



BITZER Output data

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Project survey

Selected compressors

Condensing Units

1x LH44E/2FES-2Y



Selection: Condensing Units

Input Values

| | | | |
|-------------------------|-----------------|------------------|-------------|
| Unit type | LH44E/2FES-2Y | Useful superheat | 100% |
| Series | Standard | Operating mode | Auto |
| Refrigerant | R449A | Power supply | 400V-3-50Hz |
| Reference temperature | Dew point temp. | Capacity control | 100% |
| Suction gas temperature | 20,00 °C | | |

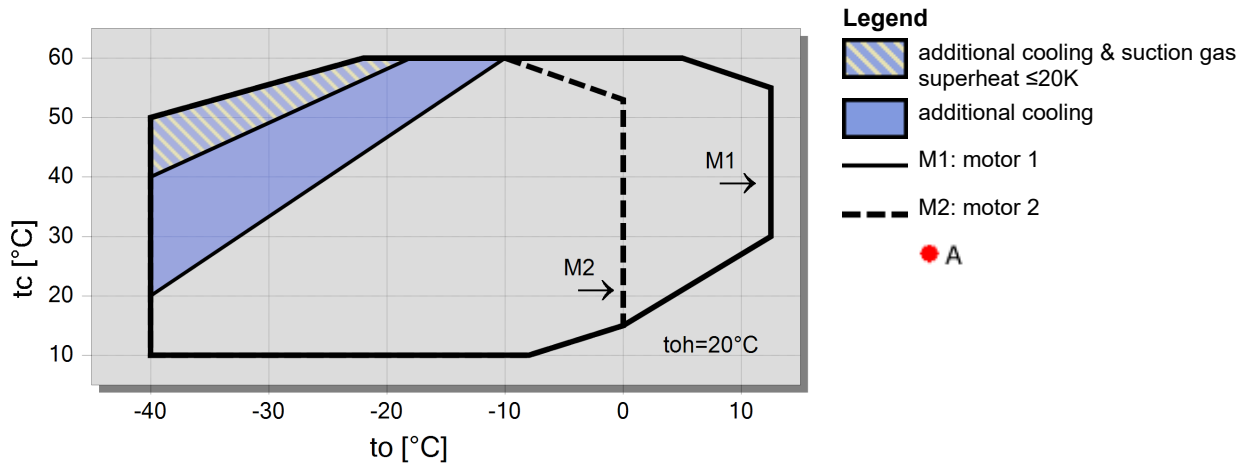
Result

| | | | |
|----------|------------------|----------|----------------|
| Q [W] | Cooling capacity | Op. | Operating mode |
| P [kW] | Power input | tc [°C] | Condensing SDT |
| I [A] | Current | dtau [K] | subcooling |
| m [kg/h] | Mass flow | | |

| tamb | to | 10°C | 5°C | 0°C | -5°C | -10°C | -15°C | -20°C | -25°C |
|------|----------|------|-----|-----|----------|----------|----------|----------|----------|
| 27°C | Q [W] | -- | -- | -- | 5289 | 4441 | 3659 | 2950 | 2317 |
| | P [kW] | -- | -- | -- | 2,49 | 2,21 | 1,96 | 1,72 | 1,50 |
| | I [A] | -- | -- | -- | 4,20 | 3,86 | 3,56 | 3,30 | 3,06 |
| | m [kg/h] | -- | -- | -- | 120,6 | 97,6 | 77,9 | 61,1 | 46,9 |
| | Op. | -- | -- | -- | Standard | Standard | Standard | Standard | Standard |
| | tc [°C] | -- | -- | -- | 47,3 | 44,6 | 42,1 | 39,9 | 37,9 |
| | dtau [K] | -- | -- | -- | 3,00 | 3,00 | 3,00 | 3,00 | 3,00 |
| | | | | | | | | | |
| 32°C | Q [W] | -- | -- | -- | 4852 | 4066 | 3342 | 2685 | 2100 |
| | P [kW] | -- | -- | -- | 2,61 | 2,29 | 2,01 | 1,75 | 1,51 |
| | I [A] | -- | -- | -- | 4,35 | 3,96 | 3,62 | 3,33 | 3,07 |
| | m [kg/h] | -- | -- | -- | 116,0 | 93,5 | 74,3 | 58,0 | 44,3 |
| | Op. | -- | -- | -- | Standard | Standard | Standard | Standard | Standard |
| | tc [°C] | -- | -- | -- | 51,5 | 48,9 | 46,5 | 44,3 | 42,4 |
| | dtau [K] | -- | -- | -- | 3,00 | 3,00 | 3,00 | 3,00 | 3,00 |
| | | | | | | | | | |
| 43°C | Q [W] | -- | -- | -- | -- | 3280 | 2646 | 2078 | 1576 |
| | P [kW] | -- | -- | -- | -- | 2,51 | 2,16 | 1,85 | 1,57 |
| | I [A] | -- | -- | -- | -- | 4,23 | 3,80 | 3,44 | 3,13 |
| | m [kg/h] | -- | -- | -- | -- | 84,8 | 65,8 | 50,1 | 36,9 |
| | Op. | -- | -- | -- | -- | Standard | Standard | Standard | Standard |
| | tc [°C] | -- | -- | -- | -- | 58,5 | 56,2 | 54,1 | 52,3 |
| | dtau [K] | -- | -- | -- | -- | 3,00 | 3,00 | 3,00 | 3,00 |
| | | | | | | | | | |

-- No calculation possible (see message in single point selection)
 Power input compressor, power input fan see "T. Data"

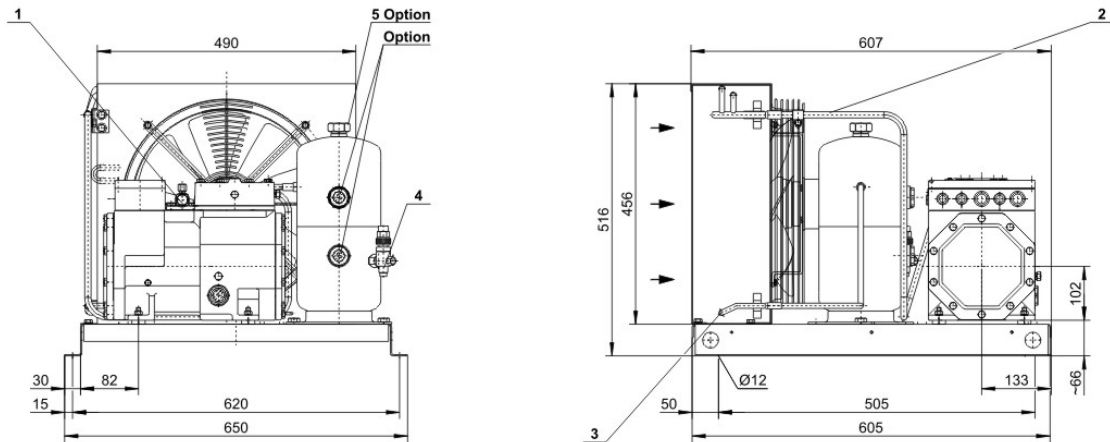
Application Limits 1 LH44E/2FES-2





Technical Data: LH44E/2FES-2Y

Dimensions and Connections



Technical Data

Technical Data

| | |
|--|------------------------|
| Weight | 77 kg |
| Total width | 650 mm |
| Total depth | 607 mm |
| Total height | 516 mm |
| Connection suction line | 16 mm - 5/8" |
| Connection liquid line | 10 mm - 3/8" |
| Fans: Number | 1xEC |
| Voltage (50Hz, more on request) | 230V-1-50Hz (Standard) |
| Current / Power consumption of each fan (50Hz) | 1,4 A / 160 W |
| Air flow condenser 50Hz | 2000 m ³ /h |
| Voltage (60Hz, more on request) | 230V-1-60Hz (Standard) |
| Current / Power consumption of each fan (60Hz) | 1,4 A / 155 W |
| Air flow condenser 60Hz | 2000 m ³ /h |
| Coil Volume | 0,46 dm ³ |
| Receiver type (Standard) | FS56 |
| Max. refrigerant charge 90% at 20°C / 68°F | |
| R22 | 6,1 kg |
| R134a | 6,2 kg |
| R407C | 5,8 kg |
| R404A/R507A | 5,4 kg |
| R407A | 5,9 kg |
| R407F | 5,7 kg |
| R448A | 5,6 kg |
| R449A | 5,6 kg |
| R450A | 6 kg |
| R513A | 6,2 kg |
| R1234yf | 5,6 kg |
| R1234ze | 5,9 kg |
| Receiver type (Option) | FS076 |
| R22 | 8,5 kg |
| R134a | 8,6 kg |
| R407C | 8,1 kg |
| R404A/R507A | 7,5 kg |

Extent of delivery (Standard)

| | |
|-------------------|----------|
| Discharge line | Standard |
| Protective charge | Standard |

Available Options

| | |
|----------------------------|--------|
| Oil separator | Option |
| Check valve | Option |
| High & low pressure switch | Option |
| Dressed unit | Option |
| Weather protective housing | Option |
| Fans: elect. Speed control | Option |

Sound measurement

Data of compressors: see compressor program



Condensing Units

Motor 1 = e.g. LH..E/4TES-12 with 12 "HP", primary for air-conditioning (e.g. R22,R407C) and medium temperature application (e.g. R134a, R407F, R407A, R404A, R507A, R22) and air-conditioning with R134a at high ambient temperatures.

Motor 2 = e.g. LH..E/4TES-9 with 8 "HP", for medium and low temperature application (e.g. R134a, R407F, R407A, R404A, R507A, R22) and air-conditioning with R134a.

For more information concerning the application range use the "limits" button.

Operation modes for LH..E/4VES-7 to LH../6HE-28 with R22

CIC = liquid injection with low temperature application, suction gas cooled motor

Specifications for sound emission Ecostar

The data are based on 50 Hz operation with R404A.

Soundpressure: Data are valid for free field conditions according to EN13487 with a block-shaped reference area in a distance of 10m.

For further informations see technical information for sound data.

Legend of connection positions according to "Dimensions":

- 1 Suction gas valve
- 2 Discharge gas line
- 3 Condensate line
- 4 Refrigerant outlet (liquid line)
- 5 Pressure relief valve connection
- 6 Liquid injection (operation without liquid subcooler and with thermostatic expansion valve)
- 7 Refrigerant inlet at liquid subcooler
- 8 Refrigerant outlet at liquid subcooler
- 9 Suction gas line
- 10 Sight glass
- 11 Load suspension points
- 12 Plug for screwed cable gland
- 13 Cable bushing (for cables \varnothing 9-17 mm) (only ECOLITE)

Dimensions can show tolerances according to EN ISO 13920-B.