



Selection: Semi-hermetic Reciprocating Compressors

Input Values

Compressor model	(4H-25.2Y)	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	15°C	5°C	-5°C	-15°C	-25°C	-35°C	-45°C	-55°C
30°C	Q [W]	--	83093	57888	38909	24775	14449	--	--
	Qu* [W]		83093	57888	38909	24775	14449		
	P [kW]		16,05	15,13	13,40	11,10	8,45		
	I [A]		28,5	27,2	24,8	21,9	18,86		
	Qc [W]		99146	73017	52309	35873	22902		
	COP [-]		5,18	3,83	2,90	2,23	1,71		
	m [kg/h]		2142	1454	960	603	349		
	Op.		Standard	Standard	Standard	Standard	Standard		
	th [°C]		57,2	69,9	84,1	100,5	121,1		
	40°C	Q [W]	--	70966	49364	32996	20757	11792	--
Qu* [W]			70966	49364	32996	20757	11792		
P [kW]			19,20	17,31	14,75	11,77	8,59		
I [A]			33,1	30,3	26,7	22,7	19,00		
Qc [W]			90169	66670	47747	32526	20382		
COP [-]			3,70	2,85	2,24	1,76	1,37		
m [kg/h]			2068	1397	915	567	319		
Op.			Standard	Standard	Standard	Standard	Standard		
th [°C]			68,1	80,8	95,0	111,5	132,6		
50°C		Q [W]	--	59090	40984	27172	16820	9253	--
	Qu* [W]		59090	40984	27172	16820	9253		
	P [kW]		22,2	19,32	15,96	12,33	8,64		
	I [A]		37,6	33,3	28,4	23,4	19,06		
	Qc [W]		81251	60302	43137	29150	17895		
	COP [-]		2,67	2,12	1,70	1,36	1,07		
	m [kg/h]		2005	1344	870	530	288		
	Op.		Standard	Standard	Standard	Standard	Standard		
	th [°C]		79,2	92,0	106,3	123,2	0		






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

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

Application Limits 100% 4H-25.2



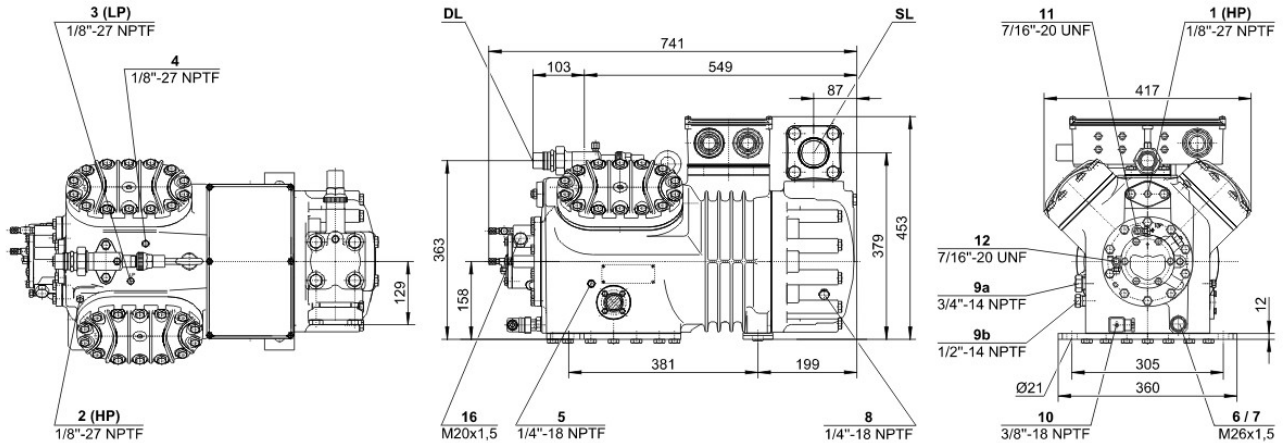
Legend

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



Technical Data: (4H-25.2Y)

Dimensions and Connections



Technical Data

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Displacement (1450 RPM 50Hz)	73,6 m ³ /h
Displacement (1750 RPM 60Hz)	88,83 m ³ /h
No. of cylinder x bore x stroke	4 x 70 mm x 55 mm
Weight	203 kg
Max. pressure (LP/HP)	19 / 28 bar
Connection suction line	54 mm - 2 1/8"
Connection discharge line	28 mm - 1 1/8"
Connection cooling water	R 3/4"
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	45.0 A
Winding ratio	50/50
Starting current (Rotor locked)	116.0 A Y / 193.0 A YY
Max. Power input	24,9 kW

Extent of delivery (Standard)

Motor protection	SE-B2
Enclosure class	IP54 (Standard), IP66 (Option)
Vibration dampers	Standard
Oil charge	4,50 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	140 W (Option)
Oil pressure monitoring	MP54 (Option), Delta-PII (Option, not for R290/R1270)

Sound measurement

Sound power level (+5°C / 50°C)	77,5 dB(A) @ 50Hz
Sound power level (-10°C / 45°C)	78,0 dB(A) @ 50Hz
Sound power level (-35°C / 40°C)	(81,0) dB(A) @ 50Hz
Sound pressure level @ 1m (+5°C / 50°C)	69,5 dB(A) @ 50Hz
Sound pressure level @ 1m (-10°C / 45°C)	70,0 dB(A) @ 50Hz
Sound pressure level @ 1m (-35°C / 40°C)	(73,0) dB(A) @ 50Hz