

# Chillquick Eco

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



Indoor  
chilled water station  
Capacity range of 80–670 kW



Public buildings



Offices



Shopping centres

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 and 6D models (4 or 6 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	110-4	120-4	150-6 <sup>(3)</sup>	180-6 <sup>(3)</sup>
Cooling capacity kW	82	113	128	142	167	192	217	245	273	313	354	403	452	530	676
Capacity steps	0; 50; 75; 100%							0; 50; 75; 100%							0; 17; 33; 50; 67; 83; 100%
Free cooling capacity kW <sup>(1)</sup>	72	94	105	121	124	140	158	197	224	259	291	317	374	408	514
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	118,6	133,0	156,7	199,9
Fuse size A <sup>(2)</sup>	80	100	125	125	160	160	200	200	200	250	315	315	355	355	500
Liquid cooler's input power kW <sup>(4)</sup>	3,1	5,6	5,6	5,9	9,4	9,4	9,4	10	10,9	12,9	13,3	15,2	16,2	17,5	21,7
Number of circuits	2	2	2	2	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	40	40	48	52
Water buffer tank (litres)	800	800	800	800	800	800	800	800	800	800	800	800	800	-	-
Frame	L1							L2							L3

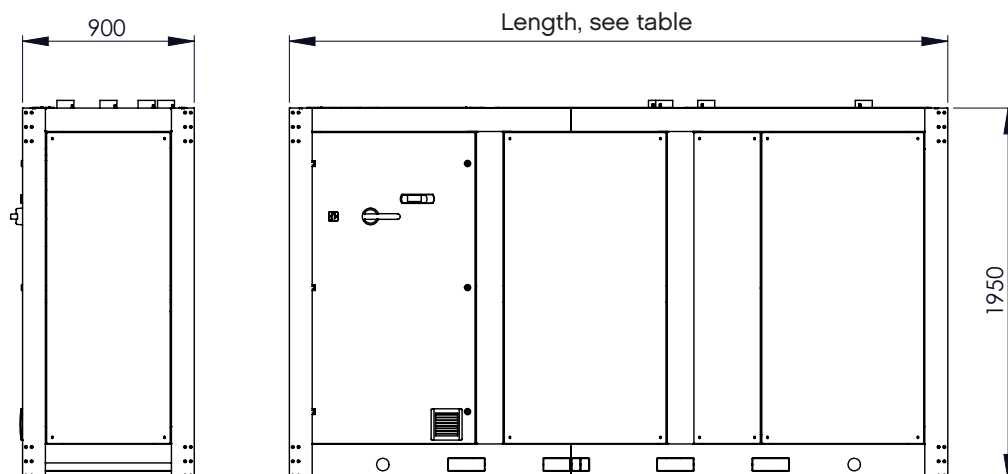
(1) Free cooling: 15/10 °C water, 3 °C air temperature

(2) Compressor, three pumps

(3) Models 150- and 180-6 come with a standalone free cooling module with dimensions of 2,100 x 900 x 1,950 mm, no water buffer tank

(4) An example

## Dimensions



Frame	Length
L1	3450
L2	3950
L3	6,050*

\*3,950 + 2,100 = 6,050

More detailed dimension drawings are available in the selection program