

# Chillquick Eco

Energy-efficient progressive four-step capacity control  
combined with free cooling



Indoor  
chilled water station  
Capacity range of 80–354 kW



An energy-efficient chilled water station that meets the Eco Design requirements  
**The free cooling function** reduces the overall mechanical cooling time  
A reliable dual-circuit chilled water station that has been fully tested at the factory  
Cost-efficient and easy installation



## A reliable solution

Chillquick Eco is a reliable dual-circuit chilled water station that is equipped with four compressors for added reliability in all conditions. First and foremost, the solution is designed to meet Chiller's factory standards. The units are manufactured and fully tested at the factory prior to delivery to the customer as a ready-to-use, compact package. In mechanical design, our goal is to achieve the efficient use of space.

The solution can be equipped with a wide range of accessories to meet the application's needs, regarding water circuits, automation, electrical accessories and other optional features. When required, the unit can be delivered without the free cooling feature.

## Energy efficient

The Chillquick Eco chilled water station is equipped with four compressors, which enable energy-efficient progressive four-step capacity control. On partial loads, only the compressors required for the generation of the desired output are in operation at any given time.

The unit's energy efficiency can be further improved with the free cooling feature that utilises cold outdoor air in the refrigeration process.

## Cost-efficient installation

The Chillquick chilled water station enables considerable reductions in the time needed on-site. In comparison with conventional water chiller systems, a substantial amount of time is saved. The test runs and functional testing performed at the factory play an important role in speeding up the on-site stage.

## Life cycle services

We look after our machines throughout their life cycles. The ServiceNext IoT service offers optimisation, documentation and maintenance in a single, reliable package.

## Functionalities

### Options:

- Chilled water station with free cooling, progressive capacity control with fixed control steps
- Chilled water station without free cooling, progressive capacity control with fixed control steps
- Water chiller, progressive capacity control with fixed control steps

## Standard accessories

- Cold circuits:** 4D model (4 compressors, two refrigerant circuits)
- Compressors:** Scroll compressors, heating resistors and heat and overcurrent protection for the crankcase.
- Heat exchangers:** plate heat exchangers made of stainless steel
- Electric expansion valves:** optimal control of the refrigerant circuit's superheating function enhances energy efficiency
- External adjustment of settings:** 0–10 VDC signal
- Flow switch**

## Additional accessories

### Automation

- RTU Modbus RTU connections
- TCP Modbus TCP/IP connection
- BAC BACnet connection
- SN Service Next IoT
- EP Separate remote-use screen
- MSC Master/slave automation
- GCC Group controller automation
- KT Kiotronic leak detection

### Electronics

- VL Replacement connectors for the main switch
- CE2 Reactive power compensation
- CE3 Soft starters

### Sound and vibration

- CR Sound proofing shells for compressors
- FS Sound control encasing for compressors
- VD Vibration control set (anti-vibration pads and expansion joints)

### Pipe connections

- DIN DIN flange connections

### Other

- TCV Condensation pressure control valve
- PCVE Pressure-controlled liquid valves
- YH/AH Customised evaporators
- YL/AL Customised condensers

## Performance values

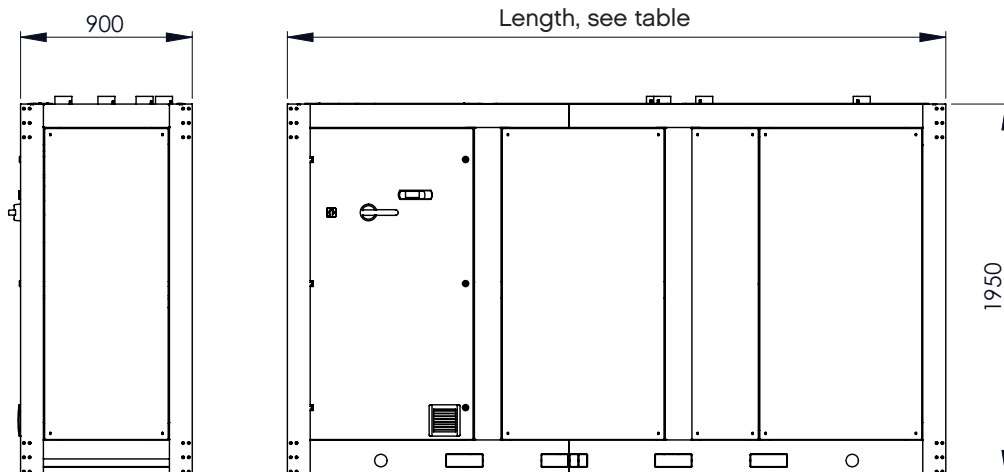
	28-4	32-4	36-4	44-4	48-4	56-4	64-4	72-4	80-4	90-4	100-4
Cooling capacity kW	82	113	128	142	167	192	217	245	273	313	354
Capacity steps	0; 50; 75; 100%							0; 50; 75; 100%			
Free cooling capacity kW <sup>(1)</sup>	72	94	105	121	124	140	158	197	224	259	291
Input power kW <sup>(2)</sup> (400 V/3 Ph/50 Hz)	25,2	33,8	38,2	42,6	50,0	57,4	64,6	73,1	81,5	92,9	104,2
Fuse size A <sup>(2)</sup>	80	100	125	125	160	160	200	200	200	250	315
Liquid cooler's input power kW <sup>(3)</sup>	3,1	5,6	5,6	5,9	9,4	9,4	9,4	10	10,9	12,9	13,3
Number of circuits	2	2	2	2	2	2	2	2	2	2	2
Refrigerant charge Kg (R410A)	11	13	15	18	18	24	30	33	34	34	36
Water buffer tank (litres)	800	800	800	800	800	800	800	800	800	800	800
Frame	L1							L2			

(1) Free cooling: 15/10 °C water, 3 °C air temperature

(2) Compressor, three pumps

(3) An example

## Dimensions



Frame	Length
L1	3450
L2	3950

More detailed dimension drawings are available in the selection program