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RefComp

Screw Compressor

SW3 Series Semi-hermetic Screw Compressor



Advanced
Screw
Compressor
Advanced
Technology

Originated from Italy,
advanced screw &
reciprocating compressor
technologies.



Global Service Hotline
400-109-6660



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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.



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.

Safety Valve



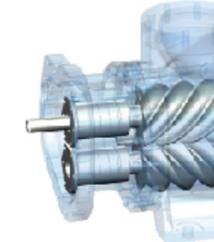
- safety valve design, connecting the high-pressure and low-pressure sides, dynamically regulating internal pressure and precisely maintaining it within the preset safety value.
- High sensitivity and sealed structure design ensure timely full opening, stable discharge, and prompt reseating, providing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

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 installation and compact, flexible design.



Model Description

Compressor		S	W	3	H	4000	-L	4 Z
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Type of Compressor	
S	Semi-hermetic Compressor

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]	m³/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/Δ - 400V/3/50Hz 或 460/3/60Hz								Y/Δ - 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]	m³/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/Δ - 400V/3/50Hz 或 460/3/60Hz						Y/Δ - 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/Δ - 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.

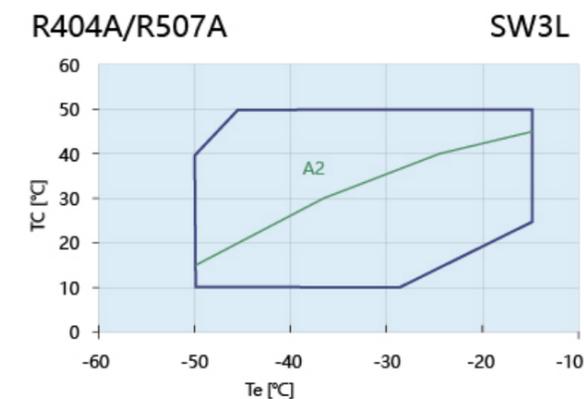
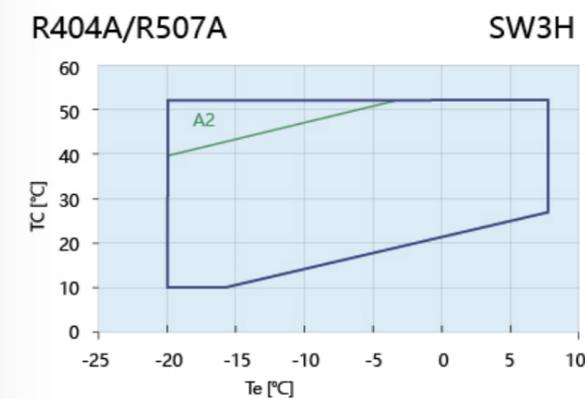
High Efficiency, Easy Maintenance

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



Operating range under load at 50Hz power frequency;
 Suction superheat 10K;
 Maximum discharge temperature 110°C;
 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										
-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										
-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										
-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										
-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										
-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										
-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										
-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										
-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										
-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										
-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										
-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										
-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										
-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										
-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						

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

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

SW3L8000(R507A)												
Tc	20		30		35		40		45		50	
Te	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										
-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

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

SW3L9500(R507A)												
Tc	20		30		35		40		45		50	
Te	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										
-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

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

SW3L10500(R507A)												
Tc	20		30		35		40		45		50	
Te	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										
-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

SW3L20000(R507A)												
Tc	20		30		35		40		45		50	
Te	Pf	Pa	Pf	Pa	Pf	Pa	Pf					

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										
-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

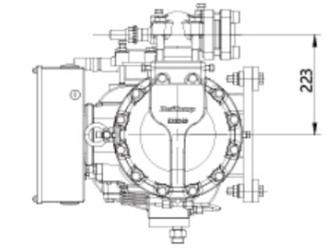
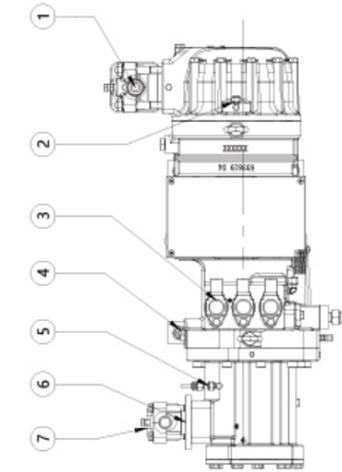
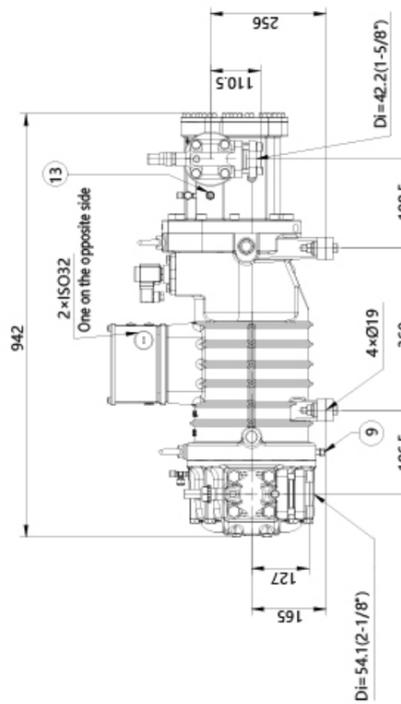
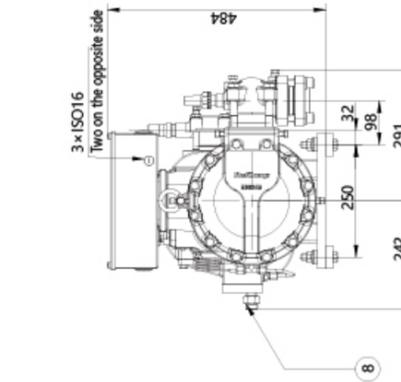
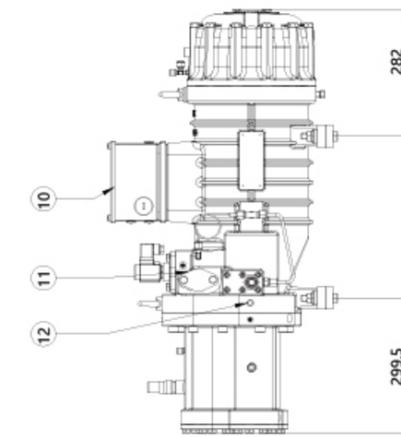
SW3L35000(R507A)												
Tc	20		30		35		40		45		50	
Te	Pf	Pa										
-50	-	-	-	-	-	-	-	-	-	-	-	-
-40	235	122.1	198.2	145	183.1	159.6	167.1	175.7	147.8	192.9	123	210.8
-35	306.9	132.4	265	156.9	246.3	171.8	226	187.9	201.9	205	171.5	222.4
-30	390.2	141.2	340.8	167	317.4	182.2	291.7	198.3	261.4	215	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	366.2	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										
-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

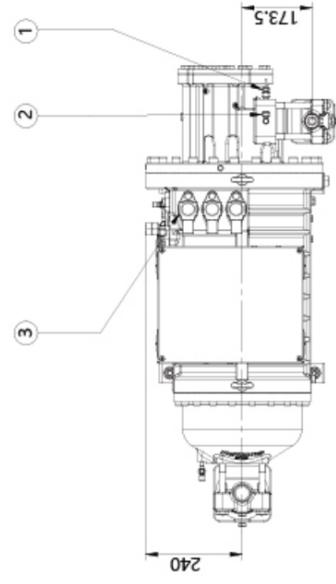
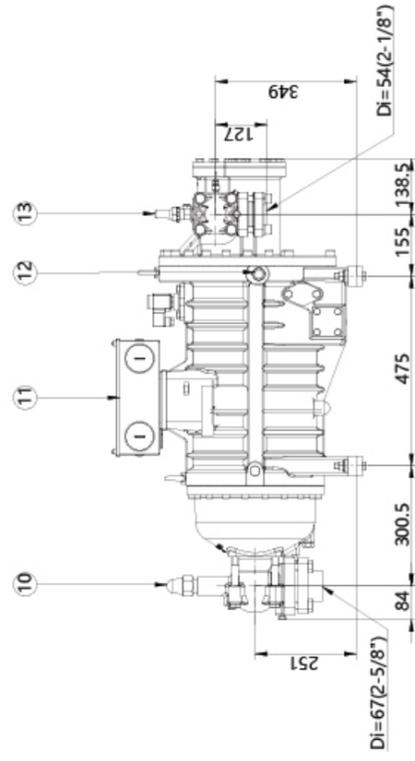
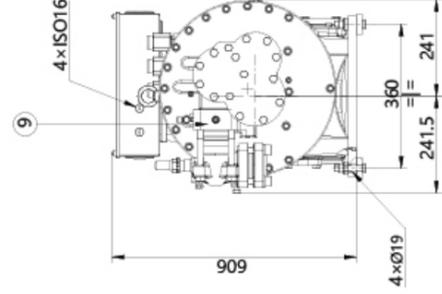
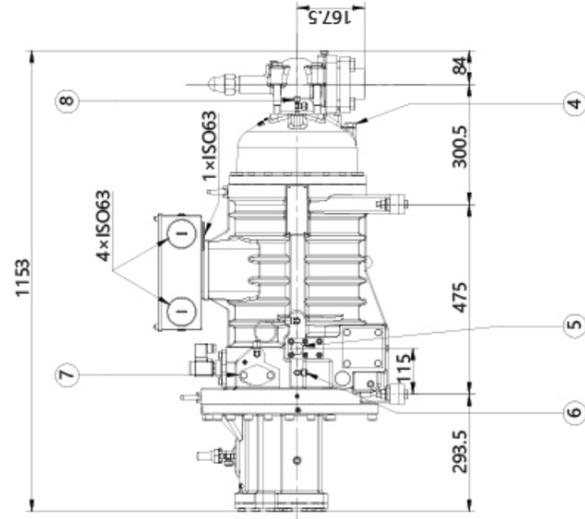
Yellow area: No oil cooling is required within this working condition range.
 Gray area: Oil cooling is required within this working condition range
 (please refer to the "Application Range" section for details).

SW3H 4000_5000_6000
 SW3L 3000_4000_5000



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

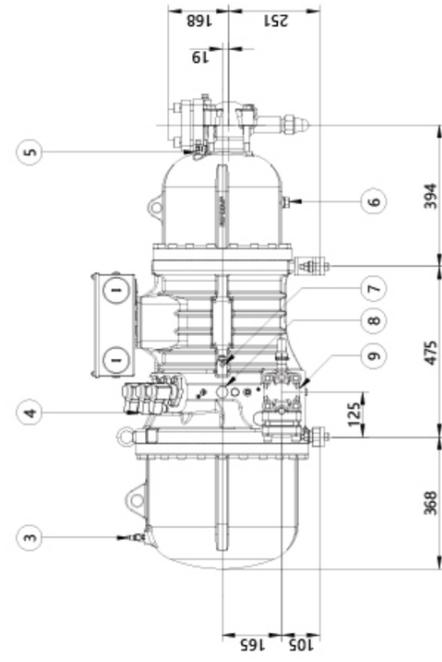
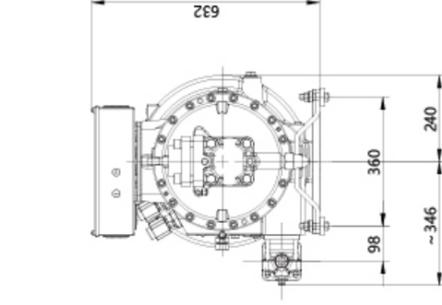
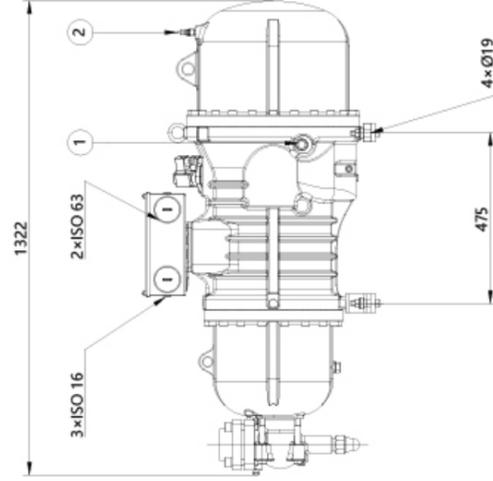
SW3H 7500_9000
SW3L 6000_7000



Legend

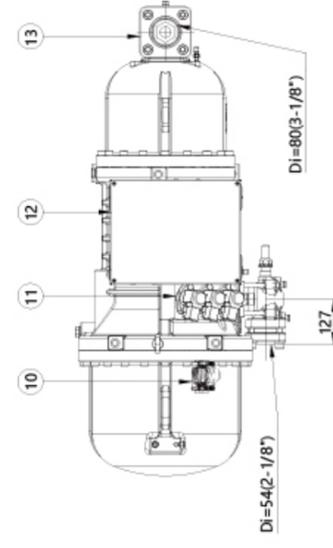
1	Discharge temperature sensor 1/8" NPT
2	High-pressure connection 1/4" SAE-FLARE
3	Capacity regulation solenoid valve
4	Low-pressure side oil drain port
5	Oil cooler connection 5/8" SAE-FLARE
6	Oil pressure connection 1/4" SAE-FLARE
7	Solenoid valve connection (stepless capacity control)
8	Low-pressure 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

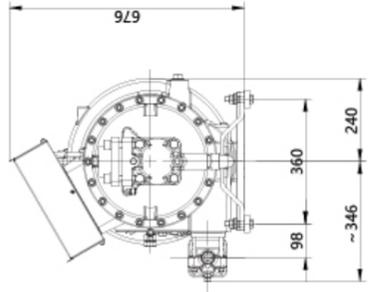
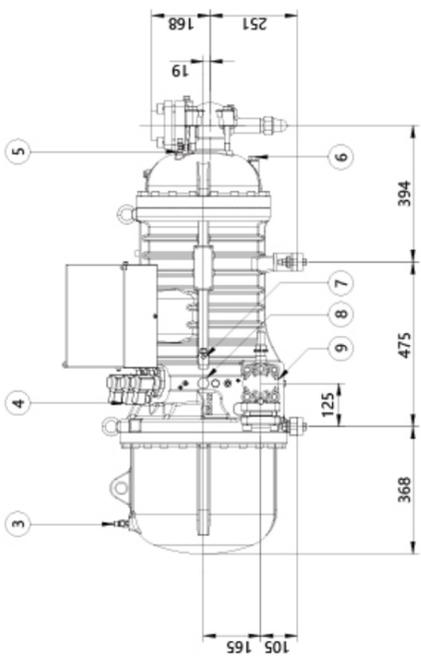
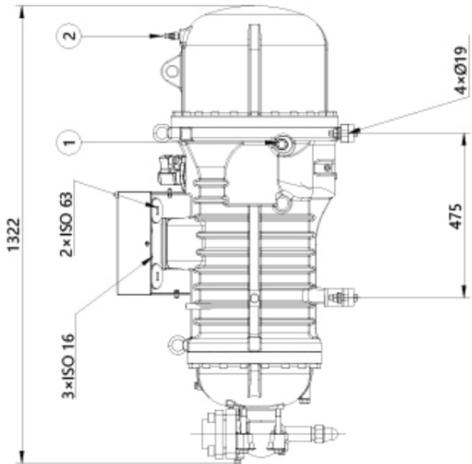


Legend

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

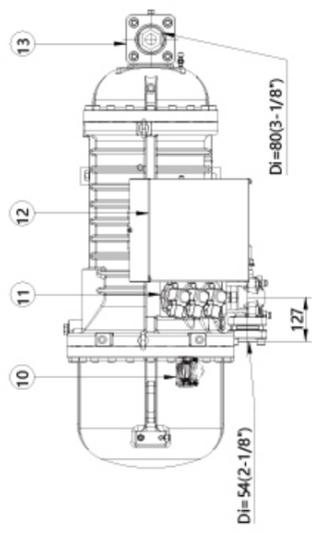


SW3H 10500
SW3L 8000_9500

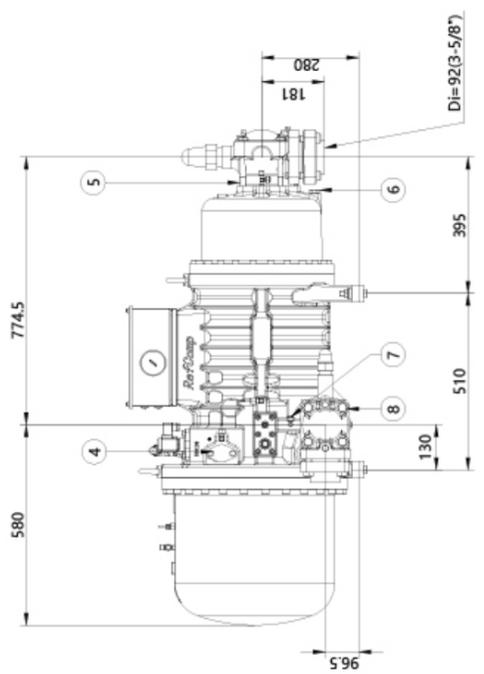
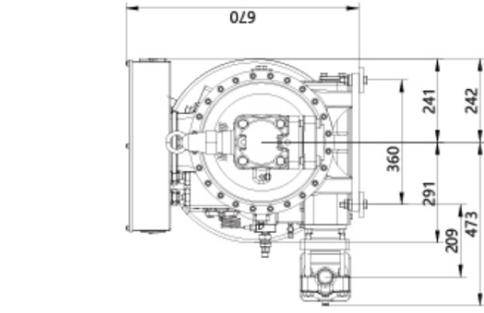
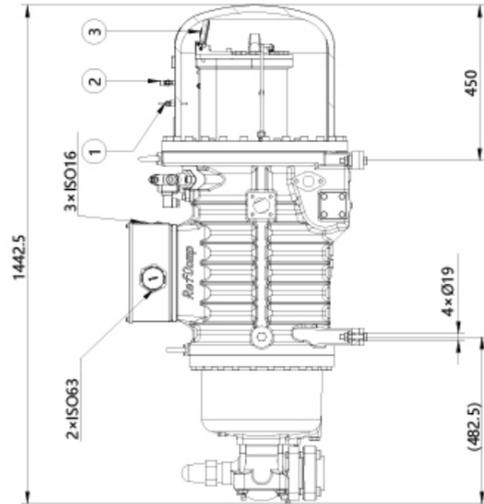


Legend

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



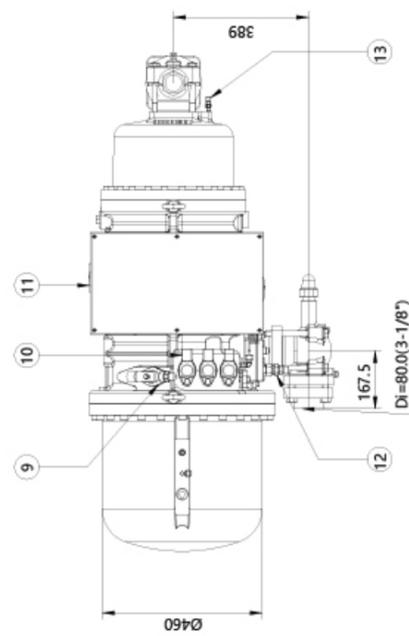
SW3H 14000_16000_19000
SW3L 11500_13000_16000



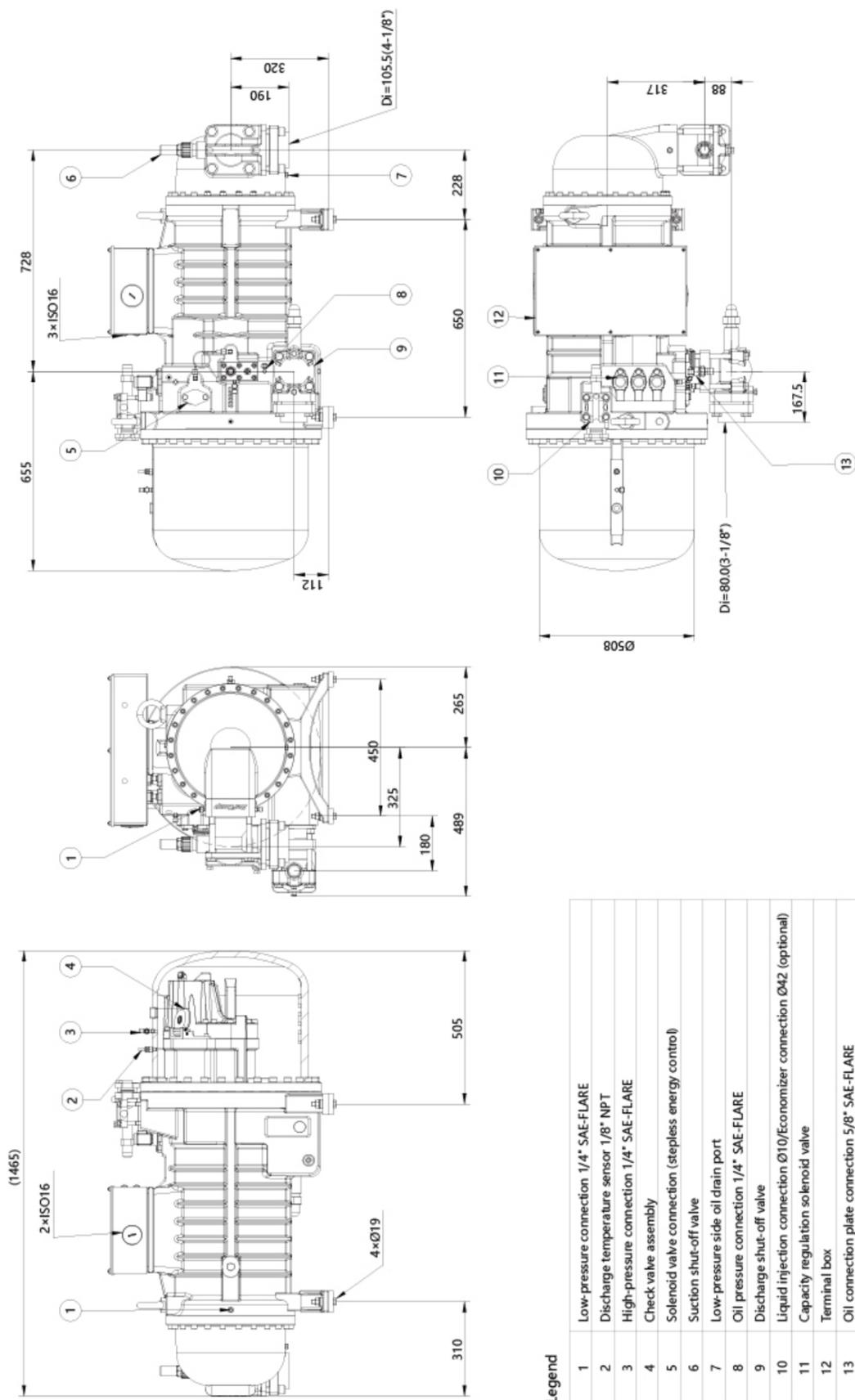
Legend

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.



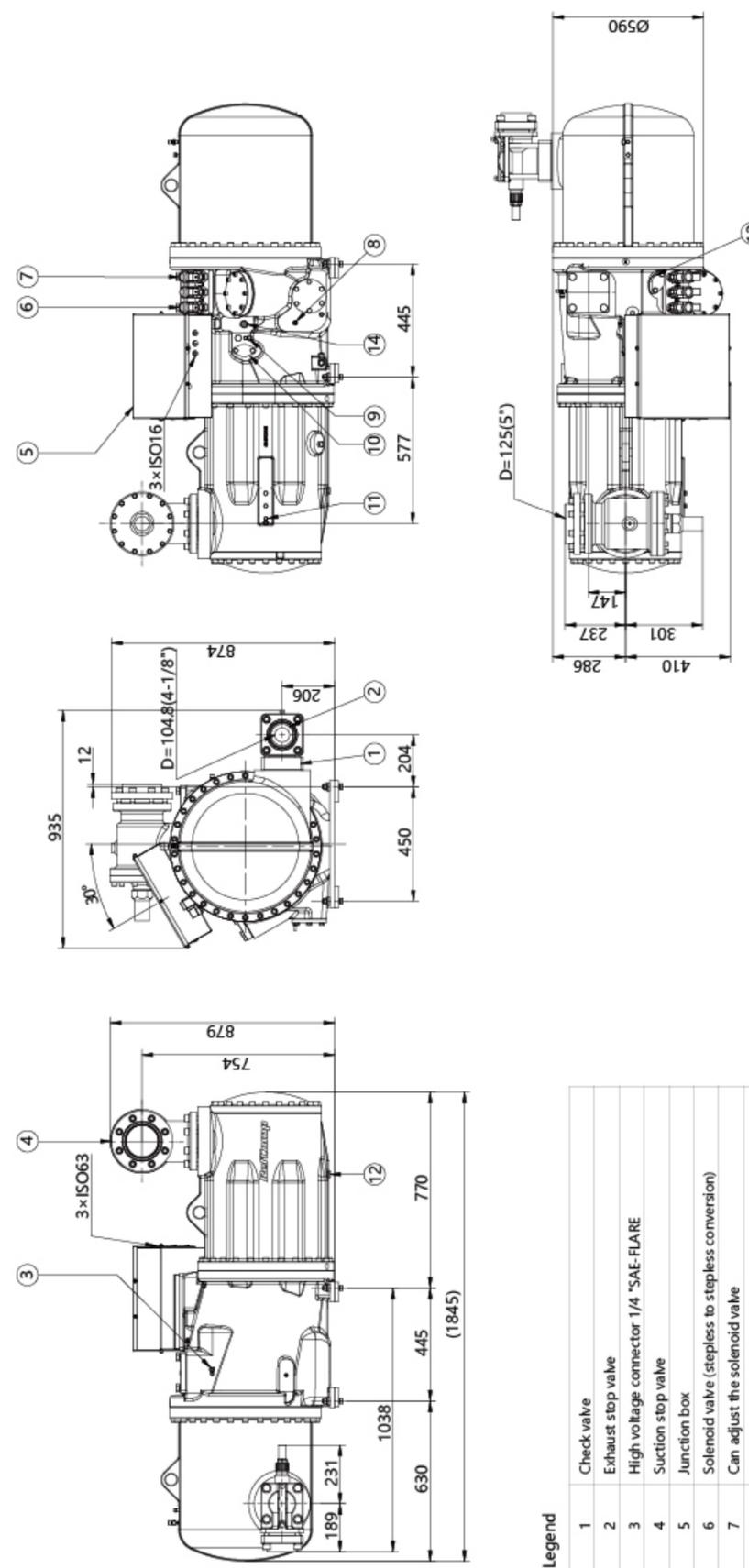
SW3H 21000_24000_25000
SW3L 18000_20000_22000



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