



Selection: Semi-hermetic Reciprocating Compressors

Input Values

Compressor model	(4T-12.2Y)	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

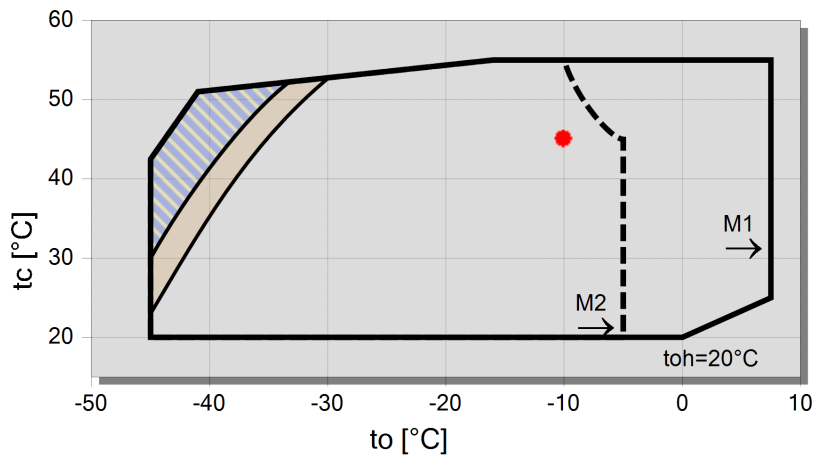
Q [W]	Cooling capacity	COP [-]	COP/EER
Qu* [W]	Evaporator capacity	m [kg/h]	Mass flow
P [kW]	Power input	Op.	Operating mode
I [A]	Current	th [°C]	Discharge gas temp. w/o cooling
Qc [W]	Condenser capacity		

tc	to	-5°C	-10°C	-15°C	-20°C	-25°C	-30°C	-35°C	-40°C
30°C	Q [W]	31638	26125	21358	17250	13728	10727	8186	6052
	Qu* [W]	31638	26125	21358	17250	13728	10727	8186	6052
	P [kW]	7,91	7,52	7,07	6,57	6,00	5,37	4,66	3,88
	I [A]	14,21	13,67	13,06	12,40	11,67	10,90	10,10	9,28
	Qc [W]	39548	33643	28428	23815	19727	16092	12848	9937
	COP [-]	4,00	3,48	3,02	2,63	2,29	2,00	1,76	1,56
	m [kg/h]	795	650	527	423	334	260	197,5	145,5
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	68,4	75,1	82,3	90,3	99,0	108,7	119,0	129,6
	40°C	Q [W]	27147	22336	18167	14571	11486	8857	6632
Qu* [W]		27147	22336	18167	14571	11486	8857	6632	4767
P [kW]		9,08	8,50	7,86	7,15	6,39	5,57	4,72	3,83
I [A]		15,88	15,05	14,14	13,17	12,17	11,15	10,16	9,22
Qc [W]		36224	30839	26027	21724	17875	14432	11351	8594
COP [-]		2,99	2,63	2,31	2,04	1,80	1,59	1,41	1,25
m [kg/h]		769	625	504	401	314	241	179,4	128,4
Op.		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
th [°C]		79,1	85,9	93,4	101,4	110,3	119,9	130,6	0
50°C		Q [W]	22289	18263	14764	11739	9139	6922	5045
	Qu* [W]	22289	18263	14764	11739	9139	6922	5045	3471
	P [kW]	10,26	9,45	8,58	7,66	6,72	5,78	4,87	4,00
	I [A]	17,63	16,43	15,16	13,87	12,60	11,41	10,32	9,39
	Qc [W]	32545	27714	23343	19401	15862	12705	9912	7467
	COP [-]	2,17	1,93	1,72	1,53	1,36	1,20	1,04	0,87
	m [kg/h]	731	591	473	373	288	217	157,0	107,6
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	91,0	98,1	105,7	114,1	123,5	134,5	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%



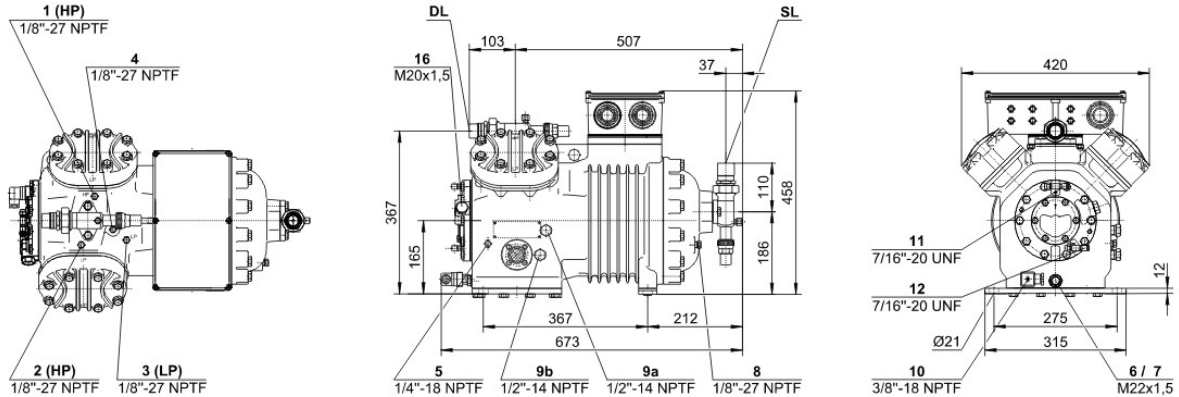
Legend

-  additional cooling & suction gas superheat $\leq 20K$
-  additional cooling or max. toh $< 0^\circ C$
-  M1: motor 1
-  M2: motor 2
-  A



Technical Data: (4T-12.2Y)

Dimensions and Connections



Technical Data

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Displacement (1450 RPM 50Hz)	39,36 m ³ /h
Displacement (1750 RPM 60Hz)	47,50 m ³ /h
No. of cylinder x bore x stroke	4 x 60 mm x 40 mm
Weight	146 kg
Max. pressure (LP/HP)	19 / 28 bar
Connection suction line	35 mm - 1 3/8"
Connection discharge line	28 mm - 1 1/8"
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	24.0 A
Winding ratio	50/50
Starting current (Rotor locked)	69.0 A Y / 113.0 A YY
Max. Power input	13,8 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

Connection suction line	Option
Discharge shut-off valve	Option
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)	76,5 dB(A) @ 50Hz
Sound power level (-10°C / 45°C)	77,5 dB(A) @ 50Hz
Sound power level (-35°C / 40°C)	(83,5) dB(A) @ 50Hz
Sound pressure level @ 1m (+5°C / 50°C)	68,5 dB(A) @ 50Hz