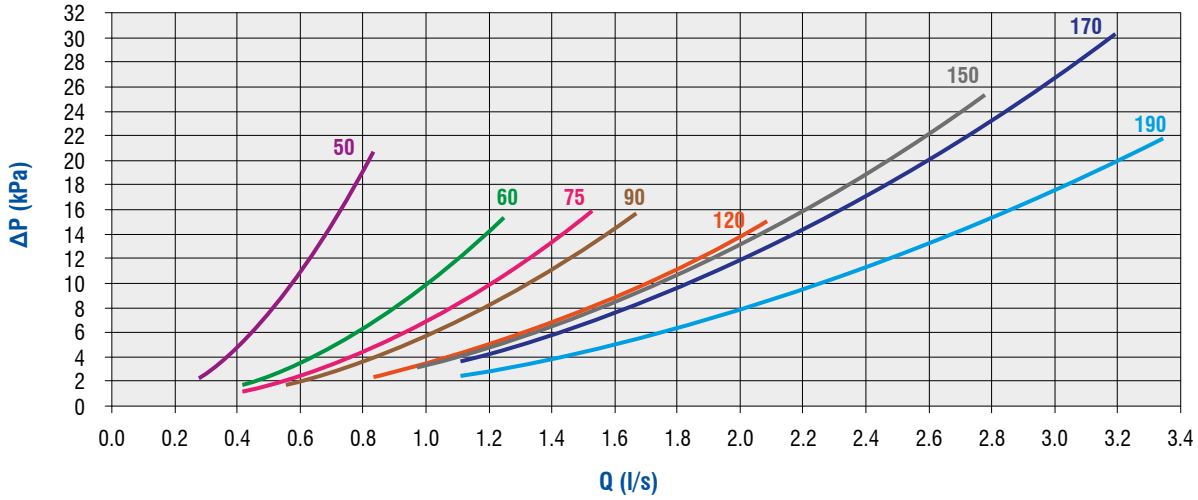
Sizes 50 to 190



Unit size	Qnom (l/s)	Qmax (l/s)	Qmin (l/s)	ΔPnom (kPa)	ΔPmax (kPa)	ΔPmin (kPa)
50	2.94	4.91	1.84	36.3	101.0	14.2
60	3.46	5.77	2.16	28.2	78.2	11.0
75	4.45	7.41	2.78	30.8	85.6	12.0
90	5.22	8.70	3.26	29.7	82.6	11.6
120	6.75	11.25	4.22	30.1	83.6	11.8
150	8.45	14.09	5.28	32.6	90.5	12.7
170	9.70	16.17	6.06	34.6	96.2	13.5
190	10.89	18.16	6.81	34.9	96.9	13.6

Desuperheater Water Pressure Drop Curves

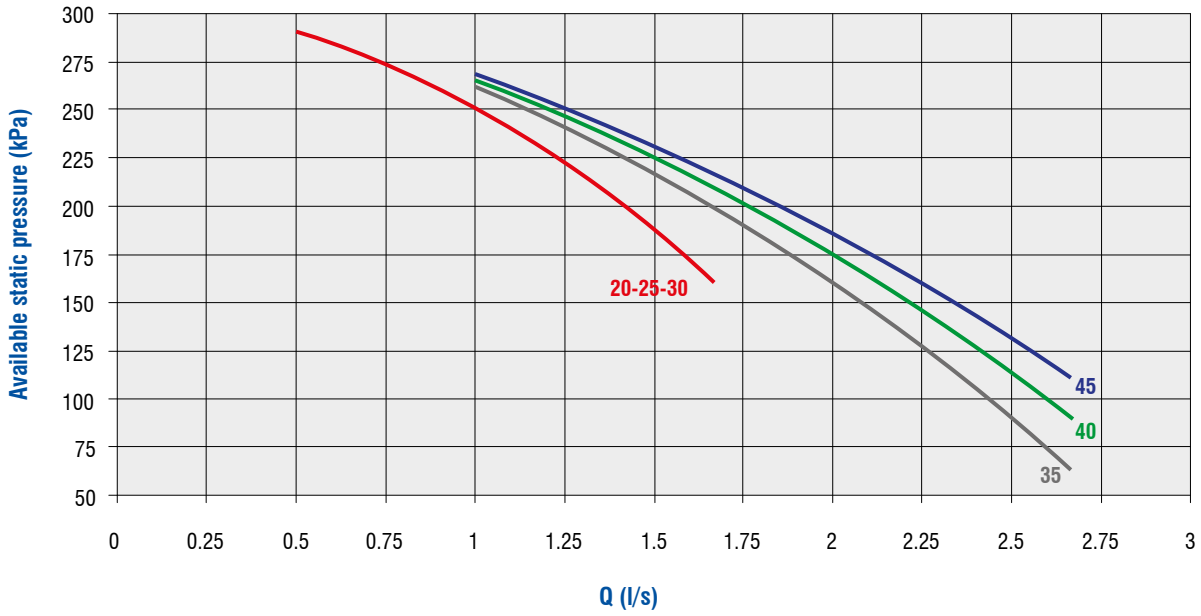
Sizes 50 to 190



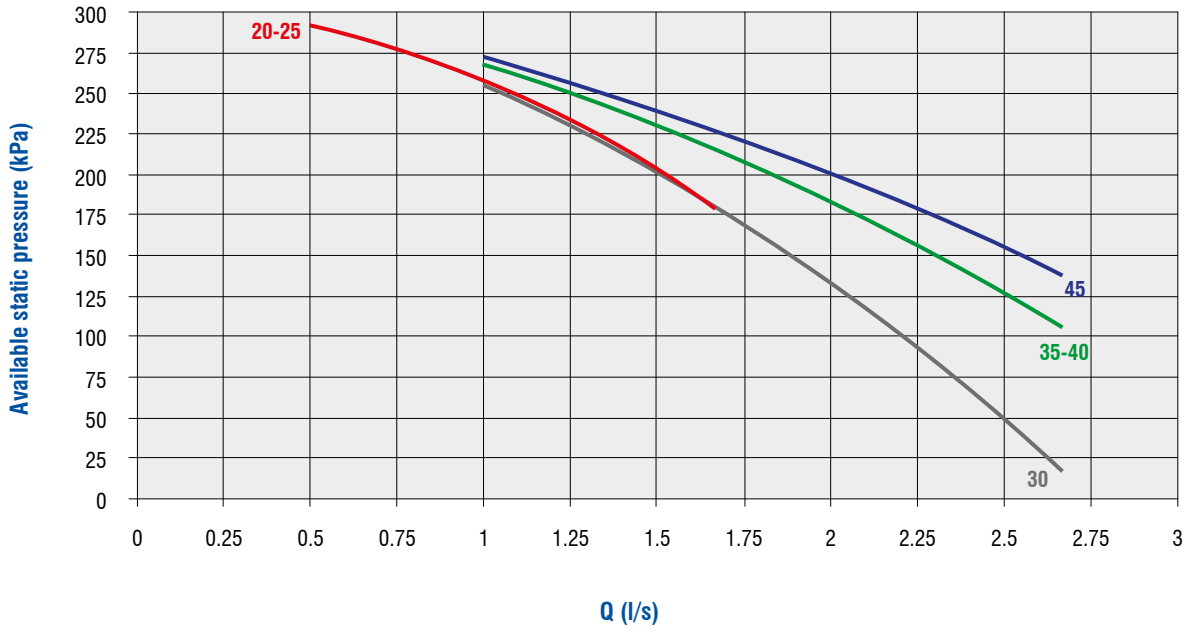
Unit size	Qnom (l/s)	Qmax (l/s)	Qmin (l/s)	ΔPnom (kPa)	ΔPmax (kPa)	ΔPmin (kPa)
50	0.53	0.88	0.33	8.3	23.0	3.2
60	0.68	1.13	0.42	4.5	12.6	1.8
75	0.86	1.44	0.54	5.1	14.0	2.0
90	1.00	1.67	0.63	5.7	15.8	2.2
120	1.20	2.01	0.75	5.0	14.0	2.0
150	1.63	2.72	1.02	8.7	24.2	3.4
170	1.87	3.11	1.17	10.3	28.7	4.0
190	1.96	3.26	1.22	7.5	20.8	2.9

Hydraulic Data

WQL 20 to 45 available static pressure - Evaporator side (1P/E)

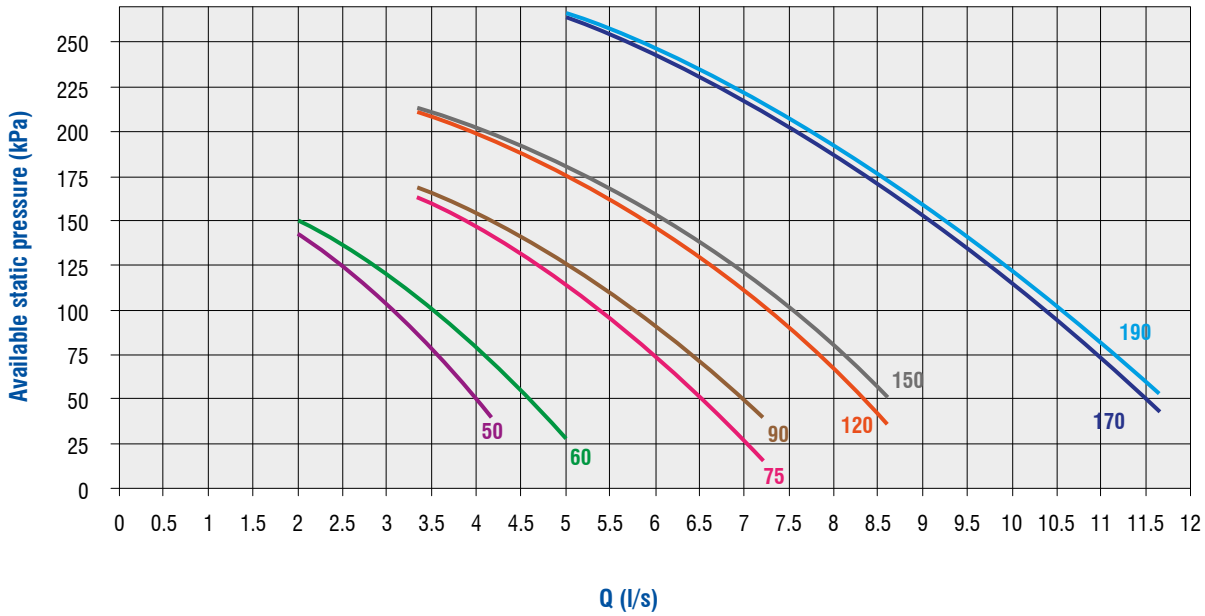


WQL 20 to 45 available static pressure - Condenser side (1P/C)



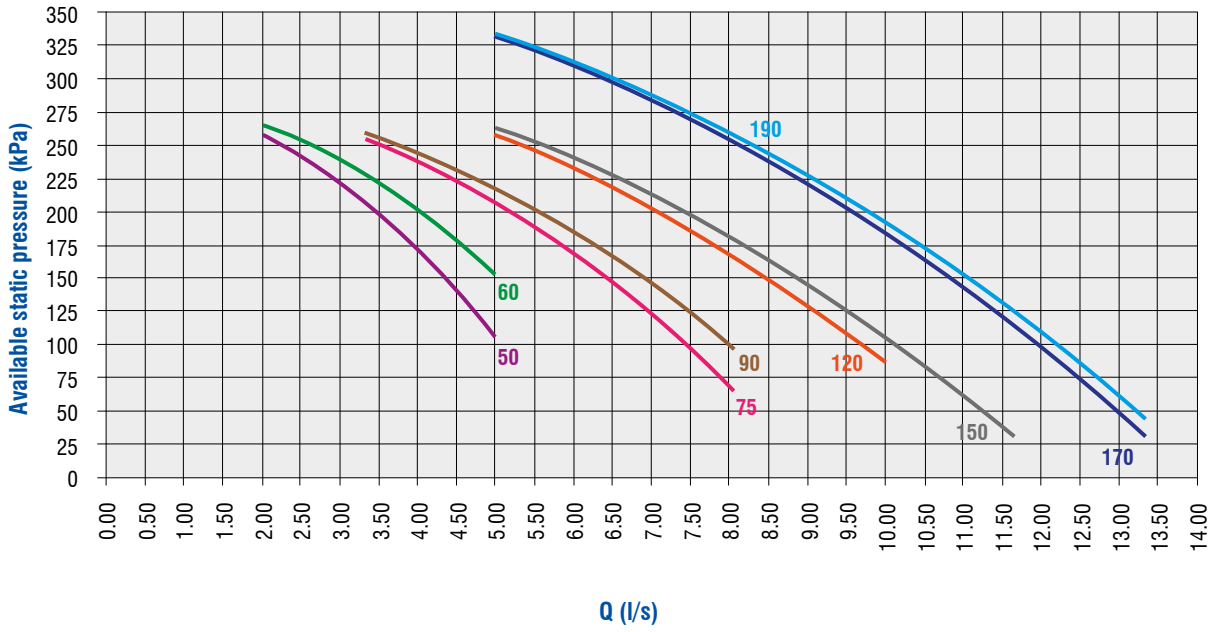
Hydraulic Data (continued)

WQL 50 to 190 available static pressure - Evaporator side (1/2P SP*/E)



(*) SP = Standard Pressure → Available static pressure ≤ 150 kPa

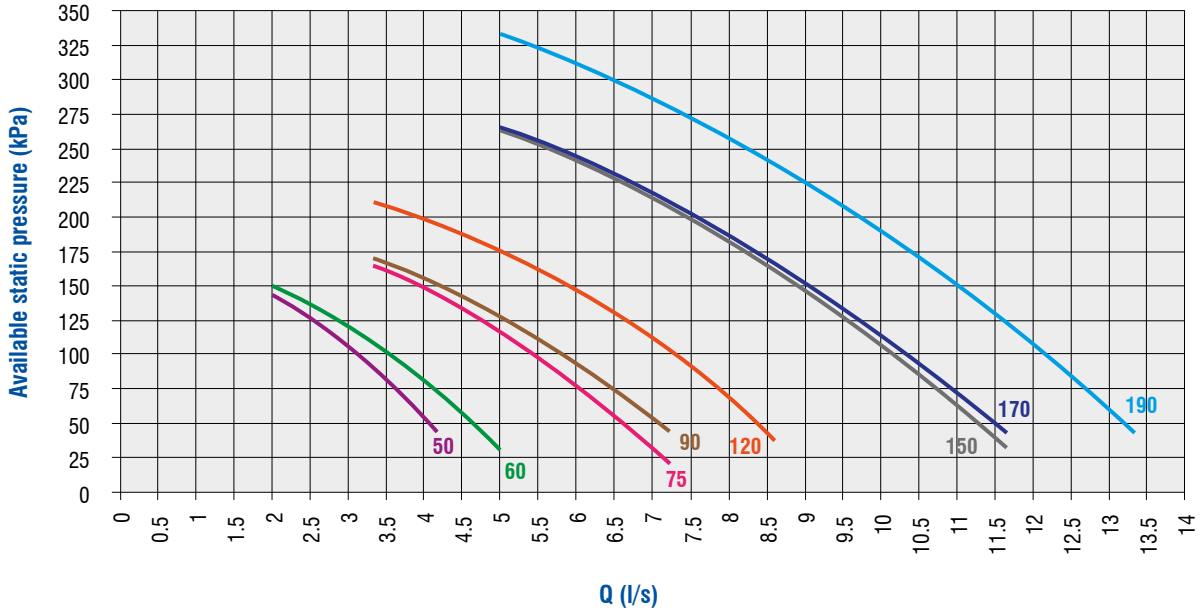
WQL 50 to 190 available static pressure - Evaporator side (1/2P HP*/E)



(*) HP = High Pressure → Available static pressure ≤ 250 kPa

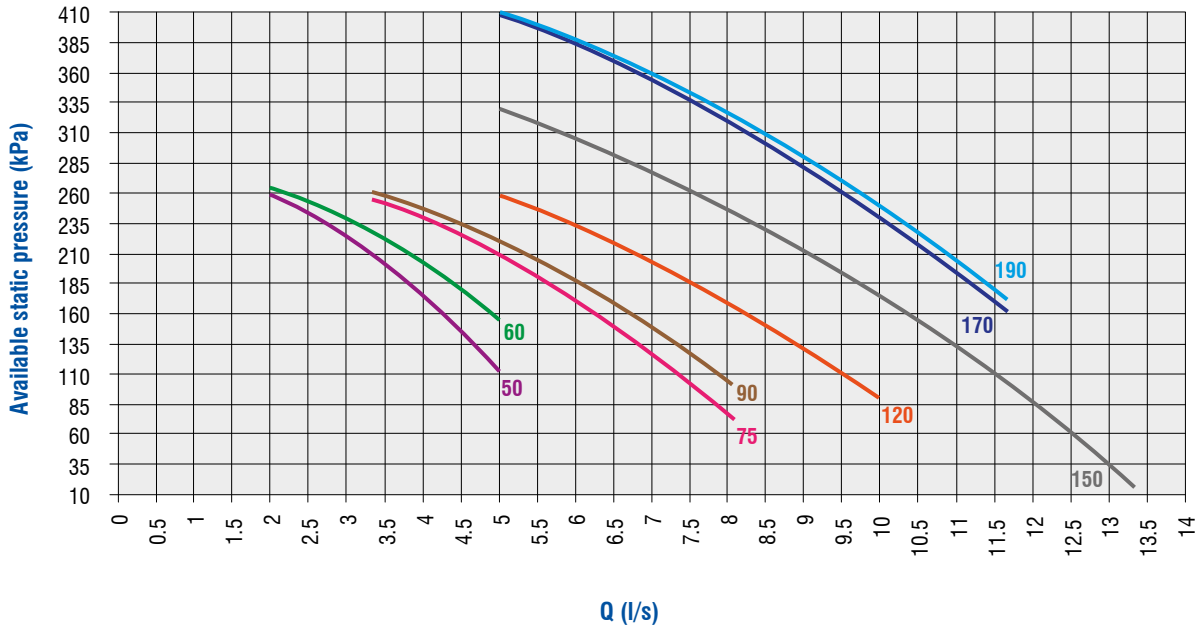
Hydraulic Data (continued)

WQL 50 to 190 available static pressure - Condenser side (1/2P SP*/C)



(*) SP = Standard Pressure → Available static pressure ≤ 150 kPa

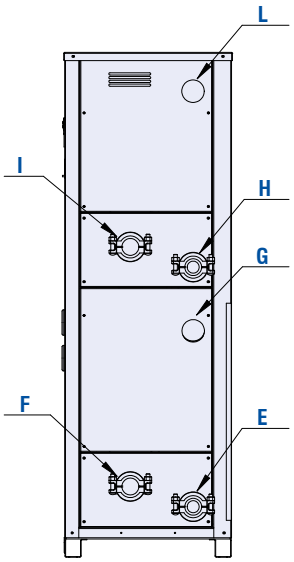
WQL 50 to 190 available static pressure - Condenser side (1/2P HP*/C)



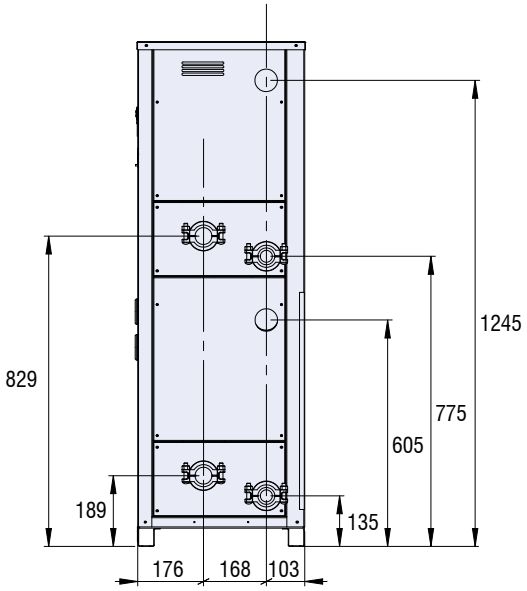
(*) HP = High Pressure → Available static pressure ≤ 250 kPa

Dimensions (mm) - WQL/WQH 20 to 45 - With/Without Hydrokit

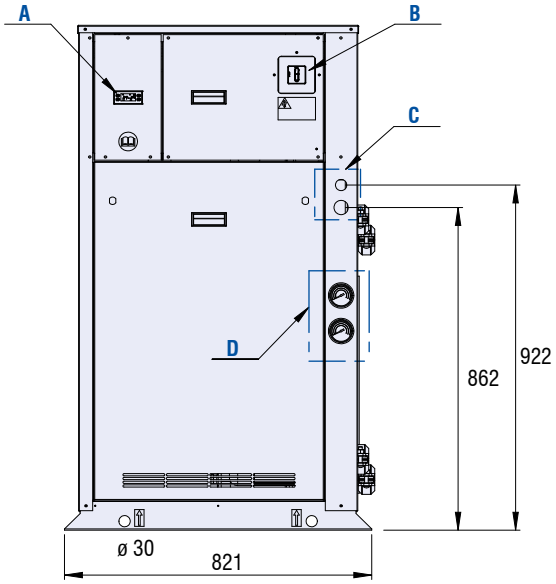
Side view



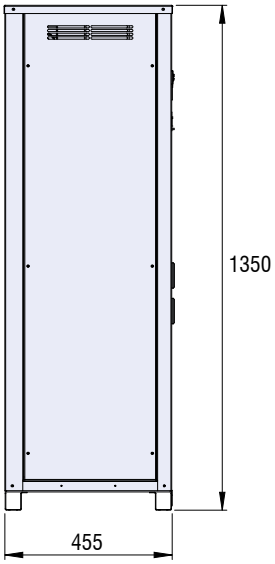
Side view



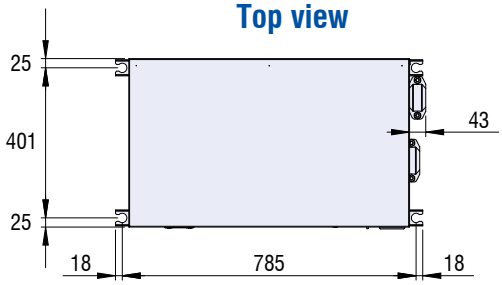
Front view



Side view



Top view



NOTES

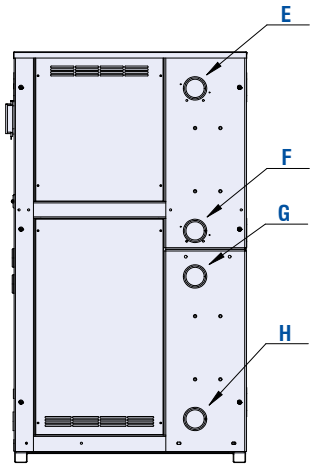
A	Control display
B	Main switch
C	Auxiliary lines, electrical connection
D	Gauge kit
E, F, G	Water evaporator connections Ø1 1/2" victaulic
H, I, L	Water condenser connections Ø1 1/2" victaulic

Hydro option	Evaporator		Condenser	
	In	Out	In	Out
STD	G	E	L	H
1P	F	E	I	H

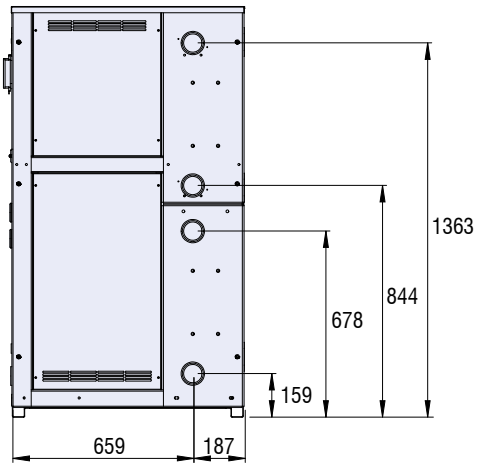
WQRC sizes	In	Out
20	H Ø5/8"	L Ø5/8"
25-45	H Ø5/8"	L Ø7/8"

Dimensions (mm) - WQL/WQH 50 to 190 - Without Hydrokit

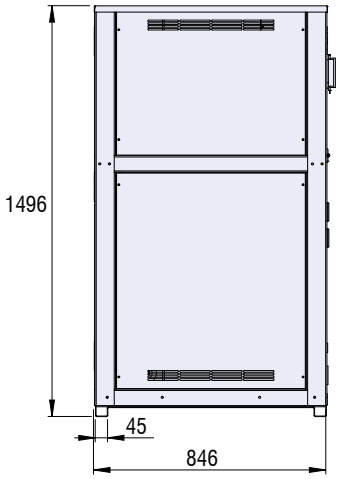
Side view



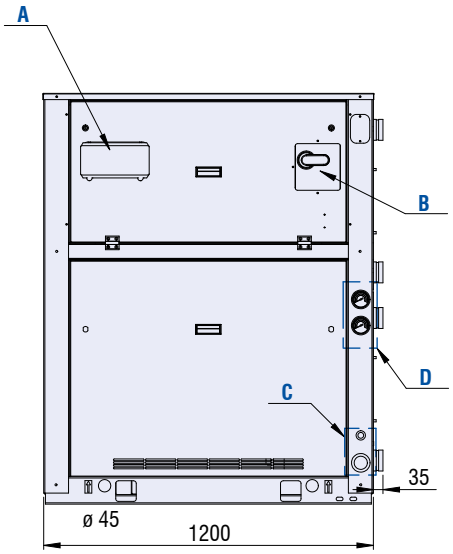
Side view



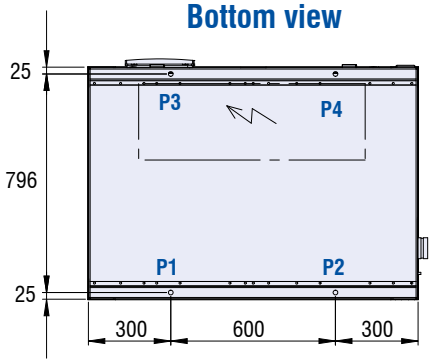
Rear view



Front view



Bottom view



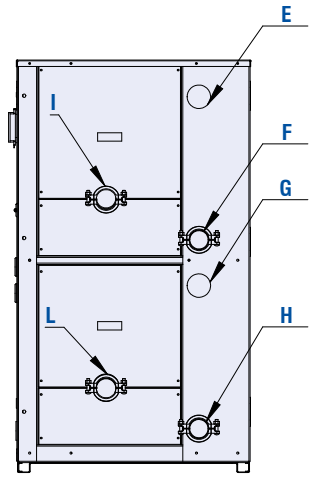
NOTES

A	Control display
B	Main switch
C	Auxiliary lines, electrical connection
D	Gauge kit
G, H	Water evaporator connections Ø2 1/2" victaulic (Ø76.1 mm)
E, F	Water condenser connections Ø2 1/2" victaulic (Ø76.1 mm)

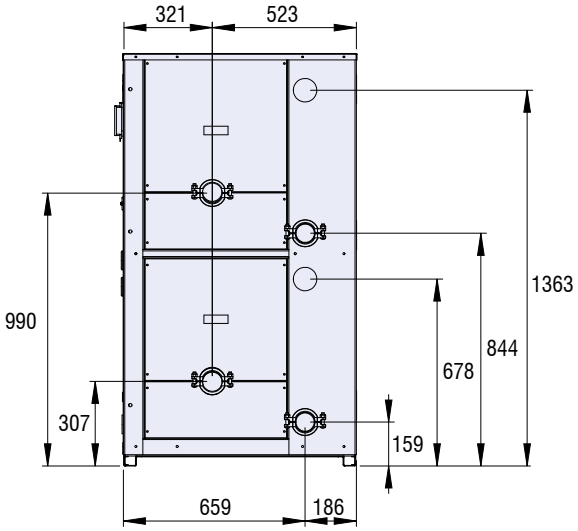
Hydro option	Evaporator		Condenser	
	In	Out	In	Out
STD	G	H	E	F

Dimensions (mm) - WQL/WQH 50 to 190 - With Hydrokit

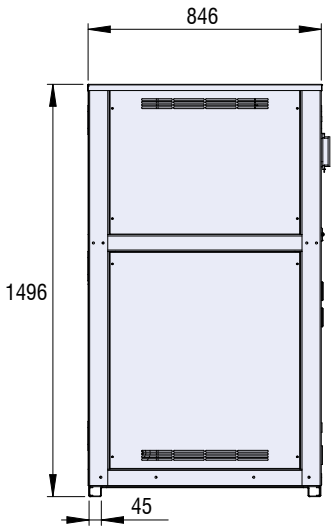
Side view



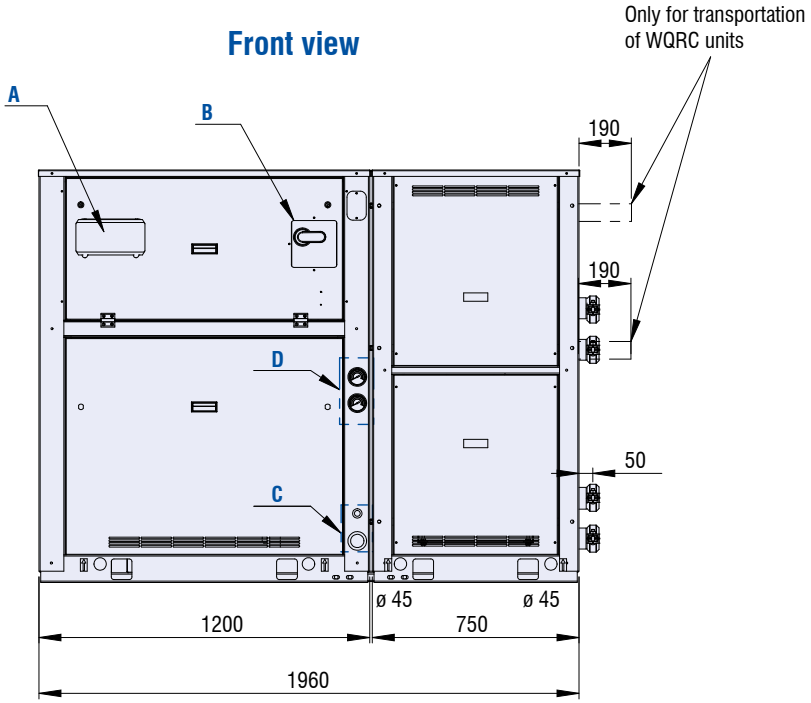
Side view



Rear view

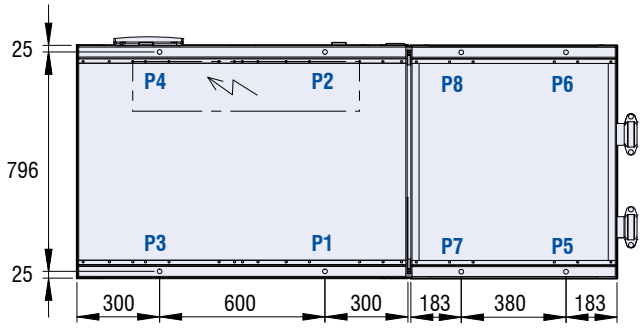


Front view



Only for transportation of WQRC units

Bottom view



NOTES

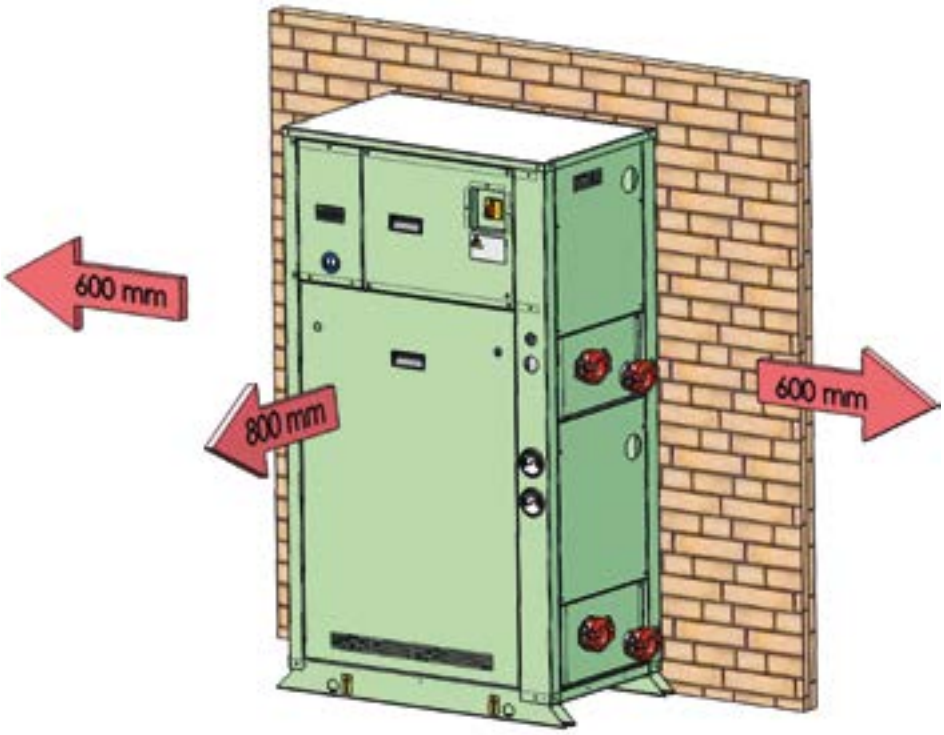
A	Control display
B	Main switch
C	Auxiliary lines, electrical connection
D	Gauge kit
G, H, L	Water evaporator connections Ø2 1/2" victaulic (Ø76.1 mm)
E, F, I	Water condenser connections Ø2 1/2" victaulic (Ø76.1 mm)

Hydro option	Evaporator		Condenser	
	In	Out	In	Out
STD	G	H	E	F
1P/2P	L	H	I	F

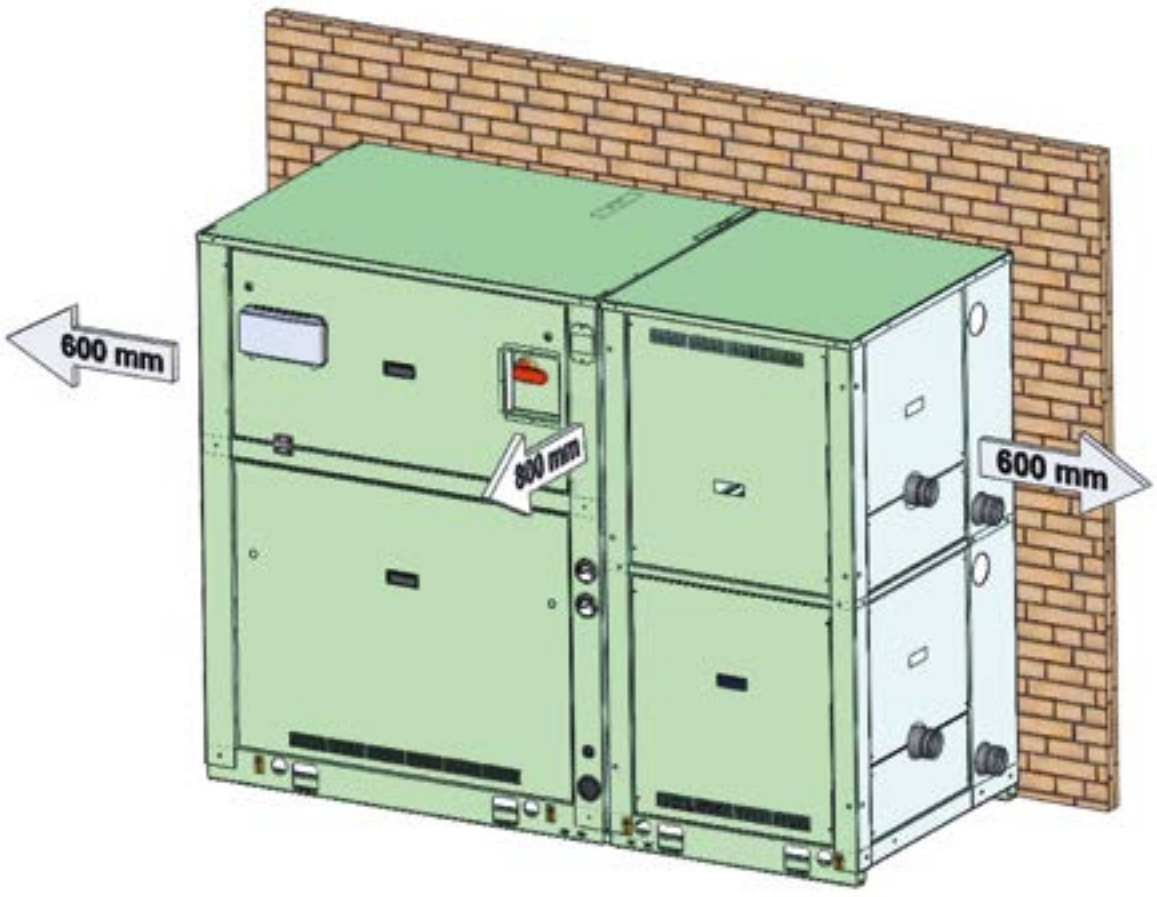
WQRC sizes	In	Out
50-60	F Ø5/8"	E Ø7/8"
75-90	F Ø7/8"	E Ø1 1/8"
120	F Ø7/8"	E Ø1 3/8"
150	F Ø7/8"	E Ø1 5/8"
170-190	F Ø1 1/8"	E Ø1 5/8"

Space requirements

WQL/WQH 20 to 45



WQL/WQH 50 to 190



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