

SNOWMAN CO., LTD.

серии SP и SB

Поршневые компрессоры серии SP

3-70Hp, 17-222m³/h, 50Hz

2-х ступенчатые поршневые компрессоры серии SB

12-30 Hp, 43-103m³/h, 50Hz



RefComp

ОПИСАНИЕ МОДЕЛЕЙ

2

Серия SP
Серия SB

КОМПРЕССОР		S	P	8	H	N	6000
		S	P	4	L	F	080E
		S	B	4			1400
ТИП КОМПРЕССОРА							
	Полугерметичный						
СЕРИИ							
SP	Полугерметичный поршневой компрессор						
SB	2-х ступенчатый полугерметичный поршневой компрессор						
КОЛИЧЕСТВО ЦИЛИНДРОВ							
	Серия SP: 2 - 4 - 6 - 8						
	Серия SB: 4 - 6 - 8						
ТИПОРАЗМЕР ЭЛЕКТРОДВИГАТЕЛЯ (только для серии SP)							
H	Полноразмерный электродвигатель						
L	Уменьшенный электродвигатель						
ТИП СМАЗКИ (Только для серии SP)							
F	Смазка под давлением (с маслонасосом)						
N	Смазка разбрызгиванием (без маслонасоса)						
НОМИНАЛЬНАЯ МОЩНОСТЬ ЭЛЕКТРОДВИГАТЕЛЯ Н _р x 100							

- (1) Только для 4-х цилиндровых моделей от 10 до 20 л.с. (в версии H) и от 6 до 12 л.с. (в версии L)
(2) Буква "E" в конце модели означает, что компрессор заправлен маслом POE

ОПИСАНИЕ МОДЕЛЕЙ

Серия SP

Компрессоры серии **SP** идеально подходят для большинства применений в коммерческом/промышленном охлаждении, а также в кондиционировании воздуха.

Компания **RefComp** продолжает инвестировать в исследования и новые технологии, постоянно совершенствуя ассортимент моделей, которые характеризуются высокой эффективностью и бесшумностью; могут использоваться в широком диапазоне применений и включают в себя 34 модели с 2, 4, 6 или 8 цилиндрами. Номинальная мощность и рабочий объем варьируются от 3 до 70 л.с. и от 17,5 до 222 м3/ч при 50 Гц.

Серия SB

Двухступенчатые полугерметичные поршневые компрессоры с высокой эффективностью, надежностью, компактностью, пониженной вибрацией и минимальным мертвым пространством. Благодаря двухступенчатым компрессорам конечное давление нагнетания достигается двумя последующими ступенями сжатия. На первой стадии газ отсасывается из испарителя, сжимается и направляется в промежуточную камеру, из которой он затем направляется на вторую стадию сжатия, достигая затем конечного давления. Таким образом, 2-х ступенчатая степень сжатия ниже, чем у гипотетической одноступенчатой, обеспечивая, таким образом, более низкую температуру нагнетания и более высокую эффективность по сравнению с одноступенчатым решением.

ТЕХНИЧЕСКИЕ ДАННЫЕ

4

Серия SP
Серия SB

		Н (полноразмерный электродвигатель)					
		SP2H				SP4HF / SP4HN	
Модель SP		0500	0600	0800	0900	1000	1200
		050E	060E	080E	090E	100E	120E
Номинальная мощность электродвигателя		5 / 3,7	6 / 4,4	8 / 5,9	9 / 6,6	10 / 7,5	12 / 8,9
Объемный расход при 50/60 Гц	[м³/ч]	17,5 / 21	21 / 25,7	24,5 / 29,4	28 / 33,6	35 / 42	42 / 50,4
Количество цилиндров		2	2	2	2	4	4
Вес	[кг]	86	87	87	91	143	146
Заправка маслом	[dm³]	1,8	1,8	1,8	1,8	2,6	2,6
Тэн картера		230 [V] -120 [W] -PTC 50/60 [Hz]				230 [V] -220 [W] 50/60 [Hz]	
Внутренний диаметр патрубка на нагнетании	[mm/дюйм]	16 / 5/8"	16 / 5/8"	22 / 7/8"	22 / 7/8"	22 / 7/8"	28 / 1"1/8
Внутренний диаметр патрубка на всасывании	[mm/дюйм]	28 / 1"1/8	28 / 1"1/8	28 / 1"1/8	28 / 1"1/8	28 / 1"1/8	35 / 1"3/8
Ступени регулирования производительности		-	-	-	-	100, 50%	100, 50%
Стандартный двигатель (с частичной обмоткой)		Δ230 [V]/3/50[Hz] Y400 [V]/3/50[Hz]				400 [V] /3/50 [Hz] 460 [V] /3/60 [Hz] ⁽¹⁾ P W	
Пусковой ток PW /DOL	[A]	-- / 54	-- / 60	-- / 85	-- / 97	71 / 110	75 / 125
Пусковой ток Y/ D	[A]	54 / --	60 / --	85 / --	97 / --	--	--
Максимальный рабочий ток	[A]	12	14	16	20	24	27

		L (уменьшенный электродвигатель)					
		SP2L				SP4LF/SP4LN	
Модель SP		0300	0400	0500	0600	0600	0800
		030E	040E	050E	060E	060E	080E
Номинальная мощность электродвигателя		3 / 2	4 / 3	5 / 3,7	6 / 4,4	6 / 4,5	8 / 5,9
Объемный расход при 50/60 Гц	[м³/ч]	17,5 / 21	21 / 25,7	24,5 / 29,4	28 / 33,6	35 / 42	42 / 50,4
Количество цилиндров		2	2	2	2	4	4
Вес	[кг]	84	85	85	86	134	139
Заправка маслом	[dm³]	1,8	1,8	1,8	1,8	2,6	2,6
Тэн картера		230 [V] -120 [W] -PTC 50/60 [Hz]				230 [V] -220 [W] 50/60 [Hz]	
Внутренний диаметр патрубка на нагнетании	[mm/дюйм]	16 / 5/8"	16 / 5/8"	22 / 7/8"	22 / 7/8"	22 / 7/8"	28 1"1/8
Внутренний диаметр патрубка на всасывании	[mm/дюйм]	28 / 1"1/8	28 / 1"1/8	28 / 1"1/8	28 / 1"1/8	28 / 1"1/8	35 1"3/8
Ступени регулирования производительности		-	-	-	-	100, 50%	100, 50%
Стандартный двигатель (с частичной обмоткой)		Δ230 [V]/3/50[Hz] Y400 [V]/3/50[Hz]				400 [V] /3/50 [Hz] 460 [V] /3/60 [Hz] ⁽¹⁾ P W	
Пусковой ток PW /DOL	[A]	-- / 35	-- / 49	-- / 54	-- / 60	43 / 70	54 / 88
Пусковой ток Y/ D	[A]	35 / --	49 / --	54 / --	60 / --	--	--
Максимальный рабочий ток	[A]	9	10	12	14	16	19

(1) Диапазон напряжений ± 10%

Н (полноразмерный электродвигатель)										
SP4HF / SP4HN		SP4H				SP6H			SP8H	
1500	2000	2200	2500	3000	3500	3700	4000	5000	6000	7000
150E	200E	220E	250E	300E	350E	370E	400E	500E	600E	700E
15 / 11,2	20 / 14,9	22 / 16,4	25 / 18,7	30 / 22,4	35 / 26,1	37 / 27,6	40 / 29,9	50 / 37,3	60 / 45	70 / 52
49 / 58,8	56 / 67,2	64,7 / 77,6	75 / 90	86,1 / 103,3	102,9 / 123,5	112,5 / 135	129,1 / 154,9	154,4 / 185,3	186 / 224	222 / 268
4	4	4	4	4	4	6	6	6	8	8
152	155	193	206	209	238	241	246	250	345	350
2,6	2,6	3,7	3,7	3,7	3,7	4,2	4,2	4,2	5	5
230 [V] -220 [W] 50/60 [Hz]		230 [V] -150 [W] -50/60 [Hz]							230 [V] -200 [W] -50/60 [Hz]	
28 / 1"1/8	28 / 1"1/8	28 - 1 1/8"	28 - 1 1/8"	28 - 1 1/8"	35 - 1 3/8"	35 - 1 3/8"	35 - 1 3/8"	42 - 1 5/8"	54 / 2"1/8	54 / 2"1/8
42 / 1"5/8	42 / 1"5/8	42 - 1 5/8"	54 - 2 1/8"	54 - 2 1/8"	54 - 2 1/8"	54 - 2 1/8"	54 - 2 1/8"	54 - 2 1/8"	67 / 2" 5/8	67 / 2" 5/8
100, 50%	100, 50%	100,50%	100,50%	100,50%	100,50%	100,66,33%	100,66,33%	100,66,33%	100,75,50%	100,75,50%
400 [V] /3/50 [Hz] 460 [V] /3/60 [Hz] ⁽¹⁾ P W		400 [V] /3/50 [Hz] - 460 [V] /3/60 [Hz] ⁽¹⁾							400 [V] /3/50 [Hz] 460 [V] /3/60 [Hz] ⁽¹⁾ P W	
86 / 144	106 / 168	102 / 170	123 / 201	150 / 243	178 / 290	178 / 290	201 / 330	233 / 394	271 / 361	329 / 439
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33	40	37	43	52	56	60	75	93	115	140

L (уменьшенный электродвигатель)										
SP4LF / SP4LN		SP4L				SP6L			SP8L	
1000	1200	1500	1800	2200	2500	2700	3000	4000	5000	6000
100E	120E	150E	180E	220E	250E	270E	300E	400E	500E	600E
10 / 7,5	12 / 8,9	15 / 11,2	18 / 13,3	22 / 16,4	25 / 18,7	27 / 20,2	30 / 22,4	40 / 29,9	50 / 37	60 / 45
49 / 58,8	56 / 67,2	64,7 / 77,6	75 / 90	86,1 / 103,3	102,9 / 123,5	112,5 / 135	129,1 / 154,9	154,4 / 185,3	186 / 224	222 / 268
4	4	4	4	4	4	6	6	6	8	8
144	146	182	186	195	220	230	236	247	340	345
2,6	2,6	3,7	3,7	3,7	3,7	4,2	4,2	4,2	5	5
230 [V] -220 [W] 50/60 [Hz]		230 [V] -150 [W] -50/60 [Hz]							230 [V] -200 [W] -50/60 [Hz]	
28 1"1/8	28 1"1/8	28 - 1 1/8"	28 - 1 1/8"	28 - 1 1/8"	35 - 1 3/8"	35 - 1 3/8"	35 - 1 3/8"	42 - 1 5/8"	54 / 2"1/8	54 / 2"1/8
35 1"3/8	35 1"3/8	42 - 1 5/8"	42 - 1 5/8"	54 - 2 1/8"	54 - 2 1/8"	54 - 2 1/8"	54 - 2 1/8"	54 - 2 1/8"	67 / 2" 5/8	67 / 2" 5/8
100, 50%	100, 50%	100,50%	100,50%	100,50%	100,50%	100,66,33%	100,66,33%	100,66,33%	100,75,50%	100,75,50%
400 [V] /3/50 [Hz] 460 [V] /3/60 [Hz] ⁽¹⁾ P W		400 [V] /3/50 [Hz] - 460 [V] /3/60 [Hz] ⁽¹⁾							400 [V] /3/50 [Hz] 460 [V] /3/60 [Hz] ⁽¹⁾ P W	
71 / 110	75 / 125	88 / 146	102 / 170	102 / 170	123 / 201	123 / 201	150 / 243	201 / 330	237 / 316	271 / 361
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24	27	29	33	39	43	48	54	75	97	115

ТЕХНИЧЕСКИЕ ДАННЫЕ

6

Серия SP
Серия SB

Модель SB		SB4-1200	SB4-1400	SB6-1600	SB6-2000	SB6-2500	SB6-3000
		SB4-120E	SB4-140E	SB6-160E	SB6-200E	SB6-250E	SB6-300E
Номинальная мощность электродвигателя		18/8,8	14/10,3	16/11,8	20/14,7	25/18,4	30/22,1
Объемный расход при 50/60 Гц - LP /HP	[м³/ч]	43 / 27,6	51,5 / 27,6	64,7 / 32,4	75 / 37,5	86,1 / 43	102,9 / 51,5
Количество цилиндров		4	4	6	6	6	6
Вес	[кг]	202	206	215	225	235	242
Заправка маслом	[dm³]	3,7	3,7	4,2	4,2	4,2	4,2
Тэн картера		тип L 230 [V] - 150 [W] H 50/60 [Hz]					
Внутренний диаметр патрубков на нагнетании	[mm/ дюйм]	28 1" 1/8	28 1" 1/8	35 1" 3/8	35 1" 3/8	42 1" 5/8	42 1" 5/8
Внутренний диаметр патрубков на всасывании	[mm/ дюйм]	35 1" 3/8	35 1" 3/8	42 1" 5/8	42 1" 5/8	42 1" 5/8	42 1" 5/8
Стандартный двигатель (с частичной обмоткой)		400 / 3 / 50 [Hz] ⁽¹⁾					
Пусковой ток PW /DOL		74/123	88/146	88/146	102/170	123/201	150/243
Пусковой ток Y/ D	[A]	15	20	22	26	29	33
Максимальный рабочий ток	[A]	27	34	39	46	50	55

[A]

(1) Диапазон напряжений $\pm 10\%$

ПРЕИМУЩЕСТВА

ПОДХОДИТ ДЛЯ ШИРОКОГО СПЕКТРА ПРИМЕНЕНИЙ

7

Серия SP

Серия может работать на R22 и хлор несодержащих агентах R407C, R134a, R404a, R507 без внесения механических изменений в конструкцию

Серия специально разработана для систем кондиционирования, средне и низкотемпературных систем хладоснабжения.

Серия доступна с 2-мя версиями электродвигателя: тип (H) для систем кондиционирования или тип (L) для систем хладоснабжения.

Серия SB

2-ступенчатые полугерметичные поршневые компрессоры, подходящие для хладагентов R22, R404a-R507.

Для дальнейшего повышения эффективности компрессора можно установить дополнительный охладитель (в качестве опции - он может быть уже установлен). Таким образом, газ, содержащийся в промежуточной камере, охлаждается за счет впрыска жидкого хладагента перед началом второй стадии сжатия.

Смазка компрессоров обеспечивается масляным насосом и внутренней системой возврата масла. Система смазки защищена высокоэффективным масляным фильтром и может контролироваться при помощи датчиков перепада давления.

Для обеспечения наилучших эксплуатационных характеристик, безопасности и надежности, электродвигатель оснащен электронным устройством защиты, основанным на контроле температуры

Всасывающая и нагнетательная пластины оснащены лепестковыми клапанами и изготовлены из специальных материалов предназначенных для работы при низких температурах.

Эффективные

Оптимизированная система смазки

Надежность и безопасность эксплуатации

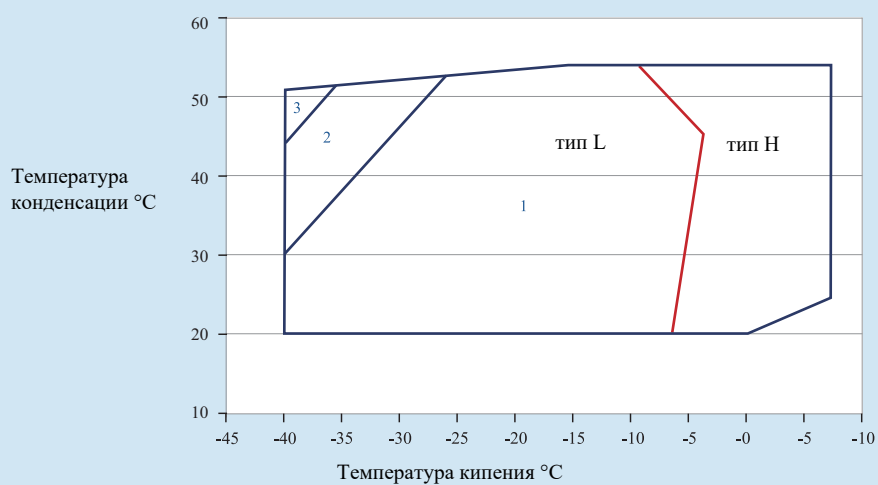
Низкий шум и стабильность работы

Компактность и простота монтажа

Удобство и простота обслуживания

Серия SP

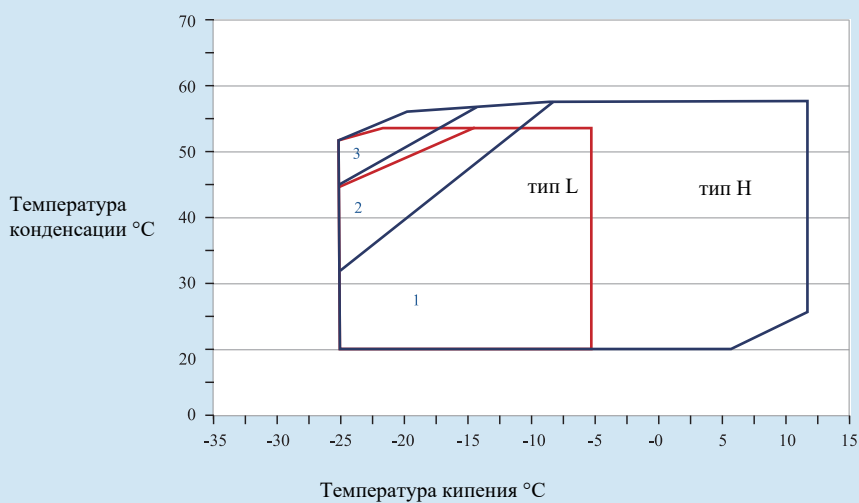
R404A-R507 Границы применения



Ограничения при полной нагрузке

- 1 = Стандартное применение (температура паров газа на всасывании +25°C)
- 2 = Дополнительное охлаждение
- 3 = Дополнительное охлаждение + перегрев на всасывании не более 20 K

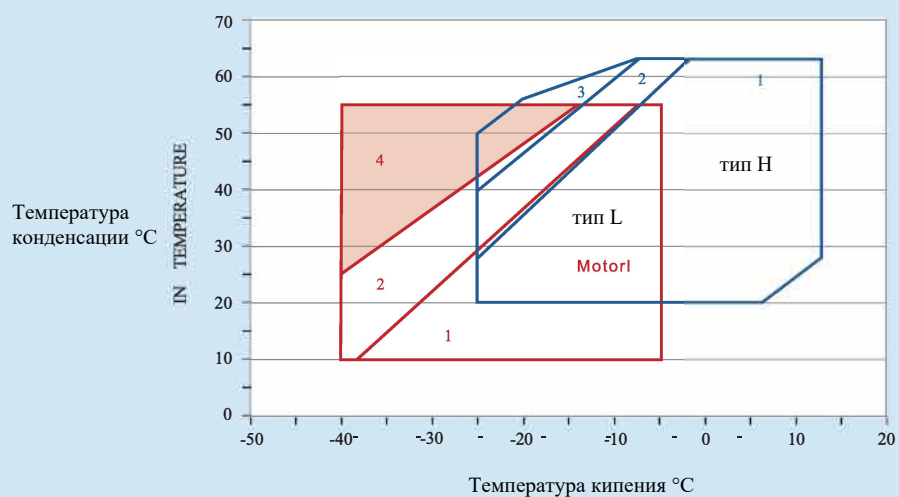
R407C Границы применения



Ограничения при полной нагрузке

- 1 = Стандартное применение (температура паров газа на всасывании +25°C)
- 2 = Дополнительное охлаждение
- 3 = Дополнительное охлаждение + перегрев на всасывании не более 20 K

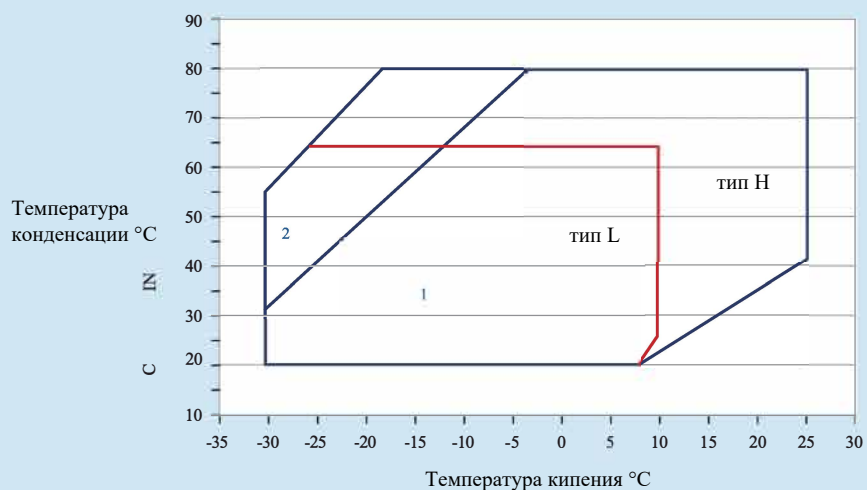
R22 Границы применения



Ограничения при полной нагрузке

- 1 = Стандартное применение (температура паров газа на всасывании +25°C)
- 2 = Дополнительное охлаждение
- 3 = Дополнительное охлаждение + перегрев на всасывании не более 20 K
- 4 = Дополнительное охлаждение + впрыск жидкости LCM
(не применим для моделей SP8H...SP8L)

R134a APPLICATION LIMITS

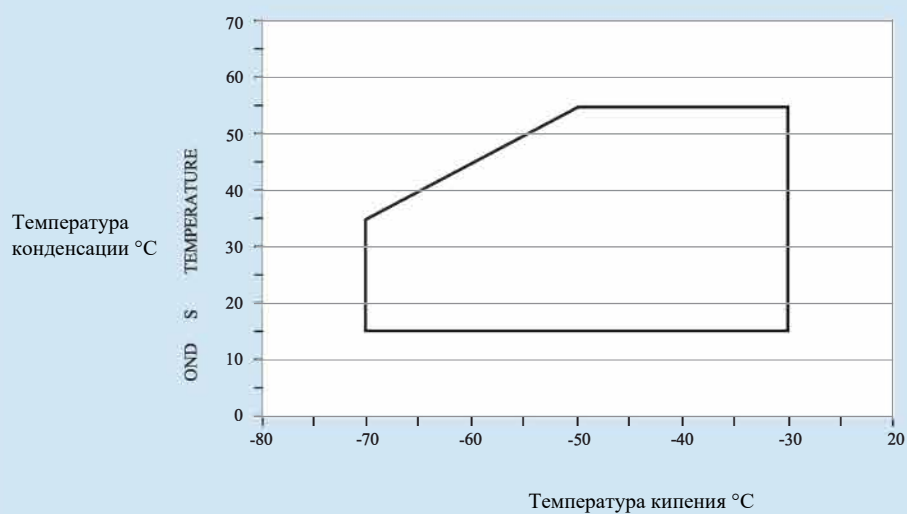


Ограничения при полной нагрузке

- 1 = Стандартное применение (температура паров газа на всасывании +25°C)
- 2 = Дополнительное охлаждение

Серия SB

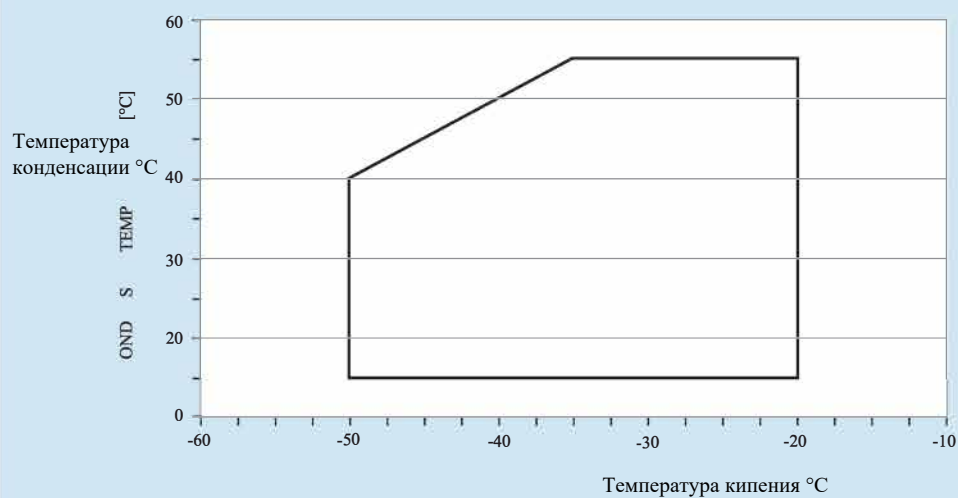
R404A-R507 Границы применения



Ограничения при полной нагрузке

Перегрев на всасывании = +20 °C

R22 Границы применения



Ограничения при полной нагрузке

Перегрев на всасывании = +20 °C

SP-H, Refrigerant R22

SP2-H-0500								
Tc	30		40		50		60	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	5.1	2.4	4.4	2.5	3.7	2.5	-	-
-20	6.8	2.7	5.8	2.9	4.9	3.0	-	-
-15	8.7	3.0	7.6	3.3	6.4	3.5	-	-
-10	10.9	3.3	9.6	3.6	8.2	3.9	6.8	4.2
-5	13.4	3.5	11.8	3.9	10.3	4.3	8.7	4.7
0	16.2	3.6	14.4	4.2	12.6	4.7	10.8	5.2
5	19.3	3.7	17.3	4.4	15.3	5.0	13.3	5.6
10	22.8	3.8	20.6	4.6	18.3	5.3	16.1	6.0

SP2-H-0600								
Tc	30		40		50		60	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	6.1	2.8	5.3	2.9	4.4	3.0	-	-
-20	8.1	3.2	7.0	3.4	5.9	3.6	-	-
-15	10.4	3.6	9.1	3.9	7.7	4.2	-	-
-10	13.1	3.9	11.5	4.3	9.8	4.7	6.2	5.0
-5	16.1	4.2	14.2	4.7	12.3	5.2	10.4	5.6
0	19.4	4.3	17.3	5.0	15.2	5.6	13.0	6.2
5	23.2	4.5	20.8	5.2	18.4	6.0	16.0	6.7
10	27.3	4.5	24.7	5.4	22.0	6.3	19.3	7.2

SP2-H-0800								
Tc	30		40		50		60	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	7.1	3.3	6.1	3.4	5.1	3.4	-	-
-20	9.5	3.8	8.2	4.0	6.9	4.2	-	-
-15	12.2	4.2	10.6	4.5	9.0	4.8	-	-
-10	15.3	4.5	13.4	5.0	11.5	5.4	9.5	5.8
-5	18.8	4.8	16.6	5.4	14.4	6.0	12.1	6.5
0	22.7	5.0	20.2	5.8	17.7	6.5	15.1	7.2
5	27.0	5.2	24.3	6.1	21.4	7.0	18.6	7.8
10	31.9	5.2	28.8	6.3	25.7	7.3	22.5	8.4

SP2-H-0900								
Tc	30		40		50		60	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	8.1	3.7	7.0	3.9	5.9	3.9	-	-
-20	10.8	4.3	9.3	4.6	7.8	4.7	-	-
-15	13.9	4.8	12.1	5.2	10.3	5.5	-	-
-10	17.5	5.2	15.3	5.7	13.1	6.2	10.9	6.6
-5	21.5	5.5	19.0	6.2	16.4	6.8	13.9	7.4
0	25.9	5.7	23.1	6.6	20.2	7.4	17.3	8.2
5	30.9	5.9	27.7	6.9	24.5	7.9	21.3	8.9
10	36.4	6.0	32.9	7.2	29.3	8.4	25.8	9.5

SP4-HF-1000/SP4-HN-1000								
Tc	30		40		50		60	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	10.2	4.1	8.8	4.2	7.3	4.3	-	-
-20	13.5	4.7	11.7	5.0	9.8	5.2	-	-
-15	17.4	5.2	15.1	5.7	12.8	6.0	-	-
-10	21.8	5.7	19.1	6.3	16.4	6.8	13.6	7.2
-5	26.8	6.0	23.7	6.8	20.5	7.5	17.3	8.1
0	32.4	6.3	28.9	7.2	25.3	8.1	21.6	8.9
5	38.6	6.4	34.7	7.6	30.6	8.6	26.6	9.7
10	45.5	6.5	41.1	7.8	36.7	9.1	32.2	10.4

SP4-HF-1200/SP4-HN-1200								
Tc	30		40		50		60	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	12.2	4.9	10.5	5.1	8.8	5.1	-	-
-20	16.2	5.6	14.0	6.0	11.8	6.2	-	-
-15	20.9	6.3	18.2	6.8	15.4	7.2	-	-
-10	26.2	6.8	22.9	7.5	19.6	8.1	16.4	8.6
-5	32.2	7.2	28.4	8.1	24.6	9.0	20.8	9.7
0	38.9	7.5	34.6	8.6	30.3	9.7	26.0	10.7
5	46.4	7.7	41.6	9.1	36.8	10.4	31.9	11.6
10	54.6	7.8	49.4	9.4	44.0	11.0	38.6	12.5

SP4-HF-1500/SP4-HN-1500								
Tc	30		40		50		60	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	14.2	5.7	12.3	5.9	10.3	6.0	-	-
-20	18.9	6.5	16.4	7.0	13.7	7.2	-	-
-15	24.4	7.3	21.2	7.9	17.9	8.4	-	-
-10	30.5	7.9	26.8	8.8	22.9	9.5	19.1	10.1
-5	37.5	8.4	33.2	9.5	28.7	10.5	24.3	11.3
0	45.4	8.8	40.4	10.1	35.4	11.3	30.3	12.5
5	54.1	9.0	48.5	10.6	42.9	12.1	37.2	13.6
10	63.7	9.1	57.6	11.0	51.3	12.8	45.1	14.6

SP4-HF-2000/SP4-HN-2000								
Tc	30		40		50		60	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	16.3	6.5	14.0	6.8	11.7	6.8	-	-
-20	21.6	7.5	18.7	8.0	15.7	8.3	-	-
-15	27.8	8.3	24.2	9.0	20.5	9.6	-	-
-10	34.9	9.0	30.6	10.0	26.2	10.8	21.8	11.5
-5	42.9	9.6	37.9	10.8	32.8	11.9	27.7	13.0
0	51.9	10.0	46.2	11.5	40.4	12.9	34.6	14.3
5	61.8	10.3	55.5	12.1	49.0	13.8	42.5	15.5
10	72.8	10.4	65.8	12.5	58.7	14.6	51.5	16.4

SP4-H-2200								
Tc	30		40		50		60	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	18.7	7.8	16.4	8.8	14.2	9.6	-	-
-20	23.9	8.9	21.0	10.1	18.2	11.1	-	-
-15	30.3	9.8	26.8	11.2	23.4	12.4	-	-
-10	38.0	10.6	33.8	12.2	29.8	13.7	25.9	15.2
-5	47.1	11.3	42.1	13.0	37.3	14.9	32.7	16.8
0	57.4	11.9	51.7	13.8	46.1	15.9	40.7	18.3
5	69.1	12.3	62.4	14.5	56.0	16.9	49.7	19.6
10	82.2	12.6	74.5	15.0	67.1	17.8	59.9	21.0

SP4-H-2500								
Tc	30		40		50		60	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	21.7	9.0	19.0	10.3	16.4	11.1	-	-
-20	27.7	10.3	24.3	11.7	21.1	12.8	-	-
-15	35.1	11.4	31.1	13.0	27.2	14.4	-	-
-10	44.1	12.3	39.2	14.1	34.6	15.9	30.1	17.7
-5	54.6	13.1	48.8	15.1	43.3	17.2	38.0	19.5
0	66.6	13.8	59.9	16.0	53.4	18.5	47.2	21.2
5	80.2	14.3	72.4	16.8	64.9	19.6	57.6	22.8
10	95.3	14.7	86.4	17.4	77.8	20.7	69.4	24.3

SP4-H-3000								
Tc	30		40		50		60	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	24.9	10.4	21.8	11.8	18.8	12.7	-	-
-20	31.7	11.8	27.9	13.4	24.2	14.7	-	-
-15	40.3	13.1	35.6	14.9	31.2	16.5	-	-
-10	50.6	14.1	45.0	16.2	39.6	18.2	34.5	20.3
-5	62.6	15.0	56.0	17.3	49.7	19.8	43.5	22.3
0	76.4	15.8	68.7	18.4	61.3	21.2	54.1	24.3
5	92.0	16.4	83.1	19.2	74.4	22.5	66.1	26.1
10	109.3	16.8	99.1	20.0	89.2	23.7	79.6	27.9

SP6-H-3700								
Tc	30		40		50		60	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	32.6	13.6	28.5	15.4	24.6	16.7	-	-
-20	41.5	15.4	36.5	17.5	31.7	19.3	-	-
-15	52.7	17.1	46.6	19.5	40.8	21.6	-	-
-10	66.2	18.5	58.9	21.2	51.9	23.9	45.1	26.5
-5	81.9	19.7	73.3	22.7	65.0	25.9	57.0	29.2
0	99.9	20.6	89.9	24.0	80.1	27.7	70.7	31.8
5	120.3	21.4	108.7	25.2	97.4	29.4	86.5	34.2
10	143.0	22.0	129.6	26.2	116.7	31.0	104.1	36.5

SP6-H-5000								
Tc	30		40		50		60	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	44.8	18.6	39.2	21.1	38.8	22.9	-	-
-20	57.0	21.2	50.2	24.1	43.5	26.5	-	-
-15	72.4	23.5	64.0	26.7	56.0	29.7	-	-
-10	90.9	25.4	80.9	29.1	71.2	32.8	61.9	36.4
-5	112.5	27.0	100.7	31.2	89.2	35.5	78.2	40.1
0	137.3	28.4	123.4	33.0	110.1	38.1	97.2	43.6
5	165.3	29.4	149.2	34.6	133.7	40.4	118.8	47.0
10	196.4	30.2	178.1	35.9	160.3	42.6	143.1	50.1

SP8-H-7000								
Tc	30		40		50		60	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	71.4	27.8	56.8	29.8	48.1	31.0	-	-
-20	89.0	30.9	73.7	33.7	63.8	35.8	-	-
-15	109.7	33.7	93.3	37.4	81.9	40.4	-	-
-10	133.9	36.2	116.0	40.8	102.8	44.8	88.2	48.3
-5	162.1	38.3	142.4	44.0	126.9	49.0	109.7	53.5
0	194.7	40.1	172.9	46.8	154.8	52.9	134.5	58.5
5	232.1	41.6	207.8	49.3	186.7	56.5	163.1	63.3
10	274.9	42.7	247.6	51.5	223.3	59.8	195.8	67.8

SP4-H-3500								
Tc	30		40		50		60	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	29.8	12.4	26.1	14.1	22.5	15.2	-	-
-20	37.9	14.1	33.4	16.0	29.0	17.6	-	-
-15	48.2	15.6	42.6	17.8	37.3	19.8	-	-
-10	60.5	16.9	53.8	19.3	47.4	21.8	41.2	24.2
-5	74.8	18.0	67.0	20.7	59.4	23.6	52.0	26.7
0	91.3	18.9	82.1	22.0	73.2	25.3	64.6	29.0
5	109.9	19.6	99.3	23.0	89.0	26.9	79.0	31.2
10	130.7	20.1	118.5	23.9	106.6	28.3	95.2	33.3

SP6-H-4000								
Tc	30		40		50		60	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	37.5	15.6	32.8	17.7	28.3	19.2	-	-
-20	47.7	17.7	42.0	20.2	36.4	22.1	-	-
-15	60.6	19.6	53.6	22.4	46.9	24.9	-	-
-10	76.1	21.2	67.7	24.3	59.6	27.4	54.8	30.5
-5	94.1	22.6	84.2	26.1	74.7	29.7	65.5	33.6
0	114.9	23.7	103.3	27.6	92.1	31.9	81.3	36.5
5	138.3	24.6	124.9	28.9	111.9	33.8	99.4	39.3
10	164.4	25.3	149.0	30.1	134.1	35.6	119.7	41.9

SP8-H-6000								
Tc	30		40		50		60	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	59.8	23.3	47.6	24.9	40.3	26.0	-	-
-20	74.6	25.9	61.7	28.2	53.5	30.0	-	-
-15	91.9	28.2	78.1	31.3	68.6	33.9	-	-
-10	112.2	30.3	97.2	34.2	86.1	37.6	73.9	40.4
-5	135.8	32.1	119.3	36.8	106.3	41.0	91.9	44.8
0	163.1	33.6	144.8	39.2	129.7	44.3	112.7	49.0
5	194.5	34.8	174.1	41.3	156.5	47.3	136.6	53.0
10	230.3	35.7	207.5	43.1	187.1	50.1	164.1	56.8

KEY

Pf = cooling capacity (kW)

Pa = input power (kW)

Te = evaporating temperature (°C)

Tc = condensing temperature (°C)

50Hz = frequency

Liquid subcooling 5K

Suction gas superheat 10K

 identifies additional cooling required (see application limits)

Limits refer to full load 50 Hz operation

For data at different working conditions please refer to RefComp LEONARDO selection program

SP-L, Refrigerant R22

SP2-L-0300								
Tc	30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-40	1.5	1.7	1.5	1.5	1.3	1.5	1.0	1.5
-35	2.5	1.9	2.3	1.9	1.9	1.9	1.6	2.0
-30	3.6	2.1	3.3	2.2	2.8	2.4	2.4	2.5
-25	5.1	2.4	4.5	2.5	3.8	2.8	3.5	2.9
-20	6.7	2.6	5.9	2.9	5.1	3.2	4.7	3.4
-15	8.6	2.8	7.6	3.2	6.6	3.6	6.1	3.8
-10	10.7	3.0	9.5	3.5	8.4	4.0	7.8	4.2
-5	13.0	3.3	11.6	3.8	10.3	4.4	9.7	4.7

SP2-L-0400								
Tc	30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-40	1.8	2.0	1.8	1.8	1.5	1.8	1.2	1.8
-35	3.0	2.3	2.8	2.2	2.3	2.3	2.0	2.4
-30	4.4	2.5	4.0	2.6	3.3	2.8	2.9	3.0
-25	6.1	2.8	5.4	3.0	4.6	3.3	4.2	3.5
-20	8.0	3.1	7.1	3.4	6.2	3.8	5.6	4.0
-15	10.3	3.4	9.1	3.8	8.0	4.3	7.4	4.6
-10	12.8	3.6	11.4	4.2	10.0	4.8	9.4	5.1
-5	15.6	3.9	13.9	4.6	12.4	5.2	11.6	5.6

SP2-L-0500								
Tc	30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-40	2.1	2.4	2.1	2.1	1.8	2.1	1.4	2.1
-35	3.4	2.7	3.2	2.6	2.7	2.7	2.3	2.8
-30	5.1	3.0	4.6	3.1	3.9	3.3	3.4	3.4
-25	7.1	3.3	6.3	3.5	5.4	3.9	4.9	4.1
-20	9.4	3.6	8.3	4.0	7.2	4.4	6.6	4.7
-15	12.0	3.9	10.6	4.4	9.3	5.0	8.6	5.3
-10	15.0	4.2	13.3	4.9	11.7	5.5	10.9	5.9
-5	18.2	4.5	16.3	5.3	14.4	6.1	13.6	6.5

SP2-L-0600								
Tc	30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-40	2.4	2.7	2.4	2.4	2.0	2.4	1.6	2.4
-35	3.9	3.0	3.7	2.9	3.1	3.0	2.6	3.2
-30	5.8	3.4	5.3	3.5	4.4	3.7	3.9	3.9
-25	8.1	3.7	7.2	4.0	6.2	4.4	5.6	4.6
-20	10.7	4.1	9.5	4.5	8.2	5.0	7.5	5.3
-15	13.7	4.4	12.2	5.0	10.6	5.7	9.8	6.0
-10	17.1	4.8	15.2	5.5	13.4	6.3	12.5	6.7
-5	20.9	5.1	18.6	6.1	16.5	6.9	15.5	7.3

SP4-LF-0600/SP4-LN-0600								
Tc	30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-40	3.0	3.2	3.0	2.8	2.5	2.8	2.0	2.9
-35	4.9	3.5	4.6	3.5	3.8	3.6	3.3	3.7
-30	7.3	4.0	6.6	4.1	5.6	4.4	4.9	4.6
-25	10.1	4.4	9.0	4.7	7.7	5.2	6.9	5.4
-20	13.4	4.8	11.9	5.3	10.3	5.9	9.4	6.3
-15	17.1	5.2	15.2	5.9	13.2	6.7	12.3	7.1
-10	21.4	5.6	19.0	6.5	16.7	7.4	15.6	7.9
-5	26.1	6.1	23.2	7.1	20.6	8.4	19.4	8.6

SP4-LF-0800/SP4-LN-0800								
Tc	30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-40	3.6	3.8	3.6	3.4	3.0	3.3	2.4	3.4
-35	5.9	4.3	5.5	4.2	4.6	4.3	3.9	4.5
-30	8.8	4.7	7.9	4.9	6.7	5.3	5.9	5.5
-25	12.1	5.2	10.8	5.6	9.2	6.2	8.3	6.5
-20	16.1	5.7	14.3	6.4	12.3	7.1	11.3	7.5
-15	20.6	6.2	18.3	7.1	15.9	8.0	14.7	8.5
-10	25.6	6.8	22.8	7.8	20.1	8.9	18.7	9.4
-5	31.3	7.3	27.9	8.6	24.7	9.8	23.2	10.4

SP4-LF-1000/SP4-LN-1000								
Tc	30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-40	4.2	4.4	4.2	4.0	3.5	3.9	2.9	4.0
-35	6.9	5.0	6.4	4.8	5.4	5.0	4.6	5.2
-30	10.2	5.5	9.2	5.7	7.8	6.1	6.9	6.4
-25	14.2	6.1	12.6	6.6	10.8	7.2	9.7	7.6
-20	18.8	6.7	16.6	7.4	14.4	8.3	13.2	8.8
-15	24.0	7.3	21.3	8.3	18.6	9.4	17.2	9.9
-10	29.9	7.9	26.6	9.1	23.4	10.4	21.8	11.0
-5	36.5	8.5	32.5	10.0	28.8	11.4	27.1	12.1

SP4-LF-1200/SP4-LN-1200								
Tc	30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-40	4.8	5.1	4.8	4.6	4.0	4.5	3.3	4.6
-35	7.9	5.7	7.4	5.5	6.1	5.7	5.2	6.0
-30	11.7	6.3	10.6	6.5	8.9	7.0	7.8	7.3
-25	16.2	7.0	14.4	7.5	12.3	8.2	11.1	8.7
-20	21.4	7.6	19.0	8.5	16.4	9.5	15.0	10.0
-15	27.4	8.3	24.3	9.5	21.2	10.7	19.7	11.3
-10	34.2	9.0	30.4	10.4	26.7	11.9	25.0	12.6
-5	41.7	9.7	37.2	11.4	33.0	13.0	31.0	13.8

SP4-L-1500								
Tc	30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-40	6.9	4.7	5.8	4.9	4.8	4.9	4.5	4.8
-35	9.7	5.7	8.2	6.0	7.0	6.4	6.5	6.4
-30	13.2	6.6	11.3	7.3	9.7	7.9	9.0	8.1
-25	17.5	7.6	15.1	8.5	13.1	9.4	12.2	9.8
-20	22.7	8.6	19.8	9.8	17.4	10.9	16.3	11.5
-15	29.1	9.6	25.6	11.0	22.7	12.5	21.4	13.1
-10	36.8	10.6	32.7	12.2	29.2	14.0	27.7	14.8
-5	45.9	11.5	41.1	13.4	37.1	15.5	35.4	16.4

SP4-L-1800								
Tc	30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-40	8.0	5.5	6.7	5.6	5.6	5.7	5.2	5.6
-35	11.3	6.6	9.5	7.0	8.1	7.4	7.5	7.5
-30	15.3	7.7	13.1	8.4	11.2	9.1	10.4	9.4
-25	20.3	8.9	17.5	9.9	15.2	10.9	14.2	11.3
-20	26.4	10.0	23.0	11.3	20.1	12.7	18.9	13.3
-15	33.8	11.2	29.7	12.8	26.3	14.5	24.9	15.2
-10	42.7	12.3	37.9	14.2	33.9	16.2	32.2	17.2
-5	53.2	13.3	47.7	15.6	43.0	17.9	41.0	19.1

INTRODUCTION

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Серия SP
Серия SB

SP4-L-2200								
Tc	30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-40	9.2	6.3	7.7	6.5	6.4	6.5	5.9	6.4
-35	13.0	7.5	10.9	8.0	9.3	8.5	8.6	8.6
-30	17.6	8.8	15.0	9.7	12.8	10.5	12.0	10.8
-25	23.3	10.2	20.0	11.3	17.4	12.5	16.3	13.0
-20	30.3	11.5	26.3	13.0	23.1	14.6	21.7	15.2
-15	38.7	12.8	34.1	14.7	30.2	16.6	28.5	17.5
-10	48.9	14.1	43.5	16.3	38.9	18.6	36.9	19.7
-5	61.0	15.3	54.7	17.8	49.3	20.6	47.0	21.9

SP4-L-2500								
Tc	30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-40	11.0	7.5	9.2	7.7	7.7	7.8	7.1	7.7
-35	15.5	9.0	13.1	9.6	11.1	10.1	10.3	10.2
-30	21.0	10.6	17.9	11.6	15.3	12.5	14.3	12.9
-25	27.8	12.2	24.0	13.5	20.8	15.0	19.4	15.5
-20	36.2	13.7	31.5	15.5	27.6	17.4	26.0	18.2
-15	46.3	15.3	40.7	17.5	36.1	19.8	34.1	20.9
-10	58.5	16.8	52.0	19.5	46.5	22.2	44.1	23.6
-5	73.0	18.3	65.4	21.3	59.0	24.6	56.2	26.1

SP6-L-2700								
Tc	30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-40	12.1	8.3	10.1	8.5	8.4	8.6	7.8	8.4
-35	17.0	9.9	14.3	10.5	12.1	11.1	11.2	11.2
-30	23.0	11.6	19.6	12.6	16.8	13.7	15.6	14.1
-25	30.4	13.3	26.2	14.8	22.7	16.4	21.3	17.0
-20	39.6	15.0	34.5	17.0	30.2	19.1	28.4	19.9
-15	50.7	16.8	44.6	19.2	39.5	21.7	37.3	22.9
-10	64.0	18.4	56.9	21.3	50.8	24.3	48.3	25.8
-5	79.8	20.0	71.6	23.3	64.6	26.9	61.5	28.6

SP6-L-3000								
Tc	30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-40	13.9	9.5	11.6	9.7	9.7	9.8	8.9	9.7
-35	19.5	11.3	16.4	12.1	13.9	12.7	12.9	12.9
-30	26.4	13.3	22.5	14.5	19.3	15.7	18.0	16.2
-25	35.0	15.3	30.1	17.0	26.1	18.8	24.5	19.5
-20	45.5	17.3	39.6	19.6	34.7	21.9	32.7	22.9
-15	58.2	19.3	51.3	22.1	45.4	25.0	42.9	26.3
-10	73.6	21.2	65.4	24.5	58.4	28.0	55.5	29.6
-5	91.8	23.0	82.3	26.8	74.2	30.9	70.7	32.9

SP6-L-4000								
Tc	30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-40	16.6	11.3	13.8	11.6	11.6	11.8	10.7	11.6
-35	23.3	13.6	19.6	14.4	16.6	15.2	15.4	15.4
-30	31.6	15.9	26.9	17.4	23.1	18.8	21.5	19.3
-25	41.8	18.3	36.0	20.4	31.2	22.5	29.2	23.3
-20	54.4	20.7	47.3	23.4	41.5	26.2	39.0	27.4
-15	69.6	23.0	61.2	26.4	54.2	29.8	51.3	31.4
-10	87.9	25.3	78.1	29.3	69.8	33.4	66.3	35.4
-5	109.7	27.5	98.3	32.1	88.7	36.9	84.5	39.3

SP8-L-5000								
Tc	30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-40	-	-	-	-	-	-	-	-
-35	36.2	17.4	24.7	17.7	-	-	-	-
-30	47.0	20.1	35.2	21.3	-	-	-	-
-25	59.6	22.9	47.4	24.8	40.0	26.0	-	-
-20	74.3	25.6	61.4	28.4	53.0	30.4	-	-
-15	91.6	28.2	77.8	31.7	68.1	34.7	63.3	35.4
-10	111.7	30.4	96.7	34.8	85.5	38.7	79.9	39.9
-5	135.0	32.3	118.7	37.5	105.7	42.3	99.0	44.1

SP8-L-6000								
Tc	30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-40	-	-	-	-	-	-	-	-
-35	43.6	20.7	29.4	21.2	-	-	-	-
-30	56.1	24.0	42.0	25.4	-	-	-	-
-25	71.1	27.4	56.5	29.7	47.8	31.0	-	-
-20	88.7	30.6	73.3	33.9	63.3	36.3	-	-
-15	109.3	33.6	92.8	37.9	81.3	41.4	75.6	42.2
-10	133.3	36.3	115.5	41.6	102.1	46.2	95.3	47.6
-5	161.2	38.5	141.7	44.8	126.2	50.5	118.2	52.6

KEY

Pf = cooling capacity (kW)

Pa = input power (kW)

Te = evaporating temperature (°C)

Tc = condensing temperature (°C)

50Hz = frequency

Liquid subcooling 5K

Suction gas superheat 10K

identifies additional cooling required (see application limits)

Limits refer to full load 50 Hz operation

For data at different working conditions please refer to RefComp LEONARDO selection program

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SP-H, Refrigerant R407C

SP2-H-050E								
Tc	30		40		50		58	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	4.3	1.8	3.4	1.9	2.8	1.9	-	-
-20	5.7	2.2	4.6	2.3	3.7	2.4	-	-
-15	7.5	2.5	6.2	2.7	5.1	2.9	-	-
-10	9.6	2.8	8.2	3.1	6.8	3.3	-	-
-5	12.2	3.0	10.6	6.4	8.9	3.7	7.6	3.9
0	15.3	3.1	13.3	3.6	11.4	4.0	9.8	4.4
5	18.7	3.2	16.5	3.8	14.2	4.4	12.3	4.8
10	22.5	3.3	20.1	4.0	17.5	4.7	15.3	5.1

SP2-H-060E								
Tc	30		40		50		58	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	5.2	2.2	4.1	2.3	3.4	2.3	-	-
-20	6.8	2.6	5.5	2.8	4.5	2.9	-	-
-15	6.9	3.0	7.4	3.3	6.4	3.4	-	-
-10	11.6	3.3	9.8	3.7	8.2	3.9	-	-
-5	14.7	3.5	12.7	4.0	10.7	4.4	9.1	4.7
0	18.3	3.7	16.0	4.3	13.7	4.8	11.7	5.2
5	22.4	3.9	19.8	4.6	17.1	5.2	14.8	5.7
10	27.0	3.9	24.1	4.8	21.0	5.5	18.3	6.1

SP2-H-050E								
Tc	30		40		50		58	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	6.0	2.5	4.7	2.6	3.9	2.6	-	-
-20	7.9	3.0	6.4	3.2	5.2	3.3	-	-
-15	10.4	3.5	8.6	3.8	7.1	4.0	-	-
-10	13.5	3.8	11.4	4.2	9.5	4.6	-	-
-5	17.1	4.1	14.8	4.7	12.4	5.1	10.6	5.4
0	21.4	4.3	18.7	5.0	15.9	5.6	13.7	6.0
5	26.2	4.5	23.1	5.3	19.9	6.0	17.3	6.6
10	31.5	4.6	28.2	5.6	24.5	6.4	21.4	7.1

SP2-H-090E								
Tc	30		40		50		58	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	6.9	2.9	5.4	3.0	4.5	3.0	-	-
-20	9.1	3.5	7.3	3.7	6.0	3.8	-	-
-15	11.9	3.9	9.9	4.3	8.1	4.5	-	-
-10	15.4	4.4	13.1	4.8	10.9	5.2	-	-
-5	19.6	4.7	16.9	5.3	14.2	5.8	12.1	6.2
0	24.4	4.9	21.4	5.7	18.2	6.4	15.6	6.9
5	29.9	5.1	26.5	6.0	22.8	6.9	19.7	7.5
10	36.0	5.2	32.2	6.3	28.0	7.3	24.4	8.1

SP4-HF-100E/SP4-HN-100E								
Tc	30		40		50		58	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	8.6	3.6	6.8	3.7	5.6	3.8	-	-
-20	11.4	4.3	9.2	4.6	7.5	4.8	-	-
-15	14.9	4.9	12.4	5.4	10.2	5.7	-	-
-10	19.3	5.4	16.3	6.0	13.6	6.5	-	-
-5	24.5	5.8	21.1	6.6	17.8	7.3	15.2	7.7
0	30.5	6.2	26.7	7.1	22.8	7.9	19.5	8.6
5	37.4	6.4	33.1	7.5	28.5	8.6	24.7	9.4
10	45.0	6.5	40.2	7.9	35.0	9.2	30.5	10.1

SP4-HF-120E/SP4-HN-120E								
Tc	30		40		50		58	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	10.3	4.3	8.1	4.5	6.7	4.5	-	-
-20	13.6	5.2	11.0	5.5	9.0	5.7	-	-
-15	17.9	5.9	14.8	6.4	12.2	6.8	-	-
-10	23.1	6.5	19.6	7.2	16.3	7.8	-	-
-5	29.4	7.0	25.3	7.9	21.3	8.7	18.2	9.3
0	36.6	7.4	32.0	8.5	27.3	9.5	23.4	10.3
5	44.8	7.6	39.7	9.0	34.2	10.3	29.6	11.2
10	54.1	7.8	48.3	9.5	42.0	11.0	36.7	12.2

SP4-HF-150E/SP4-HN-150E								
Tc	30		40		50		58	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	12.1	5.0	9.5	5.2	7.8	5.3	-	-
-20	15.9	6.0	12.9	6.4	10.5	6.7	-	-
-15	20.9	6.9	17.3	7.5	14.2	7.9	-	-
-10	27.0	7.6	22.9	8.4	19.0	9.1	-	-
-5	34.3	8.2	29.6	9.3	24.9	10.2	21.2	10.8
0	42.7	8.6	37.4	9.9	31.9	11.1	27.3	12.0
5	52.3	8.9	46.3	10.5	39.9	12.0	34.5	13.1
10	63.1	9.1	56.3	11.0	49.0	12.8	42.8	14.2

SP4-HF-200E/SP4-HN-200E								
Tc	30		40		50		58	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	13.8	5.7	10.9	6.0	9.0	6.0	-	-
-20	18.2	6.9	14.7	7.4	12.0	7.6	-	-
-15	23.9	7.9	19.8	8.6	16.3	9.1	-	-
-10	30.9	8.7	26.2	9.6	21.7	10.4	-	-
-5	39.2	9.3	33.8	10.6	28.5	11.6	24.2	12.4
0	48.8	9.8	42.7	11.4	36.4	12.7	31.3	13.7
5	59.8	10.2	52.9	12.0	45.6	13.7	39.5	15.0
10	72.1	10.4	64.4	12.6	56.0	14.7	48.9	16.2

SP4-H-220E								
Tc	30		40		50		58	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	15.9	7.2	12.5	8.2	10.3	9.0	-	-
-20	21.0	8.1	17.0	9.4	13.9	10.4	-	-
-15	27.6	9.0	22.9	10.4	18.8	11.8	-	-
-10	35.7	9.7	30.2	11.4	25.1	13.0	-	-
-5	45.3	10.3	39.0	12.2	32.9	14.2	28.0	15.9
0	56.4	10.9	49.3	13.0	42.1	15.3	36.1	17.2
5	69.1	11.3	61.1	13.6	52.7	16.2	45.6	18.5
10	83.3	11.6	74.4	14.1	64.7	17.0	56.5	19.7

SP4-H-250E								
Tc	30		40		50		58	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	18.5	8.4	14.6	9.5	12.0	10.4	-	-
-20	24.3	9.4	19.7	10.9	16.1	12.1	-	-
-15	32.0	10.4	26.5	12.1	21.8	13.7	-	-
-10	41.4	11.3	35.0	13.2	29.1	15.1	-	-
-5	52.5	12.0	45.3	14.2	38.1	16.5	32.5	18.4
0	65.4	12.6	57.2	15.0	48.8	17.7	41.9	20.0
5	80.1	13.1	70.9	15.8	61.1	18.8	52.9	21.4
10	96.6	13.5	86.3	16.4	75.1	19.8	65.5	22.8

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SP4-H-300E								
Tc	30		40		50		58	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	21.2	9.6	16.7	10.9	13.8	6.5	-	-
-20	27.9	10.8	22.6	12.5	18.4	8.5	-	-
-15	36.7	11.9	30.4	13.9	25.0	10.5	-	-
-10	47.4	12.9	40.2	15.1	33.4	12.5	-	-
-5	60.2	13.8	51.9	16.2	43.7	14.6	37.3	21.1
0	75.0	14.5	65.6	17.2	55.9	16.6	48.0	22.9
5	91.9	15.0	81.3	18.1	70.1	18.6	60.6	24.6
10	110.7	15.4	98.9	18.8	86.1	20.6	75.1	26.1

SP6-H-370E								
Tc	30		40		50		58	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	27.7	12.5	21.8	14.3	18.0	15.6	-	-
-20	36.5	14.2	29.5	16.3	24.1	18.2	-	-
-15	48.0	15.6	39.8	18.1	32.7	20.5	-	-
-10	62.0	16.9	52.6	19.8	43.7	22.7	-	-
-5	78.8	18.0	67.9	21.3	57.2	24.7	48.7	27.6
0	98.1	18.9	85.8	22.5	73.2	26.5	62.8	30.0
5	120.2	19.6	106.3	23.7	91.7	28.2	79.3	32.2
10	144.9	20.2	129.4	24.6	112.6	29.7	98.3	34.2

SP6-H-500E								
Tc	30		40		50		58	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	38.1	17.2	30.0	19.6	24.7	21.4	-	-
-20	50.2	19.5	40.6	22.4	33.1	24.9	-	-
-15	65.9	21.5	54.6	24.9	44.9	28.2	-	-
-10	85.2	23.2	72.2	27.2	60.0	31.2	-	-
-5	108.2	24.7	93.3	29.2	78.6	33.9	67.0	37.9
0	134.8	26.0	117.9	31.0	100.5	36.5	86.3	41.2
5	165.1	27.0	146.1	32.5	125.9	38.7	109.0	44.2
10	199.0	27.7	177.8	33.8	154.7	40.7	135.0	47.0

SP8-H-700E								
Tc	30		40		50		58	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	55.7	24.2	49.5	25.6	39.4	26.0	-	-
-20	74.7	27.9	66.5	30.0	54.7	31.3	-	-
-15	96.8	31.2	86.3	34.1	72.4	36.3	-	-
-10	122.6	34.1	109.3	37.9	93.0	41.1	-	-
-5	152.6	36.5	136.2	41.4	117.2	45.7	101.5	48.5
0	187.5	38.6	167.7	44.6	145.5	50.0	127.5	53.9
5	228.0	40.2	204.3	47.4	178.6	54.1	157.9	59.1
10	274.5	41.4	246.7	50.0	217.0	58.1	193.5	64.2

SP4-H-300E								
Tc	30		40		50		58	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	25.3	11.4	20.0	13.1	16.5	14.3	-	-
-20	33.4	12.9	27.0	14.9	22.0	16.6	-	-
-15	43.8	14.3	36.3	16.6	29.9	18.7	-	-
-10	56.7	15.5	48.0	18.1	39.9	20.7	-	-
-5	72.0	16.5	62.1	19.4	52.3	22.6	44.5	25.2
0	89.7	17.3	78.4	20.6	66.9	24.3	57.4	27.4
5	109.8	17.9	97.2	21.6	83.8	25.8	72.5	29.4
10	132.4	18.4	118.3	22.5	102.9	27.1	89.8	31.3

SP6-H-400E								
Tc	30		40		50		58	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	31.9	14.4	26.1	16.4	20.7	17.9	-	-
-20	42.1	16.3	33.9	18.7	27.7	20.9	-	-
-15	55.1	18.0	45.7	20.8	37.5	23.6	-	-
-10	71.3	19.4	60.4	22.7	50.2	26.1	-	-
-5	90.5	20.7	78.1	24.4	65.8	28.4	56.0	31.7
0	112.8	21.7	98.7	25.9	84.1	30.5	72.2	34.4
5	138.1	22.6	122.2	27.2	105.4	32.4	94.2	37.0
10	166.5	23.2	148.8	28.2	129.4	34.1	112.9	39.3

SP8-H-600E								
Tc	30		40		50		58	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	46.7	20.3	41.5	21.5	33.0	21.8	-	-
-20	62.6	23.4	55.7	25.2	45.9	26.2	-	-
-15	81.1	26.1	72.3	28.6	60.7	30.4	-	-
-10	102.7	28.5	91.6	31.8	77.9	34.4	-	-
-5	127.9	30.6	114.1	34.7	98.2	38.2	85.0	40.6
0	157.1	32.3	140.5	37.3	121.9	41.9	106.8	45.1
5	191.0	33.7	171.2	39.7	149.6	45.4	132.3	49.5
10	230.0	34.7	206.6	41.9	181.8	48.6	162.1	53.8

KEY

Pf = cooling capacity (kW)

Pa = input power (kW)

Te = evaporating temperature (°C)

Tc = condensing temperature (°C)

50Hz = frequency

Liquid subcooling 5K

Suction gas superheat 10K

identifies additional cooling required (see application limits)

Limits refer to full load 50 Hz operation

For data at different working conditions please refer to RefComp LEONARDO selection program

SP-L, Refrigerant R407C

SP2-L-030E								
Tc	30		40		50		54	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	4.3	1.7	3.4	1.8	2.8	1.8	-	-
-20	5.7	2.1	4.6	2.2	3.7	2.3	3.5	2.3
-15	7.5	2.4	6.2	2.6	5.1	2.7	4.7	2.8
-10	9.6	2.6	8.2	2.9	6.8	3.1	6.3	3.2
-5	12.2	2.8	10.6	3.2	6.9	3.5	8.2	3.6

SP2-L-040E								
Tc	30		40		50		54	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	5.2	2.0	4.1	2.1	3.4	2.1	-	-
-20	6.8	2.5	5.5	2.6	4.5	2.7	4.2	2.7
-15	8.9	2.8	7.4	3.1	6.1	3.2	5.6	3.3
-10	11.6	3.1	9.8	3.4	8.2	3.7	7.5	3.8
-5	14.7	3.3	12.7	3.8	10.7	4.1	9.9	4.3

SP2-L-050E								
Tc	30		40		50		54	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	6.0	2.4	4.7	2.5	3.9	2.5	-	-
-20	7.9	2.9	6.4	3.0	5.2	3.1	4.9	3.2
-15	10.4	3.3	8.6	3.5	7.1	3.8	6.5	3.8
-10	13.5	3.6	11.4	4.0	9.5	4.3	8.8	4.4
-5	17.1	3.9	14.8	4.4	12.4	4.8	11.5	5.0

SP2-L-060E								
Tc	30		40		50		54	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	6.9	2.7	5.4	2.8	4.5	2.8	-	-
-20	9.1	3.2	7.3	3.5	6.0	3.6	5.5	3.6
-15	11.9	3.7	9.9	4.0	8.1	4.3	7.5	4.3
-10	15.4	4.1	13.1	4.5	10.9	4.9	10.0	5.0
-5	19.6	4.4	16.9	5.0	14.2	5.5	13.2	5.6

SP4-LF-060E/SP4-LN-060E								
Tc	30		40		50		54	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	8.6	3.9	6.8	4.4	5.6	4.9	-	-
-20	11.4	4.4	9.2	5.1	7.5	5.6	7.0	5.8
-15	14.9	4.9	12.4	5.6	10.2	6.4	9.4	6.7
-10	19.3	5.3	16.3	6.2	13.6	7.1	12.5	7.4
-5	24.5	5.6	21.1	6.6	17.8	7.7	16.5	8.1

SP4-LF-080E/SP4-LN-080E								
Tc	30		40		50		54	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	10.3	4.7	8.1	5.3	6.7	5.8	-	-
-20	13.6	5.3	11.0	6.1	9.0	6.8	8.4	7.0
-15	17.9	5.8	14.8	6.8	12.2	7.7	11.2	8.0
-10	23.1	6.3	19.6	7.4	16.3	8.5	15.0	8.9
-5	29.4	6.7	25.3	7.9	21.3	9.2	19.8	9.7

SP4-LF-100E/SP4-LN-100E								
Tc	30		40		50		54	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	12.1	5.5	9.5	6.2	7.8	6.8	7.4	7.0
-20	15.9	6.2	12.9	7.1	10.5	7.9	9.7	8.2
-15	20.9	6.8	17.3	7.9	14.2	8.9	13.1	9.3
-10	27.0	7.4	22.9	8.6	19.0	9.9	17.6	10.4
-5	34.3	7.8	29.6	9.3	24.9	10.8	23.1	11.4

SP4-LF-120E/SP4-LN-120E								
Tc	30		40		50		54	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	13.8	6.2	10.9	7.1	9.0	7.8	-	-
-20	18.2	7.0	14.7	8.1	12.0	9.0	11.1	9.4
-15	23.9	7.8	19.8	9.0	16.3	10.2	15.0	10.7
-10	30.9	8.4	26.2	9.8	21.7	11.3	20.1	11.9
-5	39.2	9.0	33.8	10.6	28.5	12.3	26.3	13.0

SP4-L-150E								
Tc	30		40		50		54	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	15.9	7.2	12.5	8.2	10.3	9.0	-	-
-20	21.0	8.1	17.0	9.4	13.9	10.4	12.9	10.8
-15	27.6	9.0	22.9	10.4	18.8	11.8	17.3	12.3
-10	35.7	9.7	30.2	11.4	25.1	13.0	23.2	13.7
-5	45.3	10.3	39.0	12.2	32.9	14.2	30.4	15.0

SP4-L-180E								
Tc	30		40		50		54	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	18.5	8.4	14.6	9.5	12.0	10.4	-	-
-20	24.3	9.4	19.7	10.9	16.1	12.1	14.9	12.5
-15	32.0	10.4	26.5	12.1	21.8	13.7	20.1	14.3
-10	41.4	11.3	35.0	13.2	29.1	15.1	26.9	15.9
-5	52.5	12.0	45.3	14.2	38.1	16.5	35.3	17.4

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SP4-L-220E								
Tc	30		40		50		54	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	21.2	9.6	16.7	10.9	13.8	11.9	-	-
-20	27.9	10.8	22.6	12.5	18.4	13.9	16.8	14.5
-15	36.7	11.9	30.4	13.9	25.0	15.7	22.6	16.5
-10	47.4	12.9	40.2	15.1	33.4	17.4	30.2	18.5
-5	60.2	13.8	51.9	16.2	43.7	18.9	39.7	20.3

SP4-L-250E								
Tc	30		40		50		54	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	25.5	11.5	20.1	13.2	16.6	14.4	-	-
-20	33.6	13.0	27.2	15.0	22.2	16.7	20.6	17.3
-15	44.1	14.4	36.6	16.7	30.0	18.9	27.7	19.7
-10	57.1	15.5	48.3	18.2	40.2	20.9	37.1	21.9
-5	72.4	16.6	62.5	19.5	52.6	22.7	48.7	24.0

SP6-L-270E								
Tc	30		40		50		54	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	27.7	12.5	21.8	14.3	18.0	15.6	-	-
-20	36.5	14.2	29.5	16.3	24.1	18.2	22.4	18.8
-15	48.0	15.6	39.8	18.1	32.7	20.5	30.1	21.4
-10	62.0	16.9	52.6	19.8	43.7	22.7	40.3	23.9
-5	78.8	18.0	67.9	21.3	57.2	24.7	53.0	26.1

SP6-L-300E								
Tc	30		40		50		54	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	31.9	14.4	25.1	16.4	20.7	17.9	-	-
-20	42.0	16.3	33.9	18.7	27.7	20.9	25.7	21.6
-15	55.1	18.0	45.7	20.8	37.5	23.6	34.6	24.6
-10	71.3	19.4	60.4	22.7	50.2	26.1	46.4	27.4
-5	90.5	20.7	78.1	24.4	65.8	28.4	60.9	30.0

SP6-L-400E								
Tc	30		40		50		54	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	38.2	17.3	30.1	19.7	24.8	21.5	-	-
-20	50.4	19.5	40.7	22.5	33.2	25.0	30.9	25.9
-15	66.2	21.6	54.9	25.0	45.1	28.3	41.6	29.5
-10	85.6	23.3	72.5	27.3	60.3	31.3	55.6	32.9
-5	108.6	24.8	93.7	29.3	78.9	34.1	73.0	36.0

SP8-L-500E								
Tc	30		40		50		54	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	46.7	20.3	41.5	21.5	33.0	21.8	-	-
-20	62.6	23.4	55.7	25.2	45.9	26.2	41.5	26.4
-15	81.1	26.1	72.3	28.6	60.7	30.4	55.7	30.9
-10	102.7	28.5	91.6	31.8	77.9	34.4	72.2	35.3
-5	127.9	30.6	114.1	34.7	98.2	38.2	91.6	39.5

SP8-L-600E								
Tc	30		40		50		54	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	55.7	24.2	49.5	25.6	39.4	26.0	-	-
-20	74.7	27.9	66.5	30.0	54.7	31.3	49.5	31.5
-15	96.8	31.2	86.3	34.1	72.4	36.3	66.4	36.9
-10	122.6	34.1	109.3	37.9	93.0	41.1	86.2	42.1
-5	152.6	36.5	136.2	41.4	117.2	45.7	109.3	47.1

KEY

Pf = cooling capacity (kW)

Pa = input power (kW)

Te = evaporating temperature (°C)

Tc = condensing temperature (°C)

50Hz = frequency

Liquid subcooling 5K

Suction gas superheat 10K

identifies additional cooling required (see application limits)

Limits refer to full load 50 Hz operation

For data at different working conditions please refer to RefComp LEONARDO selection program

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SP-H, Refrigerant R134A

SP2-H-050E								
Tc	40		50		60		70	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-20	3.2	1.7	2.5	1.8	1.8	1.8	1.3	1.8
-15	4.2	2.0	3.4	1.0	2.6	2.1	2.0	2.1
-10	5.5	2.2	4.6	2.3	3.7	2.4	2.9	2.5
-5	7.1	2.4	6.0	2.6	5.0	2.8	4.1	2.9
0	9.0	2.7	7.7	2.9	6.5	3.1	5.5	3.3
5	11.1	2.9	9.7	3.2	8.3	3.5	7.1	3.7
10	13.4	3.2	11.8	3.5	10.2	3.9	8.8	4.1
15	16.0	3.4	14.1	3.9	12.3	4.3	10.8	4.6

SP2-H-050E								
Tc	40		50		60		70	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-20	3.8	2.0	3.0	2.1	2.2	2.1	1.6	2.1
-15	5.0	2.3	4.1	2.4	3.1	2.5	2.4	2.5
-10	6.6	2.6	5.5	2.8	4.4	2.9	3.5	3.0
-5	8.6	2.9	7.2	3.1	6.0	3.3	4.9	3.4
0	10.8	3.2	9.3	3.5	7.8	3.7	6.6	3.9
5	13.3	3.5	11.6	3.9	9.9	4.2	8.5	4.4
10	16.1	3.8	14.2	4.2	12.3	4.6	10.6	4.9
15	19.2	4.1	17.0	4.6	14.8	5.1	12.9	5.5

SP2-H-080E								
Tc	40		50		60		70	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-20	4.4	2.4	3.5	2.4	2.5	2.5	1.8	2.5
-15	5.9	2.7	4.7	2.8	3.6	2.9	2.8	2.9
-10	7.7	3.0	6.4	3.2	5.1	3.4	4.1	3.4
-5	10.0	3.4	8.4	3.6	7.0	3.8	5.7	4.0
0	12.6	3.7	10.8	4.0	9.1	4.3	7.7	4.5
5	15.5	4.0	13.5	4.5	11.6	4.8	9.9	5.1
10	18.8	4.4	16.5	4.9	14.3	5.4	12.4	5.7
15	22.4	4.7	19.8	5.4	17.3	5.9	15.1	6.4

SP2-H-090E								
Tc	40		50		60		70	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-20	5.0	2.7	4.0	2.8	2.9	2.8	2.1	2.8
-15	6.7	3.1	5.4	3.2	4.2	3.3	3.2	3.3
-10	8.8	3.4	7.3	3.7	5.9	3.8	4.7	3.9
-5	11.4	3.8	9.7	4.1	8.0	4.3	6.6	4.5
0	14.4	4.2	12.4	4.6	10.4	4.9	8.8	5.1
5	17.8	4.6	15.5	5.1	13.2	5.5	11.3	5.8
10	21.5	5.0	18.9	5.6	16.3	6.1	14.1	6.5
15	25.6	5.4	22.6	6.1	19.8	6.7	17.2	7.2

SP4-HF-100E/SP4-HN-100E								
Tc	40		50		60		70	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-20	6.3	2.9	4.9	3.0	3.6	3.1	2.6	3.0
-15	8.4	3.4	6.8	3.5	5.2	3.6	4.0	3.6
-10	11.0	3.8	9.1	4.0	7.3	4.2	5.9	4.3
-5	14.3	4.2	12.1	4.5	9.9	4.8	8.2	4.9
0	18.0	4.6	15.5	5.5	13.0	5.4	10.9	5.6
5	22.2	5.0	19.3	5.6	16.5	6.0	14.1	6.3
10	26.9	5.4	23.6	6.1	20.4	6.7	17.6	7.1
15	32.0	5.9	28.3	6.7	24.7	7.3	21.5	7.9

SP4-HF-120E/SP4-HN-120E								
Tc	40		50		60		70	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-20	7.6	3.5	5.9	3.6	4.4	3.7	3.2	3.7
-15	10.1	4.0	8.1	4.2	6.3	4.3	4.8	4.4
-10	13.2	4.5	11.0	4.8	8.8	5.0	7.0	5.1
-5	17.1	5.0	14.5	5.4	11.9	5.7	9.8	5.9
0	21.6	5.5	18.6	6.0	15.6	6.4	13.2	6.7
5	26.6	6.0	23.2	6.7	19.8	7.2	17.0	7.6
10	32.2	6.5	28.3	7.3	24.5	8.0	21.2	8.5
15	38.4	7.0	33.9	8.0	29.6	8.8	25.8	9.5

SP4-HF-150E/SP4-HN-150E								
Tc	40		50		60		70	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-20	8.8	4.1	6.9	4.2	5.1	4.3	3.7	4.3
-15	11.7	4.7	9.5	4.9	7.3	5.0	5.6	5.1
-10	15.5	5.3	12.8	5.6	10.3	5.8	8.2	6.0
-5	20.0	5.9	16.9	6.3	13.9	6.7	11.5	6.9
0	25.2	6.4	21.6	7.0	18.2	7.5	15.3	7.9
5	31.1	7.0	27.0	7.8	23.1	8.4	19.8	8.9
10	37.6	7.6	33.0	8.6	28.6	9.3	24.7	10.0
15	44.7	8.2	39.6	9.3	34.6	10.3	30.1	11.1

SP4-HF-200E/SP4-HN-200E								
Tc	40		50		60		70	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-20	10.1	4.7	7.9	4.8	5.8	4.9	4.2	4.9
-15	13.4	5.4	10.8	5.6	8.3	5.8	6.4	5.8
-10	17.7	6.0	14.6	6.4	11.7	6.7	9.4	6.8
-5	22.8	6.7	19.3	7.2	15.9	7.6	13.1	7.9
0	28.8	7.4	24.7	8.1	20.8	8.6	17.5	9.0
5	35.5	8.0	30.9	8.9	26.5	9.6	22.6	10.2
10	43.0	8.7	37.8	9.8	32.7	10.7	28.3	11.4
15	51.1	9.4	45.2	10.7	39.5	11.8	34.4	12.7

SP4-H-220E								
Tc	40		50		60		70	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-20	11.7	5.6	10.0	5.7	8.4	5.8	6.9	5.7
-15	15.7	6.3	13.4	6.6	11.3	6.8	9.3	6.9
-10	20.7	7.1	17.8	7.6	15.1	7.9	12.5	8.0
-5	26.6	7.9	23.1	8.5	19.7	9.0	16.5	9.3
0	33.7	8.7	29.4	9.5	25.3	10.1	21.4	10.6
5	41.7	9.5	36.6	10.5	31.7	11.3	27.1	12.0
10	50.8	10.3	44.9	11.5	39.1	12.6	33.6	13.4
15	61.0	11.1	54.1	12.6	47.4	13.9	40.9	14.9

SP4-H-250E								
Tc	40		50		60		70	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-20	13.6	6.5	11.6	6.6	9.7	6.7	8.0	6.7
-15	18.2	7.3	15.6	7.7	13.1	7.9	10.8	8.0
-10	24.0	8.3	20.6	8.8	17.5	9.1	14.5	9.3
-5	30.9	9.2	26.8	9.9	22.9	10.4	19.2	10.8
0	39.0	10.1	34.1	11.0	29.3	11.7	24.8	12.3
5	48.4	11.0	42.5	12.2	36.8	13.1	31.4	13.9
10	59.0	11.9	52.0	13.4	45.4	14.6	38.9	15.6
15	70.8	12.8	62.7	14.6	55.0	16.1	47.5	17.3

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SP4-H-300E								
Tc	40		50		60		70	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-20	15.6	7.4	13.3	7.6	11.1	7.7	9.2	7.6
-15	20.9	8.4	17.8	8.8	15.0	9.0	12.4	9.1
-10	27.5	9.5	23.7	10.0	20.0	10.5	16.6	10.7
-5	35.4	10.5	30.7	11.3	26.3	11.9	22.0	12.4
0	44.8	11.6	39.1	12.6	33.6	13.5	28.4	14.1
5	55.5	12.6	48.7	14.0	42.2	15.1	36.0	15.9
10	67.6	13.7	59.7	15.3	52.0	16.7	44.7	17.8
15	81.1	14.7	71.9	16.7	63.1	18.4	54.5	19.8

SP4-H-350E								
Tc	40		50		60		70	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-20	18.7	8.8	15.9	9.1	13.3	9.2	10.9	9.1
-15	25.0	10.1	21.3	10.5	18.0	10.8	14.8	10.9
-10	32.8	11.3	28.3	12.0	24.0	12.5	19.9	12.8
-5	42.4	12.6	36.7	13.5	31.4	14.3	26.3	14.8
0	53.5	13.8	46.7	15.1	40.2	16.1	34.0	16.9
5	66.3	15.1	58.2	16.7	50.5	18.0	43.0	19.0
10	80.8	16.3	71.3	18.3	62.2	20.0	53.4	21.3
15	97.0	17.6	86.0	20.0	75.4	22.0	65.1	23.7

SP6-H-370E								
Tc	40		50		60		70	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-20	20.4	9.7	17.4	9.9	14.6	10.0	12.0	10.0
-15	27.3	11.0	23.3	11.5	19.6	11.8	16.2	11.9
-10	35.9	12.4	30.9	13.1	26.2	13.7	21.8	14.0
-5	46.4	13.7	40.2	14.8	34.3	15.6	28.8	16.2
0	58.6	15.1	51.1	16.5	44.0	17.6	37.2	18.4
5	72.6	16.5	63.7	18.3	55.2	19.7	47.1	20.8
10	88.5	17.9	78.1	20.1	68.1	21.9	58.4	23.3
15	106.2	19.3	94.1	21.9	82.5	24.1	71.3	26.0

SP6-H-400E								
Tc	40		50		60		70	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-20	23.5	11.1	20.0	11.4	16.8	11.5	13.8	11.5
-15	31.4	12.7	26.8	13.2	22.6	13.6	18.6	13.7
-10	41.3	14.2	35.6	15.1	30.1	15.7	25.0	16.1
-5	53.3	15.8	46.2	17.0	39.5	17.9	33.1	18.6
0	67.3	17.4	58.8	19.0	50.6	20.3	42.8	21.2
5	83.4	19.0	73.3	21.0	63.5	22.7	54.1	24.0
10	101.7	20.6	89.7	23.1	78.2	25.1	67.2	26.8
15	122.0	22.1	108.2	25.2	94.8	27.7	81.9	29.8

SP6-H-500E								
Tc	40		50		60		70	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-20	28.1	13.3	23.9	13.6	20.0	13.8	16.5	13.7
-15	37.5	15.1	32.1	15.8	27.0	16.2	22.2	16.4
-10	49.4	17.0	42.5	18.0	36.0	18.8	29.9	19.2
-5	63.7	18.9	55.2	20.3	47.2	21.4	39.5	22.2
0	80.5	20.8	70.2	22.7	60.5	24.2	51.1	25.3
5	99.7	22.7	87.6	25.1	75.9	27.1	64.7	28.6
10	121.5	24.6	107.2	27.5	93.5	30.0	80.3	32.1
15	145.8	26.5	129.3	30.1	113.3	33.1	97.9	35.6

SP8-H-600E								
Tc	40		50		60		70	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-20	34.9	16.4	29.0	17.0	22.4	17.3	15.0	18.0
-15	45.2	18.7	38.5	19.6	31.0	20.4	22.9	21.5
-10	58.0	21.0	50.1	22.4	41.4	23.5	32.2	25.1
-5	73.6	23.2	64.0	25.1	53.9	26.8	43.3	28.9
0	92.1	25.2	80.6	27.7	68.7	30.1	56.3	32.9
5	113.9	27.1	100.2	30.3	86.0	33.3	71.5	36.8
10	139.3	28.7	122.9	32.6	106.2	36.5	89.3	40.7
15	168.4	30.0	149.1	34.8	129.5	39.5	109.8	44.6

SP6-H-500E								
Tc	40		50		60		70	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-20	41.6	19.6	34.7	20.3	26.7	20.7	17.9	21.5
-15	54.0	22.3	45.9	23.4	37.0	24.3	27.3	25.6
-10	69.3	25.1	59.8	26.7	49.5	28.1	38.5	30.0
-5	87.8	27.7	76.4	29.9	64.3	32.0	51.7	34.5
0	110.0	30.1	96.2	33.1	82.0	35.9	67.2	39.2
5	136.0	32.3	119.6	36.1	102.7	39.8	85.4	43.9
10	166.2	34.2	146.7	38.9	126.8	43.5	106.5	48.6
15	201.0	35.8	177.9	41.5	154.6	47.1	131.0	53.2

KEY

Pf = cooling capacity (kW)

Pa = input power (kW)

Te = evaporating temperature (°C)

Tc = condensing temperature (°C)

50Hz = frequency

Liquid subcooling 5K

Suction gas superheat 10K

Identifies additional cooling required (see application limits)

Limits refer to full load 50 Hz operation

For data at different working conditions please refer to RefComp LEONARDO selection program

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SP-L, Refrigerant R134A

SP2-L-030E								
Tc	30		40		50		60	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	2.8	1.4	2.4	1.4	2.0	1.4	1.7	1.4
-20	3.7	1.6	3.2	1.6	2.7	1.7	2.3	1.7
-15	4.9	1.7	4.2	1.9	3.6	1.9	3.1	2.0
-10	6.4	1.9	5.6	2.1	4.8	2.2	4.1	2.3
-5	8.2	2.1	7.2	2.3	6.2	2.5	5.3	2.6
0	10.3	2.3	9.1	2.5	7.9	2.8	6.8	3.0
5	12.7	2.4	11.3	2.8	9.9	3.1	8.6	3.3
10	15.4	2.6	13.7	3.0	12.1	3.4	10.6	3.7

SP2-L-040E								
Tc	30		40		50		60	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	3.3	1.6	2.9	1.7	2.4	1.7	2.1	1.7
-20	4.4	1.9	3.8	1.9	3.2	2.0	2.7	2.0
-15	5.9	2.1	5.1	2.2	4.4	2.3	3.7	2.4
-10	7.7	2.3	6.7	2.5	5.8	2.6	4.9	2.7
-5	9.9	2.5	8.6	2.8	7.5	3.0	6.4	3.1
0	12.4	2.7	10.9	3.0	9.5	3.3	8.2	3.5
5	15.3	2.9	13.5	3.3	11.9	3.7	10.3	3.9
10	18.5	3.1	16.5	3.6	14.6	4.0	12.7	4.4

SP2-L-050E								
Tc	30		40		50		60	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	3.9	1.9	3.3	1.9	2.8	2.0	2.4	1.9
-20	5.2	2.2	4.4	2.3	3.8	2.3	3.2	2.3
-15	6.9	2.4	5.9	2.6	5.1	2.7	4.3	2.7
-10	9.0	2.7	7.8	2.9	6.7	3.1	5.7	3.2
-5	11.5	2.9	10.1	3.2	8.7	3.4	7.5	3.6
0	14.4	3.1	12.7	3.5	11.1	3.8	9.6	4.1
5	17.8	3.4	15.8	3.8	13.9	4.2	12.0	4.6
10	21.6	3.6	19.2	4.2	17.0	4.7	14.8	5.1

SP2-L-060E								
Tc	30		40		50		60	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	4.4	2.2	3.8	2.2	3.2	2.2	2.7	2.2
-20	5.9	2.5	5.1	2.6	4.3	2.6	3.6	2.7
-15	7.8	2.7	6.8	2.9	5.8	3.0	4.9	3.1
-10	10.3	3.0	8.9	3.3	7.7	3.5	6.5	3.6
-5	13.1	3.3	11.5	3.6	10.0	3.9	8.5	4.1
0	16.5	3.6	14.6	4.0	12.7	4.4	10.9	4.7
5	20.4	3.8	18.1	4.4	15.9	4.8	13.7	5.2
10	24.7	4.1	22.0	4.7	19.4	5.3	16.9	5.8

SP4-LF-060E/SP4-LN-060E								
Tc	30		40		50		60	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	5.5	2.5	4.8	2.6	4.1	2.6	3.4	2.6
-20	7.4	2.9	6.4	3.0	5.4	3.1	4.5	3.1
-15	9.8	3.2	8.5	3.4	7.3	3.6	6.1	3.7
-10	12.8	3.5	11.2	3.9	9.6	4.1	8.2	4.3
-5	16.4	3.9	14.4	4.3	12.5	4.6	10.7	4.9
0	20.6	4.2	18.2	4.7	15.9	5.1	13.7	5.5
5	25.4	4.5	22.6	5.1	19.8	5.7	17.2	6.1
10	30.9	4.8	27.5	5.6	24.3	6.2	21.2	6.8

SP4-LF-080E/SP4-LN-080E								
Tc	30		40		50		60	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	6.6	3.0	5.7	3.1	4.9	3.1	4.1	3.1
-20	8.8	3.5	7.6	3.6	6.5	3.7	5.4	3.7
-15	11.8	3.9	10.2	4.1	8.7	4.3	7.3	4.4
-10	15.4	4.3	13.4	4.6	11.5	4.9	9.8	5.1
-5	19.7	4.6	17.3	5.1	15.0	5.5	12.8	5.8
0	24.8	5.0	21.9	5.6	19.1	6.2	16.4	6.6
5	30.5	5.4	27.1	6.2	23.8	6.8	20.6	7.4
10	37.0	5.7	33.0	6.7	29.1	7.5	25.4	8.2

SP4-LF-100E/SP4-LN-100E								
Tc	30		40		50		60	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	7.7	3.6	6.7	3.6	5.7	3.7	4.8	3.6
-20	10.3	4.0	8.9	4.2	7.6	4.3	6.3	4.4
-15	13.7	4.5	11.9	4.8	10.2	5.0	8.6	5.1
-10	18.0	5.0	15.6	5.4	13.5	5.7	11.4	6.0
-5	23.0	5.4	20.2	6.0	17.5	6.4	14.9	6.8
0	28.9	5.8	25.5	6.6	22.3	7.2	19.2	7.7
5	35.6	6.3	31.6	7.2	27.7	8.0	24.0	8.6
10	43.2	6.7	38.5	7.8	34.0	8.7	29.6	9.5

SP4-LF-120E/SP4-LN-120E								
Tc	30		40		50		60	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	8.8	4.1	7.6	4.1	6.5	4.2	5.5	4.1
-20	11.8	4.6	10.2	4.8	8.7	4.9	7.3	5.0
-15	15.7	5.2	13.6	5.5	11.6	5.7	9.8	5.9
-10	20.5	5.7	17.9	6.2	15.4	6.5	13.0	6.8
-5	26.3	6.2	23.1	6.8	20.0	7.4	17.1	7.8
0	33.0	6.7	29.1	7.5	25.4	8.2	21.9	8.8
5	40.7	7.2	36.1	8.2	31.7	9.1	27.5	9.8
10	49.4	7.6	44.0	8.9	38.8	10.0	33.9	10.9

SP4-L-150E								
Tc	30		40		50		60	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	10.2	4.7	8.8	4.8	7.5	4.8	6.3	4.8
-20	13.6	5.3	11.7	5.6	10.0	5.7	8.4	5.8
-15	18.1	6.0	15.7	6.3	13.4	6.6	11.3	6.8
-10	23.7	6.6	20.7	7.1	17.8	7.6	15.1	7.9
-5	30.4	7.1	26.6	7.9	23.1	8.5	19.7	9.0
0	38.1	7.7	33.7	8.7	29.4	9.5	25.3	10.1
5	47.0	8.3	41.7	9.5	36.6	10.5	31.7	11.3
10	57.0	8.8	50.8	10.3	44.9	11.5	39.1	12.6

SP4-L-180E								
Tc	30		40		50		60	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	11.8	5.4	10.2	5.6	8.7	5.6	7.3	5.6
-20	15.8	6.2	13.6	6.5	11.6	6.6	9.7	6.7
-15	21.0	6.9	18.2	7.3	15.6	7.7	13.1	7.9
-10	27.5	7.6	24.0	8.3	20.6	8.8	17.5	9.1
-5	35.2	8.3	30.9	9.2	26.8	9.9	22.9	10.4
0	44.2	9.0	39.0	10.1	34.1	11.0	29.3	11.7
5	54.5	9.6	48.4	11.0	42.5	12.2	36.8	13.1
10	66.1	10.2	59.0	11.9	52.0	13.4	45.4	14.6

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SP4-L-220E								
Tc	30		40		50		60	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	13.6	6.2	11.7	6.4	10.0	6.4	8.4	6.4
-20	18.1	7.1	15.6	7.4	13.3	7.6	11.1	7.7
-15	24.1	7.9	20.9	8.4	17.8	8.8	15.0	9.0
-10	31.5	8.7	27.5	9.5	23.7	10.0	20.0	10.5
-5	40.4	9.5	35.4	10.5	30.7	11.3	26.3	11.9
0	50.7	10.3	44.8	11.6	39.1	12.6	33.6	13.5
5	62.6	11.0	55.5	12.6	48.7	14.0	42.2	15.1
10	75.9	11.7	67.6	13.7	59.7	15.3	52.0	16.7

SP4-L-250E								
Tc	30		40		50		60	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	16.3	7.5	14.1	7.7	12.0	7.7	10.1	7.7
-20	21.8	8.5	18.8	8.9	16.0	9.1	13.4	9.2
-15	29.0	9.5	25.1	10.1	21.5	10.6	18.1	10.9
-10	37.9	10.5	33.1	11.4	28.5	12.1	24.1	12.6
-5	48.6	11.4	42.6	12.6	37.0	13.6	31.6	14.4
0	61.0	12.4	53.9	13.9	47.0	15.2	40.5	16.2
5	75.3	13.2	66.8	15.2	58.6	16.8	50.8	18.1
10	91.3	14.1	81.3	16.4	71.8	18.4	62.6	20.1

SP6-L-270E								
Tc	30		40		50		60	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	17.8	8.2	15.3	8.3	13.0	8.4	11.0	8.3
-20	23.7	9.3	20.4	9.7	17.4	9.9	14.6	10.0
-15	31.5	10.4	27.3	11.0	23.3	11.5	19.6	11.8
-10	41.2	11.4	35.9	12.4	30.9	13.1	26.2	13.7
-5	52.9	12.4	46.4	13.7	40.2	14.8	34.3	15.6
0	66.4	13.4	58.6	15.1	51.1	16.5	44.0	17.6
5	81.8	14.4	72.6	16.5	63.7	18.3	55.2	19.7
10	99.2	15.4	88.5	17.9	78.1	20.1	68.1	21.9

SP6-L-300E								
Tc	30		40		50		60	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	20.4	9.4	17.6	9.6	15.0	9.7	12.7	9.6
-20	27.3	10.7	23.5	11.1	20.0	11.4	16.8	11.5
-15	36.3	11.9	31.4	12.7	26.8	13.2	22.6	13.6
-10	47.4	13.1	41.3	14.2	35.6	15.1	30.1	15.7
-5	60.8	14.3	53.3	15.8	46.2	17.0	39.5	17.9
0	76.3	15.4	67.3	17.4	58.8	19.0	50.6	20.3
5	94.1	16.6	83.4	19.0	73.3	21.0	63.5	22.7
10	114.1	17.6	101.7	20.6	89.7	23.1	78.2	25.1

SP6-L-400E								
Tc	30		40		50		60	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	24.5	11.3	21.1	11.5	18.0	11.6	15.2	11.5
-20	32.7	12.8	28.2	13.4	24.0	13.7	20.1	13.8
-15	43.5	14.3	37.7	15.2	32.2	15.9	27.1	16.3
-10	56.9	15.7	49.6	17.1	42.7	18.1	36.2	18.9
-5	72.9	17.2	63.9	19.0	55.4	20.4	47.4	21.5
0	91.6	18.5	80.8	20.9	70.5	22.8	60.7	24.3
5	112.9	19.9	100.1	22.8	87.9	25.2	76.2	27.2
10	136.9	21.2	122.0	24.7	107.7	27.7	93.9	30.2

SP8-L-500E								
Tc	30		40		50		60	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	31.0	13.2	26.7	14.2	21.4	14.4	15.3	14.5
-20	39.8	15.1	34.9	16.4	29.0	17.0	22.4	17.3
-15	51.1	17.1	45.2	18.7	38.5	19.6	31.0	20.4
-10	65.2	18.9	58.0	21.0	50.1	22.4	41.4	23.5
-5	82.5	20.5	73.6	23.2	64.0	25.1	53.9	26.8
0	103.0	22.0	92.1	25.2	80.6	27.7	68.7	30.1
5	127.2	23.2	113.9	27.1	100.2	30.3	86.0	33.3
10	155.3	24.0	139.3	28.7	122.9	32.6	106.2	36.5

SP8-L-600E								
Tc	30		40		50		60	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	37.0	15.7	31.9	16.9	25.6	17.2	18.2	17.2
-20	47.5	18.1	41.6	19.6	34.7	20.3	26.7	20.7
-15	61.0	20.4	54.0	22.3	45.9	23.4	37.0	24.3
-10	77.9	22.5	69.3	25.0	59.8	26.7	49.5	28.1
-5	98.4	24.5	87.8	27.7	76.4	29.9	64.3	32.0
0	123.0	26.2	110.0	30.1	96.2	33.1	82.0	35.9
5	151.9	27.7	136.0	32.3	119.6	36.1	102.7	39.8
10	185.3	28.7	166.2	34.2	146.7	38.9	126.8	43.5

KEY

Pf = cooling capacity (kW)

Pa = input power (kW)

Te = evaporating temperature (°C)

Tc = condensing temperature (°C)

50Hz = frequency

Liquid subcooling 5K

Suction gas superheat 10K

identifies additional cooling required (see application limits)

Limits refer to full load 50 Hz operation

For data at different working conditions please refer to RefComp LEONARDO selection program

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SP-H, Refrigerant R404A-R507

SP2-H-050E								
Tc	30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	6.1	2.9	4.9	2.8	3.7	2.8	-	-
-20	8.1	3.3	6.6	3.3	5.0	3.4	-	-
-15	10.4	3.6	8.6	3.8	6.6	3.9	5.6	4.0
-10	13.0	3.9	10.9	4.2	8.6	4.4	7.4	4.5
-5	16.0	4.1	13.5	4.5	10.8	4.9	9.4	5.0
0	19.3	4.3	16.5	4.8	13.4	5.3	11.8	5.5
5	22.9	4.4	19.9	5.1	16.4	5.7	14.5	5.9

SP2-H-060E								
Tc	30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	7.3	3.5	5.9	3.4	4.4	3.4	-	-
-20	9.7	3.9	7.9	4.0	6.0	4.1	-	-
-15	12.5	4.3	10.3	4.5	8.0	4.7	6.8	4.8
-10	15.6	4.6	13.1	5.0	10.3	5.3	8.8	5.4
-5	19.1	4.9	16.2	5.4	13.0	5.8	11.3	6.0
0	23.1	5.1	19.8	5.8	16.1	6.3	14.2	6.6
5	27.5	5.2	23.8	6.1	19.7	6.8	17.5	7.1

SP2-H-080E								
Tc	30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	8.5	4.0	6.9	3.9	5.2	3.9	-	-
-20	11.3	4.5	9.2	4.6	7.0	4.7	-	-
-15	14.5	5.0	12.0	5.2	9.3	5.5	7.9	5.6
-10	18.2	5.4	15.3	5.8	12.0	6.1	10.3	6.3
-5	22.3	5.7	19.0	6.3	15.2	6.8	13.2	7.0
0	27.0	5.9	23.1	6.7	18.8	7.4	16.5	7.6
5	32.1	6.1	27.8	7.1	23.0	7.9	20.4	8.2

SP2-H-090E								
Tc	30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	9.7	4.6	7.8	4.5	5.9	4.5	-	-
-20	12.9	5.2	10.6	5.3	8.0	5.4	-	-
-15	16.6	5.7	13.7	6.0	10.6	6.3	9.0	6.4
-10	20.8	6.2	17.4	6.7	13.7	7.1	11.8	7.3
-5	25.5	6.5	21.7	7.2	17.4	7.8	15.1	8.1
0	30.8	6.8	26.4	7.7	21.5	8.5	18.9	8.8
5	36.7	7.0	31.8	8.2	26.2	9.1	23.3	9.5

SP4-HF-100E/SP4-HN-100E								
Tc	30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	11.0	5.1	8.8	5.0	6.6	5.0	-	-
-20	14.6	5.8	11.9	5.9	9.0	6.0	-	-
-15	18.7	6.4	15.5	6.7	12.0	7.0	10.2	7.1
-10	23.4	6.8	19.6	7.4	15.5	7.8	13.3	8.1
-5	28.8	7.2	24.4	8.0	19.5	8.7	17.0	8.9
0	34.7	7.6	29.8	8.6	24.2	9.4	21.3	9.8
5	41.3	7.8	35.8	9.0	29.6	10.1	26.2	10.2

SP4-HF-120E/SP4-HN-120E								
Tc	30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	13.2	6.2	10.6	6.0	8.0	6.0	-	-
-20	17.5	7.0	14.3	7.1	10.9	7.2	-	-
-15	22.4	7.6	18.6	8.0	14.4	8.4	12.2	8.5
-10	28.1	8.2	23.6	8.8	18.6	9.4	15.9	9.7
-5	34.5	8.7	29.3	9.6	23.5	10.4	20.4	10.7
0	41.7	9.1	35.7	10.3	29.1	11.3	25.5	11.7
5	49.6	9.3	43.0	10.8	35.5	12.1	31.5	12.6

SP4-HF-150E/SP4-HN-150E								
Tc	30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	15.4	7.2	12.4	7.0	9.3	7.0	-	-
-20	20.4	8.1	16.6	8.2	12.7	8.4	-	-
-15	26.2	8.9	21.7	9.3	16.8	9.8	14.2	10.0
-10	32.8	9.6	27.5	10.3	21.7	11.0	18.6	11.3
-5	40.3	10.1	34.2	11.2	27.4	12.1	23.8	12.5
0	48.6	10.6	41.7	12.0	33.9	13.2	29.8	13.7
5	57.9	10.9	50.1	12.7	41.4	14.1	36.7	14.7

SP4-HF-200E/SP4-HN-200E								
Tc	30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	17.6	8.2	14.1	8.0	10.6	8.0	-	-
-20	23.3	9.3	19.0	9.4	14.5	9.6	-	-
-15	29.9	10.2	24.8	10.7	19.2	11.1	16.3	11.4
-10	37.5	11.0	31.4	11.8	24.8	12.5	21.2	12.9
-5	46.0	11.6	39.0	12.8	31.3	13.9	27.2	14.3
0	55.6	12.1	47.7	13.7	38.8	15.0	34.1	15.6
5	66.1	12.4	57.3	14.5	47.3	16.1	41.9	16.8

SP4-H-220E								
Tc	30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	20.7	9.3	16.9	10.0	13.1	10.7	-	-
-20	26.3	10.4	21.8	11.3	17.2	12.2	-	-
-15	33.4	11.4	28.1	12.5	22.5	13.7	19.6	14.3
-10	41.9	12.3	35.7	13.7	29.0	15.1	25.4	15.8
-5	51.8	13.0	44.6	14.7	36.6	16.4	32.4	17.2
0	63.2	13.6	54.8	15.6	45.4	17.6	40.4	18.6
5	76.1	14.2	66.3	16.5	55.4	18.8	49.6	19.9

SP4-H-250E								
Tc	30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	24.0	10.8	19.6	11.6	15.2	12.4	-	-
-20	30.5	12.1	25.3	13.1	20.0	14.2	-	-
-15	38.7	13.2	32.6	14.5	26.1	15.9	22.7	16.6
-10	48.6	14.2	41.4	15.8	33.6	17.5	29.5	18.3
-5	60.1	15.1	51.7	17.0	42.5	19.0	37.5	20.0
0	73.3	15.8	63.5	18.1	52.7	20.4	46.9	21.6
5	88.2	16.4	76.9	19.1	64.3	21.8	57.5	23.1

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SP4-H-300E								
Tc	30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	27.6	12.4	22.4	13.3	17.4	14.2	-	-
-20	35.0	13.9	29.0	15.0	22.9	16.3	-	-
-15	44.4	15.2	37.4	16.7	29.9	18.2	26.1	19.0
-10	55.7	16.3	47.5	18.2	38.5	20.1	33.8	21.0
-5	68.9	17.3	59.3	19.5	48.7	21.8	43.1	22.9
0	84.1	18.1	72.9	20.8	60.4	23.7	53.8	24.7
5	101.2	18.8	88.2	21.9	73.7	24.9	65.9	26.5

SP4-H-350E								
Tc	30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	33.0	14.8	26.8	15.8	20.8	17.0	-	-
-20	41.9	16.6	34.7	18.0	27.4	19.4	-	-
-15	53.1	18.1	44.7	19.9	35.8	21.8	31.2	22.7
-10	66.6	19.5	56.7	21.7	46.1	24.0	40.4	25.1
-5	82.4	20.7	70.9	23.4	58.2	26.0	51.5	27.4
0	100.5	21.7	87.1	24.8	72.2	28.0	64.3	29.6
5	120.9	22.5	105.4	26.2	88.1	29.8	78.8	31.6

SP6-H-370E								
Tc	30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	36.1	16.2	29.3	17.3	22.8	18.6	-	-
-20	45.8	18.1	38.0	19.7	30.0	21.3	-	-
-15	58.1	19.8	48.9	21.8	39.2	23.8	34.1	24.9
-10	72.9	21.3	62.1	23.8	50.4	26.2	44.3	27.5
-5	90.2	22.6	77.6	25.6	63.7	28.5	56.3	30.0
0	110.0	23.7	95.3	27.2	79.0	30.6	70.6	32.4
5	132.4	24.6	115.3	28.6	96.4	32.6	86.2	34.6

SP6-H-400E								
Tc	30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	41.5	18.7	33.7	19.9	26.2	21.3	-	-
-20	52.7	20.9	43.6	22.6	34.4	24.4	-	-
-15	66.8	22.8	56.2	25.1	45.0	27.4	39.2	28.6
-10	83.8	24.5	71.4	27.3	58.0	30.2	50.9	31.6
-5	103.7	26.0	89.1	29.4	73.2	32.8	64.7	34.5
0	126.5	27.3	109.6	31.2	90.9	35.2	80.8	37.2
5	152.1	28.3	132.6	32.9	110.8	37.5	99.1	39.8

SP6-H-500E								
Tc	30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	49.5	22.3	40.3	23.8	31.3	25.5	-	-
-20	62.9	24.9	52.2	27.0	41.2	29.2	-	-
-15	79.8	27.3	67.1	29.9	53.8	32.7	46.9	34.1
-10	100.1	29.3	85.3	32.6	69.3	36.0	60.8	37.8
-5	123.9	31.1	106.5	35.1	87.5	39.2	77.4	41.2
0	151.1	32.6	130.9	37.3	108.6	42.1	96.6	44.5
5	181.8	33.8	158.4	39.3	132.4	44.8	118.5	47.6

SP8-H-600E								
Tc	30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	68.0	29.0	49.5	29.5	37.4	29.2	-	-
-20	83.6	31.8	64.1	33.3	50.1	33.9	-	-
-15	102.2	34.5	81.3	37.0	64.9	38.7	56.9	38.9
-10	124.2	36.8	101.5	40.6	82.4	43.4	72.6	44.2
-5	150.1	38.9	125.0	43.9	102.7	48.0	91.1	49.5
0	180.1	40.4	152.3	46.9	126.4	52.4	112.6	54.7
5	214.7	41.5	183.7	49.5	153.8	56.7	137.7	59.7

SP8-H-700E								
Tc	30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-25	81.1	34.6	59.1	35.3	44.6	34.8	-	-
-20	99.7	38.0	76.5	39.8	59.8	40.5	-	-
-15	122.0	41.2	97.0	44.2	77.5	46.1	67.9	46.5
-10	148.3	44.0	121.1	48.4	98.3	51.8	86.7	52.8
-5	179.1	46.4	149.2	52.4	122.6	57.3	108.7	59.1
0	215.0	48.3	181.8	56.0	150.9	62.6	134.4	65.3
5	256.3	49.6	219.3	59.1	183.6	67.6	164.4	71.3

KEY

Pf = cooling capacity (kW)

Pa = input power (kW)

Te = evaporating temperature (°C)

Tc = condensing temperature (°C)

50Hz = frequency

Liquid subcooling 5K

Suction gas superheat 10K

 identifies additional cooling required (see application limits)

Limits refer to full load 50 Hz operation

For data at different working conditions please refer to RefComp LEONARDO selection program

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SP-L, Refrigerant R404A-R507

SP2-L-030E								
Tc	30		40		50		52	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-40	2.6	1.6	2.0	1.6	1.4	1.6	-	-
-35	3.5	1.9	2.7	2.0	1.9	2.0	-	-
-30	4.6	2.2	3.6	2.3	2.7	2.4	2.5	2.5
-25	5.9	2.5	4.8	2.7	3.7	2.9	3.5	2.9
-20	7.6	2.8	6.3	3.0	5.0	3.3	4.7	3.3
-15	9.4	3.0	7.9	3.3	6.5	3.7	6.1	3.7
-10	11.5	3.3	9.9	3.7	8.2	4.1	7.9	4.1
-6	13.4	3.5	11.6	3.9	9.8	4.4	9.4	4.5

SP2-L-040E								
Tc	30		40		50		52	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-40	3.1	1.9	2.4	1.9	1.6	1.9	-	-
-35	4.2	2.3	3.2	2.3	2.3	2.4	-	-
-30	5.5	2.6	4.4	2.8	3.2	2.9	3.0	2.9
-25	7.1	3.0	5.8	3.2	4.4	3.4	4.1	3.4
-20	9.1	3.3	7.5	3.6	5.9	3.9	5.6	4.0
-15	11.3	3.6	9.5	4.0	7.7	4.4	7.4	4.5
-10	13.8	3.9	11.9	4.4	9.8	4.8	9.4	4.9
-6	16.1	4.2	13.9	4.7	11.7	5.2	11.3	5.3

SP2-L-050E								
Tc	30		40		50		52	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-40	3.6	2.2	2.8	2.2	1.9	2.2	-	-
-35	4.8	2.7	3.8	2.7	2.7	2.8	-	-
-30	6.4	3.1	5.1	3.2	3.7	3.4	3.5	3.4
-25	8.3	3.5	6.8	3.7	5.2	4.0	4.8	4.0
-20	10.6	3.9	8.8	4.2	6.9	4.5	6.6	4.6
-15	13.2	4.2	11.1	4.6	9.0	5.1	8.6	5.2
-10	16.1	4.6	13.8	5.1	11.5	5.6	11.0	5.7
-6	18.8	4.9	16.2	5.4	13.7	6.1	13.1	6.2

SP2-L-060E								
Tc	30		40		50		52	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-40	4.2	2.5	3.2	2.5	2.2	2.5	-	-
-35	5.5	3.0	4.3	3.1	3.0	3.2	-	-
-30	7.3	3.5	5.8	3.7	4.3	3.8	4.0	3.9
-25	9.5	3.9	7.7	4.2	5.9	4.5	5.5	4.6
-20	12.1	4.4	10.0	4.8	7.9	5.1	7.5	5.2
-15	15.1	4.8	12.7	5.3	10.3	5.8	9.8	5.9
-10	18.4	5.2	15.8	5.8	13.1	6.4	12.6	6.5
-6	21.4	5.5	18.6	6.2	15.6	6.9	15.0	7.0

SP4-LF-060E/SP4-LN-060E								
Tc	30		40		50		52	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-40	5.2	3.4	4.0	3.4	2.7	3.3	-	-
-35	6.9	4.0	5.4	4.4	3.8	4.2	-	-
-30	9.2	4.6	7.3	4.9	5.3	5.1	5.0	5.1
-25	11.9	5.2	9.7	5.6	7.4	6.0	6.9	6.1
-20	15.1	5.8	12.5	6.3	9.9	6.8	9.4	6.9
-15	18.8	6.4	15.9	7.0	12.9	7.7	12.3	7.8
-10	23.0	6.9	19.8	7.7	16.4	8.5	15.7	8.7
-6	26.8	7.3	23.2	8.2	19.5	9.1	18.8	9.3

SP4-LF-080E/SP4-LN-080E								
Tc	30		40		50		52	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-40	6.2	4.1	4.8	4.0	3.3	4.0	-	-
-35	8.3	4.8	6.5	4.9	4.6	5.1	-	-
-30	11.0	5.6	8.7	5.8	6.4	6.1	5.9	6.2
-25	14.3	6.3	11.6	6.7	8.9	7.2	8.3	7.3
-20	18.1	7.0	15.0	7.6	11.9	8.2	11.2	8.3
-15	22.6	7.7	19.1	8.4	15.5	9.2	14.8	9.4
-10	27.7	8.3	23.7	9.2	19.7	10.2	18.8	10.4
-6	32.1	8.8	27.8	9.9	23.4	11.0	22.5	11.2

SP4-LF-100E/SP4-LN-100E								
Tc	30		40		50		52	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-40	7.3	4.7	5.6	4.7	3.8	4.6	3.5	4.6
-35	9.7	5.6	7.5	5.8	5.3	5.9	4.9	5.9
-30	12.8	6.5	10.2	6.8	7.5	7.1	6.9	7.2
-25	16.6	7.3	13.5	7.8	10.3	8.4	9.7	8.5
-20	21.1	8.1	17.5	8.8	13.9	9.6	13.1	9.7
-15	26.4	8.9	22.3	9.8	18.1	10.7	17.2	10.9
-10	32.3	9.7	27.7	10.8	22.9	11.9	22.0	12.1
-6	37.5	10.3	32.5	11.5	27.3	12.8	26.3	13.1

SP4-LF-120E/SP4-LN-120E								
Tc	30		40		50		52	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-40	8.3	5.4	6.4	5.4	4.4	5.3	-	-
-35	11.1	6.4	8.6	6.6	6.4	6.7	-	-
-30	14.6	7.4	11.6	7.8	8.6	8.2	7.9	8.2
-25	19.0	8.4	15.5	9.0	11.8	9.6	11.1	9.7
-20	24.2	9.3	20.1	10.1	15.8	10.9	15.0	11.1
-15	30.1	10.2	25.4	11.2	20.6	12.3	19.7	12.5
-10	36.9	11.1	31.6	12.3	26.2	13.6	25.1	13.9
-6	42.9	11.7	37.1	13.2	31.2	14.6	30.1	14.9

SP4-L-150E								
Tc	30		40		50		52	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-40	9.6	6.2	7.4	6.2	5.0	6.1	-	-
-35	12.8	7.4	10.0	7.6	7.0	7.8	-	-
-30	16.9	8.6	13.5	9.0	9.9	9.4	9.2	9.5
-25	22.0	9.7	17.9	10.4	13.6	11.0	12.8	11.2
-20	27.9	10.8	23.2	11.7	18.3	12.6	17.3	12.8
-15	34.8	11.8	29.4	13.0	23.9	14.2	22.7	14.4
-10	42.6	12.8	36.5	14.2	32.3	15.7	29.0	16.0
-6	49.5	13.6	42.9	15.2	36.1	16.9	34.7	17.3

SP4-L-180E								
Tc	30		40		50		52	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-40	11.1	7.2	8.6	7.2	5.8	7.1	-	-
-35	14.8	8.6	11.6	8.8	8.1	9.0	-	-
-30	19.6	9.9	15.6	10.4	11.5	10.9	10.6	11.0
-25	25.5	11.2	20.7	12.0	15.8	12.8	14.8	13.0
-20	32.4	12.5	26.9	13.5	21.2	14.7	20.1	14.9
-15	40.4	13.7	34.1	15.0	27.7	16.5	26.4	16.7
-10	49.4	14.8	42.4	16.5	35.1	18.2	33.7	18.6
-6	57.4	15.7	49.7	17.6	41.9	19.6	40.3	20.0

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Серия SP

Серия SB

SP4-L-220E								
Tc	30		40		50		52	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-40	12.8	8.3	9.8	8.2	6.7	8.1	-	-
-35	17.0	9.9	13.3	10.1	9.3	10.4	-	-
-30	22.5	11.4	17.9	12.0	13.1	12.5	12.2	12.7
-25	29.2	12.9	23.8	13.8	18.1	14.7	17.0	14.9
-20	37.1	14.3	30.8	15.5	24.3	16.8	23.0	17.1
-15	46.3	15.7	39.1	17.2	31.7	18.9	30.2	19.2
-10	56.7	17.0	48.6	18.9	40.3	20.9	38.6	21.3
-6	65.9	18.0	57.0	20.2	48.0	22.5	46.2	23.0

SP4-L-250E								
Tc	30		40		50		52	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-40	15.4	10.0	11.8	9.9	8.1	9.8	-	-
-35	20.5	11.9	15.9	12.2	11.2	12.5	-	-
-30	27.1	13.7	21.5	14.4	15.8	15.1	14.6	15.2
-25	35.1	15.5	28.6	16.6	21.8	17.7	20.5	17.9
-20	44.7	17.2	37.1	18.7	29.3	20.2	27.7	20.5
-15	55.7	18.9	47.0	20.7	38.2	22.7	36.4	23.1
-10	68.2	20.5	58.4	22.8	48.5	25.1	46.5	25.6
-6	79.2	21.7	68.6	24.3	57.8	27.1	55.6	27.6

SP6-L-270E								
Tc	30		40		50		52	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-40	16.7	10.9	12.8	10.8	8.8	10.6	-	-
-35	22.3	12.9	17.3	13.3	12.2	13.5	-	-
-30	29.4	14.9	23.4	15.7	17.2	16.4	15.9	16.6
-25	38.2	16.9	31.1	18.0	23.7	19.2	22.3	19.5
-20	48.6	18.7	40.3	20.3	31.8	22.0	30.1	22.3
-15	60.6	20.5	51.1	22.6	41.5	24.7	39.5	25.1
-10	74.1	22.3	63.5	24.7	52.7	27.3	50.5	27.9
-6	86.2	23.6	74.6	26.4	62.8	29.4	60.4	30.0

SP6-L-300E								
Tc	30		40		50		52	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-40	19.2	12.5	14.8	12.4	10.1	12.2	-	-
-35	25.6	14.9	19.9	15.2	14.0	15.6	-	-
-30	33.8	17.2	26.9	18.0	19.8	18.9	18.3	19.0
-25	43.9	19.4	35.7	20.7	27.3	22.1	25.6	22.4
-20	55.8	21.5	46.3	23.4	36.6	25.3	34.6	25.7
-15	69.6	23.6	58.8	25.9	47.7	28.4	45.5	28.9
-10	85.2	25.6	73.0	28.4	60.6	31.4	58.1	32.0
-6	99.0	27.1	85.8	30.4	72.2	33.8	69.4	34.5

SP6-L-400E								
Tc	30		40		50		52	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-40	23.1	15.0	17.7	14.9	12.1	14.7	-	-
-35	30.7	17.8	23.9	18.3	16.8	18.7	-	-
-30	40.6	20.6	32.3	21.6	23.7	22.6	22.0	22.8
-25	52.7	23.2	42.9	24.9	32.8	26.5	30.7	26.9
-20	67.0	25.8	55.6	28.0	43.9	30.3	41.6	30.8
-15	83.5	28.3	70.5	31.1	57.2	34.1	54.6	34.7
-10	102.3	30.7	87.7	34.1	72.7	37.7	69.7	38.4
-6	118.8	32.5	102.9	36.5	86.6	40.6	83.3	41.4

SP8-L-500E								
Tc	30		40		50		52	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-40	34.8	20.6	17.6	18.5	9.2	15.8	-	-
-35	43.8	22.8	26.6	21.6	17.3	19.7	-	-
-30	54.7	25.5	37.1	25.2	26.5	24.2	24.8	23.6
-25	67.8	28.4	49.4	29.1	37.2	29.1	35.0	28.8
-20	83.4	31.4	63.9	33.2	49.7	34.3	47.1	34.2
-15	101.9	34.2	81.0	37.3	64.5	39.6	61.3	39.7
-10	123.7	36.8	101.0	41.2	81.8	44.8	78.0	45.1
-6	143.8	38.5	119.4	44.0	-	-	-	-

SP8-L-600E								
Tc	30		40		50		52	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-40	41.6	24.5	21.1	22.1	11.0	18.9	-	-
-35	52.3	27.2	31.8	25.8	20.7	23.5	-	-
-30	65.3	30.4	44.3	30.0	31.6	28.9	29.6	28.2
-25	80.9	33.9	59.0	34.7	44.4	34.8	41.8	34.4
-20	99.5	37.4	76.3	39.6	59.3	41.0	56.2	40.8
-15	121.6	40.9	96.7	44.5	76.9	47.3	73.1	47.4
-10	147.7	43.9	120.6	49.1	97.7	53.4	93.1	53.9
-6	171.7	46.0	142.6	52.5	-	-	-	-

KEY

Pf = cooling capacity (kW)

Pa = input power (kW)

Te = evaporating temperature (°C)

Tc = condensing temperature (°C)

50Hz = frequency

Liquid subcooling 5K

Suction gas superheat 10K

Identifies additional cooling required (see application limits)

Limits refer to full load 50 Hz operation

For data at different working conditions please refer to RefComp LEONARDO selection program

INTRODUCTION

SB, Refrigerant R22

SB-4-1200										
Tc	20		30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	5.9	4.2	5.5	4.7	-	-	-	-	-	-
-45	7.7	4.8	7.4	5.4	7.2	6	-	-	-	-
-40	9.9	5.5	9.6	6.2	9.3	6.9	-	-	-	-
-35	12.5	6.1	12.2	6.9	11.8	7.8	11.5	8.7	-	-
-30	15.5	6.7	15	7.7	14.6	8.7	14.2	9.7	14.1	10.2
-25	18.8	7.3	18.1	8.4	17.6	9.6	17.2	10.7	17	11.3
-20	22.6	7.9	21.6	9.2	20.9	10.5	20.5	11.7	20.3	12.4

SB-6-1600										
Tc	20		30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	8.6	6.2	8.1	6.9	-	-	-	-	-	-
-45	11.3	7.1	10.9	8	10.5	8.8	-	-	-	-
-40	14.5	8.0	14.1	9.1	13.7	10.1	-	-	-	-
-35	18.3	8.9	17.8	10.2	17.3	11.4	16.8	12.7	-	-
-30	22.6	9.8	21.9	11.3	21.3	12.7	20.8	14.2	20.6	14.9
-25	27.5	10.7	26.5	12.4	25.8	14.0	25.2	15.7	24.9	16.5
-20	33.0	11.6	31.6	13.4	30.9	15.3	29.9	17.2	29.7	18.1

SB-6-2600										
Tc	20		30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	11.5	8.2	10.8	9.1	-	-	-	-	-	-
-45	15.0	9.4	14.5	10.6	13.9	11.8	-	-	-	-
-40	19.3	10.6	18.7	12.1	18.2	13.5	-	-	-	-
-35	24.3	11.8	23.7	13.5	23	15.2	22.4	16.9	-	-
-30	30.1	13.0	29.2	15	28.4	16.9	27.7	18.8	27.4	19.8
-25	36.6	14.2	35.3	16.4	34.3	18.6	33.5	20.8	33.2	21.9
-20	43.9	15.4	42.1	17.9	40.7	20.4	39.8	22.9	39.5	24.1

SB-4-1400										
Tc	20		30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	7	5	6.6	5.6	-	-	-	-	-	-
-45	9.1	5.8	8.8	6.5	8.5	7.2	-	-	-	-
-40	11.7	6.5	11.4	7.4	11.1	8.2	-	-	-	-
-35	18.4	7.9	17.8	9.1	17.3	10.3	16.9	11.5	16.7	12.1
-30	14.8	7.2	14.4	8.3	14	9.3	13.7	10.3	-	-
-25	22.3	8.7	21.5	10.0	20.9	11.4	20.4	12.7	20.2	13.4
-20	26.8	9.4	25.7	10.9	24.8	12.4	24.3	13.9	24.1	14.7

SB-6-2000										
Tc	20		30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	10	7.2	9.4	8	-	-	-	-	-	-
-45	13.1	8.2	12.6	9.2	12.1	10.3	-	-	-	-
-40	16.8	9.3	16.3	10.5	15.9	11.8	-	-	-	-
-35	21.2	10.3	20.6	11.8	20.1	13.3	19.5	14.7	-	-
-30	26.2	11.3	25.4	13.1	24.7	14.7	24.1	16.4	23.8	17.3
-25	31.9	12.4	30.8	14.3	29.9	16.2	29.2	18.2	28.9	19.1
-20	38.3	13.4	36.7	15.6	35.6	17.8	34.7	19.9	34.4	21.0

SB-6-2000										
Tc	20		30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	13.7	9.9	12.9	10.9	-	-	-	-	-	-
-45	17.9	11.3	17.3	12.7	16.6	14.1	-	-	-	-
-40	23.0	12.7	22.4	14.4	21.8	26.1	-	-	-	-
-35	29.1	14.1	28.3	16.2	27.5	18.2	26.8	20.2	-	-
-30	36.0	15.6	34.9	17.9	33.9	20.2	33.1	22.5	32.7	21.7
-25	43.8	17.0	42.2	19.7	41.0	22.3	40.0	24.9	39.7	26.2
-20	52.5	18.5	50.3	21.4	48.7	24.4	47.6	27.3	47.3	28.8

KEY

Pf = cooling capacity (kW)

Pa = input power (kW)

Te = evaporating temperature (°C)

Tc = condensing temperature (°C)

Subcooling by means of subcooler only

Suction gas superheat 20°C

Frequency power supply 50Hz (1450 rpm)

INTRODUCTION

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Серия SP

Серия SB

SB,refrigerant R404A-R507

SB-4-120E										
Tc	20		30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-70	2.5	3	2.3	3.2	-	-	-	-	-	-
-65	3.5	3.5	3.2	3.9	3	4.2	-	-	-	-
-60	4.7	4.0	4.4	4.5	4.1	5	-	-	-	-
-55	6.2	4.6	5.7	5.2	5.3	5.7	5.0	6.8	-	-
-50	7.8	5.2	7.3	5.9	6.8	6.6	6.4	7.2	6.1	7.6
-45	9.7	5.9	9.1	6.6	8.6	7.4	8.0	8.2	7.7	8.6
-40	11.7	6.5	11.2	7.4	10.5	8.3	9.8	9.2	9.5	9.6
-35	14.0	7.2	13.4	8.2	12.8	9.1	12.0	10.2	11.5	10.7
-30	16.5	8.0	15.9	9.0	15.2	10.1	14.3	11.2	13.8	10.8

SB-4-140E										
Tc	20		30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-70	2.9	3.5	2.8	3.8	-	-	-	-	-	-
-65	4.2	4.1	3.8	4.6	3.6	5	-	-	-	-
-60	5.6	4.8	5.2	5.3	4.8	5.9	-	-	-	-
-55	7.3	5.5	6.8	6.1	6.3	6.8	5.9	7.5	-	-
-50	9.3	6.2	8.7	7.0	8.1	7.8	7.5	8.6	7.3	9
-45	11.5	7.0	10.8	7.9	10.2	8.8	9.5	9.7	9.1	10.2
-40	13.9	7.8	13.2	8.8	12.5	9.8	11.7	10.9	11.3	11.4
-35	16.6	8.6	15.9	9.7	15.1	10.9	14.2	12.1	13.7	12.7
-30	19.5	9.4	18.9	10.7	18.1	12.0	17.0	13.3	16.3	14.0

SB-6-160E										
Tc	20		30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-70	3.6	4.3	3.4	4.7	-	-	-	-	-	-
-65	5.1	5.1	4.7	5.6	4.4	6.2	-	-	-	-
-60	6.9	5.9	6.4	6.6	5.9	7.3	-	-	-	-
-55	9.0	6.7	8.4	7.6	7.8	8.4	7.3	9.2	-	-
-50	11.4	7.6	10.7	8.6	10.0	9.6	9.3	10.6	9	11.1
-45	14.1	8.6	13.3	9.7	12.5	10.8	11.7	12.0	11.3	12.6
-40	17.1	9.6	16.3	10.8	15.4	12.1	14.4	13.4	13.9	14.1
-35	20.5	10.6	19.6	12.0	18.7	13.4	17.5	14.9	16.8	15.6
-30	24.1	11.6	23.3	13.2	22.3	14.7	20.9	16.4	20.1	17.2

SB-6-200E										
Tc	20		30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-70	4.2	5	4	5.5	-	-	-	-	-	-
-65	5.9	5.9	5.5	6.5	5.2	7.1	-	-	-	-
-60	8.0	6.8	7.4	7.6	6.9	8.4	-	-	-	-
-55	10.5	7.8	9.7	8.8	9.0	9.7	8.4	10.7	-	-
-50	13.2	8.9	12.4	10.0	11.6	11.1	10.8	12.3	10.4	12.9
-45	16.4	9.9	15.5	11.2	14.5	12.5	13.5	13.9	13.0	14.6
-40	19.9	11.1	18.9	12.5	17.9	14.0	16.7	15.5	16.1	16.3
-35	23.7	12.3	22.8	13.9	21.6	15.5	20.3	17.2	19.5	18.1
-30	27.9	13.5	27.0	15.3	25.8	17.1	24.2	19.0	23.3	20.0

SB-6-250E										
Tc	20		30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-70	4.8	5.8	4.6	6.3	-	-	-	-	-	-
-65	6.8	6.8	6.3	7.5	5.9	8.2	-	-	-	-
-60	9.2	7.8	8.5	8.8	7.9	9.7	-	-	-	-
-55	12.0	9.0	11.1	10.1	10.4	11.2	9.7	12.3	-	-
-50	15.2	10.2	14.2	11.4	13.3	12.8	12.4	14.1	11.9	14.8
-45	18.8	11.4	17.7	12.9	16.7	14.4	15.5	15.9	15.0	16.7
-40	22.8	12.7	21.4	15.4	20.5	16.1	19.2	17.8	18.5	18.7
-35	27.2	14.1	26.1	17.9	24.8	17.8	23.3	19.8	22.4	20.8
-30	32.0	15.5	31.0	20.3	29.6	19.6	27.8	21.8	26.8	22.9

SB-6-300E										
Tc	20		30		40		50		55	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-70	5.8	6.9	5.5	7.5	-	-	-	-	-	-
-65	8.2	8.1	7.5	9	7.1	9.8	-	-	-	-
-60	11.0	9.4	10.2	10.5	9.5	11.6	-	-	-	-
-55	14.3	10.7	13.3	12.0	12.4	13.4	11.6	14.7	-	-
-50	18.2	12.2	17.0	13.7	15.9	15.3	14.8	16.8	14.3	17.6
-45	22.5	13.6	21.2	15.4	19.9	17.2	18.6	19.0	17.9	20.0
-40	27.3	15.2	26.0	17.2	24.5	19.2	22.9	21.3	22.1	22.4
-35	32.6	16.8	31.3	19.0	29.7	21.3	27.8	23.3	26.8	24.9
-30	38.3	18.5	37.1	20.9	35.4	23.4	33.3	26.1	32.0	27.4

KEY

Pf = cooling capacity (kW)

Pa = input power (kW)

Te = evaporating temperature (°C)

Tc = condensing temperature (°C)

Subcooling by means of subcooler only /

Suction gas superheat 20 °C

Frequency power supply 50Hz (1450 rpm)

COMPONENT

SP SERIES

Star (400 [V]) or Delta (230 [V]) motor for SP2 models, part-winding start-up motor for all the other models (400 [V] /3/50 [Hz] - 460/3/60 [Hz]); suction shut-off valve; discharge shut-off valve; integrated safety relief valve; oil sight glass; oil filter⁽¹⁾; oil charge; PTC sensors embedded in the electrical motor; crankcase heater electronic protection devices (230 [V] /1/50-60 [Hz]) INT 69 for SP2 and INT 69 VS for the rest of the models; IP54-class electrical box; nitrogen protective charge, spring vibration dampers⁽²⁾, bridges for D.O.L. start.

(1) Except for SP2 and SP4_N models (with splasher lubrication).

(2) Except for 2- and 8-cylinder models, supplied as standard with rubber vibration dampers.

SB SERIES

Suction and discharge shut-off valves, 4 spring vibration dampers, PTC embedded in the electrical motor and electronic motor protection device Kriwan INT 69 VS, IP54 enclosure class terminal box, internal safety relief valve, intermediate pressure line with manometer joint, oil sight glass, thermostatic valve with its own kit consisting of a solenoid valve, a liquid sight glass and a drier, all disassembled, oil charge for R22 refrigerant, nitrogen protective charge, crankcase heater, bridges for D.O.L. start.

All electric devices, either standard or optional, are meant for 230-1-50/60 [Hz] supply.

ACCESSORI

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Серия SP

Серия SB

SP SERIES

The compressors, save for the SP2, can be equipped with an integrated capacity control system. The user can choose to have it already installed in the factory or to buy the suitable kit for a later installation. The capacity control system is achieved by the installation of one or two⁽³⁾ special heads equipped with a solenoid valve.

When energized this solenoid valve stops the suction gas from entering the compression chamber, turning the compression stroke of the underlying pistons into an idle stroke. Together with the cooling capacity reduction, which is proportional to the number of the non-effective cylinders, the power consumption also reduces, keeping energy efficiency at very high levels. Specifically, the following are the available capacity steps.

(3) Two special heads only for 6- or 8-cylinder models.

Compressor type Tipo	N° of capacity control steps	Capacity control	N° of capacity control steps	Capacity control
2 Cyl.	--	--	--	--
4 Cyl.	1	50%	--	--
6 Cyl.	1	66%	2	66%-33%
8 Cyl.	1	75%	2	75%-50%

The following accessories are also available upon request: special voltage motors, start unloader device⁽⁴⁾ (SU), liquid injection control module LCM and related accessories⁽⁵⁾, fan for additional cooling⁽⁶⁾, spring vibration dampers⁽⁵⁾, discharge gas temperature monitoring sensor, oil differential pressure safety switch MP54⁽⁷⁾, electronic oil differential pressure switch⁽⁷⁾, opto-electronic oil sensor⁽⁸⁾, oil charging service valve, connections for compressor parallel operation and special packaging. The standard and/or optional electrical accessories such as the motor protection device, the crankcase heater and the solenoid valves, are suitable for 230 [V] AC 50/60 [Hz] power supply. However special voltages are also available upon request.

(4) Except for 2- and 8-cylinder models.

(5) Not valid for 2-cylinder models.

(6) Except for 8-cylinder models.

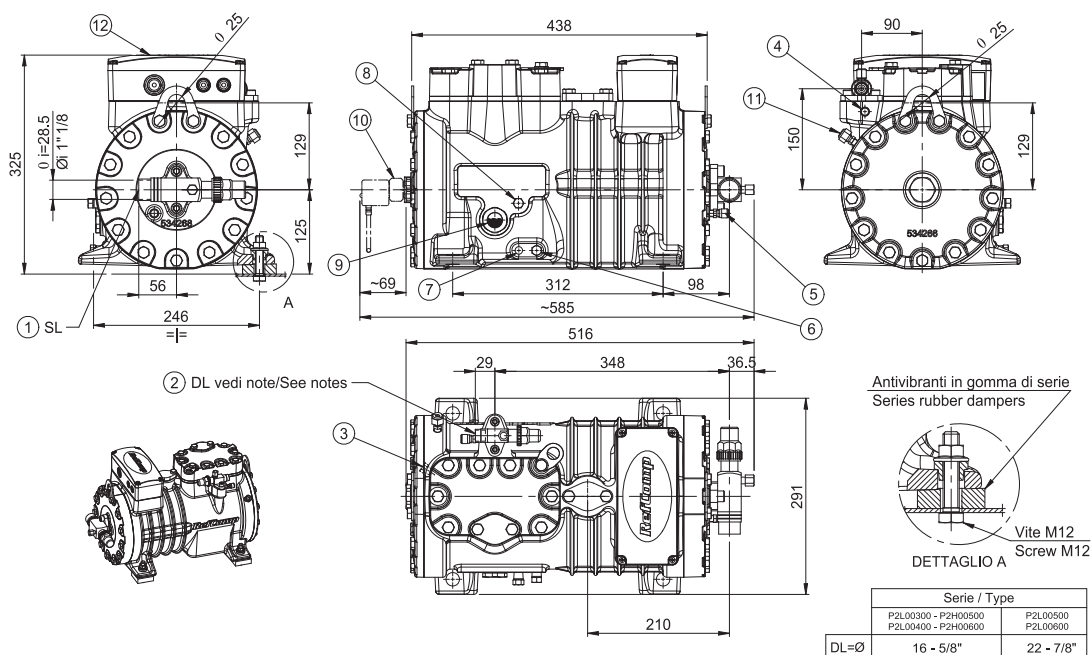
(7) Except for 4-cylinder models with splasher lubrication SP4_N.

(8) Valid for 2 and 4 cylinder models with splasher lubrication SP4_N.

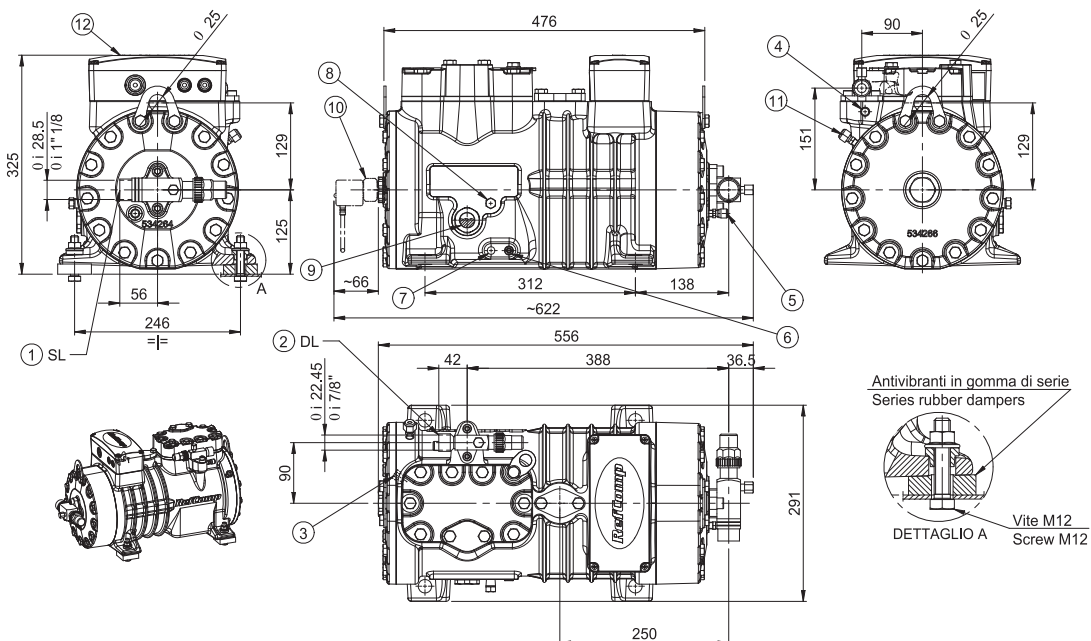
SB SERIES

Special electric motors; polyol-ester oil for HFC refrigerants; MP54 electromechanical oil pressure switch; electronic oil pressure switch; oil electric oil charge service valve; control module (LCM) for liquid injection (as an alternative to the thermostatic valve) together with its own kit consisting of a solenoid valve, a liquid sight glass and a drier, all disassembled; liquid subcooler (fitted or not, as requested); discharge temperature control sensor; kit rubber anti-vibration dampers.

SP2L0300 - SP2L030E - SP2L0400 - SP2L040E - SP2L0500 - SP2L050E
 SP2L0600 - SP2L060E - SP2H0500- SP2H050E - SP2H0600 - SP2H060E



SP2H0800 - SP2H080E
 SP2H0900 - SP2H090E

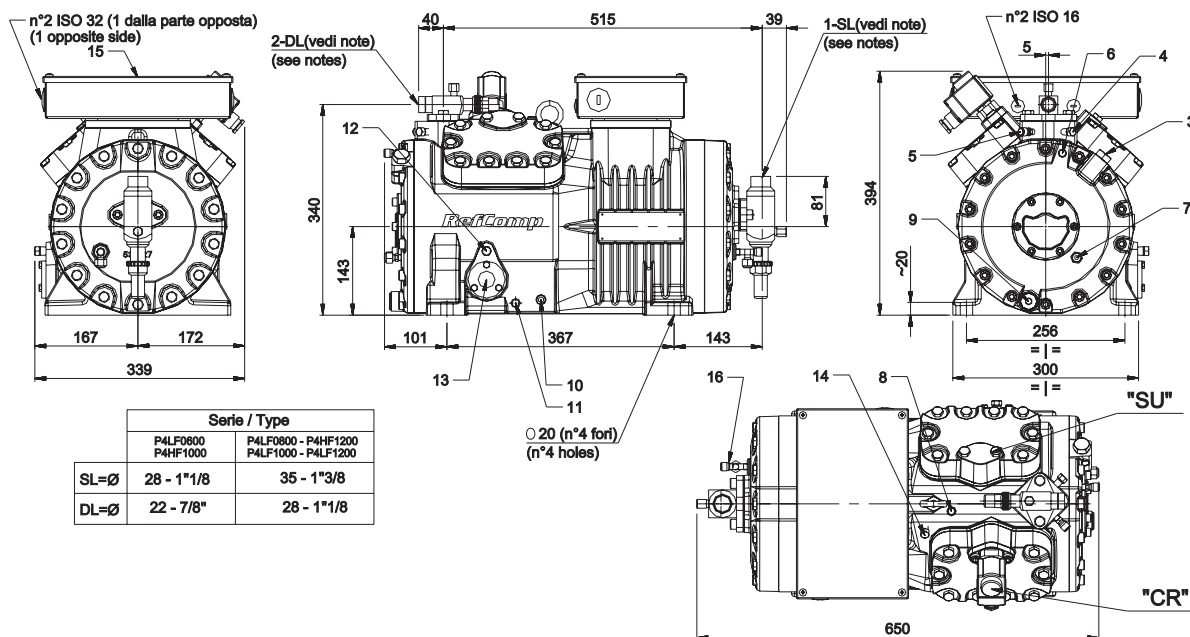


Key

- 1) Suction shut-off valve SL
- 2) Discharge shut-off valve DL
- 3) Discharge temperature sensor 1/8"NPT (optional)
- 4) High pressure 1/4" SAE-FLARE
- 5) Low pressure 1/4" SAE-FLARE
- 6) Oil drain 1/4"NPT
- 7) Crankcase heater
- 8) Oil charging shut-off valve 1/4"NPT (optional)
- 9) Oil level sight glass
- 10) Oil level sensor (optional)

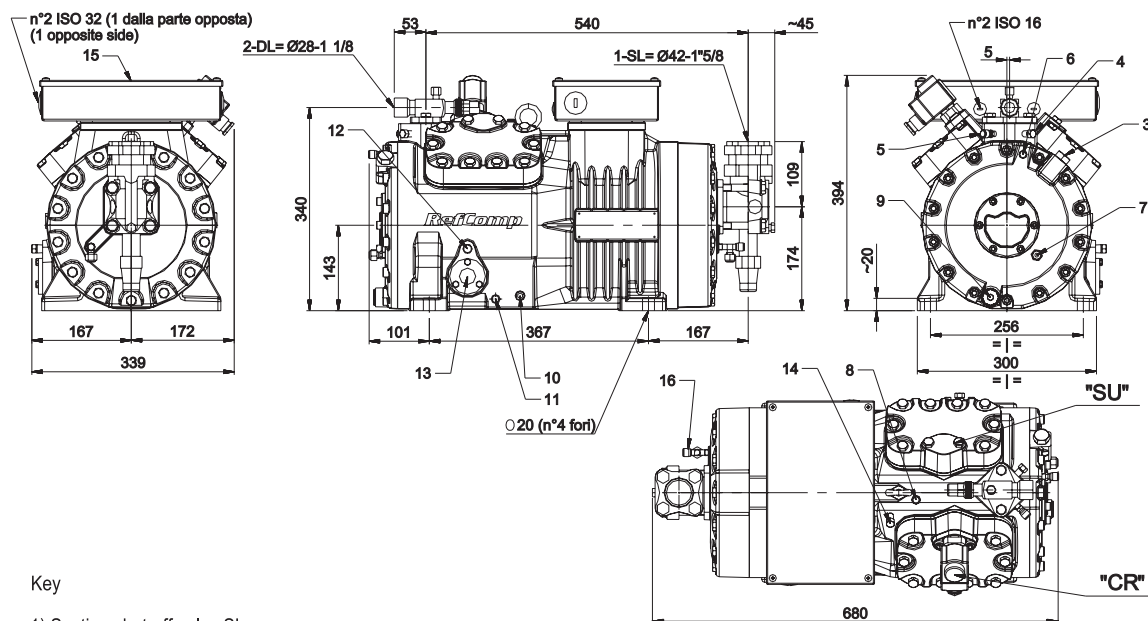
SP4LF0600 - SP4LF060E - SP4LF0800 - SP4LF080E

SP4HF/LF1000 - SP4HF/LF100E - SP4HF/LF1200 - SP4HF/LF120E



SP4HF1500 - SP4HF150E

SP4HF2000 - SP4HF200E

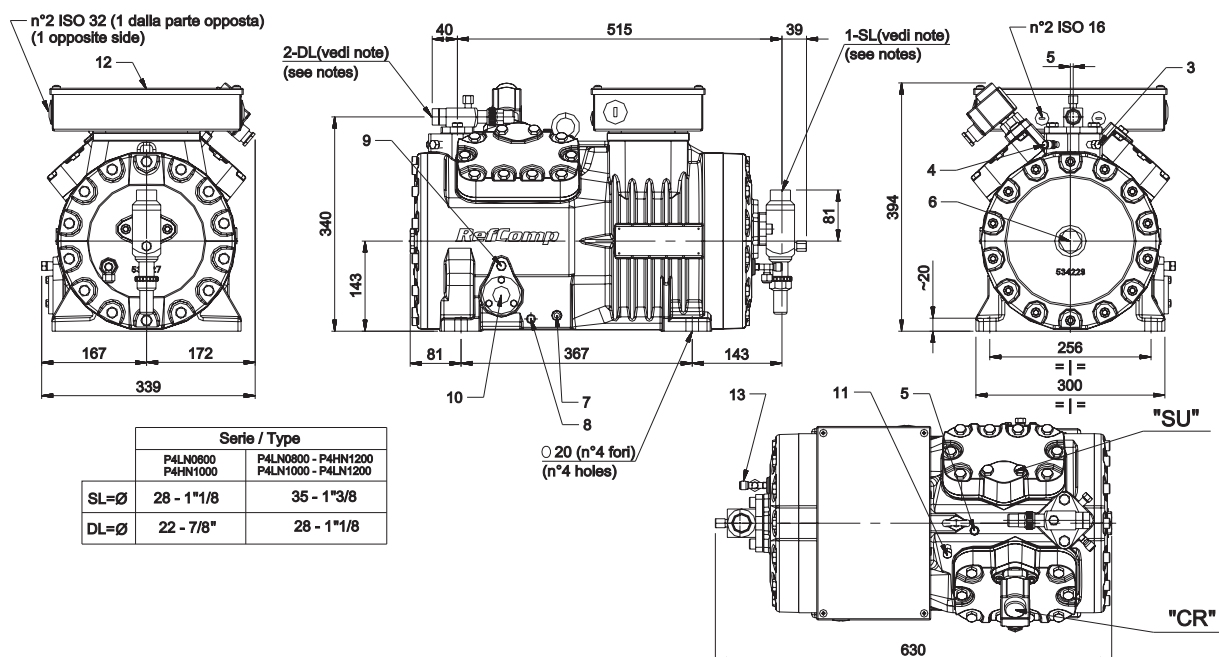


Key

- 1) Suction shut-off valve SL
- 2) Discharge shut-off valve DL
- 3) Electronic oil pressure switch connection
- 4) Discharge temperature sensor 1/8"NPT
- 5) High pressure 1/8"NPT
- 6) Oil high pressure 1/4" SAE-FLARE
- 7) Oil low pressure 1/4" SAE-FLARE
- 8) Low pressure 1/8"NPT
- 9) Oil strainer plug M22x1.5
- 10) Oil drain 3/8"NPT
- 11) Crankcase heater
- 12) Oil charging 1/4"NPT
- 13) Oil level sight glass
- 14) LCM injection connection 1/8"NPT
- 15) Electric box
- 16) Low pressure 1/4" SAE-FLARE
- "CR" Capacity regulator
- "SU" Start unloader

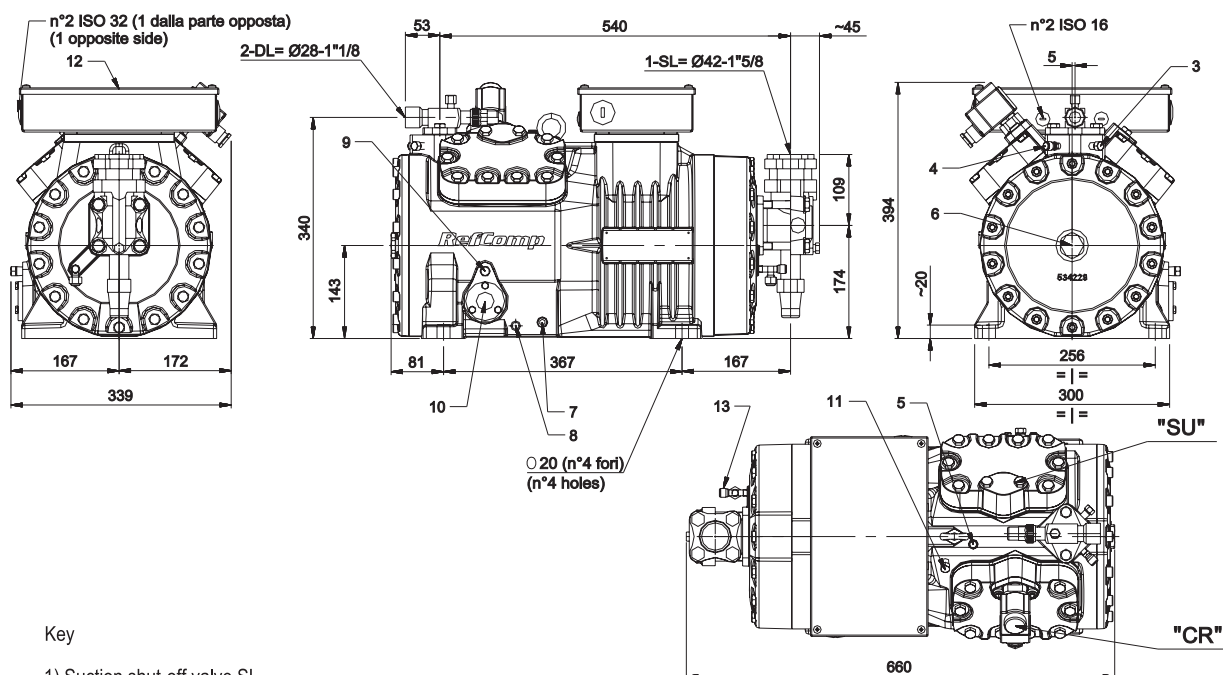
SP4LN0600 - SP4LN060E - SP4LN0800 - SP4LN080E

SP4HN/LN1000 - SP4HN/LN100E - SP4HN/LN1200 - SP4HN/LN120E



SP4HN1500 - SP4HN150E

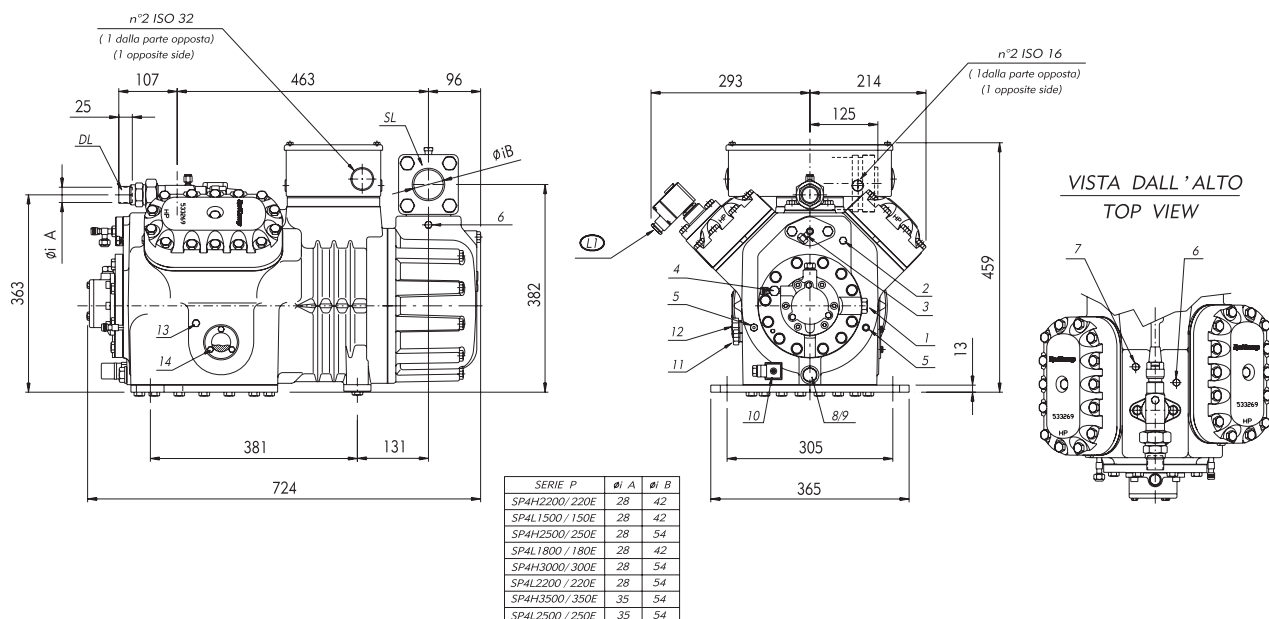
SP4HN2000 - SP4HN200E



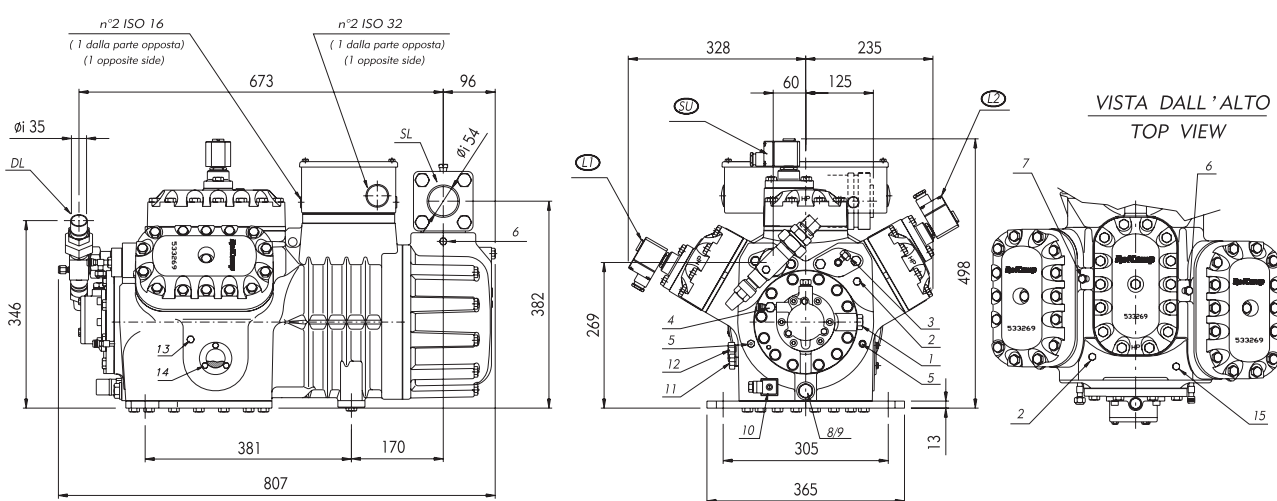
Key

- 1) Suction shut-off valve SL
 - 2) Discharge shut-off valve DL
 - 3) Discharge temperature sensor 1/8"NPT
 - 4) High pressure 1/8"NPT
 - 5) Low pressure 1/8"NPT
 - 6) Oil plug for optical sensor 1"1/8-18UNEF
 - 7) Oil drain 3/8"NPT
 - 8) Crankcase heater
 - 9) Oil charging 1/4"NPT
 - 10) Oil level sight glass
 - 11) LCM injection connection 1/8"NPT
 - 12) Electric box
 - 13) Low pressure 1/4" SAE-FLARE
- "CR" Capacity regulator
"SU" Start unloader

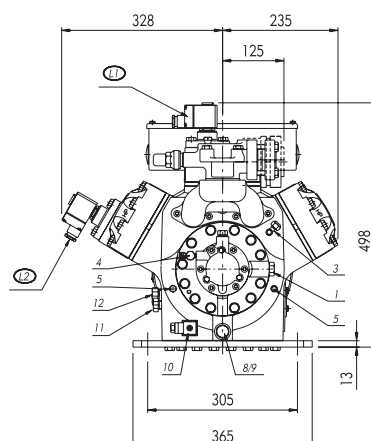
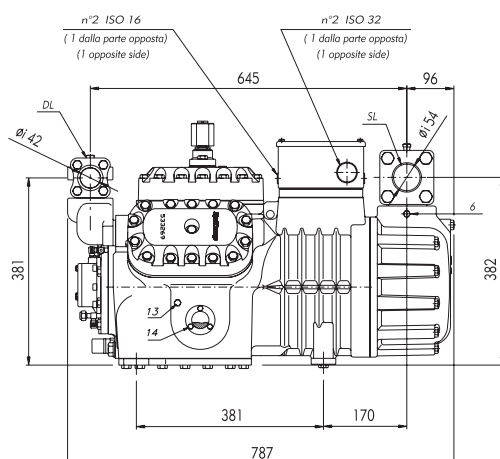
SP4L1500...SP4L2500 - SP4L150E...SP4H250E
SP4H2200...SP4H3500 - SP4H220E...SP4H350E



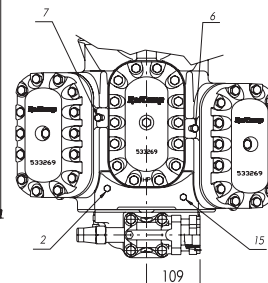
SP6L2700 - SP6L270E - SP6L3000 - SP6L300E
SP6H3700 - SP6H370E - SP6H4000 - SP6H400E



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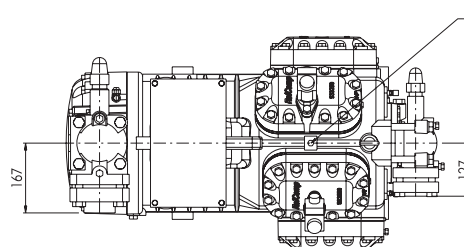
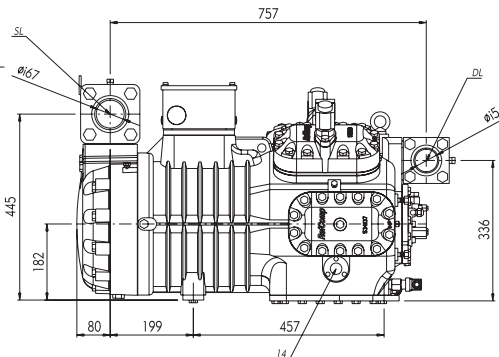
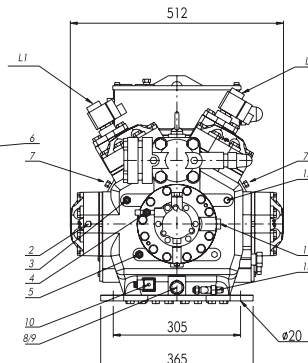
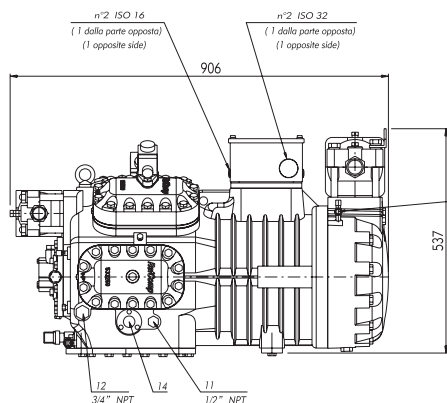
VISTA DALL'ALTO
TOP VIEW



Key

- 1) Electronic oil pressure switch connection
- 2) Discharge temperature sensor
- 3) High pressure 1/4" SAE-FLARE
- 4) Oil high pressure 1/4" SAE-FLARE
- 5) Oil low pressure 1/4" SAE-FLARE
- 6) Low pressure 1/8"NPT
- 7) Low pressure 1/8"NPT (liquid injection)
- 8) Oil strainer plug
- 9) Oil drain
- 10) Crankcase heater
- 11) Oil equalization(parallel operation)
- 12) Gas equalization(parallel operation)
- 13) Oil charging 1/4"NPT
- 14) Oil level sight glass
- 15) High pressure 1/4"NPT
- DL) Discharge shut off valve
- SL) Suction shut off valve
- 1) Solenoid valve 1st stage
- L2) Solenoid valve 2nd stage

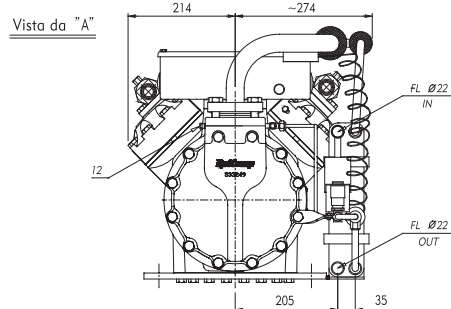
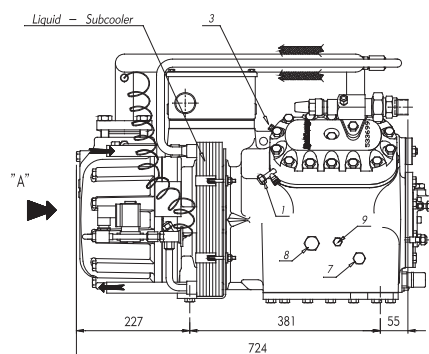
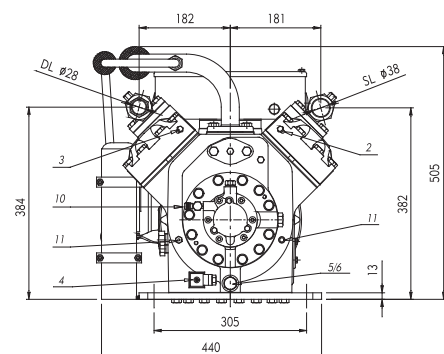
SP8H6000 - SP8H600E - SP8H7000- SP8H700E
SP8L5000 - SP8L500E - SP8L6000 - SP8L600E



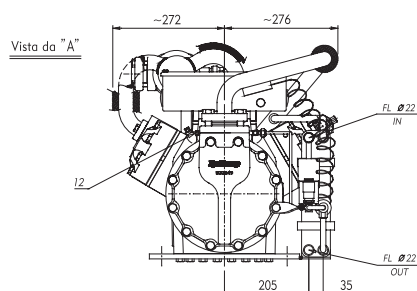
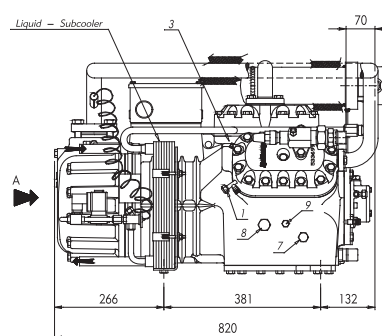
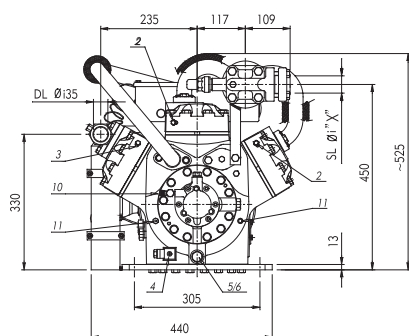
Key

- 1) Electronic oil pressure switch connection
- 2) Discharge temperature sensor 1/8" NPT
- 3) High pressure H.P. 1/4" SAE
- 4) Oil high pressure 1/4" SAE
- 5) Oil low pressure 1/4" SAE
- 6) Low pressure L. P. 1/4" SAE
- 7) Low pressure L.P. 1/8" NPT (liquid injection)
- 8) Oil strainer plug
- 9) Oil drain
- 10) Crankcase heater
- 11) Oil equalization(parallel operation)
- 12) Gas equalization(parallel operation)
- 13) Oil charging 1/4"SAE (on request)
- 14) Oil level sight glass
- 15) High pressure H.P. Schrader-connection
- DL) Discharge shut off valve
- SL) Suction shut off valve
- L1) Solenoid valve 1st step
- L2) Solenoid valve 2nd step

SB4 1200 - SB4 120E
SB4 1400 - SB4 140E



SB6 1600 - SB6 160E - SB6 2000 - SB6 200E
SB6 2500 - SB6 250E - SB6 3000 - SB6 300E



KEY

- | | |
|---|---|
| 1) Intermediate pressure 1/4" S.A.E. - FLARE | 9) Oil charging 1/4" NPT |
| 2) Low pressure 1/8" NPT | 10) Oil high pressure 1/4" S.A.E. - FLARE |
| 3) High pressure 1/4" S.A.E. - FLARE | 11) Oil low pressure 1/4" S.A.E. - FLARE |
| 4) Crankcase heater | 12) Oil return from separator 1/8" NPT |
| 5) Oil strainer plug | 13) Suction shut-off valve |
| 6) Oil drain 1/4" NPT | 14) Discharge shut-off valve |
| 7) Oil equalization (parallel operation) 1/2" NPT | 15) Oil sight glass |
| 8) Gas equalization (parallel operation) 3/4" NPT | 16) Plate heat exchanger (optional) controlled on liquid injection module LCM or thermostatic valve |

NOTES

[illegible]

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[illegible]

NOTES

[illegible]



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