

Liebert HIROSS



HISP

HIGH PERFORMANCE AIR CONDITIONING



Hisp air conditioners are the split solution for technological rooms and telecommunication sites: they are composed of an internal evaporating unit (SE, Split Evaporator) and an external condensing section (SC, Split Condenser).

Energy Saving And Cost Effective Cooling

The most modern design and components such as scroll compressor, plug-type fans and the freecooling mode assure high energy saving and greatly reduce running and lifetime cost.

High Reliability

Hisp can be powered by either 48VDC or 230/1/50 in case of mains failure, ventilating and maximising freecooling to keep the indoor temperature below the shut-down limit and guarantee continued operation of the telecommunication equipment.

High Connectivity

The standard on board control allows teamwork with other units and connectivity to innovative Liebert-HIROSS supervision system or to third-party monitoring. Connections can make use of existing Ethernet LAN and new interactive solutions via Web are available.

Full Installation Accessories Range

The unit can be supplied complete with all main accessories for installation such as plate and flexible or rigid ducts for freecooling connections, overpressure gravity damper, external rain proof grill for freecooling intake or to protect the overpressure damper.

High Flexibility

The air conditioners may be installed either on a ceiling or on a wall, allowing maximum flexibility of use in the available space. The remote display allows flexibility in positioning the control interface.



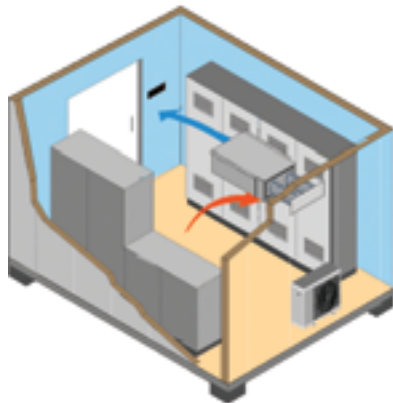
General Features

| Model Hisp SE+SC | | 05 | 06 | 08 | 10 | 13 | 14 |
|--|-------------------|--------------------------|-------|-------|--------------------|-------|-----------|
| Evaporating side installation | | Horizontal or vertical | | | | | |
| Main power supply | | 230V/1Ph/50HZ | | | 400V/3Ph+N+PE/50HZ | | |
| Emergency power supply (opt.) | | 48V DC or 230V/1Ph/50HZ | | | | | |
| Performances | | | | | | | |
| Total cooling capacity ⁽¹⁾ | kW | 4,8 | 5,8 | 8,5 | 10,9 | 13,7 | 15,2 |
| Sensible cooling capacity ⁽¹⁾ | kW | 4,6 | 5,3 | 8,5 | 10,2 | 13,3 | 13,8 |
| Compressor AC power input ⁽¹⁾ | kW | 1,21 | 1,62 | 1,77 | 2,63 | 3,48 | 4,52 |
| Condenser fan AC power input ⁽¹⁾ | kW | 0,18 | 0,18 | 0,26 | 0,26 | 0,26 | 0,77 |
| Evaporator fan AC power input ⁽¹⁾ | kW | 0,26 | 0,26 | 0,7 | 0,7 | 1,12 | 1,12 |
| Evaporator fan DC power input ⁽¹⁾ | kW | 0,14 | 0,14 | 0,34 | 0,34 | 0,6 | 0,6 |
| Evaporator airflow | m ³ /h | 1.510 | 1.510 | 2.670 | 2.270 | 3.950 | 3.950 |
| Condenser max.airflow | m ³ /h | 2.390 | 2.390 | 3.800 | 3.800 | 3.800 | 5.320 |
| Freecooling max.airflow | m ³ /h | 1.400 | 1.400 | 2.230 | 2.230 | 3.600 | 3.600 |
| Outdoor sound pressure level ⁽²⁾ | dB(A) | 47 | 48 | 52 | 54 | 56 | 58 |
| Indoor sound pressure level ⁽²⁾ | dB(A) | 55 | 55 | 60 | 60 | 62 | 62 |
| Max.ambient temperature ⁽³⁾ | °C | 48 | 45 | 48 | 48 | 45 | 46 |
| Refrigeration Circuit | | | | | | | |
| Compressor type/quantity | - | scroll/1 | | | | | |
| Refrigerant | | R407C | | | | | |
| Expansion device | | thermostatic valve | | | | | |
| Evaporator Fan | | | | | | | |
| Quantity/type/poles AC version | - | 2/centrifugal/4 | | | | | |
| Quantity/type/poles DC version | | 2/plug/- | | | | | |
| Driven/motor protection | - | direct/IP44 | | | | | |
| Condenser Fan | | | | | | | |
| Quantity/type/poles | | 1/axial/6 | | | | | 1/axial/4 |
| Driven/motor protection | - | direct/IP54 | | | | | |
| Control system | | variable speed | | | | | |
| Filter type/efficiency (CEN-EU) | | pleated/G3 | | | | | |
| Electric heating (opt.) | kW | 3,0 | | | 6,0 | | |
| Cabinet | | | | | | | |
| Frame | - | galvanized steel | | | | | |
| Painting | | polyester - RAL7035 | | | | | |
| Insulation type/thickness | -/mm | polyurethane class A1/10 | | | | | |
| Evaporator (SE) Width | mm | 800 | | | 1.100 | | |
| Evaporator (SE) Depth/with freecooling | mm | 800/1.050 | | | 1.095/1.395 | | |
| Evaporator (SE) Height | | 310 | | | 395 | | |
| Evaporator (SE) Weight/with freecooling | | 54/62 | | | 110/122 | | 120/132 |
| Condenser (SC) Width | | 800 | | | 1.050 | | |
| Condenser (SC) Depth | | 285 | | | 500 | | |
| Condenser (SC) Height | mm | 537 | | | 690 | | |
| Condenser (SC) Weight | kg | 49 | 51 | 112 | 115 | 124 | 125 |

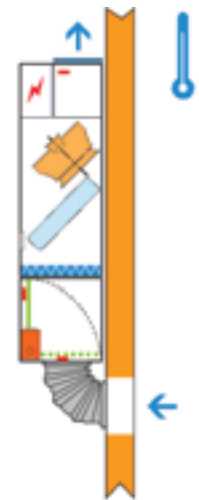
(1) Reference conditions are 27°C, &47% R.H indoor, 35°C outdoor; nominal power supply.

(2) Measured with outdoor temperature 35°C, 2 meters from the unit, free field conditions.

(3) Maximum outdoor temperature referred to indoor air temperature =24°C.



Example of horizontal installation direct expansion mode



Example of vertical installation freecooling mode

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