

CKS AIR COOLED LIQUID CHILLERS

These chillers are used for cooling of water and brines such as glycol solutions and other liquids that do not cause corrosion of copper alloys.

Refrigerant: R22.

Total amount of chiller variants: 8 with refrigerant R22.

Chiller cooling capacity range: from 19 to 82 kW.

Brine temperature range: from 0 to +16 °C.



Chiller description

These chillers are completely manufactured at the factory and mounted on a single frame. All components of the refrigerant circuit are connected with piping; the circuit has passed strength and leakage tests. During delivery the chiller's refrigerant circuit is filled with high purity nitrogen up to excess conservation pressure; with all inlets and outlets plugged. The electrical components of each chiller are assembled and tested.

The chiller is certified for compliance with national standards.

Having installed the chiller in its new location, connect the brine piping to evaporator and then wire the chiller to electrical network.

Basic components

Refrigerant circuit(s) (one or two)

Each refrigerant circuit includes (one or two compressors):

Compressor: the Maneurop hermetic scroll compressor has a common housing with an electric motor and is charged with oil; the oil level can be monitored through a sight glass. The compressor crankcase is equipped with an oil heater; the electric motor has a protective relay against winding superheat and a built-in check valve in the discharge line to protect the motor against reverse rotation. The compressor is also equipped with a shut-off valve in the discharge line and suction and discharge pressure switches. The compressor is installed on the chiller frame with antivibration mountings.

Discharge line: discharge header, check valve in the discharge line of each compressor (for chillers with two compressors).

Air cooled condenser: highly efficient heat exchange is achieved due to an optimal combination of aluminum fins and copper tubes with finned internal surface. The condenser is equipped with axial low power consumption fans. The condenser casing is made of steel, covered with enamel and has high corrosion resistance.

Liquid refrigerant line: shut-off valve, filter-drier, sight glass, shut-off valve, solenoid valve, thermostatic expansion valve.

Suction line: suction header (for chillers with two compressors), thermal insulation.

Evaporator: copper-brazed plate heat exchanger, thermal insulation.

Frame: The frame is the supporting structure of the chiller. It is made of steel and has sufficient rigidity. The frame is painted with a high quality anti-corrosion composition, resisting environmental climatic factors. It provides a possibility of mounting the chiller on its base and an easy access to its maintenance.

Options**Liquid refrigerant separation in suction line**

Option A1: thermal insulated liquid separator.

Air cooled condenser fan control

Option B1: one pressure switch for condenser fan control;

Option B2: two pressure switches for condenser fan control.

Chiller control

Option C3: control cabinet with ST 544 controller for chillers with one or two compressors, including temperature sensors at evaporator brine inlet/outlet and power controls switching on/off compressor(s) and condenser fan(s); control cabinet is combined with chiller;

Option C5: control cabinet with mC2SE controller, including temperature sensors at evaporator brine inlet/outlet and power controls switching on/off compressor(s) and condenser fan(s); control cabinet is combined with chiller.

Additional crankcase heating of each compressor

Option K1: additional crankcase heater, thermostat, compressor crankcase thermal insulation.

Pressure monitoring

Option V1: manometers for suction and discharge lines.

Brine flow control

Option Z1: flow switch.

Technical documentation

Operating manual, product passport.

Label structure

CKS - H - 2 x SM125 - H - XX...X R22

1 2 3 4 5 6 7

1 – Product type:

CKS – liquid chiller with air cooled condenser and with hermetic scroll compressor;

2 – Temperature application:

H – High temperature;

3 – Number of compressors in the chiller (if more than one);

4 – Compressor model;

5 – Version;

6 – Additional options;

7 – Refrigerant.