Chillquick Thermo

Energy-efficient modular heat pump with stepless or progressive capacity control

Indoor
heat pump station
Capacity range of 10–620 kW

An energy-efficient heat pump station for a wide range of applications

Several functionalities that can be combined for a complete heating solution

A reliable heat pump station that has been fully tested at the factory

Cost-efficient and easy installation

Eco Design 2018 2021 by Chiller Technology

Complete delivery

Chillquick Thermo is a reliable heat pump station that is manufactured to meet your requirement. The solution can be equipped with a wide range of functional modules to meet the application's needs, regarding to heat source and water circuits.

The unit is 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.

We offer wide range of accessories also for automation, electrical accessories and other optional features.

When required, the unit can be delivered without any functional modules as a basic heat pump.

Energy efficient

The Chillquick Thermo heat pump station is equipped with one to six compressors, which enable enegy-efficient progressive capacity control. On partial loads, only the compressors required for the generation of the desired output are in operation at any given time.

In some cases The cooling modules efficiency can in be further improved with the free cooling feature that utilises cold ground loop for cooling instead of the refrigeration process.

Cost-efficient installation

The Chillquick chilled water station enables considerable reductions in the time needed on-site.
In comparison with conventional heat pump 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 through-out their life cycles. The ServiceNext IoT service offers optimisation, documentation and maintenance in a single, reliable package.

Functionalities

Options:
Heat recovery heat pumps station with cooling, progressive capacity control with fixed control steps
Ground source heat pump station with cooling, progressive capacity control with fixed control steps Heat recovery heat pump station
Ground source heat pump as standard

Standard accessories

Refrigerant circuits: 1Si, 4D and 6D models (1,4 or 6 compressors, one or two refrigerant circuits)
Compressors: Scroll compressors, heating resistors for the crankcase, overtemperature and overcurrent protection .

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
MSC Master/slave automation
GCC Group controller automation
KT Kiotronic leak detection
CTL Coptronic light energy measurement

Electronics
VL connectors for aluminium supply cable
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
YH/AH Customised evaporators
YL/AL Customised condensers

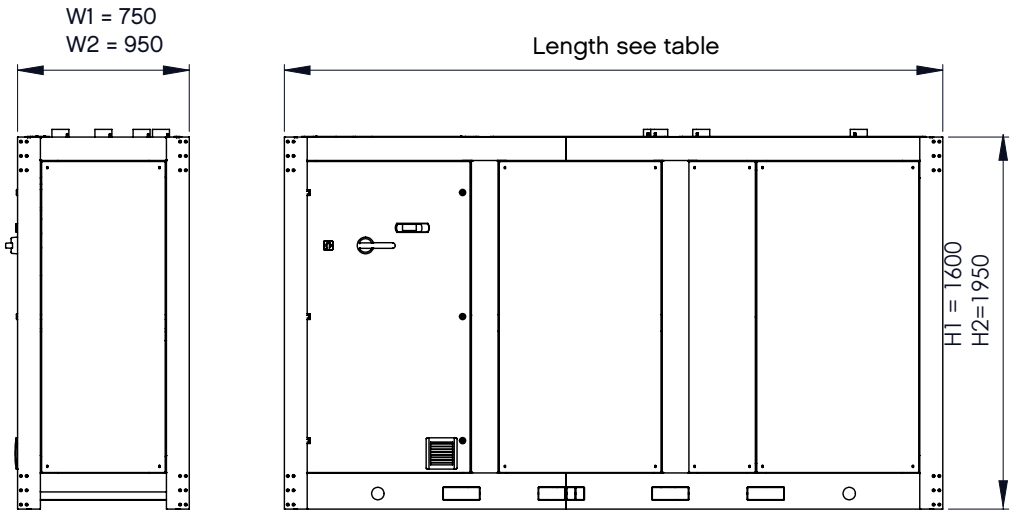
Modules
Heat recovery module (source is waste heat)
Cooling module
Free cooling module
SHE Desuperheat module +65C
Excess heat removal module

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	180-6
Heating capacity ground source kW 3)	76	105	118	132	155	178	199	225	251	288	325	369	414	485	618
Capacity steps	0; 50; 75; 100%													0; 17; 33; 50; 67; 83; 100%	
Heating capacity heat recovery kW 5)	121	166	187	207	244	281	318	359	398	457	516	586	657	778	990
Input power kW(2 (400V / 3Ph / 50Hz)	26	36	40	44	51	59	67	75	84	96	108	121	134	162	201
Fuse size A(1	**80**	100	125	125	160	160	200	200	200	250	315	315	355	400	500
Cooling capacity kW (cooling module only) 4	82	113	128	142	167	192	217	245	273	313	354	403	452	530	676
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
Desuperheat capacity	11	16	18	20	23	27	30	34	38	43	49	55	62	73	93
Frame width x height	W2 x H2													W2 x H2	
Frame length	L2													L3	

(1 fuse including evaporator and condenser pump. in condensing temp 65c.
(2 Compressor, only,pumps not included
(3 -2/2C ethylene alcohol 35%. 40/50C heating water
(4 12/7 water. 36/42 condenser side
(5 20/15 ethylene glycol 35%. 40/50C water

Dimensions



	Length		
	L1	L2	L3
HEAT PUMP ONLY	1240	2100	3950
HEAT PUMP + 1 MODULE	1790	3450	6050*
HEAT PUMP + 2 MODULES	2480*	3950	7900*
HEAT PUMP + 3 MODULES	3030*	6050*	on
HEAT PUMP + 4 MODULES	3580*	6050*	request

*2480 = 1240+1240
*3030 = 1240+1790
*3580 = 1790+1790
*6050 = 3950+2100
*7900 = 3950+3950

Dimensions apply for unit with standard components.
More detailed dimensional drawings available in selection program.