

## ► Water Cooled Screw Chillers

**SWS/SWR 1002 to 4402 (HFC 407C)**  
**SWS/SWR 1602 to 4802 (HFC 134a)**



291 to 1148 kW



272 to 1118 kW



### Technical Brochure

TM SWS-A.2GB

Date : March 2006

Supersedes : TM SWS-A.1GB/07.04

Airwell

# Design Features

## General

The **SWS water cooled screw chillers** are equipped with high capacity semi-hermetic screw compressors operating with high compression ratios.

They are suitable for operation either with well water or with tower water.

The SWS units are designed to be located in a plant room, thanks to their optimized footprint and to the hooded options without or with acoustic insulation intended to reduce sound emissions.

All the units are optimized to operate with HFC 407C or HFC 134a refrigerant. The units with HFC 134a offer a COP particularly high.

The SWS units consist of **2 independent refrigerant circuits** with one semi-hermetic twin screw compressor per circuit. They are equipped with a "dual circuit" shell and tube type evaporator and two shell and tube type condensers.

The SWS range can also be supplied without condensers, but complete with shut-off valves on discharge and liquid lines to allow users to connect remote condensers. This range is called **SWR condenserless screw chillers**.

The SWS/SWR range is available in **3 versions**. Each version is composed of **12 sizes** (units with HFC 407C) covering nominal cooling capacity range from 291 to 1148 kW and **15 sizes** (units with HFC 134a) covering nominal cooling capacity range from 272 to 1118 kW.

**SWS/SWR STD** : standard version without any soundproofing structure.

**SWS/SWR LN** : Low noise version having same equipment as STD version, but complete with a closed sheet metal hood intended to reduce sound emissions. This closed hood can be supplied as a kit (to be field installed) or supplied fitted in the factory. In the last case, the LN unit is composed of STD unit plus LN kit.

**SWS/SWR ELN** : Extra low noise version having same equipment as LN version, but hood is coated with soundproofing material. Mufflers and flexible pipes are also supplied on compressor discharge lines to further reduce sound emissions.

## Reference standards

The following applies to all the sizes and versions belonging to the SWS units :

- ✓ Machine Directive : EEC 98/37 (EN 292/1, EN 292/2)
- ✓ Low Voltage Directive : EEC 73/23 (EN 60204-1, EN 60439-1)
- ✓ Electromagnetic Compatibility Directive : EEC 89/336 as modified by Directive EEC 92/31 (EN 50081-1, EN 50082-2)
- ✓ Pressure Equipment Directive : 97/23/CE

## Structure

The unit structure is made of heavy gauge galvanized steel fastened with screws and bolts. Galvanized steel parts are coated with baked paint coloured white (**RAL 9001**).

## Semi-hermetic screw compressors

The compressors installed in the SWS units are of semi-hermetic twin screw type.

All compressors are fitted with an electronic control system ensuring the following functions :

- protection against high temperature and excessive load ;
- correct direction of rotation ;
- phase monitoring.

Each compressor offers main features as stated below :

- compressor capacity reduction by means of solenoid valves ;
- capacity reduction steps relating to each compressor : 25% (at start-up and pump down), 50%, 75% and 100% ;
- 6 capacity steps are then provided on each unit : 25%, 50%, 63%, 75%, 87% and 100%.

Furthermore, the screw compressors are provided with control devices to make the SWS units more reliable :

- electric motor temperature sensor ;
- discharge temperature sensor ;
- liquid injection (optional).

## Evaporator/Condensers

Evaporator and condensers are of a shell and tube type.

Evaporator consists of a dual circuit and is insulated with a 19 mm thick closed cell foam material.

Condensers are equipped with removable heads allowing condenser tubes to be extracted for maintenance operations.

## Refrigerant circuits

Each unit has two independent refrigerant circuits. Each refrigerant circuit is composed of components as shown in the section "Refrigerant flow diagram".

## Electrical board

Electrical board is a metal case of IP 42 protection degree, arranged outside the unit and protected by one or two access doors according to the models.

## Control and safety devices

All the SWS units are fitted with the following devices :

### Safety :

- Main disconnect switch equipped with an emergency stop.
- HP switches (two on each circuit) set to 25 bar (HFC 407C) and 22 bar (HFC 134a) : manual reset from control board.
- LP transducers (one on each circuit) used as pressure switches and set to 1 bar : manual reset from control board. Transducers allow also suction pressure reading.
- Anti-freeze temperature sensor (set to +3 °C).
- Maximum discharge temperature sensor (not displayed).
- Discharge line safety valve set to 29 bar (HFC 407C) and 24.5 bar (HFC 134a).
- Evaporator safety valve set to 29 bar (HFC 407C) and 16 bar (HFC 134a).
- Water differential pressure switch on evaporator, set to 104 mbar, corresponding to about 50% of the nominal flow rate.

### Control :

- HP and LP transducers (one on each circuit).
- Evaporator water inlet temperature sensor.
- Evaporator water outlet temperature sensor.
- Condenser water inlet temperature sensor.
- Condenser water outlet temperature sensor.

# Design Features (cont'd)

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## Controls

The SWS units are supplied with a microprocessor based electronic control and management system ensuring the following functions :

→ **Management of liquid / pump down solenoid valves :**

- Compressor starts when solenoid valve is energized.
- Pump down takes place when solenoid valve is de-energized.

→ **Management of compressor operation :**

- Start-up / Stop.
- Management of delays at start-up.
- Rotation of compressors.

→ **Chilled/hot water temperature control on evaporator water return or leaving :**

- Control on return water : proportional type (RWT P) or proportional integral type (RWT P+I) with integration time to be parametrized.
- Control on leaving water (LWT).

Standard control : RWT P.

→ **Evaporator anti-freeze protection.**

→ **Management of high and low pressure alarms.**

→ **Remote control management :**

- Unit start-up and stop.
- Alarm signalling.

→ **Programming of 4 hour periods with 4 different set points.**

→ **Alarm records.**

→ **Counting of compressor and pump (if present) operation hours.**

→ **Double set points.**

The electronic controller provides for a clear signalling, on the LCD, of any unit control parameters, such as :

- Display of the circuit 1 and circuit 2 discharge pressure.
- Display of the circuit 1 and circuit 2 suction pressure.
- Display of the return water temperature.
- Display of the leaving water temperature.
- Display of the various alarms and operation states :
  - Inlet water temperature.
  - Outlet water temperature.
  - High / low pressure.

- Evaporator anti-freeze.
- Lack of water.
- Phase sequence monitoring.
- Compressor thermal protection.
- Remote unit OFF.

- Remote ON/OFF contact.
- Contacts for the forced unloading of compressors or for the second set point.
- Contacts signalling that the compressors are running.
- Contact signalling that the unit is switched on.
- Contact signalling that the unit is alarmed.

## Factory-installed options

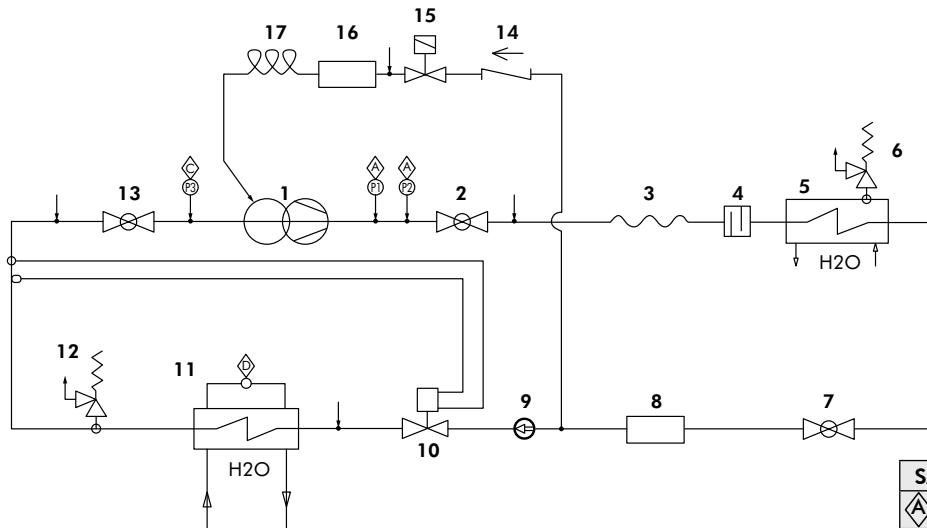
- Condensers for well water.
- Suction valve.
- Liquid injection circuit.
- Electronic expansion valves.
- LN (Low Noise) kit (supplied loose or fitted).
- Compressor oil level sensor kit.

## Field-installed accessories

- Gauges.
- Spring anti-vibration mounts.
- Remote keyboard.
- RS485 ModBus serial interface (BMS).
- Chiller NET-Control :
  - Master/slaves communication capability to monitor, from a "master" unit, up to 4 units on a common hydraulic circuit.
- Chiller Black Box :
  - Electronic board memorizing machine information intended for maintenance works :
    - Last memorized alarms (date and type).
    - Entering and leaving water temperature report.
    - Suction and discharge pressure report.
- GSM modem :
  - For information communication and transfer by SMS (SIM card not supplied).

# Refrigerant Flow Diagrams

## SWS Units



### SAFETY DEVICES

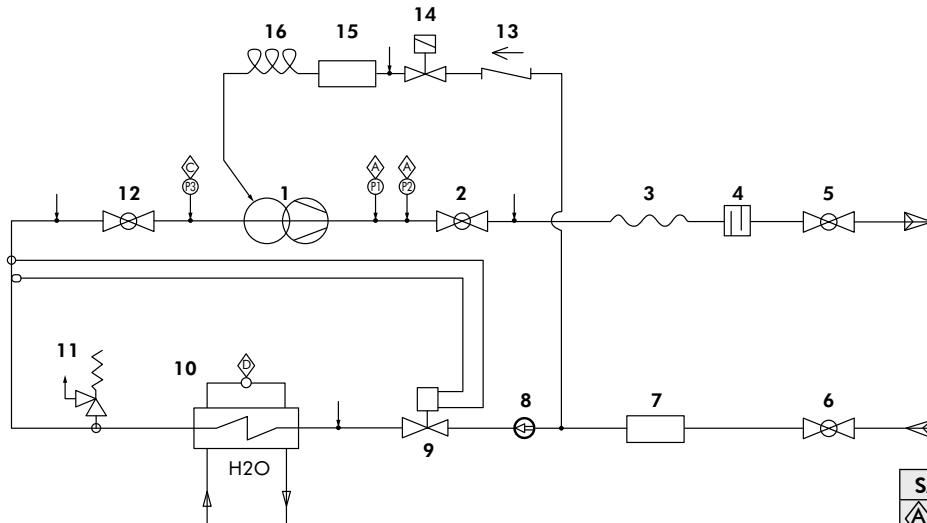
	High pressure switch
	Transducer
	Water differential pressure switch

### COMPONENTS

1 Screw compressor	6 Safety valve	11 Evaporator	16 Filter-drier (optional)
2 Discharge valve	7 Liquid valve	12 Safety valve	17 Capillary (optional)
3 Flexible pipe (ELN version only)	8 Filter-drier	13 Suction valve (optional)	
4 Muffler (ELN version only)	9 Sight glass	14 Non-return valve (optional)	
5 Condenser	10 Thermal expansion valve	15 Solenoid valve (optional)	Pressure tapping and refrigerant charging/discharging points

Note : Each unit has 2 refrigerant circuits. For reasons of readability, one circuit only is shown.

## SWR Units



### SAFETY DEVICES

	High pressure switch
	Transducer
	Water differential pressure switch

### COMPONENTS

1 Screw compressor	6 Liquid valve	11 Safety valve	16 Capillary (optional)
2 Discharge valve	7 Filter-drier	12 Suction valve (optional)	
3 Flexible pipe (ELN version only)	8 Sight glass	13 Non-return valve (optional)	
4 Muffler (ELN version only)	9 Thermal expansion valve	14 Solenoid valve (optional)	
5 Discharge valve	10 Evaporator	15 Filter-drier (optional)	Pressure tapping and refrigerant charging/discharging points

Note : Each unit has 2 refrigerant circuits. For reasons of readability, one circuit only is shown.

# Operating Limits

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## Units with HFC 407C

Units			SWS	SWR
Chilled Liquid	Liquid outlet temperature	Water outlet °C	+5 to +15	
		Brine outlet °C	+4 to -5	
		Temperature spread K	3 to 8	
	Flow rate (1)	l/s	Please refer to "Water Pressure Drops" Section	
	Pressure drop (1)	kPa		
	Maximum operating pressure - Water side	bar	10	10
Warm Liquid	Water outlet temperature	°C	+30 to +50 °C with tower water +15 to +30 °C with well water	
	Temperature spread	K	3 to 8 with tower water 15 with well water	
	Flow rate (1)	l/s	Please refer to "Water Pressure Drops" Section	
	Pressure drop (1)	kPa		
	Maximum operating pressure - Water side	bar	10	

(1) At nominal conditions.

## Units with HFC 134a

Units			SWS	SWR
Chilled Liquid	Liquid outlet temperature	Water outlet °C	+5 to +15	
		Brine outlet °C	+4 to -3	
		Temperature spread K	3 to 8	
	Flow rate (1)	l/s	Please refer to "Water Pressure Drops" Section	
	Pressure drop (1)	kPa		
	Maximum operating pressure - Water side	bar	10	10
Warm Liquid	Water outlet temperature	°C	+30 to +60 °C with tower water +15 to +30 °C with well water	
	Temperature spread	K	3 to 8 with tower water 15 with well water	
	Flow rate (1)	l/s	Please refer to "Water Pressure Drops" Section	
	Pressure drop (1)	kPa		
	Maximum operating pressure - Water side	bar	10	

(1) At nominal conditions.

# Correction Factors

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## Fouling factors

EVAPORATOR			CONDENSER		
Fouling factor (m <sup>2</sup> .°C/kW)	Cooling capacity factor	Power input factor	Fouling factor (m <sup>2</sup> .°C/kW)	Cooling capacity factor	Power input factor
0.044	1.000	1.000	0.044	1.000	1.000
0.088	0.987	0.995	0.088	0.987	1.023
0.176	0.964	0.985	0.176	0.955	1.068
0.352	0.915	0.962	0.352	0.910	1.135

## Ethylene glycol solution correction factors

Ethylene glycol percent by weight	%	10	20	30	35	40
Freezing point	°C	-4	-10	-17	-21	-25
Cooling capacity correction factors (1)		0.995	0.985	0.97	0.963	0.955
Power input correction factors (1)		0.998	0.995	0.985	0.983	0.98
Flow rate correction factors		1.015	1.05	1.085	1.123	1.16
Pressure drop correction factors (2)		1.07	1.16	1.235	1.283	1.33

- (1) Factors applicable only for glycol solution leaving temperature  $\geq 7$  °C. For temperatures  $< 7$  °C, refer to table "Low temperature operation correction factors".
- (2) Factors applicable only for glycol solution leaving temperature  $\geq 5$  °C. For temperatures  $< 5$  °C, refer to table "Pressure drop correction factors for low temperature operation".

## Low temperature operation correction factors

Leaving water temperature	°C	7	4	2	0	-2	-4	-6	-8
Minimum ethylene glycol percent	%	0	10	10	20	20	30	30	35
Cooling capacity correction factors		1	0.887	0.816	0.748	0.685	0.624	0.568	0.513
Power input correction factors		1	0.94	0.9	0.865	0.826	0.788	0.753	0.718

## Pressure drop correction factors for low temperature operation

Ethylene glycol percent by weight	Glycol solution leaving temperature (°C)	Pressure drop correction factors
10%	5	1.071
	4	1.076
	3	1.081
	2	1.085
20%	1	1.193
	0	1.200
	-1	1.208
	-2	1.215
30%	-3	1.299
	-4	1.306
	-5	1.320
	-6	1.333

# Physical Data - SWS 1002 to 2202 - HFC 407C

SWS Models - HFC 407C	1002	1202	1402	1602	1902	2202	
Cooling capacity (1)	kW	290.5	312.6	346.9	393.8	489.6	599.6
Power input (compressors) (1)	kW	81.3	87.3	97.9	111.7	135.6	161.6
Heat rejection (1)	kW	371.8	399.9	444.8	505.4	625.2	761.2
Power supply				400 V / 3 Ph / 50 Hz			
Number of refrigerant circuits		2	2	2	2	2	2
Capacity steps	%			25/50/63/75/87/100			
<b>REFRIGERANT</b>							
Type				HFC 407C			
Charge	kg	59	63	70	80	99	122
<b>COMPRESSORS</b>							
Type				Screw			
Number		2	2	2	2	2	2
Startup type		P/W	P/W	P/W	P/W	P/W	Star/ $\Delta$
Oil type				Polyester POE			
<b>EVAPORATOR</b>							
Type				Shell and tube			
Number		1	1	1	1	1	1
Water flow	l/s	13.9	14.9	16.6	18.8	23.4	28.6
Water pressure drop	kPa	45.4	52.5	31.1	40.0	42.7	37.5
Water content	litres	93.3	93.3	80.2	80.2	124.7	221.7
<b>CONDENSERS</b>							
Type				Shell and tube			
Number		2	2	2	2	2	2
Water flow	l/s	8.9	9.6	10.6	12.1	14.9	18.2
Water pressure drop	kPa	44.0	50.9	59.8	62.8	72.2	54.5
Total water content	litres	28.4	28.4	28.4	30.8	49.4	62.4
<b>WATER CONNECTIONS - EVAPORATOR</b>							
Type				Victaulic			
Inlet/Outlet diameter		DN 125 (5")	DN 125 (5")	DN 125 (5")	DN 125 (5")	DN 150 (6")	DN 200 (8")
<b>WATER CONNECTIONS - CONDENSERS</b>							
Type				Female gas threaded			
Inlet/Outlet diameter	inch	2"1/2	2"1/2	2"1/2	2"1/2	3"	3"
<b>WEIGHT</b>							
Shipping weight	kg	1645	1659	2041	2067	2554	3005
Operating weight	kg	1768	1780	2148	2176	2728	3288
<b>DIMENSIONS</b>							
Length	mm	3795	3795	3795	3795	3795	4210
Width	mm	1160	1160	1160	1160	1160	1610
Height	mm	1910	1910	1910	1910	1910	2050
<b>SOUND LEVELS</b>							
Sound power level	dB(A)	94	94	94	94	95	95
Sound pressure level (2)	dB(A)	76	76	75	75	76	76
<b>WEIGHT - LN VERSION</b>							
Shipping weight	kg	1955	1969	2351	2377	2864	3405
Operating weight	kg	2077	2091	2460	2488	3038	3689
<b>SOUND LEVELS - LN VERSION</b>							
Sound power level	dB(A)	89	89	89	89	90	90
Sound pressure level (2)	dB(A)	71	71	70	70	71	71
<b>WEIGHT - ELN VERSION</b>							
Shipping weight	kg	2045	2059	2441	2467	2954	3525
Operating weight	kg	2167	2181	2550	2578	3128	3809
<b>SOUND LEVELS - ELN VERSION</b>							
Sound power level	dB(A)	81	81	81	81	82	82
Sound pressure level (2)	dB(A)	63	63	62	62	63	63

(1) Data based on : evaporator leaving water temperature of 7 °C and condenser leaving water temperature of 35 °C.

(2) At the distance of 1 meter on reflecting surface and in free field conditions.

# Physical Data - SWS 2602 to 4402 - HFC 407C

SWS Models - HFC 407C	2602	3002	3402	3802	4202	4402	
Cooling capacity (1)	kW	701.1	789.8	889.6	1028.4	1078.5	1147.9
Power input (compressors) (1)	kW	186.2	209.5	235.5	272.1	292.2	321.3
Heat rejection (1)	kW	887.4	999.3	1125.2	1300.5	1370.8	1469.1
Power supply				400 V / 3 Ph / 50 Hz			
Number of refrigerant circuits		2	2	2	2	2	2
Capacity steps	%			25/50/63/75/87/100			
<b>REFRIGERANT</b>							
Type				HFC 407C			
Charge	kg	142	160	181	209	219	233
<b>COMPRESSORS</b>							
Type				Screw			
Number		2	2	2	2	2	2
Startup type				Star/ $\Delta$			
Oil type				Polyester POE			
<b>EVAPORATOR</b>							
Type				Shell and tube			
Number		1	1	1	1	1	1
Water flow	l/s	33.5	37.7	42.5	49.1	51.5	54.8
Water pressure drop	kPa	51.3	53.0	63.4	86.5	95.1	107.7
Water content	litres	221.7	206.5	184.4	222.2	222.2	222.2
<b>CONDENSERS</b>							
Type				Shell and tube			
Number		2	2	2	2	2	2
Water flow	l/s	21.2	23.9	26.9	31.1	32.7	35.1
Water pressure drop	kPa	53.1	67.4	80.9	64.9	68.3	78.5
Total water content	litres	71.4	71.4	71.4	95.0	95.0	95.0
<b>WATER CONNECTIONS - EVAPORATOR</b>							
Type				Victaulic			
Inlet/Outlet diameter		DN 200 (8")	DN 200 (8")	DN 200 (8")	DN 200 (8")	DN 200 (8")	DN 200 (8")
<b>WATER CONNECTIONS - CONDENSERS</b>							
Type				Female gas threaded			
Inlet/Outlet diameter	inch	3"	3"	3"	4"	4"	4"
<b>WEIGHT</b>							
Shipping weight	kg	3259	3326	3460	4330	4380	4254
Operating weight	kg	3552	3604	3716	4648	4696	4572
<b>DIMENSIONS</b>							
Length	mm	4210	4210	4210	4210	4210	4210
Width	mm	1610	1610	1610	1610	1610	1610
Height	mm	2050	2050	2050	2050	2050	2050
<b>SOUND LEVELS</b>							
Sound power level	dB(A)	95	96	97	98	98	98
Sound pressure level (2)	dB(A)	76	77	78	79	79	79
<b>WEIGHT - LN VERSION</b>							
Shipping weight	kg	3659	3726	3860	4730	4780	4654
Operating weight	kg	3952	4004	4115	5047	5097	4971
<b>SOUND LEVELS - LN VERSION</b>							
Sound power level	dB(A)	90	91	92	93	93	93
Sound pressure level (2)	dB(A)	71	72	73	74	74	74
<b>WEIGHT - ELN VERSION</b>							
Shipping weight	kg	3779	3846	3980	4850	4900	4774
Operating weight	kg	4072	4124	4235	5167	5217	5091
<b>SOUND LEVELS - ELN VERSION</b>							
Sound power level	dB(A)	82	83	84	85	85	85
Sound pressure level (2)	dB(A)	63	64	65	66	66	66

(1) Data based on : evaporator leaving water temperature of 7 °C and condenser leaving water temperature of 35 °C.

(2) At the distance of 1 meter on reflecting surface and in free field conditions.

# Physical Data - SWR 1002 to 2202 - HFC 407C

SWR Models - HFC 407C		1002	1202	1402	1602	1902	2202
Cooling capacity (1)	kW	290.5	312.6	346.9	393.8	489.6	599.6
Power input (compressors) (1)	kW	81.3	87.3	97.9	111.7	135.6	161.6
Heat rejection (1)	kW	371.8	399.9	444.8	505.4	625.2	761.2
Power supply				400 V / 3 Ph / 50 Hz			
Number of refrigerant circuits		2	2	2	2	2	2
Capacity steps	%			25/50/63/75/87/100			
<b>REFRIGERANT</b>							
Type				HFC 407C			
<b>COMPRESSORS</b>							
Type				Screw			
Number		2	2	2	2	2	2
Startup type		P/W	P/W	P/W	P/W	P/W	Star/Δ
Oil type				Polyester POE			
<b>EVAPORATOR</b>							
Type				Shell and tube			
Number		1	1	1	1	1	1
Water flow	l/s	13.9	14.9	16.6	18.8	23.4	28.6
Water pressure drop	kPa	45.4	52.5	31.1	40.0	42.7	37.5
Water content	litres	93.3	93.3	80.2	80.2	124.7	221.7
<b>WATER CONNECTIONS - EVAPORATOR</b>							
Type				Victaulic			
Inlet/Outlet diameter		DN 125 (5")	DN 125 (5")	DN 125 (5")	DN 125 (5")	DN 150 (6")	DN 200 (8")
<b>WEIGHT</b>							
Shipping weight	kg	1370	1380	1755	1765	2065	2453
Operating weight	kg	1463	1473	1835	1845	2190	2675
<b>DIMENSIONS</b>							
Length	mm	3795	3795	3795	3795	3795	4210
Width	mm	1160	1160	1160	1160	1160	1610
Height	mm	1910	1910	1910	1910	1910	2050
<b>SOUND LEVELS</b>							
Sound power level	dB(A)	94	94	94	94	95	95
Sound pressure level (2)	dB(A)	76	76	75	75	76	76
<b>WEIGHT - LN VERSION</b>							
Shipping weight	kg	1680	1690	2065	2075	2375	2853
Operating weight	kg	1773	1783	2145	2155	2500	3075
<b>SOUND LEVELS - LN VERSION</b>							
Sound power level	dB(A)	89	89	89	89	90	90
Sound pressure level (2)	dB(A)	71	71	70	70	71	71
<b>WEIGHT - ELN VERSION</b>							
Shipping weight	kg	1770	1780	2155	2165	2465	2973
Operating weight	kg	1863	1873	2235	2245	2590	3195
<b>SOUND LEVELS - ELN VERSION</b>							
Sound power level	dB(A)	81	81	81	81	82	82
Sound pressure level (2)	dB(A)	63	63	62	62	63	63

(1) Data based on : evaporator leaving water temperature of 7 °C and condensing temperature of 45 °C.

(2) At the distance of 1 meter on reflecting surface and in free field conditions.

# Physical Data - SWR 2602 to 4402 - HFC 407C

SWR Models - HFC 407C	2602	3002	3402	3802	4202	4402
Cooling capacity (1)	kW	701.1	789.8	889.6	1028.4	1078.5
Power input (compressors) (1)	kW	186.2	209.5	235.5	272.1	292.2
Heat rejection (1)	kW	887.4	999.3	1125.2	1300.5	1370.8
Power supply				400 V / 3 Ph / 50 Hz		
Number of refrigerant circuits		2	2	2	2	2
Capacity steps	%			25/50/63/75/87/100		
<b>REFRIGERANT</b>						
Type				HFC 407C		
<b>COMPRESSORS</b>						
Type				Screw		
Number		2	2	2	2	2
Startup type				Star/Δ		
Oil type				Polyester POE		
<b>EVAPORATOR</b>						
Type				Shell and tube		
Number		1	1	1	1	1
Water flow	l/s	33.5	37.7	42.5	49.1	51.5
Water pressure drop	kPa	51.3	53.0	63.4	86.5	95.1
Water content	litres	221.7	206.5	184.4	222.2	222.2
<b>WATER CONNECTIONS - EVAPORATOR</b>						
Type				Victaulic		
Inlet/Outlet diameter		DN 200 (8")	DN 200 (8")	DN 200 (8")	DN 200 (8")	DN 200 (8")
<b>WEIGHT</b>						
Shipping weight	kg	2663	2712	2825	3495	3535
Operating weight	kg	2885	2919	3009	3717	3757
<b>DIMENSIONS</b>						
Length	mm	4210	4210	4210	4210	4210
Width	mm	1610	1610	1610	1610	1610
Height	mm	2050	2050	2050	2050	2050
<b>SOUND LEVELS</b>						
Sound power level	dB(A)	95	96	97	98	98
Sound pressure level (2)	dB(A)	76	77	78	79	79
<b>WEIGHT - LN VERSION</b>						
Shipping weight	kg	3063	3112	3225	3895	3935
Operating weight	kg	3285	3319	3409	4117	4157
<b>SOUND LEVELS - LN VERSION</b>						
Sound power level	dB(A)	90	91	92	93	93
Sound pressure level (2)	dB(A)	71	72	73	74	74
<b>WEIGHT - ELN VERSION</b>						
Shipping weight	kg	3183	3232	3345	4015	4055
Operating weight	kg	3405	3439	3529	4237	4277
<b>SOUND LEVELS - ELN VERSION</b>						
Sound power level	dB(A)	82	83	84	85	85
Sound pressure level (2)	dB(A)	63	64	65	66	66

(1) Data based on : evaporator leaving water temperature of 7 °C and condensing temperature of 45 °C.

(2) At the distance of 1 meter on reflecting surface and in free field conditions.

# Physical Data - SWS 1602 to 2802 - HFC 134a

SWS Models - HFC 134a	1602	1902	2202	2212	2352	2502	2652	2802
Cooling Capacity (1)	kW	271.8	362.4	440.0	529.3	564.7	600.0	639.2
Power Input (Compressors) (1)	kW	63.1	76.3	92.3	112.6	120.4	128.1	135.4
Heat rejection (1)	kW	334.9	438.7	532.4	641.9	685.0	728.1	774.7
Power supply					400 V / 3 Ph / 50 Hz			
Number of refrigerant circuits		2	2	2	2	2	2	2
Capacity steps	%				25/50/63/75/87/100			
<b>REFRIGERANT</b>								
Refrigerant type					HFC 134a			
Refrigerant Charge	kg	46	61	74	52	55	59	63
<b>COMPRESSORS</b>								
Type					Screw			
Number		2	2	2	2	2	2	2
Startup type			P/W			Y/Δ		
Oil type			Polyester POE			BSE170		
<b>EVAPORATOR</b>								
Type					Shell and tube			
Number		1	1	1	1	1	1	1
Water flow	l/s	13.0	17.3	21.0	25.3	27.0	28.7	30.5
Water pressure drop	kPa	44.4	54.4	53.7	42.2	40.5	45.7	56.3
Water content	litres	80.2	124.7	221.7	162	184	184	222
<b>CONDENSER</b>								
Type					Shell and tube			
Number		2	2	2	2	2	2	2
Water flow	l/s	8.0	10.5	12.7	15.3	16.4	17.4	18.5
Water pressure drop	kPa	28.7	38.7	41.0	40.1	45.7	41.6	47.0
Water content (total)	litres	30.8	49.4	55.4	62	62	68	68
<b>WATER CONNECTIONS - EVAPORATOR</b>								
Type					Victaulic			
Inlet/Outlet diameter		DN 125 (5")	DN 150 (6")	DN 200 (8")	DN 150 (6")	DN 150 (6")	DN 150 (6")	DN 150 (6")
<b>WATER CONNECTIONS - CONDENSERS</b>								
Type					Female gas threaded			
Inlet/Outlet diameter	inch	2"1/2	3"	3"	3"	3"	3"	3"
<b>WEIGHT</b>								
Shipping weight	kg	2067	2554	3005	3377	3470	3498	3592
Operating weight	kg	2144	2688	3212	3601	3717	3750	3882
<b>DIMENSIONS</b>								
Width	mm	1160	1160	1610	1610	1610	1610	1610
Height	mm	1910	1910	2050	2050	2050	2050	2050
Length	mm	3795	3795	4210	4210	4210	4210	4210
<b>SOUND LEVEL</b>								
Sound power level	dB(A)	94	94	95	95	95	95	95
Sound pressure level (2)	dB(A)	75	75	76	76	76	76	76
<b>WEIGHT - LN VERSION</b>								
Shipping weight	kg	2343	2826	3333	3777	3870	3898	3992
Operating weight	kg	2454	3000	3611	4001	4117	4150	4282
<b>SOUND LEVELS - LN VERSION</b>								
Sound power level	dB(A)	89	89	90	90	90	90	90
Sound pressure level (2)	dB(A)	70	70	71	71	71	71	71
<b>WEIGHT - ELN VERSION</b>								
Shipping weight	kg	2433	2916	3453	3927	4020	4048	4142
Operating weight	kg	2544	3090	3731	4151	4267	4300	4432
<b>SOUND LEVELS - ELN VERSION</b>								
Sound power level	dB(A)	81	81	82	82	82	82	82
Sound pressure level (2)	dB(A)	62	62	63	63	63	63	63

(1) Data based on : evaporator leaving water temperature of 7 °C and condenser leaving water temperature of 35 °C.

(2) At the distance of 1 meter on reflecting surface and in free field conditions.

# Physical Data - SWS 3012 to 4802 - HFC 134a

SWS Models - HFC 134a	3012	3202	3412	3602	4212	4602	4802	
Cooling Capacity (1)	kW	716.0	784.4	841.7	898.9	962.1	1040.2	1118.2
Power Input (Compressors) (1)	kW	156.2	169.7	180.5	191.4	218.7	230.5	242.3
Heat rejection (1)	kW	872.2	954.2	1022.2	1090.2	1180.8	1270.7	1360.5
Power supply				400 V / 3 Ph / 50 Hz				
Number of refrigerant circuits		2	2	2	2	2	2	2
Capacity steps	%			25/50/63/75/87/100				
<b>REFRIGERANT</b>								
Refrigerant type				HFC 134a				
Refrigerant Charge	kg	70	77	82	88	94	102	110
<b>COMPRESSORS</b>								
Type				Screw				
Number		2	2	2	2	2	2	2
Startup type				Y/Δ				
Oil type				BSE170				
<b>EVAPORATOR</b>								
Type				Shell and tube				
Number		1	1	1	1	1	1	1
Water flow	l/s	34.2	37.5	40.2	42.9	46.0	49.7	53.4
Water pressure drop	kPa	70.6	52.8	60.8	65.7	75.3	88.0	101.7
Water content	litres	222	359	359	359	359	399	399
<b>CONDENSER</b>								
Type				Shell and tube				
Number		2	2	2	2	2	2	2
Water flow	l/s	20.8	22.8	24.4	26.0	28.2	30.4	32.5
Water pressure drop	kPa	50.5	60.5	29.0	33.0	38.7	41.7	47.9
Water content (total)	litres	71	71	126	126	126	133	133
<b>WATER CONNECTIONS - EVAPORATOR</b>								
Type				Victaulic				
Inlet/Outlet diameter		DN 150 (6")	DN 200 (8")	DN 200 (8")	DN 200 (8")	DN 200 (8")	DN 200 (8")	DN 200 (8")
<b>WATER CONNECTIONS - CONDENSERS</b>								
Type			Female gas threaded			Victaulic		
Inlet/Outlet diameter	inch	3"	3"	DN 100 (4")	DN 100 (4")	DN 100 (4")	DN 100 (4")	DN 100 (4")
<b>WEIGHT</b>								
Shipping weight	kg	4029	4952	4970	4986	5112	5165	5342
Operating weight	kg	4323	5382	5455	5471	5597	5698	5875
<b>DIMENSIONS</b>								
Width	mm	1610	1610	1610	1610	1610	1610	1610
Height	mm	2050	2050	2050	2050	2050	2110	2110
Length	mm	4210	4670	4670	4670	4670	4670	4670
<b>SOUND LEVEL</b>								
Sound power level	dB(A)	95	96	96	97	98	98	98
Sound pressure level (2)	dB(A)	76	77	77	78	79	79	79
<b>WEIGHT - LN VERSION</b>								
Shipping weight	kg	4429	5452	5470	5486	5612	5665	5842
Operating weight	kg	4723	5882	5955	5971	6097	6198	6375
<b>SOUND LEVELS - LN VERSION</b>								
Sound power level	dB(A)	90	91	91	92	93	93	93
Sound pressure level (2)	dB(A)	71	72	72	73	74	74	74
<b>WEIGHT - ELN VERSION</b>								
Shipping weight	kg	4579	5622	5640	5656	5782	5835	6012
Operating weight	kg	4873	6052	6125	6141	6267	6368	6545
<b>SOUND LEVELS - ELN VERSION</b>								
Sound power level	dB(A)	82	83	83	84	85	85	85
Sound pressure level (2)	dB(A)	63	64	64	65	66	66	66

(1) Data based on : evaporator leaving water temperature of 7 °C and condenser leaving water temperature of 35 °C.

(2) At the distance of 1 meter on reflecting surface and in free field conditions.

# Physical Data - SWR 1602 to 2802 - HFC 134a

SWR Models - HFC 134a	1602	1902	2202	2212	2352	2502	2652	2802				
Cooling Capacity (1)	kW	271.8	362.4	440.0	529.3	564.7	600.0	639.2	678.4			
Power Input (Compressors) (1)	kW	63.1	76.3	92.3	112.6	120.4	128.1	135.4	142.8			
Heat rejection (1)	kW	334.9	438.7	532.4	641.9	685.0	728.1	774.7	821.2			
Power supply	400 V / 3 Ph / 50Hz											
Number of refrigerant circuits		2	2	2	2	2	2	2	2			
Capacity steps	%	25/50/63/75/87/100										
<b>REFRIGERANT</b>												
Refrigerant type	HFC 134a											
<b>COMPRESSORS</b>												
Type	Screw											
Number		2	2	2	2	2	2	2	2			
Startup type	P/W				Y/Δ							
Oil type	Polyester POE				BSE170							
<b>EVAPORATOR</b>												
Type	Shell and tube											
Number		1	1	1	1	1	1	1	1			
Water flow	l/s	13.0	17.3	21.0	25.3	27.0	28.7	30.5	32.4			
Water pressure drop	kPa	44.4	54.4	53.7	42.2	40.5	45.7	56.3	63.4			
Water content	litres	80.2	124.7	221.7	162	184	184	222	222			
<b>WATER CONNECTIONS - EVAPORATOR</b>												
Type	Victaulic											
Inlet/Outlet diameter		DN 125 (5")	DN 150 (6")	DN 200 (8")	DN 150 (6")							
<b>WEIGHT</b>												
Shipping weight	kg	1765	2065	2453	2895	2985	2995	3085	3095			
Operating weight	kg	1845	2190	2675	3057	3169	3179	3307	3317			
<b>DIMENSIONS</b>												
Width	mm	1160	1160	1610	1610	1610	1610	1610	1610			
Height	mm	1910	1910	2050	2050	2050	2050	2050	2050			
Length	mm	3795	3795	4210	4210	4210	4210	4210	4210			
<b>SOUND LEVEL</b>												
Sound power level	dB(A)	94	94	95	95	95	95	95	95			
Sound pressure level (2)	dB(A)	75	75	76	76	76	76	76	76			
<b>WEIGHT - LN VERSION</b>												
Shipping weight	kg	2075	2375	2853	3295	3385	3395	3485	3495			
Operating weight	kg	2155	2500	3075	3457	3569	3579	3707	3717			
<b>SOUND LEVELS - LN VERSION</b>												
Sound power level	dB(A)	89	89	90	90	90	90	90	90			
Sound pressure level (2)	dB(A)	70	70	71	71	71	71	71	71			
<b>WEIGHT - ELN VERSION</b>												
Shipping weight	kg	2165	2465	2973	3445	3535	3545	3635	3645			
Operating weight	kg	2245	2590	3195	3607	3719	3729	3857	3867			
<b>SOUND LEVELS - ELN VERSION</b>												
Sound power level	dB(A)	81	81	82	82	82	82	82	82			
Sound pressure level (2)	dB(A)	62	62	63	63	63	63	63	63			

(1) Data based on : evaporator leaving water temperature of 7 °C and condensing temperature of 38 °C.

(2) At the distance of 1 meter on reflecting surface and in free field conditions.

# Physical Data - SWR 3012 to 4802 - HFC 134a

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<b>SWR R134A STD</b>	<b>3012</b>	<b>3202</b>	<b>3412</b>	<b>3602</b>	<b>4212</b>	<b>4602</b>	<b>4802</b>	
Cooling Capacity (1)	kW	716.0	784.4	841.7	898.9	962.1	1040.2	1118.2
Power Input (Compressors) (1)	kW	156.2	169.7	180.5	191.4	218.7	230.5	242.3
Heat rejection (1)	kW	872.2	954.2	1022.2	1090.2	1180.8	1270.7	1360.5
Power supply		400 V / 3 Ph / 50 Hz						
Number of refrigerant circuits		2	2	2	2	2	2	2
Capacity steps	%	25/50/63/75/87/100						
<b>REFRIGERANT</b>								
Refrigerant type		HFC 134a						
<b>COMPRESSORS</b>								
Type		Screw						
Number		2	2	2	2	2	2	2
Startup type		Y/Δ						
Oil type		BSE170						
<b>EVAPORATOR</b>								
Type		Shell and tube						
Number		1	1	1	1	1	1	1
Water flow	l/s	34.2	37.5	40.2	42.9	46.0	49.7	53.4
Water pressure drop	kPa	70.6	52.8	60.8	65.7	75.3	88.0	101.7
Water content	litres	222	359	359	359	359	399	399
<b>WATER CONNECTIONS - EVAPORATOR</b>								
Type		Victrallic						
Inlet/Outlet diameter		DN 150 (6")	DN 200 (8")					
<b>WEIGHT</b>								
Shipping weight	kg	3505	4421	4431	4441	4561	4581	4753
Operating weight	kg	3727	4780	4790	4800	4920	4980	5153
<b>DIMENSIONS</b>								
Width	mm	1610	1610	1610	1610	1610	1610	1610
Height	mm	2050	2050	2050	2050	2050	2110	2110
Length	mm	4210	4670	4670	4670	4670	4670	4670
<b>SOUND LEVEL</b>								
Sound power level	dB(A)	95	96	96	97	98	98	98
Sound pressure level (2)	dB(A)	76	77	77	78	79	79	79
<b>WEIGHT - LN VERSION</b>								
Shipping weight	kg	3905	4921	4931	4941	5061	5081	5253
Operating weight	kg	4127	5280	5290	5300	5420	5480	5653
<b>SOUND LEVELS - LN VERSION</b>								
Sound power level	dB(A)	90	91	91	92	93	93	93
Sound pressure level (2)	dB(A)	71	72	72	73	74	74	74
<b>WEIGHT - ELN VERSION</b>								
Shipping weight	kg	4055	5091	5101	5111	5231	5251	5423
Operating weight	kg	4277	5450	5460	5470	5590	5650	5823
<b>SOUND LEVELS - ELN VERSION</b>								
Sound power level	dB(A)	82	83	83	84	85	85	85
Sound pressure level (2)	dB(A)	63	64	64	65	66	66	66

(1) Data based on : evaporator leaving water temperature of 7 °C and condensing temperature of 38 °C.

(2) At the distance of 1 meter on reflecting surface and in free field conditions.

# Electrical Data

## SWS / SWR - HFC 407C

Models	1002	1202	1402	1602	1902	2202	2602	3002	3402	3802	4202	4402	
<b>UNITS</b>													
Nominal voltage													
400 V ± 10% - 3 ph - 50 Hz													
Nominal power input	kW	92	98	114	130	157	189	223	246	269	296	316	393
Maximum power input	kW	111	117	135	155	187	225	265	293	317	349	373	460
Nominal current	A	157	175	203	232	280	338	397	440	480	529	564	701
Maximum current FLA	A	164	192	248	280	336	392	450	490	540	600	668	800
Maximum starting current LRA	A	360	440	367	449	613	455	512	546	642	753	829	875
External fuses	A	200	250	315	315	400	500	500	630	630	630	800	1000
Wire cross area	mm <sup>2</sup>	120	120	185	185	2x150	2x150	2x185	2x185	2x240	2x240	2x300	
<b>COMPRESSORS (*)</b>													
Quantity		2	2	2	2	2	2	2	2	2	2	2	
Nominal power input	kW	46	49	57	65	79	95	111	123	135	148	158	197
Maximum power input	kW	55	58	68	77	94	113	132	147	158	175	186	230
Nominal current	A	79	87	102	116	140	169	199	220	240	264	282	351
Maximum current FLA	A	82	96	124	140	168	196	225	245	270	300	334	400
Maximum starting current LRA	A	303	373	280	351	495	318	354	374	453	543	595	595
Oil heater power input	W	200	200	200	200	200	200	275	275	275	275	275	275
<b>REFRIGERANT - WATER ANTIFREEZE HEATER(**)</b>													
Nominal voltage		230 V - 1 ph - 50 Hz											
Nominal power input	W	2x400											
Tank antifreeze heater	W	N.A.											

## SWS / SWR - HFC 134a

SWS/R R134a	1602	1902	2202	2212	2352	2502	2652	2802	3012	3202	3412	3602	4212	4602	4802	
<b>POWER</b>																
Nominal voltage																
400 V ± 10% - 3 ph - 50 Hz																
Nominal power input	kW	78.8	95	114.4	158	166	174	184	194	211	228	249	270	298	315	332
Maximum power input	kW	109.6	132.4	159.4	220	230	240	251	262	286	310	359	408	408	426	444
Nominal current	A	141	169	204	266	279	292	310	328	351	374	404	434	492	519	546
Maximum current FLA	A	192	210	260	360	395	430	446	462	511	560	590	620	620	670	720
Maximum starting current LRA	A	347.2	424.5	586	393	417.5	464.5	491.5	502.7	597.7	632	661	682	803	867	902
External fuses	A	250	250	315	400	400	500	500	500	630	630	630	630	800	800	800
Wire cross area	mm <sup>2</sup>	120	120	185	2x150	2x150	2x150	2x185	2x150	2x185	2x185	2x185	2x185	2x240	2x240	
<b>COMPRESSORS (*)</b>																
Quantity		2	2	2	2	2	2	2	2	2	2	2	2	2	2	
Nominal power input - Comp. 1	kW	39.4	47.5	57.2	79	79	87	87	97	97	114	114	135	149	149	166
Nominal power input - Comp. 2	kW	39.4	47.5	57.2	79	87	87	97	97	114	114	135	135	149	166	166
Maximum power input - Comp. 1	kW	54.8	66.2	79.7	110	110	120	120	131	131	155	155	204	204	204	222
Maximum power input - Comp. 2	kW	54.8	66.2	79.7	110	120	120	131	131	155	155	204	204	204	222	222
Nominal current - Comp. 1	A	70	85	102	133	133	146	146	164	164	187	187	217	246	246	273
Nominal current - Comp. 2	A	70	85	102	133	146	146	164	164	187	187	217	217	246	273	273
Maximum current FLA - Comp. 1	A	96	105	130	180	180	215	215	231	231	280	280	310	310	310	360
Maximum current FLA - Comp. 2	A	96	105	130	180	215	215	231	231	280	280	310	310	310	360	360
Max. starting current LRA - Comp. 1	A	280	351	495	267	267	314	314	341	341	436	436	465	586	586	650
Max. starting current LRA - Comp. 2	A	280	351	495	267	314	314	341	341	436	436	465	465	586	650	650
Oil heater power input	W	200	200	200	300	300	300	300	300	300	300	300	300	300	300	
<b>REFRIGERANT - WATER ANTIFREEZE HEATER(**)</b>																
Nominal voltage		230 V - 1 ph - 50 Hz														
Nominal power input	W	2x400														
Tank antifreeze heater	W	N.A.														

(\*) Data given for one compressor.

(\*\*) Available as option.

## Sound Data

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### SWS / SWR STD - HFC 407C

SWS/SWR STD	Frequency (Hz)							Sound Power	Sound Pressure*
	125	250	500	1000	2000	4000	8000	dB(A)	dB(A)
<b>1002</b>	88	87	95	89	83	68	56	<b>94</b>	<b>76</b>
<b>1202</b>	88	87	95	89	83	68	56	<b>94</b>	<b>76</b>
<b>1402</b>	88	87	94	88	83	67	56	<b>94</b>	<b>75</b>
<b>1602</b>	88	87	94	88	83	67	56	<b>94</b>	<b>75</b>
<b>1902</b>	89	88	95	89	84	68	57	<b>95</b>	<b>76</b>
<b>2202</b>	89	88	95	89	84	68	57	<b>95</b>	<b>76</b>
<b>2602</b>	89	88	95	89	84	68	57	<b>95</b>	<b>76</b>
<b>3002</b>	90	89	96	90	85	69	58	<b>96</b>	<b>77</b>
<b>3402</b>	91	90	97	91	86	70	59	<b>97</b>	<b>78</b>
<b>3802</b>	92	91	98	92	87	71	60	<b>98</b>	<b>79</b>
<b>4202</b>	92	91	98	92	87	71	60	<b>98</b>	<b>79</b>
<b>4402</b>	91	90	97	91	86	70	59	<b>98</b>	<b>79</b>

(\*) Free field sound pressure on a reflecting surface at the distance of 1 meter. Tolerance : ± 2 dBA.

### SWS / SWR STD - HFC 134a

SWS/SWR STD	Frequency (Hz)							Sound Power	Sound Pressure*
	125	250	500	1000	2000	4000	8000	dB(A)	dB(A)
<b>1602</b>	88	87	94	88	83	67	56	<b>94</b>	<b>75</b>
<b>1902</b>	88	87	94	88	83	67	56	<b>94</b>	<b>75</b>
<b>2202</b>	89	88	95	89	84	68	57	<b>95</b>	<b>76</b>
<b>2212</b>	89	88	95	89	84	68	57	<b>95</b>	<b>76</b>
<b>2352</b>	89	88	95	89	84	68	57	<b>95</b>	<b>76</b>
<b>2502</b>	89	88	95	89	84	68	57	<b>95</b>	<b>76</b>
<b>2652</b>	89	88	95	89	84	68	57	<b>95</b>	<b>76</b>
<b>2802</b>	89	88	95	89	84	68	57	<b>95</b>	<b>76</b>
<b>3012</b>	89	88	95	89	84	68	57	<b>95</b>	<b>76</b>
<b>3202</b>	90	89	96	90	85	69	58	<b>96</b>	<b>77</b>
<b>3412</b>	90	89	96	90	85	69	58	<b>96</b>	<b>77</b>
<b>3602</b>	91	90	97	91	86	70	59	<b>97</b>	<b>78</b>
<b>4212</b>	92	91	98	92	87	71	60	<b>98</b>	<b>79</b>
<b>4602</b>	92	91	98	92	87	71	60	<b>98</b>	<b>79</b>
<b>4802</b>	92	91	98	92	87	71	60	<b>98</b>	<b>79</b>

(\*) Free field sound pressure on a reflecting surface at the distance of 1 meter. Tolerance : ± 2 dBA.

## Sound Data (cont'd)

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### SWS / SWR LN - HFC 407C

SWS/SWR LN	Frequency (Hz)							Sound Power	Sound Pressure*
	125	250	500	1000	2000	4000	8000	dB(A)	dB(A)
<b>1002</b>	83	82	90	84	78	63	51	<b>89</b>	<b>71</b>
<b>1202</b>	83	82	90	84	78	63	51	<b>89</b>	<b>71</b>
<b>1402</b>	83	82	89	83	78	62	51	<b>89</b>	<b>70</b>
<b>1602</b>	83	82	89	83	78	62	51	<b>89</b>	<b>70</b>
<b>1902</b>	84	83	90	84	79	63	52	<b>90</b>	<b>71</b>
<b>2202</b>	84	83	90	84	79	63	52	<b>90</b>	<b>71</b>
<b>2602</b>	84	83	90	84	79	63	52	<b>90</b>	<b>71</b>
<b>3002</b>	85	84	91	85	80	64	53	<b>91</b>	<b>72</b>
<b>3402</b>	86	85	92	86	81	65	54	<b>92</b>	<b>73</b>
<b>3802</b>	87	86	93	87	82	66	55	<b>93</b>	<b>74</b>
<b>4202</b>	87	86	93	87	82	66	55	<b>93</b>	<b>74</b>
<b>4402</b>	86	85	92	86	81	65	54	<b>93</b>	<b>74</b>

(\*) Free field sound pressure on a reflecting surface at the distance of 1 meter. Tolerance : ± 2 dBA.

### SWS / SWR LN - HFC 134a

SWS/SWR LN	Frequency (Hz)							Sound Power	Sound Pressure*
	125	250	500	1000	2000	4000	8000	dB(A)	dB(A)
<b>1602</b>	83	82	89	83	78	62	51	<b>89</b>	<b>70</b>
<b>1902</b>	83	82	89	83	78	62	51	<b>89</b>	<b>70</b>
<b>2202</b>	84	83	90	84	79	63	52	<b>90</b>	<b>71</b>
<b>2212</b>	84	83	90	84	79	63	52	<b>90</b>	<b>71</b>
<b>2352</b>	84	83	90	84	79	63	52	<b>90</b>	<b>71</b>
<b>2502</b>	84	83	90	84	79	63	52	<b>90</b>	<b>71</b>
<b>2652</b>	84	83	90	84	79	63	52	<b>90</b>	<b>71</b>
<b>2802</b>	84	83	90	84	79	63	52	<b>90</b>	<b>71</b>
<b>3012</b>	84	83	90	84	79	63	52	<b>90</b>	<b>71</b>
<b>3202</b>	85	84	91	85	80	64	53	<b>91</b>	<b>72</b>
<b>3412</b>	85	84	91	85	80	64	53	<b>91</b>	<b>72</b>
<b>3602</b>	86	85	92	86	81	65	54	<b>92</b>	<b>73</b>
<b>4212</b>	87	86	93	87	82	66	55	<b>93</b>	<b>74</b>
<b>4602</b>	87	86	93	87	82	66	55	<b>93</b>	<b>74</b>
<b>4802</b>	87	86	93	87	82	66	55	<b>93</b>	<b>74</b>

(\*) Free field sound pressure on a reflecting surface at the distance of 1 meter. Tolerance : ± 2 dBA.

## Sound Data (cont'd)

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### SWS / SWR ELN - HFC 407C

SWS/SWR ELN	Frequency (Hz)							Sound Power	Sound Pressure*
	125	250	500	1000	2000	4000	8000	dB(A)	dB(A)
<b>1002</b>	75	74	82	76	70	55	43	<b>81</b>	<b>63</b>
<b>1202</b>	75	74	82	76	70	55	43	<b>81</b>	<b>63</b>
<b>1402</b>	75	74	81	75	70	54	43	<b>81</b>	<b>62</b>
<b>1602</b>	75	74	81	75	70	54	43	<b>81</b>	<b>62</b>
<b>1902</b>	76	75	82	76	71	55	44	<b>82</b>	<b>63</b>
<b>2202</b>	76	75	82	76	71	55	44	<b>82</b>	<b>63</b>
<b>2602</b>	76	75	82	76	71	55	44	<b>82</b>	<b>63</b>
<b>3002</b>	77	76	83	77	72	56	45	<b>83</b>	<b>64</b>
<b>3402</b>	78	77	84	78	73	57	46	<b>84</b>	<b>65</b>
<b>3802</b>	79	78	85	79	74	58	47	<b>85</b>	<b>66</b>
<b>4202</b>	79	78	85	79	74	58	47	<b>85</b>	<b>66</b>
<b>4402</b>	78	77	84	78	73	57	46	<b>85</b>	<b>66</b>

(\*) Free field sound pressure on a reflecting surface at the distance of 1 meter. Tolerance : ± 2 dBA.

### SWS / SWR ELN - HFC 134a

SWS/SWR ELN	Frequency (Hz)							Sound Power	Sound Pressure*
	125	250	500	1000	2000	4000	8000	dB(A)	dB(A)
<b>1602</b>	75	74	81	75	70	54	43	<b>81</b>	<b>62</b>
<b>1902</b>	75	74	81	75	70	54	43	<b>81</b>	<b>62</b>
<b>2202</b>	76	75	82	76	71	55	44	<b>82</b>	<b>63</b>
<b>2212</b>	76	75	82	76	71	55	44	<b>82</b>	<b>63</b>
<b>2352</b>	76	75	82	76	71	55	44	<b>82</b>	<b>63</b>
<b>2502</b>	76	75	82	76	71	55	44	<b>82</b>	<b>63</b>
<b>2652</b>	76	75	82	76	71	55	44	<b>82</b>	<b>63</b>
<b>2802</b>	76	75	82	76	71	55	44	<b>82</b>	<b>63</b>
<b>3012</b>	76	75	82	76	71	55	44	<b>82</b>	<b>63</b>
<b>3202</b>	77	76	83	77	72	56	45	<b>83</b>	<b>64</b>
<b>3412</b>	77	76	83	77	72	56	45	<b>83</b>	<b>64</b>
<b>3602</b>	78	77	84	78	73	57	46	<b>84</b>	<b>65</b>
<b>4212</b>	79	78	85	79	74	58	47	<b>85</b>	<b>66</b>
<b>4602</b>	79	78	85	79	74	58	47	<b>85</b>	<b>66</b>
<b>4802</b>	79	78	85	79	74	58	47	<b>85</b>	<b>66</b>

(\*) Free field sound pressure on a reflecting surface at the distance of 1 meter. Tolerance : ± 2 dBA.

# Cooling Capacities - SWS 1002 to 2202 - HFC 407C

SWS Models	LWT Evap. (°C)	LWT Condenser (°C)											
		14/30			25/30			27/32			30/35		
		Well Water - 4 Pass			Tower Water - 2 Pass			Tower Water - 2 Pass			Tower Water - 2 Pass		
1002	Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)	Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)	Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)	Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)	Cooling Cap. (kW)
	5	281.8	73.1	355.0	293.0	70.8	363.8	284.2	74.4	358.6	271.4	79.7	351.0
	6	290.5	74.0	364.5	302.8	71.6	374.4	293.9	75.1	369.0	280.9	80.5	361.3
	7	299.2	74.8	374.0	312.8	72.4	385.2	303.6	76.0	379.6	<b>290.5</b>	<b>81.3</b>	<b>371.8</b>
	8	308.0	75.6	383.5	323.0	73.2	396.2	313.7	76.8	390.5	300.3	82.1	382.5
	9	316.7	76.4	393.1	333.2	74.1	407.3	323.9	77.7	401.6	310.2	83.0	393.3
	10	325.4	77.2	402.6	343.7	75.0	418.7	334.2	78.6	412.8	320.3	83.9	404.2
	11	334.1	78.0	412.1	354.4	75.9	430.3	344.6	79.5	424.2	330.6	84.9	415.5
	12	342.8	78.8	421.7	365.1	76.9	442.1	355.2	80.5	435.7	340.9	85.9	426.7
	13	351.5	79.7	431.2	375.9	77.9	453.8	366.0	81.5	447.5	351.6	86.8	438.4
	14	360.3	80.5	440.7	387.0	79.0	465.9	376.9	82.6	459.4	362.1	87.9	450.0
	15	369.0	81.3	450.2	398.2	80.0	478.2	387.9	83.6	471.5	372.9	89.0	461.9
1202	5	303.2	78.6	381.8	315.2	76.1	391.3	305.8	79.9	385.7	292.0	85.6	377.6
	6	312.6	79.5	392.1	325.8	76.9	402.7	316.2	80.7	397.0	302.2	86.5	388.7
	7	322.0	80.4	402.3	336.6	77.8	414.4	326.7	81.7	408.4	<b>312.6</b>	<b>87.3</b>	<b>399.9</b>
	8	331.3	81.2	412.6	347.5	78.7	426.2	337.6	82.5	420.1	323.1	88.2	411.4
	9	340.7	82.1	422.8	358.5	79.7	438.1	348.5	83.5	432.0	333.8	89.2	423.0
	10	350.1	83.0	433.1	369.8	80.6	450.4	359.6	84.4	444.0	344.6	90.2	434.8
	11	359.5	83.8	443.3	381.3	81.6	462.8	370.8	85.5	456.3	355.7	91.2	446.9
	12	368.9	84.7	453.6	392.8	82.7	475.5	382.2	86.5	468.7	366.8	92.3	459.0
	13	378.2	85.6	463.8	404.5	83.7	488.2	393.8	87.6	481.4	378.3	93.3	471.6
	14	387.6	86.5	474.1	416.4	84.8	501.2	405.5	88.7	494.2	389.6	94.4	484.1
	15	397.0	87.3	484.3	428.4	86.0	514.4	417.4	89.9	507.2	401.2	95.6	496.8
1402	5	336.5	88.1	424.6	349.8	85.3	435.1	339.4	89.5	428.9	324.1	95.9	420.0
	6	346.9	89.1	436.0	361.5	86.2	447.8	350.9	90.5	441.4	335.4	96.9	432.2
	7	357.3	90.0	447.3	373.5	87.2	460.7	362.6	91.5	454.1	<b>346.9</b>	<b>97.9</b>	<b>444.8</b>
	8	367.7	91.0	458.7	385.6	88.2	473.8	374.6	92.5	467.1	358.6	98.9	457.5
	9	378.1	92.0	470.1	397.8	89.2	487.1	386.7	93.5	480.3	370.4	100.0	470.4
	10	388.5	93.0	481.5	410.4	90.3	500.7	399.1	94.6	493.7	382.5	101.1	483.5
	11	398.9	93.9	492.9	423.1	91.4	514.5	411.5	95.8	507.3	394.7	102.2	496.9
	12	409.3	94.9	504.3	436.0	92.6	528.6	424.1	97.0	521.1	407.0	103.4	510.4
	13	419.8	95.9	515.7	448.9	93.8	542.7	437.1	98.1	535.2	419.8	104.6	524.4
	14	430.2	96.9	527.0	462.1	95.1	557.1	450.0	99.4	549.4	432.4	105.8	538.2
	15	440.6	97.9	538.4	475.4	96.4	571.8	463.2	100.7	563.9	445.3	107.1	552.4
1602	5	382.0	100.5	482.5	397.1	97.3	494.4	385.2	102.1	487.4	367.8	109.4	477.3
	6	393.8	101.6	495.4	410.4	98.4	508.8	398.4	103.2	501.6	380.7	110.5	491.2
	7	405.6	102.7	508.3	424.0	99.5	523.4	411.6	104.4	516.0	<b>393.8</b>	<b>111.7</b>	<b>505.4</b>
	8	417.4	103.8	521.2	437.7	100.6	538.3	425.2	105.5	530.7	407.1	112.8	519.9
	9	429.2	105.0	534.2	451.6	101.8	553.4	439.0	106.7	545.7	420.5	114.0	534.6
	10	441.0	106.1	547.1	465.8	103.0	568.9	453.0	107.9	560.9	434.1	115.3	549.4
	11	452.8	107.2	560.0	480.3	104.3	584.6	467.1	109.3	576.4	448.1	116.6	564.7
	12	464.7	108.3	573.0	494.9	105.7	600.6	481.4	110.6	592.0	462.0	117.9	580.0
	13	476.5	109.4	585.9	509.6	107.0	616.6	496.1	112.0	608.1	476.5	119.3	595.8
	14	488.3	110.5	598.8	524.5	108.5	633.0	510.8	113.4	624.2	490.8	120.7	611.6
	15	500.1	111.7	611.7	539.7	109.9	649.6	525.8	114.9	640.7	505.4	122.2	627.6
1902	5	475.0	122.0	596.9	493.8	118.1	611.9	479.0	124.0	603.0	457.4	132.8	590.2
	6	489.6	123.4	613.0	510.3	119.4	629.7	495.3	125.3	620.6	473.4	134.2	607.5
	7	504.3	124.7	629.0	527.2	120.8	647.9	511.8	126.8	638.5	<b>489.6</b>	<b>135.6</b>	<b>625.2</b>
	8	519.0	126.1	645.1	544.3	122.1	666.4	528.8	128.1	656.8	506.2	137.0	643.1
	9	533.7	127.4	661.1	561.5	123.6	685.2	545.8	129.6	675.4	522.9	138.5	661.3
	10	548.4	128.8	677.2	579.2	125.1	704.3	563.3	131.0	694.3	539.8	140.0	679.8
	11	563.1	130.1	693.2	597.3	126.6	723.8	580.8	132.6	713.5	557.2	141.5	698.7
	12	577.8	131.5	709.3	615.4	128.3	743.7	598.6	134.3	732.9	574.5	143.2	717.7
	13	592.5	132.8	725.3	633.6	129.9	763.5	616.9	135.9	752.8	592.6	144.8	737.4
	14	607.2	134.2	741.4	652.2	131.7	783.9	635.2	137.7	772.9	610.3	146.6	756.9
	15	621.8	135.6	757.4	671.0	133.5	804.5	653.8	139.5	793.3	628.5	148.4	776.8
2202	5	581.6	145.4	727.0	604.6	140.8	745.4	586.6	147.8	734.4	560.1	158.3	718.4
	6	599.6	147.0	746.6	624.9	142.3	767.3	606.6	149.4	755.9	579.7	159.9	739.6
	7	617.6	148.6	766.2	645.6	143.9	789.5	626.7	151.1	777.8	<b>599.6</b>	<b>161.6</b>	<b>761.2</b>
	8	635.6	150.2	785.8	666.6	145.5	812.1	647.5	152.7	800.2	619.8	163.2	783.1
	9	653.6	151.9	805.4	687.7	147.3	835.0	668.4	154.4	822.9	640.3	165.0	805.3
	10	671.6	153.5	825.0	709.3	149.1	858.4	689.8	156.2	846.0	661.1	166.8	827.9
	11	689.6	155.1	844.6	731.4	150.9	882.3	711.3	158.1	869.4	682.3	168.7	851.0
	12	707.5	156.7	864.3	753.6	153.0	906.5	733.0	160.1	893.1	703.5	170.7	874.2
	13	725.5	158.3	883.9	775.9	154.8	930.8	755.4	162.0	917.4	725.6	172.6	898.3
	14	743.5	159.9	903.5	798.7	156.9	955.6	777.9	164.1	942.0	747.4	174.7	922.1
	15	761.5	161.6	923.1	821.7	159.1	980.8	800.6	166.3	966.8	769.6	176.8	946.5

LWT : Leaving water temperature.

# Cooling Capacities - SWS 1002 to 2202 - HFC 407C (cont'd)

SWS Models	LWT Evap. (°C)	LWT Condenser (°C)														
		35/40			38/43			40/45			42/47			45/50		
		Tower Water - 2 Pass														
		Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)												
1002	5	251.2	88.4	339.6	239.8	93.5	333.4	232.6	96.9	329.5	225.6	100.3	325.9	215.8	105.2	320.9
	6	260.4	89.2	349.5	248.8	94.3	343.1	241.4	97.7	339.1	234.3	101.1	335.3	224.7	105.7	330.4
	7	269.6	90.0	359.7	257.8	95.2	353.0	250.3	98.6	348.8	242.9	102.0	344.9	233.8	106.3	340.1
	8	279.0	90.9	369.9	267.1	96.0	363.1	259.3	99.5	358.7	251.8	102.8	354.6	243.1	106.9	349.9
	9	288.6	91.8	380.4	276.4	96.9	373.3	268.5	100.3	368.8	260.8	103.7	364.5	252.5	107.4	360.0
	10	298.3	92.7	391.0	285.9	97.8	383.7	277.8	101.2	379.0	270.0	104.6	374.6	262.2	108.0	370.2
	11	308.2	93.6	401.8	295.5	98.8	394.2	287.2	102.1	389.4	279.2	105.5	384.7	272.0	108.6	380.5
	12	318.1	94.6	412.7	305.2	99.7	404.9	296.8	103.1	399.9	288.6	106.4	395.0	282.0	109.2	391.1
	13	328.3	95.6	423.8	315.1	100.7	415.7	306.6	104.0	410.6	298.1	107.3	405.5	292.1	109.7	401.9
	14	338.7	96.6	435.3	325.1	101.6	426.8	316.4	104.9	421.4	307.8	108.2	416.1	302.5	110.3	412.8
	15	349.0	97.6	446.6	335.2	102.6	437.8	326.3	105.9	432.2	317.7	109.1	426.8	313.1	110.8	423.9
1202	5	270.3	95.0	365.2	258.1	100.5	358.6	250.3	104.1	354.4	242.8	107.7	350.5	232.1	113.0	345.1
	6	280.1	95.8	376.0	267.7	101.4	369.1	259.7	105.0	364.7	252.0	108.6	360.7	241.8	113.6	355.4
	7	290.1	96.7	386.8	277.4	102.3	379.7	269.3	105.9	375.2	261.4	109.6	371.0	251.5	114.2	365.8
	8	300.2	97.7	397.9	287.3	103.2	390.5	278.9	106.9	385.8	270.9	110.5	381.4	261.5	114.8	376.4
	9	310.5	98.6	409.1	297.4	104.1	401.6	288.8	107.8	396.7	280.6	111.4	392.1	271.7	115.4	387.1
	10	321.0	99.6	420.6	307.6	105.1	412.7	298.9	108.8	407.7	290.5	112.4	402.9	282.1	116.1	398.1
	11	331.6	100.6	432.2	317.9	106.1	424.0	309.0	109.8	418.8	300.4	113.4	413.8	292.6	116.7	409.3
	12	342.3	101.6	443.9	328.3	107.2	435.5	319.3	110.8	430.1	310.5	114.4	424.9	303.4	117.3	420.7
	13	353.2	102.7	455.9	339.0	108.2	447.2	329.8	111.8	441.6	320.8	115.3	436.1	314.3	117.9	432.2
	14	364.4	103.8	468.2	349.8	109.2	459.0	340.5	112.8	453.2	331.2	116.3	447.5	325.5	118.5	444.0
	15	375.5	104.9	480.3	360.6	110.3	470.9	351.1	113.8	464.9	341.8	117.3	459.1	336.8	119.1	455.9
1402	5	299.9	106.4	406.4	286.4	112.6	399.0	277.7	116.7	394.4	269.4	120.7	390.1	257.6	126.6	384.2
	6	310.9	107.4	418.3	297.1	113.6	410.7	288.2	117.6	405.9	279.7	121.7	401.4	268.3	127.3	395.6
	7	321.9	108.4	430.3	307.9	114.6	422.5	298.8	118.7	417.5	290.1	122.8	412.8	279.2	128.0	407.1
	8	333.2	109.4	442.6	318.9	115.6	434.5	309.6	119.8	429.3	300.7	123.8	424.5	290.2	128.7	418.9
	9	344.6	110.5	455.1	330.1	116.7	446.8	320.6	120.8	441.4	311.4	124.9	436.3	301.5	129.4	430.9
	10	356.2	111.6	467.8	341.4	117.8	459.2	331.7	121.9	453.6	322.4	125.9	448.3	313.0	130.0	443.1
	11	368.0	112.7	480.7	352.8	118.9	471.7	343.0	123.0	466.0	333.4	127.0	460.4	324.7	130.7	455.5
	12	379.9	113.9	493.7	364.4	120.1	484.4	354.4	124.1	478.5	344.6	128.1	472.7	336.7	131.4	468.1
	13	392.0	115.1	507.0	376.2	121.2	497.4	366.0	125.2	491.3	356.0	129.2	485.2	348.8	132.1	480.9
	14	404.4	116.3	520.7	388.2	122.4	510.6	377.8	126.3	504.2	367.6	130.3	497.9	361.2	132.8	494.0
	15	416.7	117.5	534.2	400.2	123.6	523.8	389.6	127.5	517.2	379.3	131.4	510.7	373.8	133.4	507.3
1602	5	340.5	121.4	461.9	325.1	128.5	453.6	315.3	133.1	448.4	305.8	137.7	443.5	292.4	144.5	436.9
	6	352.9	122.5	475.4	337.2	129.6	466.8	327.2	134.2	461.4	317.5	138.8	456.4	304.6	145.2	449.8
	7	365.5	123.7	489.1	349.5	130.8	480.2	339.2	135.4	474.6	329.3	140.1	469.3	316.9	146.0	462.9
	8	378.2	124.9	503.1	362.0	131.9	493.9	351.4	136.6	488.0	341.3	141.2	482.6	329.5	146.8	476.3
	9	391.2	126.1	517.3	374.7	133.1	507.8	363.9	137.8	501.7	353.5	142.4	496.0	342.3	147.6	489.9
	10	404.4	127.3	531.7	387.5	134.4	521.9	376.5	139.1	515.6	365.9	143.7	509.6	355.3	148.4	503.7
	11	417.8	128.6	546.4	400.5	135.7	536.1	389.3	140.3	529.6	378.4	144.9	523.4	368.6	149.2	517.8
	12	431.2	129.9	561.1	413.6	137.0	550.6	402.3	141.6	543.9	391.2	146.2	537.4	382.2	150.0	532.1
	13	444.9	131.3	576.2	427.0	138.3	565.3	415.5	142.9	558.4	404.1	147.4	551.5	396.0	150.7	546.7
	14	459.1	132.7	591.7	440.7	139.6	580.3	428.9	144.2	573.0	417.2	148.7	565.9	410.0	151.5	561.5
	15	473.0	134.1	607.1	454.3	141.0	595.3	442.3	145.5	587.8	430.6	149.9	580.5	424.3	152.3	576.6
1902	5	423.4	147.4	570.8	404.2	156.0	560.2	392.0	161.6	553.6	380.3	167.2	547.5	363.6	175.4	539.0
	6	438.8	148.7	587.5	419.4	157.3	576.7	406.9	163.0	569.8	394.8	168.6	563.4	378.7	176.3	555.0
	7	454.4	150.1	604.6	434.6	158.7	593.3	421.8	164.4	586.2	409.5	170.0	579.5	394.0	177.3	571.3
	8	470.3	151.6	621.9	450.1	160.2	610.3	436.9	165.9	602.8	424.4	171.5	595.9	409.7	178.2	587.9
	9	486.4	153.1	639.5	465.9	161.6	627.5	452.5	167.4	619.8	439.6	172.9	612.5	425.6	179.2	604.8
	10	502.8	154.6	657.4	481.9	163.1	645.0	468.2	168.8	637.0	455.0	174.5	629.5	441.8	180.1	622.0
	11	519.5	156.1	675.6	498.0	164.7	662.7	484.1	170.4	654.4	470.5	176.0	646.5	458.4	181.1	639.4
	12	536.1	157.7	693.9	514.3	166.3	680.6	500.2	171.9	672.1	486.4	177.5	663.9	475.2	182.1	657.3
	13	553.2	159.4	712.6	531.0	167.9	698.9	516.7	173.5	690.1	502.5	179.0	681.5	492.4	183.0	675.3
	14	570.8	161.1	731.9	548.0	169.5	717.5	533.3	175.0	708.3	518.8	180.5	699.3	509.8	183.9	693.8
	15	588.1	162.8	750.9	564.9	171.2	736.1	550.0	176.6	726.6	535.4	182.0	717.4	527.6	184.8	712.5
2202	5	518.5	175.7	694.1	495.0	185.9	680.9	480.0	192.6	672.7	465.7	199.3	665.0	445.3	209.0	654.3
	6	537.4	177.3	714.6	513.5	187.5	701.0	498.2	194.2	692.5	483.5	200.9	684.4	463.7	210.1	673.9
	7	556.5	178.9	735.4	532.2	189.2	721.3	516.5	196.0	712.5	501.4	202.7	704.1	482.5	211.3	693.8
	8	575.9	180.7	756.6	551.2											

# Cooling Capacities - SWS 2602 to 4402 - HFC 407C

SWS Models	LWT Evap. (°C)	LWT Condenser (°C)														
		14/30			25/30			27/32			30/35					
		Well Water - 4 Pass			Tower Water - 2 Pass			Tower Water - 2 Pass			Tower Water - 2 Pass					
		Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)												
2602	5	680.1	167.6	847.7	707.0	162.3	869.3	685.9	170.4	856.2	654.9	182.5	837.5	625.2	194.6	819.8
	6	701.1	169.5	870.6	730.7	164.1	894.8	709.3	172.2	881.5	677.8	184.4	862.2	647.6	196.5	844.0
	7	722.2	171.3	893.5	754.9	165.9	920.8	732.8	174.1	906.9	701.1	186.2	887.4	670.3	198.4	868.7
	8	743.2	173.2	916.4	779.4	167.8	947.2	757.1	176.0	933.1	724.8	188.2	913.0	693.4	200.3	893.8
	9	764.2	175.1	939.3	804.1	169.8	973.9	781.6	178.0	959.6	748.7	190.2	938.9	717.2	202.2	919.4
	10	785.3	176.9	962.2	829.4	171.8	1001.3	806.6	180.0	986.6	773.0	192.3	965.3	740.8	204.4	945.2
	11	806.3	178.8	985.1	855.2	173.9	1029.1	831.7	182.2	1013.9	797.8	194.4	992.3	765.0	206.6	971.5
	12	827.3	180.6	1008.0	881.1	176.3	1057.5	857.2	184.5	1041.7	822.7	196.7	1019.4	789.6	208.7	998.3
	13	848.4	182.5	1030.9	907.3	178.5	1085.8	883.3	186.7	1070.1	848.5	199.0	1047.5	814.3	211.1	1025.3
	14	869.4	184.4	1053.8	933.9	180.9	1114.8	909.6	189.2	1098.7	873.9	201.4	1075.3	842.9	213.8	1056.7
	15	890.4	186.2	1076.7	960.9	183.4	1144.3	936.1	191.6	1127.8	899.9	203.9	1103.8	864.9	215.8	1080.7
3002	5	766.1	188.5	954.7	796.4	182.6	979.0	772.6	191.7	964.3	737.8	205.3	943.1	704.3	218.9	923.1
	6	789.8	190.6	980.5	823.2	184.6	1007.7	799.0	193.7	992.7	763.6	207.4	970.9	729.5	221.0	950.5
	7	813.5	192.7	1006.2	850.4	186.6	1037.0	825.5	195.9	1021.4	789.8	209.5	999.3	755.1	223.1	978.2
	8	837.2	194.8	1032.0	878.0	188.7	1066.7	852.9	198.0	1050.9	816.5	211.7	1028.1	781.1	225.4	1006.5
	9	860.9	196.9	1057.8	905.8	191.1	1096.8	880.5	200.3	1080.7	843.4	214.0	1057.4	807.9	227.5	1035.4
	10	884.6	199.0	1083.6	934.3	193.3	1127.7	908.6	202.5	1111.1	870.8	216.4	1087.1	834.5	230.0	1064.4
	11	908.3	201.1	1109.4	963.4	195.6	1159.0	936.9	205.0	1141.9	898.7	218.7	1117.5	861.7	232.4	1094.1
	12	932.0	203.2	1135.2	992.6	198.3	1190.9	965.6	207.6	1173.1	926.7	221.3	1148.0	889.4	234.8	1124.3
	13	955.7	205.3	1161.0	1022.0	200.8	1222.8	995.1	210.1	1205.1	955.8	223.8	1179.7	917.2	237.4	1154.7
	14	979.4	207.4	1186.8	1052.0	203.5	1255.5	1024.6	212.8	1237.4	984.5	226.5	1211.0	949.5	240.5	1190.0
	15	1003.1	209.5	1212.6	1082.4	206.3	1288.7	1054.5	215.6	1270.1	1013.7	229.3	1243.1	974.3	242.8	1217.1
3402	5	863.0	212.0	1074.9	897.1	205.2	1102.4	870.3	215.5	1085.7	831.0	230.8	1061.9	793.3	246.1	1039.4
	6	889.6	214.3	1104.0	927.2	207.5	1134.7	900.0	217.7	1117.7	860.1	233.1	1093.2	821.7	248.4	1070.1
	7	916.3	216.7	1133.0	957.9	209.8	1167.7	929.8	220.2	1150.0	889.6	235.5	1125.2	850.5	250.9	1101.4
	8	943.0	219.0	1162.1	989.0	212.2	1201.2	960.7	222.6	1183.3	919.7	238.0	1157.6	879.8	253.4	1133.2
	9	969.7	221.4	1191.1	1020.3	214.8	1235.1	991.8	225.1	1216.9	950.0	240.6	1190.6	910.0	255.8	1165.8
	10	996.4	223.7	1220.1	1052.4	217.3	1269.8	1023.4	227.7	1251.1	980.8	243.2	1224.1	939.9	258.5	1198.5
	11	1023.1	226.1	1249.2	1085.2	219.9	1305.1	1055.3	230.5	1285.8	1012.3	245.9	1258.2	970.7	261.2	1231.9
	12	1049.8	228.5	1278.2	1118.1	223.0	1341.0	1087.6	233.3	1321.0	1043.9	248.8	1292.6	1001.9	264.0	1265.8
	13	1076.5	230.8	1307.3	1151.2	225.7	1377.0	1120.8	236.2	1357.0	1076.6	251.6	1328.3	1033.2	266.9	1300.1
	14	1103.2	233.2	1336.3	1185.0	228.8	1413.8	1154.1	239.2	1393.3	1108.9	254.7	1363.6	1069.5	270.4	1339.9
	15	1129.8	235.5	1365.4	1219.2	231.9	1451.1	1187.8	242.4	1430.2	1141.9	257.8	1399.7	1097.5	272.9	1370.4
3802	5	997.6	244.9	1242.5	1037.1	237.1	1274.2	1006.0	248.9	1255.0	960.7	266.7	1227.3	793.3	284.3	1077.6
	6	1028.4	247.6	1276.0	1071.8	239.7	1311.6	1040.4	251.6	1291.9	994.2	269.4	1263.6	949.8	287.0	1236.9
	7	1059.3	250.3	1309.6	1107.3	242.4	1349.7	1074.9	254.4	1329.3	1028.4	272.1	1300.5	983.2	289.8	1273.0
	8	1090.1	253.1	1343.2	1143.2	245.2	1388.4	1110.6	257.1	1367.7	1063.1	274.9	1338.1	1017.1	292.7	1309.8
	9	1121.0	255.8	1376.8	1179.4	248.2	1427.6	1146.5	260.1	1406.6	1098.2	278.0	1376.2	1052.0	295.5	1347.5
	10	1151.8	258.5	1410.3	1216.6	251.1	1467.7	1183.1	263.1	1446.2	1133.8	281.0	1414.8	1086.6	298.7	1385.3
	11	1182.7	261.2	1443.9	1254.4	254.1	1508.5	1219.9	266.3	1486.2	1170.2	284.1	1454.4	1122.1	301.8	1423.9
	12	1213.5	263.9	1477.5	1292.5	257.6	1550.1	1257.3	269.6	1526.9	1206.7	287.5	1494.1	1158.1	305.0	1463.1
	13	1244.4	266.7	1511.1	1330.8	260.8	1591.6	1295.7	272.9	1568.5	1244.6	290.7	1535.3	1194.3	308.4	1502.8
	14	1275.2	269.4	1544.6	1369.9	264.3	1634.2	1334.1	276.4	1610.5	1281.9	294.3	1576.1	1236.3	312.4	1548.7
	15	1306.1	272.1	1578.2	1409.4	268.0	1677.4	1373.1	280.0	1653.1	1320.0	297.9	1617.9	1268.7	315.3	1584.0
4202	5	1046.2	263.0	1309.2	1087.6	254.7	1342.2	1055.0	267.4	1322.4	1007.5	286.4	1293.9	793.3	305.3	1098.6
	6	1078.5	265.9	1344.4	1124.0	257.5	1381.5	1091.0	270.2	1361.2	1042.7	289.3	1331.9	996.1	308.3	1304.4
	7	1110.9	268.9	1379.7	1161.2	260.3	1421.5	1127.2	273.3	1400.5	1078.5	292.2	1370.8	1031.1	311.3	1342.3
	8	1143.2	271.8	1415.0	1198.9	263.3	1462.2	1164.7	276.1	1440.8	1114.9	295.3	1410.2	1066.6	314.4	1381.0
	9	1175.6	274.7	1450.3	1236.9	266.5	1503.4	1202.3	279.3	1481.6	1151.7	298.5	1450.2	1103.2	317.3	1420.6
	10	1207.9	277.6	1485.6	1275.9	269.7	1545.6	1240.7	282.5	1523.2	1189.1	301.8	1490.9	1139.5	320.8	1460.3
	11	1240.3	280.5	1520.8	1315.6	272.9	1588.4	1279.4	286.0	1565.3	1227.3	305.1	1532.4	1176.7	324.1	1500.9
	12	1272.7	283.5	1556.1	1355.4	276.7	1632.1	1318.5	289.5	1608.1	1265.5	308.7	1574.2	1214.6	327.5	1542.1
	13	1305.0	286.4	1591.4	1395.6	280.1	1675.7	1358.8	293.0	1651.8	1305.2	312.2	1617.4	1252.5	331.2	1583.7
	14	1337.4	289.3	1626.7	1436.6	283.9	1720.5	1399.1	296.8	1696.0	1344.3	316.0	1660.3	1296.5	335.5	1632.0
	15	1369.7	292.2	1662.0	1478.1	287.8	1765.8	1440.0	300.7	1740.7	1384.3	319.9	1704.2	1330.5	338.6	1669.1
4402	5	1113.4	289.2	1402.6	1157.5	280.0	1437.5	1122.9	293.9	1416.8	1072.2	314.9	1387.1	793.3	335.7	1129.0
	6	1147.9	292.4	1440.2	1196.3	283.1	1479.4	1161.2	297.0	1458.2	1109.7					

# Cooling Capacities - SWS 2602 to 4402 - HFC 407C (cont'd)

SWS Models	LWT Evap. (°C)	LWT Condenser (°C)														
		35/40			38/43			40/45			42/47					
		Tower Water - 2 Pass														
		Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)	Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)	Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)	Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)			
2602	5	606.2	202.5	808.7	578.8	214.3	793.1	561.3	222.1	783.4	544.5	229.7	774.2	520.7	240.9	761.6
	6	628.3	204.3	832.7	600.5	216.1	816.6	582.6	223.9	806.5	565.3	231.6	796.9	542.3	242.2	784.5
	7	650.7	206.3	857.0	622.2	218.1	840.3	604.0	225.9	829.9	586.3	233.6	819.9	564.2	243.5	807.7
	8	673.4	208.3	881.7	644.5	220.0	864.5	625.7	227.9	853.6	607.7	235.6	843.3	586.6	244.8	831.5
	9	696.5	210.3	906.8	667.1	222.1	889.2	647.9	229.9	877.8	629.5	237.6	867.1	609.4	246.2	855.6
	10	720.0	212.4	932.4	690.0	224.1	914.1	670.4	232.0	902.4	651.5	239.7	891.2	632.7	247.5	880.1
	11	743.8	214.5	958.3	713.0	226.3	939.3	693.2	234.1	927.2	673.8	241.8	915.5	656.3	248.8	905.1
	12	767.7	216.7	984.4	736.4	228.5	964.9	716.3	236.2	952.5	696.5	243.9	940.3	680.5	250.1	930.6
	13	792.2	219.0	1011.2	760.4	230.7	991.0	739.8	238.3	978.1	719.5	245.9	965.4	705.0	251.4	956.4
	14	817.4	221.3	1038.6	784.6	232.9	1017.5	763.6	240.4	1004.1	742.9	248.0	990.9	730.1	252.7	982.8
	15	842.1	223.7	1065.8	808.9	235.2	1044.1	787.5	242.7	1030.2	766.7	250.0	1016.7	755.5	254.0	1009.5
3002	5	682.9	227.8	910.7	652.0	241.1	893.1	632.3	249.8	882.1	613.4	258.4	871.8	586.5	271.0	857.6
	6	707.8	229.9	937.7	676.4	243.1	919.5	656.3	251.9	908.1	636.8	260.5	897.4	610.9	272.5	883.3
	7	733.0	232.0	965.0	701.0	245.3	946.3	680.4	254.1	934.5	660.5	262.8	923.2	635.6	273.9	909.5
	8	758.6	234.3	992.9	726.0	247.5	973.6	704.8	256.4	961.2	684.6	265.0	949.6	660.8	275.4	936.2
	9	784.6	236.6	1021.2	751.5	249.8	1001.3	729.8	258.6	988.5	709.1	267.3	976.4	686.5	276.9	963.4
	10	811.0	238.9	1050.0	777.2	252.1	1029.4	755.2	260.9	1016.1	733.9	269.6	1003.6	712.7	278.4	991.1
	11	837.9	241.3	1079.2	803.2	254.6	1057.8	780.9	263.3	1044.1	759.0	272.0	1031.0	739.3	279.9	1019.2
	12	864.8	243.7	1108.6	829.6	257.1	1086.6	806.9	265.7	1072.6	784.6	274.3	1058.9	766.5	281.4	1047.9
	13	892.4	246.4	1138.7	856.5	259.5	1116.0	833.4	268.1	1101.5	810.5	276.7	1087.2	794.2	282.8	1077.0
	14	920.7	248.9	1169.6	883.9	262.0	1145.8	860.2	270.5	1130.7	836.9	279.0	1115.8	822.4	284.3	1106.7
	15	948.6	251.6	1200.2	911.2	264.6	1175.8	887.1	273.0	1160.1	863.6	281.3	1144.9	851.1	285.7	1136.8
3402	5	769.2	256.1	1025.3	734.5	271.0	1005.4	712.2	280.8	993.1	690.9	290.5	981.4	660.7	304.7	965.4
	6	797.3	258.4	1055.7	761.9	273.3	1035.2	739.2	283.1	1022.4	717.3	292.9	1010.2	688.1	306.3	994.4
	7	825.6	260.9	1086.5	789.6	275.8	1065.4	766.3	285.7	1050.2	743.9	295.4	1039.4	715.9	308.0	1023.9
	8	854.5	263.4	1117.9	817.8	278.3	1096.1	793.9	288.2	1082.1	771.1	297.9	1069.1	744.3	309.6	1054.0
	9	883.7	266.0	1149.7	846.5	280.8	1127.3	822.1	298.0	1112.8	798.7	300.5	1099.2	773.3	311.3	1084.6
	10	913.6	268.6	1182.1	875.5	283.5	1158.9	850.6	293.3	1144.0	826.7	303.1	1129.8	802.8	313.0	1115.7
	11	943.8	271.3	1215.1	904.8	286.2	1191.0	879.5	296.0	1175.6	854.9	305.7	1160.7	832.8	314.6	1147.4
	12	974.1	274.0	1248.1	934.4	289.0	1223.4	908.9	298.7	1207.6	883.7	308.4	1192.1	863.4	316.3	1179.7
	13	1005.2	277.0	1282.1	964.8	291.7	1256.5	938.7	301.4	1240.1	912.9	311.0	1224.0	894.6	317.9	1212.5
	14	1037.1	279.8	1316.9	995.6	294.5	1290.1	968.9	304.1	1273.0	942.6	313.6	1256.3	926.4	319.6	1245.9
	15	1068.6	282.8	1351.4	1026.4	297.4	1323.9	999.2	306.9	1306.1	972.8	316.2	1289.0	958.7	321.2	1279.8
3802	5	889.2	295.9	1185.1	849.0	313.1	1162.1	823.3	324.4	1147.8	798.7	335.6	1134.3	763.7	352.1	1115.8
	6	921.6	298.6	1220.2	880.8	315.8	1196.6	854.5	327.1	1181.7	829.2	338.4	1167.6	795.4	353.9	1149.3
	7	954.4	301.4	1255.8	912.7	318.7	1231.4	885.9	330.1	1216.0	860.0	341.3	1201.3	827.6	355.8	1183.4
	8	987.8	304.3	1292.1	945.4	321.5	1266.9	917.7	333.0	1250.7	891.4	344.2	1235.6	860.4	357.8	1218.2
	9	1021.6	307.3	1328.9	978.5	324.4	1303.0	950.3	336.0	1286.3	923.3	347.2	1270.5	893.9	359.7	1253.6
	10	1056.1	310.3	1366.4	1012.1	327.5	1339.6	983.3	338.9	1322.3	955.7	350.2	1305.9	928.0	361.6	1289.6
	11	1091.0	313.4	1404.5	1045.9	330.7	1376.6	1016.7	342.0	1358.7	988.3	353.3	1341.5	962.7	363.5	1326.2
	12	1126.1	316.6	1442.7	1080.2	333.9	1414.1	1050.6	345.1	1395.7	1021.6	356.3	1377.9	998.1	365.5	1363.6
	13	1162.0	320.0	1482.0	1115.3	337.1	1452.4	1085.2	348.2	1433.4	1055.4	359.3	1414.7	1034.1	367.3	1401.5
	14	1198.9	323.3	1522.2	1150.9	340.3	1491.2	1120.1	351.3	1471.4	1089.7	362.3	1452.0	1070.9	369.2	1440.1
	15	1235.2	326.8	1562.0	1186.5	343.6	1530.2	1155.1	354.6	1509.7	1124.5	365.3	1489.8	1108.2	371.1	1479.3
4202	5	932.5	317.8	1250.3	890.4	336.3	1226.6	863.5	348.4	1211.9	837.6	360.5	1198.1	800.9	378.1	1179.0
	6	966.5	320.6	1287.2	923.7	339.1	1262.8	896.2	351.3	1247.5	869.6	363.4	1233.0	834.1	380.1	1214.2
	7	1000.9	323.7	1324.6	957.2	342.2	1299.4	929.0	354.5	1283.5	901.9	366.6	1268.5	867.9	382.1	1250.0
	8	1035.9	326.8	1362.7	991.4	345.3	1336.7	962.4	357.6	1320.1	934.8	369.7	1304.5	902.4	384.2	1286.6
	9	1071.4	330.0	1401.4	1026.2	348.4	1374.6	996.6	360.8	1357.4	968.3	372.8	1341.1	937.5	386.3	1323.7
	10	1107.5	333.3	1440.8	1061.4	351.7	1413.1	1031.2	364.0	1395.2	1002.2	376.1	1378.3	973.2	388.3	1361.5
	11	1144.2	336.6	1480.8	1096.8	355.1	1452.0	1066.3	367.3	1433.6	1036.4	379.4	1415.8	1009.6	390.4	1400.0
	12	1181.0	340.0	1520.9	1132.8	358.6	1491.4	1101.8	370.6	1472.4	1071.4	382.6	1454.0	1046.7	392.5	1439.2
	13	1218.6	343.6	1562.2	1169.6	362.0	1531.6	1138.0	374.0	1512.0	1106.8	385.9	1492.7	1084.5	394.5	1479.0
	14	1257.3	347.2	1604.5	1207.0	365.4	1572.4	1174.7	377.3	1552.0	1142.8	389.1	1531.9	1123.0	396.5	1519.5
	15	1295.4	351.0	1646.4	1244.3	369.0	1613.4	1211.4	380.8	1592.2	1179.3	392.3	1571.6	1162.2	398.5	1560.7
4402	5	992.5	349.4	1341.8	947.6	369.7	1317.3	919.0	383.1	1302.1	891.5	396.3	1287.8	852.4	415.7	1268.1
	6	1028.7	352.5	1381.2	983.1	372.8	1355.9	953.8	386.3	1340.0	925.5	399.5	1325.1	887.8	417.9	1305.7
	7	1065.3	355.9	1421.2	1018.7	376.3	1395.0	988.8	389.7	1378.5</td						

# Cooling Capacities - SWR 1002 to 2202 - HFC 407C

SWR Models	LWT Evap. (°C)	Condensing temperature (°C)														
		40			42			45			48			50		
		Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)	Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)	Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)	Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)	Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)
1002	5	293.0	70.8	363.8	284.2	74.4	358.6	271.4	79.7	351.0	259.1	84.9	344.0	251.2	88.4	339.6
	6	302.8	71.6	374.4	293.9	75.1	369.0	280.9	80.5	361.3	268.3	85.7	354.1	260.4	89.2	349.5
	7	312.8	72.4	385.2	303.6	76.0	379.6	290.5	81.3	371.8	277.7	86.6	364.3	269.6	90.0	359.7
	8	323.0	73.2	396.2	313.7	76.8	390.5	300.3	82.1	382.5	287.3	87.4	374.8	279.0	90.9	369.9
	9	333.2	74.1	407.3	323.9	77.7	401.6	310.2	83.0	393.3	297.2	88.3	385.4	288.6	91.8	380.4
	10	343.7	75.0	418.7	334.2	78.6	412.8	320.3	83.9	404.2	307.0	89.2	396.2	298.3	92.7	391.0
	11	354.4	75.9	430.3	344.6	79.5	424.2	330.6	84.9	415.5	317.0	90.1	407.1	308.2	93.6	401.8
	12	365.1	76.9	442.1	355.2	80.5	435.7	340.9	85.9	426.7	327.2	91.1	418.3	318.1	94.6	412.7
	13	375.9	77.9	453.8	366.0	81.5	447.5	351.6	86.8	438.4	337.4	92.1	429.5	328.3	95.6	423.8
	14	387.0	79.0	465.9	376.9	82.6	459.4	362.1	87.9	450.0	349.3	93.3	442.6	338.7	96.6	435.3
	15	398.2	80.0	478.2	387.9	83.6	471.5	372.9	89.0	461.9	358.4	94.2	452.6	349.0	97.6	446.6
1202	5	315.2	76.1	391.3	305.8	79.9	385.7	292.0	85.6	377.6	278.7	91.3	370.0	270.3	95.0	365.2
	6	325.8	76.9	402.7	316.2	80.7	397.0	302.2	86.5	388.7	288.7	92.1	380.8	280.1	95.8	376.0
	7	336.6	77.8	414.4	326.7	81.7	408.4	312.6	87.3	399.9	298.8	93.0	391.9	290.1	96.7	386.8
	8	347.5	78.7	426.2	337.6	82.5	420.1	323.1	88.2	411.4	309.1	94.0	403.1	300.2	97.7	397.9
	9	358.5	79.7	438.1	348.5	83.5	432.0	333.8	89.2	423.0	319.7	94.8	414.6	310.5	98.6	409.1
	10	369.8	80.6	450.4	359.6	84.4	444.0	344.6	90.2	434.8	330.3	95.9	426.1	321.0	99.6	420.6
	11	381.3	81.6	462.8	370.8	85.5	456.3	355.7	91.2	446.9	341.1	96.9	437.9	331.6	100.6	432.2
	12	392.8	82.7	475.5	382.2	86.5	468.7	366.8	92.3	459.0	352.0	97.9	449.9	342.3	101.6	443.9
	13	404.5	83.7	488.2	393.8	87.6	481.4	378.3	93.3	471.6	363.0	99.0	462.0	353.2	102.7	455.9
	14	416.4	84.8	501.2	405.5	88.7	494.2	389.6	94.4	484.1	375.8	100.3	476.0	364.4	103.8	468.2
	15	428.4	86.0	514.4	417.4	89.9	507.2	401.2	95.6	496.8	385.6	101.2	486.8	375.5	104.9	480.3
1402	5	349.8	85.3	435.1	339.4	89.5	428.9	324.1	95.9	420.0	309.3	102.2	411.6	299.9	106.4	406.4
	6	361.5	86.2	447.8	350.9	90.5	441.4	335.4	96.9	432.2	320.4	103.2	423.6	310.9	107.4	418.3
	7	373.5	87.2	460.7	362.6	91.5	454.1	346.9	97.9	444.8	331.6	104.2	435.9	321.9	108.4	430.3
	8	385.6	88.2	473.8	374.6	92.5	467.1	358.6	98.9	457.5	343.1	105.3	448.4	333.2	109.4	442.6
	9	397.8	89.2	487.1	386.7	93.5	480.3	370.4	100.0	470.4	354.8	106.3	461.1	344.6	110.5	455.1
	10	410.4	90.3	500.7	399.1	94.6	493.7	382.5	101.1	483.5	366.5	107.4	473.9	356.2	111.6	467.8
	11	423.1	91.4	514.5	411.5	95.8	507.3	394.7	102.2	496.9	378.5	108.5	487.0	368.0	112.7	480.7
	12	436.0	92.6	528.6	424.1	97.0	521.1	407.0	103.4	510.4	390.7	109.7	500.3	379.9	113.9	493.7
	13	448.9	93.8	542.7	437.1	98.1	535.2	419.8	104.6	524.4	402.9	110.9	513.8	392.0	115.1	507.0
	14	462.1	95.1	557.1	450.0	99.4	549.4	432.4	105.8	538.2	417.0	112.3	529.4	404.4	116.3	520.7
	15	475.4	96.4	571.8	463.2	100.7	563.9	445.3	107.1	552.4	428.0	113.4	541.3	416.7	117.5	534.2
1602	5	397.1	97.3	494.4	385.2	102.1	487.4	367.8	109.4	477.3	351.1	116.7	467.8	340.5	121.4	461.9
	6	410.4	98.4	508.8	398.4	103.2	501.6	380.7	110.5	491.2	363.7	117.8	481.5	352.9	122.5	475.4
	7	424.0	99.5	523.4	411.6	104.4	516.0	393.8	111.7	505.4	376.5	118.9	495.4	365.5	123.7	489.1
	8	437.7	100.6	538.3	425.2	105.5	530.7	407.1	112.8	519.9	389.4	120.1	509.6	378.2	124.9	503.1
	9	451.6	101.8	553.4	439.0	106.7	545.7	420.5	114.0	534.6	402.8	121.2	524.0	391.2	126.1	517.3
	10	465.8	103.0	568.9	453.0	107.9	560.9	434.1	115.3	549.4	416.0	122.6	538.6	404.4	127.3	531.7
	11	480.3	104.3	584.6	467.1	109.3	576.4	448.1	116.6	564.7	429.6	123.8	553.5	417.8	128.6	546.4
	12	494.9	105.7	600.6	481.4	110.6	592.0	462.0	117.9	580.0	443.4	125.1	568.6	431.2	129.9	561.1
	13	509.6	107.0	616.6	496.1	112.0	608.1	476.5	119.3	595.8	457.3	126.5	583.9	444.9	131.3	576.2
	14	524.5	108.5	633.0	510.8	113.4	624.2	490.8	120.7	611.6	473.4	128.2	601.6	459.1	132.7	591.7
	15	539.7	109.9	649.6	525.8	114.9	640.7	505.4	122.2	627.6	485.8	129.4	615.2	473.0	134.1	607.1
1902	5	493.8	118.1	611.9	479.0	124.0	603.0	457.4	132.8	590.2	436.6	141.6	578.2	423.4	147.4	570.8
	6	510.3	119.4	629.7	495.3	125.3	620.6	473.4	134.2	607.5	452.2	143.0	595.2	438.8	148.7	587.5
	7	527.2	120.8	647.9	511.8	126.8	638.5	489.6	135.6	625.2	468.1	144.4	612.5	454.4	150.1	604.6
	8	544.3	122.1	666.4	528.8	128.1	656.8	506.2	137.0	643.1	484.3	145.8	630.1	470.3	151.6	621.9
	9	561.5	123.6	685.2	545.8	129.6	675.4	522.9	138.5	661.3	500.9	147.2	648.1	486.4	153.1	639.5
	10	579.2	125.1	704.3	563.3	131.0	694.3	539.8	140.0	679.8	517.3	148.8	666.1	502.8	154.6	657.4
	11	597.3	126.6	723.8	580.8	132.6	713.5	557.2	141.5	698.7	534.2	150.3	684.6	519.5	156.1	675.6
	12	615.4	128.3	743.7	598.6	134.3	732.9	574.5	143.2	717.7	551.4	151.9	703.3	536.1	157.7	693.9
	13	633.6	129.9	763.5	616.9	135.9	752.8	592.6	144.8	737.4	568.6	153.6	722.3	553.2	159.4	712.6
	14	652.2	131.7	783.9	635.2	137.7	772.9	610.3	146.6	756.9	588.6	155.6	744.2	570.8	161.1	731.9
	15	671.0	133.5	804.5	653.8	139.5	793.3	628.5	148.4	776.8	604.0	157.1	761.1	588.1	162.8	750.9
2202	5	604.6	140.8	745.4	586.6	147.8	734.4	560.1	158.3	718.4	534.7	168.8	703.5	518.5	175.7	694.1
	6	624.9	142.3	767.3	606.6	149.4	755.9	579.7	159.9	739.6	553.8	170.4	724.2	537.4	177.3	714.6
	7	645.6	143.9	789.5	626.7	151.1	777.8	599.6	161.6	761.2	573.2	172.1	745.3	556.5	178.9	735.4
	8	666.6	145.5	812.1	647.5	152.7	800.2	619.8	163.2	783.1	593.0	173.8	766.8	575.9	180.7	756.6
	9	687.7	147.3	835.0	668.4	154.4	822.9	640.3	165.0	805.3	613.3	175.4	788.8	595.6	182.4	778.1
	10	709.3	149.1	858.4												

# Cooling Capacities - SWR 1002 to 2202 - HFC 407C (cont'd)

SWR Models	LWT Evap. (°C)	Condensing temperature (°C)											
		53			55			57			60		
		Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)	Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)	Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)	Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)
1002	5	239.8	93.5	333.4	232.6	96.9	329.5	225.6	100.3	325.9	215.8	105.2	320.9
	6	248.8	94.3	343.1	241.4	97.7	339.1	234.3	101.1	335.3	224.7	105.7	330.4
	7	257.8	95.2	353.0	250.3	98.6	348.8	242.9	102.0	344.9	233.8	106.3	340.1
	8	267.1	96.0	363.1	259.3	99.5	358.7	251.8	102.8	354.6	243.1	106.9	349.9
	9	276.4	96.9	373.3	268.5	100.3	368.8	260.8	103.7	364.5	252.5	107.4	360.0
	10	285.9	97.8	383.7	277.8	101.2	379.0	270.0	104.6	374.6	262.2	108.0	370.2
	11	295.5	98.8	394.2	287.2	102.1	389.4	279.2	105.5	384.7	272.0	108.6	380.5
	12	305.2	99.7	404.9	296.8	103.1	399.9	288.6	106.4	395.0	282.0	109.2	391.1
	13	315.1	100.7	415.7	306.6	104.0	410.6	298.1	107.3	405.5	292.1	109.7	401.9
	14	325.1	101.6	426.8	316.4	104.9	421.4	307.8	108.2	416.1	302.5	110.3	412.8
	15	335.2	102.6	437.8	326.3	105.9	432.2	317.7	109.1	426.8	313.1	110.8	423.9
1202	5	258.1	100.5	358.6	250.3	104.1	354.4	242.8	107.7	350.5	232.1	113.0	345.1
	6	267.7	101.4	369.1	259.7	105.0	364.7	252.0	108.6	360.7	241.8	113.6	355.4
	7	277.4	102.3	379.7	269.3	105.9	375.2	261.4	109.6	371.0	251.5	114.2	365.8
	8	287.3	103.2	390.5	278.9	106.9	385.8	270.9	110.5	381.4	261.5	114.8	376.4
	9	297.4	104.1	401.6	288.8	107.8	396.7	280.6	111.4	392.1	271.7	115.4	387.1
	10	307.6	105.1	412.7	298.9	108.8	407.7	290.5	112.4	402.9	282.1	116.1	398.1
	11	317.9	106.1	424.0	309.0	109.8	418.8	300.4	113.4	413.8	292.6	116.7	409.3
	12	328.3	107.2	435.5	319.3	110.8	430.1	310.5	114.4	424.9	303.4	117.3	420.7
	13	339.0	108.2	447.2	329.8	111.8	441.6	320.8	115.3	436.1	314.3	117.9	432.2
	14	349.8	109.2	459.0	340.5	112.8	453.2	331.2	116.3	447.5	325.5	118.5	444.0
	15	360.6	110.3	470.9	351.1	113.8	464.9	341.8	117.3	459.1	336.8	119.1	455.9
1402	5	286.4	112.6	399.0	277.7	116.7	394.4	269.4	120.7	390.1	257.6	126.6	384.2
	6	297.1	113.6	410.7	288.2	117.6	405.9	279.7	121.7	401.4	268.3	127.3	395.6
	7	307.9	114.6	422.5	298.8	118.7	417.5	290.1	122.8	412.8	279.2	128.0	407.1
	8	318.9	115.6	434.5	309.6	119.8	429.3	300.7	123.8	424.5	290.2	128.7	418.9
	9	330.1	116.7	446.8	320.6	120.8	441.4	311.4	124.9	436.3	301.5	129.4	430.9
	10	341.4	117.8	459.2	331.7	121.9	453.6	322.4	125.9	448.3	313.0	130.0	443.1
	11	352.8	118.9	471.7	343.0	123.0	466.0	333.4	127.0	460.4	324.7	130.7	455.5
	12	364.4	120.1	484.4	354.4	124.1	478.5	344.6	128.1	472.7	336.7	131.4	468.1
	13	376.2	121.2	497.4	366.0	125.2	491.3	356.0	129.2	485.2	348.8	132.1	480.9
	14	388.2	122.4	510.6	377.8	126.3	504.2	367.6	130.3	497.9	361.2	132.8	494.0
	15	400.2	123.6	523.8	389.6	127.5	517.2	379.3	131.4	510.7	373.8	133.4	507.3
1602	5	325.1	128.5	453.6	315.3	133.1	448.4	305.8	137.7	443.5	292.4	144.5	436.9
	6	337.2	129.6	466.8	327.2	134.2	461.4	317.5	138.8	456.4	304.6	145.2	449.8
	7	349.5	130.8	480.2	339.2	135.4	474.6	329.3	140.1	469.3	316.9	146.0	462.9
	8	362.0	131.9	493.9	351.4	136.6	488.0	341.3	141.2	482.6	329.5	146.8	476.3
	9	374.7	133.1	507.8	363.9	137.8	501.7	353.5	142.4	496.0	342.3	147.6	489.9
	10	387.5	134.4	521.9	376.5	139.1	515.6	365.9	143.7	509.6	355.3	148.4	503.7
	11	400.5	135.7	536.1	389.3	140.3	529.6	378.4	144.9	523.4	368.6	149.2	517.8
	12	413.6	137.0	550.6	402.3	141.6	543.9	391.2	146.2	537.4	382.2	150.0	532.1
	13	427.0	138.3	565.3	415.5	142.9	558.4	404.1	147.4	551.5	396.0	150.7	546.7
	14	440.7	139.6	580.3	428.9	144.2	573.0	417.2	148.7	565.9	410.0	151.5	561.5
	15	454.3	141.0	595.3	442.3	145.5	587.8	430.6	149.9	580.5	424.3	152.3	576.6
1902	5	404.2	156.0	560.2	392.0	161.6	553.6	380.3	167.2	547.5	363.6	175.4	539.0
	6	419.4	157.3	576.7	406.9	163.0	569.8	394.8	168.6	563.4	378.7	176.3	555.0
	7	434.6	158.7	593.3	421.8	164.4	586.2	409.5	170.0	579.5	394.0	177.3	571.3
	8	450.1	160.2	610.3	436.9	165.9	602.8	424.4	171.5	595.9	409.7	178.2	587.9
	9	465.9	161.6	627.5	452.5	167.4	619.8	439.6	172.9	612.5	425.6	179.2	604.8
	10	481.9	163.1	645.0	468.2	168.8	637.0	455.0	174.5	629.5	441.8	180.1	622.0
	11	498.0	164.7	662.7	484.1	170.4	654.4	470.5	176.0	646.5	458.4	181.1	639.4
	12	514.3	166.3	680.6	500.2	171.9	672.1	486.4	177.5	663.9	475.2	182.1	657.3
	13	531.0	167.9	698.9	516.7	173.5	690.1	502.5	179.0	681.5	492.4	183.0	675.3
	14	548.0	169.5	717.5	533.3	175.0	708.3	518.8	180.5	699.3	509.8	183.9	693.8
	15	564.9	171.2	736.1	550.0	176.6	726.6	535.4	182.0	717.4	527.6	184.8	712.5
2202	5	495.0	185.9	680.9	480.0	192.6	672.7	465.7	199.3	665.0	445.3	209.0	654.3
	6	513.5	187.5	701.0	498.2	194.2	692.5	483.5	200.9	684.4	463.7	210.1	673.9
	7	532.2	189.2	721.3	516.5	196.0	712.5	501.4	202.7	704.1	482.5	211.3	693.8
	8	551.2	190.9	742.1	535.1	197.7	732.8	519.7	204.4	724.1	501.7	212.4	714.1
	9	570.5	192.6	763.1	554.1	199.5	753.5	538.3	206.1	744.4	521.2	213.5	734.7
	10	590.1	194.4	784.5	573.3	201.2	774.6	557.2	207.9	765.1	541.1	214.7	755.7
	11	609.8	196.3	806.1	592.8	203.0	795.9	576.2	209.7	785.9	561.3	215.8	777.1
	12	629.8	198.2	828.0	612.6	204.9	817.5	595.6	211.5	807.2	581.9	217.0	798.9
	13	650.3	200.1	850.4	632.7	206.7	839.4	615.3	213.3	828.7	602.9	218.1	821.0
	14	671.0	202.0	873.0	653.1	208.6	861.6	635.3	215.1	850.5	624.4	219.2	843.6
	15	691.8	204.0	895.8	673.5	210.5	884.0	655.6	216.9	872.5	646.1	220.3	866.4

LWT : Leaving water temperature.

 Liquid injection (optional).

# Cooling Capacities - SWR 2602 to 4402 - HFC 407C

SWR Models	LWT Evap. (°C)	Condensing temperature (°C)														
		40			42			45			48			50		
		Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)	Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)	Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)	Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)	Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)
2602	5	707.0	162.3	869.3	685.9	170.4	856.2	654.9	182.5	837.5	625.2	194.6	819.8	606.2	202.5	808.7
	6	730.7	164.1	894.8	709.3	172.2	881.5	677.8	184.4	862.2	647.6	196.5	844.0	628.3	204.3	832.7
	7	754.9	165.9	920.8	732.8	174.1	906.9	701.1	186.2	887.4	670.3	198.4	868.7	650.7	206.3	857.0
	8	779.4	167.8	947.2	757.1	176.0	933.1	724.8	188.2	913.0	693.4	200.3	893.8	673.4	208.3	881.7
	9	804.1	169.8	973.9	781.6	178.0	959.6	748.7	190.2	938.9	717.2	202.2	919.4	696.5	210.3	906.8
	10	829.4	171.8	1001.3	806.6	180.0	986.6	773.0	192.3	965.3	740.8	204.4	945.2	720.0	212.4	932.4
	11	855.2	173.9	1029.1	831.7	182.2	1013.9	797.8	194.4	992.3	765.0	206.6	971.5	743.8	214.5	958.3
	12	881.1	176.3	1057.5	857.2	184.5	1041.7	822.7	196.7	1019.4	789.6	208.7	998.3	767.7	216.7	984.4
	13	907.3	178.5	1085.8	883.3	186.7	1070.1	848.5	199.0	1047.5	814.3	211.1	1025.3	792.2	219.0	1011.2
	14	933.9	180.9	1114.8	909.6	189.2	1098.7	873.9	201.4	1075.3	842.9	213.8	1056.7	817.4	221.3	1038.6
	15	960.9	183.4	1144.3	936.1	191.6	1127.8	899.9	203.9	1103.8	864.9	215.8	1080.7	842.1	223.7	1065.8
3002	5	796.4	182.6	979.0	772.6	191.7	964.3	737.8	205.3	943.1	704.3	218.9	923.1	682.9	227.8	910.7
	6	823.2	184.6	1007.7	799.0	193.7	992.7	763.6	207.4	970.9	729.5	221.0	950.5	707.8	229.9	937.7
	7	850.4	186.6	1037.0	825.5	195.9	1021.4	789.8	209.5	999.3	755.1	223.1	978.2	733.0	232.0	965.0
	8	878.0	188.7	1066.7	852.9	198.0	1050.9	816.5	211.7	1028.1	781.1	225.4	1006.5	758.6	234.3	992.9
	9	905.8	191.1	1096.8	880.5	200.3	1080.7	843.4	214.0	1057.4	807.9	227.5	1035.4	784.6	236.6	1021.2
	10	934.3	193.3	1127.7	908.6	202.5	1111.1	870.8	216.4	1087.1	834.5	230.0	1064.4	811.0	238.9	1050.0
	11	963.4	195.6	1159.0	936.9	205.0	1141.9	898.7	218.7	1117.5	861.7	232.4	1094.1	837.9	241.3	1079.2
	12	992.6	198.3	1190.9	965.6	207.6	1173.1	926.7	221.3	1148.0	889.4	234.8	1124.3	864.8	243.7	1108.6
	13	1022.0	200.8	1222.8	995.1	210.1	1205.1	955.8	223.8	1179.7	917.2	237.4	1154.7	892.4	246.4	1138.7
	14	1052.0	203.5	1255.5	1024.6	212.8	1237.4	984.5	226.5	1211.0	949.5	240.5	1190.0	920.7	248.9	1169.6
	15	1082.4	206.3	1288.7	1054.5	215.6	1270.1	1013.7	229.3	1243.1	974.3	242.8	1217.1	948.6	251.6	1200.2
3402	5	897.1	205.2	1102.4	870.3	215.5	1085.7	831.0	230.8	1061.9	793.3	246.1	1039.4	769.2	256.1	1025.3
	6	927.2	207.5	1134.7	900.0	217.7	1117.7	860.1	233.1	1093.2	821.7	248.4	1070.1	797.3	258.4	1055.7
	7	957.9	209.8	1167.7	929.8	220.2	1150.0	889.6	235.5	1125.2	850.5	250.9	1101.4	825.6	260.9	1086.5
	8	989.0	212.2	1201.2	960.7	222.6	1183.3	919.7	238.0	1157.6	879.8	253.4	1133.2	854.5	263.4	1117.9
	9	1020.3	214.8	1235.1	991.8	225.1	1216.9	950.0	240.6	1190.6	910.0	255.8	1165.8	883.7	266.6	1149.7
	10	1052.4	217.3	1269.8	1023.4	227.7	1251.1	980.8	243.2	1224.1	939.9	258.5	1198.5	913.6	268.6	1182.1
	11	1085.2	219.9	1305.1	1055.3	230.5	1285.8	1012.3	245.9	1258.2	970.7	261.2	1231.9	943.8	271.3	1215.1
	12	1118.1	223.0	1341.0	1087.6	233.3	1321.0	1043.9	248.8	1292.6	1001.9	264.0	1265.8	974.1	274.0	1248.1
	13	1151.2	225.7	1377.0	1120.8	236.2	1357.0	1076.6	251.6	1328.3	1033.2	266.9	1300.1	1005.2	277.0	1282.1
	14	1185.0	228.8	1413.8	1154.1	239.2	1393.3	1108.9	254.7	1363.6	1069.5	270.4	1339.9	1037.1	279.8	1316.9
	15	1219.2	231.9	1451.1	1187.8	242.4	1430.2	1141.9	257.8	1399.7	1097.5	272.9	1370.4	1068.6	282.8	1351.4
3802	5	1037.1	237.1	1274.2	1006.0	248.9	1255.0	960.7	266.7	1227.3	933.3	284.3	1077.6	889.2	295.9	1185.1
	6	1071.8	239.7	1311.6	1040.4	251.6	1291.9	994.2	269.4	1263.6	949.8	287.0	1236.9	921.6	298.6	1220.2
	7	1107.3	242.4	1349.7	1074.9	254.4	1329.3	1028.4	272.1	1300.5	983.2	289.8	1273.0	954.4	301.4	1255.8
	8	1143.2	245.2	1388.4	1110.6	257.1	1367.7	1063.1	274.9	1338.1	1017.1	292.7	1309.8	987.8	304.3	1292.1
	9	1179.4	248.2	1427.6	1146.5	260.1	1406.6	1098.2	278.0	1376.2	1052.0	295.5	1347.5	1021.6	307.3	1328.9
	10	1216.6	251.1	1467.7	1183.1	263.1	1446.2	1133.8	281.0	1414.8	1086.6	298.7	1385.3	1056.1	310.3	1366.4
	11	1254.4	254.1	1505.8	1219.9	266.3	1486.2	1170.2	284.1	1454.4	1122.1	301.8	1423.9	1091.0	313.4	1404.5
	12	1292.5	257.6	1550.1	1257.3	269.6	1526.9	1206.7	287.5	1494.1	1158.1	305.0	1463.1	1126.1	316.6	1442.7
	13	1330.8	260.8	1591.6	1295.7	272.9	1568.5	1244.6	290.7	1535.3	1194.3	308.4	1502.8	1162.0	320.0	1482.0
	14	1369.9	264.3	1634.2	1334.1	276.4	1610.5	1281.9	294.3	1576.1	1236.3	312.4	1548.7	1198.9	323.3	1522.2
	15	1409.4	268.0	1677.4	1373.1	280.0	1653.1	1320.0	297.9	1617.9	1268.7	315.3	1584.0	1235.2	326.8	1562.0
4202	5	1087.6	254.7	1342.2	1055.0	267.4	1322.4	1007.5	286.4	1293.9	793.3	305.3	1098.6	932.5	317.8	1250.3
	6	1124.0	257.5	1381.5	1091.0	270.2	1361.2	1042.7	289.3	1331.9	996.1	308.3	1304.4	966.5	320.6	1287.2
	7	1161.2	260.3	1421.5	1127.2	273.3	1400.5	1078.5	292.2	1370.8	1031.1	311.3	1342.3	1000.9	323.7	1324.6
	8	1198.9	263.3	1462.2	1164.7	276.1	1440.8	1114.9	295.3	1410.2	1066.6	314.4	1381.0	1035.9	326.8	1362.7
	9	1236.9	266.5	1503.4	1202.3	279.3	1481.6	1151.7	298.5	1450.2	1103.2	317.3	1420.6	1071.4	330.0	1401.4
	10	1275.9	269.7	1545.6	1240.7	282.5	1523.2	1189.1	301.8	1490.9	1139.5	320.8	1460.3	1107.5	333.3	1440.8
	11	1315.6	272.9	1588.4	1279.4	286.0	1565.3	1227.3	305.1	1532.4	1176.7	324.1	1500.9	1144.2	336.6	1480.8
	12	1355.4	276.7	1632.1	1318.5	289.5	1608.1	1265.5	308.7	1574.2	1214.6	327.5	1542.1	1181.0	340.0	1520.9
	13	1395.6	280.1	1675.7	1358.8	293.0	1651.8	1305.2	312.2	1617.4	1252.5	331.2	1583.7	1218.6	343.6	1562.2
	14	1436.6	283.9	1720.5	1399.1	296.8	1696.0	1344.3	316.0	1660.3	1296.5	335.5	1632.0	1257.3	347.2	1604.5
	15	1478.1	287.8	1765.8	1440.0	300.7	1740.7	1384.3	319.9	1704.2	1330.5	338.6	1669.1	1295.4	351.0	1646.4
4402	5	1157.5	280.0	1437.5	1122.9	293.9	1416.8	1072.2	314.9	1387.1	793.3	335.7	1129.0	992.5	349.4	1341.8
	6	1196.3	283.1	1479.4	1161.2	297.0	1458.2	1109.7	318.0	1427.7	1060.2	338.9	1399.1	1028.7	352.5	1381.2
	7	1235.9	286.2	1522.1</												

# Cooling Capacities - SWR 2602 to 4402 - HFC 407C (cont'd)

SWR Models	LWT Evap. (°C)	Condensing temperature (°C)											
		53			55			57			60		
		Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)	Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)	Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)	Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)
2602	5	578.8	214.3	793.1	561.3	222.1	783.4	544.5	229.7	774.2	520.7	240.9	761.6
	6	600.5	216.1	816.6	582.6	223.9	806.5	565.3	231.6	796.9	542.3	242.2	784.5
	7	622.2	218.1	840.3	604.0	225.9	829.9	586.3	233.6	819.9	564.2	243.5	807.7
	8	644.5	220.0	864.5	625.7	227.9	853.6	607.7	235.6	843.3	586.6	244.8	831.5
	9	667.1	222.1	889.2	647.9	229.9	877.8	629.5	237.6	867.1	609.4	246.2	855.6
	10	690.0	224.1	914.1	670.4	232.0	902.4	651.5	239.7	891.2	632.7	247.5	880.1
	11	713.0	226.3	939.3	693.2	234.1	927.2	673.8	241.8	915.5	656.3	248.8	905.1
	12	736.4	228.5	964.9	716.3	236.2	952.5	696.5	243.9	940.3	680.5	250.1	930.6
	13	760.4	230.7	991.0	739.8	238.3	978.1	719.5	245.9	965.4	705.0	251.4	956.4
	14	784.6	232.9	1017.5	763.6	240.4	1004.1	742.9	248.0	990.9	730.1	252.7	982.8
	15	808.9	235.2	1044.1	787.5	242.7	1030.2	766.7	250.0	1016.7	755.5	254.0	1009.5
3002	5	652.0	241.1	893.1	632.3	249.8	882.1	613.4	258.4	871.8	586.5	271.0	857.6
	6	676.4	243.1	919.5	656.3	251.9	908.1	636.8	260.5	897.4	610.9	272.5	883.3
	7	701.0	245.3	946.3	680.4	254.1	934.5	660.5	262.8	923.2	635.6	273.9	909.5
	8	726.0	247.5	973.6	704.8	256.4	961.2	684.6	265.0	949.6	660.8	275.4	936.2
	9	751.5	249.8	1001.3	729.8	258.6	988.5	709.1	267.3	976.4	686.5	276.9	963.4
	10	777.2	252.1	1029.4	755.2	260.9	1016.1	733.9	269.6	1003.6	712.7	278.4	991.1
	11	803.2	254.6	1057.8	780.9	263.3	1044.1	759.0	272.0	1031.0	739.3	279.9	1019.2
	12	829.6	257.1	1086.6	806.9	265.7	1072.6	784.6	274.3	1058.9	766.5	281.4	1047.9
	13	856.5	259.5	1116.0	833.4	268.1	1101.5	810.5	276.7	1087.2	794.2	282.8	1077.0
	14	883.9	262.0	1145.8	860.2	270.5	1130.7	836.9	279.0	1115.8	822.4	284.3	1106.7
	15	911.2	264.6	1175.8	887.1	273.0	1160.1	863.6	281.3	1144.9	851.1	285.7	1136.8
3402	5	734.5	271.0	1005.4	712.2	280.8	993.1	690.9	290.5	981.4	660.7	304.7	965.4
	6	761.9	273.3	1035.2	739.2	283.1	1022.4	717.3	292.9	1010.2	688.1	306.3	994.4
	7	789.6	275.8	1065.4	766.3	285.7	1052.0	743.9	295.4	1039.4	715.9	308.0	1023.9
	8	817.8	278.3	1096.1	793.9	288.2	1082.1	771.1	297.9	1069.1	744.3	309.6	1054.0
	9	846.5	280.8	1127.3	822.1	290.8	1112.8	798.7	300.5	1099.2	773.3	311.3	1084.6
	10	875.5	283.5	1158.9	850.6	293.3	1144.0	826.7	303.1	1129.8	802.8	313.0	1115.7
	11	904.8	286.2	1191.0	879.5	296.0	1175.6	854.9	305.7	1160.7	832.8	314.6	1147.4
	12	934.4	289.0	1223.4	908.9	298.7	1207.6	883.7	308.4	1192.1	863.4	316.3	1179.7
	13	964.8	291.7	1256.5	938.7	301.4	1240.1	912.9	311.0	1224.0	894.6	317.9	1212.5
	14	995.6	294.5	1290.1	968.9	304.1	1273.0	942.6	313.6	1256.3	926.4	319.6	1245.9
	15	1026.4	297.4	1323.9	999.2	306.9	1306.1	972.8	316.2	1289.0	958.7	321.2	1279.8
3802	5	849.0	313.1	1162.1	823.3	324.4	1147.8	798.7	335.6	1134.3	763.7	352.1	1115.8
	6	880.8	315.8	1196.6	854.5	327.1	1181.7	829.2	338.4	1167.6	795.4	353.9	1149.3
	7	912.7	318.7	1231.4	885.9	330.1	1216.0	860.0	341.3	1201.3	827.6	355.8	1183.4
	8	945.4	321.5	1266.9	917.7	333.0	1250.7	891.4	344.2	1235.6	860.4	357.8	1218.2
	9	978.5	324.4	1303.0	950.3	336.0	1286.3	923.3	347.2	1270.5	893.9	359.7	1253.6
	10	1012.1	327.5	1339.6	983.3	338.9	1322.3	955.7	350.2	1305.9	928.0	361.6	1289.6
	11	1045.9	330.7	1376.6	1016.7	342.0	1358.7	988.3	353.3	1341.5	962.7	363.5	1326.2
	12	1080.2	333.9	1414.1	1050.6	345.1	1395.7	1021.6	356.3	1377.9	998.1	365.5	1363.6
	13	1115.3	337.1	1452.4	1085.2	348.2	1433.4	1055.4	359.3	1414.7	1034.1	367.3	1401.5
	14	1150.9	340.3	1491.2	1120.1	351.3	1471.4	1089.7	362.3	1452.0	1070.9	369.2	1440.1
	15	1186.5	343.6	1530.2	1155.1	354.6	1509.7	1124.5	365.3	1489.8	1108.2	371.1	1479.3
4202	5	890.4	336.3	1226.6	863.5	348.4	1211.9	837.6	360.5	1198.1	800.9	378.1	1179.0
	6	923.7	339.1	1262.8	896.2	351.3	1247.5	869.6	363.4	1233.0	834.1	380.1	1214.2
	7	957.2	342.2	1299.4	929.0	354.5	1283.5	901.9	366.6	1268.5	867.9	382.1	1250.0
	8	991.4	345.3	1336.7	962.4	357.6	1320.1	934.8	369.7	1304.5	902.4	384.2	1286.6
	9	1026.2	348.4	1374.6	996.6	360.8	1357.4	968.3	372.8	1341.1	937.5	386.3	1323.7
	10	1061.4	351.7	1413.1	1031.2	364.0	1395.2	1002.2	376.1	1378.3	973.2	388.3	1361.5
	11	1096.8	355.1	1452.0	1066.3	367.3	1433.6	1036.4	379.4	1415.8	1009.6	390.4	1400.0
	12	1132.8	358.6	1491.4	1101.8	370.6	1472.4	1071.4	382.6	1454.0	1046.7	392.5	1439.2
	13	1169.6	362.0	1531.6	1138.0	374.0	1512.0	1106.8	385.9	1492.7	1084.5	394.5	1479.0
	14	1207.0	365.4	1572.4	1174.7	377.3	1552.0	1142.8	389.1	1531.9	1123.0	396.5	1519.5
	15	1244.3	369.0	1613.4	1211.4	380.8	1592.2	1179.3	392.3	1571.6	1162.2	398.5	1560.7
4402	5	947.6	369.7	1317.3	919.0	383.1	1302.1	891.5	396.3	1287.8	852.4	415.7	1268.1
	6	983.1	372.8	1355.9	953.8	386.3	1340.0	925.5	399.5	1325.1	887.8	417.9	1305.7
	7	1018.7	376.3	1395.0	988.8	389.7	1378.5	959.9	403.0	1362.9	923.7	420.1	1343.8
	8	1055.2	379.6	1434.8	1024.3	393.2	1417.5	994.9	406.5	1401.4	960.4	422.4	1382.8
	9	1092.2	383.1	1475.2	1060.7	396.7	1457.3	1030.5	409.9	1440.4	997.7	424.7	1422.4
	10	1129.6	386.7	1516.3	1097.5	400.2	1497.7	1066.7	413.5	1480.2	1035.8	427.0	1462.7
	11	1167.4	390.4	1557.8	1134.8	403.8	1538.6	1103.1	417.1	1520.2	1074.5	429.2	1503.8
	12	1205.6	394.2	1599.9	1172.7	407.5	1580.1	1140.2	420.7	1561.0	1114.0	431.5	1545.5
	13	1244.8	398.0	1642.8	1211.2	411.2	1622.3	1177.9	424.3	1602.2	1154.2	433.7	1588.0
	14	1284.6	401.8	1686.3	1250.2	414.8	1665.0	1216.2	427.8	1644.1	1195.2	435.9	1631.2
	15	1324.3	405.7	1730.1	1289.2	418.7	1707.9	1255.1	431.3	1686.5	1236.9	438.1	1675.0

LWT : Leaving water temperature.

Liquid injection (optional).

# Cooling Capacities - SWS 1602 to 2802 - HFC 134a

SWS Models	LWT Evap. (°C)	LWT Condenser (°C)														
		14/30			25/30			27/32			30/35			33/38		
		Well Water - 4 Pass		Tower Water - 2 Pass		Tower Water - 2 Pass		Tower Water - 2 Pass		Tower Water - 2 Pass		Tower Water - 2 Pass		Tower Water - 2 Pass		
Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)	Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)	Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)	Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)	Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)		
1602	5	263.7	56.8	320.4	265.0	56.5	321.5	260.4	58.7	319.1	252.9	62.2	315.1	245.0	65.8	310.8
	6	271.8	57.4	329.2	274.7	56.8	331.4	269.9	59.1	329.0	262.3	62.6	324.9	254.1	66.3	320.4
	7	280.0	58.0	338.0	284.5	57.0	341.5	279.6	59.4	339.0	271.8	63.1	334.9	263.5	66.8	330.3
	8	288.1	58.7	346.8	294.5	57.3	351.9	289.6	59.8	349.3	281.6	63.5	345.1	273.1	67.3	340.4
	9	296.3	59.3	355.6	304.8	57.6	362.4	299.7	60.1	359.8	291.6	63.9	355.5	282.9	67.8	350.7
	10	304.5	59.9	364.4	315.2	58.0	373.2	310.1	60.5	370.6	301.7	64.4	366.1	292.8	68.3	361.2
	11	312.6	60.5	373.2	325.9	58.3	384.3	320.6	60.9	381.5	312.2	64.8	376.9	303.0	68.8	371.8
	12	320.8	61.2	381.9	336.8	58.7	395.5	331.4	61.3	392.7	322.7	65.2	388.0	313.4	69.3	382.7
	13	328.9	61.8	390.7	347.8	59.2	407.0	342.4	61.7	404.1	333.5	65.7	399.2	324.0	69.8	393.9
	14	337.1	62.4	399.5	359.1	59.7	418.8	353.5	62.2	415.7	344.5	66.2	410.6	334.8	70.3	405.1
	15	345.2	63.1	408.3	370.6	60.2	430.9	364.9	62.7	427.6	355.7	66.6	422.3	345.8	70.8	416.7
1902	5	351.6	68.7	420.2	353.4	68.4	421.7	347.2	71.1	418.2	337.2	75.3	412.5	326.6	79.6	406.2
	6	362.4	69.4	431.9	366.2	68.7	434.9	359.9	71.5	431.3	349.7	75.8	425.5	338.8	80.2	419.1
	7	373.3	70.2	443.5	379.3	69.0	448.3	372.9	71.9	444.7	362.4	76.3	438.7	351.3	80.8	432.2
	8	384.2	71.0	455.2	392.7	69.4	462.1	386.1	72.3	458.4	375.5	76.8	452.3	364.1	81.4	445.5
	9	395.1	71.7	466.8	406.4	69.7	476.1	399.6	72.7	472.4	388.8	77.3	466.1	377.2	82.1	459.2
	10	405.9	72.5	478.4	420.3	70.1	490.4	413.4	73.2	486.6	402.3	77.9	480.2	390.4	82.7	473.1
	11	416.8	73.3	490.1	434.6	70.6	505.1	427.5	73.7	501.2	416.2	78.4	494.6	404.0	83.3	487.3
	12	427.7	74.0	501.7	449.1	71.1	520.1	441.8	74.2	516.0	430.3	78.9	509.2	417.9	83.9	501.8
	13	438.6	74.8	513.3	463.8	71.6	535.4	456.5	74.7	531.2	444.7	79.5	524.2	432.1	84.5	516.5
	14	449.4	75.5	525.0	478.9	72.2	551.1	471.3	75.3	546.6	459.3	80.0	539.4	446.4	85.1	531.5
	15	460.3	76.3	536.6	494.2	72.8	567.0	486.5	75.9	562.3	474.2	80.6	554.9	461.1	85.7	546.8
2202	5	426.8	83.1	509.9	429.0	82.7	511.7	421.5	86.0	507.5	409.4	91.1	500.5	396.6	96.3	492.9
	6	440.0	84.0	524.1	444.6	83.1	527.7	436.9	86.5	523.4	424.6	91.7	516.3	411.4	97.1	508.4
	7	453.2	85.0	538.2	460.6	83.5	544.0	452.7	87.0	539.7	440.0	92.3	524.4	426.6	97.8	524.4
	8	466.4	85.9	552.3	476.8	83.9	560.7	468.8	87.5	556.3	455.9	92.9	548.9	442.0	98.6	540.6
	9	479.6	86.8	566.4	493.4	84.4	577.8	485.2	88.0	573.2	472.0	93.6	565.6	457.9	99.3	557.2
	10	492.8	87.7	580.6	510.3	84.9	595.2	502.0	88.6	590.5	488.5	94.2	582.7	474.0	100.0	574.1
	11	506.0	88.6	594.7	527.6	85.4	613.0	519.0	89.1	608.2	505.3	94.8	600.2	490.5	100.8	591.3
	12	519.2	89.6	608.8	545.2	86.0	631.2	536.4	89.7	626.2	522.4	95.5	617.9	507.4	101.5	608.9
	13	532.5	90.5	622.9	563.1	86.7	649.8	554.2	90.4	644.6	539.9	96.2	636.1	524.6	102.2	626.8
	14	545.7	91.4	637.1	581.4	87.4	668.8	572.2	91.1	663.3	557.7	96.9	654.5	542.0	103.0	645.0
	15	558.9	92.3	651.2	600.0	88.2	688.1	590.6	91.8	682.4	575.8	97.5	673.3	559.8	103.7	663.5
2212	5	513.4	101.4	614.8	520.5	101.8	622.2	510.7	105.3	616.0	495.7	110.9	606.6	479.8	116.9	596.7
	6	529.3	102.5	631.8	537.6	102.5	640.2	527.8	106.1	633.8	512.4	111.8	624.1	496.2	117.8	614.0
	7	545.2	103.6	648.8	555.2	103.3	658.4	544.9	106.9	651.8	529.3	112.6	641.9	512.9	118.8	631.6
	8	561.1	104.8	665.8	573.2	103.9	677.1	563.0	107.5	670.6	546.7	113.5	660.1	529.8	119.7	649.5
	9	576.9	105.9	682.8	591.0	104.7	695.7	580.6	108.4	689.0	564.3	114.3	678.6	547.1	120.6	667.7
	10	592.8	107.0	698.9	608.9	105.6	714.4	598.4	109.3	707.7	580.2	115.2	697.1	564.5	121.5	686.0
	11	608.7	108.1	716.8	627.0	106.4	733.4	616.4	110.1	726.5	599.8	116.1	715.9	582.2	122.5	704.6
	12	624.6	109.3	733.8	643.7	107.2	750.9	634.4	111.0	745.4	617.6	117.0	734.7	599.9	123.4	723.3
	13	640.5	110.4	750.8	663.1	108.1	771.2	652.4	111.9	764.3	635.5	117.9	753.5	617.6	124.4	741.9
	14	656.3	111.5	767.8	680.9	108.9	789.8	670.2	112.8	783.0	653.4	118.9	772.3	635.3	125.3	760.6
	15	672.2	112.6	784.8	698.2	109.6	807.8	687.6	113.5	801.2	670.3	119.7	790.0	651.8	126.2	778.0
2352	5	547.7	108.3	656.0	555.2	108.7	664.0	544.8	112.5	657.4	528.8	115.8	647.3	511.8	125.0	636.8
	6	564.7	109.5	674.2	573.5	109.6	683.1	563.0	113.4	676.4	546.6	119.4	666.0	529.3	125.9	655.3
	7	581.6	110.7	692.3	592.3	110.3	702.6	581.3	114.3	695.6	564.7	120.4	685.0	547.1	126.9	674.0
	8	598.5	111.9	710.5	611.5	111.0	722.5	600.6	114.9	715.6	583.2	121.3	704.4	565.2	127.9	693.1
	9	615.5	113.1	728.6	630.5	111.9	742.4	619.4	115.8	735.3	602.0	122.1	724.1	583.6	128.9	712.5
	10	632.4	114.4	746.8	649.6	112.8	762.4	638.4	116.8	755.2	620.8	123.1	743.9	602.2	129.9	732.1
	11	649.4	115.6	764.9	668.9	113.7	782.6	657.6	117.7	775.3	639.8	124.1	763.9	621.0	130.9	751.9
	12	666.3	116.8	783.1	686.7	114.5	801.2	676.7	118.7	795.4	658.9	125.0	783.9	639.9	131.9	771.8
	13	683.2	118.0	801.2	707.4	115.5	822.9	696.0	119.6	815.6	678.0	126.0	804.0	658.8	132.9	791.7
	14	700.2	119.2	819.3	726.3	116.4	842.8	715.0	120.5	835.5	697.0	127.0	824.1	677.7	134.0	811.7
	15	717.1	120.4	837.5	744.9	117.1	862.0	733.6	121.3	854.9	715.1	127.9	843.0	695.3	134.9	830.2
2502	5	582.0	115.3	697.3	590.0	115.7	705.7	579.0	119.8	698.7	561.9	126.1	688.0	543.9	133.0	676.8
	6	600.0	116.6	716.6	609.4	116.6	726.1	598.3	120.7	718.9	580.8	127.1	707.9	562.5	134.0	696.5
	7	618.0	117.9	735.9	629.4	117.4	746.8	617.7	121.6	739.3	600.0	128.1	728.1	581.4	135.1	716.5
	8	636.0	119.1	755.1	649.8	118.2	768.0	638.2	122.3	760.5	619.7	129.1	748.			

# Cooling Capacities - SWS 1602 to 2802 - HFC 134a (cont'd)

SWS Models	LWT Evap. (°C)	LWT Condenser (°C)														
		35/40			38/43			40/45			42/47			45/50		
		Tower Water - 2 Pass		Heat rej. (kW)	Tower Water - 2 Pass		Heat rej. (kW)	Tower Water - 2 Pass		Heat rej. (kW)	Tower Water - 2 Pass		Heat rej. (kW)	Tower Water - 2 Pass		Heat rej. (kW)
		Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)												
1602	5	239.4	68.3	307.6	230.5	72.1	302.6	224.3	74.7	298.9	217.8	77.4	295.1	207.6	81.5	289.1
	6	248.4	68.8	317.2	239.3	72.7	312.0	232.9	75.3	308.2	226.3	78.0	304.3	215.8	82.2	298.0
	7	257.6	69.4	327.0	248.3	73.3	321.6	241.7	76.0	317.7	234.9	78.8	313.7	224.3	83.0	307.2
	8	267.1	69.9	337.0	257.5	74.0	331.4	250.8	76.7	327.5	243.9	79.5	323.3	232.9	83.8	316.7
	9	275.7	70.5	347.2	266.9	74.6	341.5	260.1	77.4	337.4	253.0	80.2	333.2	241.8	84.6	326.4
	10	286.5	71.0	357.6	276.6	75.2	351.8	269.6	78.0	347.7	262.3	81.0	343.3	250.9	85.4	336.4
	11	296.6	71.6	368.2	286.5	75.8	362.3	279.3	78.8	358.1	271.9	81.7	353.6	260.3	86.4	346.6
	12	306.8	72.2	379.0	296.4	76.5	372.9	289.2	79.5	368.7	281.7	82.5	364.3	269.9	87.3	357.2
	13	317.3	72.7	390.0	306.8	77.1	383.9	299.3	80.2	379.5	291.7	83.4	375.0	279.7	88.3	368.0
	14	328.0	73.2	401.2	317.2	77.8	395.0	309.7	81.0	390.7	301.9	84.2	386.2	289.7	89.4	379.1
	15	338.9	73.8	412.6	327.9	78.4	406.4	320.3	81.7	402.0	312.4	85.1	397.5	299.9	90.6	390.5
1902	5	319.2	82.6	401.8	307.3	87.2	394.5	299.0	90.4	389.4	290.4	93.6	384.0	276.8	98.6	375.4
	6	331.2	83.3	414.4	319.0	88.0	407.0	310.5	91.2	401.7	301.7	94.4	396.1	287.8	99.4	387.2
	7	343.4	84.0	427.4	331.0	88.7	419.7	322.3	92.0	414.3	313.3	95.3	408.5	299.0	100.4	399.4
	8	356.1	84.6	440.7	343.3	89.5	432.8	334.4	92.8	427.2	325.2	96.1	421.3	261.5	101.3	411.9
	9	368.9	85.3	454.2	355.9	90.2	446.1	346.7	93.6	440.4	337.3	97.1	434.4	322.4	102.3	424.8
	10	382.0	86.0	468.0	368.8	91.0	459.8	359.5	94.4	453.9	349.8	98.0	447.7	334.6	103.4	438.0
	11	395.5	86.6	482.1	381.9	91.8	473.7	372.4	95.3	467.7	362.5	98.9	461.4	347.1	104.5	451.5
	12	409.1	87.3	496.4	395.3	92.6	487.8	385.6	96.2	481.8	375.6	99.9	475.5	359.8	105.6	465.5
	13	423.1	87.9	511.0	409.0	93.3	502.3	399.1	97.1	496.2	388.9	100.9	489.8	372.9	106.9	479.8
	14	437.4	88.6	526.0	423.0	94.1	517.1	412.9	98.0	510.9	402.6	101.9	504.5	386.2	108.2	494.4
	15	451.8	89.3	541.1	437.2	94.9	532.1	427.0	98.9	525.9	416.5	103.0	519.5	399.9	109.6	509.5
2202	5	387.5	99.9	487.5	373.1	105.5	478.6	363.0	109.4	472.4	352.5	113.3	465.8	336.1	119.3	455.3
	6	402.1	100.8	502.8	387.3	106.4	493.8	377.0	110.3	487.3	366.3	114.3	480.5	349.4	120.3	469.7
	7	417.0	101.6	518.6	401.9	107.4	509.2	391.3	111.3	502.6	380.3	115.3	495.6	363.1	121.5	484.5
	8	432.3	102.4	534.7	416.8	108.3	525.1	406.0	112.3	518.3	394.8	116.3	511.1	377.1	122.6	499.7
	9	447.9	103.2	551.1	432.1	109.2	541.3	421.0	113.3	534.3	409.5	117.4	527.0	391.5	123.8	515.3
	10	463.8	104.0	567.8	447.7	110.1	557.8	436.4	114.3	550.7	424.7	118.5	543.2	406.2	125.1	531.3
	11	480.2	104.8	585.0	463.7	111.0	574.7	452.1	115.3	567.5	440.2	119.7	559.8	421.4	126.4	547.8
	12	496.7	105.6	602.3	479.9	112.0	591.9	468.2	116.4	584.5	456.1	120.8	576.9	436.9	127.8	564.7
	13	513.7	106.4	620.1	496.6	112.9	609.5	484.5	117.4	602.0	472.1	122.1	594.2	452.7	129.3	580.2
	14	531.0	107.2	638.2	513.6	113.9	627.4	501.3	118.5	619.9	488.7	123.3	612.1	468.9	130.9	599.8
	15	548.6	108.0	656.6	530.8	114.9	645.7	518.4	119.7	638.1	505.7	124.6	630.3	485.5	132.6	618.1
2212	5	468.8	121.1	590.9	451.6	127.9	579.5	439.9	132.5	572.4	427.7	137.4	565.1	408.9	145.0	553.9
	6	485.1	122.1	607.2	467.6	128.8	596.4	455.6	133.5	589.1	443.2	138.4	581.6	423.9	146.1	570.0
	7	501.6	123.0	624.6	483.9	129.8	613.7	471.5	134.6	606.1	459.0	139.5	598.4	439.3	147.2	586.5
	8	518.3	124.0	642.3	500.3	130.8	631.1	487.7	135.6	623.3	474.9	140.5	615.4	455.0	148.2	603.3
	9	535.3	125.0	660.3	516.9	131.8	648.8	504.2	136.6	640.8	491.2	141.5	632.7	471.0	149.3	620.2
	10	552.7	125.9	678.5	534.1	132.7	666.8	521.1	137.5	658.6	507.8	142.5	650.3	487.0	150.3	637.3
	11	570.0	126.9	696.9	551.2	133.5	684.7	538.5	138.4	676.9	524.9	143.4	668.3	503.5	151.2	654.8
	12	587.7	127.8	715.5	569.0	134.6	703.5	555.5	139.4	694.9	541.9	144.3	686.2	520.3	152.1	672.4
	13	605.4	128.8	734.1	586.4	135.5	721.9	572.9	140.3	713.2	558.9	145.3	704.2	537.2	153.0	690.2
	14	623.0	129.7	752.7	604.0	136.5	740.5	590.3	141.3	731.6	576.3	146.2	722.4	554.3	153.8	708.1
	15	639.2	130.7	769.9	619.8	137.4	757.2	605.9	142.3	748.2	591.5	147.3	738.8	569.0	155.0	724.0
2352	5	500.2	129.5	629.6	481.8	136.6	618.4	469.3	141.6	610.9	456.3	146.8	603.1	436.2	155.0	591.1
	6	517.5	130.5	647.9	498.8	137.7	636.5	486.0	142.7	628.7	472.8	147.9	620.7	452.3	156.1	608.4
	7	535.1	131.5	666.6	516.2	138.7	654.9	503.0	143.8	646.8	489.6	149.0	638.7	468.7	157.3	626.0
	8	552.9	132.5	685.4	533.7	139.8	673.5	520.3	144.9	665.2	506.6	150.2	656.8	485.4	158.4	643.8
	9	571.1	133.5	704.6	551.5	140.9	692.3	537.9	146.0	683.9	524.0	151.2	675.3	502.4	159.5	661.9
	10	589.6	134.5	724.1	569.8	141.9	711.6	555.9	147.0	702.9	541.7	152.3	694.0	519.6	160.6	680.2
	11	608.1	135.6	743.7	588.0	142.7	730.7	574.5	147.9	722.4	560.0	153.2	713.2	537.2	161.6	698.8
	12	627.0	136.6	763.6	607.0	143.8	750.8	592.6	149.0	741.6	578.1	154.2	732.3	555.1	162.6	717.6
	13	645.8	137.6	783.4	625.6	144.8	770.4	611.1	150.0	761.1	596.2	155.3	751.5	573.0	163.5	736.6
	14	664.6	138.7	803.2	644.3	145.8	790.2	629.8	151.0	780.7	614.7	156.2	771.0	591.3	164.4	755.7
	15	681.9	139.6	821.6	661.2	146.9	808.1	646.3	152.1	798.4	631.0	157.4	788.4	607.0	165.7	772.7
2502	5	531.5	137.8	669.2	511.9	145.4	657.4	498.7	150.7	649.4	484.9	156.3	641.1	463.5	164.9	628.4
	6	549.9	138.9	688.7	530.0	146.5	676.6	516.5	151.9	668.3	502.4	157.4	659.8	480.6	166.2	646.7
	7	568.6	139.9	708.5	548.5	147.6	696.1	534.5	153.0	687.6	520.3	158.6	678.9			

# Cooling Capacities - SWS 3012 to 4802 - HFC 134a

SWS Models	LWT Evap. (°C)	LWT Condenser (°C)														
		14/30			25/30			27/32			30/35					
		Well Water - 4 Pass		Tower Water - 2 Pass		Tower Water - 2 Pass		Tower Water - 2 Pass		Tower Water - 2 Pass		Tower Water - 2 Pass				
3012	5	694.5	140.6	835.1	704.0	141.2	845.2	690.9	146.1	836.9	670.5	153.8	824.3	649.0	162.2	811.2
	6	716.0	142.2	858.2	727.2	142.2	869.5	713.9	147.2	861.1	693.1	155.0	848.1	671.2	163.5	834.7
	7	737.5	143.7	881.2	751.0	143.2	894.2	737.1	148.3	885.4	716.0	156.2	872.2	693.8	164.7	858.5
	8	758.9	145.3	904.3	775.4	144.1	919.5	761.6	149.2	910.8	739.5	157.4	896.9	716.7	166.0	882.7
	9	780.4	146.9	927.3	799.4	145.3	944.7	785.4	150.4	935.8	763.3	158.5	921.9	740.1	167.3	907.3
	10	801.9	148.4	950.3	823.6	146.4	970.1	809.5	151.6	961.1	787.2	159.8	947.0	763.6	168.6	932.2
	11	823.4	150.0	973.4	848.2	147.6	995.7	833.8	152.8	986.6	811.3	161.0	972.4	787.5	169.9	957.4
	12	844.9	151.6	996.4	870.8	148.6	1019.4	858.1	154.0	1012.1	835.5	162.3	997.8	811.4	171.2	982.6
	13	866.3	153.1	1019.5	897.0	149.9	1046.9	882.5	155.3	1037.8	859.7	163.6	1023.3	835.4	172.5	1007.9
	14	887.8	154.7	1042.5	921.0	151.1	1072.1	906.6	156.5	1063.0	883.8	164.9	1048.7	859.4	173.9	1033.3
	15	909.3	156.2	1065.5	944.5	152.0	1096.6	930.2	157.5	1087.7	906.8	166.0	1072.8	881.7	175.1	1056.8
3202	5	760.9	152.8	913.7	771.3	153.3	924.7	756.9	158.7	915.6	734.6	167.1	901.7	711.0	176.2	887.2
	6	784.4	154.5	938.9	796.8	154.5	951.3	782.1	159.9	942.0	759.3	168.4	927.7	735.4	177.6	912.9
	7	808.0	156.2	964.1	822.8	155.6	978.4	807.6	161.1	968.7	784.4	169.7	954.2	760.1	179.0	939.1
	8	831.5	157.9	989.3	849.5	156.6	1006.1	834.4	162.1	996.5	810.2	171.0	981.2	785.2	180.4	965.5
	9	855.0	159.6	1014.6	875.9	157.8	1033.7	860.5	163.4	1023.9	836.3	172.2	1008.6	810.8	181.7	992.5
	10	878.6	161.2	1039.8	902.4	159.1	1061.5	886.9	164.7	1051.5	862.5	173.6	1036.0	836.5	183.2	1019.7
	11	902.1	162.9	1065.0	929.3	160.3	1089.6	913.5	166.0	1079.5	888.9	174.9	1063.8	862.8	184.5	1047.3
	12	925.6	164.6	1090.3	954.0	161.5	1115.5	940.2	167.3	1107.5	915.4	176.3	1091.7	889.0	186.0	1075.0
	13	949.2	166.3	1115.5	982.7	162.9	1145.6	966.9	168.7	1135.5	941.9	177.7	1119.6	915.2	187.4	1102.7
	14	972.7	168.0	1140.7	1009.1	164.2	1173.2	993.2	170.0	1163.2	968.3	179.1	1147.5	941.5	188.9	1130.4
	15	996.2	169.7	1166.0	1034.8	165.2	1200.0	1019.1	171.1	1190.2	993.4	180.3	1173.8	966.0	190.2	1156.2
3412	5	816.4	162.5	978.9	827.6	163.1	990.7	812.1	168.8	980.9	788.2	177.7	966.0	762.9	187.4	950.3
	6	841.7	164.3	1005.9	854.9	164.4	1019.2	839.2	170.0	1009.3	814.7	179.2	993.9	789.0	188.9	977.9
	7	866.9	166.1	1033.0	882.8	165.5	1048.3	866.5	171.4	1037.9	841.7	180.5	1022.2	815.5	190.4	1005.9
	8	892.2	167.9	1060.1	911.5	166.5	1078.0	895.3	172.4	1067.7	869.3	181.9	1051.1	842.4	191.9	1034.3
	9	917.4	169.7	1087.1	939.8	167.9	1107.6	923.3	173.8	1097.0	897.3	183.2	1080.5	870.0	193.3	1063.2
	10	942.7	171.5	1114.2	968.2	169.2	1137.4	951.6	175.2	1126.7	925.4	184.6	1110.0	897.6	194.8	1092.4
	11	967.9	173.3	1141.2	997.0	170.5	1167.6	980.1	176.6	1156.7	953.7	186.1	1139.8	925.7	196.3	1122.0
	12	993.2	175.1	1168.3	1023.6	171.8	1195.3	1008.7	178.0	1186.7	982.1	187.6	1169.7	953.9	197.8	1151.7
	13	1018.4	176.9	1195.3	1054.4	173.3	1227.7	1037.4	179.4	1216.8	1010.6	189.0	1199.6	982.0	199.4	1181.4
	14	1043.7	178.7	1222.4	1082.7	174.6	1257.3	1065.7	180.8	1246.5	1039.0	190.6	1229.5	1010.2	209.0	1211.1
	15	1068.9	180.5	1249.4	1110.3	175.7	1286.0	1093.4	182.0	1275.4	1065.9	191.8	1257.8	1036.4	202.3	1238.8
3602	5	871.9	172.2	1044.1	883.9	172.9	1056.8	867.3	178.9	1046.2	841.8	188.4	1030.2	814.8	198.6	1013.4
	6	898.9	174.1	1073.0	913.0	174.2	1087.2	896.3	180.2	1076.5	870.1	189.9	1060.0	842.7	200.2	1042.8
	7	925.8	176.0	1101.9	942.8	175.4	1118.3	925.4	181.7	1107.0	898.9	191.4	1090.2	871.0	201.8	1072.7
	8	952.8	178.0	1130.8	973.5	176.5	1150.0	956.1	182.7	1138.8	928.4	192.8	1121.1	899.7	203.4	1103.1
	9	979.8	179.9	1159.6	1003.7	177.9	1181.6	986.0	184.2	1170.2	958.3	194.2	1152.5	929.1	204.9	1134.0
	10	1006.7	181.8	1188.5	1034.0	179.3	1213.4	1016.3	185.6	1201.9	988.3	195.7	1184.0	958.6	206.5	1165.1
	11	1033.7	183.7	1217.4	1064.8	180.7	1245.5	1046.8	187.1	1233.9	1018.6	197.2	1215.8	988.7	208.0	1196.7
	12	1060.7	185.6	1246.3	1093.2	182.0	1275.2	1077.3	188.6	1265.9	1048.9	198.8	1247.7	1018.7	209.7	1228.4
	13	1087.6	187.5	1275.2	1126.1	183.6	1309.7	1107.9	190.1	1298.1	1079.3	200.4	1279.7	1048.8	211.3	1260.1
	14	1114.6	189.4	1304.0	1156.3	185.1	1341.4	1138.2	191.6	1329.8	1109.6	202.0	1311.6	1078.9	212.9	1291.8
	15	1141.6	191.4	1332.9	1185.8	186.2	1372.0	1167.8	192.9	1360.6	1138.4	203.3	1341.7	1106.9	214.4	1321.4
4212	5	933.3	196.8	1130.1	946.1	197.5	1143.6	928.4	204.4	1132.8	901.1	215.2	1116.3	872.1	227.0	1099.1
	6	962.1	199.0	1161.1	977.3	199.0	1176.3	959.3	205.9	1165.3	931.3	217.0	1148.3	902.0	228.8	1130.7
	7	991.0	201.2	1192.2	1009.2	200.4	1209.6	990.5	207.6	1198.1	962.1	218.7	1180.8	932.3	230.5	1162.8
	8	1019.9	203.4	1223.2	1042.0	201.7	1243.7	1023.4	208.8	1232.2	993.7	220.3	1214.0	963.0	232.4	1195.4
	9	1048.7	205.5	1254.3	1074.3	203.3	1277.6	1055.4	210.4	1265.9	1025.8	221.9	1247.7	994.5	234.1	1228.6
	10	1077.6	207.7	1285.3	1106.8	204.9	1311.7	1087.8	212.1	1299.9	1057.9	223.6	1281.5	1026.1	236.0	1262.0
	11	1106.5	209.9	1316.4	1139.8	206.5	1346.3	1120.4	213.8	1334.3	1090.3	225.4	1315.6	1058.2	237.7	1295.9
	12	1135.3	212.1	1347.4	1170.1	208.0	1378.1	1153.1	215.5	1368.7	1122.7	227.1	1349.9	1090.4	239.6	1330.0
	13	1164.2	214.3	1378.5	1205.3	209.8	1415.2	1185.9	217.3	1403.2	1155.3	228.9	1384.2	1122.6	241.5	1364.0
	14	1193.0	216.5	1409.5	1237.7	211.5	1449.1	1218.3	219.0	1437.2	1187.7	230.8	1418.5	1154.8	243.3	1398.2
	15	1221.9	218.7	1440.6	1269.2	212.8	1482.0	1250.0	220.4	1470.3	1218.5	232.3	1450.8	1184.8	245.0	1429.9
4602	5	1009.0	207.4	1216.4	1022.8	208.2	1231.0	1003.7	215.5	1219.2	974.1	226.9	1201.0	942.8	239.3	1182.1
	6	1040.2	209.7	1249.9	1056.5	209.8	1266.3	1037.1	217.1	1254.2	1006.9	228.7	1235.6	975.1	241.1	1216.2
	7	1071.4	212.0	1283.4	1091.0	211.3	1302.3	1070.8	218.8	1289.6	1040.2	230.5	1270.7	1007.9	243.0	1250.9

# Cooling Capacities - SWS 3012 to 4802 - HFC 134a (cont'd)

SWS Models	LWT Evap. (°C)	LWT Condenser (°C)														
		35/40			38/43			40/45			42/47					
		Tower Water - 2 Pass														
		Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)												
3012	5	634.2	168.0	802.2	610.9	177.4	788.2	595.0	183.8	778.9	578.6	190.6	769.2	553.1	201.1	754.2
	6	656.2	169.4	825.5	632.5	178.7	811.2	616.3	185.2	801.5	599.5	192.0	791.5	573.5	202.6	776.1
	7	678.5	170.7	849.1	654.5	180.0	834.6	637.8	186.6	824.5	620.9	193.4	814.3	594.3	204.1	798.5
	8	701.1	172.0	873.1	676.7	181.5	858.2	659.7	188.1	847.8	642.4	194.9	837.3	615.5	205.6	821.1
	9	724.2	173.3	897.5	699.3	182.9	882.1	682.1	189.5	871.5	664.5	196.3	860.8	637.1	207.0	844.1
	10	747.6	174.6	922.2	722.5	184.1	906.6	704.9	190.8	895.7	686.9	197.7	884.6	658.8	208.5	867.3
	11	771.1	176.0	947.1	745.6	185.2	930.8	728.5	191.9	920.4	710.1	198.9	908.9	681.1	209.8	890.9
	12	795.0	177.3	972.3	769.7	186.6	956.3	751.5	193.4	944.8	733.0	200.2	933.2	703.8	211.0	914.9
	13	818.9	178.6	997.5	793.2	188.0	981.2	774.9	194.7	969.6	756.0	201.6	957.6	726.6	212.3	938.9
	14	842.7	180.0	1022.7	817.0	189.3	1006.3	798.5	196.0	994.5	779.5	202.8	982.3	749.8	213.3	963.1
	15	864.7	181.3	1045.9	838.4	190.6	1029.0	819.6	197.4	1017.0	800.1	204.3	1004.4	769.6	215.1	984.7
3202	5	694.8	182.6	877.4	669.3	192.7	862.0	651.9	199.7	851.6	633.9	207.0	840.9	605.9	218.5	824.5
	6	718.9	184.0	902.9	693.0	194.1	887.1	675.2	201.2	876.4	656.8	208.6	865.4	628.3	220.1	848.4
	7	743.3	185.4	928.7	717.1	195.6	912.7	698.8	202.8	901.6	680.2	210.1	890.4	651.1	221.8	872.9
	8	768.1	186.9	955.0	741.4	197.1	938.5	722.8	204.3	927.1	703.8	211.7	915.6	674.4	223.4	897.7
	9	793.4	188.3	981.7	766.1	198.6	964.8	747.3	205.8	953.1	728.0	213.3	941.3	698.0	224.9	922.9
	10	819.1	189.7	1008.7	791.6	200.0	991.6	772.3	207.3	979.5	752.5	214.8	967.3	721.8	226.5	948.3
	11	844.8	191.2	1036.0	816.9	201.2	1018.1	798.1	208.5	1006.6	777.9	216.1	994.0	746.2	227.9	974.1
	12	871.0	192.6	1063.6	843.2	202.8	1046.0	823.3	210.1	1033.4	803.1	217.5	1020.6	771.1	229.3	1000.4
	13	897.2	194.0	1091.2	869.1	204.2	1073.3	849.0	211.5	1060.5	828.3	219.0	1047.3	796.1	230.6	1026.7
	14	923.3	195.5	1118.8	895.1	205.6	1100.8	874.9	212.9	1087.8	854.0	220.3	1074.3	821.5	231.8	1053.2
	15	947.3	196.9	1144.2	918.5	207.1	1125.6	897.9	214.4	1112.4	876.6	222.0	1098.6	843.2	233.6	1076.9
3412	5	745.5	194.2	939.7	718.1	204.9	923.1	699.5	212.4	911.9	680.1	220.2	900.4	650.2	232.4	882.6
	6	771.3	195.7	967.0	743.5	206.5	950.0	724.5	214.0	938.5	704.8	221.9	926.6	674.1	234.2	908.3
	7	797.5	197.2	994.8	769.4	208.1	977.4	749.8	215.7	965.5	729.8	223.5	953.4	698.6	235.9	934.5
	8	824.1	198.8	1022.9	795.5	209.7	1005.2	775.5	217.3	992.8	755.2	225.2	980.4	723.6	237.6	961.2
	9	851.3	200.3	1051.6	822.0	211.3	1033.3	801.8	218.9	1020.7	781.1	226.9	1008.0	748.9	239.2	988.1
	10	878.8	201.8	1080.6	849.3	212.8	1062.1	828.6	220.5	1049.1	807.4	228.5	1035.9	774.5	240.9	1015.4
	11	906.4	203.3	1109.8	876.5	214.0	1090.5	856.3	221.8	1078.1	834.7	229.8	1064.5	800.7	242.4	1043.1
	12	934.6	204.8	1139.4	904.8	215.7	1120.4	883.4	223.4	1106.8	861.7	231.3	1093.0	827.4	243.9	1071.2
	13	962.7	206.4	1169.0	932.5	217.3	1149.7	910.9	225.0	1135.9	888.7	233.0	1121.6	854.1	245.3	1099.4
	14	990.6	208.0	1198.6	960.4	218.7	1179.2	938.7	226.4	1165.2	916.3	234.3	1150.7	881.4	246.5	1127.9
	15	1016.4	209.5	1225.9	985.6	220.3	1205.8	963.4	228.1	1191.5	940.6	236.1	1176.6	904.7	248.5	1153.2
3602	5	796.2	205.8	1002.0	766.9	217.2	984.1	747.0	225.1	972.2	726.4	233.4	959.8	694.4	246.3	940.7
	6	823.8	207.4	1031.2	794.1	218.9	1012.9	773.7	226.8	1000.6	752.7	235.2	987.8	720.0	248.2	968.1
	7	851.8	209.0	1060.8	821.7	220.5	1042.2	800.8	228.6	1029.4	779.5	236.9	1016.4	746.1	250.0	996.1
	8	880.2	210.7	1090.8	849.6	222.2	1071.8	828.2	230.3	1058.6	806.5	238.7	1045.2	772.8	251.8	1024.6
	9	909.1	212.3	1121.4	877.9	223.9	1101.8	856.3	232.0	1088.4	834.2	240.4	1074.6	799.8	253.6	1053.4
	10	938.6	213.8	1152.4	907.0	225.5	1132.6	884.9	233.7	1118.6	862.3	242.1	1104.5	827.1	255.3	1082.5
	11	968.0	215.5	1183.6	936.1	226.8	1162.9	914.6	235.1	1149.6	891.4	243.6	1135.0	855.1	256.9	1112.0
	12	998.1	217.1	1215.2	966.3	228.6	1194.9	943.4	236.8	1180.2	920.3	245.2	1165.5	883.6	258.5	1142.1
	13	1028.1	218.7	1246.8	995.9	230.3	1226.1	972.9	238.4	1211.3	949.1	246.9	1196.0	912.2	260.0	1172.2
	14	1058.0	220.4	1278.4	1025.7	231.8	1257.6	1002.5	240.0	1242.5	978.6	248.4	1227.0	941.3	261.3	1202.6
	15	1085.5	222.0	1307.5	1052.6	233.5	1286.0	1028.9	241.7	1270.7	1004.5	250.2	1254.7	966.2	263.4	1229.6
4212	5	852.2	235.2	1087.4	820.9	248.2	1069.1	799.6	257.3	1056.9	777.5	266.7	1044.2	743.2	281.5	1024.7
	6	881.7	237.0	1118.7	849.9	250.1	1100.0	828.2	259.2	1087.4	805.6	268.7	1074.3	770.6	283.6	1054.2
	7	911.7	238.9	1150.6	879.5	252.0	1131.5	857.1	261.2	1118.3	834.3	270.7	1105.0	798.6	285.7	1084.3
	8	942.1	240.8	1182.8	909.4	253.9	1163.3	886.5	263.2	1149.7	863.3	272.8	1136.0	827.2	287.7	1114.9
	9	973.1	242.6	1215.7	939.7	255.9	1195.6	916.6	265.1	1181.7	892.9	274.7	1167.7	856.1	289.8	1145.8
	10	1004.6	244.4	1249.0	970.9	257.7	1228.6	947.2	267.0	1214.2	923.0	276.7	1199.7	885.3	291.8	1177.1
	11	1036.2	246.3	1282.4	1002.0	259.1	1261.1	978.9	268.6	1247.5	954.2	278.3	1232.5	915.3	293.6	1208.9
	12	1068.3	248.1	1316.4	1034.3	261.2	1295.5	1009.8	270.6	1280.4	985.0	280.2	1265.2	945.8	295.3	1241.1
	13	1100.5	249.9	1350.4	1065.9	263.1	1329.0	1041.3	272.4	1313.8	1015.9	282.1	1298.0	976.4	297.0	1273.5
	14	1132.4	251.9	1384.3	1097.9	264.9	1362.8	1073.1	274.2	1347.3	1047.5	283.8	1331.3	1007.6	298.6	1306.1
	15	1161.9	253.7	1415.6	1126.6	266.8	1393.4	1101.3	276.2	1377.6	1075.2	285.9	1361.1	1034.2	301.0	1335.2
4602	5	921.3	247.9	1169.2	887.5	261.6	1149.1	864.5	271.2	1135.6	840.6	281.1	1121.7	803.5	296.7	1100.2
	6	953.2	249.8	1203.1	918.9	263.6	1182.5	895.3	273.2	1168.6	871.0	283.2	1154.2	833.1	298.9	1132.1
	7	985.6	251.8	1237.4	950.9	265.6	1216.5	926.6	275.3	1202.0	902.0					

# Cooling Capacities - SWR 1602 to 2802 - HFC 134a

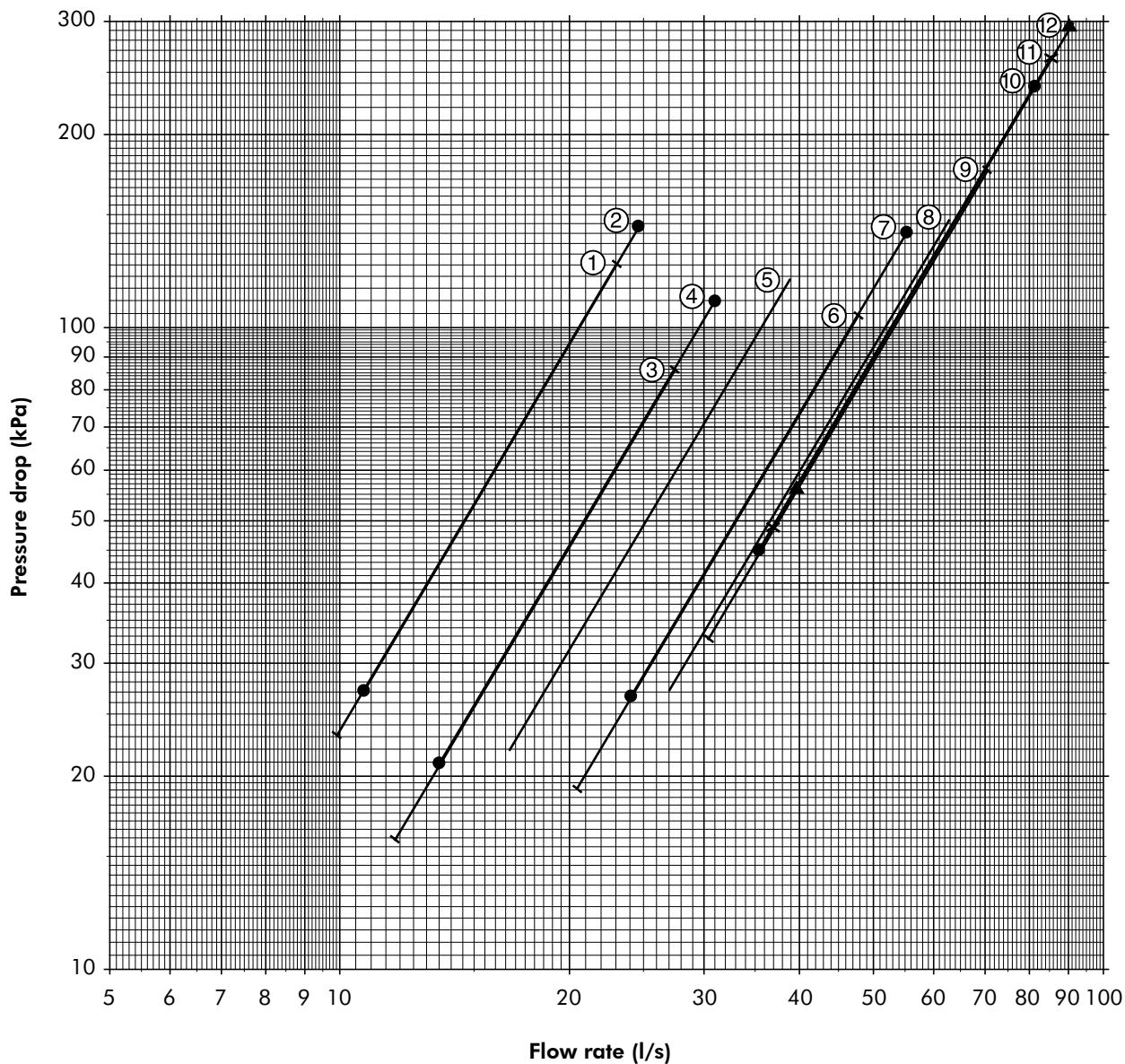
SWR Models	LWT Evap. (°C)	Condensing temperature (°C)																	
		30			35			40			45			50			55		
		Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)	Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)	Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)	Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)	Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)	Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)
1602	5	271.1	53.1	324.2	260.4	58.7	319.1	247.4	64.6	312.0	233.9	70.8	304.7	217.8	77.4	295.1	200.5	84.2	284.8
	6	281.0	53.4	334.3	269.9	59.1	329.0	256.5	65.1	321.6	242.7	71.4	314.0	226.3	78.0	304.3	208.5	85.0	293.5
	7	291.0	53.6	344.7	279.6	59.4	339.0	<b>265.9</b>	<b>65.5</b>	<b>331.4</b>	251.7	72.0	323.6	234.9	78.8	313.7	216.7	85.8	304.7
	8	301.3	53.9	355.2	289.6	59.8	349.3	275.4	65.9	341.4	260.9	72.5	333.4	243.9	79.5	323.3	225.0	86.6	311.6
	9	311.8	54.2	366.0	299.7	60.1	359.8	285.2	66.4	351.6	270.3	73.1	343.4	253.0	80.2	333.2	233.6	87.5	321.1
	10	322.5	54.5	377.0	310.1	60.5	370.6	295.1	66.9	362.0	279.9	73.7	353.6	262.3	81.0	343.3	242.4	88.4	330.8
	11	333.4	54.8	388.3	320.6	60.9	381.5	305.3	67.3	372.6	289.8	74.2	364.0	271.9	81.7	353.6	251.4	89.3	340.7
	12	344.5	55.2	399.8	331.4	61.3	392.7	315.6	67.8	383.4	299.8	74.8	374.6	281.7	82.5	364.3	260.7	90.3	351.0
	13	355.8	55.6	411.5	342.4	61.7	404.1	326.2	68.3	394.4	310.0	75.4	385.4	291.7	83.4	375.0	270.1	91.3	361.5
	14	367.4	56.1	423.5	353.5	62.2	415.7	336.9	68.7	405.7	320.5	75.9	396.4	301.9	84.2	386.2	279.8	92.5	372.3
	15	379.2	56.6	435.8	364.9	62.7	427.6	347.9	69.2	417.1	331.1	76.5	407.6	312.4	85.1	397.5	289.7	93.7	383.4
1902	5	361.5	64.3	425.8	347.2	71.1	418.2	329.8	78.2	408.0	311.8	85.7	397.5	290.4	93.6	384.0	267.4	101.9	369.3
	6	374.6	64.6	439.2	359.9	71.5	431.3	342.0	78.7	420.8	323.6	86.3	409.9	301.7	94.4	396.1	278.0	102.8	380.8
	7	388.1	64.9	452.9	372.9	71.9	444.7	<b>354.5</b>	<b>79.3</b>	<b>433.8</b>	335.5	87.1	422.6	313.3	95.3	408.5	288.9	103.8	392.7
	8	401.7	65.2	466.9	386.1	72.3	458.4	367.3	79.8	447.1	347.9	87.7	435.6	325.2	96.1	421.3	300.0	104.8	404.8
	9	415.7	65.5	481.3	399.6	72.7	472.4	380.2	80.3	460.6	360.4	88.5	448.8	321.5	97.1	434.4	311.5	105.8	417.3
	10	430.0	65.9	495.9	413.4	73.2	486.6	393.5	80.9	474.4	373.2	89.1	462.4	349.8	98.0	447.7	323.2	106.9	430.1
	11	444.6	66.3	510.9	427.5	73.7	501.2	407.1	81.4	488.5	386.4	89.8	476.2	362.5	98.9	461.4	335.3	108.0	443.3
	12	459.4	66.8	526.2	441.8	74.2	516.0	420.8	82.0	502.8	399.7	90.5	490.2	375.6	99.9	475.5	347.6	109.2	456.8
	13	474.5	67.3	541.8	456.5	74.7	531.2	434.9	82.6	517.5	413.4	91.2	504.6	388.9	100.9	489.8	360.2	110.5	470.7
	14	489.9	67.9	557.7	471.3	75.3	546.6	449.2	83.2	532.4	427.3	91.9	519.2	402.6	101.9	504.5	373.1	111.9	485.0
	15	506.5	68.5	574.0	486.5	75.9	562.3	463.8	83.7	547.6	441.4	92.6	534.0	416.5	103.0	519.5	386.3	113.3	499.6
2202	5	438.9	77.8	516.6	421.5	86.0	507.5	400.4	94.6	495.1	378.6	103.6	482.2	352.5	113.3	465.8	324.6	123.3	447.9
	6	454.8	78.1	533.0	436.9	86.5	523.4	415.3	95.3	510.5	392.8	104.5	497.3	366.3	114.3	480.5	337.5	124.4	461.9
	7	471.1	78.5	549.6	452.7	87.0	539.7	<b>430.4</b>	<b>95.9</b>	<b>526.3</b>	407.4	105.4	512.7	380.3	115.3	495.6	350.7	125.6	476.3
	8	487.8	78.9	566.7	468.8	87.5	556.3	445.9	96.6	542.4	422.4	106.2	528.5	394.8	116.3	511.1	364.3	126.8	491.1
	9	504.8	79.3	584.1	485.2	88.0	573.2	461.7	97.2	558.9	437.6	107.0	544.6	409.5	117.4	527.0	378.1	128.0	506.2
	10	522.0	79.8	601.8	502.0	88.6	590.5	477.7	97.9	575.6	453.2	107.9	561.0	424.7	118.5	543.2	392.4	129.4	521.8
	11	539.7	80.3	620.0	519.0	89.1	608.2	494.2	98.5	592.8	469.1	108.7	577.8	440.2	119.7	559.8	407.0	130.7	537.8
	12	557.8	80.8	638.6	534.6	89.7	626.2	510.9	99.3	610.2	485.3	109.5	594.8	456.1	120.8	576.9	422.0	132.2	554.2
	13	576.0	81.5	657.5	554.2	90.4	644.6	528.0	99.9	627.9	501.9	110.3	612.2	472.1	122.1	594.2	437.3	133.7	571.0
	14	594.8	82.1	676.9	572.2	91.1	663.3	545.4	100.6	646.0	518.8	111.2	630.0	488.7	123.3	612.1	453.0	135.4	588.4
	15	613.8	82.9	696.7	590.6	91.8	682.4	563.1	101.3	664.5	535.9	112.0	648.0	505.7	124.6	630.3	469.0	137.2	606.1
2212	5	532.4	102.2	634.7	510.7	105.3	616.0	484.8	115.2	600.0	458.1	125.6	583.7	427.7	137.4	565.1	395.0	149.9	544.9
	6	550.0	103.0	653.0	527.8	106.1	633.8	501.1	116.1	617.2	473.9	126.6	600.5	443.2	138.4	581.6	409.5	151.1	560.6
	7	568.0	103.7	671.7	544.9	106.9	651.8	<b>517.7</b>	<b>117.0</b>	<b>634.7</b>	490.0	127.6	617.6	590.4	139.5	598.4	424.4	152.2	576.6
	8	586.4	104.4	690.8	563.0	107.5	670.6	534.6	117.9	652.5	506.4	128.6	635.0	474.9	140.5	615.4	439.6	153.3	592.8
	9	604.6	105.2	709.8	580.6	108.4	689.0	551.9	118.8	670.6	523.0	129.6	652.6	491.2	141.5	632.7	454.9	154.3	609.3
	10	622.9	106.0	728.9	598.4	109.3	707.7	569.2	119.7	688.8	540.0	130.5	670.5	507.8	142.5	650.3	470.5	155.4	625.9
	11	641.4	106.9	748.3	616.4	110.1	726.5	586.6	120.6	707.2	556.9	131.6	688.5	524.9	143.4	668.3	486.4	156.4	642.8
	12	658.5	107.6	766.2	634.4	111.0	745.4	604.1	121.6	725.6	574.2	132.5	706.7	541.9	144.3	686.2	502.6	157.3	659.9
	13	678.3	108.6	786.9	652.4	111.9	764.3	621.6	122.5	744.1	591.5	133.5	725.0	558.9	145.3	704.2	518.9	158.2	677.1
	14	696.5	109.4	806.0	670.2	112.8	783.0	639.0	123.5	762.5	608.6	134.5	743.2	576.3	146.2	722.4	535.4	159.0	694.5
	15	714.3	110.1	824.4	687.6	113.5	801.2	655.6	124.3	779.9	624.5	135.5	760.0	591.5	147.3	738.8	549.6	160.3	709.9
2352	5	568.0	102.2	670.2	544.8	112.5	657.4	517.2	123.1	640.3	488.6	134.3	622.9	456.3	146.8	603.1	421.3	160.2	581.6
	6	586.7	103.0	687.9	563.0	113.4	674.6	534.6	124.1	658.7	505.6	135.3	640.9	472.8	147.9	620.7	436.9	161.4	598.3
	7	605.9	103.7	709.6	581.3	114.3	695.6	<b>552.2</b>	<b>125.1</b>	<b>677.3</b>	522.7	136.4	659.1	489.6	149.0	638.7	452.8	162.6	615.4
	8	625.6	104.4	729.9	600.6	114.9	715.6	570.3	126.0	696.3	540.2	137.4	677.6	506.6	150.2	656.8	468.9	163.8	632.7
	9	645.0	105.2	750.2	619.4	115.8	735.3	588.8	126.9	715.7	558.0	138.5	696.4	524.0	151.2	675.3	485.3	164.9	650.3
	10	664.5	106.0	770.5	638.4	116.8	755.2	607.2	127.9	735.1	576.0	139.5	715.5	541.7	152.3	694.0	501.9	166.1	668.0
	11	684.3	106.9	791.1	657.6</														

# Cooling Capacities - SWR 3012 to 4802 - HFC 134a

SWR Models	LWT Evap. (°C)	Condensing temperature (°C)																	
		30			35			40			45			50			55		
		Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)	Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)	Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)	Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)	Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)	Cooling Cap. (kW)	Input (kW)	Heat rej. (kW)
3012	5	720.2	132.7	852.9	690.9	146.1	836.9	655.8	159.8	815.6	619.6	174.3	793.9	578.6	190.6	769.2	534.3	208.0	742.3
	6	744.0	133.7	877.7	713.9	147.2	861.1	677.8	161.1	838.9	641.1	175.6	816.7	599.5	192.0	791.5	554.0	209.5	763.5
	7	768.3	134.6	902.9	737.1	148.3	885.4	700.2	162.3	862.6	662.8	177.0	839.9	620.9	193.4	814.3	574.1	211.1	785.2
	8	793.2	135.5	928.7	761.6	149.2	910.8	723.2	163.5	886.7	684.9	178.4	863.3	642.4	194.9	837.3	594.6	212.6	807.2
	9	817.8	136.5	954.4	785.4	150.4	935.8	746.6	164.7	911.3	707.5	179.8	887.2	664.5	196.3	860.8	615.4	214.1	829.5
	10	842.6	137.6	980.2	809.5	151.6	961.1	769.9	166.0	935.9	730.4	181.1	911.5	686.9	197.7	884.6	636.4	215.6	852.0
	11	867.7	138.7	1006.4	833.8	152.8	986.6	793.5	167.3	960.8	753.3	182.5	935.8	710.1	198.9	908.9	658.0	216.9	874.9
	12	890.8	139.7	1030.5	858.1	154.0	1012.1	817.1	168.6	985.8	776.7	183.8	960.6	733.0	200.2	933.2	679.9	218.2	898.1
	13	917.6	140.9	1058.6	882.5	155.3	1037.8	840.8	170.0	1010.8	800.1	185.2	985.3	756.0	201.6	957.6	701.9	219.5	921.4
	14	942.2	142.0	1084.2	906.6	156.5	1063.0	864.4	171.3	1035.7	823.3	186.6	1010.0	779.5	202.8	982.3	724.3	220.6	944.9
	15	966.2	142.9	1109.2	930.2	157.5	1087.7	886.8	172.5	1059.3	844.8	188.0	1032.8	800.1	204.3	1004.4	743.5	222.4	965.9
3202	5	789.1	144.1	933.2	756.9	158.7	915.6	718.5	173.6	892.1	678.8	189.3	868.2	633.9	207.0	840.9	585.3	225.9	811.3
	6	815.1	145.2	960.3	782.1	159.9	942.0	742.6	175.0	917.6	702.3	190.8	893.1	656.8	208.6	865.4	606.9	227.6	834.6
	7	841.7	146.3	988.0	807.6	161.1	968.7	767.2	176.4	943.5	726.2	192.3	918.5	680.2	210.1	890.4	629.0	229.3	858.3
	8	869.1	147.2	1016.2	834.4	162.1	996.5	792.3	177.7	970.0	750.4	193.8	944.2	703.8	211.7	915.6	651.5	231.0	882.4
	9	896.0	148.3	1044.4	860.5	163.4	1023.9	817.9	179.0	996.9	775.1	195.3	970.4	728.0	213.3	941.3	674.2	232.6	906.8
	10	923.1	149.5	1072.7	886.9	164.7	1051.5	843.5	180.3	1023.8	800.2	196.7	996.9	752.5	214.8	967.3	697.3	234.2	931.5
	11	950.6	150.7	1101.3	913.5	166.0	1079.5	869.3	181.8	1051.1	825.4	198.2	1023.6	777.9	216.1	994.0	720.9	235.7	956.5
	12	975.9	151.8	1127.7	940.2	167.3	1107.5	895.2	183.2	1078.4	851.0	199.7	1050.7	803.1	217.5	1020.6	744.9	237.1	981.9
	13	1005.3	153.1	1158.4	966.9	168.7	1135.5	921.2	184.7	1105.8	876.6	201.2	1077.8	828.3	219.0	1047.3	769.0	238.4	1007.4
	14	1032.3	154.3	1186.6	993.2	170.0	1163.2	947.0	186.1	1133.2	902.0	202.7	1104.8	854.0	220.3	1074.3	793.5	239.6	1033.2
	15	1058.6	155.3	1213.9	1019.1	171.1	1190.2	971.6	187.4	1159.0	925.5	204.2	1129.7	876.6	222.0	1098.6	814.5	241.6	1056.1
3412	5	846.6	153.3	1000.0	812.1	168.8	980.9	770.9	184.7	955.5	728.4	201.4	929.7	680.1	220.2	900.4	628.0	240.3	868.4
	6	874.5	154.5	1029.0	839.2	170.0	1009.3	796.8	186.1	982.9	753.6	202.9	956.5	704.8	221.9	926.6	651.2	242.1	893.3
	7	903.1	155.6	1058.7	866.5	171.4	1037.9	823.1	187.6	1010.7	779.2	204.5	983.7	729.8	223.5	953.4	674.9	243.9	918.8
	8	932.5	156.5	1089.0	895.3	172.4	1067.7	850.1	189.0	1039.1	805.2	206.1	1011.3	755.2	225.2	980.4	699.0	245.7	944.6
	9	961.4	157.8	1119.2	923.3	173.8	1097.0	877.6	190.3	1067.9	831.7	207.7	1039.4	781.1	226.9	1008.0	723.4	247.4	970.8
	10	990.5	159.1	1149.5	951.6	175.2	1126.7	905.0	191.8	1096.9	858.6	209.2	1067.8	807.4	228.5	1035.9	748.1	249.1	997.2
	11	1020.0	160.3	1180.3	980.1	176.6	1156.7	932.7	193.3	1126.1	885.6	210.9	1096.4	834.7	229.8	1064.5	773.4	250.7	1024.1
	12	1047.1	161.5	1208.6	1008.7	178.0	1186.7	960.5	194.9	1155.4	913.1	212.4	1125.5	861.7	231.3	1093.0	799.2	252.1	1051.4
	13	1078.7	162.9	1241.5	1037.4	179.4	1216.8	988.4	196.4	1184.8	940.5	214.0	1154.5	888.7	233.0	1121.6	825.1	253.6	1078.7
	14	1107.6	164.1	1271.7	1065.7	180.8	1246.5	1016.1	198.0	1214.1	967.8	215.7	1183.5	916.3	234.3	1150.7	851.4	254.9	1106.3
	15	1135.8	165.1	1301.0	1093.4	182.0	1275.4	1042.5	199.3	1241.8	993.1	217.2	1210.3	940.6	236.1	1176.6	874.0	257.0	1130.9
3602	5	904.2	153.3	1057.5	867.3	178.9	1046.2	823.3	195.7	1019.0	777.9	213.4	991.3	726.4	233.4	959.8	670.7	254.7	925.5
	6	934.0	154.5	1088.5	896.3	180.2	1076.5	851.0	197.3	1048.2	804.8	215.1	1019.9	752.7	235.2	987.8	695.5	256.6	952.1
	7	964.5	155.6	1120.1	925.4	181.7	1107.0	879.1	198.8	1077.9	832.2	216.8	1048.9	779.5	236.9	1016.4	720.8	258.5	979.3
	8	995.9	156.5	1152.4	956.1	182.7	1138.8	907.9	200.3	1108.2	859.9	218.5	1078.4	806.5	238.7	1045.2	746.5	260.4	1006.9
	9	1026.7	157.8	1184.5	986.0	184.2	1170.2	937.3	201.7	1139.0	888.2	220.1	1108.4	834.2	240.4	1074.6	772.6	262.2	1034.8
	10	1057.8	159.1	1216.9	1016.3	185.6	1201.9	966.6	203.3	1169.9	917.0	221.8	1138.7	862.3	242.1	1104.5	799.0	264.0	1063.0
	11	1089.3	160.3	1249.6	1046.8	187.1	1233.9	996.2	204.9	1201.1	945.8	223.5	1169.3	891.4	243.6	1135.0	826.0	265.7	1091.7
	12	1118.3	161.5	1279.8	1077.3	188.6	1265.9	1025.8	206.5	1232.4	975.1	225.1	1200.3	920.3	245.2	1165.5	853.6	267.2	1120.8
	13	1152.0	162.9	1314.9	1107.9	190.1	1298.1	1055.6	208.2	1263.7	1004.5	226.8	1231.3	949.1	246.9	1196.0	881.2	268.8	1150.0
	14	1182.9	164.1	1347.0	1138.2	191.6	1329.8	1098.2	209.8	1295.0	1033.6	228.6	1262.2	978.6	248.4	1227.0	909.3	270.2	1179.5
	15	1213.0	165.1	1378.2	1167.8	192.9	1360.6	1113.3	211.2	1324.6	1060.6	230.2	1290.8	1004.5	250.2	1254.7	933.4	272.4	1205.7
4212	5	967.8	153.3	1121.2	928.4	204.4	1132.8	881.2	223.6	1104.9	832.6	243.9	1076.5	775.7	266.7	1044.2	718.0	291.1	1009.0
	6	999.7	154.5	1154.2	959.3	205.9	1165.3	910.8	225.4	1136.3	861.5	245.8	1107.2	805.6	268.7	1074.3	744.4	293.2	1037.7
	7	1032.4	155.6	1188.0	990.5	207.6	1198.1	941.0	227.2	1168.2	890.7	247.7	1138.4	834.3	270.7	1105.0	771.5	295.4	1066.9
	8	1066.0	156.5	1222.5	1023.4	208.8	1232.2	971.8	228.9	1200.7	920.4	249.7	1170.1	863.3	272.8	1136.0	799.0	297.5	1096.6
	9	1099.0	157.8	1256.8	1055.4	210.4	1265.9	1003.2	230.5	1233.7	950.7	251.6	1202.3</td						

# Water Pressure Drops

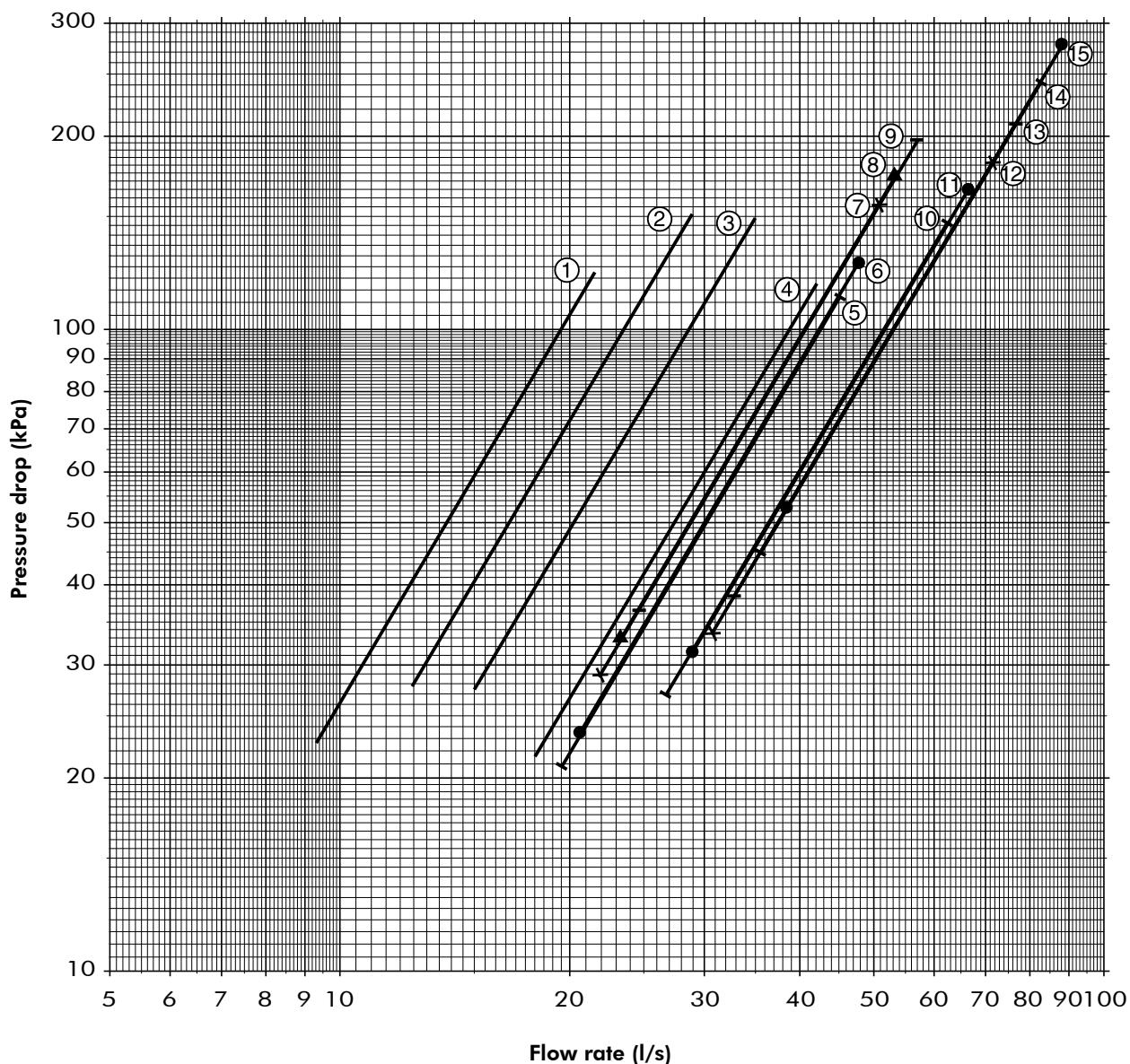
## Evaporator - HFC 407C



- |     |           |      |           |
|-----|-----------|------|-----------|
| (1) | Size 1002 | (7)  | Size 2602 |
| (2) | Size 1202 | (8)  | Size 3002 |
| (3) | Size 1402 | (9)  | Size 3402 |
| (4) | Size 1602 | (10) | Size 3802 |
| (5) | Size 1902 | (11) | Size 4202 |
| (6) | Size 2202 | (12) | Size 4402 |

## Water Pressure Drops (continued)

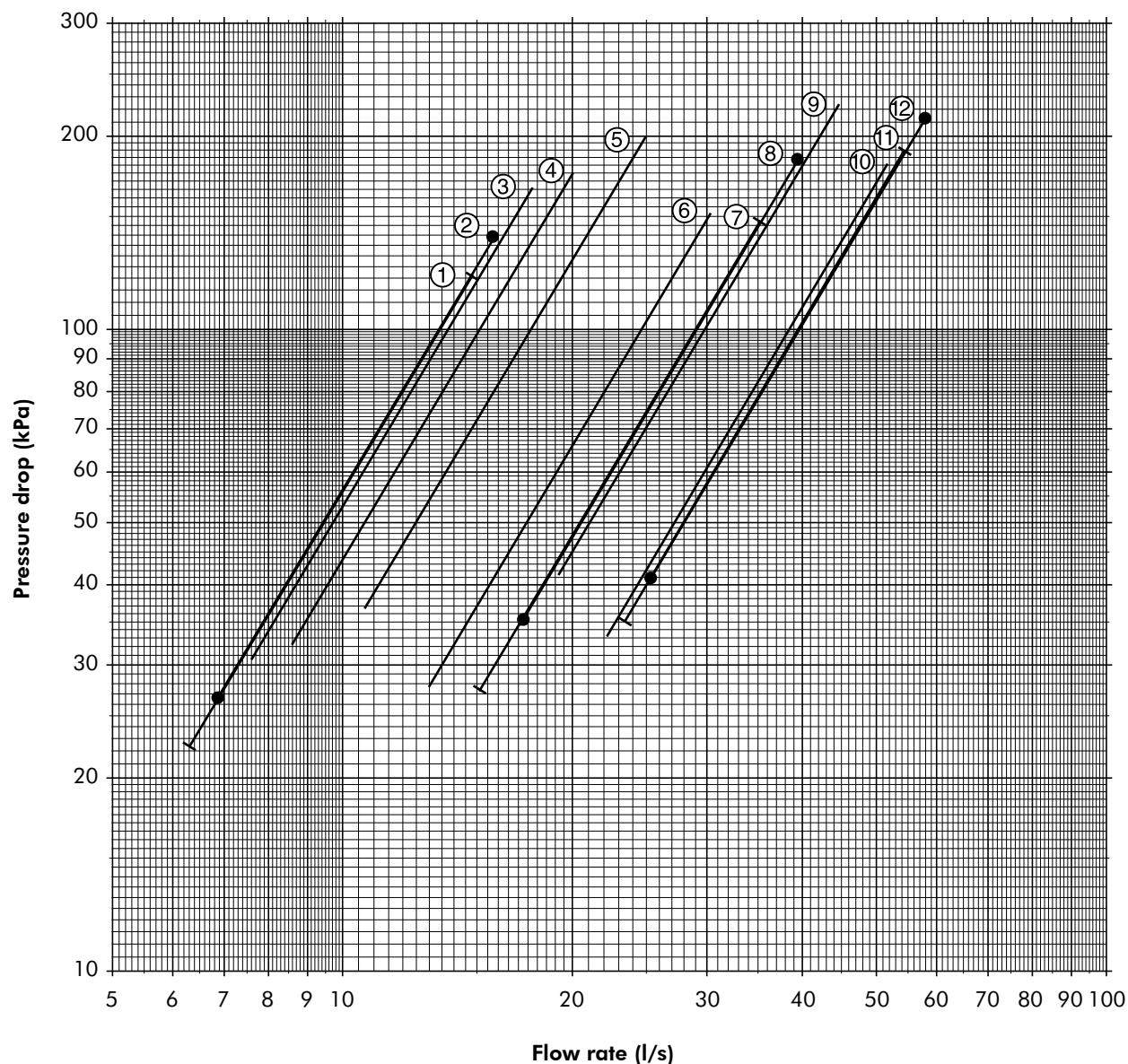
### Evaporator - HFC 134a



- |     |           |      |           |
|-----|-----------|------|-----------|
| (1) | Size 1602 | (9)  | Size 3012 |
| (2) | Size 1902 | (10) | Size 3202 |
| (3) | Size 2202 | (11) | Size 3412 |
| (4) | Size 2212 | (12) | Size 3602 |
| (5) | Size 2352 | (13) | Size 4212 |
| (6) | Size 2502 | (14) | Size 4602 |
| (7) | Size 2652 | (15) | Size 4802 |
| (8) | Size 2802 |      |           |

## Water Pressure Drops (continued)

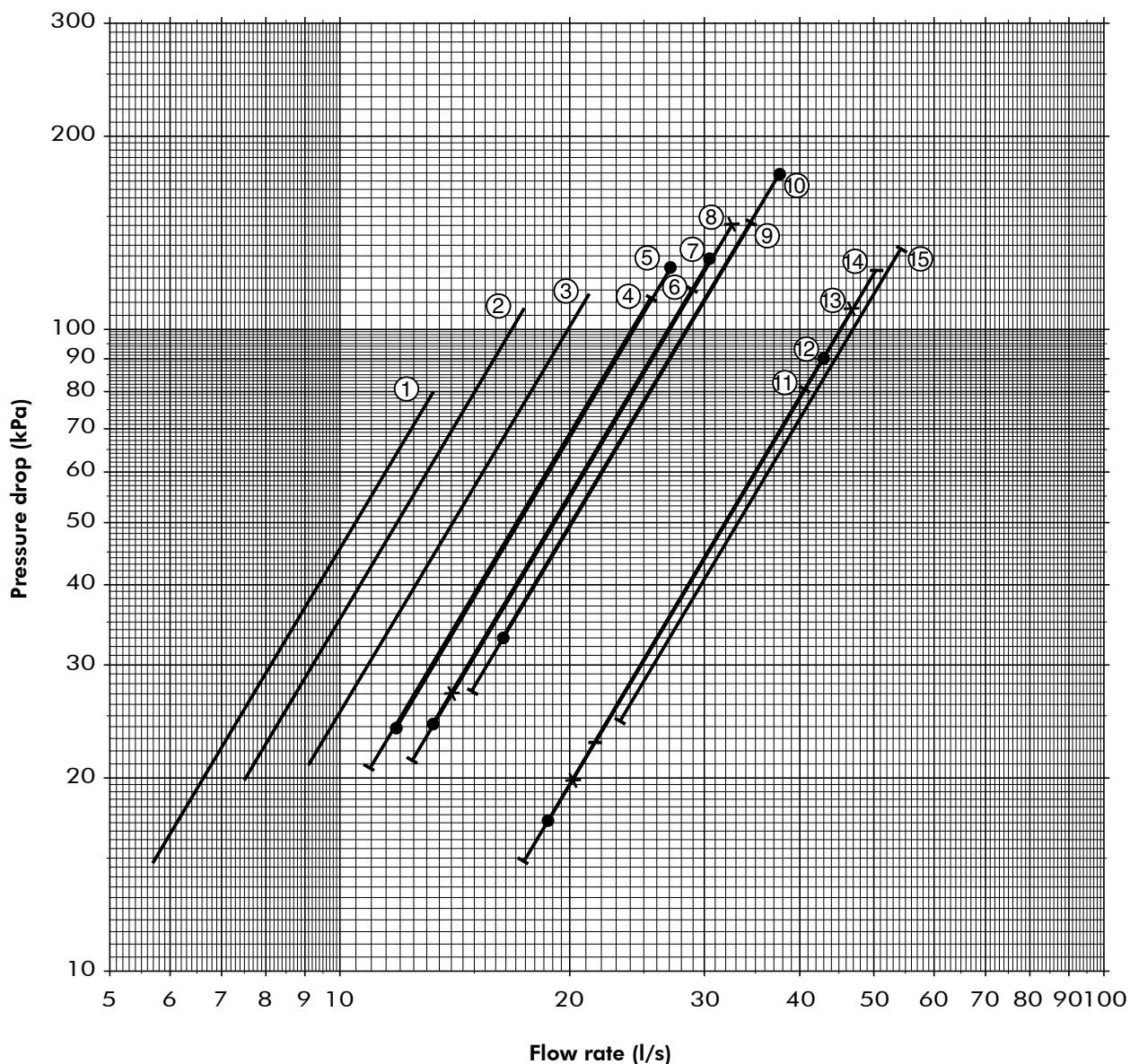
### Condensers - HFC 407C



- (1) Size 1002      (7) Size 2602
- (2) Size 1202      (8) Size 3002
- (3) Size 1402      (9) Size 3402
- (4) Size 1602      (10) Size 3802
- (5) Size 1902      (11) Size 4202
- (6) Size 2202      (12) Size 4402

## Water Pressure Drops (continued)

### Condensers - HFC 134a



- |     |           |      |           |
|-----|-----------|------|-----------|
| (1) | Size 1602 | (9)  | Size 3012 |
| (2) | Size 1902 | (10) | Size 3202 |
| (3) | Size 2202 | (11) | Size 3412 |
| (4) | Size 2212 | (12) | Size 3602 |
| (5) | Size 2352 | (13) | Size 4212 |
| (6) | Size 2502 | (14) | Size 4602 |
| (7) | Size 2652 | (15) | Size 4802 |
| (8) | Size 2802 |      |           |

## Frame Sizes

### SWS / SWR - HFC 407C - STD / LN / ELN Versions

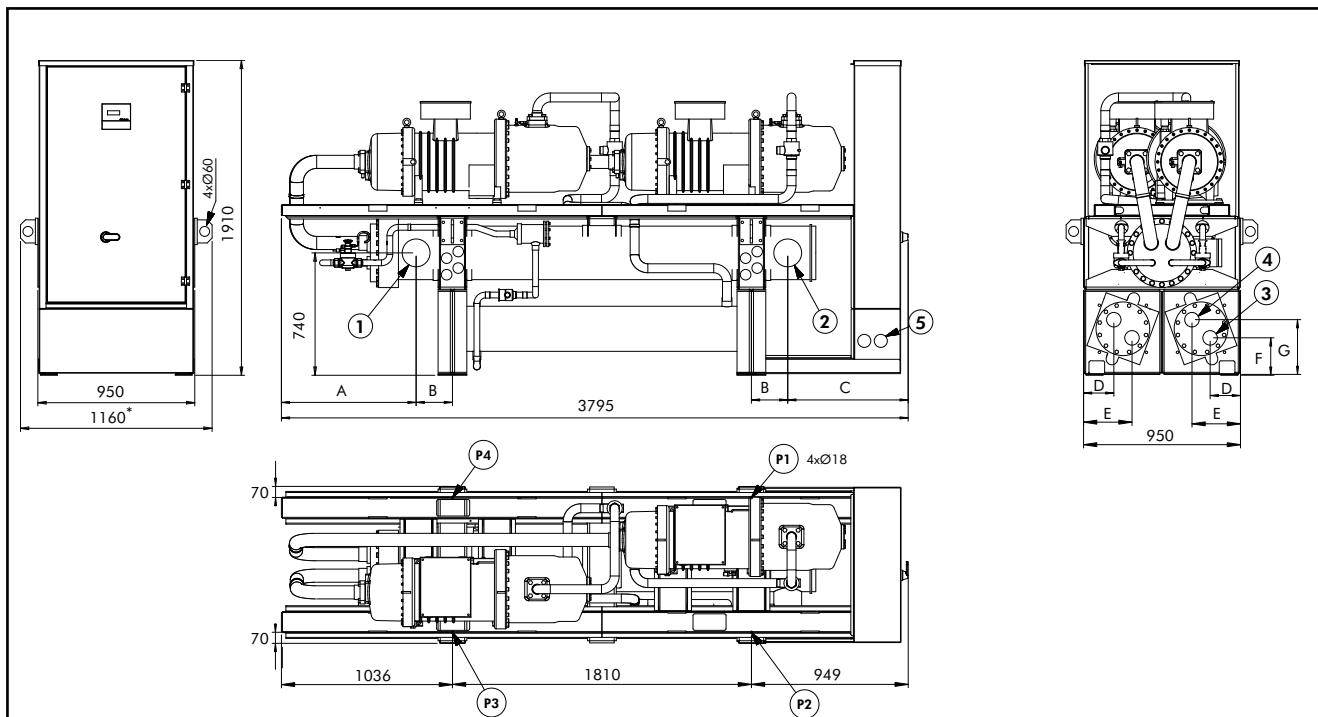
Frames	SWS / SWR Sizes
1	1002, 1202, 1402, 1602 and 1902
2	2202, 2602, 3002, 3402, 3802, 4202 and 4402

### SWS / SWR - HFC 134a - STD / LN / ELN Versions

Frames	SWS / SWR Sizes
1	1602 and 1902
2	2202, 2212, 2352, 2502, 2652, 2802 and 3012
3	3202, 3412, 3602 and 4212
4	4602 and 4802

## Dimensions (in mm)

### SWS STD Frame 1



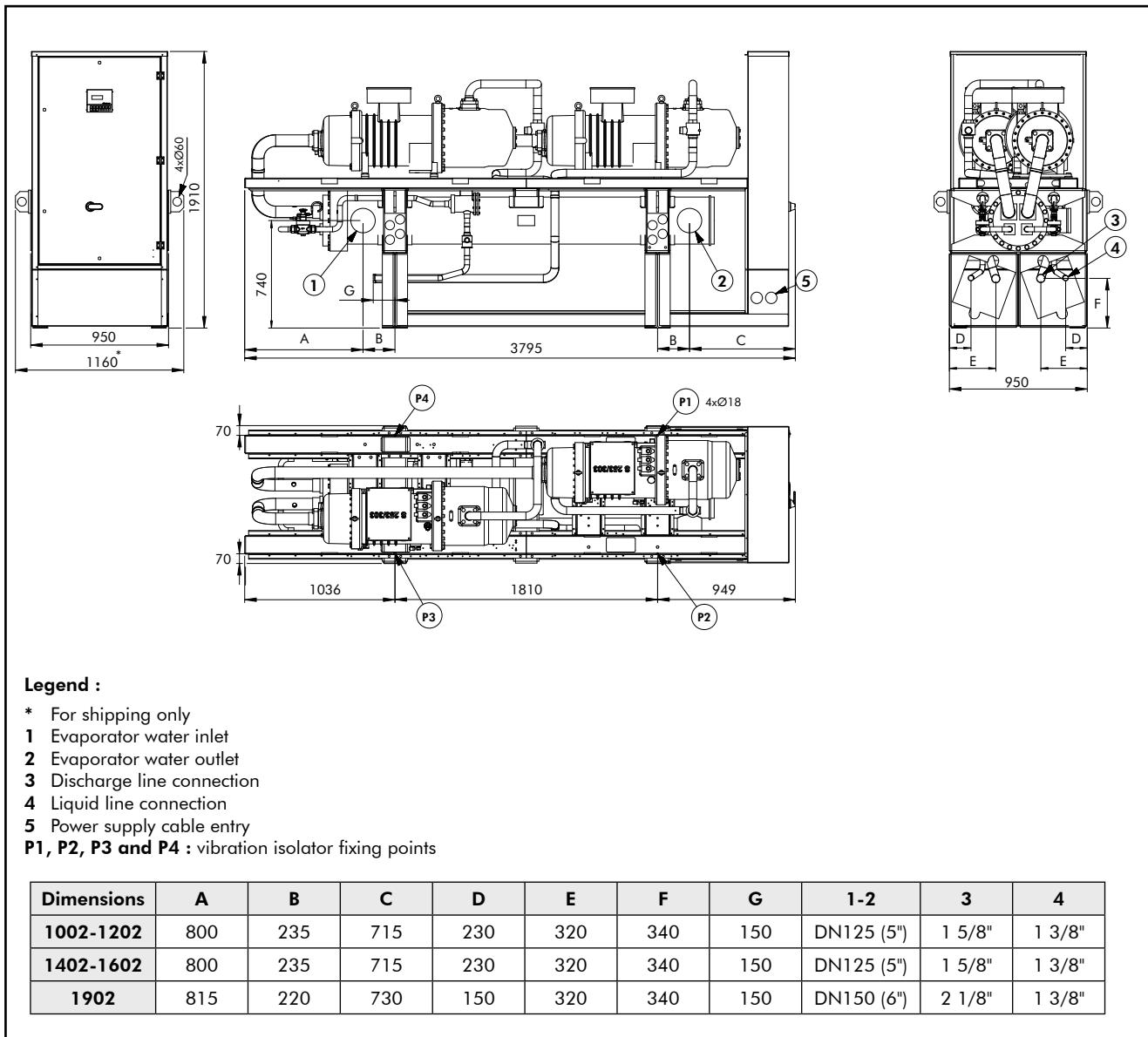
#### Legend :

- \* For shipping only
  - 1 Evaporator water inlet
  - 2 Evaporator water outlet
  - 3 Condenser water inlet
  - 4 Condenser water outlet
  - 5 Power supply cable entry
- P1, P2, P3 and P4 : vibration isolator fixing points

Dimensions	A	B	C	D	E	F	G	1-2	3-4
<b>1002-1202</b>	800	235	715	205	275	245	315	DN125 (5")	2"1/2 GAS F
<b>1402-1602</b>	800	235	715	205	275	245	315	DN125 (5")	2"1/2 GAS F
<b>1902</b>	815	220	730	185	295	225	335	DN150 (6")	3" GAS F

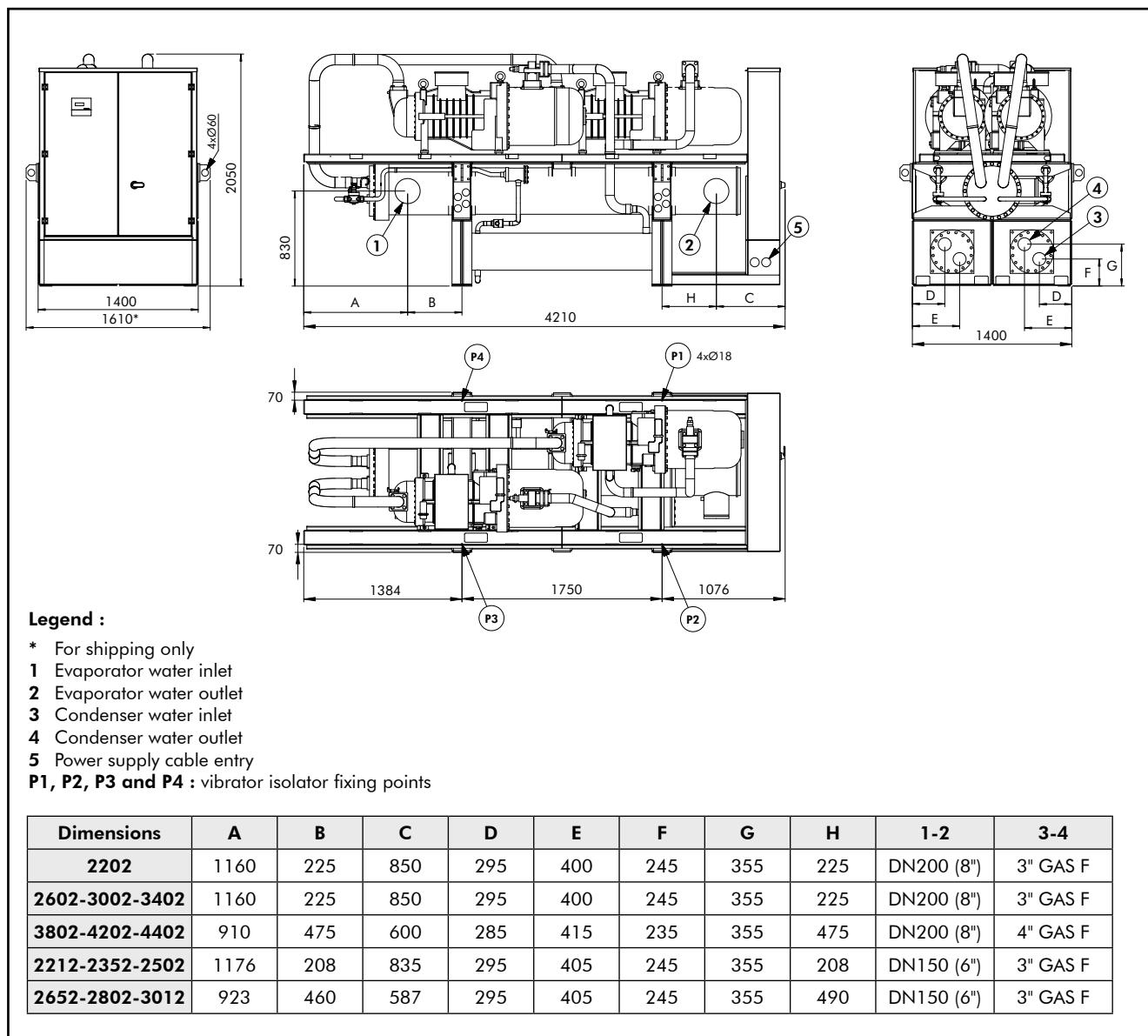
## Dimensions (in mm) (cont'd)

### SWR STD Frame 1



## Dimensions (in mm) (cont'd)

### SWS STD Frame 2

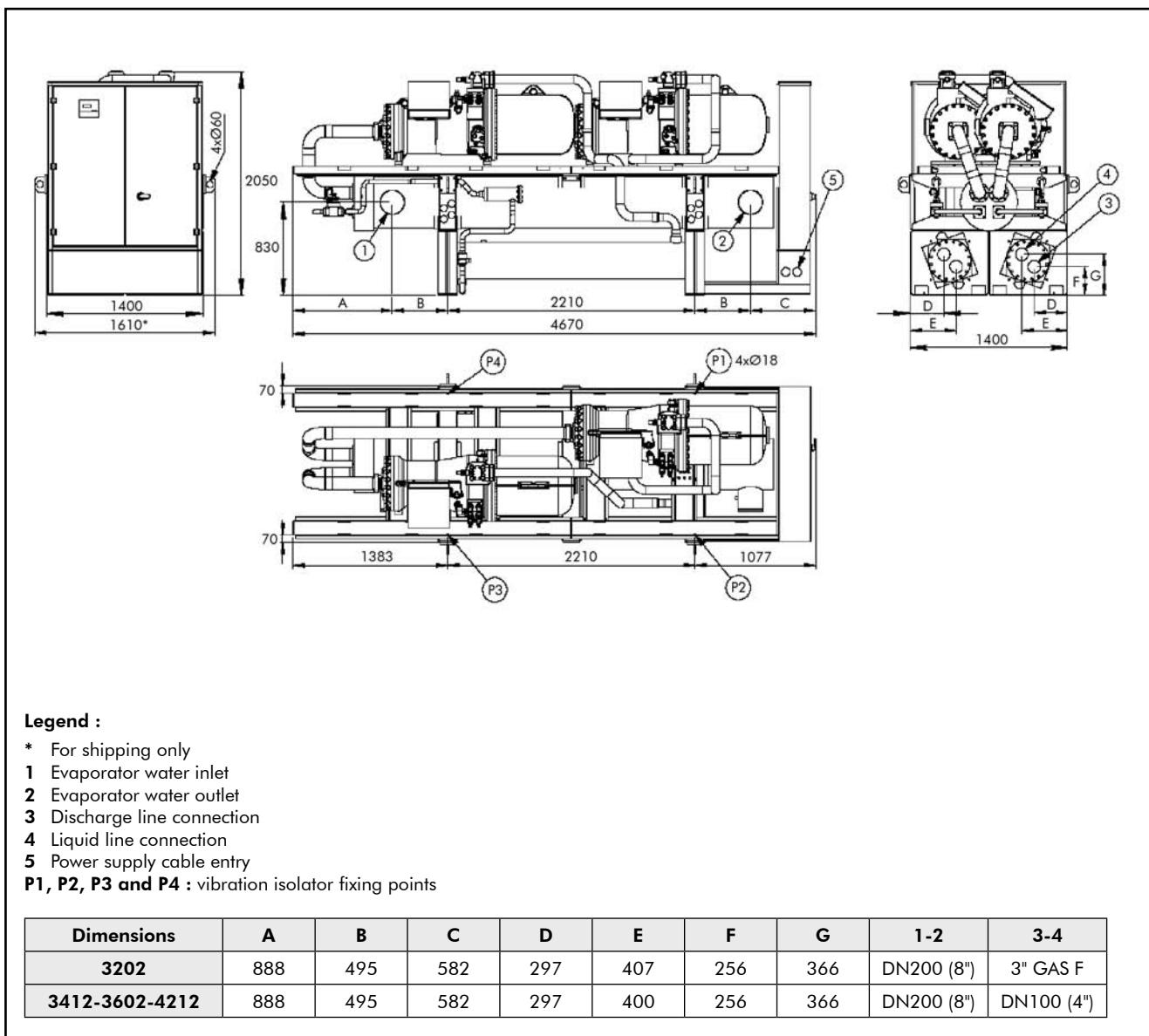


### SWR STD Frame 2

Data available during unit manufacturing. For external dimensions, please refer to SWS STD Frame 2 dimensions.

## Dimensions (in mm) (cont'd)

### SWS STD Frame 3

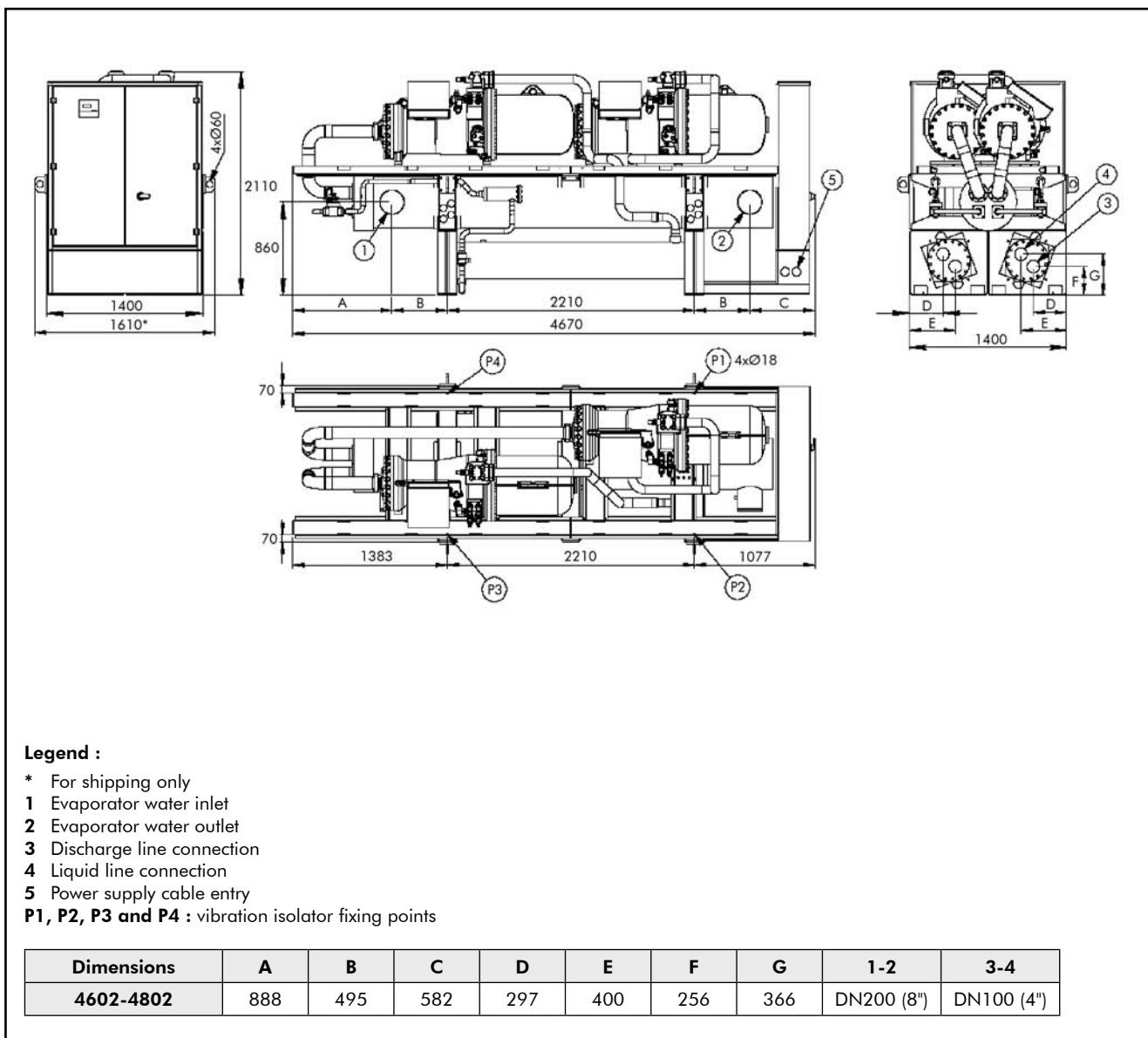


### SWR STD Frame 3

Data available during unit manufacturing. For external dimensions, please refer to SWS STD Frame 3 dimensions.

## Dimensions (in mm) (cont'd)

### SWS STD Frame 4

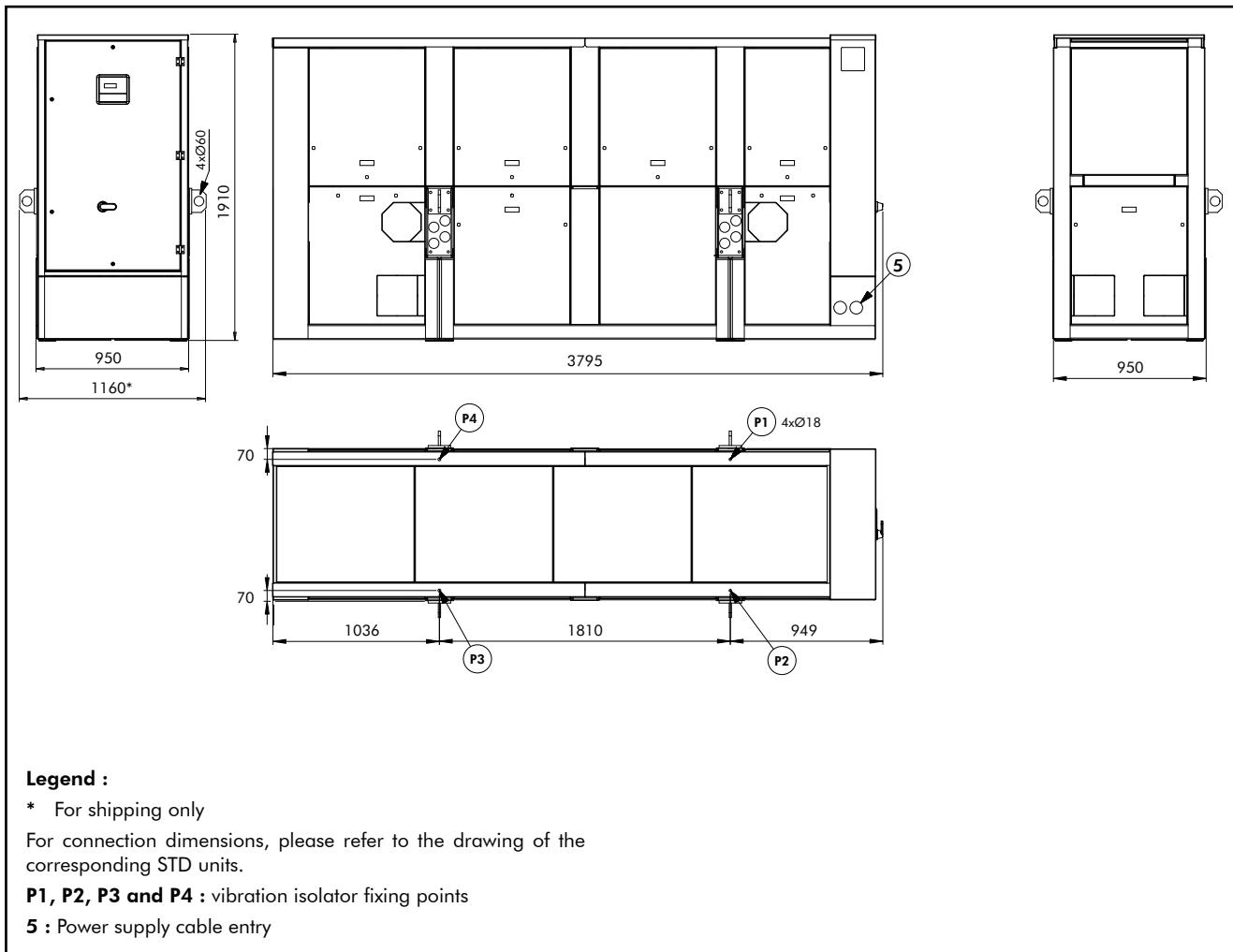


### SWR STD Frame 4

Data available during unit manufacturing. For external dimensions, please refer to SWS STD Frame 4 dimensions.

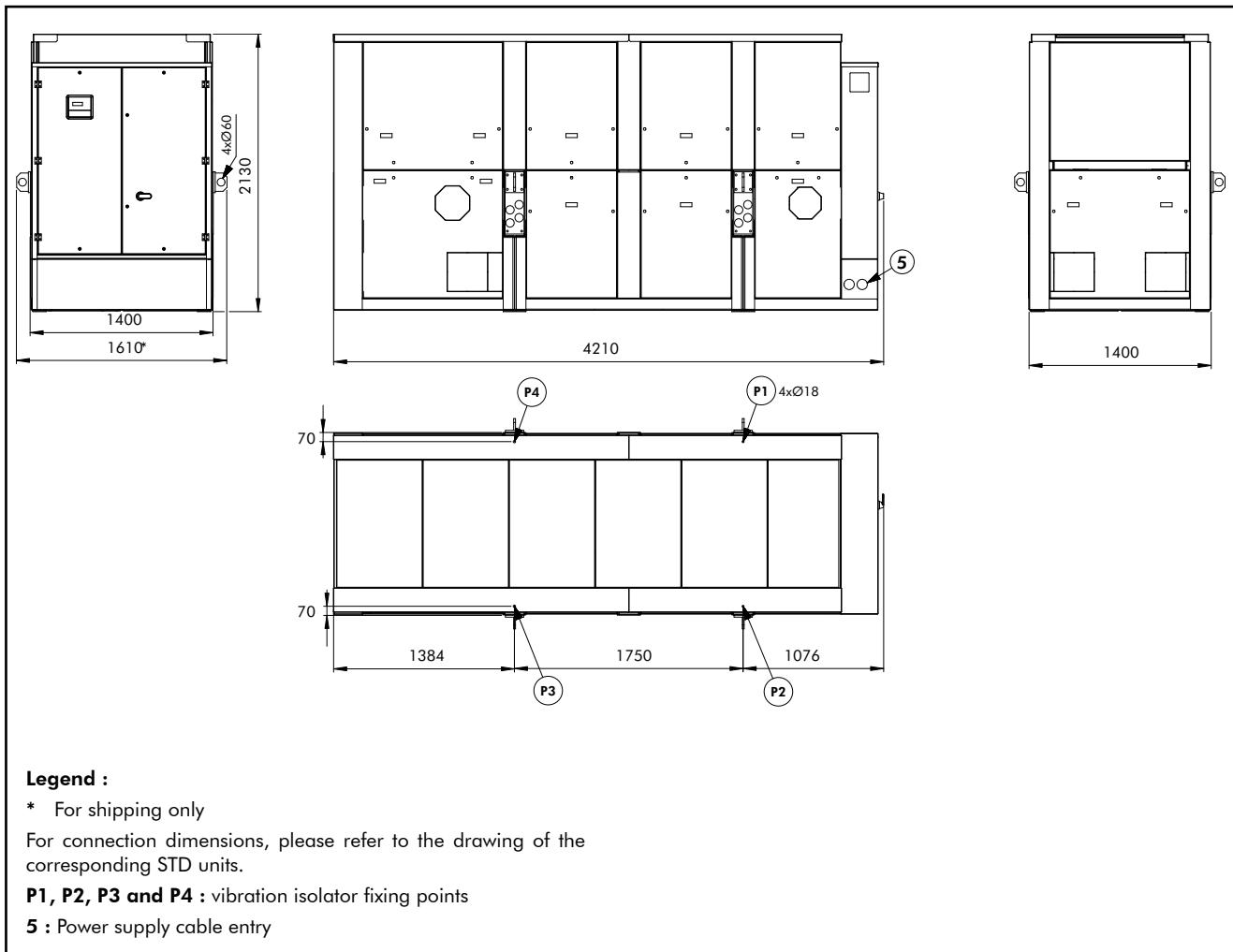
## Dimensions (in mm) (cont'd)

### SWS / SWR LN-ELN Frame 1



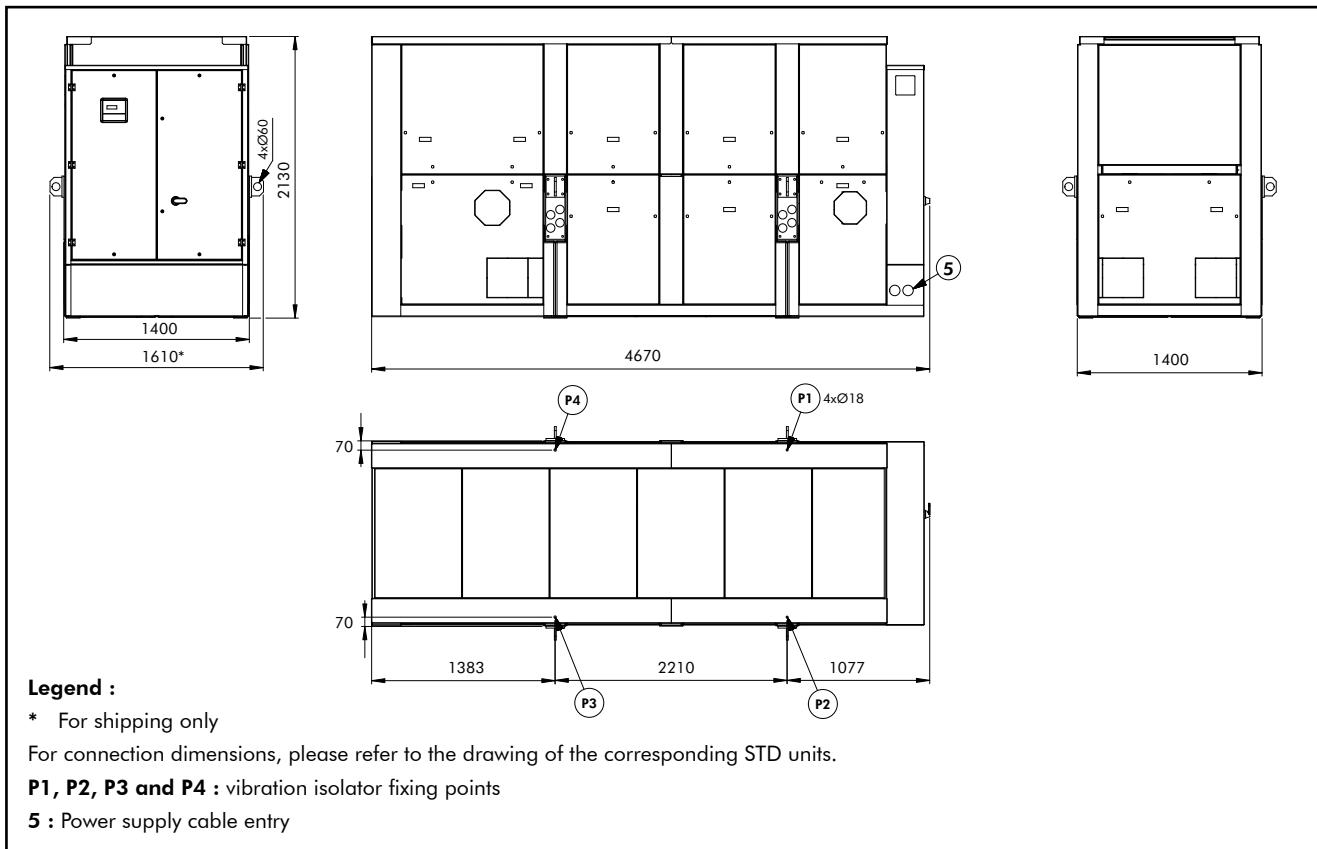
## Dimensions (in mm) (cont'd)

### SWS / SWR LN-ELN Frame 2

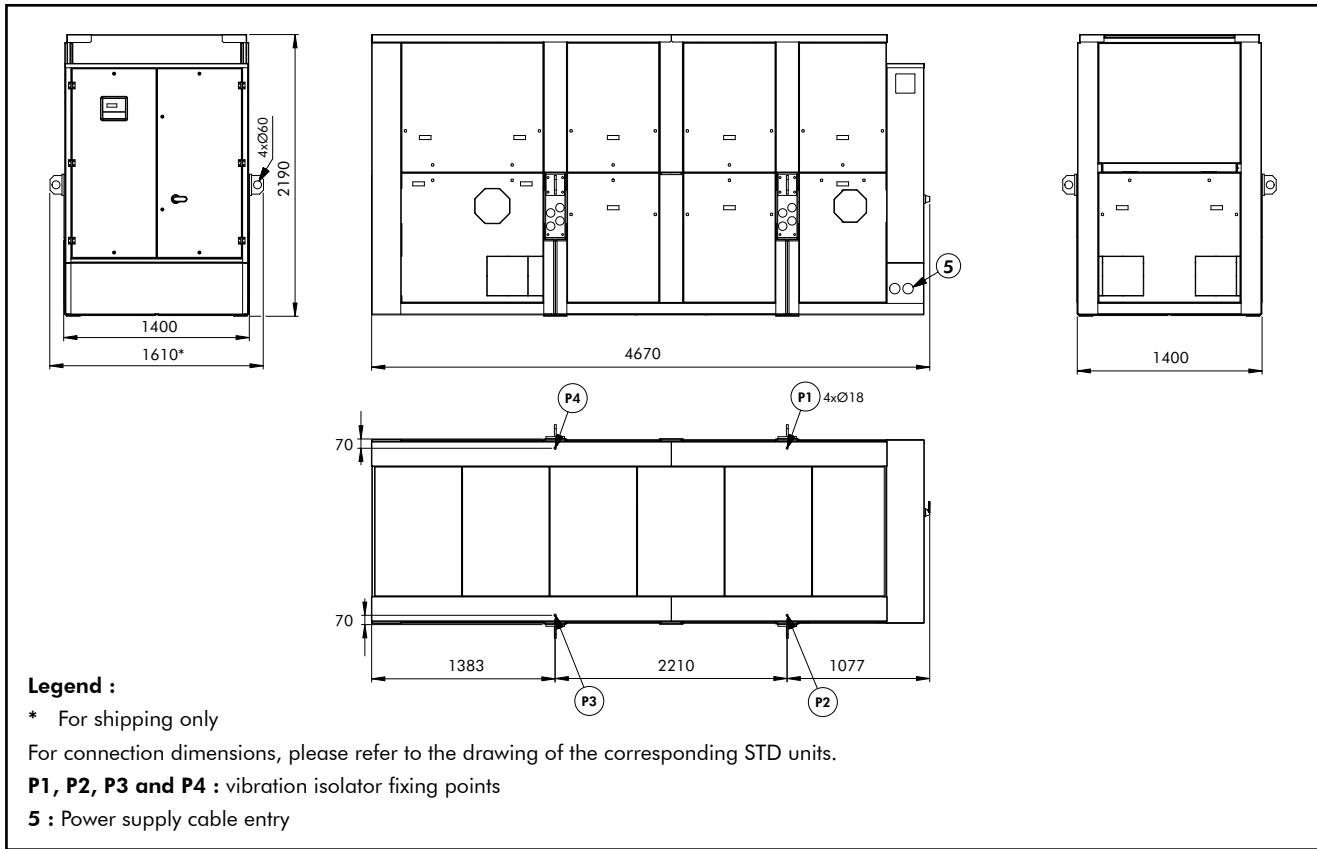


## Dimensions (in mm) (cont'd)

### SWS / SWR LN-ELN Frame 3

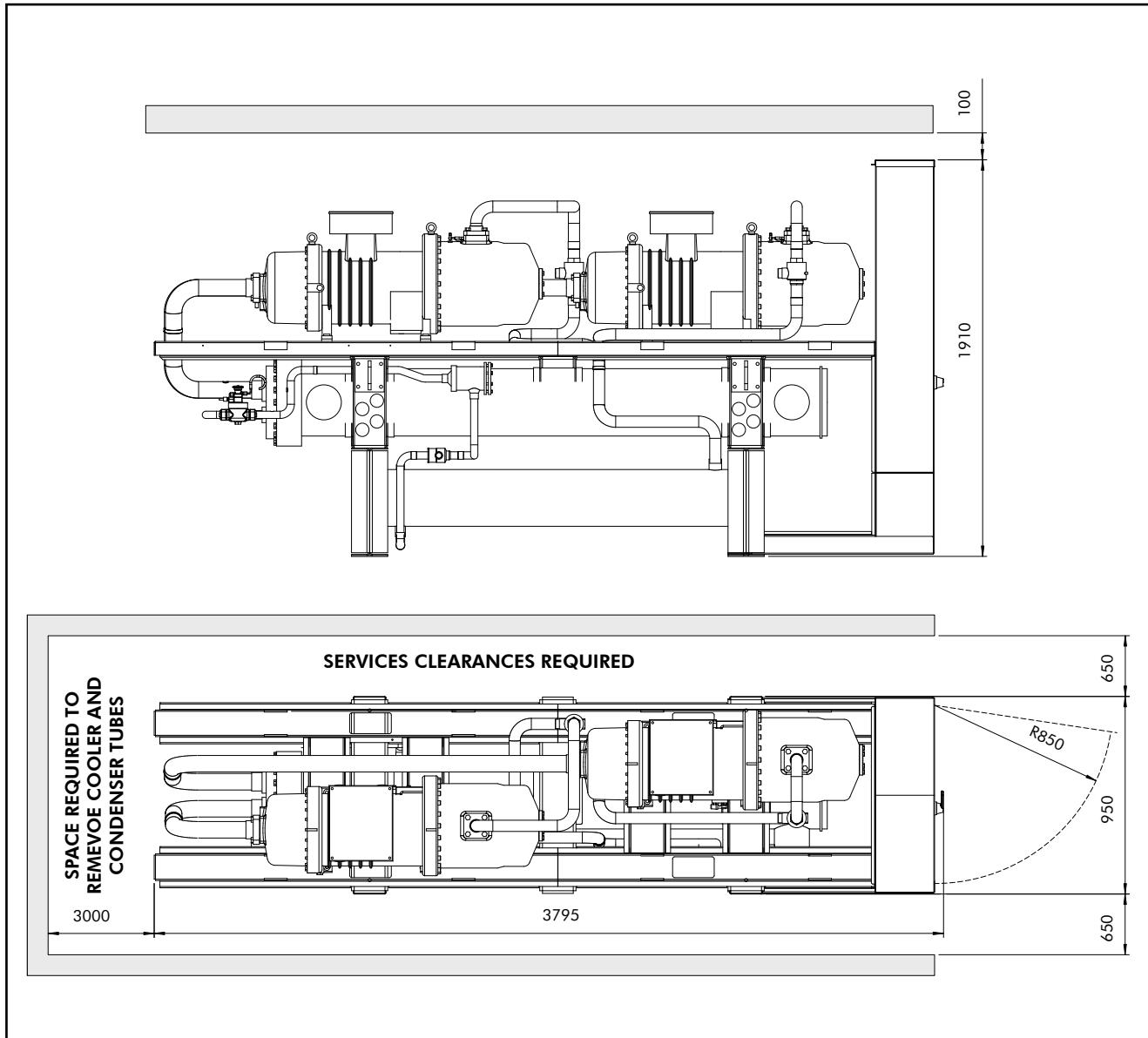


### SWS / SWR LN-ELN Frame 4



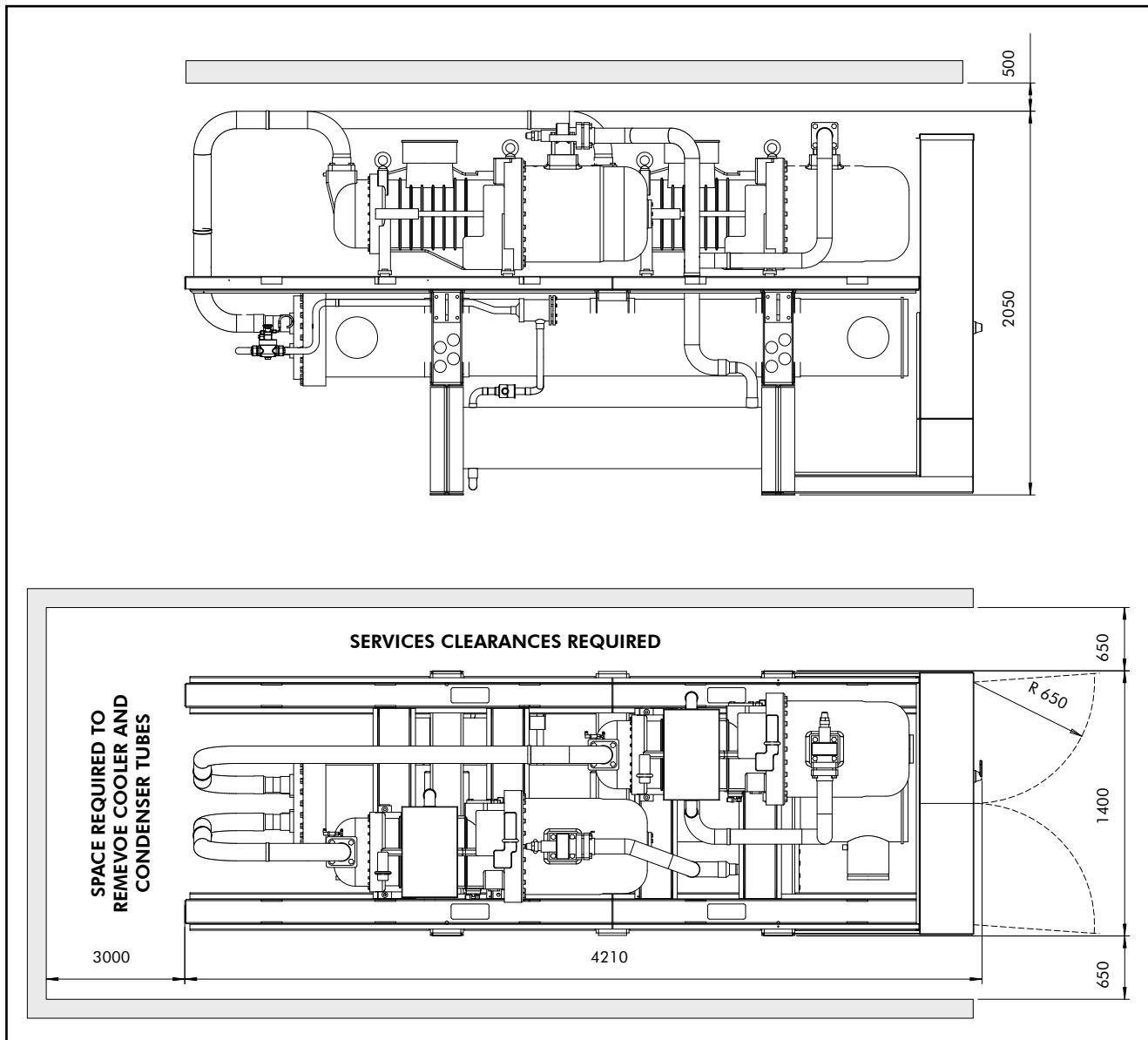
# Space Requirements

## SWS / SWR Frame 1



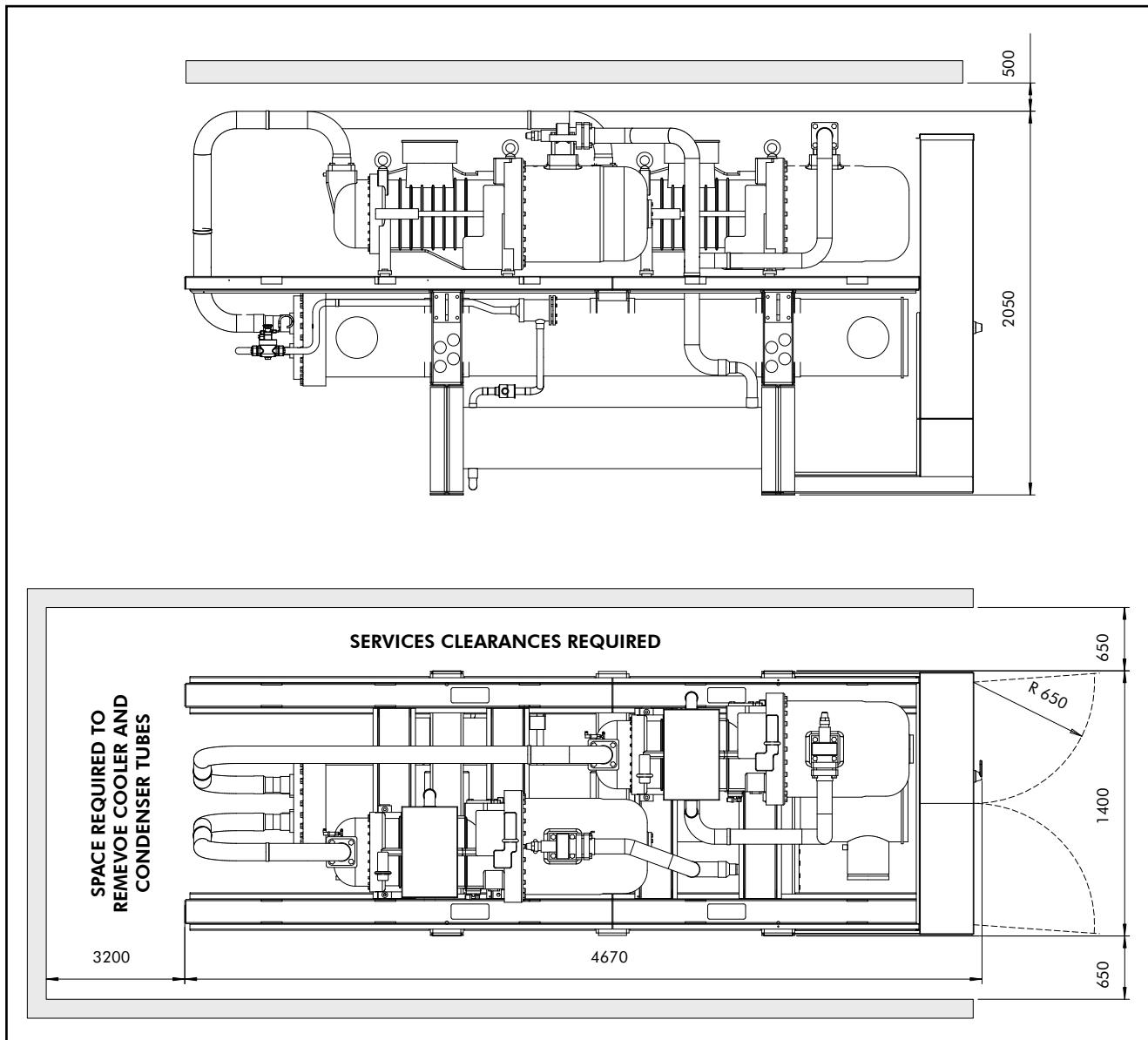
## Space Requirements (cont'd)

### SWS / SWR Frame 2



## Space Requirements (cont'd)

### SWS / SWR Frame 3 and 4



# Airwell

*As part of our ongoing product improvement programme, our products are subject to change without prior notice. Non contractual photos.*

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