Chillquick Deco

Variable capacity control combined with dynamic free cooling

Indoor
chilled water station
Capacity range of 20–220 kW

Significant energy and cost savings with continuously variable capacity control
The dynamic free cooling feature enables longer free cooling times
Lower sound levels indoors and out
The option of having two cooling circuits with different temperatures

Energy efficient
Meets the 2018 and 2021 Eco Design requirements

Energy efficient

The Chillquick Deco chilled water station's energy efficiency stems from the continuously variable control of all the refrigeration functions and systems, including the compressor, the evaporator and condenser circuit's pump and dynamic free cooling.

The system's central element is the smart buffer tank, a standard piece of equipment that enables an adaptive cooling process. The compressor, with its continuous control system, enables the use of a smaller water buffer tank and the design of a more compact system.

Dynamic free cooling

A new and dynamic free cooling system can be integrated into the chilled water station to enable more energy-efficient cooling operations.

The new system automatically switches between free cooling, compressor cooling and a combination of the two.

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.

Lower sound level

Thanks to its optimised cooling system and compressors with continuous control, the machine operates silently and distracting noises arising from the compressor stopping and starting are eliminated.

The low sound levels afford flexibility in terms of the machine's location.

Functionalities

Options:
Chilled water station with free cooling, continuously variable capacity control
Chilled water station without free cooling, continuously variable capacity control
Water chiller, continuously variable capacity control

Standard accessories

Cold circuits: 1Si models come with a single circuit, 2Di and 3Di models are equipped with two separate 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
Electric phase sensor
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 Noise 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

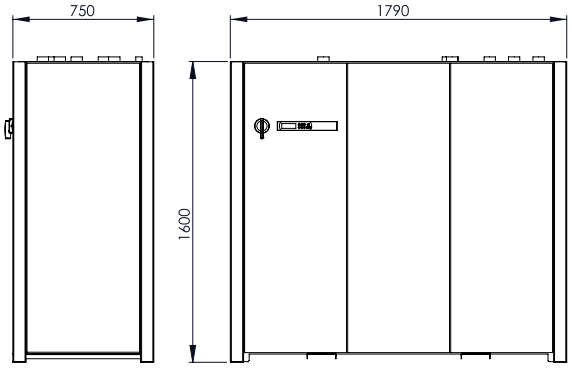
Technical data

Model		6-1Si	9-1Si	12-1Si	15-1Si	17-1Si	21-1Si	26-1Si	30-2Di	36-2Di	40-2Di	44-2Di	48-3Di	55-3Di	63-3Di
Cooling capacity, max.'	kW	20	31	41	51	61	75	87	103	129	141	155	170	195	222
Cooling capacity, min.*	kW	8	8	8	13	13	21	21	13	21	21	21	21	21	21
Input power**	kW	5,6	8,7	12,4	14,1	18,3	20,2	24,3	29,3	35,4	38,6	42,4	46,4	52,8	60,4
Flow rate	l/s	1	1,5	2	2,4	2,9	3,6	4,2	4,9	6,2	6,7	7,4	8,1	9,3	10,6
Pipe size	DN	50	50	50	50	50	50	50	65	65	65	65	80	80	80
Fuse	A	25	35	35	50	50	80	80	80	125	125	160	160	160	200
Frame		1							2						

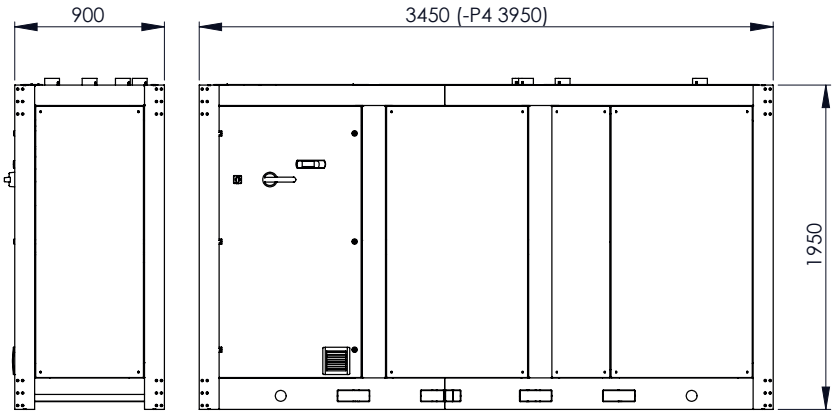
Performance values at various temperatures: water 12/7 °C, 35% EG 36/43 °C. Refrigerant R410a
*) Continuously variable control of the cooling capacity between the minimum and maximum values.
**) Input power when the machine is operating at full capacity (a liquid cooler is not included).

Dimensions

Frame 1



Frame 2



More detailed dimension drawings are available in the selection program