

# Chillquick Eco

An energy-efficient free cooling solution  
with two circuits and four compressors



Outdoor  
chilled water station  
Capacity 130–670 kW



An energy-efficient chilled water station that meets the Eco Design requirements

The free cooling feature reduces costs

A smart solution enables the use of colder refrigerant for dehumidification

The option of having two cooling circuits with different temperatures



## Saves space in machine room

Because the Chillquick Eco chilled water station can be installed outdoors, it saves space in the machine room. Often, a separate machine room is not required at all. The system can be equipped with an indoor unit with customisable water circuits. This enables cooling at two different temperatures.

## Efficient dehumidification

Efficient dehumidification processes are guaranteed with a separate dehumidification circuit with a brine temperature that is several degrees cooler than that of the operating circuits. This solution achieves improved water separation during dehumidification.

## Energy efficient

The Chillquick Eco chilled water station is equipped with four compressors and variable fans, 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.

## An easy-to-use combo

The indoor and outdoor units communicate seamlessly with one another. Both units are controlled in a centralised manner via a user interface integrated into the indoor unit.

## Cost effective

The solution enables significant reductions in the time needed on-site. In comparison with conventional water chiller systems, a substantial amount of time is saved.

The functional testing performed at the factory and the factory-assembled indoor unit play an important role in speeding up the on-site stage. All that needs to be performed on-site is the connecting of the units to one another and the property's cooling networks.

## Life cycle services

We look after our machines throughout their life cycles. The Service Next 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 with free cooling, progressive capacity control with fixed control steps  
 Water chiller station without free cooling, progressive capacity control with fixed control steps

## Standard accessories

**Cold circuits:** two separate refrigerant circuits

**Compressors:** Scroll compressors, heating resistors and heat and overcurrent protection for the crankcase.

**Fans:** EC fans with variable speed control.

**Heat exchangers:** plate heat exchangers made of stainless steel, epoxy-coated condenser

**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**

**Standard colour:** outdoor unit RAL7016

## Additional accessories

### Brine and water circuits

P1 Pump (standard, booster, frequency converter)

V Water buffer tank

ECO free cooling

P2 Constant-temperature operating circuit

PSP Controlled operating circuit

P9 Dehumidification circuit

### Refrigerant circuit

PCK Process use model

YH/AH Customised evaporator

### Mechanics

CR Sound proofing shells for compressors

VD Vibration control set

### Electronics

VL Replacement connectors for the main switch

CE2 Reactive power compensation

CE3 Soft starters

### Automation

RTU Modbus RTU connection

TCP Modbus TCP/IP connection

BAC BACnet connection

SN Service Next IoT

MSC Master/slave automation

GCC Group controller

automation

### Other

EP Remote-use screen

DIN DIN flange connections

## Performance values

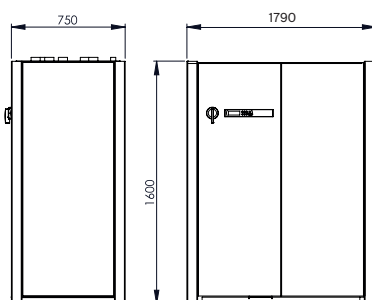
Model	36	44	48	56	64	72	80	90	100	110	120	135	155	165	180
Cooling capacity, max. kW	130	145	165	185	205	255	280	310	345	380	420	475	540	600	665
Capacity steps	4	4	4	4	4	4	4	4	4	4	4	5	5	6	6
Input power*	kW	32	36	44	53	62	61	69	81	94	111	128	130	152	177
Flow rate	l/s	7	7,6	8,7	9,8	10,8	13,4	14,7	16,5	18,3	20,2	22,2	25,2	28,8	31,7
Pipe size	DN	80	80	80	80	80	100	100	100	100	100	100	125	125	125
Fuse	A	100	125	160	160	200	200	200	250	315	315	355	400	400	500

Performance values at various temperatures: 35% EG 7/12 °C, air 30 °C. Refrigerant R410a

\*) Input power when the machine is operating at full capacity

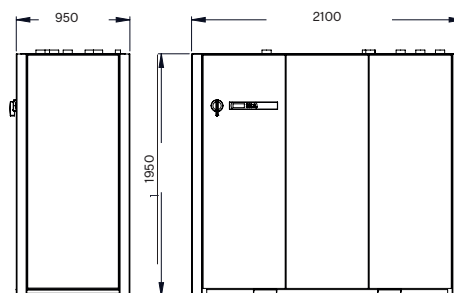
## Dimensions

Indoor unit 36–64\*

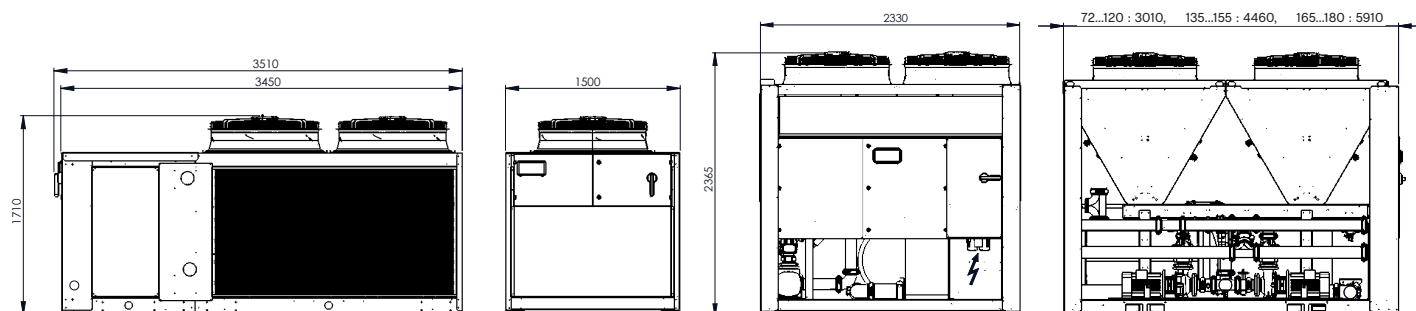


Outdoor unit 36–64

Indoor unit 72–180\*



Outdoor unit 372–180



More detailed dimension drawings are available in the selection program

\* The dimensions of the indoor unit depend on the accessories