

# WTG-QUANTOR GMBH

WTG-Quantor brands



Water Re-Cooler

## QUANTOR



## LIQUID CHILLERS/HEAT PUMPS

**QUANTOR** is an air-cooled cooling-units series, which was developed specifically for the beverages industries applications. This water-cooler is a solution which is made-to-measure for production of wine, beer, Kombucha, CSD and other types of beverages, which need to be cooled (or also heated) with accurate control of the temperature of the medium during the manufacture process. The **QUANTOR** units cover the complete temperature range in all process steps and applications in beer-brewing, winemaking, and production of fermenting and/or cooling drinks:

- Cold maceration
- Fermentation control
- Beer-wort cooling
- Cooling for carbonation, in-line cooling solutions available
- Wine-stabilization (Glycol-water temperature down to -10°C possible)
- Warming-up cold-stored wine before bottling, in-line heating of wine solutions available
- Room temperature control by cooling or heating the air (with additional fan-equipment, see additional product range).

The **QUANTOR** units are manufactured on state-of-the-art production lines, high-efficiency standards, most units low-noise in standard, solid long-life units, in capacities from 67 kW to 226 kW<sup>1</sup>, further models extending the **QUANTOR** series with units between 200kW and 1100 kW<sup>1</sup>. They are designated to be placed outdoors, at environment temperatures from -10°C to +46°C. The rated cold-water temperature is between -10°C and +18°C, (warm water up to +55°C).

The units are available as cooling-only models, reversible heat-pumps, units with partial or total heat-recovery for energy saving and the highest process efficiency. Units with Screw compressors, shell-in-tube evaporators are available on demand for specific applications.

## WATER TEMPERATURE RANGE

from -10°C to +18°C (warm water up to +55°C)

## AMBIENT TEMPERATURE RANGE

from -10°C to +46°C

## SUITABLE FOR INDUSTRIES



## CHARACTERISTICS/ADVANTAGES

One of the big advantages of the **QUANTOR** range is the large variety of models, sizes and capacities that it offers to the user's choice:

- In total there are 15 sizes / units with cooling capacities from 67 kW to 226 kW<sup>1</sup>
- All models are available as standard units (cooling only) or reversible units (cooling and heating / heat-pump)
- Q672 - Q2262 (67 - 226 kW)<sup>1</sup> equipped with one cooling circuit
- Q1434 - Q2174 (143 - 217 kW)<sup>1</sup> equipped with two independent cooling circuits for increased process safety
- Units Q2424 - Q11066 with capacities up to approx. 1.100 kW<sup>1</sup> - equipped with two or more independent cooling circuits - are also available.  
Please contact us for more information.

In addition to that, the **QUANTOR** units are characterized by their modularity and thus by their individuality: To complete the extensive standard equipment we offer many features to the user's choice to perfectly adapt each unit to the particular application and also to the individual requirements at the customer's location.



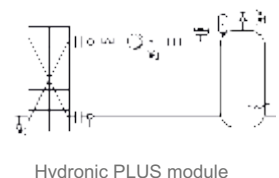
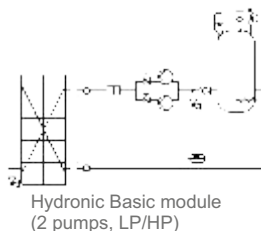
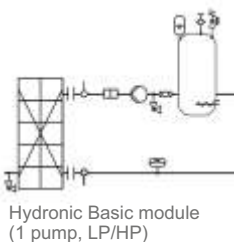
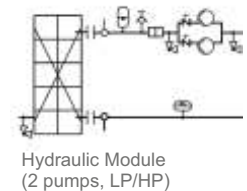
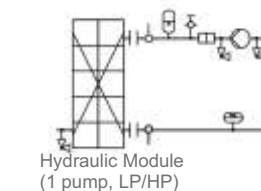
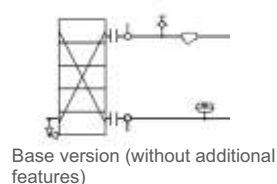
## STANDARD FEATURES

- Stable construction from galvanised sheet metal with premium Polyester powder-coating with anti vibration mounts
- Hermetic Scroll compressors of the latest models
- Stainless steel pipes (water-side)
- Optimized condenser construction for efficient heat-transfer
- Gradual activation of the compressors allows higher efficiency by partial-load operation, and significantly positive values of the European seasonal energy efficiency ratio EER
- High efficiency (EER till 4,16 and COP till 3,35)<sup>1,2</sup> and low power consumption
- Latest generation micro-processor control with supervision of all the relevant parameters
- Compressor encapsulated in noise-reduction compartment
- Stainless steel evaporator with integrated frost-protection heating element
- Low noise level
- Environmentally friendly refrigerant R410a
- Fan speed control
- Victaulic connections included with the units.

## AVAILABLE OPTIONS

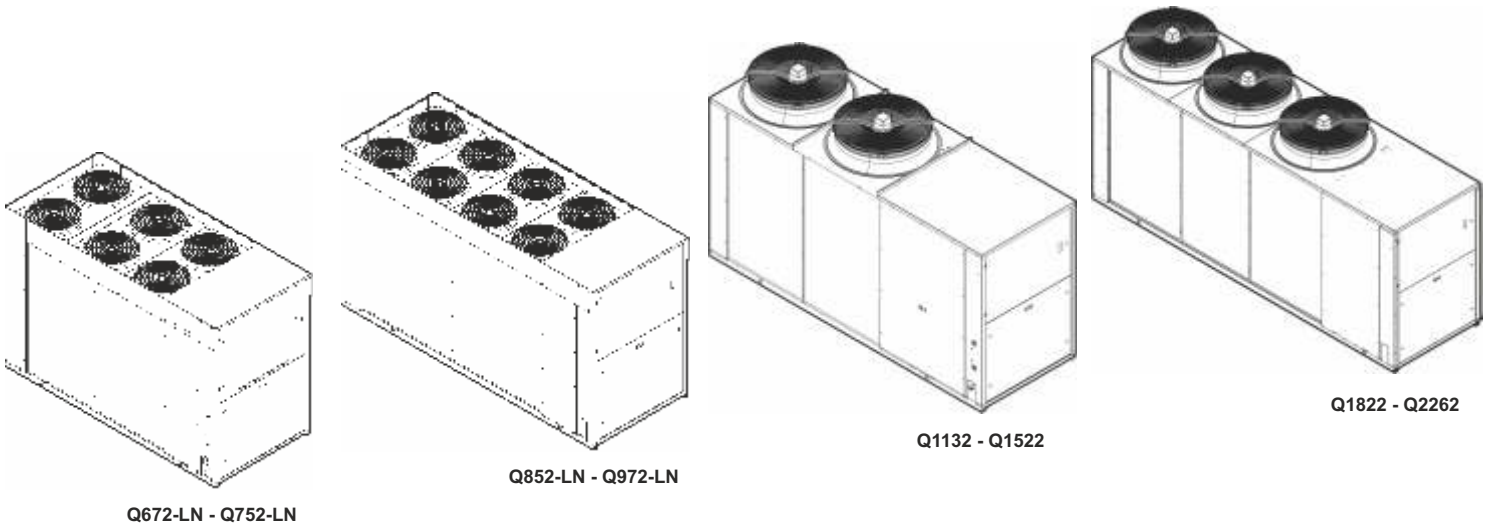
- A large variety of hydraulic options is available:
  - **Integrated Hydraulic module**  
Pump (high or low-pressure pump), filtre, expansion vessel and flow switch
  - **Integrated Hydronic Basic module**  
Pump (high or low-pressure pump), stainless steel buffer tank with heating bar (0,3kW), expansion vessel and flow switch
  - **Integrated Hydronic PLUS module**  
Pump, stainless steel buffer tank with heating bar (0,3kW) as hydraulic flow-adaptation, expansion vessel and flow switch
- Coils protection grills
- Epoxy coating on the condenser
- Fan-motors with frequency converter
- Fans with stronger air-thrust (for cooling only units)
- Partial heat recovery (desuperheater)
- Total heat recovery
- Remote control
- By models from Q1132, additional noise-reduction is possible
- Soft-start for compressors
- Power Factor Correction
- Second pumps and / or frequency controlled pumps
- Further options are available, as well as additional models: units with screw compressors, units with Shell-and-Tube evaporator, etc. Please contact us for more information.

## HYDRAULIC OPTIONS



MODELS

Q672 - Q2262 - Units with 1 cooling circuit



TECHNICAL DATA

Q672 - Q2262 - Units with 1 cooling circuit

All QUANTOR units are equipped with:

- Scroll Compressor
- Electric connection 400V/3PhN/50Hz - varying voltage levels on request
- Axial fan

CHILLERS	QUANTOR		Q672	Q752	Q852	Q972	Q1132	Q1242	Q1412	Q1522	Q1822	Q2032	Q2262
	Cooling capacity <sup>1</sup>	kW	67,3	75,3	85,2	97,4	113,2	124,8	141,6	152,7	182,9	204,0	227,2
Input power <sup>1</sup>	kW	16,1	18,2	20,6	24,5	27,5	31,0	35,6	39,8	45,9	52,3	61,3	
EER <sup>1</sup>	W/W	4,16	4,13	4,14	3,98	4,12	4,02	3,98	3,83	3,98	3,90	3,71	
SEER	W/W	4,48	4,58	4,49	4,42	4,48	4,46	4,53	4,34	4,51	4,32	4,33	
Water flow rate <sup>1</sup>	l/h	11.507	12.888	14.589	16.694	19.406	21.399	24.280	26.118	31.351	34.975	38.948	

HEAT PUMPS	QUANTOR		Q672-R	Q752-R	Q852-R	Q972-R	Q1132-R	Q1242-R	Q1412-R	Q1522-R	Q1822-R	Q2032-R	Q2262-R
	Cooling capacity <sup>1</sup>	kW	61,5	69,0	77,6	90,3	106,1	116,2	134,5	145,6	178,1	194,8	218,5
Input power <sup>1</sup>	kW	15,9	18,1	20,4	24,5	28,3	31,7	34,8	39,6	44,9	50,2	58,6	
Heating capacity <sup>2</sup>	kW	58,6	67,7	76,2	86,6	99,9	110,4	123,7	137,5	163,4	178,9	199,7	
Input power <sup>2</sup>	kW	17,5	20,2	22,8	26,3	30,7	33,4	37,5	41,9	50,4	56,5	63,4	
EER <sup>1</sup>	W/W	3,85	3,81	3,81	3,69	3,75	3,67	3,87	3,67	3,97	3,88	3,73	
COP <sup>2</sup>	W/W	3,35	3,35	3,34	3,30	3,26	3,30	3,30	3,28	3,24	3,17	3,15	
Water flow rate <sup>1</sup>	l/h	10.512	11.799	13.281	15.470	18.173	19.917	23.052	24.959	30.531	33.388	37.451	

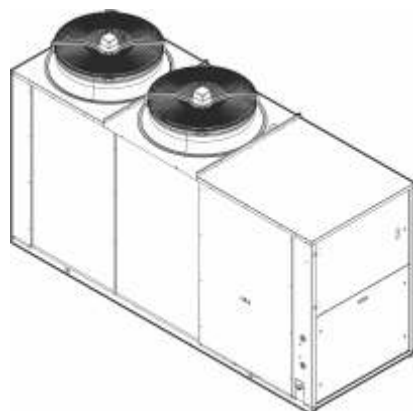
CHILLERS HEAT PUMPS	QUANTOR		Q672	Q752	Q852	Q972	Q1132	Q1242	Q1412	Q1522	Q1822	Q2032	Q2262
	Compressors	n°	2	2	2	2	2	2	2	2	2	2	2
Circuits	n°	1	1	1	1	1	1	1	1	1	1	1	1
Fans	n°	6	6	8	8	2	2	2	2	3	3	3	3
Sound power <sup>1,3</sup>	dB(A)	72,4	72,9	73,7	73,9	84,5	85,0	85,3	85,5	86,9	87,0	87,8	87,8
Hydraulic connections	Ø	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½	2"½
Height	mm	1.680	1.680	1.680	1.680	1.908	1.908	1.908	1.908	1.898	1.898	1.898	1.898
Width	mm	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100
Length	mm	2.450	2.950	2.950	2.950	3.250	3.250	3.250	3.250	4.048	4.048	4.048	4.048
Weight (when empty) <sup>4</sup>	kg	893	953	976	1.026	1.121	1.146	1.190	1.190	1.459	1.619	1.643	1.643
Buffer tank capacity <sup>5</sup>	l	300	300	300	300	400	400	400	400	400	400	400	400

1 Nominal cooling capacities based on 28°C and liquid inlet/outlet temperature 12/7°C  
 2 Nominal heating capacities based on 7°C and liquid inlet/outlet temperature 40/45°C  
 3 The value of sound power is measured in accordance with standard 9614-2

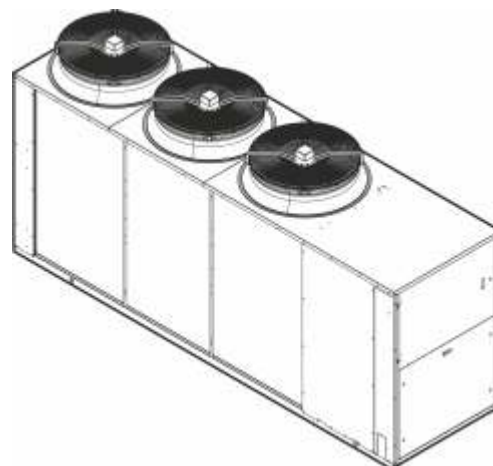
4 Unit total weight may vary according to chosen options  
 5 Tank volume by Hydronic versions

## MODELS

### Q1434 - Q2174 - Units with 2 cooling circuits



Q1434



Q1654 - Q2174

## TECHNICAL DATA

### Q1434 - Q2174 - Units with 2 cooling circuits

All QUANTOR units are equipped with:  
 - Scroll Compressor  
 - Electric connection 400V/3PhN/50Hz - varying voltage levels on request  
 - Axial fan

CHILLERS	QUANTOR		Q1434	Q1654	Q1924	Q2174
	Cooling capacity <sup>1</sup>	kW		143,3	165,7	193,1
Input power <sup>1</sup>	kW		37,9	41,8	49,8	56,7
EER <sup>1</sup>	W/W		3,79	3,97	3,88	3,86
SEER	W/W		4,16	4,18	4,15	4,16
Water flow rate <sup>1</sup>	l/h		24.574	28.426	33.099	37.459

HEAT PUMPS	QUANTOR		Q1434-R	Q1654-R	Q1924-R	Q2174-R
	Cooling capacity <sup>1</sup>	kW		136,2	156,0	185,0
Input power <sup>1</sup>	kW		37,7	41,3	48,6	55,6
Heating capacity <sup>2</sup>	kW		129,1	148,8	171,5	189,1
Input power <sup>2</sup>	kW		40,4	46,8	54,5	60,1
EER <sup>1</sup>	W/W		3,62	3,78	3,81	3,75
COP <sup>2</sup>	W/W		3,19	3,18	3,15	3,15
Water flow rate <sup>1</sup>	l/h		23.341	26.753	31.706	35.764

CHILLERS HEAT PUMPS	Compressors	n°	4	4	4	4
	Circuits	n°	2	2	2	2
	Fans	n°	2	3	3	3
	Sound power <sup>1,3</sup>	dB(A)	84,2	85,9	85,9	87,5
	Hydraulic connections	Ø	2"½	2"½	2"½	2"½
	Height	mm	1.908	1.898	1.898	1.898
	Width	mm	1.100	1.100	1.100	1.100
	Length	mm	3.250	4.048	4.048	4.048
	Weight (when empty) <sup>4</sup>	kg	1.275	1.398	1.522	1.582
	Buffer tank capacity <sup>5</sup>	l	400	400	400	400

1 Nominal cooling capacities based on 28°C and liquid inlet/outlet temperature 12/7°C  
 2 Nominal heating capacities based on 7°C and liquid inlet/outlet temperature 40/45°C  
 3 The value of sound power is measured in accordance with standard 9614-2

4 Unit total weight may vary according to chosen options  
 5 Tank volume by Hydronic versions

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