



Selection: Condensing Units

Input Values

Unit type	LHV5E/4FE-5.F1Y	Useful superheat	100%
Series	ECOSTAR	Operating mode	Economy
Refrigerant	R404A	Power supply	400V-3-50Hz
Reference temperature	Dew point temp.	Frequency compressor	80,0 Hz
Suction gas temperature	20,00 °C		

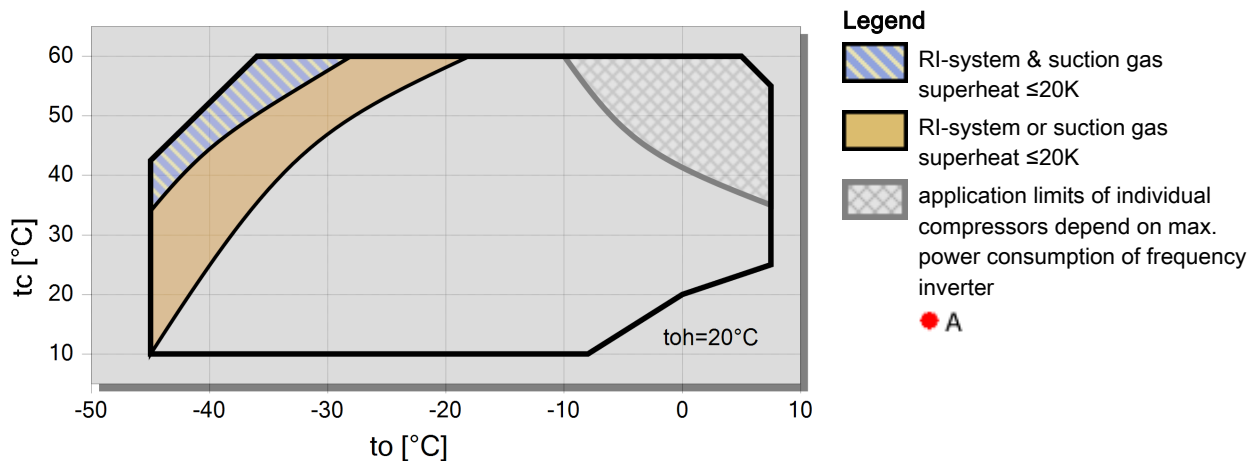
Result

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

tamb	to	15°C	5°C	-5°C	-15°C	-25°C	-35°C	-45°C	-55°C
27°C	Q [W]	--	23527	18004	13023	8801	5396	2979	--
	P [kW]		9,62	8,25	6,83	5,43	3,94	2,64	
	I [A]		14,45	12,40	10,34	8,35	6,42	4,54	
	m [kg/h]		763	526	352	224	133,1	72,0	
	Op.		Standard	Standard	Standard	Standard	Standard	Standard	
	tc [°C]		50,3	45,4	40,8	37,1	35,1	33,8	
	dctu [K]		3,00	3,00	3,00	3,00	3,00	2,97	
32°C	Q [W]	--	21484	16502	11970	8079	4927	2689	--
	P [kW]		9,95	8,52	7,03	5,52	3,94	2,58	
	I [A]		14,94	12,79	10,63	8,51	6,45	4,44	
	m [kg/h]		742	512	342	217	128,4	68,6	
	Op.		Standard	Standard	Standard	Standard	Standard	Standard	
	tc [°C]		54,0	49,5	45,2	41,7	39,9	38,7	
	dctu [K]		3,00	3,00	3,00	3,00	3,00	2,96	
43°C	Q [W]	--	--	13151	9615	6535	3980	--	--
	P [kW]			8,94	7,29	5,66	3,95		
	I [A]			13,42	11,01	8,64	6,33		
	m [kg/h]			475	317	201	117,2		
	Op.			Standard	Standard	Standard	Standard		
	tc [°C]			58,3	54,7	51,4	49,2		
	dctu [K]			3,00	3,00	3,00	2,90		

-- No calculation possible (see message in single point selection)

Application Limits LHV5E/4FE-5.F1



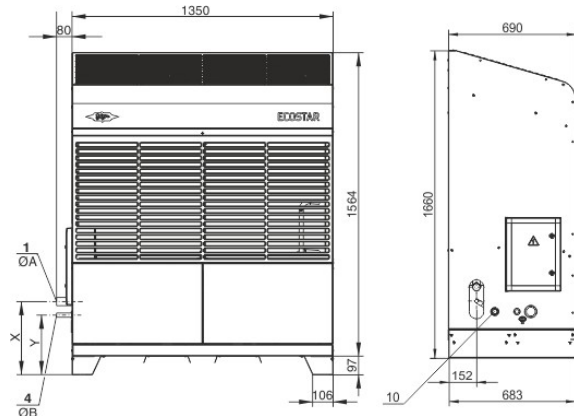
Legend

- RI-system & suction gas superheat ≤20K
- RI-system or suction gas superheat ≤20K
- application limits of individual compressors depend on max. power consumption of frequency inverter
- A



Technical Data: LHV5E/4FE-5.F1Y

Dimensions and Connections



Ansicht von unten / bottom view / vue de dessous

Typ Type Type	OA		OB		X	Y
	mm	inch	mm	inch	mm	mm
LHV5E/2DES-3.F1Y	22	7/8	16	5/8	372	310
LHV5E/4FE-5.F1Y	28	1 1/8	16	5/8	375	310
LHV5E/4EE-6.F1Y	28	1 1/8	16	5/8	375	310
LHV7E/4FE-5.F1Y	28	1 1/8	16	5/8	375	310
LHV7E/4EE-6.F1Y	28	1 1/8	16	5/8	375	310
LHV7E/4DE-5.F1Y	35	1 3/8	22	7/8	383	308
LHV7E/4CE-6.F1Y	35	1 3/8	22	7/8	383	308
LHV7E/4DE-7.F3Y	35	1 3/8	22	7/8	383	308
LHV7E/4CE-9.F3Y	35	1 3/8	22	7/8	383	308
LHV7E/4VE-7.F3Y	42	1 5/8	22	7/8	383	308
LHV7E/4TE-9.F3Y	42	1 5/8	22	7/8	383	308
LHV7E/4PE-12.F3Y	42	1 5/8	22	7/8	383	308
LHV7E/4NE-14.F3Y	42	1 5/8	22	7/8	383	308

Technical Data

Technical Data

Weight	312 kg
Total width	1350 mm
Total depth	690 mm
Total height	1660 mm
Connection suction line	28 mm - 1 1/8"
Connection liquid line	16 mm - 5/8"
Air flow condenser 50Hz	5200 m ³ /h
Coil Volume	2,8 dm ³

Extent of delivery (Standard)

ECOSTAR controller with display	Standard
ECOLINE VARISPEED (with mounted frequency inverter)	87 .. 25 Hz
Liquid receiver with shut-off valve	Standard
Complete piping and wiring with main switch and compressor contactor	Standard
High & low pressure switch	Standard
High and low pressure transmitter	Standard
Sight glass and filter drier in liquid line	Standard
Oil heater	Standard
Discharge gas temperature sensor	Standard
suction gas temperature sensor	Standard
Ambient temperature sensor	Standard
Discharge gas line	Standard
Weather protective housing	Standard
data logging	Standard
Fans: elect. Speed regulator	Standard
Connection for pressure relief valve	Standard
Fans: Number	1 x EC
Protective charge	Standard

Available Options

Condenser with improved corrosion protection, plastic coated fins or copper fins	Option
Oil separator with check valve	Option
Oil level monitoring	Delta-PII
check valve for liquid line (additional pressure relief valve according to EN 378 required)	Option
RI System	Option
Sound insulation for compressor housing	Option
Cold store temperature sensor	Option
external display LUP200	LUP200

**Sound measurement**

Sound pressure in 10m (to=-10°C, tamb=32°C)

Economy

42.5 dB(A) @ 80Hz R134a

Low sound

40 dB(A) @ 80Hz R134a

Max. refrigerant charge 90% at 20°C / 68°F

Receiver type (Standard)

F212N3

R22

22,9 kg

R134a

23,2 kg

R407C

21,9 kg

R404A/R507A

20,2 kg

R407A

22,1 kg

R407F

21,5 kg

R448A

21 kg

R449A

21,1 kg

R450A

22,5 kg

R513A

23,1 kg



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

The data are based on 50Hz operation.

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

For further information 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.