AME-H007 MULTICOMPRESSOR UNITS

Unit description

These multicompressor units are employed as a part of refrigeration systems in trade firms Refrigerant: R404A, R507A.

Total amount of unit variants: Medium temperature - 7 Low temperature - 7

These units 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 unit'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

unit are assembled and tested. The unit is certified for compliance with national standards.

Having installed the unit in its new location, connect it with the refrigeration system circuit and then wire to the electrical network.

Basic components

Compressor: number of compressors - 2 (two)

The Bitzer semi-hermetic piston compressor has a common housing with an electric motor and is charged with oil; the oil level can be monitored through a sight glass. A charging connection and an oil drain plug are built in the housing. The compressor crankcase is equipped with an oil heater; the electric motor has a protective relay against winding superheat. The compressor is also equipped with suction and discharge shut-off valves and pressure switches.

Discharge line: pipeline, discharge header, oil separator, electric heater of oil separator, thermal insulation of oil separator.

Oil return line: sight glass, shut-off valve.

Refrigerant receiver: equipped with shut-off valves at inlet and outlet and a safety valve.

Liquid refrigerant line: pipeline, filter-drier, sight glass, shut-off valve. Suction line: suction header, cleaning filter, thermal insulation.

Control cabinet, combined with unit, includes:

power controls for connection of two compressors;

power controls to connect fans of recommended condenser models;

controller mRack (Carel) with pressure sensors in the suction and discharge lines provides step control of two compressors and step control of two condenser fans:

control cabinet LED indications: compressor operation, compressor failure, lubrication system failure, refrigerant pressure outside of limits, additional oil heating

Frame: The frame is the supporting structure of the unit. 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 unit on its base and an easy access to its maintenance.

Options

Liquid refrigerant separation in suction line of each compressor Option A1: thermal insulated liquid separator.

Air cooled condenser fan control

Option B51: speed regulator of single-phase condenser fans; Option B53: speed regulator of three-phase condenser fans.

Condensing pressure regulation

Option D1: discharge line pressure regulator, regulator or differential pressure valve in refrigerant by-pass line into receiver, check valve in refrigerant drain line into receiver;

Option D2: regulator or differential pressure valve in refrigerant by-pass line into receiver, pressure regulator in refrigerant drain line into receiver;

Option **D3:** check valve in refrigerant drain line into receiver;

Option D5: check valve in refrigerant discharge line.

Air cooling of each compressor

Option F1: additional fan.

Additional compressor crankcase heating

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

Maintenance facilities

Option L1: shut-off valves in suction and discharge lines.

Oil level regulation in each compressor's crankcase

Option Q2: oil receiver with shut-off valves at inlet and outlet, oil differential check valve, shut-off valve, oil filter, oil level float regulator; Option **Q3:** oil receiver with shut-off valves at inlet and outlet, oil differential

check valve, shut-off valve, oil filter, oil level digital regulator. Oil receiver oil charge

Option R1: oil charge.

Pressure monitoring

Option V1: pressure gauges with glycerin pointer vibration damper for suction and discharge lines.

Technical documentation

Operating manual, product passport, receiver passport.

Label structure $\underline{AME}_{1} - \underline{L}_{2} - \underline{2}_{3} \times \underline{4DC5}_{4} \times \underline{Y}_{5} - \underline{H007}_{6} - \underline{XX...X}_{7} \times \underline{R404A/R507A}_{8}$

1 - Product type:

- AME multicompressor unit with semi-hermetic piston compressor; Temperature level:
- L low temperature;
- M medium temperature;
- Number of compressors in the unit;
- 4 Compressor model;

5 - Oil type

- Y synthetic;
- 6 Version;
- 7 Additional options;
- 8 Refrigerant.