



BITZER Output data

Created on : 01.03.2021 11:26:29



Selection: Semi-hermetic Reciprocating Compressors

Input Values

Compressor model	4FE-25Y	Suction gas temperature	20,00 °C
Mode	Refrigeration and Air conditioning	Operating mode	Auto
Refrigerant	R513A	Power supply	400V-3-50Hz
Reference temperature	Dew point temp.	Capacity control	100%
Liq. subc. (in condenser)	0 K	Useful superheat	100%

Result

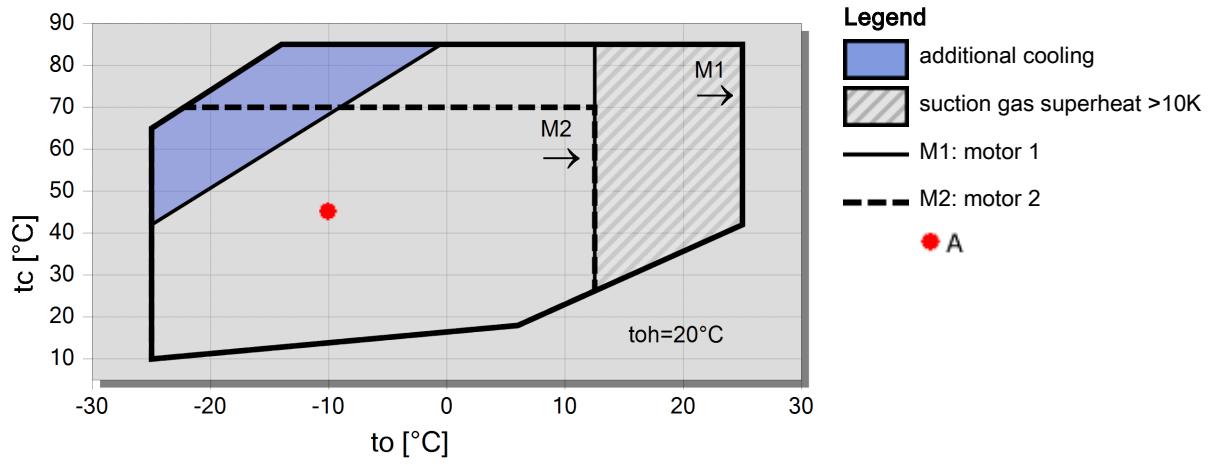
Q [W]	Cooling capacity	COP [-]	COP/EER
Qu* [W]	Evaporator capacity	m [kg/h]	Mass flow
P [kW]	Power input	Op.	Operating mode
I [A]	Current	th [°C]	Discharge gas temp. w/o cooling
Qc [W]	Condenser capacity		

tc	to	10°C	5°C	0°C	-5°C	-10°C	-15°C	-20°C	-25°C
30°C	Q [W]	91454	75835	62424	50943	41161	32872	25898	20078
	Qu* [W]	91454	75835	62424	50943	41161	32872	25898	20078
	P [kW]	14,02	13,72	13,17	12,41	11,49	10,47	9,40	8,32
	I [A]	27,6	27,2	26,5	25,6	24,5	23,4	22,3	21,2
	Qc [W]	105474	89558	75593	63353	52655	43346	35297	28399
	COP [-]	6,52	5,53	4,74	4,11	3,58	3,14	2,76	2,41
	m [kg/h]	2120	1747	1430	1161	934	744	584	452
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	51,1	56,8	62,6	68,7	75,2	82,1	89,7	98,3
40°C	Q [W]	80578	66781	54920	44756	36089	28742	22558	17399
	Qu* [W]	80578	66781	54920	44756	36089	28742	22558	17399
	P [kW]	17,31	16,46	15,41	14,20	12,87	11,49	10,10	8,75
	I [A]	32,0	30,8	29,4	27,8	26,2	24,5	23,0	21,6
	Qc [W]	97883	83245	70329	58952	48961	40231	32657	26150
	COP [-]	4,66	4,06	3,56	3,15	2,80	2,50	2,23	1,99
	m [kg/h]	2068	1701	1390	1127	905	718	562	432
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	61,0	66,7	72,5	78,6	84,9	91,6	98,9	107,1
50°C	Q [W]	69433	57506	47233	38419	30894	24510	19134	14647
	Qu* [W]	69433	57506	47233	38419	30894	24510	19134	14647
	P [kW]	20,2	18,84	17,32	15,68	13,99	12,28	10,61	9,03
	I [A]	36,1	34,1	32,0	29,8	27,5	25,4	23,5	21,9
	Qc [W]	89620	76341	64550	54102	44880	36787	29742	23677
	COP [-]	3,44	3,05	2,73	2,45	2,21	2,00	1,80	1,62
	m [kg/h]	2007	1649	1345	1087	870	687	535	408
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	71,1	76,7	82,5	88,4	94,6	101,2	108,2	116,2

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

*According to EN12900 (20°C suction gas temp., 0K liquid subcooling)

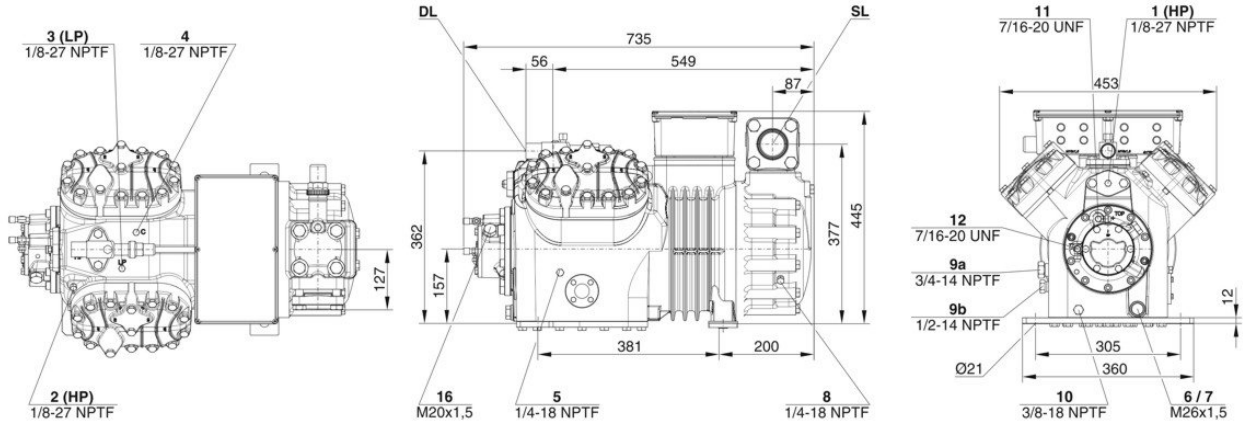
Application Limits 100% 4FE-25





Technical Data: 4FE-25Y

Dimensions and Connections



Technical Data

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Displacement (1450 RPM 50Hz)	101,8 m ³ /h
Displacement (1750 RPM 60Hz)	121,3 m ³ /h
No. of cylinder x bore x stroke	4 x 82 mm x 55 mm
Weight	207 kg
Max. pressure (LP/HP)	19 / 32 bar
Connection suction line	54 mm - 2 1/8"
Connection discharge line	28 mm - 1 1/8"
Oil type R134a/R407C/R404A/R507A/R407A/R407F	BSE32(Standard) R134a tc>70°C: BSE55 (Option)
Oil type R22 (R12/R502)	B5.2(Option)
Oil type R1234yf	BSE32 (Standard) R1234yf tc>70°C : BSE55 (Option)
Oil type R1234ze	BSE55 (Standard) to>15°C: BSE85K (Option) tc>70°C: BSE85K (Option)
Ölfüllung R454C/R455A	BSE32 (Standard)
Oil type R515B	BSE55 (Standard) to>15°C: BSE85K (Option) tc>70°C: BSE85K (Option)

Motor data

Motor version	2
Motor voltage (more on request)	380-420V PW-3-50Hz
Max operating current	52.8 A
Winding ratio	50/50
Starting current (Rotor locked)	141.0 A Y / 233.0 A YY
Max. Power input	31,0 kW

Extent of delivery (Standard)

Motor protection	SE-B2, CM-RC-01(Option)
Enclosure class	IP54 (Standard), IP66 (Option)
Vibration dampers	Standard
Oil charge	4,50 dm ³
Discharge shut-off valve	Standard
Suction shut-off valve	Standard

Available Options

Discharge gas temperature sensor	Option
Start unloading	Option
Capacity control	100-50% (Option)
Capacity Control - infinite	100-10% (Option)
Additional fan	Option
Refrigerant Injection (RI)	Option
Oil service valve	Option
Crankcase heater	140 W (Option)



Oil pressure monitoring

MP54 (Option), Delta-PII

Sound measurement

Sound power level (-10°C / 45°C)

81,0 dB(A) @50Hz

Sound power level (-35°C / 40°C)

86,5 dB(A) @50Hz

Sound pressure level @ 1m (-10°C / 45°C)

73 dB(A) @50Hz

Sound pressure level @ 1m (-35°C / 40°C)

78,5 dB(A) @50Hz

Sound power level (-10°C / 45°C) R134a

79 dB(A) @50Hz

Sound pressure level @ 1m (-10°C / 45°C) R134a

71 dB(A) @50Hz