



Compressor Selection: Semi-hermetic Reciprocating Compressors

Input Values

Compressor model Mode	(4Z-8.2Y) Refrigeration and Air conditioning	Suction gas temperature Operating mode	20,00 °C Auto
Refrigerant Reference temperature Liq. subc. (in condenser)	R404A Dew point temp. 0 K	Power supply Capacity Control Useful superheat	400V-3-50Hz 100% 100%

Result

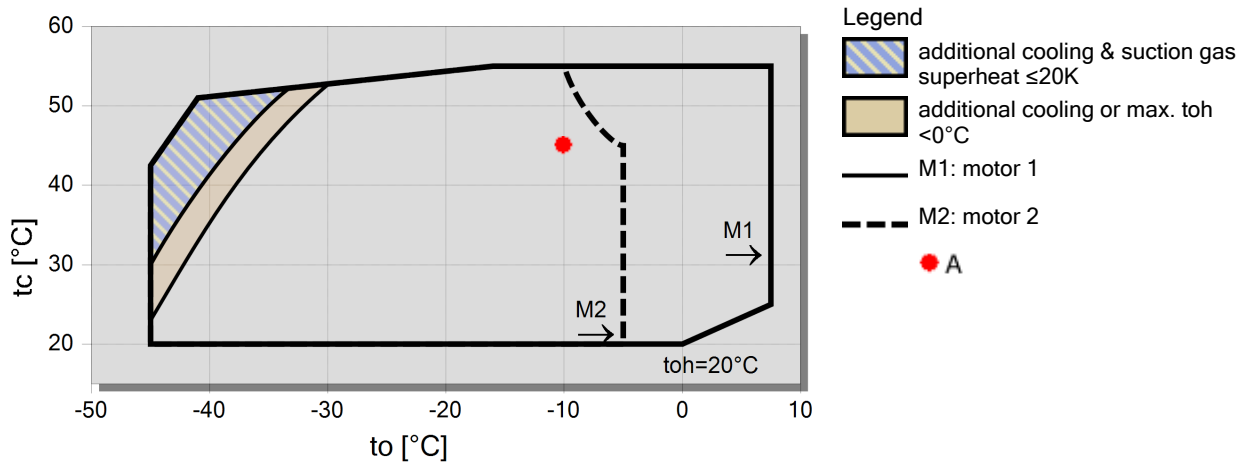
Q [W] Qu* [W] P [kW] I [A] Qc [W]	Cooling capacity Evaporator capacity Power input Current Condenser Capacity	COP [-] m [kg/h] Op. th [°C]	COP/EER Mass flow Operating mode Discharge gas temp. w/o cooling
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tc	to	-5°C	-10°C	-15°C	-20°C	-25°C	-30°C	-35°C	-40°C
30°C	Q [W]	22232	18280	14862	11917	9392	7240	5419	3889
	Qu* [W]	22232	18280	14862	11917	9392	7240	5419	3889
	P [kW]	5,56	5,26	4,92	4,54	4,10	3,62	3,09	2,50
	I [A]	10,21	9,78	9,31	8,79	8,23	7,63	7,00	6,37
	Qc [W]	27790	23540	19782	16453	13497	10864	8507	6386
	COP [-]	4,00	3,47	3,02	2,63	2,29	2,00	1,75	1,56
	m [kg/h]	558	455	367	292	229	175,4	130,7	93,5
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	68,4	75,1	82,3	90,3	99,1	108,7	119,0	129,6
	40°C	Q [W]	19004	15538	12536	9950	7732	5845	4251
Qu* [W]		19004	15538	12536	9950	7732	5845	4251	2916
P [kW]		6,35	5,91	5,42	4,88	4,30	3,68	3,03	2,35
I [A]		11,35	10,71	10,01	9,26	8,48	7,69	6,93	6,22
Qc [W]		25355	21450	17957	14830	12031	9523	7276	5262
COP [-]		2,99	2,63	2,31	2,04	1,80	1,59	1,40	1,24
m [kg/h]		538	435	348	274	211	158,9	115,0	78,6
Op.		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
th [°C]		79,0	85,9	93,3	101,4	110,2	119,9	130,6	0
50°C		Q [W]	15501	12601	10082	7905	6035	4442	3095
	Qu* [W]	15501	12601	10082	7905	6035	4442	3095	1968
	P [kW]	7,13	6,52	5,86	5,16	4,44	3,71	3,00	2,30
	I [A]	12,51	11,60	10,64	9,64	8,66	7,74	6,90	6,18
	Qc [W]	22632	19121	15940	13064	10475	8155	6091	4270
	COP [-]	2,17	1,93	1,72	1,53	1,36	1,20	1,03	0,85
	m [kg/h]	508	408	323	251	190,1	139,0	96,3	61,0
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	91,0	98,1	105,7	114,1	123,5	134,6	0	0

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

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

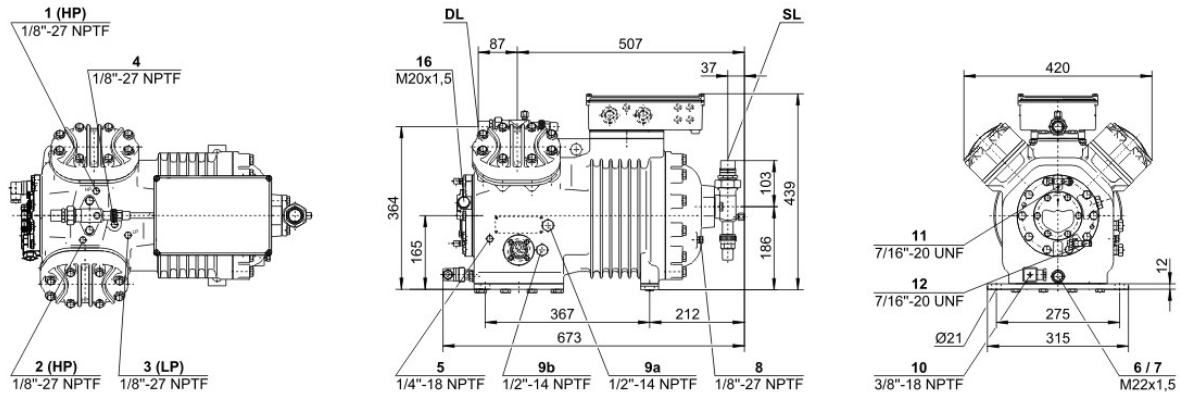
Application Limits 100%





Technical Data: (4Z-8.2Y)

Dimensions and Connections



Technical Data

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Displacement (1450 RPM 50Hz)	28,11 m ³ /h
Displacement (1750 RPM 60Hz)	33,93 m ³ /h
No. of cylinder x bore x stroke	4 x 55 mm x 34 mm
Weight	140 kg
Max. pressure (LP/HP)	19 / 28 bar
Connection suction line	28 mm - 1 1/8"
Connection discharge line	22 mm - 7/8"
Connection cooling water	R 1/2"
Oil type R134a/R407C/R404A/R507A/R407A/R407F	tc<55°C: BSE32 / tc>55°C: BSE55 (Option)
Oil type R22 (R12/R502)	B5.2 (Standard)
Oil type R290/R1270	SHC226E (Standard)

Motor data

Motor voltage (more on request)	380-420V PW-3-50Hz
Max operating current	17.0 A
Winding ratio	50/50
Starting current (Rotor locked)	49.0 A Y / 81.0 A YY
Max. Power input	9,7 kW

Extent of delivery (Standard)

Motor protection	SE-B2
Enclosure class	IP54 (Standard), IP66 (Option)
Vibration dampers	Standard
Oil charge	3,00 dm ³

Available Options

Discharge gas temperature sensor	Option
Start unloading	Option
Capacity control	100-50% (Option)
Additional fan	Option
Water-cooled cylinder heads	Option
Oil service valve	Option
Crankcase heater	100 W (Option)
Oil pressure monitoring	MP54 (Option), Delta-PII (Option, not for R290/R1270)

Sound measurement

Sound power level (+5°C / 50°C)	74,0 dB(A) @ 50Hz
Sound power level (-10°C / 45°C)	74,0 dB(A) @ 50Hz
Sound power level (-35°C / 40°C)	(80,0) dB(A) @ 50Hz
Sound pressure level @ 1m (+5°C / 50°C)	66,0 dB(A) @ 50Hz
Sound pressure level @ 1m (-10°C / 45°C)	66,0 dB(A) @ 50Hz
Sound pressure level @ 1m (-35°C / 40°C)	(72,0) dB(A) @ 50Hz