



BITZER Output data

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Project survey

Selected compressors

Condensing Units

1x LH53E/2DES-2Y



Selection: Condensing Units

Input Values

Unit type	LH53E/2DES-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		

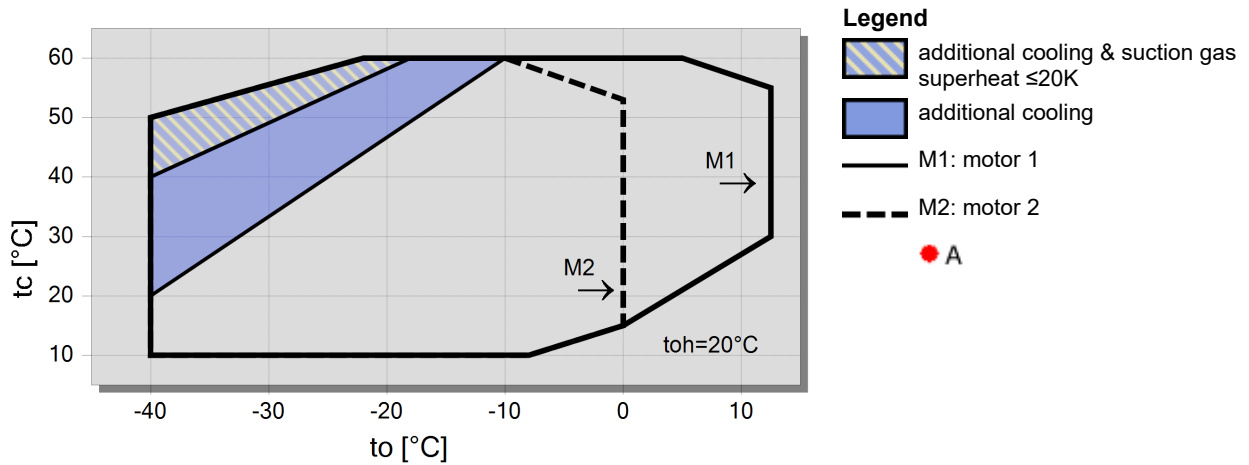
Result

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]	--	--	--	7737	6487	5352	4334	3434
	P [kW]	--	--	--	3,29	2,93	2,59	2,26	1,96
	I [A]	--	--	--	5,42	4,92	4,46	4,05	3,69
	m [kg/h]	--	--	--	176,6	142,6	113,9	89,7	69,4
	Op.	--	--	--	Standard	Standard	Standard	Standard	Standard
	tc [°C]	--	--	--	47,4	44,6	42,1	39,9	37,9
	dtau [K]	--	--	--	3,00	3,00	3,00	3,00	3,00
32°C	Q [W]	--	--	--	7196	6019	4949	3991	3144
	P [kW]	--	--	--	3,42	3,03	2,66	2,32	1,99
	I [A]	--	--	--	5,60	5,05	4,56	4,12	3,72
	m [kg/h]	--	--	--	172,2	138,5	110,1	86,3	66,3
	Op.	--	--	--	Standard	Standard	Standard	Standard	Standard
	tc [°C]	--	--	--	51,6	48,9	46,5	44,4	42,4
	dtau [K]	--	--	--	3,00	3,00	3,00	3,00	3,00
43°C	Q [W]	--	--	--	--	4993	4072	3246	2517
	P [kW]	--	--	--	--	3,20	2,78	2,39	2,02
	I [A]	--	--	--	--	5,29	4,72	4,21	3,75
	m [kg/h]	--	--	--	--	129,0	101,4	78,3	59,1
	Op.	--	--	--	--	Standard	Standard	Standard	Standard
	tc [°C]	--	--	--	--	58,4	56,2	54,2	52,4
	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"

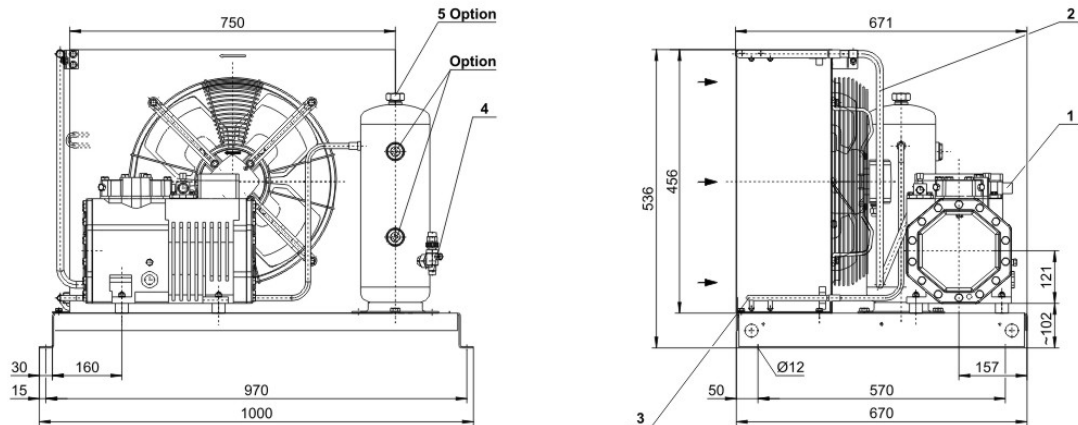
Application Limits 1 LH53E/2DES-2





Technical Data: LH53E/2DES-2Y

Dimensions and Connections



Technical Data

Technical Data

Weight	109 kg
Total width	1000 mm
Total depth	671 mm
Total height	536 mm
Connection suction line	22 mm - 7/8"
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)	1,5 A / 330 W
Air flow condenser 50Hz	2600 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	2900 m ³ /h
Coil Volume	0,7 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.