



Compressor Selection: Semi-hermetic Reciprocating Compressors

Input Values

Compressor model Mode	(4P-15.2Y) 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

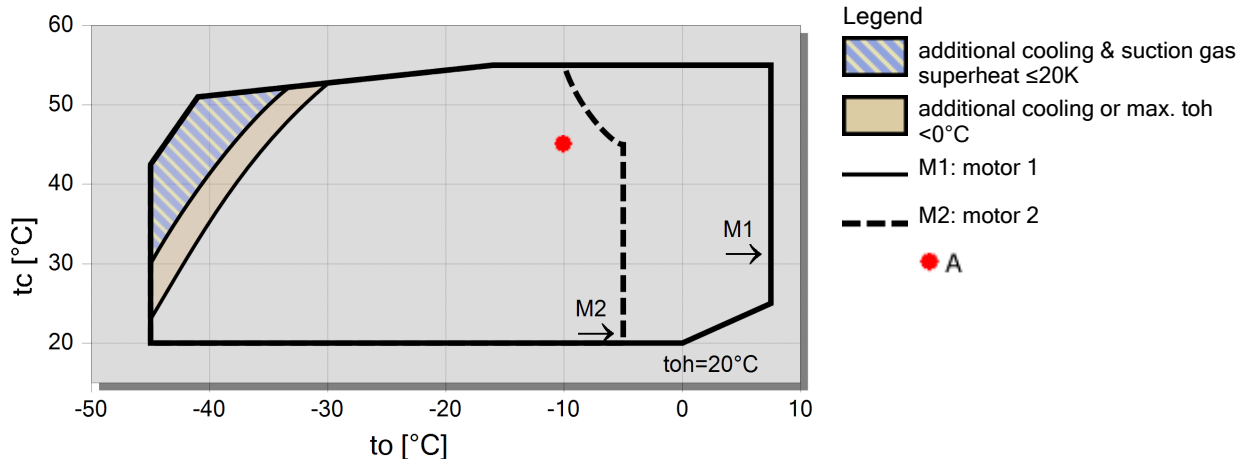
Q [W]	Cooling capacity	COP [-]	COP/EER
Q* [W]	Cooling capacity *	COP* [-]	COP/EER *
P [kW]	Power input	m [kg/h]	Mass flow
I [A]	Current	Op.	Operating mode
Qc [W]	Condenser Capacity	th [°C]	Discharge gas temp. w/o cooling

tc	to	5°C	0°C	-5°C	-10°C	-15°C	-20°C	-25°C	-30°C
30°C	Q [W]	54327	45449	37749	31078	25314	20355	16110	12500
	Q* [W]	54327	45449	37749	31078	25314	20355	16110	12500
	P [kW]	10,43	9,97	9,48	8,95	8,36	7,71	6,99	6,17
	I [A]	18,91	18,28	17,62	16,91	16,16	15,35	14,48	13,57
	Qc [W]	64752	55416	47228	40026	33679	28070	23097	18667
	COP [-]	5,21	4,56	3,98	3,47	3,03	2,64	2,31	2,03
	COP* [-]	5,21	4,56	3,98	3,47	3,03	2,64	2,31	2,03
	m [kg/h]	1401	1155	948	773	624	499	392	303
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	57,0	62,6	68,6	75,1	82,2	90,0	98,6	107,7
40°C	Q [W]	46979	39242	32510	26665	21609	17256	13530	10363
	Q* [W]	46979	39242	32510	26665	21609	17256	13530	10363
	P [kW]	12,10	11,49	10,81	10,07	9,26	8,39	7,47	6,50
	I [A]	21,3	20,4	19,46	18,41	17,32	16,19	15,05	13,93
	Qc [W]	59077	50733	43322	36731	30865	25644	20997	16860
	COP [-]	3,88	3,41	3,01	2,65	2,33	2,06	1,81	1,60
	COP* [-]	3,88	3,41	3,01	2,65	2,33	2,06	1,81	1,60
	m [kg/h]	1369	1126	920	746	599	475	370	282
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	66,7	72,6	78,9	85,6	92,9	100,9	109,8	119,6
50°C	Q [W]	38931	32480	26841	21926	17663	13986	10836	8157
	Q* [W]	38931	32480	26841	21926	17663	13986	10836	8157
	P [kW]	13,93	13,17	12,30	11,32	10,25	9,12	7,94	6,72
	I [A]	24,1	22,9	21,6	20,2	18,67	17,14	15,62	14,18
	Qc [W]	52864	45655	39137	33243	27915	23106	18774	14881
	COP [-]	2,79	2,47	2,18	1,94	1,72	1,53	1,37	1,21
	COP* [-]	2,79	2,47	2,18	1,94	1,72	1,53	1,37	1,21
	m [kg/h]	1321	1082	880	710	566	444	341	255
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	77,8	84,1	90,8	97,9	105,6	114,0	123,2	133,4

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

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

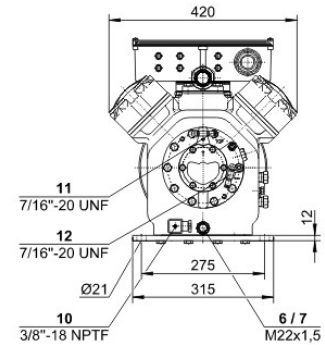
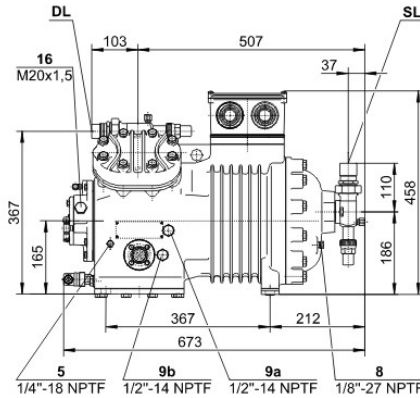
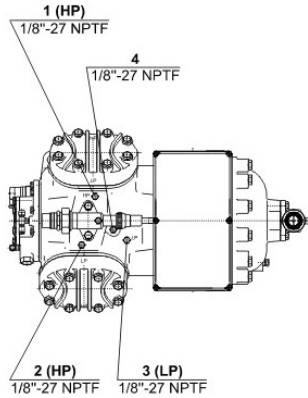
Application Limits 100%





Technical Data: (4P-15.2Y)

Dimensions and Connections



Technical Data

Technical Data

Displacement (1450 RPM 50Hz)	47,14 m ³ /h
Displacement (1750 RPM 60Hz)	56,89 m ³ /h
No. of cylinder x bore x stroke	4 x 55 mm x 57 mm
Weight	152 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	31.0 A
Winding ratio	50/50
Starting current (Rotor locked)	81.0 A Y / 132.0 A YY
Max. Power input	16,3 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)	76,5 dB(A) @ 50Hz
Sound power level (-10°C / 45°C)	78,5 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
Sound pressure level @ 1m (-10°C / 45°C)	70,5 dB(A) @ 50Hz
Sound pressure level @ 1m (-35°C / 40°C)	(75,5) dB(A) @ 50Hz



Compressor Selection: Semi-hermetic Reciprocating Compressors

Input Values

Compressor model Mode	(6J-33.2Y) 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

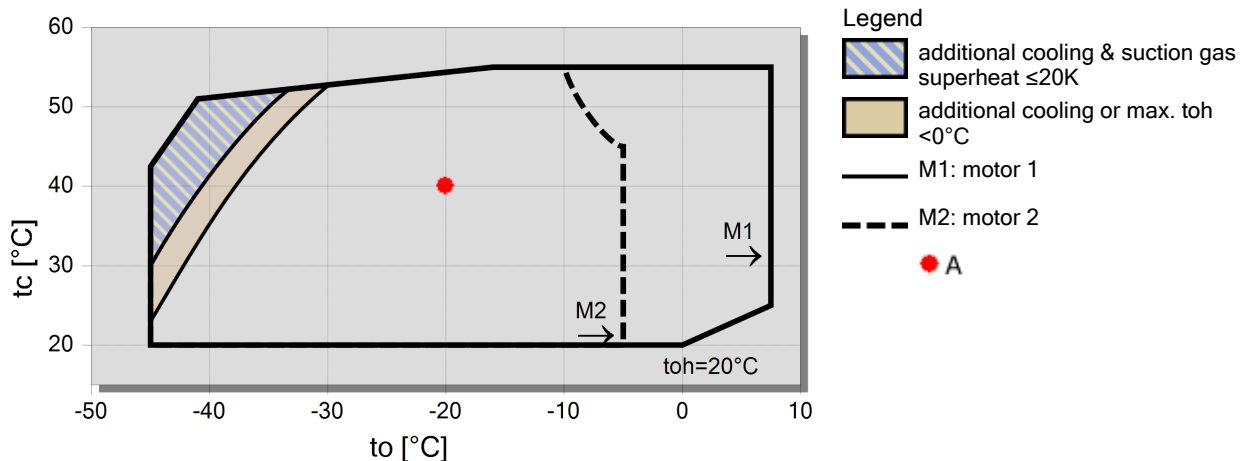
Q [W]	Cooling capacity	COP [-]	COP/EER
Q* [W]	Cooling capacity *	COP* [-]	COP/EER *
P [kW]	Power input	m [kg/h]	Mass flow
I [A]	Current	Op.	Operating mode
Qc [W]	Condenser Capacity	th [°C]	Discharge gas temp. w/o cooling

tc	to	5°C	0°C	-5°C	-10°C	-15°C	-20°C	-25°C	-30°C
30°C	Q [W]	108887	91067	75589	62157	50528	40496	31881	24523
	Q* [W]	108887	91067	75589	62157	50528	40496	31881	24523
	P [kW]	20,3	19,76	18,99	17,99	16,79	15,39	13,83	12,12
	I [A]	36,2	35,5	34,4	33,0	31,3	29,4	27,3	25,3
	Qc [W]	129161	110825	94580	80150	67314	55887	45711	36645
	COP [-]	5,37	4,61	3,98	3,45	3,01	2,63	2,31	2,02
	COP* [-]	5,37	4,61	3,98	3,45	3,01	2,63	2,31	2,02
	m [kg/h]	2807	2315	1899	1546	1246	992	776	594
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	56,3	62,3	68,6	75,3	82,5	90,2	98,6	107,9
40°C	Q [W]	93003	77660	64292	52666	42587	33886	26416	20042
	Q* [W]	93003	77660	64292	52666	42587	33886	26416	20042
	P [kW]	23,9	22,9	21,6	20,1	18,34	16,46	14,45	12,35
	I [A]	41,7	40,1	38,2	35,9	33,4	30,8	28,1	25,5
	Qc [W]	116922	100546	85882	72729	60929	50347	40868	32392
	COP [-]	3,89	3,39	2,98	2,62	2,32	2,06	1,83	1,62
	COP* [-]	3,89	3,39	2,98	2,62	2,32	2,06	1,83	1,62
	m [kg/h]	2711	2228	1820	1474	1181	932	722	545
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	66,7	72,8	79,2	86,0	93,1	100,8	109,2	118,4
50°C	Q [W]	77371	64555	53340	43555	35057	27714	21410	16038
	Q* [W]	77371	64555	53340	43555	35057	27714	21410	16038
	P [kW]	27,4	25,8	24,0	22,0	19,80	17,48	15,08	12,65
	I [A]	46,9	44,6	41,8	38,8	35,5	32,2	29,0	25,9
	Qc [W]	104738	90384	77362	65552	54855	45190	36488	28690
	COP [-]	2,83	2,50	2,22	1,98	1,77	1,59	1,42	1,27
	COP* [-]	2,83	2,50	2,22	1,98	1,77	1,59	1,42	1,27
	m [kg/h]	2625	2150	1749	1410	1123	880	674	502
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	77,4	83,6	90,1	96,9	104,1	111,9	120,4	129,9

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

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

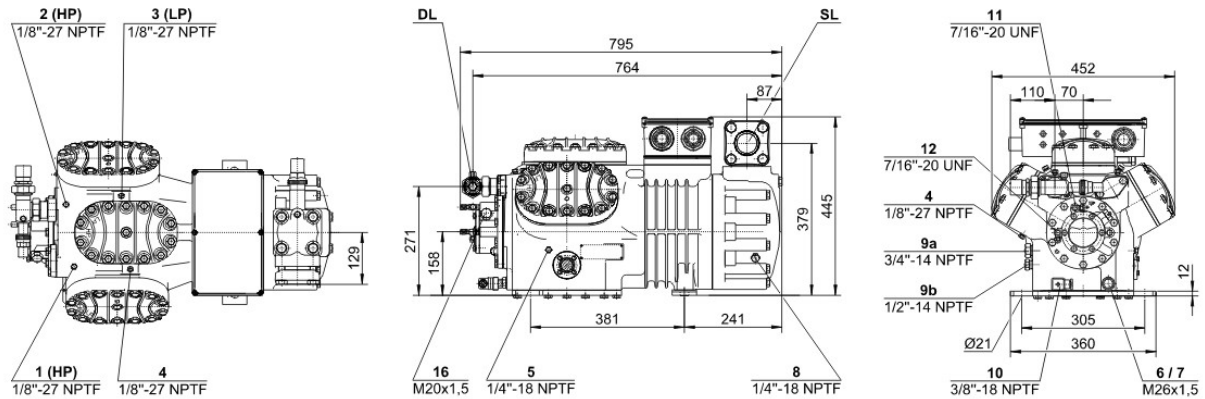
Application Limits 100%





Technical Data: (6J-33.2Y)

Dimensions and Connections



Technical Data

Technical Data

Displacement (1450 RPM 50Hz)	95,3 m ³ /h
Displacement (1750 RPM 60Hz)	115,02 m ³ /h
No. of cylinder x bore x stroke	6 x 65 mm x 55 mm
Weight	231 kg
Max. pressure (LP/HP)	19 / 28 bar
Connection suction line	54 mm - 2 1/8"
Connection discharge line	35 mm - 1 3/8"
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	60.0 A
Winding ratio	50/50
Starting current (Rotor locked)	147.0 A Y / 262.0 A YY
Max. Power input	32,2 kW

Extent of delivery (Standard)

Motor protection	SE-B2
Enclosure class	IP54 (Standard), IP66 (Option)
Vibration dampers	Standard
Oil charge	4,75 dm ³

Available Options

Discharge gas temperature sensor	Option
Start unloading	Option
Capacity control	100-66-33% (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)	81,0 dB(A) @ 50Hz
Sound power level (-10°C / 45°C)	79,5 dB(A) @ 50Hz
Sound power level (-35°C / 40°C)	(86,0) dB(A) @ 50Hz
Sound pressure level @ 1m (+5°C / 50°C)	73,0 dB(A) @ 50Hz
Sound pressure level @ 1m (-10°C / 45°C)	71,5 dB(A) @ 50Hz
Sound pressure level @ 1m (-35°C / 40°C)	(78,0) dB(A) @ 50Hz