



### Compressor Selection: Semi-hermetic Reciprocating Compressors

#### Input Values

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

#### Result

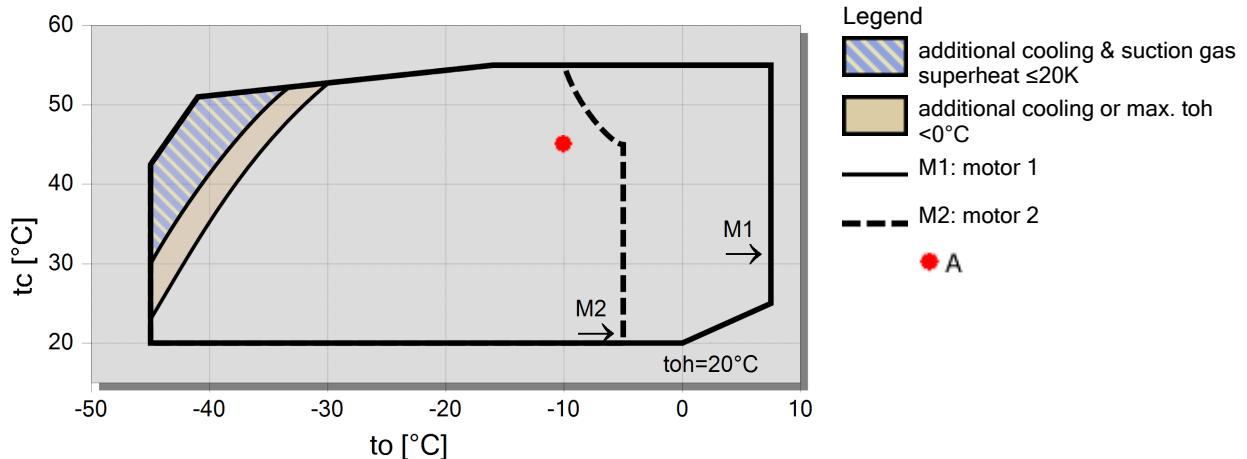
Q [W]	Cooling capacity	COP [ - ]	COP/EER
Q* [W]	Cooling capacity *	COP* [ - ]	COP/EER *
P [kW]	Power input	m [kg/h]	Mass flow
I [A]	Current	Op.	Operating mode
Qc [W]	Condenser Capacity	th [°C]	Discharge gas temp. w/o cooling

tc	to	-5°C	-10°C	-15°C	-20°C	-25°C	-30°C	-35°C	-40°C
30°C	Q [W]	33051	27243	22218	17884	14166	10993	8302	6039
	Q* [W]	33051	27243	22218	17884	14166	10993	8302	6039
	P [kW]	8,74	8,17	7,55	6,87	6,16	5,41	4,64	3,86
	I [A]	14,96	14,09	13,14	12,13	11,07	10,00	8,94	7,92
	Qc [W]	41789	35416	29766	24759	20326	16407	12947	9901
	COP [ - ]	3,78	3,33	2,94	2,60	2,30	2,03	1,79	1,56
	COP* [ - ]	3,78	3,33	2,94	2,60	2,30	2,03	1,79	1,56
	m [kg/h]	830	678	548	438	345	266	200	145,2
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	70,3	76,7	83,5	90,8	98,8	107,6	117,6	129,3
40°C	Q [W]	27759	22788	18477	14755	11559	8831	6520	4577
	Q* [W]	27759	22788	18477	14755	11559	8831	6520	4577
	P [kW]	9,86	9,05	8,20	7,34	6,46	5,57	4,66	3,74
	I [A]	16,69	15,43	14,14	12,83	11,52	10,22	8,96	7,77
	Qc [W]	37624	31833	26680	22096	18020	14398	11178	8317
	COP [ - ]	2,81	2,52	2,25	2,01	1,79	1,59	1,40	1,22
	COP* [ - ]	2,81	2,52	2,25	2,01	1,79	1,59	1,40	1,22
	m [kg/h]	786	638	512	406	316	240	176,4	123,3
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	81,4	87,8	94,7	102,2	110,6	120,0	130,9	0
50°C	Q [W]	--	18347	14792	11714	9065	6801	4879	3262
	Q* [W]	--	18347	14792	11714	9065	6801	4879	3262
	P [kW]	--	9,74	8,71	7,68	6,65	5,61	4,55	3,46
	I [A]	--	16,50	14,91	13,34	11,80	10,28	8,81	7,44
	Qc [W]	--	28088	23498	19392	15715	12411	9430	6726
	COP [ - ]	--	1,88	1,70	1,53	1,36	1,21	1,07	0,94
	COP* [ - ]	--	1,88	1,70	1,53	1,36	1,21	1,07	0,94
	m [kg/h]	--	594	474	372	285	213	151,8	101,1
	Op.	--	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	--	99,3	106,4	114,3	123,3	133,5	0	0

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

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

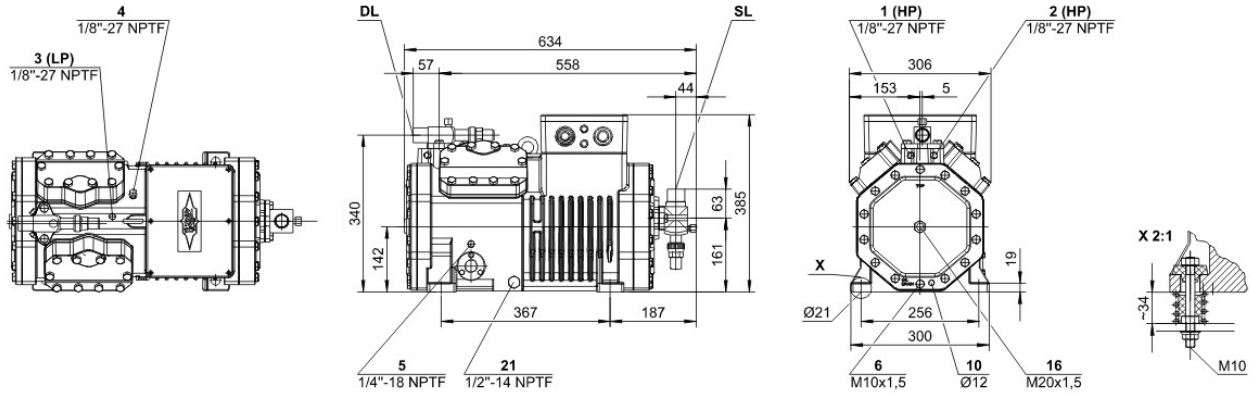
#### Application Limits 100%





## Technical Data: (4TCS-8.2Y)

### Dimensions and Connections



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Displacement (1450 RPM 50Hz)	41,33 m <sup>3</sup> /h
Displacement (1750 RPM 60Hz)	49,88 m <sup>3</sup> /h
No. of cylinder x bore x stroke	4 x 60 mm x 42 mm
Weight	134 kg
Max. pressure (LP/HP)	19 / 28 bar
Connection suction line	35 mm - 1 3/8"
Connection discharge line	28 mm - 1 1/8"
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	10,3 kW

#### Extent of delivery (Standard)

Motor protection	SE-B1
Enclosure class	IP65
Vibration dampers	Standard
Oil charge	2,60 dm <sup>3</sup>

#### Available Options

Discharge gas temperature sensor	Option
Start unloading	Option
Capacity control	100-50% (Option)
Additional fan	Option
CIC System	Option
Oil service valve	Option
Crankcase heater	0..140 W PTC (Option)
Oil level monitoring	OLC-K1 (Option, not for R290/R1270)

#### Sound measurement

Sound power level (-10°C / 45°C)	74,5 dB(A) @ 50Hz
Sound power level (-35°C / 40°C)	79,0 dB(A) @ 50Hz
Sound pressure level @ 1m (-10°C / 45°C)	66,5 dB(A) @ 50Hz
Sound pressure level @ 1m (-35°C / 40°C)	71,0 dB(A) @ 50Hz