雪人集团 SNOWMAN GROUP 25TH

PART 1 : SW3

RefComp

Screw Compressor

SW3 Series Semi-hermetic Screw Compressor

CONTENT

Structural Diagram of RefComp SW Series Semi-hermetic Screw Compressor

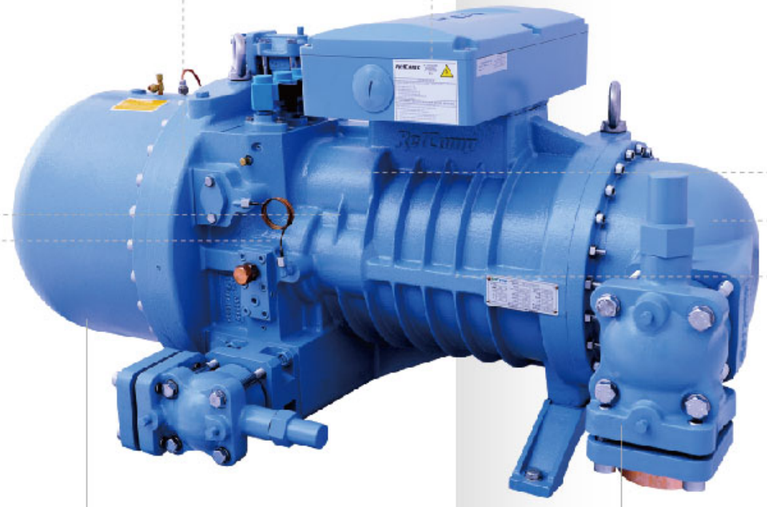
The SW3 series compressor is divided into two sub-series: the SW3H for medium and high-temperature applications and the SW3L for low-temperature applications. There are a total of 28 models available. The discharge range is 118~700 m³/h (@2960rpm), with a power range of 30~240HP, and it is compatible with various refrigerants such as R507A, R404A, etc.

Rotor

- RefComp's proprietary design of asymmetric screw rotor profile optimizes the compression process, effectively improving refrigeration efficiency.
- The rotor has high rigidity and efficiency, core technology ensures stable and reliable operation, while reducing airflow pulsation and noise.
- Widely applied in medium and low-temperature refrigeration fields, reaching a higher level compared to similar models.

Safety Valve

- safety valve design, connecting the high-pressure and low-pressure sides, dynamically regulating internal pressure and precisely maintaining it within the preset safety value.
- High sensitivity and sealed structure design ensure timely full opening, stable discharge, and prompt reseating, providing the overall system with excellent adaptability to various working conditions and long-term stable operation.



Cooling Capacity Control

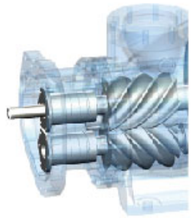
- Adjust the refrigeration capacity based on operating load to achieve stepless or step energy control.
- Step regulation includes start & unload refrigeration level, 50% refrigeration level, 75% refrigeration level, and 100% refrigeration level, meeting the system's refrigeration requirements to a large extent.
- The slide valve is located between the housing and the rotor, with a reasonable and compact design, and superior sealing performance.
- Reasonable discharge port structure design effectively improves radial discharge efficiency.

Compressor Body

- Designed pressure reaches 25 bar.
- Optimized intake air passage design reduces intake resistance while fully cooling the motor. Straight-through middle passage reduces pressure loss; low exhaust pressure loss and low consumption.
- Highly integrated with filters, check valves, temperature sensors, and other components, the machine has a compact size and effectively improves equipment reliability.

Motor Protection

- Equipped with an INT69B2 motor protection module and multiple PTC thermistors in series.
- Dynamic monitoring and tracking of system operation information to achieve predictable alerts and safety protection.

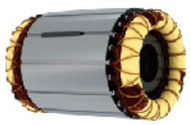


Bearings

- Combination of multiple bearings guarantee high load capacity, high wear resistance, low noise and extend service life.

Suction Filter

- Internal delicate suction filter effectively filters the impurities from the refrigerant gases and protects the motor with convenient replacement and maintenance.



Motor

- Partial winding or Y-Δ starting, low starting current.
- Available with variable frequency motors for vector control.
- Special materials that are compatible with R404A, R507A, R410A, and other refrigerants.
- Special structure design and spatial layout together with the refrigerant gas flowing from the suction stop valve to the screw suction side effectively cool the motor and ensure the suction superheat.

Shut-off Valve

- Internal discharge check valve features low resistance, effectively preventing refrigerant backflow during shutdown.
- Suction and discharge valve can be rotated 360°, offering convenient installment and compact, flexible design.

Model Description

Compressor	S	W	3	H	4000	-L	4 / Z

Type of Compressor	
S	Semi-hermetic Compres-

Series	
W	W Series Screw Compressor

Version	
3	Without internal oil separator 3-version

Type of Motor	
H	High temperature compressor motor
L	Low temperature compressor motor

Motor rated power	
4000	Hp x 100

Electrical accessories	
L	220V AC

Energy control	
4	Lv. 4
Z	stepless

Technical Parameters

Compressor Model		SW3H								SW3L							
		4000	5000	6000	7500	9000	10500	11500	12500	3000	4000	5000	6000	7000	8000	9500	10500
Motor Nominal Power	HP/kW	40/30	50/37	60/45	75/55	90/67	105/78	115/89	125/89	30/22	40/30	50/37	60/45	70/52	80/60	95/71	105/78
Displacement 50/60[Hz]	m^3/h	118/142	150/180	175/210	205/246	237/284	286/343	318/382	341/409	118/142	150/180	175/210	205/246	237/284	286/343	318/382	341/409
Weight	kg	245	255	265	410	420	535	540	545	245	255	265	410	420	520	525	530
Discharge Pipe Inner Diameter Ø	mm / inch	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"	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"
Suction Pipe Inner Diameter Ø	mm / inch	54/2-1/8"	54/2-1/8"	54/2-1/8"	67/2-5/8"	67/2-5/8"	80/3-1/8"	80/3-1/8"	80/3-1/8"	54/2-1/8"	54/2-1/8"	54/2-1/8"	67/2-5/8"	67/2-5/8"	80/3-1/8"	80/3-1/8"	80/3-1/8"
Oil Line Connector	mm / inch	Ø16mm / 5/8"SAE								Ø16mm / 5/8"SAE							
Capacity Regulation		25%, 50%, 75%, full load 4-step regulation or 25%~full load stepless regulation								25%, 50%, 75%, full load 4-step regulation or 25%~full load stepless regulation							
Protection Module		INT69 SNY								INT69 SNY							
Standard Motor(1)		Y/△ - 400V/3/50Hz 或 460/3/60Hz								Y/△ - 400V/3/50Hz 或 460/3/60Hz							
PW Partial Winding Start Current	A	77/398	303/406	373/547	280/459	351/580	652/1015	646/953	646/953	227/331	277/398	303/406	262/422	280/459	405/670	646/953	646/953
Star/Delta Start Current Star/Delta(2)	A	131/398	134/406	182/547	139/459	193/580	338/1015	318/953	318/953	110/331	131/398	134/406	139/422	139/459	223/670	318/953	318/953
Maximum Operating Current(2)	A	75	90	105	124	140	168	182	196	65	80	88	103	117	139	154	163

Compressor Model		SW3H						SW3L					
		14000	16000	19000	21000	24000	25000	11500	13000	16000	18000	20000	22000
Motor Nominal Power	HP/kW	150/112	170/127	200/149	220/164	240/179	240/179	115/89	130/98	170/127	180/135	200/149	220/164
Displacement 50/60[Hz]	m^3/h	402/482	445/534	510/612	562/674	600/720	700/840	380/456	445/534	510/612	562/674	600/720	700/840
Weight	kg	665	675	710	1030	1050	980	665	675	710	1030	1050	980
Discharge Pipe Inner Diameter Ø	mm / inch	80/3-1/8"	80/3-1/8"	80/3-1/8"	80/3-1/8"	80/3-1/8"	80/3-1/8"	80/3-1/8"	80/3-1/8"	80/3-1/8"	80/3-1/8"	80/3-1/8"	80/3-1/8"
Suction Pipe Inner Diameter Ø	mm / inch	92/3-5/8"	92/3-5/8"	92/3-5/8"	104.8/4-1/8"	104.8/4-1/8"	104.8/4-1/8"	92/3-5/8"	92/3-5/8"	92/3-5/8"	104.8/4-1/8"	104.8/4-1/8"	104.8/4-1/8"
Oil Line Connector	mm / inch	Ø16mm / 5/8"SAE						Ø16mm / 5/8"SAE					
Capacity Regulation		25%, 50%, 75%, full load 4-step regulation or 25%~full load stepless regulation						25%, 50%, 75%, full load 4-step regulation or 25%~full load stepless regulation					
Protection Module		INT69 SNY						INT69 SNY					
Standard Motor(1)		Y/△ - 400V/3/50Hz 或 460/3/60Hz						Y/△ - 400V/3/50Hz 或 460/3/60Hz					
Star/Delta Start Current Star/Delta(2)	A	354/1155	374/1155	453/1333	543/1645	595/1802	595/1802	276/876	354/1155	374/1155	453/1333	543/1645	543/1645
Maximum Operating Current(2)	A	249	270	305	335	360	410	196	210	236	250	270	300

(1) voltage fluctuation range ±10%

Technical Parameters

Compressor Model		SW3H			SW3L		
		30000	35000	40000	25000	30000	35000
Motor Nominal Power	HP/kW	300/224	350/257	390/287	240/179	270/201	300/224
Displacement 50/60[Hz]	m³/h	910/1092	1000/1200	1100/1320	910/1092	1000/1200	1100/1320
Weight	kg	1600	1600	1600	1600	1600	1600
Discharge Pipe Inner Diameter Ø	mm / inch	105.5/4 1/8"	105.5/4 1/8"	105.5/4 1/8"	105.5/4 1/8"	105.5/4 1/8"	105.5/4 1/8"
Suction Pipe Inner Diameter Ø	mm / inch	134.8/Ø133	134.8/Ø133	134.8/Ø133	134.8/Ø133	134.8/Ø133	134.8/Ø133
Oil Line Connector	mm / inch	Ø16mm / 5/8"SAE					
Capacity Regulation		Grade: 100,75,50, min%; Stepless: 100 to min%					
Protection Module		INT69 SNY					
Standard Motor(1)		Y/△ - 400V/3/50Hz or 460/3/60Hz					
Star/Delta Start Current Star/Delta(2)	A	876/2627	1062/3186	1062/3186	783/2348	876/2627	1062/3186
Maximum Operating Current(2)	A	520	590	650	475	540	590

(1) voltage fluctuation range ±10%

Technical Parameters

Innovative Design, Stable Operation and Extended Lifecycle.

Equipped with a spray oil-injection twin-screw design, the perfect rotational movement ensures extremely stable operation. High-quality manufacturing standards and superior mechanical components ensure high compression efficiency, high reliability, and long life span of the compressor.

External Oil Separator

Offers greater flexibility in design and structural layout, expanding the application limits of the compressor.

Superior Lubrication Characteristics and Easy Maintenance

The return oil circuit (from the oil separator to the compressor) and all necessary accessories can be provided as standard supplies. Additionally, all matching oil separators and oil coolers are also available.

Low Vibration, Low Noise

Minimal vibration and no exhaust pulsation, hence no need for vibration dampers and flexible hoses.

High Efficiency, Easy Maintenance

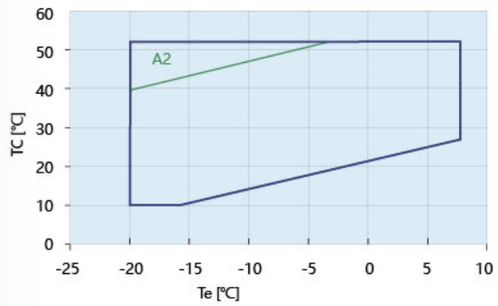
Using an economizer (ECO) cycle with increased refrigerant liquid subcooling further improves cycle efficiency (COP); oil pressure-driven slide valve refrigeration control allows the compressor to have high compression efficiency under partial load.

Comprehensive Software and Documentation Support

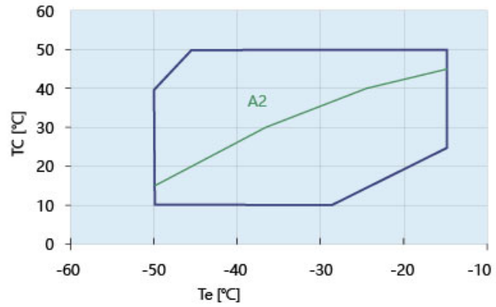
For other refrigeration system component requirements, RefComp can provide options, including oil separators, oil coolers, and economizers.

Application Range

R404A/R507A SW3H



R404A/R507A SW3L



Operating range under load at 50Hz power frequency;
Suction superheat 10K;
Maximum discharge temperature 110℃;
A2: Should be equipped with an oil cooler.

Product Supply

standard accessories:

- Twin-screw compressor unit;
- External oil circulation kit (oil flow switch, replaceable cartridge oil filter, solenoid valve with coil, oil sight glass, INT69B2 protection module and its capacitor);
- Oil injection fitting;
- Capacity regulation unit (stepped: full load, 75%, 50%, min% or stepless: full load ~ 50%, full load ~ min%);
- Y-Δ star-delta motor: 400V±10%-3-50Hz or 460V±10%-3-60Hz;
- IP54 terminal box
- Electrical accessories, 230V-1-50/60Hz standard voltage;
- Motor embedded with 6 PTC temperature sensors;
- PTC discharge temperature sensor;
- Electronic protection module INT69SNY (monitoring motor and discharge temperature, motor rotation direction, phase fault);
- Nitrogen purging;
- Safety relief valve assembly;
- Check valve (non-return valve) assembly;
- Suction filter;
- Suction shut-off valve;
- Exhaust shut-off valve;
- Rubber vibration dampers.
- Lubricating oil;
- Stepless energy regulation conversion device;
- Special motor;
- Direct on-line (D.O.L) kit;
- Electrical accessories for special voltage;
- Liquid injection assembly;
- Economizer connector assembly with shut-off valve.

Performance parameters -SW3H, refrigerant R404A

SW3H4000(R404A)

Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-20	63.9	16.7	57.3	22.5	52.6	24.9	47	26.8	40.5	28.5	33.2	29.8
-15	79.2	17.3	70.3	23	64.5	25.5	57.9	27.7	50.6	29.7	42.5	31.5
-10	96.9	17.2	85.6	23	78.8	25.7	71.2	28.2	63	30.6	54.2	33
-5	117	16.4	103.2	22.4	95.3	25.4	86.8	28.3	77.7	31.2	68.1	34.2
0	-	-	123.1	21.4	114.2	24.7	104.7	28	94.7	31.5	84.3	35.1
5	-	-	145.4	19.8	135.3	23.5	124.8	27.4	113.9	31.5	102.7	35.8

SW3H5000(R404A)

Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-20	81.2	21.3	72.9	28.6	66.9	31.6	59.7	34.1	51.5	36.2	42.2	37.9
-15	100.7	22	89.3	29.3	82	32.4	73.7	35.2	64.3	37.8	54.1	40.1
-10	123.2	21.8	108.8	29.2	100.1	32.6	90.5	35.9	80.1	38.9	68.9	41.9
-5	148.7	20.9	131.2	28.5	121.2	32.3	110.4	36	98.8	39.7	86.6	43.5
0	-	-	156.5	27.2	145.1	31.3	133.1	35.6	120.4	40.1	107.1	44.7
5	-	-	184.8	25.1	172	29.8	158.6	34.8	144.8	40	130.5	45.5

SW3H6000(R404A)

Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-20	94.8	24.8	85	33.4	78	36.9	69.7	39.8	60.1	42.2	49.2	44.2
-15	117.5	25.6	104	34.1	95.7	37.8	85.9	41.1	75.1	44.1	63.1	46.7
-10	143.7	25.5	126.9	34.1	116.8	38.1	105.6	41.8	93.5	45.4	80.4	48.9
-5	173.5	24.4	153	33.3	141.4	37.7	128.7	42	115.3	46.3	101	50.7
0	-	-	182.6	31.7	169.3	36.6	155.2	41.6	140.4	46.7	125	52.1
5	-	-	215.6	29.3	200.7	34.8	185.1	40.6	168.9	46.7	152.2	53.1

SW3H7500(R404A)

Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-20	111	29.1	99.6	39.1	91.4	43.2	81.6	46.6	70.3	49.5	57.6	51.8
-15	137.6	30	122.1	40	112.1	44.3	100.7	48.1	87.9	51.6	73.9	54.8
-10	168.3	29.8	148.6	39.9	136.8	44.6	123.7	49	109.5	53.2	94.1	57.3
-5	203.2	28.5	179.3	39	165.6	44.1	150.8	49.2	135	54.3	118	59.4
0	-	-	213.9	37.1	198.3	42.8	181.8	48.7	164.5	54.8	146.4	61.1
5	-	-	252.5	34.4	235	40.8	216.8	47.5	197.9	54.7	178.3	62.2

SW3H9000(R404A)

Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-20	128.3	33.6	115.1	45.3	105.6	49.9	94.4	53.9	81.3	57.2	66.6	59.9
-15	159.1	34.7	141.1	46.2	129.6	51.2	116.4	55.7	101.7	59.7	85.4	63.3
-10	194.6	34.5	171.9	46.2	158.2	51.5	143.1	56.7	126.6	61.5	108.8	66.2
-5	234.9	33	207.3	45.1	191.4	51	174.4	56.9	156.1	62.8	136.8	68.7
0	-	-	247.3	42.9	229.3	49.5	210.2	56.3	190.2	63.3	169.2	70.6
5	-	-	292	39.7	271.7	47.1	250.7	54.9	228.8	63.2	206.2	71.9

SW3H10500(R404A)

Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-20	154.9	40.6	138.9	54.6	127.5	60.3	113.9	65.1	98.2	69.1	80.4	72.3
-15	192	41.9	170.3	55.8	156.4	61.8	140.5	67.2	122.7	72	103.1	76.4
-10	234.9	41.6	207.4	55.7	190.9	62.2	172.6	68.4	152.8	74.3	131.3	79.9
-5	283.5	39.8	250.1	54.4	231	61.5	210.4	68.6	188.4	75.7	165.1	82.9
0	-	-	298.4	51.8	276.7	59.8	253.7	67.9	229.5	76.4	204.2	85.2
5	-	-	352.3	47.9	327.9	56.9	302.5	66.3	276.1	76.3	248.8	86.8

SW3H11500(R404A)

Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-20	172.2	45.1	154.5	60.7	141.8	67	126.7	72.3	109.2	76.8	89.5	80.4
-15	213.5	46.5	189.4	62	173.9	68.7	156.2	74.7	136.4	80.1	114.7	84.9
-10	261.2	46.3	230.6	61.9	212.3	69.2	192	76	169.9	82.6	146.1	88.9
-5	315.2	44.3	278.1	60.5	256.9	68.4	234	76.3	209.5	84.2	183.5	92.1
0	-	-	331.8	57.6	307.7	66.5	282.1	75.6	255.2	85	227.1	94.7
5	-	-	391.8	53.3	364.6	63.2	336.4	73.7	307	84.8	276.7	96.5

SW3H12500(R404A)

Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-20	184.6	48.3	165.6	65.1	152	71.9	135.8	77.6	117	82.3	95.9	86.2
-15	228.9	49.9	203.1	66.5	186.4	73.6	167.5	80.1	146.3	85.9	122.9	91.1
-10	280.1	49.6	247.3	66.4	227.6	74.2	205.9	81.5	182.1	88.6	156.6	95.3
-5	338	47.5	298.2	64.9	275.4	73.4	251	81.8	224.6	90.3	196.8	98.8
0	-	-	355.8	61.8	329.9	71.3	302.5	81	273.7	91.1	243.5	102
5	-	-	420.1	57.1	391	67.8	360.7	79	329.2	90.9	296.7	104

SW3H14000(R404A)

Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-20	193.7	61.4	174.6	74.4	163.5	80.1	150	85.1	133.1	88.9	111.7	91.4
-15	242.1	67.5	216.6	79.7	202.7	85.5	186.6	90.7	167.4	95.1	144.1	98.3
-10	299.7	71.4	267.7	84	251	90.3	232.3	96.3	210.8	101.6	185.3	106.1
-5	367.2	73.2	328.6	87	308.9	94.4	287.7	101.6	263.7	108.4	236.1	114.6
0	-	-	399.8	88.7	377.2	97.5	353.2	106.4	326.9	115.2	297.1	123.6
5	-	-	482	88.7	456.4	99.5	429.7	110.7	400.8	121.9	368.8	133

SW3H16000(R404A)

Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-20	204.4	70.7	193.2	82.3	181.6	88.5	166	94.2	146.7	98.6	123.6	101.1
-15	257.9	77.4	239.7	88.2	225	94.5	206.6	100.4	184.7	105.4	159.5	108.8
-10	321.7	81.8	296.3	93	278.4	99.8	257.2	106.6	232.7	112.7	205.2	117.4
-5	396.4	83.7	363.7	96.3	342.6	104.3	318.4	112.4	291.3	120.2	261.4	126.8
0	-	-	442.6	98.1	418.2	107.7	391	117.8	361.2	127.7	328.9	136.8
5	-	-	533.6	98.2	505.8	110	475.6	122.5	443	135.2	408.2	147.3

Performance parameters -SW3H, refrigerant R404A

SW3H19000(R404A)

Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-20	244.3	75.4	221.5	94.3	207.5	101.8	190.3	107.9	168.7	112.7	141.7	115.9
-15	305.7	83.1	274.8	101.1	257.2	108.7	236.8	115.1	212.3	120.5	182.8	124.7
-10	378.8	88.1	339.6	106.6	318.5	114.7	294.8	122.1	267.3	128.8	235.1	134.6
-5	464.4	90.4	416.9	110.4	392	119.9	364.9	128.9	334.5	137.4	299.6	145.3
0	-	-	507.2	112.5	478.6	123.8	448.1	135	414.6	146	376.9	156.8
5	-	-	611.5	112.6	579.1	126.4	545.1	140.4	508.4	154.6	467.9	168.8

SW3H21000(R404A)

Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-20	267.1	86	244	104	228.8	112	209.7	118.9	185.8	124.3	156.1	127.7
-15	334.7	94.5	302.8	111.4	283.6	119.5	260.9	126.8	233.9	132.9	201.4	137.4
-10	415.3	100	374.3	117.4	351.1	126.2	324.8	134.6	294.5	142.1	259.1	148.3
-5	509.6	102.5	459.4	121.7	432.1	131.9	402.1	142	368.5	151.5	330.1	160.2
0	-	-	559	124	527.6	136.3	493.8	148.8	456.7	161.1	415.3	172.8
5	-	-	673.9	124	638.3	139.1	600.7	154.7	560.1	170.5	515.6	186

SW3H24000(R404A)

Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-20	263.1	91.7	260.5	111	245.6	119.6	223.8	127	197	132.7	166.7	136.4
-15	335.3	100.7	323.2	119	304.1	127.6	278.6	135.4	248.3	141.9	215	146.7
-10	421.3	106.6	399.6	125.4	376.2	134.8	346.8	143.7	313	151.7	276.6	158.3
-5	522.1	109.3	490.4	129.9	462.7	140.8	429.3	151.6	392	161.8	352.5	171
0	-	-	596.8	132.3	564.6	145.5	527.2	158.8	486.2	172	443.4	184.5
5	-	-	719.5	132.4	682.8	148.5	641.3	165.2	596.6	182	550.4	198.6

SW3H25000(R404A)

Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-20	317.4	110.2	304	129.5	285.9	139.3	261.2	148.2	230.4	155	194.5	159.1
-15	401.6	120.7	377.1	138.8	354.2	148.7	325	158	290.3	165.8	250.9	171.1
-10	502	127.6	466.2	146.3	438.2	157.1	404.6	167.7	365.8	177.2	322.7	184.7
-5	619.5	130.7	572.2	151.5	539.2	164.1	500.9	176.9	458	188.9	411.2	199.5
0	-	-	696.2	154.4	658.1	169.5	615.1	185.3	567.9	200.8	517.3	215.2
5	-	-	839.4	154.5	796	173.1	748.2	192.7	696.7	212.5	642.2	231.6

SW3H30000(R404A)

Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-20	-	-	445.6	158.3	409.8	176.6	370.9	195.4	329.6	213.3	-	-
-15	-	-	545.9	163	503.5	183.4	461.6	204.6	421	225.1	382.3	243.5
-10	-	-	661.6	167.7	609.8	188.7	562.1	210.7	519.4	232.2	482.4	251.8
-5	-	-	798.5	173.6	734.4	193.6	678.3	214.8	630.8	235.8	592.6	255.1
0	-	-	962.3	181.9	883.3	199.4	816	218.2	761	237.1	718.9	254.5
5	-	-	-	-	-	-	-	-	-	-	-	-

SW3H35000(R404A)

Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-20	-	-	489.6	174	450.3	194	407.6	214.7	362.2	234.4	-	-
-15	-	-	599.9	179.1	553.3	201.6	507.2	224.8	462.6	247.4	420.1	267.6
-10	-	-	727.1	190.8	670.1	207.4	617.7	231.5	570.8	255.2	530.1	276.8
-5	-	-	877.5	190.8	807.1	212.8	745.4	236.1	693.2	259.1	651.3	280.3
0	-	-	1057.4	199.9	970.7	219.1	896.7	239.8	836.2	260.5	790	279.7
5	-	-	-	-	-	-	-	-	-	-	-	-

SW3H24000(R404A)

Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-20	-	-	538.6	191.3	495.4	213.4	448.4	236.1	398.5	257.8	-	-
-15	-	-	660	197	608.6	221.7	558	247.3	508.9	272.1	462.2	294.3
-10	-	-	799.9	202.7	737.1	228.1	679.6	254.6	627.9	280.7	583.1	304.4
-5	-	-	965.3	209.8	887.9	234	820	259.7	762.6	285	716.5	308.4
0	-	-	1163.3	219.8	1067.9	241	986.5	263.8	920	286.6	869.1	307.6
5	-	-	-	-	-	-	-	-	-	-	-	-

Pf = Cooling capacity (kW)
Pa = Input electrical power (kW)
Te = Evaporating temperature (°C)
Tc = Condensing temperature (°C)
50Hz frequency
Liquid subcooling 5K
Suction superheat 10K
Yellow area: No oil cooling is required within this working condition range.
Gray area: Oil cooling is required within this working condition range
(please refer to the "Application Range" section for details).

Performance parameters -SW3L (available with economizer), refrigerant R507A

SW3L3000(R507A)

Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	12.8	14	10.7	16.8	9.6	18.5	-	-	-	-	-	-
-40	23.1	15.3	20	18.2	18.3	20	16.5	22	14.7	24.1	12.6	26.5
-35	29.9	16.1	26.1	19.1	24	20.9	21.9	22.9	19.5	25.1	17.1	27.5
-30	38.2	17.2	33.4	20.1	30.9	21.9	28.3	23.9	25.5	26.2	22.5	28.7
-25	47.9	18.4	42.2	21.3	39.1	23.1	35.9	25.1	32.6	27.4	29	29.9
-20	59.5	19.9	52.6	22.7	48.9	24.6	45.1	26.6	41.1	28.9	36.9	31.4
-15	-	-	64.8	24.5	60.4	26.2	55.9	28.3	51.2	30.6	46.2	33.1

SW3L3000(R507A) / Available with economizer

Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	18.5	18.1	17.1	22.9	16.2	25.8	-	-	-	-	-	-
-40	30.8	18.7	29.1	23.3	28.1	26.2	26.8	29.3	25.2	32.9	23.3	37
-35	38.4	19.2	36.5	23.8	35.3	26.6	33.8	29.8	32	33.3	29.8	37.2
-30	47.1	19.9	44.9	24.4	43.5	27.2	41.8	30.3	39.8	33.9	37.4	37.9
-25	57	20.8	54.5	25.2	53	28	51	31.1	48.8	34.7	46	38.6
-20	68.2	21.9	65.4	26.2	63.6	29	61.4	32.1	58.9	35.6	55.8	39.5
-15	-	-	77.5	27.6	75.5	30.2	73.2	33.4	70.3	36.9	67	40.7

SW3L4000(R507A)

Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	16.3	17.3	13.7	20.9	12.4	23.1	-	-	-	-	-	-
-40	30.2	19.2	26.1	22.8	24.1	25	21.8	27.5	19.4	30.4	16.8	33.6
-35	39.4	20.4	34.4	23.9	31.7	26.1	29	28.6	26	31.5	22.7	34.8
-30	50.4	21.7	44.2	25.2	41	27.4	37.6	29.9	33.9	32.8	29.9	36.2
-25	63.4	23.3	56	26.7	52.1	28.8	47.9	31.4	43.5	34.3	38.7	37.7
-20	78.8	25.2	69.9	28.4	65.2	30.6	60.2	33.1	55	36.1	49.3	39.4
-15	-	-	86.2	30.5	80.7	32.6	74.9	35.1	68.6	38	62	41.4

SW3L4000(R507A) / Available with economizer

Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	22.9	21.6	21.2	27.3	20.2	30.7	-	-	-	-	-	-
-40	39.2	22.6	36.9	27.9	35.6	31.2	34	34.8	32	39.1	29.6	44
-35	49.1	23.4	46.6	28.5	45	31.7	43.1	35.4	40.7	39.6	37.8	44.4
-30	60.5	24.3	57.6	29.4	55.7	32.5	53.5	36.1	50.8	40.3	47.4	45
-25	73.4	25.5	70.1	30.4	68	33.5	65.5	37.1	62.4	41.3	58.5	46
-20	87.9	26.9	84.2	31.6	81.9	34.7	79	38.3	75.6	42.4	71.4	47.2
-15	-	-	100	33.2	97.4	36.2	94.3	39.8	90.5	43.8	85.9	48.6

SW3L5000(R507A)

Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	19	19.7	15.9	23.8	14.4	26.2	-	-	-	-	-	-
-40	35.3	21.9	30.5	25.9	28.1	28.4	25.5	31.3	22.7	34.5	19.6	38.2
-35	46	23.2	40.1	27.2	37	29.7	33.8	32.6	30.3	35.9	26.5	39.6
-30	58.8	24.7	51.6	28.6	47.8	31.1	43.8	34	39.5	37.4	34.9	41.1
-25	74	26.5	65.3	30.3	60.7	32.8	55.9	35.7	50.7	39	45.1	42.9
-20	91.9	28.6	81.6	32.3	76.1	34.8	70.3	37.6	64.1	41	57.5	44.8
-15	-	-	100.6	34.7	94.1	37.1	87.3	39.9	80.1	43.3	72.4	47.1

SW3L5000(R507A) / Available with economizer

Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	26.3	24	24.2	30.2	23.1	33.9	-	-	-	-	-	-
-40	45	25.2	42.3	31	40.7	34.5	38.8	38.6	36.5	43.2	33.6	48.5
-35	56.4	26.1	53.3	31.7	51.4	35.3	49.2	39.2	46.4	43.8	43	49
-30	69.4	27.1	65.9	32.7	63.7	36.1	61.1	40.1	57.9	44.7	53.9	49.9
-25	84.1	28.5	80.2	33.8	77.7	37.3	74.7	41.3	71.1	45.8	66.6	51
-20	100.7	30.1	96.3	35.3	93.6	38.7	90.2	42.6	86.1	47.1	81.2	52.3
-15	-	-	114.3	37	111.3	40.3	107.6	44.3	103.1	48.8	97.7	53.9

SW3L6000(R507A)

Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	22.9	22.8	19.5	27.1	17.8	29.8	-	-	-	-	-	-
-40	41.4	26.2	36.1	30.3	33.3	32.8	30.3	35.8	27.1	39.2	23.5	43.2
-35	53.7	28.1	47.1	32.2	43.5	34.8	39.8	37.7	35.7	41.1	31.3	45.1
-30	68.6	30.1	60.3	34.4	55.9	37	51.3	40	46.3	43.4	40.9	47.3
-25	86.3	32.3	76.1	36.8	70.8	39.5	65.1	42.5	59	46	52.5	50
-20	107.2	34.6	94.9	39.5	88.4	42.3	81.6	45.4	74.3	49	66.6	53
-15	-	-	117	42.3	109.2	45.3	101.1	48.5	92.5	52.2	83.4	56.4

SW3L6000(R507A) / Available with economizer

Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	31.5	27.6	29	33.4	27.6	37	-	-	-	-	-	-
-40	53	30.3	49.5	35.8	47.4	39.1	45	42.9	42	47.2	38.3	52.3
-35	66.5	31.9	62.4	37.6	59.8	40.8	56.9	44.6	53.3	48.9	49	53.8
-30	82.2	33.6	77.3	39.5	74.3	42.9	70.7	46.7	66.5	50.9	61.4	55.8
-25	100.1	35.4	94.4	41.5	90.9	45	86.7	49	81.8	53.4	76	58.3
-20	120.4	37.3	113.9	43.8	109.8	47.5	105.1	51.5	99.4	56.1	92.9	61.1
-15	-	-	135.9	46.1	131.3	50.1	125.9	54.4	119.6	59.1	112.2	64.3

SW3L7000(R507A)

Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	26.5	26.5	22.5	31.5	20.6	34.6	-	-	-	-	-	-
-40	47.9	30.4	41.7	35.2	38.5	38.1	35	41.6	31.3	45.6	27.1	50.2
-35	62.1	32.6	54.4	37.5	50.3	40.4	46	43.8	41.3	47.8	36.2	52.4
-30	79.3	35	69.7	40	64.7	43	59.3	46.4	53.5	50.4	47.3	55
-25	99.8	37.5	88	42.8	81.8	45.9	75.3	49.4	68.3	53.4	60.7	58.1
-20	123.9	40.2	109.7	45.9	102.2	49.1	94.3	52.7	86	56.9	77	61.6
-15	-	-	135.3	49.1	126.3	52.6	116.9	56.4	107	60.7	96.5	65.5

SW3L7000(R507A) / Available with economizer

Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	35.9	31.4	33	38	31.3	42.1	-	-	-	-	-	-
-40	60.2	34.5	56.3	40.8	53.9	44.6	51.1	48.9	47.6	53.9	43.5	59.7
-35	75.6	36.4	70.9	42.8	68	46.6	64.5	50.8	60.5	55.8	55.5	61.4
-30	93.3	38.3	87.8	45	84.3	48.8	80.3	53.2	75.4	58.1	69.7	63.8
-25	113.6	40.4	107.1	47.4	103	51.4	98.3	55.9	92.7	60.8	86	66.5
-20	136.6	42.5	129.1	49.9	124.5	54.1	119.1	58.8	112.6	63.9	105.2	69.8
-15	-	-	153.9	52.6	148.7	57.1	142.6	62	135.4	67.3	126.9	73.4

Performance parameters -SW3L (available with economizer), refrigerant R507A

SW3L8000(R507A)												
Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	32	31.9	27.2	37.8	24.8	41.5	-	-	-	-	-	-
-40	57.8	36.5	50.3	42.3	46.4	45.8	42.3	49.9	37.7	54.7	32.7	60.3
-35	75	39.1	65.7	45	60.7	48.5	55.5	52.6	49.9	57.4	43.7	62.9
-30	95.7	42	84.1	48	78	51.6	71.5	55.8	64.6	60.5	57	66
-25	120.4	45.1	106.2	51.4	98.7	55.1	90.8	59.3	82.4	64.2	73.3	69.7
-20	149.6	48.3	132.4	55.1	123.4	58.9	113.8	63.3	103.7	68.3	92.9	73.9
-15	-	-	163.2	59	152.4	63.1	141.1	67.7	129.1	72.9	116.4	78.7

SW3L8000(R507A) / Available with economizer												
Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	44.1	38.6	40.9	47.3	39.1	52.6	-	-	-	-	-	-
-40	73.8	42.2	69.5	50.3	66.9	55.2	63.7	60.8	59.8	67.2	55	74.9
-35	92.4	44.3	87.3	52.5	84.1	57.3	80.2	62.9	75.6	69.3	70	76.7
-30	113.7	46.5	107.7	54.9	103.9	59.9	99.4	65.5	93.9	71.9	87.3	79.3
-25	138.2	48.8	131.2	57.7	126.7	62.8	121.4	68.5	115.2	75.1	107.5	82.3
-20	165.7	51.2	157.6	60.6	152.6	65.9	146.5	71.9	139.3	78.5	130.8	86
-15	-	-	187.3	63.6	181.7	69.3	174.9	75.5	166.9	82.4	157.4	90.1

SW3L9500(R507A)												
Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	35.6	35.3	30.3	41.9	27.6	46.1	-	-	-	-	-	-
-40	64.2	40.5	56	46.9	51.6	50.8	47	55.4	42	60.7	36.4	66.9
-35	83.4	43.4	73	49.9	67.5	53.8	61.7	58.4	55.4	63.6	48.6	69.8
-30	106.4	46.6	93.5	53.3	86.7	57.3	79.5	61.5	71.8	67.1	63.4	73.2
-25	133.9	50	118.1	57	109.8	61.1	101	65.8	91.6	71.2	81.5	77.3
-20	166.3	53.6	147.3	61.1	137.2	65.4	126.6	70.2	115.3	75.7	103.3	82
-15	-	-	181.5	65.4	169.5	70	156.9	75.1	143.6	80.8	129.4	87.3

SW3L9500(R507A) / Available with economizer												
Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	48.5	42.2	44.9	51.6	42.9	57.5	-	-	-	-	-	-
-40	81	46.1	76.3	55	73.4	60.3	69.8	66.4	65.5	73.5	60.3	81.9
-35	101.3	48.4	95.7	57.4	92.2	62.7	88	68.8	82.9	75.8	76.6	83.9
-30	124.7	50.8	118.1	60.1	113.9	65.5	108.9	71.8	102.9	78.7	95.6	86.7
-25	151.3	53.4	143.6	63.1	138.7	68.6	132.9	74.9	126	82	117.6	90
-20	181.4	56.1	172.6	66.2	167	72.1	160.3	78.5	152.5	85.9	143.1	94.1
-15	-	-	204.9	69.6	198.6	75.8	191.1	82.5	182.4	90.1	171.9	98.4

SW3L10500(R507A)												
Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	37.8	37.8	32.1	44.9	29.3	49.3	-	-	-	-	-	-
-40	68.2	43.3	59.5	50.2	54.9	54.4	49.9	59.3	44.6	65	38.7	71.6
-35	88.6	46.5	77.6	53.4	71.8	57.6	65.6	62.5	58.9	68.1	51.6	74.7
-30	113.1	49.9	99.4	57	92.2	61.3	84.6	66.2	76.3	71.9	67.4	78.4
-25	142.2	53.5	125.5	61	116.7	65.4	107.3	70.5	97.3	76.2	86.6	82.8
-20	176.7	57.4	156.5	65.4	145.8	70	134.5	75.2	122.6	81.1	109.8	87.8
-15	-	-	192.9	70.1	180.1	75	166.7	80.4	152.6	86.5	137.5	93.4

SW3L10500(R507A) / Available with economizer												
Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	51.1	44.7	47.4	54.9	45.3	61	-	-	-	-	-	-
-40	85.3	48.9	80.4	58.4	77.4	64.1	73.7	70.6	69.2	78.2	63.7	87.2
-35	106.6	51.3	100.8	60.9	97.1	66.6	92.7	73	87.3	80.5	80.8	89.1
-30	131.1	53.9	124.2	63.7	119.9	69.5	114.6	76	108.4	83.5	100.8	92.1
-25	159	56.6	150.9	66.8	145.9	72.8	139.8	79.4	132.5	87	123.9	95.6
-20	190.3	59.5	181.1	70.2	175.3	76.4	168.5	83.3	160.2	91	150.4	99.8
-15	-	-	214.8	73.8	208.3	80.2	200.5	87.4	191.4	95.4	180.6	104.5

SW3L11500(R507A)												
Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	46.4	43.8	38.4	52.4	34.1	57	-	-	-	-	-	-
-40	81.4	48.6	69.8	57.9	63.6	63	57	68.5	50	74.7	42.5	81.5
-35	104.8	51.3	90.6	60.7	83	66	75	71.8	66.6	78.1	57.7	85.2
-30	132.8	54.5	115.5	63.9	106.3	69.3	96.7	75.2	86.6	81.8	76	89.2
-25	166.3	58.2	145.3	67.6	134.3	73	122.7	79.1	110.7	85.8	98.1	93.4
-20	205.7	62.7	180.6	72	167.4	77.4	153.7	83.5	139.4	90.4	124.6	98.1
-15	-	-	221.9	77.2	206.3	82.6	190.2	88.7	173.5	95.6	156.2	103.5

SW3L11500(R507A) / Available with economizer												
Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	66.8	56.5	61.7	72.2	58.3	81.4	-	-	-	-	-	-
-40	107.9	58.9	102.2	74.3	98.4	83.4	93.7	93.6	88	105.6	81.1	119.8
-35	133.3	60.4	126.8	75.7	122.6	84.8	117.5	95	111.3	106.8	103.7	120.3
-30	162.2	62.1	154.9	77.2	150.2	86.3	144.4	96.4	137.7	108.3	129.5	121.8
-25	195	64.5	186.6	79.3	181.3	88.2	175	98.4	167.4	110	158.6	123.6
-20	231.6	67.5	222.1	81.9	216.1	90.7	209.2	100.8	201	112.3	191.4	125.7
-15	-	-	261.4	85.4	254.9	94.1	247.2	103.9	238.4	115.3	228.1	128.7

SW3L13000(R507A)												
Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	51.9	48.5	43	58	38.1	63.1	-	-	-	-	-	-
-40	91	53.8	78.1	64	71.1	69.7	63.7	75.9	55.9	82.6	47.5	90.2
-35	117.2	56.8	101.3	67.2	92.8	73	83.9	79.4	74.5	86.5	64.5	94.4
-30	148.6	60.3	129.2	70.7	118.9	76.7	108.2	83.3	96.9	90.6	85	98.7
-25	186	64.4	162.5	74.8	150.2	80.8	137.3	87.5	123.8	95	109.7	103.4
-20	230	69.4	202	79.7	187.2	85.7	171.9	92.4	155.9	100	139.4	108.6
-15	-	-	248.2	85.4	230.7	91.4	212.7	98.2	194	105.9	174.7	114.5

SW3L13000(R507A) / Available with economizer												
Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	74.1	61.7	68.2	78.4	64.4	88.3	-	-	-	-	-	-
-40	119.7	64.5	113.1	81.1	108.7	90.7	103.5	101.7	97	114.1	89.2	129
-35	147.9	66.1	140.5	82.7	135.5	92.2	129.7	103.2	122.7	115.7	114.1	129.9
-30	180.2	68.2	171.6	84.5	166.1	94.1	159.6	105.1	151.8	117.4	142.4	131.5
-25	216.5	70.8	206.8	86.9	200.6	96.4	193.4	107.3	184.7	119.5	174.6	133.7
-20	257.3	74.2	246.2	89.8	239.3	99.3	231.3	110	221.9	122.4	210.9	136.7
-15	-	-	289.9	93.6	282.3	102.9	273.6	113.7	263.4	126	251.5	140

Performance parameters -SW3L (available with economizer), refrigerant R507A

SW3L16000(R507A)												
Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	60	55.5	49.8	66.4	44.2	72.3	-	-	-	-	-	-
-40	105.4	61.7	90.4	73.4	82.3	79.9	73.8	86.9	64.7	94.7	55	103.3
-35	135.6	65.1	117.3	77	107.5	83.7	97.1	91	86.2	99.1	74.6	108.1
-30	172	69.1	149.6	81.1	137.7	87.9	125.2	95.4	112.2	103.8	98.4	113.1
-25	215.3	73.8	188.2	85.8	173.8	92.6	158.9	100.3	143.3	108.9	127	118.5
-20	266.3	79.5	233.8	91.3	216.7	98.2	199	105.9	180.6	114.7	161.3	124.5
-15	-	-	287.3	97.9	267.2	104.8	246.3	112.5	224.6	121.3	202.2	131.3

SW3L16000(R507A) / Available with economizer												
Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	86.3	71.4	80.3	92.4	76.2	105.2	-	-	-	-	-	-
-40	138.2	73.7	132.1	94.2	127.8	106.5	122.6	120.8	115.9	137.8	107.6	158.4
-35	170	75.1	163.1	95.1	158.5	107.3	152.9	121.4	145.8	137.8	137.1	157.8
-30	205.9	77.1	198.2	96.5	193.1	108.4	186.9	122.3	179.4	138.7	170.1	157.7
-25	246.1	79.6	237.4	98.5	231.8	110.2	225.1	123.7	217	139.8	207.1	158.4
-20	290.6	83.2	280.8	101.3	274.7	112.7	267.4	126	258.7	141.4	248.3	160
-15	-	-	328.4	105.2	321.7	116.1	313.9	129.1	304.6	144.1	293.8	162.2

SW3L18000(R507A)												
Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	67.8	61.2	56.2	73.2	49.9	79.7	-	-	-	-	-	-
-40	119.1	68	102.2	80.9	93	88	83.4	95.8	73.1	104.4	62.2	113.9
-35	153.2	71.8	132.5	84.9	121.4	92.2	109.7	100.3	97.4	109.2	84.3	119.2
-30	194.3	76.1	169	89.3	155.6	96.9	141.5	105.1	126.7	114.4	111.1	124.7
-25	243.2	81.3	212.6	94.5	196.4	102.1	179.5	110.5	161.9	120	143.5	130.6
-20	300.9	87.6	264.2	100.6	244.9	108.2	224.8	116.8	204	126.3	182.3	137.2
-15	-	-	324.6	107.9	301.8	115.5	278.2	124	253.8	133.7	228.5	144.7

SW3L18000(R507A) / Available with economizer												
Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	94.3	75	86.7	94.8	81.7	106.3	-	-	-	-	-	-
-40	151.9	78.4	143.2	98.1	137.6	109.6	130.6	122.3	122.3	137	112.3	154.1
-35	187.4	80.5	177.6	100	171.3	111.5	163.7	124.4	154.6	139	143.6	155.8
-30	227.9	83.1	216.6	102.3	209.5	113.7	201	126.6	190.9	141.2	179	158
-25	273.5	86.5	260.7	105.4	252.6	116.6	243.2	129.5	232.1	144	218.9	160.6
-20	324.3	90.9	309.7	109.2	300.8	120.2	290.3	133	278.2	147.4	263.9	163.9
-15	-	-	363.9	114.1	354.3	125	342.8	137.5	329.6	151.9	314.3	168.4

SW3L20000(R507A)												
Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	72.8	65.3	60.3	78.2	53.5	85.1	-	-	-	-	-	-
-40	127.8	72.6	109.6	86.3	99.8	94	89.5	102.3	78.4	111.4	66.7	121.6
-35	164.4	76.6	142.2	90.6	130.3	98.5	117.7	107.1	104.5	116.6	90.5	127.2
-30	208.5	81.3	181.3	95.4	166.9	103.4	151.8	112.3	135.9	122.1	119.2	133.1
-25	261	86.8	228.1	100.9	210.7	109	192.6	118	173.7	128.1	153.9	139.4
-20	322.8	93.5	283.4	107.4	262.7	115.5	241.2	124.6	218.9	134.9	195.6	146.4
-15	-	-	348.3	115.2	323.8	123.3	298.5	132.4	272.3	142.7	245.1	154.4

SW3L20000(R507A) / Available with economizer												
Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	100	78.8	92	99.6	86.7	111.8	-	-	-	-	-	-
-40	160.8	82.4	151.7	103.2	145.7	115.1	138.5	128.7	129.8	144.2	119.2	162.3
-35	198.1	84.6	187.8	105.1	181.2	117.1	173.2	130.6	163.5	145.8	152.1	163.7
-30	240.5	87.5	228.8	107.5	221.3	119.4	212.4	133	201.8	148.3	189.2	165.7
-25	288.2	91.1	274.8	110.6	266.5	122.5	256.6	135.9	245	151.1	231.2	168.6
-20	341.1	95.8	326.1	114.8	316.8	126.4	305.9	139.5	293.1	154.7	278.2	172.1
-15	-	-	382.4	120	372.2	131.2	360.3	144.3	346.6	159.3	330.5	176.5

SW3L22000(R507A)												
Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	85.3	76.2	70.7	91.2	62.7	99.3	-	-	-	-	-	-
-40	149.8	84.7	128.5	100.7	117	109.6	104.9	119.3	92	130	78.2	141.8
-35	192.8	89.4	166.7	105.7	152.7	114.9	138	124.9	122.5	136.1	106.1	148.4
-30	244.4	94.8	212.6	111.3	195.7	120.6	178	131	159.4	142.5	139.8	155.3
-25	306	101.3	267.4	117.7	247.1	127.2	225.8	137.7	203.7	149.4	180.5	162.6
-20	378.5	109.1	332.3	125.3	308	134.8	282.8	145.4	256.6	157.4	229.3	170.8
-15	-	-	408.3	134.4	379.6	143.8	350	154.5	319.2	166.5	287.4	180.2

SW3L22000(R507A) / Available with economizer												
Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	115.9	90.6	106.1	113.7	99.7	127.1	-	-	-	-	-	-
-40	186.6	95.2	175.3	118.3	168	131.7	159.2	146.6	148.8	163.7	136.2	183.4
-35	230.2	97.9	217.4	121	209.2	134.4	199.4	149.2	187.8	166.3	173.9	185.5
-30	279.8	101.3	265.2	124.1	255.9	137.5	245	152.5	232.1	169.5	216.9	188.9
-25	335.6	105.7	319	128	308.6	141.3	296.3	156.1	282	173.1	265.3	192.4
-20	397.7	111.4	378.9	132.9	367.2	146	353.8	160.9	338.1	177.8	319.8	197.1
-15	-	-	445	139.5	432	152.1	417.5	166.8	400.4	183.6	380.9	203

SW3L25000(R507A)												
Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	-	-	-	-	-	-	-	-	-	-	-	-
-40	191.1	102.5	161.3	120.9	149.1	132.6	136.1	145.7	120.7	159.8	100.8	174.7
-35	249.3	112.9	215.4	133.3	200.3	145.6	183.9	158.9	164.4	173.1	139.9	187.9
-30	316.9	120.5	276.9	142.4	257.9	155.1	237.1	168.7	212.6	182.7	182.6	197.2
-25	397.3	126.4	349.3	149.5	325.4	162.5	299.2	176	268.8	189.8	232.3	203.7
-20	494	131.7	436.1	155.7	406.4	168.7	373.9	182	336.6	195.4	292.7	208.7
-15	610.5	137.6	540.8	162.1	504.4	175	464.6	187.9	419.4	200.7	367.1	213.1

SW3L25000(R507A) / Available with economizer												
Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	-	-	-	-	-	-	-	-	-	-	-	-
-40	219.5	107.9	191.6	127.4	179.9	139.6	166.9	152.9	151	167.5	130.1	183.3
-35	281.2	118.4	250.5	139.9	236.3	152.6	220	166.2	200.5	180.9	174.8	196.2
-30	351.5	125.9	316.4	149	299.1	162.3	279.1	176.2	254.4	190.7	223.6	205.7
-25	433.2	131.4	392.8	156.1	371	169.5	346.5	183.6	316.6	197.9	279.5	212.5
-20	529.2	136.2	482.1	162	455.9	175.6	425.9	189.5	389.7	203.5	346.3	217.5
-15	642.3	141.2	587.7	167.9	556.9	181.6	520.6	195.3	477.6	208.6	426.6	221.8

Performance parameters -SW3L (available with economizer), refrigerant R507A

SW3L30000(R507A)												
Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	-	-	-	-	-	-	-	-	-	-	-	-
-40	211.96	116.1	179	140.9	165.5	156.6	151.3	173.3	134.2	189.9	112.3	205.6
-35	276.6	117.5	239	140.5	222.3	154.9	204.3	170	182.7	184.9	155.7	198.5
-30	351.6	121.5	307.3	143.2	286.3	156.6	263.3	170.5	236.3	183.8	203.1	195.8
-25	440.8	127.7	387.6	148.8	361.3	161.5	332.3	174.4	298.7	186.6	258.3	197.2
-20	548.1	136.1	483.9	157.1	451.1	169.5	415.1	181.8	373.9	193.1	325.2	202.5
-15	677.4	146.4	600.1	168.1	559.8	180.4	515.7	192.4	465.7	203.1	407.8	211.7

SW3L30000(R507A) / Available with economizer												
Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	-	-	-	-	-	-	-	-	-	-	-	-
-40	242.2	121.8	211.9	148.2	199.4	164.7	185.1	181.7	168	199.1	144.9	215.7
-35	310	122.7	276.9	147.1	261.5	162.1	243.9	177.6	222.5	193	194.5	207.3
-30	386.7	126.2	349.4	149.4	330.3	163.4	308.6	177.7	282.2	191.6	248.2	204.1
-25	475.9	131.9	432.9	154.6	409.6	168.1	383	181.6	350.4	194.3	310.1	205.4
-20	580.3	139.6	530	162.9	502.4	175.7	470.1	188.8	431.1	200.8	383.3	210.8
-15	703.4	149.1	644.9	172.9	612.5	186.3	573.3	199.1	526.9	210.5	471.3	219.9

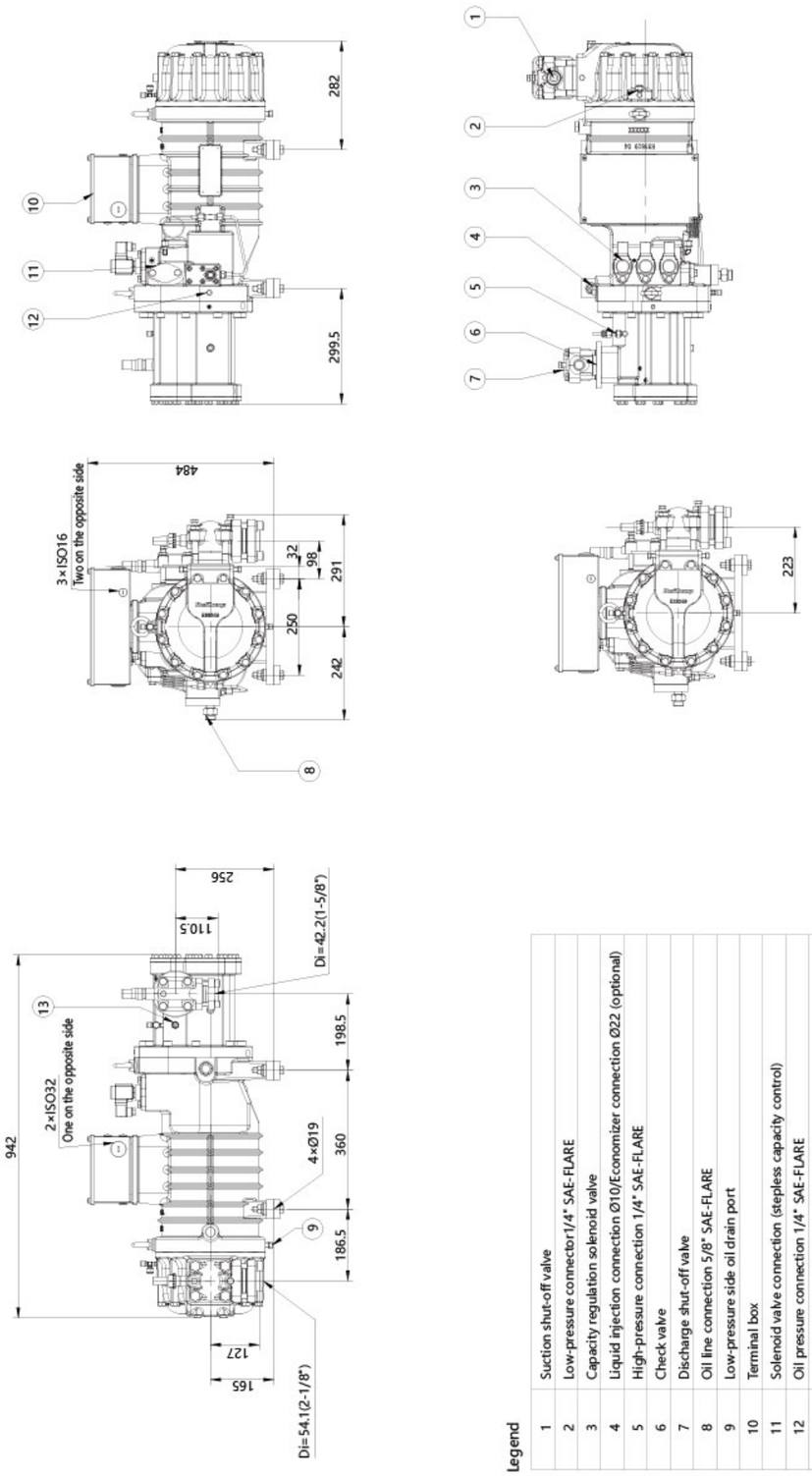
SW3L35000(R507A)												
Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	-	-	-	-	-	-	-	-	-	-	-	-
-40	235	122.1	198.2	145	183.1	159.6	167.1	175.7	147.8	192.9	123	210.8
-35	306.9	132.4	265	156.9	246.3	171.8	226	187.9	201.9	205	171.5	222.4
-30	390.2	141.2	340.8	167	317.4	182.2	291.7	198.3	261.4	215	224.3	231.9
-25	489.3	149.5	430	176.3	400.7	191.6	368.4	207.6	330.8	223.9	285.7	240.1
-20	608.5	157.8	537	185.6	500.5	200.9	460.4	216.7	414.4	232.5	306.2	247.9
-15	752	167.3	666	195.6	621.2	210.9	572.2	226.3	516.5	241.5	452	256

SW3L35000(R507A) / Available with economizer												
Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa	Pf	Pa
-50	-	-	-	-	-	-	-	-	-	-	-	-
-40	266.8	127.7	233.7	152.2	219.8	167.5	204.1	184.1	184.6	202	159.2	221.3
-35	341.1	137.6	305.2	163.8	288.3	179.4	269.3	196.2	245.2	213.8	214.2	232.3
-30	425.1	145.9	384.6	173.6	364	189.5	340.6	206.4	311	223.8	273.4	241.6
-25	522	153.3	475.8	182.4	450.7	198.6	421.8	215.5	386	232.6	341.5	249.8
-20	636.4	160.8	582	190.9	552.5	207.4	516.9	224.1	474	240.8	421.9	257.4
-15	769.4	168.9	707.5	200.1	672.1	216.6	630.1	233.2	579.7	249.4	518.5	265

Pf = Cooling capacity (kW)
Pa = Input electrical power (kW)
Te = Evaporating temperature (°C)
Tc = Condensing temperature (°C)
50Hz frequency
Liquid subcooling 5K
Suction superheat 10K

Yellow area: No oil cooling is required within this working condition range.
Gray area: Oil cooling is required within this working condition range
(please refer to the "Application Range" section for details).

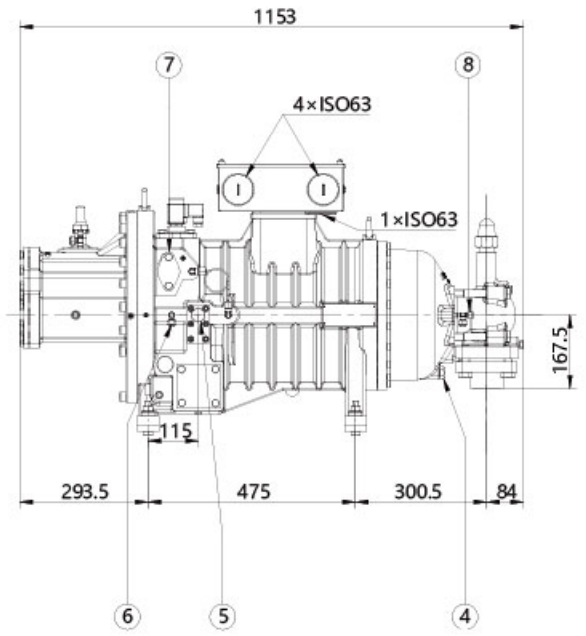
SW3H 4000_5000_6000
SW3L 3000_4000_5000

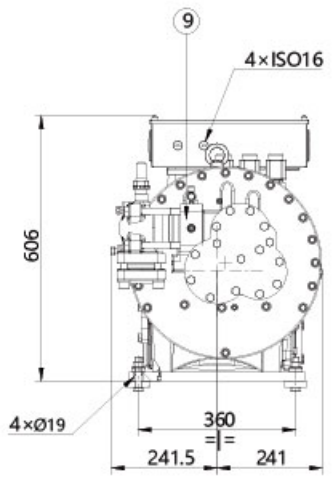


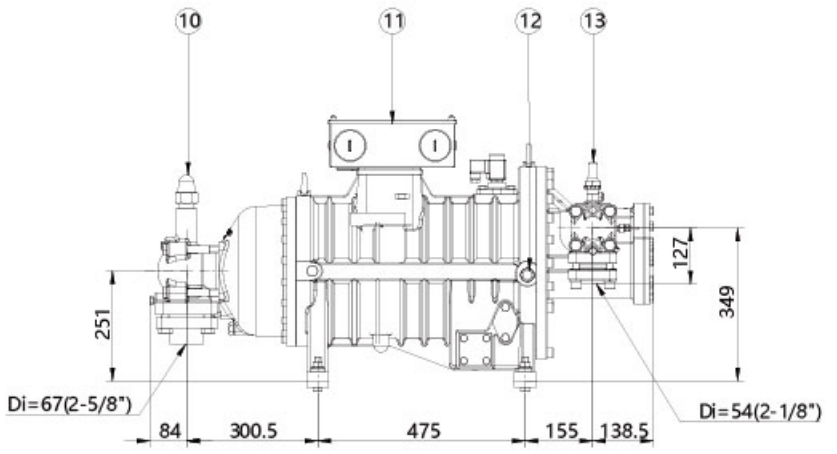
Legend

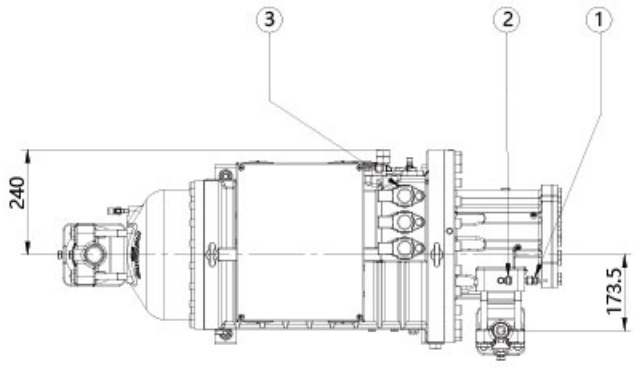
1	Suction shut-off valve
2	Low-pressure connector1/4" SAE-FLARE
3	Capacity regulation solenoid valve
4	Liquid injection connection Ø10/Economizer connection Ø22 (optional)
5	High-pressure connection 1/4" SAE-FLARE
6	Check valve
7	Discharge shut-off valve
8	Oil line connection 5/8" SAE-FLARE
9	Low-pressure side oil drain port
10	Terminal box
11	Solenoid valve connection (stepless capacity control)
12	Oil pressure connection 1/4" SAE-FLARE
13	Discharge temperature sensor 1/8" NPT

SW3H 7500_9000
SW3L 6000_7000





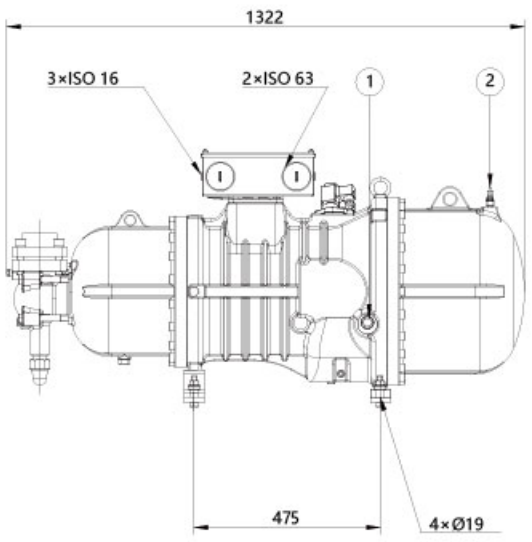


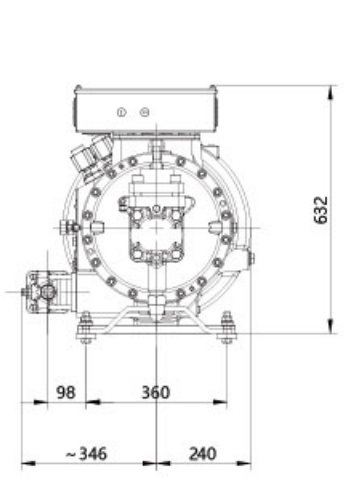


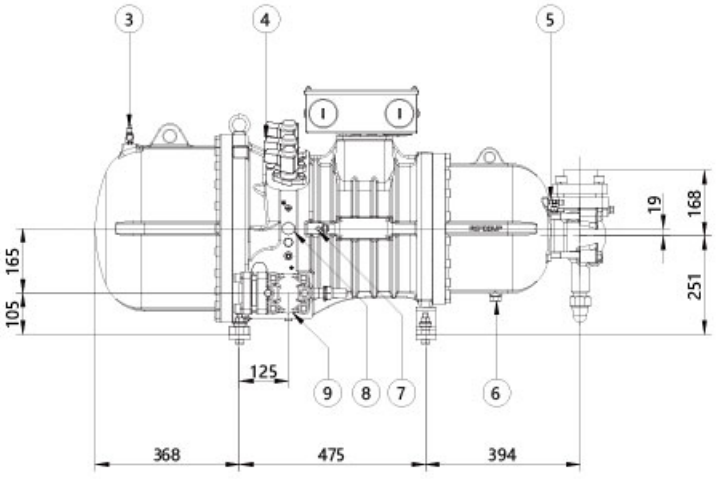
Legend

1	Discharge temperature sensor 1/8" NPT
2	High-pressure connection 1/4" SAE-FLARE
3	Capacity regulation solenoid valve
4	Low-pressure side oil drain port
5	Oil cooler connection 5/8" SAE-FLARE
6	Oil pressure connection 1/4" SAE-FLARE
7	Solenoid valve connection (stepless capacity control)
8	Low-pressure connection 1/4" SAE-FLARE
9	Check valve
10	Suction shut-off valve
11	Terminal box
12	Liquid injection connection Ø10/Economizer connection Ø22 (optional)
13	Discharge shut-off valve

SW3H 11500_12500
SW3L 10500

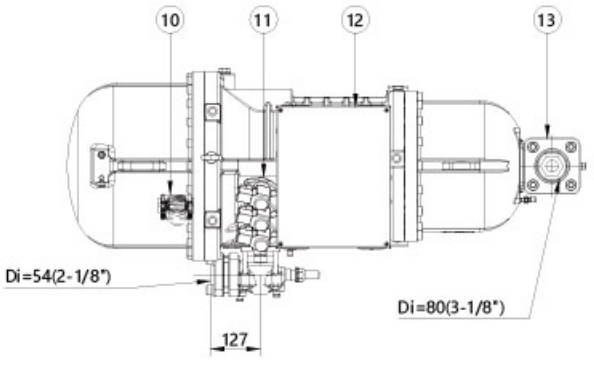




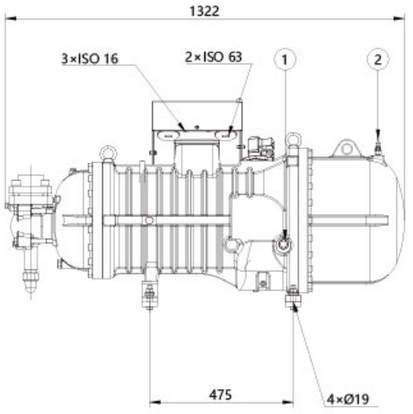


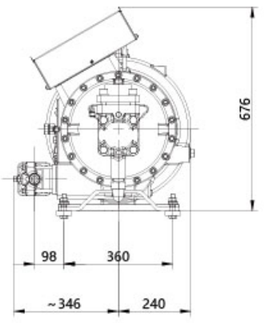
Legend

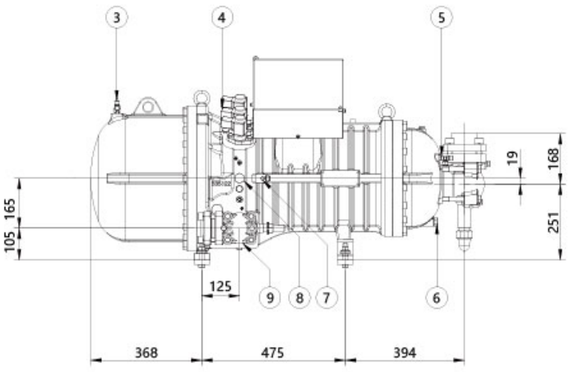
1	Liquid injection connection Ø10/Economizer connection Ø22 (optional)
2	Discharge temperature sensor 1/8" NPT
3	High-pressure connection 1/4" SAE-FLARE
4	Energy regulation solenoid valve
5	Low-pressure connection 1/4" SAE-FLARE
6	Low-pressure side oil drain connection
7	Oil pressure connection 1/4" SAE-FLARE
8	Oil line connection 5/8" SAE-FLARE
9	Discharge shut-off valve
10	Check valve
11	Solenoid valve board (stepless energy control conversion)
12	Terminal box
13	Suction shut-off valve



SW3H 10500
SW3L 8000_9500

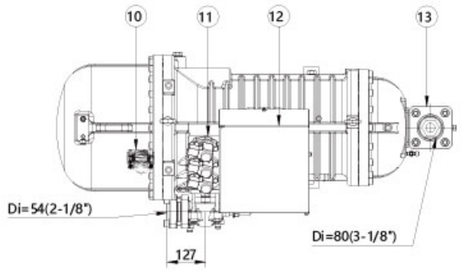




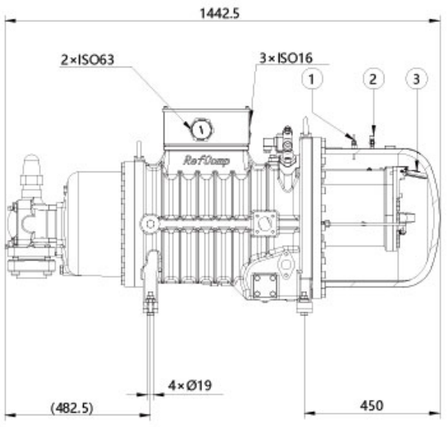


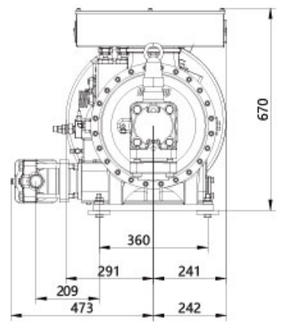
Legend

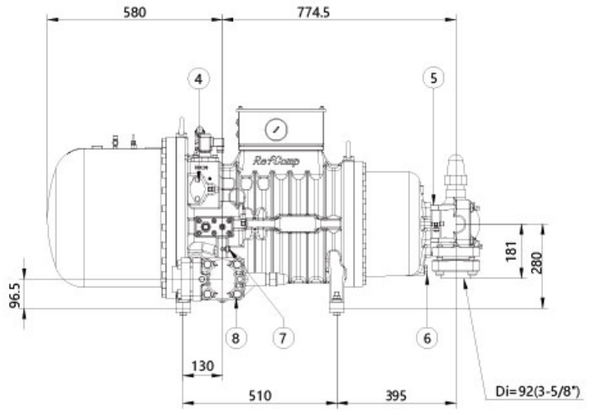
1	Liquid injection connection Ø10/Economizer connection Ø22 (optional)
2	Discharge temperature sensor 1/8" NPT
3	High-pressure connection 1/4" SAE-FLARE
4	Capacity regulation solenoid valve
5	Low-pressure connection 1/4" SAE-FLARE
6	Low-pressure side oil drain port
7	Oil pressure connection 1/4" SAE-FLARE
8	Oil line port 5/8" SAE-FLARE
9	Discharge shut-off valve
10	Check valve
11	Solenoid valve board (stepless energy control conversion)
12	Terminal box
13	Suction shut-off valve



SW3H 14000_16000_19000
SW3L 11500_13000_16000

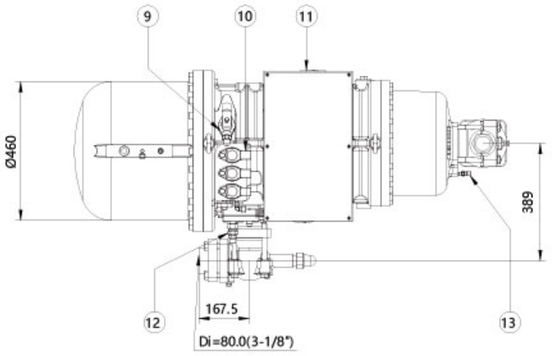




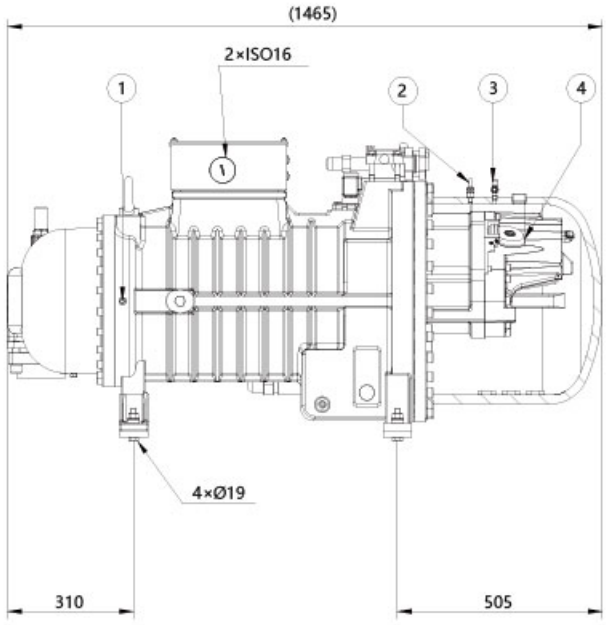


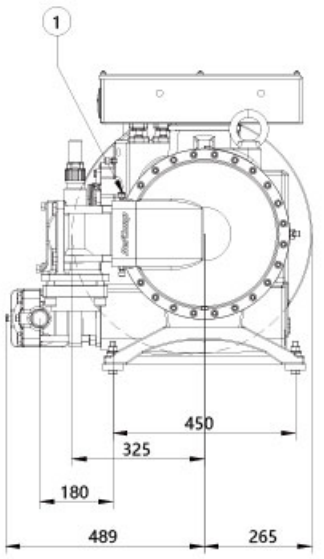
Legend

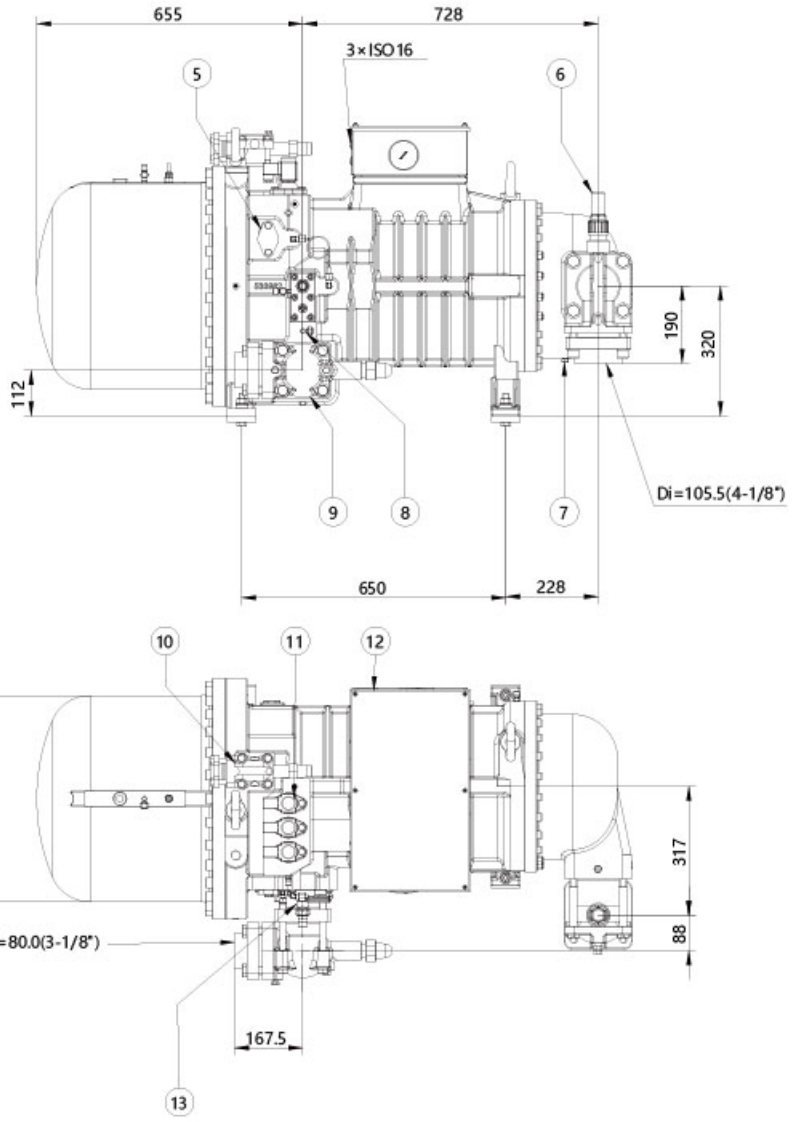
1	Discharge temperature sensor 1/8" NPT
2	High-pressure connection 1/4" SAE-FLARE
3	Check valve assembly
4	Solenoid valve connection (stepless energy regulation)
5	Suction shut-off valve
6	Low-pressure side oil drain port
7	Oil pressure connection 1/4" SAE-FLARE
8	Discharge shut-off valve
9	Liquid injection connection Ø10/Economizer connection Ø28 (optional)
10	Capacity regulation solenoid valve
11	Terminal box
12	Oil connection plate connection 5/8" SAE-FLARE
13	Low-pressure connection 1/4" SAE-FLARE
Note: Economizer connection is Ø28, piping requires Ø42, with a reducing connection.	



SW3H 21000_24000_25000
SW3L 18000_20000_22000



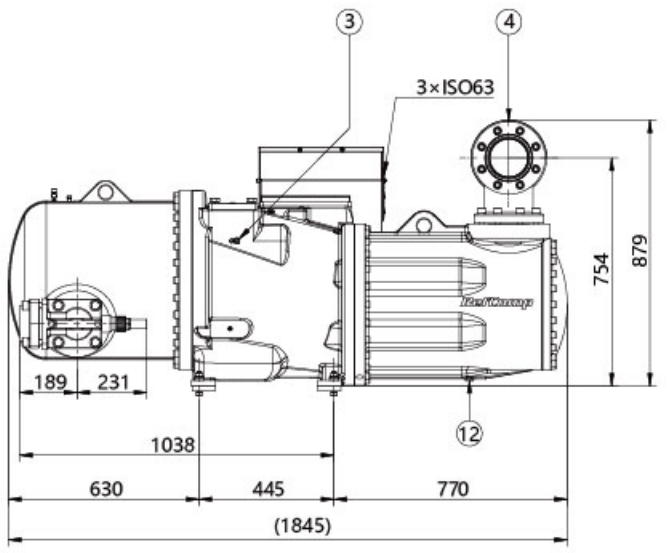


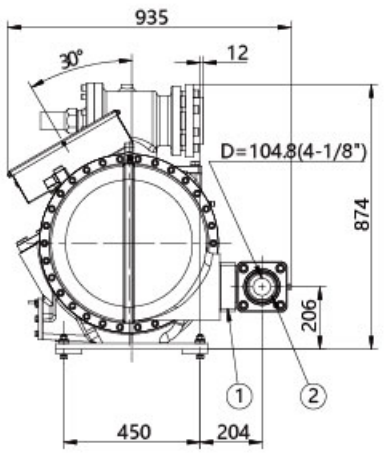


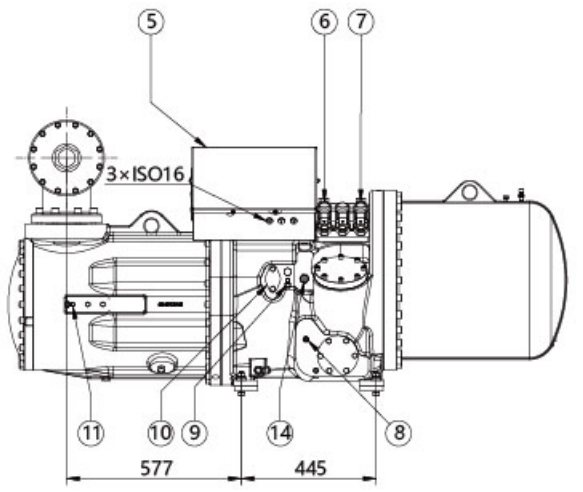
Legend

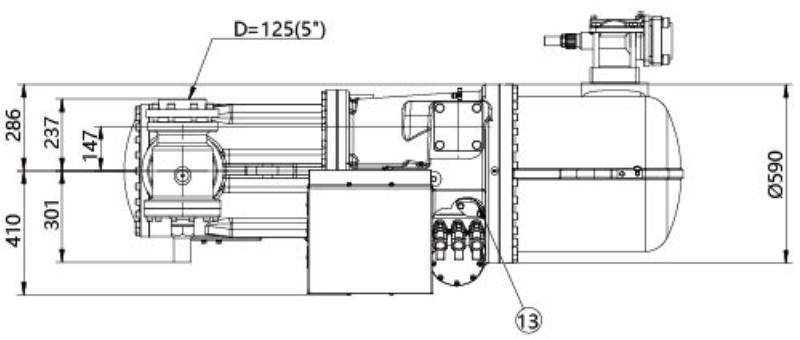
1	Low-pressure connection 1/4" SAE-FLARE
2	Discharge temperature sensor 1/8" NPT
3	High-pressure connection 1/4" SAE-FLARE
4	Check valve assembly
5	Solenoid valve connection (stepless energy control)
6	Suction shut-off valve
7	Low-pressure side oil drain port
8	Oil pressure connection 1/4" SAE-FLARE
9	Discharge shut-off valve
10	Liquid injection connection Ø10/Economizer connection Ø42 (optional)
11	Capacity regulation solenoid valve
12	Terminal box
13	Oil connection plate connection 5/8" SAE-FLARE

SW3H30000_35000_40000
SW3L25000_30000_40000









Legend

1	Check valve
2	Exhaust stop valve
3	High voltage connector 1/4 "SAE-FLARE
4	Suction stop valve
5	Junction box
6	Solenoid valve (stepless to stepless conversion)
7	Can adjust the solenoid valve
8	Temperature sensor 1/8"NPT
9	Oil pressure connector 1/4 "SAE-FLARE
10	Vi Control solenoid valve (optional)
11	Low voltage connector 1/4 "SAE-FLARE
12	Low pressure side drain port M14
13	Spray interface Ø10/ Economizer Interface Ø42 (optional)
14	Fuel inlet 5/8"SAE-FLARE

雪人集团 SNOWMAN GROUP 25TH

Snowman Group reserves the right to change its products without notice in advance.
The technical parameters shall be subject to order contract or technical appendix of the contract.

PART 2 : SW5

RefComp

Screw Compressor

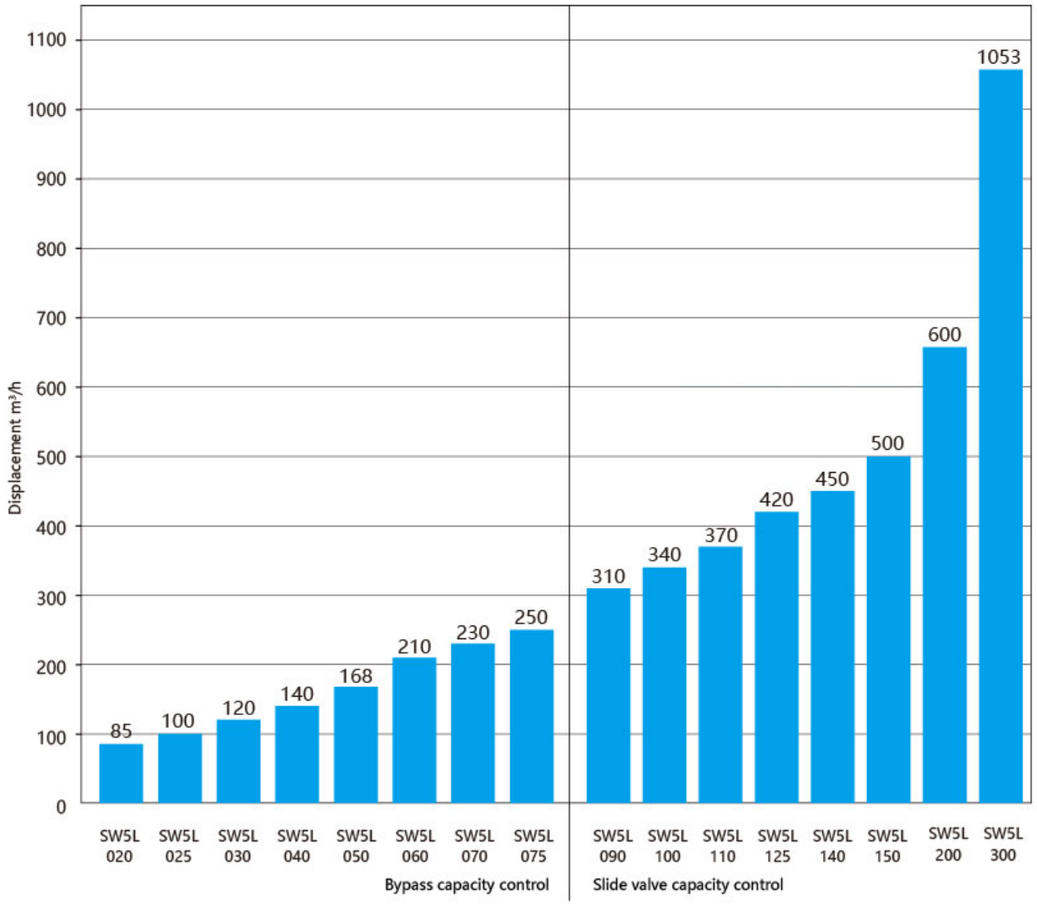
SW5L Series Semi-hermetic Screw Compressor

CONTENT

Product Profile

The SW5L series is the latest generation of semi-hermetic low temperature screw compressors, with a discharge range of 85-500m³/h (@2960rpm) power ranging from 20 to 150HP. Compatible with various green refrigerants including R507A, R404A, R448A and R449A, the series is widely used in ice storage projects, food processing and industrial freezing sectors. Ensuring the stable system and economical factors, the SW5L series is the ideal choice for applications that prioritize energy saving and emission reduction, as well as for commercial and industrial uses with high refrigeration quality requirements.

Discharge Volume Distribution Chart



Note: The discharge volume is the theoretical number based on a speed of 2960 rpm.

Product Features

Efficient Rotor Design

The SRM's latest rotor design offers superior efficiency and operational stability compared to existing designs, significantly enhancing the compressor's cooling efficiency.

High-Speed Variable Frequency Design

High-strength mechanical structure and high-precision bearings ensure the compressor operates efficiently and reliably at high speeds over the long term.

Adjustable Internal Volume Ratio

All necessary components for the oil circuit (from oil separator to compressor) are provided as standard supplies. Additionally, all matching oil separators and oil coolers are also available.

Low Vibration and Noise

Minimal vibration and no exhaust pulsation, hence no need for vibration dampers and flexible pipes.

High Efficiency and Easy Maintenance

By using an economizer (ECO) cycle that increases the refrigerant liquid's superheat, the cycle efficiency (COP) can be further improved;
Oil pressure-driven slide valve control allows the compressor to have high compression efficiency at partial loads.

Comprehensive Software and Documentation Support

For other refrigeration system component requirements, Refcomp offers optional configurations, including oil separators, oil coolers, and economizers.

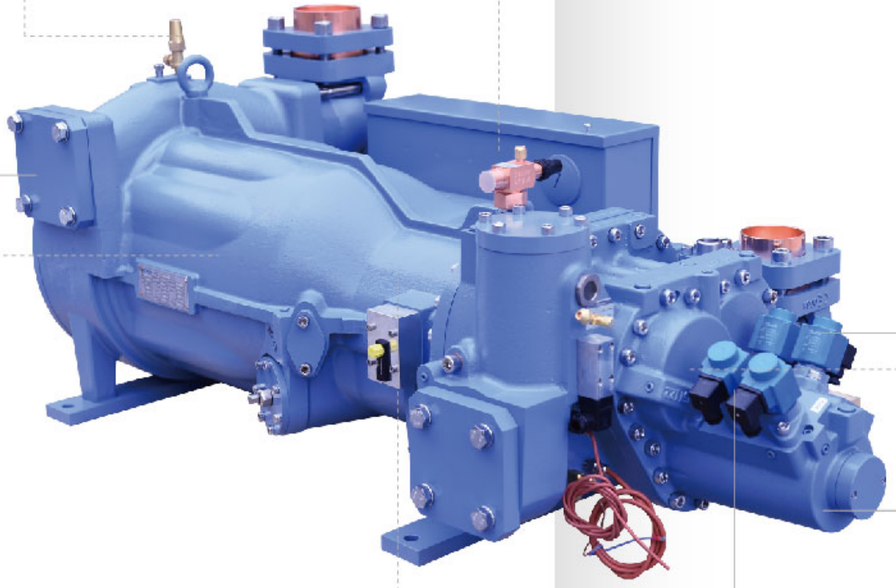
Structural Diagram

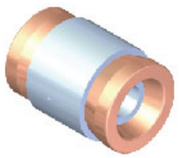
Compressor Body

- High-strength metal engine body, designed to withstand pressures up to 28 bar.
- Low-pressure drop intake air channel design minimizes intake resistance while ensuring adequate cooling of the motor.
- The central straight-through air channel design reduces friction losses and exhaust losses.
- Highly integrated with temperature, pressure sensors, oil flow switches, oil pressure differential switches, oil circuit shutoff valves, and other components, effectively enhancing the equipment's level of intelligence.
- The built-in oil circuit design, equipped with an external oil cooler interface, offers simple and convenient installation, and allows for a wider range of controllable oil thermal loads.

Suction filter

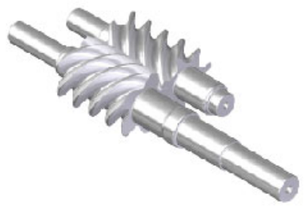
- Internal precision intake filter effectively filters out impurities from the refrigerant gas and protects the motor.
- Compact structure, easy to replace.





Motor

- Uses a partial winding or Y-Δ start, low starting current, and low operating energy consumption.
- Capable of being equipped with a variable frequency motor to achieve vector control.
- Special custom materials are compatible with a variety of refrigerants including R404A, R507A, R290, and R410A.



Rotor

- Equipped with cutting-edge SRM rotor profiles, excellent tooth ratio, effectively improving refrigeration efficiency.
- High rigidity screw rotors are coaxially designed with the motor rotor, ensuring stable operation of the compressor and a compact structure.
- The processing achieves micrometer precision, tight meshing, uniform force distribution, and a long service life.

Motor protection

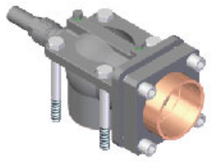
- Equipped with the INT69 SNY motor protection module and six series-connected PTC thermistors.
- Dynamic monitoring and tracking of system operation information to achieve predictable alerts and safety protection.

Cooling capacity control

- The refrigeration capacity can be adjusted according to the operating load, enabling stepped or variable capacity regulation (for SW5L090-150 series).
- SW5L020/025/030/040/050/060/070/075 models use bypass type refrigeration capacity control, while SW5L090/100/110/125/140/150 models use slide valve type refrigeration capacity control.

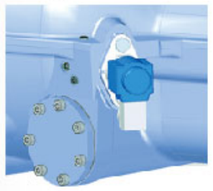
Bearings

- High wear-resistant multi-bearing combination that can withstand high loads and ensure a long service life.
- High wear-resistant rolling elements and special profile rolling paths, designed for a lifespan of 80,000 hours.



Shut-off valve

- Built-in discharge check valve, low resistance, effectively prevents refrigerant backflow when the machine is shut down.
- The stop valve is rotatable, easy to install, and flexible.
- Shut-off valves can be installed on both sides, offering more flexibility (for SW5L090-150 series).



VI (Volume ratios)

- The VI adjustable technology allows for manual or automatic adjustment, effectively improving efficiency under various operating conditions.

Models Description

Compressor	S	W	5	L	110

Type of compressor	
S	S- semi-hermetic compressor

Series	
W	W series compressor

Version	
5	5-The "5" version without internal oil separator.

Specification	
L	Motor of low temperature compressor

Rated power	
110	110HP, When the power is less than 100HP, add a zero before the code.

(1) The model number ending with the letter "E" indicates a compressor that uses POE oil.

Product Overview

SW5L020/025/030

SW5L040/050

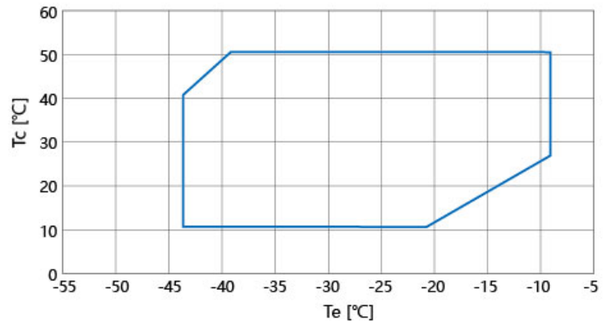
SW5L060/070/075

SW5L090/100/110

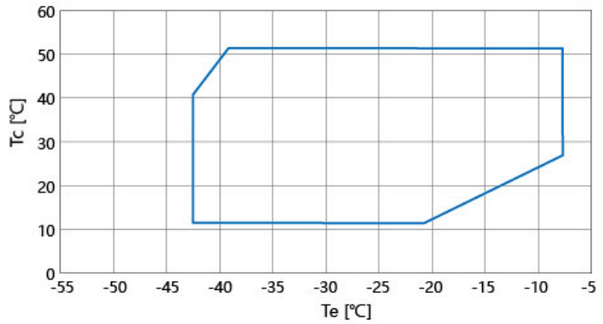
SW5L125/140/150

Application Range

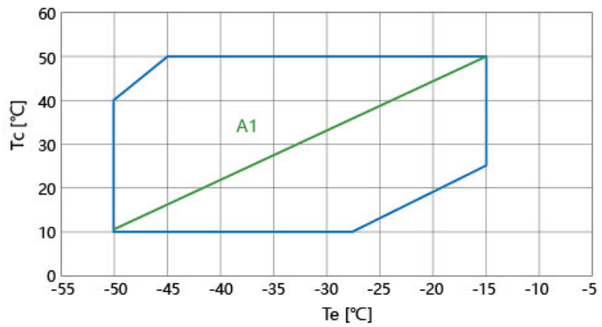
R448A



R449A



R404A/R507A



Operation at full load under 50Hz

10K suction superheat

A1 area = Oil cooler should be installed

Technical Parameters

SW5L Series Compressors		020	025	030	040	050	060	070	075
Motor Nominal Power	HP/kW	25/18.5	30/22	35 /26	40/30	50/37	60/45	70/52	75/55
Displacement 50/60[Hz]	m^3/h	85/102	100/120	120/144	140/168	168/202	210/252	230/276	250/300
Weight	kg	190	200	210	245	250	365	370	375
Inner diameter of discharge pipe Ø	mm / inch	42/ 1 5/8"	42/ 1 5/8"	42/ 1 5/8"	42/ 1 5/8"	42/ 1 5/8"	54/ 2 1/8"	54/ 2 1/8"	54/ 2 1/8"
Inner diameter of suction pipe Ø	mm / inch	54/ 2 1/8"	54/ 2 1/8"	54/ 2 1/8"	54/ 2 1/8"	54/ 2 1/8"	80/ 3 1/8"	80/ 3 1/8"	80/ 3 1/8"
Oil Line Connector	mm / inch	3/8"SAE					Ø22/M26×1.5		
Capacity Regulation		Step: Full Load - 75% - 50%							
Protection Module		INT69SNY							
Standard Motor(1)		400V/3/50Hz or 460V/3/60Hz							
PW Partial Winding Start Current	A	140/215	175/271	200/308	277/398	303/406	262/422	280/459	351/580
Star/Delta Start Current Star/Delta(2)	A	71/215	90/271	103/308	133/398	135/406	139/422	159/459	193/580
Maximum Operating Current(2)	A	42	49	59	70	80	105	120	135

SW5L Series Compressors		090	100	110	125	140	150	200	300
Motor Nominal Power	HP/kW	90/66	100/75	110/82	125/90	140/105	150/112	200/150	300/225
Displacement 50/60[Hz]	m^3/h	310/372	340/408	370/444	420/504	450/540	500/600	660/792	1053/1264
Weight	kg	505	510	515	680	690	700	1606.7	1100
Inner diameter of discharge pipe Ø	mm / inch	67/ 2 5/8"	67/ 2 5/8"	67/ 2 5/8"	80/ 3 1/8"	80/ 3 1/8"	80/ 3 1/8"	80/ 3 1/8"	104.8/ 3 1/8"
Inner diameter of suction pipe Ø	mm / inch	92/ 3 5/8"	92/ 3 5/8"	92/ 3 5/8"	104.8/ 4 1/8"	104.8/ 4 1/8"	104.8/ 4 1/8"	104.8/ 4 1/8"	134.8/Ø133
Oil Line Connector	mm	Ø22/M26×1.5						Ø33.7/1 3/16"	
Capacity Regulation		Graded: full load -75%-50%-25% Stepless: full load -25%						step: 100%-75%-50%-min% None :100%-min%	
Protection Module		INT69SNY						INT69SNY	
Standard Motor(1)		400V/3/50Hz or 460V/3/60Hz						400V/3/50Hz	
PW Partial Winding Start Current	A	539/795	600/885	635/953	584/876	770/1155	770/1155	483	833
Star/Delta Start Current Star/Delta(2)	A	265/795	295/885	318/953	276/876	354/1155	354/1155	1450	2500
Maximum Operating Current(2)	A	142	154	170	185	200	220	335	580

Note:
(1) Voltage allowable deviation range ±10%
(2) Based on Refcom selection software

Performance Parameters

SW5L	R404A/R507A					
	Te=-15℃; Tc=30℃			Te=-20℃; Tc=20℃		
	Q_0 [kW]	Pa [kW]	COP	Q_0 [kW]	Pa [kW]	COP
SW5L020	54.5	19.8	2.75	50.8	16.4	3.1
SW5L025	63.3	22.6	2.8	58.9	18.6	3.17
SW5L030	76.3	27	2.83	71.1	22.3	3.2
SW5L040	88.4	29.4	3	82.3	24.3	3.39
SW5L050	103 3	34.1	3.03	96.2	28.1	3.42
SW5L060	123.4	41.5	2.97	115	34.2	3.36
SW5L070	136.8	45.1	3.03	127.4	37.2	3.43
SW5L075	151.5	49.5	3.06	141.2	40.8	3.46
SW5L090	192.6	62.9	3.06	179.4	51.9	3.46
SW5L100	210.4	68.7	3.06	196	56.7	3.46
SW5L110	227.3	73.4	3.09	211.7	60.6	3.49
SW5L125	263.2	82	3.21	245.2	67.6	3.63
SW5L140	283.3	87.4	3.24	263.9	72.1	3.66
SW5L150	320.7	97.2	3.3	298.7	80.2	3.73

Product Supply

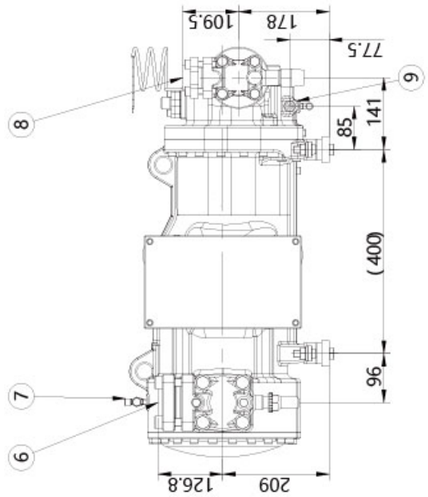
Standard configuration					
No.	Accessories	SW5L 020-050	SW5L 060-075	SW5L 090-110	SW5L 125-150
1	Compressor body	√	√	√	√
2	Stepped capacity control assembly	√	√	√	√
3	400V±10%-3-50Hz / 460V±10%-3060Hz Motor	√	√	√	√
4	IP54 terminal box	√	√	√	√
5	Electrical accessories, 230V-1-50/60Hz Standard voltage	√	√	√	√
6	Motor with 6 internal PTC temperature sensors	√	√	√	√
7	PTC Discharge temperature sensor	√	√	√	√
8	Electrical protection module INT69SNY (Monitors motor and discharge temperature, motor rotation direction, phase failure)	√	√	√	√
9	Internal safety valve	√	√	√	√
10	Check valve	√	√	√	√
11	Suction shut-off valve	√	√	√	√
12	Discharge shut-off valve	√	√	√	√
13	Suction filter	√	√	√	√
14	Rubber vibration damper	√	√	√	√
15	Replaceable oil filter		√	√	√
16	Oil inlet connector	√	√	√	√
17	Oil sight glass		√	√	√
18	Manual Vi adjustment device			√	√
19	Oil flow switch		√	√	√
20	Oil shut-off valve		√	√	√
21	Oil shut-off sensor		√	√	√
22	Nitrogen purging	√	√	√	√

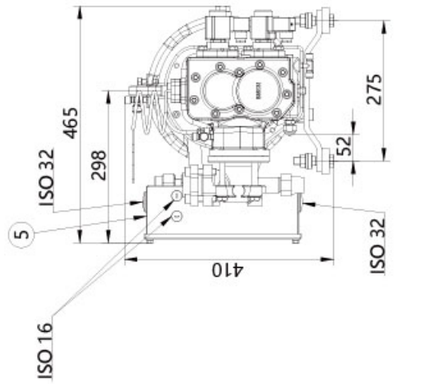
Optional configurations					
No.	Optional configurations	SW5L 020-050	SW5L 060-075	SW5L 090-110	SW5L 125-150
1	Special voltage motor	√	√	√	√
2	Automatic Vi regulation device			√	√
3	Capacity Displacement Sensor			√	√
4	Pressure differential switch		√	√	√
5	Liquid interjection connector			√	√
6	Economical connector with check valve	√	√	√	√
7	Electrical accessories Different from Standard Voltage	√	√	√	√
8	Lubricating oil	√	√	√	√
9	External oil circuit (including oil flow switch, oil filter, etc.)	√			

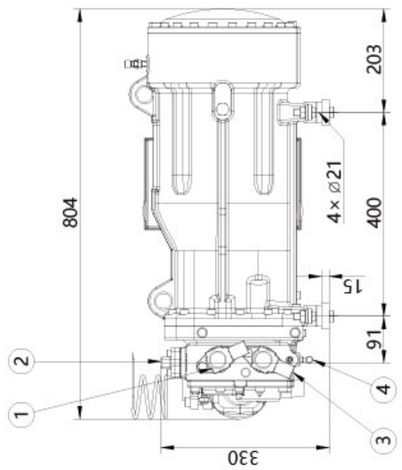
Note: 1. "√" indicates available; 2. If optional parts are required, please specify when ordering.

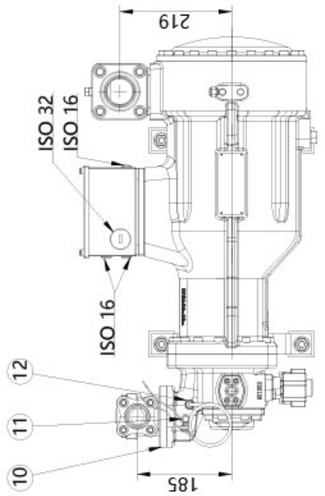
Dimension Diagram

SW5L020_025_030



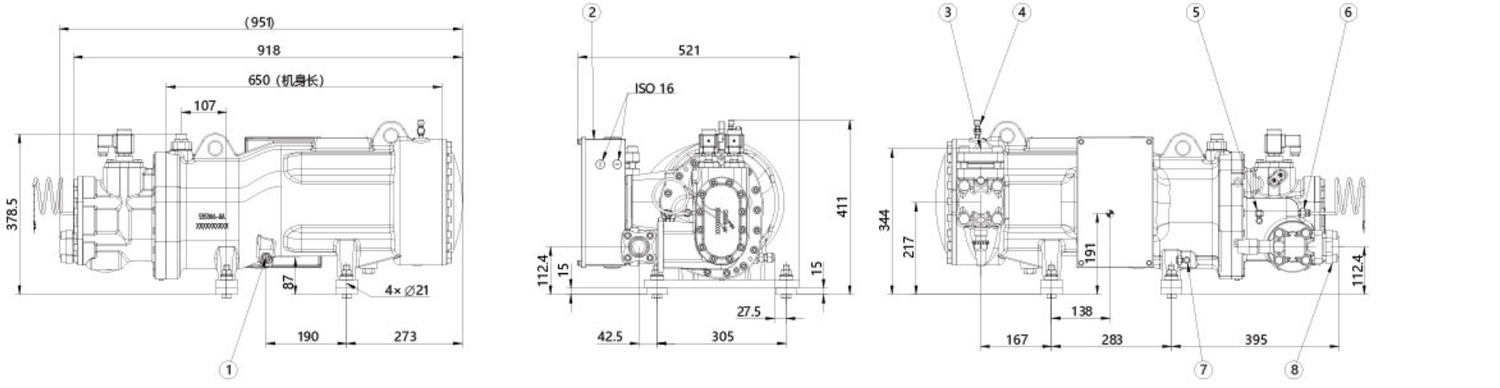






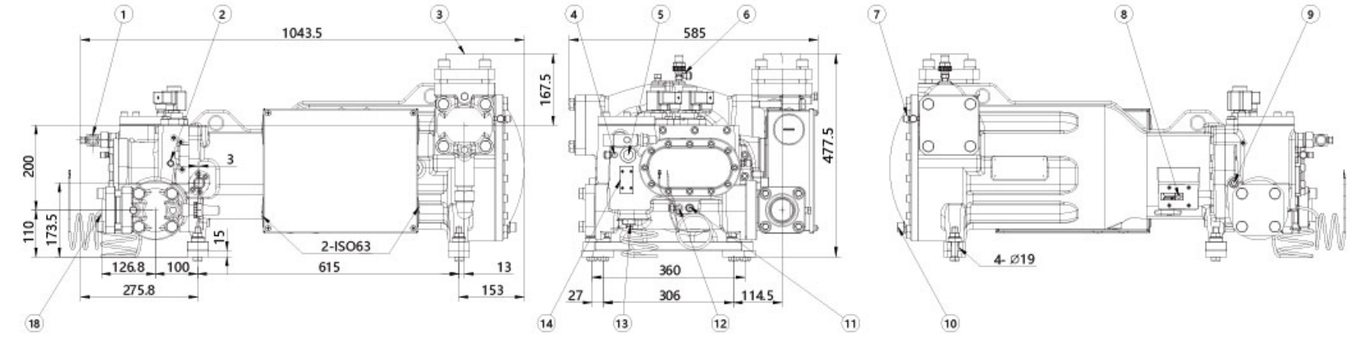
Key:
01. 75% cooling capacity control solenoid valve
02. economizer connection Ø16
03. 50% cooling capacity control solenoid valve
04. oil pressure connection 1/4" SAE-Flare
05. terminal box
06. suction shut-off valve Φ54 (2-1/8")
07. low pressure connection 1/4"SAE-Flare
08. discharge shut-off valve Ø42 (1-5/8")
09. oil circuit connection 3/8" SAE
10. check valve
11. high pressure connection /4" SAE-Flare
12. discharge temperature sensor1/8"NPT PTC 140℃

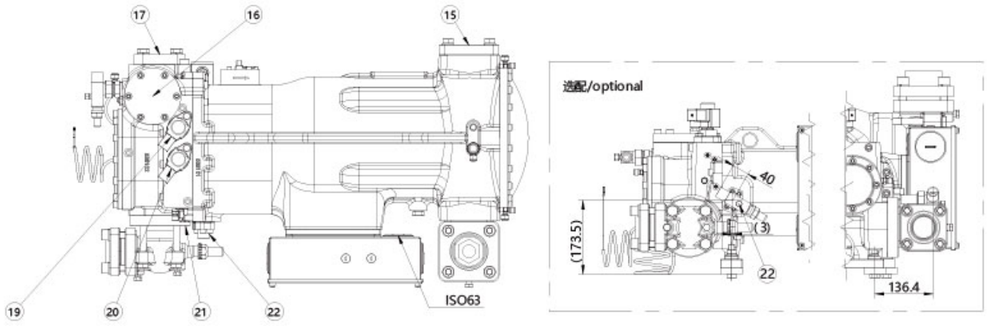
SW5L040_050



Key:
01. oil circuit connection 3/8" SAE
02. terminal box
03. suction shut-off valve Ø54 (2-1/8")
04. low pressure connection 1/4" SAE-Flare
05. high pressure connection 1/4" SAE-Flare
06. discharge temperature sensor 1/8" NPT PTC140°C
07. oil pressure connection 1/4" SAE-Flare
08. discharge shut-off valve Ø42 (1-5/8")
09. check valve
10. 50% cooling capacity control solenoid valve
11. 75% cooling capacity control solenoid valve
12. economizer connection Ø21.6/
economizer shut-off valve connection Φ22 (optional)

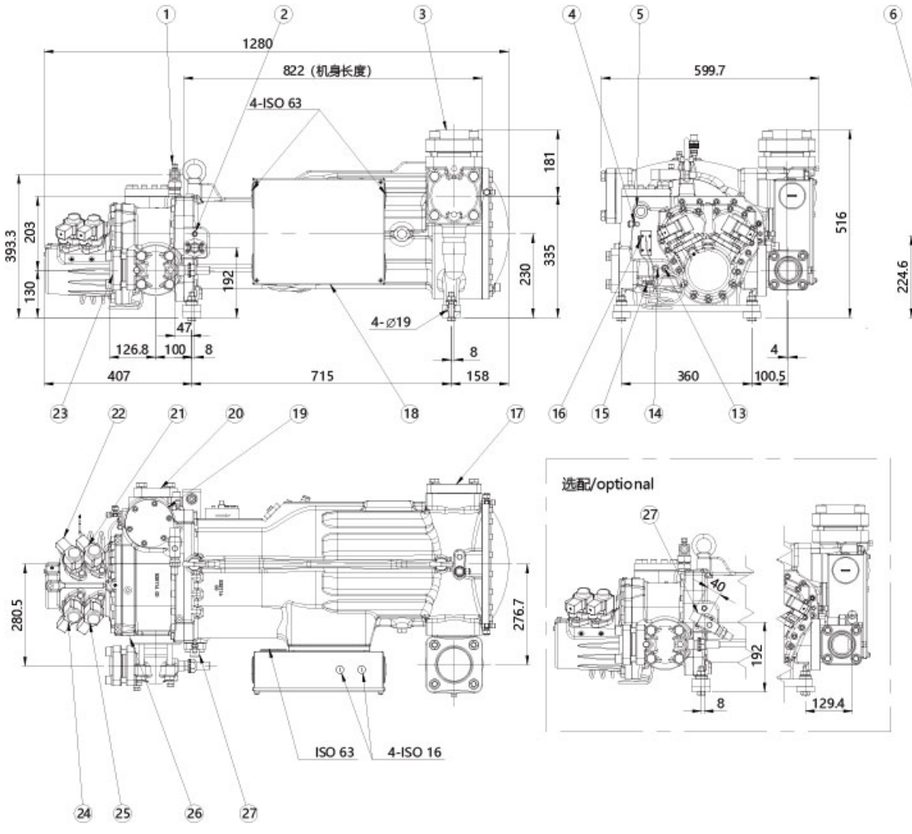
SW5L060_070_075





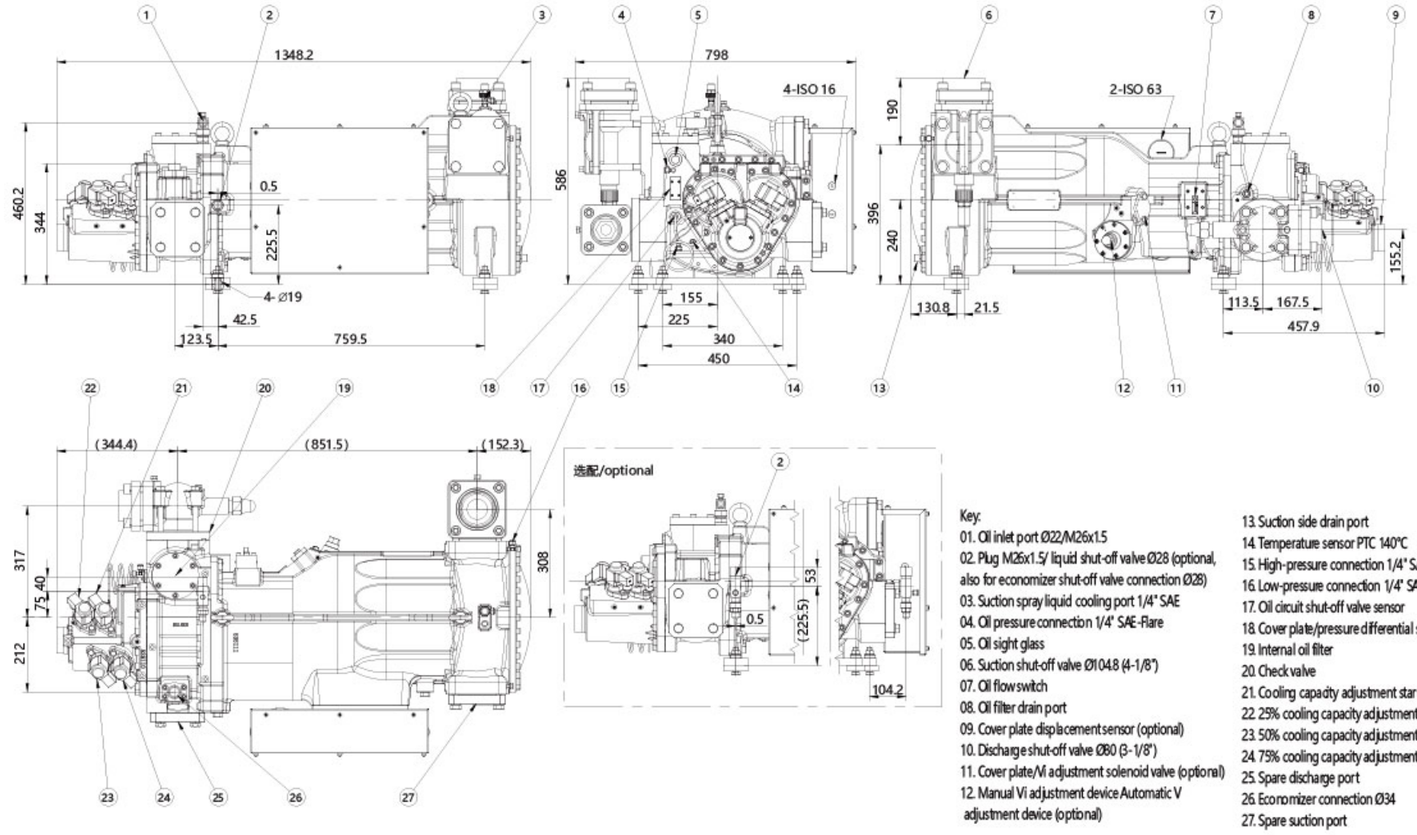
Key:
01. oil inlet port Φ22/M26 x 1.5
02. liquid injection connection 1/4"SAE
03. suction shut-off valve Ø80 (3-1/8")
04. oil pressure connection 1/4" SAE-Flare
05. oil sight glass
06. suction spray cooling port 1/4" SAE-Flare
07. low pressure connection 1/4"SAE-Flare
08. oil flow switch
09. oil filter drain port
10. suction side drain port
11. discharge temperature sensor PTC 140 °C
12. high pressure connection 1/4" SAE-Flare
13. oil circuit shut-off valve sensor
14. cover/ pressure differential switch (optional)
15. spare suction port
16. internal oil filter
17. spare discharge port
18. discharge shut-off valve Ø54 (2-1/8")
19. 75% cooling capacity control solenoid valve
20. 50% cooling capacity control solenoid valve
21. check valve
22. economizer connection Ø21.6/
economizer shut-off valve Ø22 (optional)

SW5L090_100_110



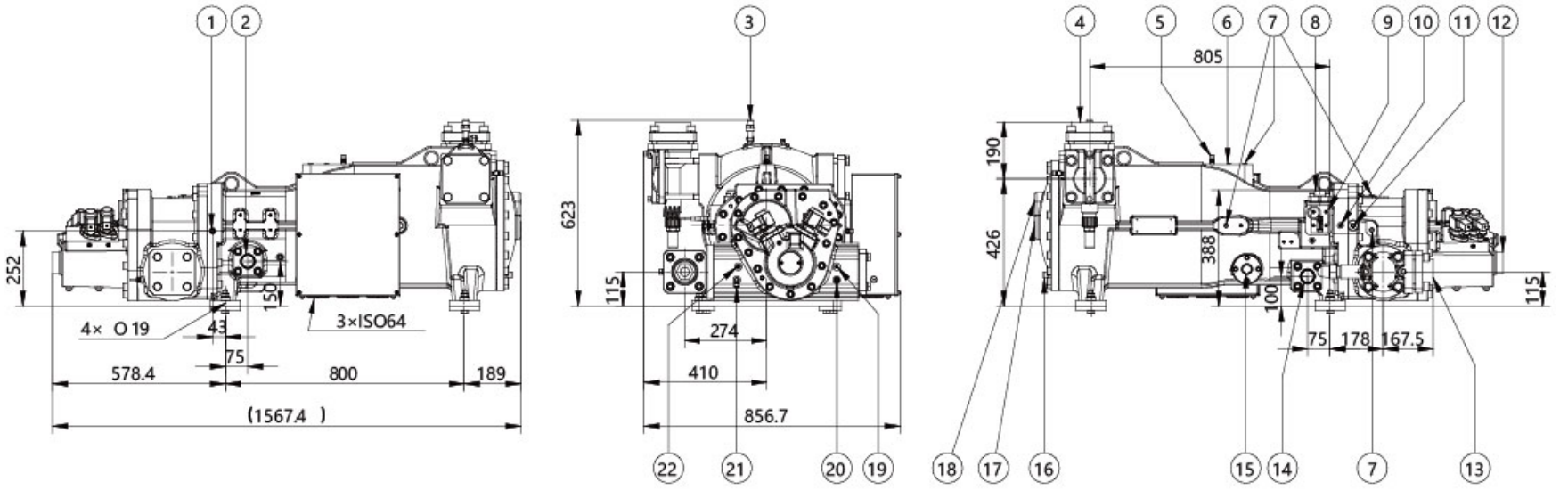
Key:
01. oil inlet port Ø22/M26x1.5
02. liquid injection connection 1/4" SAE
03. suction shut-off valve Ø92.5 (3-5/8")
04. oil pressure connection 1/4" SAE-Flare
05. oil sight glass
06. low pressure connection 1/4" SAE-Flare
07. suction spray cooling port 1/4"SAE
08. cover/vi control solenoid valve (optional)
09. oil filter drain port
10. oil flow switch
11. manual VI adjustment device
automatic vi adjustment device (optional)
12. suction side drain port
13. discharge temperature sensor PTC140 ℃
14. high pressure connection 1/4" SAE-Flare
15. oil circuit shut-off valve sensor
16. cover/pressure differential switch (optional)
17. spare suction port
18. terminal box
19. built-in oil filter
20. spare discharge port
21. cooling capacity control load solenoid valve
22. 25% cooling capacity control solenoid valve
23. discharge shut-off valve Ø67 (2-5/8")
24. 50% cooling capacity control solenoid valve
25. 75% cooling capacity control solenoid valve
26. check valve
27. economizer connection Ø21.6/
28. economizer stop valve Ø22 (optional)

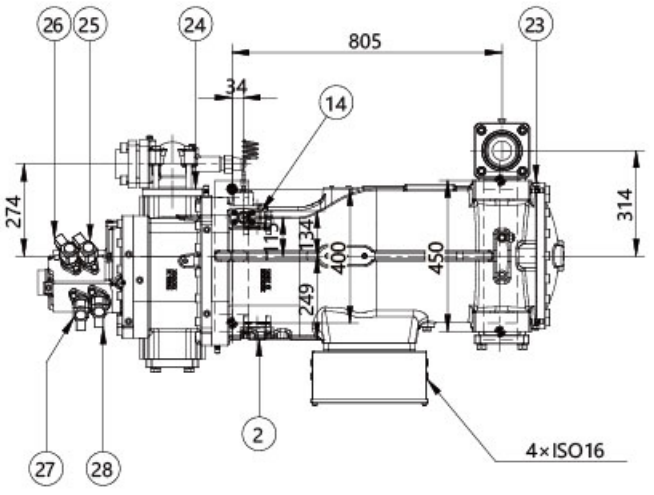
SW5L125_140_150



Key:
01. Oil inlet port Ø22/M26x1.5
02. Plug M26x1.5/ liquid shut-off valve Ø28 (optional, also for economizer shut-off valve connection Ø28)
03. Suction spray liquid cooling port 1/4" SAE
04. Oil pressure connection 1/4" SAE-Flare
05. Oil sight glass
06. Suction shut-off valve Ø104.8 (4-1/8")
07. Oil flow switch
08. Oil filter drain port
09. Cover plate displacement sensor (optional)
10. Discharge shut-off valve Ø80 (3-1/8")
11. Cover plate/Vi adjustment solenoid valve (optional)
12. Manual Vi adjustment device Automatic V adjustment device (optional)
13. Suction side drain port
14. Temperature sensor PTC 140°C
15. High-pressure connection 1/4" SAE-Flare
16. Low-pressure connection 1/4" SAE-Flare
17. Oil circuit shut-off valve sensor
18. Cover plate/pressure differential switch (optional)
19. Internal oil filter
20. Check valve
21. Cooling capacity adjustment start-up solenoid valve
22. 25% cooling capacity adjustment solenoid valve
23. 50% cooling capacity adjustment solenoid valve
24. 75% cooling capacity adjustment solenoid valve
25. Spare discharge port
26. Economizer connection Ø34
27. Spare suction port

SW5L160_200





Key:

1. Spray connector 1/4"SAE
2. economy 1 interface Ø42.2 (1-5/8")
3. Oil return interface 3/8"SAE
4. suction stop valve Ø104.8 (4-1/8")
5. low pressure connector (after filter) 1/4"SAE-Flare / Low pressure sensor (optional)
6. temperature absorption sensor PT100 (optional)
7. Vibration sensor (optional)
8. Oil inlet Ø33.7
9. Oil flow switch
10. oil temperature sensor PT100 (optional)
11. oil pressure connector 1/4"SAE-Flare / Oil Pressure sensor (optional)
12. Cover plate/Displacement sensor (optional)
13. exhaust gas stop valve Ø80 (3-1/8")
14. economy 2 interface Ø42.2 (1-5/8")
15. manual Vi adjustment device / Automatic Vi regulator (optional)
16. Suction side discharge port
17. motor spray cooling 3/8"NPT (optional)
18. motor spray cooling 3/8"NPT (optional)
19. exhaust temperature sensor PT100 (optional)
20. exhaust temperature sensor PTC120 vC
21. high voltage connector 1/4"SAE-Flare
22. high pressure pressure sensor (optional)
23. low pressure connector (before filter) 1/4"SAE-Flare
24. check valve
25. Cooling capacity adjustment and loading solenoid valve
26. 25% cooling capacity adjustment solenoid valve
27. 50% cooling capacity adjustment solenoid valve
28. 75% cooling capacity adjustment solenoid valve

SW5L280_300