Chiller

SWS/SWR 1602 to 4802

Water Cooled Chillers
Cooling Only and Condenserless Versions
Engineering Data Manual

R134a

272 to 1118 kW

systemair

Specifications

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 134a refrigerant. Theses units offers a particularly high COP.

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 **15 sizes** 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.

Conformity with standards

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

- ✓ Machine Directive : 2006/42/EC
- ✓ Low Voltage Directive : 2006/95/EC
- ✓ Electromagnetic Compatibility Directive : 2004/108/EC
- ✓ Pressure Equipment Directive : 97/23/EC

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 19 bar : manual reset to be reinitialized from control board.
- LP transducers (one on each circuit) used as pressure switches and set to 1 bar : manual reset to be reinitialized 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 21 bar.
- Evaporator safety valve set to 14.5 bar.
- 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.

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.

Specifications (continued)

- 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.

Standard equipment

➜ Set point timer/clock card.

➜ Back light display.

➜ Digital pressure and temperature reading kit.

➜ High ambient pressure control.

➜ Compressor overload protection.

➜ Compressor Part-Winding starting (sizes 1602 to 2202).

➜ Control circuit transformer 400V / 230V.

➜ Data logger.

➜ Power supply without neutral.

➜ Main switch.

➜ Refrigerant R134a (SWS only).

➜ PED approval.

➜ Evaporator antifreeze electric heater.

➜ Compressor box (LN version only).

➜ Compressor acoustic box (ELN version only).

➜ Left-hand side hydraulic connections.

Factory-installed options

➜ Compressor soft starting.

➜ Phase controller.

➜ Power factor correction capacitors.

➜ Electronic expansion valves.

➜ Compressor Star/Delta starting (sizes 1602 to 2002, standard on other sizes).

➜ GSM.

➜ HP & LP manometers.

➜ Compressor suction valves.

➜ Liquid injection to compressors.

➜ Compressor oil level pressostat.

➜ Cu/Ni condensers.

➜ Condensers for well application.

Field-installed accessories

➜ ModBus protocol kit for BMS.

➜ Lonwork protocol kit for BMS.

➜ Bacnet protocol kit for BMS.

➜ Remote keyboard panel.

➜ Master/slaves control up to 4 units maximum.

➜ Spring anti-vibration mounts for basic units.

➜ Flow switch.

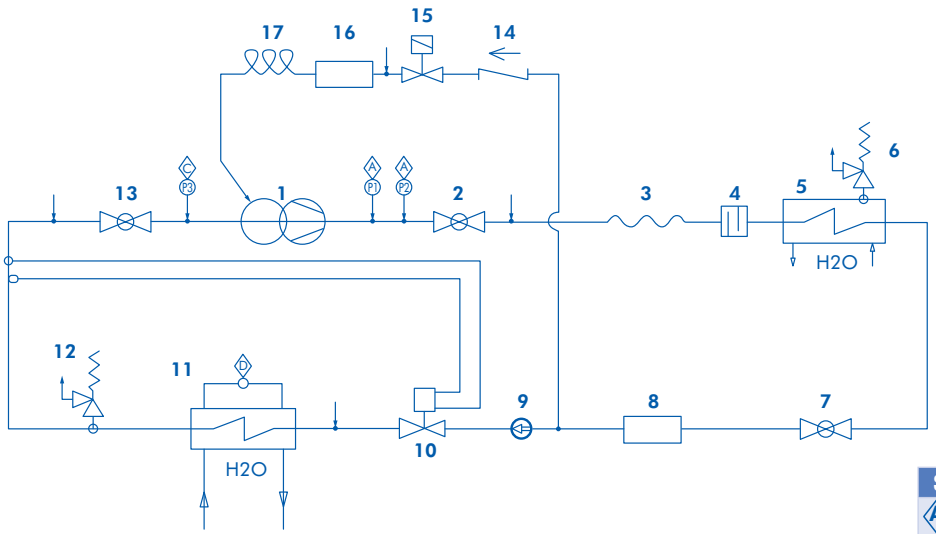
➜ Water filter.

➜ Hydraulic manifolds for condenser single point in/out water connections (SWS only).

➜ Remote hydraulic module with water tank, 1 or 2 low or high pressure pump(s), relevant accessories and with or without antifreeze electric heater.

Refrigerant Flow Diagrams

SWS Units

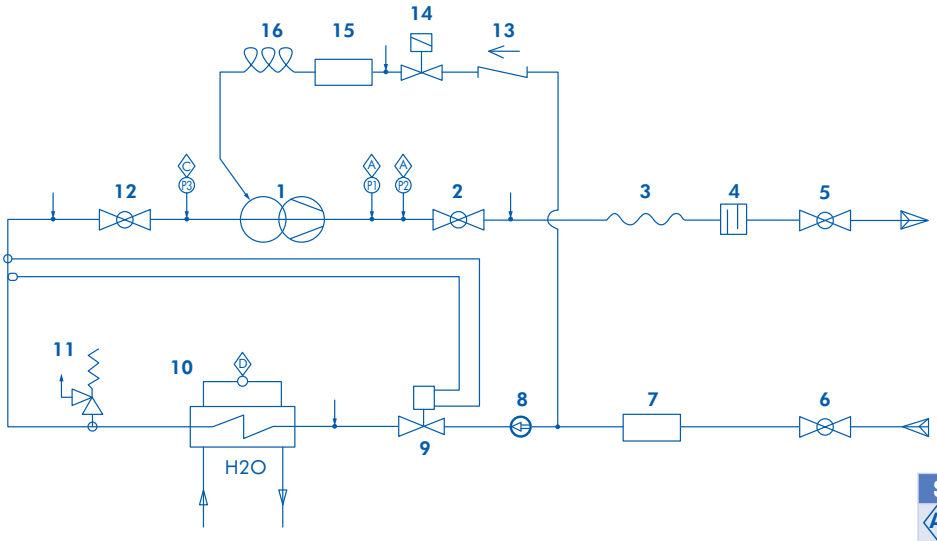


SAFETY DEVICES	
A	High pressure switch
C	Transducer
D	Water differential pressure switch

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)			Pressure tapping and refrigerant charging/ discharging points	
4	Muffler (ELN version only)	9	Sight glass	14	Non-return valve (optional)				
5	Condenser	10	Thermal expansion valve	15	Solenoid valve (optional)				

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

SWR Units



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4	Muffler (ELN version only)	9	Thermal expansion valve	14	Solenoid valve (optional)				
5	Discharge valve	10	Evaporator	15	Filter-drier (optional)				

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

Operating Limits

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

Fouling factors

EVAPORATOR			CONDENSER		
Fouling factor ($m^2.°C/kW$)	Cooling capacity factor	Power input factor	Fouling factor ($m^2.°C/kW$)	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 ≥ 7 °C. For temperatures < 7 °C, refer to table "Low temperature operation correction factors".

(2) Factors applicable only for glycol solution leaving temperature ≥ 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 1602 to 2802

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	678.4
Power Input (Compressors) (1)	kW	68.0	82.1	102.0	121.0	129.0	138.0	145.0	153.0
Heat rejection (1)	kW	339.8	444.5	542.0	650.3	693.7	738.0	784.2	831.4
EER		4.00	4.41	4.28	4.36	4.35	4.34	4.38	4.41
EER Class		D	C	C	C	C	C	C	C
ESEER		4.47	4.93	4.94	4.88	4.87	4.86	4.90	4.93
Power supply		400 V / 3 Ph / 50 Hz							
Number of refrigerant circuits		2	2	2	2	2	2	2	2
Capacity steps	%	25/50/63/75/87/100							
REFRIGERANT									
Refrigerant type		HFC 134a							
Refrigerant Charge	kg	46	60	74	52	56	60	64	66
COMPRESSORS									
Type		Screw							
Number		2	2	2	2	2	2	2	2
Startup type		P/W			Y/Δ				
Oil type		Polyester POE			BSE170				
EVAPORATOR									
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
CONDENSER									
Type		Shell and tube							
Number		2	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	19.6
Water pressure drop	kPa	28.7	38.7	41.0	40.1	45.7	41.6	47.0	50.2
Water content (total)	litres	30.8	49.4	55.4	62	62	68	68	68
WATER CONNECTIONS - EVAPORATOR									
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")	DN 150 (6")
WATER CONNECTIONS - CONDENSERS									
Type		Female gas threaded							
Inlet/Outlet diameter	inch	2"1/2	3"	3"	3"	3"	3"	3"	3"
WEIGHT									
Shipping weight	kg	2067	2554	3005	3377	3470	3498	3592	3605
Operating weight	kg	2144	2688	3212	3601	3717	3750	3882	3895
DIMENSIONS									
Width	mm	950	950	1400	1400	1400	1400	1400	1400
Height	mm	1910	1910	2050	2050	2050	2050	2050	2050
Length	mm	3795	3795	4210	4210	4210	4210	4210	4210
SOUND LEVEL									
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
WEIGHT - LN VERSION									
Shipping weight	kg	2343	2826	3333	3777	3870	3898	3992	4005
Operating weight	kg	2454	3000	3611	4001	4117	4150	4282	4295
SOUND LEVELS - LN VERSION									
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
WEIGHT - ELN VERSION									
Shipping weight	kg	2433	2916	3453	3927	4020	4048	4142	4155
Operating weight	kg	2544	3090	3731	4151	4267	4300	4432	4445
SOUND LEVELS - ELN VERSION									
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 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

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	168.0	182.0	194.0	206.0	218.7	230.5	242.3
Heat rejection (1)	kW	884.0	966.4	1035.7	1104.9	1180.8	1270.7	1360.5
EER		4.25	4.29	4.32	4.36	4.40	4.51	4.61
EER Class		C	C	C	C	C	C	C
ESEER		4.75	4.80	4.83	4.87	5.17	5.31	5.43
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						
REFRIGERANT								
Refrigerant type		HFC 134a						
Refrigerant Charge	kg	70	78	82	88	94	102	110
COMPRESSORS								
Type		Screw						
Number		2	2	2	2	2	2	2
Startup type		Y/Δ						
Oil type		BSE170						
EVAPORATOR								
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
CONDENSER								
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
WATER CONNECTIONS - EVAPORATOR								
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")
WATER CONNECTIONS - CONDENSERS								
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")
WEIGHT								
Shipping weight	kg	4029	4952	4970	4986	5112	5165	5342
Operating weight	kg	4323	5382	5455	5471	5597	5698	5875
DIMENSIONS								
Width	mm	1400	1400	1400	1400	1400	1400	1400
Height	mm	2050	2050	2050	2050	2050	2110	2110
Length	mm	4210	4770	4770	4770	4770	4770	4770
SOUND LEVEL								
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
WEIGHT - LN VERSION								
Shipping weight	kg	4429	5452	5470	5486	5612	5665	5842
Operating weight	kg	4723	5882	5955	5971	6097	6198	6375
SOUND LEVELS - LN VERSION								
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
WEIGHT - ELN VERSION								
Shipping weight	kg	4579	5622	5640	5656	5782	5835	6012
Operating weight	kg	4873	6052	6125	6141	6267	6368	6545
SOUND LEVELS - ELN VERSION								
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

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
EER		4.3	4.7	4.8	4.7	4.7	4.7	4.7	4.7
ESEER		3.51	3.87	3.88	3.87	3.86	3.86	3.89	3.91
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							
REFRIGERANT									
Refrigerant type		HFC 134a							
COMPRESSORS									
Type		Screw							
Number		2	2	2	2	2	2	2	2
Startup type		P/W			Y/Δ				
Oil type		Polyester POE			BSE170				
EVAPORATOR									
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
WATER CONNECTIONS - EVAPORATOR									
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")	DN 150 (6")
WEIGHT									
Shipping weight	kg	1765	2065	2453	2895	2985	2995	3085	3095
Operating weight	kg	1845	2190	2675	3057	3169	3179	3307	3317
DIMENSIONS									
Width	mm	950	950	1400	1400	1400	1400	1400	1400
Height	mm	1910	1910	2050	2050	2050	2050	2050	2050
Length	mm	3795	3795	4210	4210	4210	4210	4210	4210
SOUND LEVEL									
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
WEIGHT - LN VERSION									
Shipping weight	kg	2075	2375	2853	3295	3385	3395	3485	3495
Operating weight	kg	2155	2500	3075	3457	3569	3579	3707	3717
SOUND LEVELS - LN VERSION									
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
WEIGHT - ELN VERSION									
Shipping weight	kg	2165	2465	2973	3445	3535	3545	3635	3645
Operating weight	kg	2245	2590	3195	3607	3719	3729	3857	3867
SOUND LEVELS - ELN VERSION									
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

SWR Models - HFC134a		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
EER		4.6	4.6	4.7	4.7	4.4	4.5	4.6
ESEER		3.78	3.81	3.84	3.87	3.62	3.72	3.80
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						
REFRIGERANT								
Refrigerant type		HFC 134a						
COMPRESSORS								
Type		Screw						
Number		2	2	2	2	2	2	2
Startup type		Y/Δ						
Oil type		BSE170						
EVAPORATOR								
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
WATER CONNECTIONS - EVAPORATOR								
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")
WEIGHT								
Shipping weight	kg	3505	4421	4431	4441	4561	4581	4753
Operating weight	kg	3727	4780	4790	4800	4920	4980	5153
DIMENSIONS								
Width	mm	1400	1400	1400	1400	1400	1400	1400
Height	mm	2050	2050	2050	2050	2050	2110	2110
Length	mm	4210	4770	4770	4770	4770	4770	4770
SOUND LEVEL								
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
WEIGHT - LN VERSION								
Shipping weight	kg	3905	4921	4931	4941	5061	5081	5253
Operating weight	kg	4127	5280	5290	5300	5420	5480	5653
SOUND LEVELS - LN VERSION								
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
WEIGHT - ELN VERSION								
Shipping weight	kg	4055	5091	5101	5111	5231	5251	5423
Operating weight	kg	4277	5450	5460	5470	5590	5650	5823
SOUND LEVELS - ELN VERSION								
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

Models		1602	1902	2202	2212	2352	2502	2652	2802
UNITS									
Nominal voltage		400 V ± 10% - 3 ph - 50 Hz							
Maximum power input	kW	100.6	121.4	146.2	223.4	235.2	247	264.5	282
Maximum current (FLA)	A	192	210	260	364	384	404	430	456
Maximum start-up current (LRA)	A	376	456	625	500	543	563	589	589
External fuses	A	250	250	315	400	400	500	500	500
Wire cross area **(1)**	mm^2	120	120	185	2x150	2x150	2x150	2x185	2x150
COMPRESSORS									
Number		2	2	2	2	2	2	2	2
Maximum power input	kW	2 x 50.3	2 x 60.7	2 x 73.1	2 x 111.7	111.7+123.5	2 x 123.5	123.5+141	2 x 141
Maximum current (FLA)	A	2 x 96	2 x 105	2 x 130	2 x 182	182+202	2 x 202	202+228	2 x 228
Maximum start-up current (LRA)	A	2 x 280	2 x 351	2 x 495	2 x 318	318+361	2 x 361	2 x 361	2 x 361
Oil heater power input	W	200	200	200	200	200	200	200	200

Models		3012	3202	3412	3602	4212	4602	4802
UNITS								
Nominal voltage		400 V ± 10% - 3 ph - 50 Hz						
Maximum power input	kW	307.8	333.6	353.6	373.6	395.2	426	444
Maximum current (FLA)	A	488	520	555	590	620	670	720
Maximum start-up current (LRA)	A	621	634	713	748	853	960	1010
External fuses	A	630	630	630	630	630	800	800
Wire cross area **(1)**	mm^2	2 x 185	2 x 185	2 x 185	2 x 185	2 x 185	2 x 240	2 x 240
COMPRESSORS								
Number		2	2	2	2	2	2	2
Maximum power input	kW	141+166.8	2 x 166.8	166.8+186.8	2 x 186.8	2 x 197.6	204+222	2 x 222
Maximum current (FLA)	A	228+260	2 x 260	260+295	2 x 295	2 x 310	310+360	2 x 360
Maximum start-up current (LRA)	A	361+374	2 x 374	374+453	2x453	2 x 543	586+650	2 x 650
Oil heater power input	W	200/275	275	275	275	275	300	300

(1) The dimensioning of the unit's power cables is the responsability of the installer, who shall consider : the rating, the maximum working temperature in the room, the type of insulation and the cable laying, the maximum length of the power supply line.

Sound Data - SWS/SWR

SWS/SWR STD - HFC 134a

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

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

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

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

Cooling Capacities - SWS 1602 to 2802

SWS Models	LWT Evap. (°C)	LWT Condenser (°C)														
		14/30 Well Water - 4 Pass			25/30 Tower Water - 2 Pass			27/32 Tower Water - 2 Pass			30/35 Tower Water - 2 Pass			33/38 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	61.2	324.9	265.0	60.9	325.9	260.4	63.3	323.7	252.9	67.1	320.0	245.0	70.9	315.9
	6	271.8	61.9	333.7	274.7	61.2	335.9	269.9	63.7	333.6	262.3	67.5	329.8	254.1	71.5	325.6
	7	280.0	62.6	342.5	284.5	61.5	346.0	279.6	64.0	343.7	**271.8**	**68.0**	**339.8**	263.5	72.0	335.5
	8	288.1	63.2	351.4	294.5	61.8	356.3	289.6	64.4	354.0	281.6	68.4	350.1	273.1	72.6	345.6
	9	296.3	63.9	360.2	304.8	62.1	366.9	299.7	64.8	364.5	291.6	68.9	360.5	282.9	73.1	356.0
	10	304.5	64.6	369.1	315.2	62.5	377.7	310.1	65.2	375.3	301.7	69.4	371.1	292.8	73.7	366.5
	11	312.6	65.3	377.9	325.9	62.9	388.8	320.6	65.6	386.3	312.2	69.8	382.0	303.0	74.2	377.2
	12	320.8	66.0	386.7	336.8	63.3	400.1	331.4	66.1	397.5	322.7	70.4	393.1	313.4	74.7	388.2
	13	328.9	66.6	395.6	347.8	63.8	411.7	342.4	66.6	408.9	333.5	70.8	404.3	324.0	75.3	399.3
	14	337.1	67.3	404.4	359.1	64.3	423.5	353.5	67.1	420.6	344.5	71.3	415.8	334.8	75.8	410.6
	15	345.2	68.0	413.2	370.6	64.9	435.6	364.9	67.6	432.5	355.7	71.8	427.5	345.8	76.4	422.2
1902	5	351.6	73.9	425.5	353.4	73.5	426.9	347.2	76.5	423.6	337.2	81.0	418.2	326.6	85.7	412.3
	6	362.4	74.7	437.2	366.2	73.9	440.1	359.9	76.9	436.8	349.7	81.5	431.3	338.8	86.3	425.1
	7	373.3	75.5	448.8	379.3	74.2	453.6	372.9	77.3	450.2	**362.4**	**82.1**	**444.5**	351.3	87.0	438.3
	8	384.2	76.4	460.5	392.7	74.6	467.3	386.1	77.8	463.9	375.5	82.6	458.1	364.1	87.6	451.7
	9	395.1	77.2	472.2	406.4	75.0	481.4	399.6	78.2	477.9	388.8	83.2	472.0	377.2	88.3	465.4
	10	405.9	78.0	483.9	420.3	75.5	495.8	413.4	78.7	492.2	402.3	83.8	486.1	390.4	89.0	479.4
	11	416.8	78.8	495.6	434.6	75.9	510.5	427.5	79.2	506.7	416.2	84.3	500.6	404.0	89.6	493.6
	12	427.7	79.6	507.3	449.1	76.5	525.5	441.8	79.8	521.6	430.3	84.9	515.2	417.9	90.2	508.1
	13	438.6	80.5	519.0	463.8	77.1	540.9	456.5	80.4	536.8	444.7	85.5	530.2	432.1	90.9	522.9
	14	449.4	81.3	530.7	478.9	77.7	556.5	471.3	81.0	552.3	459.3	86.1	545.4	446.4	91.6	538.0
	15	460.3	82.1	542.4	494.2	78.4	572.6	486.5	81.6	568.1	474.2	86.7	561.0	461.1	92.2	553.3
2202	5	426.8	91.8	518.6	429.0	91.4	520.4	421.5	95.0	516.5	409.4	100.6	510.1	396.6	106.4	503.0
	6	440.0	92.8	532.9	444.6	91.8	536.4	436.9	95.5	532.4	424.6	101.3	525.9	411.4	107.2	518.6
	7	453.2	93.8	547.1	460.6	92.2	552.8	452.7	96.1	548.8	**440.0**	**102.0**	**542.0**	426.6	108.1	534.6
	8	466.4	94.9	561.3	476.8	92.7	569.5	468.8	96.6	565.4	455.9	102.7	558.6	442.0	108.9	550.9
	9	479.6	95.9	575.5	493.4	93.2	586.6	485.2	97.2	582.4	472.0	103.4	575.4	457.9	109.7	567.6
	10	492.8	96.9	589.7	510.3	93.8	604.0	502.0	97.8	599.8	488.5	104.1	592.6	474.0	110.5	584.5
	11	506.0	97.9	604.0	527.6	94.3	622.0	519.0	98.5	617.5	505.3	104.8	610.1	490.5	111.3	601.8
	12	519.2	98.9	618.2	545.2	95.0	640.2	536.4	99.1	635.6	522.4	105.5	627.9	507.4	112.1	619.5
	13	532.5	100.0	632.4	563.1	95.7	658.8	554.2	99.8	654.0	539.9	106.3	646.1	524.6	112.9	637.5
	14	545.7	101.0	646.6	581.4	96.5	677.9	572.2	100.6	672.8	557.7	107.0	664.7	542.0	113.7	655.7
	15	558.9	102.0	660.9	600.0	97.4	697.4	590.6	101.4	692.0	575.8	107.7	683.5	559.8	114.5	674.4
2212	5	513.4	108.9	622.3	520.5	109.3	629.8	510.7	113.1	623.9	495.7	119.1	614.8	479.8	125.6	605.4
	6	529.3	110.1	639.4	537.6	110.1	647.8	527.8	114.0	641.7	512.4	120.1	632.4	496.2	126.6	622.8
	7	545.2	111.3	656.5	555.2	110.9	666.1	544.9	114.9	659.8	**529.3**	**121.0**	**650.3**	512.9	127.6	640.5
	8	561.1	112.5	673.6	573.2	111.6	684.8	563.0	115.5	678.5	546.7	121.9	668.6	529.8	128.6	658.4
	9	576.9	113.7	690.7	591.0	112.5	703.5	580.6	116.5	697.1	564.3	122.8	687.1	547.1	129.5	676.6
	10	592.8	115.0	707.8	608.9	113.4	722.3	598.4	117.4	715.8	582.0	123.7	705.7	564.5	130.6	695.0
	11	608.7	116.2	724.9	627.0	114.3	741.3	616.4	118.3	734.7	599.8	124.7	724.5	582.2	131.6	713.7
	12	624.6	117.4	741.9	643.7	115.1	758.8	634.4	119.3	753.6	617.6	125.7	743.3	599.9	132.6	732.4
	13	640.5	118.6	759.0	663.1	116.1	779.2	652.4	120.2	772.6	635.5	126.7	762.2	617.6	133.6	751.2
	14	656.3	119.8	776.1	680.9	117.0	797.9	670.2	121.2	791.4	653.4	127.7	781.1	635.3	134.7	770.0
	15	672.2	121.0	793.2	698.2	117.7	816.0	687.6	122.0	809.6	670.3	128.6	798.9	651.8	135.6	787.4
2352	5	547.7	116.1	663.8	555.2	116.5	671.8	544.8	120.6	665.4	528.8	127.0	655.8	511.8	133.9	645.7
	6	564.7	117.4	682.0	573.5	117.4	691.0	563.0	121.5	684.5	546.6	128.0	674.6	529.3	135.0	664.3
	7	581.6	118.7	700.3	592.3	118.3	710.5	581.3	122.5	703.8	**564.7**	**129.0**	**693.7**	547.1	136.0	683.1
	8	598.5	120.0	718.5	611.5	119.0	730.5	600.6	123.2	723.8	583.2	130.0	713.1	565.2	137.1	702.3
	9	615.5	121.3	736.7	630.5	119.9	750.4	619.4	124.2	743.6	602.0	130.9	732.9	583.6	138.1	721.7
	10	632.4	122.6	755.0	649.6	120.9	770.5	638.4	125.2	763.5	620.8	131.9	752.7	602.2	139.2	741.4
	11	649.4	123.8	773.2	668.9	121.8	790.7	657.6	126.1	783.7	639.8	133.0	772.8	621.0	140.2	761.3
	12	666.3	125.1	791.4	686.7	122.7	809.4	676.7	127.2	803.9	658.9	134.0	792.9	639.9	141.3	781.3
	13	683.2	126.4	809.6	707.4	123.8	831.2	696.0	128.2	824.2	678.0	135.1	813.1	658.8	142.5	801.3
	14	700.2	127.7	827.9	726.3	124.8	851.1	715.0	129.2	844.1	697.0	136.2	833.2	677.7	143.6	821.3
	15	717.1	129.0	846.1	744.9	125.5	870.4	733.6	130.0	863.6	715.1	137.1	852.2	695.3	144.6	839.9
2502	5	582.0	124.2	706.2	590.0	124.7	714.7	579.0	129.0	708.0	561.9	135.8	697.8	543.9	143.3	687.1
	6	600.0	125.6	725.6	609.4	125.6	735.1	598.3	130.0	728.2	580.8	136.9	717.7	562.5	144.4	706.9
	7	618.0	127.0	745.0	629.4	126.5	755.9	617.7	131.0	748.7	**600.0**	**138.0**	**738.0**	581.4	145.5	726.9
	8	636.0	128.3	764.3	649.8	127.3	777.1	638.2	131.8	770.0	619.7	139.0	758.7	600.6	146.7	747.2
	9	654.0	129.7	783.7	669.9	128.3	798.2	658.2	132.8	791.0	639.7	140.0	779.7	620.2	147.7	767.9
	10	672.0	131.1	803.1	690.2	129.3	819.6	678.4	133.9	812.2	659.7	141.1	800.8	639.9	148.9	788.8
	11	690.0	132.5	822.5	710.8	130.3	841.1	698.7	135.0	833.7	679.9	142.2	822.1	659.9	150.0	810.0
	12	708.0	133.9	841.9	729.7	131.3	861.0	719.1	136.0	855.2	700.2	143.4	843.5	680.0	151.2	831.2
	13	726.0	135.2	861.2	751.7	132.4	884.1	739.5	137.1	876.7	720.4	144.5	864.9	700.1	152.4	852.5
	14	744.0	136.6	880.6	771.8	133.5	905.3	759.7	138.2	897.9	740.7	145.7	886.3	720.2	153.6	873.7
	15	762.0	138.0	900.0	791.5	134.3	925.8	779.5	139.1	918.6	759.9	146.6	906.5	738.9	154.7	893.5
2652	5	620.0	130.5	750.5	628.6	131.0	759.6	616.8	135.6	752.4	598.6	142.7	741.4	579.4	150.5	729.9
	6	639.2	132.0	771.2	649.3	132.0	781.3	637.4	136.6	773.9	618.8	143.9	762.6	599.2	151.7	750.9
	7	658.4	133.4	791.8	670.5	132.9	803.4	658.1	137.7	795.7	**639.2**	**145.0**	**784.2**	619.4	152.9	772.3
	8	677.6	134.9	812.4	692.3	133.7	826.0	679.9	138.4	818.4	660.2	146.1	806.3	639.8	154.1	793.9
	9	696.7	136.3	833.0	713.7	134.8	848.5	701.2	139.5	840.8	681.5	147.1	828.6	660.7	155.2	815.9
	10	715.9	137.8	853.7	735.3	135.9	871.2	722.7	140.7	863.4	702.8	148.3	851.1	681.7	156.5	838.2
	11	735.1	139.2	874.3	757.2	136.9	894.2	744.4	141.8	886.2	724.3	149.5	873.8	703.1	157.6	860.7
	12	754.3	140.7	894.9	777.4	137.9	915.3	766.1	142.9	909.0	745.9	150.6	896.5	724.4	158.9	883.3
	13	773.5	142.1	915.6	800.8	139.2	940.0	787.9	144.1	932.0	767.5	151.8	919.3	745.8	160.1	905.9
	14	792.6	143.6	936.2	822.3	140.2	962.5	809.4	145.2	954.6	789.1	153.0	942.1	767.2	161.4	928.6
	15	811.8	145.0	956.8	843.2	141.1	984.3	830.4	146.1	976.6	809.5	154.1	963.6	787.2	162.5	949.7
2802	5	658.1	137.7	795.8	667.1	138.2	805.3	654.6	143.0	797.7	635.4	150.6	786.0	614.9	158.8	773.8
	6	678.4	139.2	817.7	689.1	139.3	828.4	676.5	144.1	820.6	656.7	151.8	808.5	636.0	160.1	796.1
	7	698.8	140.8	839.5	711.6	140.3	851.9	698.4	145.3	843.7	**678.4**	**153.0**	**831.4**	657.4	161.3	818.7
	8	719.1	142.3	861.4	734.7	141.1	875.9	721.6	146.1	867.7	700.7	154.1	854.8	679.1	162.6	841.7
	9	739.5	143.8	883.3	757.5	142.2	899.8	744.2	147.2	891.5	723.3	155.3	878.6	701.2	163.8	865.0
	10	759.8	145.4	905.2	780.4	143.4	923.8	767.0	148.4	915.5	745.9	156.5	902.4	723.5	165.1	888.6
	11	780.2	146.9	927.1	803.7	144.5	948.2	790.0	149.6	939.7	768.8	157.7	926.5	746.2	166.3	912.5
	12	800.5	148.4	949.0	825.1	145.6	970.6	813.1	150.8	963.9	791.7	158.9	950.6	768.9	167.6	936.5
	13	820.9	149.9	970.8	849.9	146.8	996.8	836.2	152.0	988.2	814.6	160.2	974.8	791.5	169.0	960.5
	14	841.2	151.5	992.7	872.7	148.0	1020.7	859.0	153.2	1012.2	837.5	161.5	999.0	814.3	170.3	984.6
	15	861.6	153.0	1014.6	895.0	148.9	1043.8	881.4	154.2	1035.6	859.2	162.6	1021.8	835.4	171.5	1006.9

LWT : Leaving water temperature.

Cooling Capacities - SWS 1602 to 2802 (continued)

SWS Models	LWT Evap. (°C)	LWT Condenser (°C)														
		35/40 Tower Water - 2 Pass			38/43 Tower Water - 2 Pass			40/45 Tower Water - 2 Pass			42/47 Tower Water - 2 Pass			45/50 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	239.4	73.6	313.0	230.5	77.7	308.2	224.3	80.5	304.8	217.8	83.4	301.2	207.6	87.8	295.4
	6	248.4	74.2	322.6	239.3	78.4	317.7	232.9	81.2	314.1	226.3	84.1	310.4	215.8	88.6	304.4
	7	257.6	74.8	332.4	248.3	79.1	327.3	241.7	82.0	323.7	234.9	84.9	319.9	224.3	89.4	313.7
	8	267.1	75.4	342.5	257.5	79.7	337.2	250.8	82.7	333.5	243.9	85.7	329.6	232.9	90.3	323.2
	9	276.7	76.0	352.7	266.9	80.4	347.3	260.1	83.4	343.5	253.0	86.5	339.5	241.8	91.2	333.0
	10	286.5	76.6	363.1	276.6	81.1	357.7	269.6	84.1	353.8	262.3	87.3	349.6	250.9	92.1	343.1
	11	296.6	77.2	373.8	286.5	81.8	368.2	279.3	84.9	364.2	271.9	88.1	360.0	260.3	93.1	353.4
	12	306.8	77.8	384.6	296.4	82.5	378.9	289.2	85.7	374.9	281.7	89.0	370.7	269.9	94.1	364.0
	13	317.3	78.4	395.7	306.8	83.2	389.9	299.3	86.5	385.8	291.7	89.9	381.6	279.7	95.2	374.9
	14	328.0	78.9	407.0	317.2	83.9	401.1	309.7	87.3	397.0	301.9	90.8	392.7	289.7	96.4	386.1
	15	338.9	79.5	418.4	327.9	84.6	412.5	320.3	88.1	408.4	312.4	91.8	404.2	299.9	97.7	397.6
1902	5	319.2	88.9	408.0	307.3	93.8	401.1	299.0	97.2	396.2	290.4	100.7	391.1	276.8	106.0	382.8
	6	331.2	89.6	420.8	319.0	94.6	413.7	310.5	98.1	408.6	301.7	101.6	403.3	287.8	107.0	394.8
	7	343.4	90.3	433.8	331.0	95.5	426.5	322.3	99.0	421.3	313.3	102.5	415.8	299.0	108.0	407.0
	8	356.1	91.0	447.1	343.3	96.3	439.6	334.4	99.8	434.3	325.2	103.4	428.6	310.6	109.0	419.6
	9	368.9	91.8	460.7	355.9	97.1	453.0	346.7	100.7	447.5	337.3	104.4	441.7	322.4	110.1	432.5
	10	382.0	92.5	474.5	368.8	97.9	466.7	359.5	101.6	461.1	349.8	105.4	455.2	334.6	111.2	445.8
	11	395.5	93.2	488.7	381.9	98.7	480.7	372.4	102.5	474.9	362.5	106.4	468.9	347.1	112.4	459.5
	12	409.1	93.9	503.0	395.3	99.6	494.8	385.6	103.5	489.1	375.6	107.4	483.1	359.8	113.7	473.5
	13	423.1	94.6	517.7	409.0	100.4	509.4	399.1	104.4	503.5	388.9	108.6	497.4	372.9	115.0	487.9
	14	437.4	95.3	532.7	423.0	101.2	524.2	412.9	105.4	518.3	402.6	109.7	512.2	386.2	116.4	502.6
	15	451.8	96.0	547.9	437.2	102.1	539.3	427.0	106.4	533.4	416.5	110.8	527.3	399.9	117.9	517.8
2202	5	387.5	110.4	497.9	373.1	116.6	489.7	363.0	120.8	483.8	352.5	125.1	477.6	336.1	131.7	467.8
	6	402.1	111.3	513.4	387.3	117.6	504.9	377.0	121.9	498.8	366.3	126.2	492.5	349.4	132.9	482.3
	7	417.0	112.2	529.2	401.9	118.6	520.5	391.3	123.0	514.3	380.3	127.4	507.7	363.1	134.2	497.2
	8	432.3	113.1	545.4	416.8	119.6	536.4	406.0	124.0	530.1	394.8	128.5	523.3	377.1	135.5	512.5
	9	447.9	114.0	561.9	432.1	120.6	552.7	421.0	125.2	546.1	409.5	129.7	539.2	391.5	136.8	528.2
	10	463.8	114.9	578.7	447.7	121.6	569.3	436.4	126.2	562.7	424.7	131.0	555.6	406.2	138.2	544.4
	11	480.2	115.8	595.9	463.7	122.7	586.4	452.1	127.4	579.5	440.2	132.2	572.4	421.4	139.7	561.0
	12	496.7	116.7	613.4	479.9	123.7	603.6	468.2	128.5	596.7	456.1	133.5	589.5	436.9	141.2	578.1
	13	513.7	117.5	631.2	496.6	124.7	621.3	484.5	129.7	614.3	472.1	134.9	607.0	452.7	142.9	595.6
	14	531.0	118.4	649.4	513.6	125.8	639.3	501.3	131.0	632.3	488.7	136.2	625.0	468.9	144.6	613.5
	15	548.6	119.3	667.9	530.8	126.9	657.7	518.4	132.2	650.6	505.7	137.7	643.4	485.5	146.5	632.0
2212	5	468.8	130.1	599.0	451.6	137.4	589.0	439.9	142.4	582.2	427.7	147.6	575.3	408.9	155.8	564.6
	6	485.1	131.2	616.2	467.6	138.4	606.0	455.6	143.4	599.0	443.2	148.7	591.9	423.9	156.9	580.9
	7	501.6	132.2	633.7	483.9	139.4	623.3	471.5	144.5	616.1	459.0	149.8	608.8	439.3	158.1	597.4
	8	518.3	133.2	651.5	500.3	140.5	640.8	487.7	145.7	633.4	474.9	150.9	625.9	455.0	159.2	614.3
	9	535.3	134.2	669.6	516.9	141.6	658.5	504.2	146.7	651.0	491.2	152.0	643.3	471.0	160.3	631.3
	10	552.7	135.2	687.9	534.1	142.6	676.7	521.1	147.8	668.9	507.8	153.1	660.9	487.0	161.5	648.5
	11	570.0	136.3	706.3	551.2	143.4	694.6	538.5	148.6	687.2	524.9	154.0	678.9	503.5	162.5	666.0
	12	587.7	137.3	725.0	569.0	144.5	713.5	555.5	149.7	705.3	541.9	155.0	696.9	520.3	163.4	683.7
	13	605.4	138.3	743.7	586.4	145.6	732.0	572.9	150.8	723.6	558.9	156.1	715.0	537.2	164.4	701.5
	14	623.0	139.4	762.4	604.0	146.6	750.6	590.3	151.8	742.1	576.3	157.1	733.3	554.3	165.2	719.5
	15	639.2	140.4	779.6	619.8	147.6	767.4	605.9	152.9	758.7	591.5	158.2	749.7	569.0	166.6	735.5
2352	5	500.2	138.7	638.9	481.8	146.4	628.2	469.3	151.8	621.0	456.3	157.3	613.6	436.2	166.1	602.3
	6	517.5	139.8	657.3	498.8	147.5	646.4	486.0	152.9	639.0	472.8	158.5	631.3	452.3	167.3	619.6
	7	535.1	140.9	676.0	516.2	148.7	664.8	503.0	154.1	657.1	489.6	159.7	649.4	468.7	168.5	637.2
	8	552.9	142.0	694.9	533.7	149.8	683.5	520.3	155.3	675.6	506.6	160.9	667.6	485.4	169.8	655.2
	9	571.1	143.1	714.2	551.5	151.0	702.4	537.9	156.4	694.3	524.0	162.1	686.1	502.4	170.9	673.4
	10	589.6	144.2	733.7	569.8	152.0	721.8	555.9	157.5	713.4	541.7	163.2	704.9	519.6	172.1	691.7
	11	608.1	145.3	753.4	588.0	152.9	740.9	574.5	158.5	733.0	560.0	164.2	724.2	537.2	173.2	710.4
	12	627.0	146.4	773.3	607.0	154.1	761.1	592.6	159.6	752.3	578.1	165.3	743.4	555.1	174.2	729.3
	13	645.8	147.5	793.3	625.6	155.2	780.8	611.1	160.7	771.9	596.2	166.4	762.7	573.0	175.2	748.3
	14	664.6	148.6	813.2	644.3	156.3	800.6	629.8	161.8	791.6	614.7	167.4	782.2	591.3	176.1	767.5
	15	681.9	149.7	831.6	661.2	157.4	818.6	646.3	163.0	809.3	631.0	168.7	799.7	607.0	177.6	784.5
2502	5	531.5	148.4	679.9	511.9	156.7	668.6	498.7	162.4	661.0	484.9	168.3	653.2	463.5	177.7	641.1
	6	549.9	149.6	699.5	530.0	157.8	687.9	516.5	163.6	680.1	502.4	169.6	672.0	480.6	179.0	659.6
	7	568.6	150.8	719.3	548.5	159.0	707.5	534.5	164.9	699.4	520.3	170.9	691.2	498.0	180.3	678.3
	8	587.5	151.9	739.5	567.1	160.3	727.4	552.8	166.1	719.0	538.4	172.2	710.5	515.8	181.6	697.4
	9	606.9	153.1	760.0	586.0	161.5	747.5	571.6	167.3	738.9	556.8	173.4	730.2	533.9	182.9	716.7
	10	626.5	154.2	780.7	605.5	162.6	768.1	590.7	168.5	759.2	575.6	174.6	750.2	552.1	184.1	736.3
	11	646.2	155.4	801.6	624.9	163.5	788.4	610.5	169.5	780.0	595.0	175.7	770.7	570.8	185.3	756.1
	12	666.2	156.6	822.8	645.0	164.8	809.8	629.7	170.8	800.5	614.3	176.8	791.1	589.8	186.4	776.2
	13	686.3	157.7	844.0	664.7	166.1	830.8	649.4	171.9	821.3	633.5	178.1	811.6	608.9	187.5	796.4
	14	706.2	159.0	865.2	684.7	167.2	851.9	669.2	173.1	842.3	653.2	179.1	832.3	628.3	188.4	816.8
	15	724.6	160.1	884.7	702.6	168.4	871.0	686.8	174.3	861.2	670.5	180.5	851.0	645.0	190.0	834.9
2652	5	566.2	156.0	722.1	545.4	164.6	710.0	531.2	170.6	701.8	516.6	176.9	693.4	493.8	186.7	680.4
	6	585.8	157.2	743.0	564.7	165.8	730.5	550.2	171.9	722.1	535.2	178.2	713.4	512.0	188.1	700.0
	7	605.7	158.4	764.1	584.3	167.1	751.4	569.4	173.2	742.7	554.3	179.5	733.8	530.6	189.4	720.0
	8	625.9	159.7	785.6	604.2	168.4	772.6	589.0	174.6	763.5	573.5	180.9	754.4	549.5	190.8	740.4
	9	646.5	160.9	807.4	624.3	169.7	794.0	608.9	175.8	784.8	593.2	182.2	775.4	568.8	192.1	760.9
	10	667.4	162.0	829.5	645.0	170.9	815.9	629.3	177.1	806.4	613.2	183.5	796.7	588.2	193.5	781.7
	11	688.4	163.3	851.7	665.7	171.8	837.5	650.4	178.1	828.5	633.9	184.6	818.5	608.1	194.7	802.8
	12	709.8	164.5	874.3	687.1	173.2	860.4	670.9	179.4	850.3	654.4	185.8	840.2	628.4	195.8	824.2
	13	731.1	165.8	896.9	708.2	174.5	882.7	691.8	180.7	872.5	674.9	187.1	862.0	648.7	197.0	845.7
	14	752.3	167.0	919.4	729.4	175.7	905.1	712.9	181.9	894.8	695.9	188.2	884.1	669.4	198.0	867.4
	15	772.0	168.2	940.2	748.5	176.9	925.4	731.7	183.2	914.9	714.3	189.6	903.9	687.1	199.6	886.7
2802	5	600.9	164.6	765.5	578.8	173.7	752.5	563.8	180.0	743.8	548.2	186.6	734.9	524.1	197.0	721.0
	6	621.7	165.8	787.6	599.3	175.0	774.3	584.0	181.4	765.3	568.1	188.0	756.1	543.4	198.4	741.8
	7	642.9	167.1	810.0	620.2	176.3	796.5	604.4	182.8	787.2	588.3	189.4	777.7	563.1	199.9	763.0
	8	664.3	168.5	832.8	641.2	177.7	818.9	625.1	184.2	809.3	608.7	190.9	799.6	583.2	201.3	784.6
	9	686.2	169.7	855.9	662.6	179.1	841.6	646.3	185.5	831.8	629.6	192.2	821.9	603.6	202.8	806.4
	10	708.4	171.0	879.4	684.6	180.3	864.9	667.9	186.8	854.7	650.8	193.6	844.4	624.3	204.2	828.4
	11	730.6	172.3	902.9	706.5	181.3	887.8	690.3	187.9	878.2	672.8	194.8	867.6	645.4	205.4	850.8
	12	753.3	173.6	926.9	729.3	182.8	912.1	712.1	189.3	901.4	694.6	196.1	890.6	666.9	206.7	873.6
	13	776.0	174.9	950.9	751.6	184.1	935.7	734.3	190.6	924.9	716.3	197.4	913.7	688.5	207.9	896.3
	14	798.5	176.2	974.7	774.2	185.4	959.5	756.7	191.9	948.6	738.6	198.6	937.2	710.5	208.9	919.4
	15	819.3	177.5	996.8	794.4	186.7	981.1	776.6	193.3	969.9	758.1	200.1	958.2	729.3	210.6	939.9

LWT : Leaving water temperature.

Cooling Capacities - SWS 3012 to 4802

SWS Models	LWT Evap. (°C)	LWT Condenser (°C)														
		14/30 Well Water - 4 Pass			25/30 Tower Water - 2 Pass			27/32 Tower Water - 2 Pass			30/35 Tower Water - 2 Pass			33/38 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)
3012	5	694.5	151.2	845.7	704.0	151.8	855.8	690.9	157.1	847.9	670.5	165.4	835.9	649.0	174.4	823.4
	6	716.0	152.9	868.9	727.2	152.9	880.2	713.9	158.2	872.1	693.1	166.7	859.8	671.2	175.8	847.0
	7	737.5	154.6	892.0	751.0	154.0	905.0	737.1	159.5	896.6	**716.0**	**168.0**	**884.0**	693.8	177.1	870.9
	8	758.9	156.2	915.2	775.4	155.0	930.4	761.6	160.4	922.0	739.5	169.2	908.7	716.7	178.5	895.2
	9	780.4	157.9	938.3	799.4	156.2	955.6	785.4	161.7	947.1	763.3	170.5	933.8	740.1	179.9	919.9
	10	801.9	159.6	961.5	823.6	157.4	981.1	809.5	163.0	972.5	787.2	171.8	959.0	763.6	181.3	944.8
	11	823.4	161.3	984.7	848.2	158.7	1006.8	833.8	164.3	998.1	811.3	173.2	984.5	787.5	182.6	970.1
	12	844.9	163.0	1007.8	870.8	159.8	1030.6	858.1	165.6	1023.7	835.5	174.5	1010.0	811.4	184.1	995.5
	13	866.3	164.6	1031.0	897.0	161.2	1058.2	882.5	166.9	1049.4	859.7	175.9	1035.6	835.4	185.5	1020.9
	14	887.8	166.3	1054.1	921.0	162.5	1083.5	906.6	168.2	1074.8	883.8	177.3	1061.1	859.4	187.0	1046.3
	15	909.3	168.0	1077.3	944.5	163.5	1108.0	930.2	169.3	1099.5	906.8	178.5	1085.3	881.7	188.3	1070.0
3202	5	760.9	163.8	924.7	771.3	164.4	935.8	756.9	170.2	927.1	734.6	179.2	913.8	711.0	188.9	900.0
	6	784.4	165.6	950.1	796.8	165.7	962.4	782.1	171.4	953.6	759.3	180.6	939.9	735.4	190.4	925.8
	7	808.0	167.4	975.4	822.8	166.8	989.6	807.6	172.8	980.3	**784.4**	**182.0**	**966.4**	760.1	191.9	952.0
	8	831.5	169.3	1000.8	849.5	167.9	1017.4	834.4	173.8	1008.2	810.2	183.4	993.5	785.2	193.4	978.6
	9	855.0	171.1	1026.1	875.9	169.2	1045.1	860.5	175.2	1035.7	836.3	184.7	1021.0	810.8	194.8	1005.7
	10	878.6	172.9	1051.5	902.4	170.6	1072.9	886.9	176.6	1063.4	862.5	186.1	1048.6	836.5	196.4	1032.9
	11	902.1	174.7	1076.8	929.3	171.9	1101.1	913.5	178.0	1091.5	888.9	187.6	1076.5	862.8	197.9	1060.6
	12	925.6	176.5	1102.2	954.0	173.1	1127.1	940.2	179.4	1119.6	915.4	189.1	1104.4	889.0	199.4	1088.4
	13	949.2	178.4	1127.5	982.7	174.7	1157.4	966.9	180.9	1147.7	941.9	190.6	1132.5	915.2	201.0	1116.2
	14	972.7	180.2	1152.9	1009.1	176.0	1185.1	993.2	182.3	1175.5	968.3	192.1	1160.4	941.5	202.5	1144.1
	15	996.2	182.0	1178.2	1034.8	177.1	1211.9	1019.1	183.4	1202.5	993.4	193.4	1186.8	966.0	204.0	1169.9
3412	5	816.4	174.6	991.0	827.6	175.3	1002.9	812.1	181.4	993.5	788.2	191.0	979.2	762.9	201.4	964.3
	6	841.7	176.5	1018.2	854.9	176.6	1031.5	839.2	182.7	1021.9	814.7	192.5	1007.2	789.0	203.0	992.0
	7	866.9	178.5	1045.4	882.8	177.8	1060.7	866.5	184.2	1050.6	**841.7**	**194.0**	**1035.7**	815.5	204.5	1020.1
	8	892.2	180.4	1072.6	911.5	178.9	1090.4	895.3	185.2	1080.5	869.3	195.4	1064.7	842.4	206.2	1048.6
	9	917.4	182.4	1099.8	939.8	180.4	1120.1	923.3	186.7	1110.0	897.3	196.9	1094.2	870.0	207.7	1077.6
	10	942.7	184.3	1127.0	968.2	181.8	1150.0	951.6	188.2	1139.8	925.4	198.4	1123.8	897.6	209.4	1106.9
	11	967.9	186.2	1154.1	997.0	183.2	1180.3	980.1	189.7	1169.8	953.7	200.0	1153.7	925.7	210.9	1136.6
	12	993.2	188.2	1181.3	1023.6	184.6	1208.2	1008.7	191.2	1200.0	982.1	201.5	1183.7	953.9	212.6	1166.4
	13	1018.4	190.1	1208.5	1054.4	186.2	1240.6	1037.4	192.8	1230.2	1010.6	203.1	1213.7	982.0	214.2	1196.2
	14	1043.7	192.1	1235.7	1082.7	187.6	1270.3	1065.7	194.3	1260.0	1039.0	204.8	1243.7	1010.2	215.9	1226.1
	15	1068.9	194.0	1262.9	1110.3	188.8	1299.1	1093.4	195.5	1289.0	1065.9	206.1	1272.0	1036.4	217.4	1253.9
3602	5	871.9	185.4	1057.3	883.9	186.1	1070.0	867.3	192.6	1059.9	841.8	202.8	1044.6	814.8	213.9	1028.6
	6	898.9	187.5	1086.3	913.0	187.5	1100.5	896.3	194.0	1090.3	870.1	204.4	1074.5	842.7	215.5	1058.2
	7	925.8	189.5	1115.4	942.8	188.8	1131.7	925.4	195.6	1120.9	**898.9**	**206.0**	**1104.9**	871.0	217.2	1088.2
	8	952.8	191.6	1144.4	973.5	190.0	1163.5	956.1	196.7	1152.8	928.4	207.5	1135.9	899.7	218.9	1118.6
	9	979.8	193.6	1173.4	1003.7	191.5	1195.2	986.0	198.3	1184.3	958.3	209.0	1167.4	929.1	220.5	1149.6
	10	1006.7	195.7	1202.4	1034.0	193.1	1227.1	1016.3	199.9	1216.1	988.3	210.7	1199.0	958.6	222.3	1180.9
	11	1033.7	197.8	1231.5	1064.8	194.6	1259.4	1046.8	201.4	1248.2	1018.6	212.3	1230.9	988.7	224.0	1212.6
	12	1060.7	199.8	1260.5	1093.2	196.0	1289.2	1077.3	203.1	1280.4	1048.9	214.0	1262.9	1018.7	225.7	1244.4
	13	1087.6	201.9	1289.5	1126.1	197.7	1323.8	1107.9	204.7	1312.6	1079.3	215.7	1295.0	1048.8	227.5	1276.3
	14	1114.6	203.9	1318.5	1156.3	199.2	1355.5	1138.2	206.3	1344.4	1109.6	217.4	1327.0	1078.9	229.2	1308.1
	15	1141.6	206.0	1347.6	1185.8	200.5	1386.2	1167.8	207.6	1375.4	1138.4	218.9	1357.3	1106.9	230.9	1337.8
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
	8	1102.6	214.4	1316.9	1126.5	212.6	1339.1	1106.4	220.1	1326.5	1074.3	232.2	1306.5	1041.1	244.9	1286.1
	9	1133.8	216.7	1350.4	1161.4	214.3	1375.7	1141.0	221.8	1362.9	1109.0	233.9	1342.9	1075.1	246.8	1321.9
	10	1165.0	219.0	1383.9	1196.6	216.0	1412.6	1176.0	223.6	1399.6	1143.6	235.7	1379.3	1109.3	248.7	1358.0
	11	1196.2	221.3	1417.5	1232.2	217.7	1449.9	1211.3	225.4	1436.7	1178.7	237.6	1416.2	1144.0	250.6	1394.6
	12	1227.4	223.6	1451.0	1265.0	219.3	1484.3	1246.7	227.2	1473.9	1213.8	239.4	1453.2	1178.8	252.5	1431.4
	13	1258.6	225.9	1484.5	1303.1	221.2	1524.3	1282.1	229.0	1511.1	1249.0	241.3	1490.3	1213.6	254.5	1468.1
	14	1289.8	228.2	1518.0	1338.0	222.9	1561.0	1317.1	230.8	1547.9	1284.0	243.3	1527.3	1248.5	256.5	1505.0
	15	1321.0	230.5	1551.5	1372.2	224.3	1596.4	1351.3	232.3	1583.6	1317.3	244.9	1562.2	1280.9	258.3	1539.2
4802	5	1084.6	218.1	1302.7	1099.5	218.9	1318.5	1079.0	226.5	1305.5	1047.2	238.5	1285.8	1013.6	251.6	1265.1
	6	1118.2	220.5	1338.7	1135.8	220.6	1356.4	1114.9	228.2	1343.2	1082.4	240.4	1322.8	1048.3	253.5	1301.8
	7	1151.7	222.9	1374.7	1172.9	222.1	1395.0	1151.2	230.1	1381.2	**1118.2**	**242.3**	**1360.5**	1083.5	255.5	1339.0
	8	1185.3	225.4	1410.6	1211.0	223.5	1434.5	1189.4	231.4	1420.8	1154.9	244.1	1399.0	1119.2	257.5	1376.8
	9	1218.8	227.8	1446.6	1248.5	225.3	1473.8	1226.6	233.2	1459.8	1192.2	245.9	1438.0	1155.8	259.4	1415.2
	10	1252.4	230.2	1482.6	1286.3	227.1	1513.4	1264.2	235.1	1499.3	1229.4	247.8	1477.2	1192.5	261.5	1454.0
	11	1285.9	232.6	1518.5	1324.6	228.9	1553.5	1302.2	237.0	1539.1	1267.1	249.8	1516.8	1229.9	263.4	1493.3
	12	1319.5	235.0	1554.5	1359.9	230.5	1590.4	1340.2	238.9	1579.0	1304.8	251.7	1556.6	1267.3	265.5	1532.7
	13	1353.0	237.5	1590.5	1400.9	232.5	1633.4	1378.2	240.8	1619.0	1342.6	253.7	1596.4	1304.6	267.6	1572.2
	14	1386.6	239.9	1626.5	1438.4	234.4	1672.8	1415.9	242.7	1658.5	1380.3	255.7	1636.1	1342.1	269.7	1611.8
	15	1420.1	242.3	1662.4	1475.1	235.8	1710.9	1452.7	244.2	1696.9	1416.1	257.5	1673.6	1377.0	271.6	1648.5

LWT : Leaving water temperature.

Cooling Capacities - SWS 3012 to 4802 (continued)

SWS Models	LWT Evap. (°C)	LWT Condenser (°C)														
		35/40			38/43			40/45			42/47			45/50		
		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)
3012	5	634.2	180.7	814.9	610.9	190.7	801.6	595.0	197.7	792.7	578.6	204.9	783.5	553.1	216.3	769.4
	6	656.2	182.1	838.3	632.5	192.2	824.6	616.3	199.1	815.5	599.5	206.5	806.0	573.5	217.9	791.4
	7	678.5	183.5	862.0	654.5	193.6	848.1	637.8	200.7	838.5	620.9	208.0	828.9	594.3	219.5	813.8
	8	701.1	185.0	886.0	676.7	195.1	871.8	659.7	202.2	861.9	642.4	209.6	852.0	615.5	221.1	836.6
	9	724.2	186.4	910.5	699.3	196.6	895.9	682.1	203.7	885.8	664.5	211.1	875.6	637.1	222.6	859.7
	10	747.6	187.7	935.3	722.5	198.0	920.5	704.9	205.2	910.0	686.9	212.6	899.4	658.8	224.2	883.0
	11	771.1	189.2	960.3	745.6	199.1	944.7	728.5	206.4	934.9	710.1	213.8	923.9	681.1	225.6	906.7
	12	795.0	190.6	985.6	769.7	200.7	970.4	751.5	207.9	959.4	733.0	215.3	948.3	703.8	226.9	930.7
	13	818.9	192.0	1011.0	793.2	202.2	995.4	774.9	209.3	984.3	756.0	216.8	972.8	726.6	228.2	954.8
	14	842.7	193.5	1036.2	817.0	203.5	1020.6	798.5	210.7	1009.3	779.5	218.1	997.6	749.8	229.4	979.2
	15	864.7	194.9	1059.6	838.4	205.0	1043.4	819.6	212.2	1031.8	800.1	219.7	1019.8	769.6	231.3	1000.9
3202	5	694.8	195.7	890.6	669.3	206.6	875.9	651.9	214.1	866.1	633.9	222.0	855.9	605.9	234.3	840.3
	6	718.9	197.3	916.2	693.0	208.2	901.1	675.2	215.7	891.0	656.8	223.7	880.5	628.3	236.1	864.3
	7	743.3	198.8	942.1	717.1	209.7	926.8	698.8	217.4	916.2	680.2	225.3	905.6	651.1	237.8	888.9
	8	768.1	200.4	968.5	741.4	211.4	952.8	722.8	219.1	941.9	703.8	227.0	930.9	674.4	239.5	913.9
	9	793.4	201.9	995.3	766.1	213.0	979.1	747.3	220.7	968.0	728.0	228.7	956.7	698.0	241.2	939.1
	10	819.1	203.4	1022.5	791.6	214.5	1006.0	772.3	222.3	994.5	752.5	230.3	982.8	721.8	242.9	964.7
	11	844.8	205.0	1049.8	816.9	215.7	1032.6	798.1	223.6	1021.7	777.9	231.7	1009.6	746.2	244.4	990.6
	12	871.0	206.5	1077.5	843.2	217.4	1060.7	823.3	225.2	1048.5	803.1	233.2	1036.3	771.1	245.8	1016.9
	13	897.2	208.0	1105.3	869.1	219.0	1088.1	849.0	226.8	1075.8	828.3	234.8	1063.1	796.1	247.2	1043.3
	14	923.3	209.6	1132.9	895.1	220.5	1115.6	874.9	228.3	1103.2	854.0	236.2	1090.2	821.5	248.5	1070.0
	15	947.3	211.1	1158.5	918.5	222.0	1140.6	897.9	229.9	1127.9	876.6	238.0	1114.6	843.2	250.5	1093.7
3412	5	745.5	208.7	954.2	718.1	220.2	938.3	699.5	228.2	927.7	680.1	236.6	916.8	650.2	249.8	899.9
	6	771.3	210.3	981.6	743.5	221.9	965.4	724.5	230.0	954.4	704.8	238.4	943.2	674.1	251.6	925.7
	7	797.5	211.9	1009.5	769.4	223.6	993.0	749.8	231.8	981.5	729.8	240.2	970.0	698.6	253.5	952.1
	8	824.1	213.6	1037.7	795.5	225.3	1020.8	775.5	233.5	1009.0	755.2	242.0	997.2	723.6	255.3	978.9
	9	851.3	215.2	1066.5	822.0	227.0	1049.0	801.8	235.3	1037.1	781.1	243.8	1024.9	748.9	257.1	1006.0
	10	878.8	216.8	1095.6	849.3	228.6	1077.9	828.6	236.9	1065.5	807.4	245.5	1052.9	774.5	258.9	1033.3
	11	906.4	218.5	1124.9	876.5	229.9	1106.4	856.3	238.3	1094.7	834.7	246.9	1081.6	800.7	260.5	1061.2
	12	934.6	220.1	1154.7	904.8	231.7	1136.5	883.4	240.1	1123.5	861.7	248.6	1110.3	827.4	262.0	1089.4
	13	962.7	221.8	1184.4	932.5	233.4	1165.9	910.9	241.7	1152.7	888.7	250.3	1139.0	854.1	263.6	1117.7
	14	990.6	223.5	1214.1	960.4	235.0	1195.5	938.7	243.3	1182.0	916.3	251.8	1168.1	881.4	264.9	1146.3
	15	1016.4	225.1	1241.5	985.6	236.7	1222.2	963.4	245.1	1208.5	940.6	253.7	1194.2	904.7	267.0	1171.8
3602	5	796.2	221.6	1017.8	766.9	233.8	1000.8	747.0	242.4	989.4	726.4	251.3	977.7	694.4	265.2	959.6
	6	823.8	223.3	1047.1	794.1	235.6	1029.7	773.7	244.2	1017.9	752.7	253.2	1005.8	720.0	267.2	987.1
	7	851.8	225.0	1076.8	821.7	237.4	1059.1	800.8	246.1	1046.9	779.5	255.0	1034.5	746.1	269.1	1015.3
	8	880.2	226.8	1107.0	849.6	239.2	1088.8	828.2	248.0	1076.2	806.5	257.0	1063.5	772.8	271.1	1043.9
	9	909.1	228.5	1137.7	877.9	241.1	1119.0	856.3	249.8	1106.1	834.2	258.8	1093.0	799.8	273.0	1072.8
	10	938.6	230.2	1168.8	907.0	242.8	1149.8	884.9	251.6	1136.5	862.3	260.7	1123.0	827.1	274.9	1102.0
	11	968.0	232.0	1200.1	936.1	244.1	1180.2	914.6	253.0	1167.6	891.4	262.2	1153.7	855.1	276.6	1131.7
	12	998.1	233.7	1231.8	966.3	246.1	1212.4	943.4	254.9	1198.4	920.3	264.0	1184.2	883.6	278.2	1161.9
	13	1028.1	235.5	1263.6	995.9	247.9	1243.7	972.9	256.7	1229.6	949.1	265.8	1214.9	912.2	279.9	1192.1
	14	1058.0	237.3	1295.3	1025.7	249.6	1275.3	1002.5	258.4	1260.9	978.6	267.4	1246.0	941.3	281.3	1222.6
	15	1085.5	239.0	1324.5	1052.6	251.3	1303.9	1028.9	260.3	1289.2	1004.5	269.4	1273.9	966.2	283.6	1249.8
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	285.4	1187.3	863.4	301.1	1164.5
	8	1018.5	253.8	1272.3	983.1	267.7	1250.8	958.4	277.5	1235.9	933.3	287.5	1220.8	894.2	303.3	1197.5
	9	1052.0	255.7	1307.7	1015.9	269.7	1285.6	990.9	279.5	1270.4	965.3	289.6	1254.9	925.5	305.4	1230.9
	10	1086.1	257.6	1343.7	1049.6	271.6	1321.2	1024.0	281.5	1305.5	997.9	291.7	1289.5	957.1	307.6	1264.7
	11	1120.2	259.6	1379.8	1083.2	273.2	1356.4	1058.3	283.1	1341.4	1031.5	293.4	1324.9	989.5	309.5	1299.0
	12	1155.0	261.5	1416.5	1118.2	275.3	1393.5	1091.7	285.2	1377.0	1064.9	295.3	1360.3	1022.5	311.3	1333.8
	13	1189.7	263.5	1453.2	1152.4	277.3	1429.7	1125.8	287.2	1413.0	1098.3	297.4	1395.7	1055.6	313.1	1368.7
	14	1224.3	265.5	1489.8	1187.0	279.2	1466.2	1160.1	289.1	1449.2	1132.4	299.2	1431.6	1089.3	314.7	1404.0
	15	1256.2	267.4	1523.6	1218.0	281.2	1499.2	1190.7	291.2	1481.8	1162.4	301.4	1463.8	1118.1	317.3	1435.4
4802	5	990.5	260.6	1251.1	954.1	275.1	1229.1	929.3	285.1	1214.4	903.6	295.6	1199.2	863.8	312.0	1175.7
	6	1024.8	262.7	1287.4	987.8	277.1	1264.9	962.5	287.2	1249.8	936.3	297.8	1234.1	895.6	314.3	1209.9
	7	1059.6	264.7	1324.3	1022.2	279.2	1301.4	996.1	289.5	1285.6	969.6	300.0	1269.7	928.2	316.6	1244.8
	8	1094.9	266.8	1361.7	1056.9	281.4	1338.3	1030.3	291.7	1322.0	1003.3	302.3	1305.6	961.3	318.9	1280.2
	9	1131.0	268.8	1399.8	1092.1	283.6	1375.7	1065.2	293.8	1359.1	1037.7	304.5	1342.2	994.9	321.1	1316.0
	10	1167.6	270.8	1438.4	1128.4	285.6	1413.9	1100.9	295.9	1396.8	1072.7	306.6	1379.3	1028.9	323.3	1352.3
	11	1204.2	272.9	1477.1	1164.5	287.2	1451.7	1137.7	297.6	1435.4	1108.9	308.4	1417.4	1063.7	325.4	1389.1
	12	1241.6	274.9	1516.5	1202.0	289.5	1491.5	1173.6	299.9	1473.5	1144.8	310.5	1455.3	1099.2	327.3	1426.5
	13	1279.0	277.0	1555.9	1238.8	291.6	1530.4	1210.3	301.9	1512.2	1180.7	312.7	1493.3	1134.8	329.2	1464.0
	14	1316.1	279.1	1595.2	1276.0	293.6	1569.6	1247.1	303.9	1551.1	1217.4	314.5	1531.9	1171.0	330.9	1501.9
	15	1350.4	281.1	1631.5	1309.4	295.6	1605.0	1280.0	306.1	1586.1	1249.6	316.9	1566.5	1202.0	333.5	1535.5

LWT : Leaving water temperature.

Cooling Capacities - SWR 1602 to 2802

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	**265.9**	**65.5**	**331.4**	251.7	72.0	323.6	234.9	78.8	313.7	216.7	85.8	302.4
	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	**354.5**	**79.3**	**433.8**	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	261.5	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	505.6	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	**430.4**	**95.9**	**526.3**	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	536.4	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	**517.7**	**117.0**	**634.7**	490.0	127.6	617.6	459.0	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	689.7	563.0	113.4	676.4	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	**552.2**	**125.1**	**677.3**	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	117.7	775.3	625.8	128.9	754.7	594.1	140.6	734.7	560.0	153.2	713.2	518.9	167.1	686.0
	12	702.5	107.6	810.1	676.7	118.7	795.4	644.4	129.9	774.3	612.6	141.6	754.2	578.1	154.2	732.3	536.2	168.1	704.3
	13	723.7	108.6	832.2	696.0	119.6	815.6	663.1	131.0	794.0	631.0	142.7	773.7	596.2	155.3	751.5	553.5	169.1	722.6
	14	743.1	109.4	852.5	715.0	120.5	835.5	681.7	132.0	813.7	649.3	143.8	793.1	614.7	156.2	771.0	571.2	170.0	741.2
	15	762.0	110.1	872.1	733.6	121.3	854.9	699.4	132.9	832.3	666.2	144.8	811.0	631.0	157.4	788.4	586.3	171.3	757.7
2502	5	603.6	108.8	712.4	579.0	119.8	698.7	549.6	131.0	680.6	519.2	142.9	662.1	484.9	156.3	641.1	447.7	170.5	618.3
	6	623.5	109.6	733.1	598.3	120.7	718.9	568.0	132.1	700.1	537.2	144.0	681.2	502.4	157.4	659.8	464.2	171.8	636.0
	7	643.8	110.4	754.2	617.7	121.6	739.3	**586.8**	**133.1**	**719.9**	555.5	145.1	700.6	520.3	158.6	678.9	481.1	173.1	654.2
	8	664.8	111.1	775.8	638.2	122.3	760.5	606.1	134.1	740.1	574.0	146.3	720.3	538.4	159.8	698.2	498.3	174.3	672.6
	9	685.4	112.0	797.3	658.2	123.3	781.5	625.6	135.1	760.7	592.9	147.4	740.3	556.8	161.0	717.8	515.7	175.5	691.3
	10	706.1	112.9	819.0	678.4	124.3	802.6	645.2	136.1	781.3	612.1	148.5	760.6	575.6	162.1	737.7	533.3	176.8	710.1
	11	727.1	113.7	840.9	698.7	125.3	824.0	664.9	137.2	802.1	631.3	149.6	780.9	595.0	163.1	758.1	551.4	177.9	729.2
	12	746.5	114.6	861.1	719.1	126.3	845.4	684.8	138.3	823.0	650.9	150.7	801.6	614.3	164.2	778.4	569.8	178.9	748.7
	13	769.0	115.6	884.5	739.5	127.3	866.8	704.6	139.4	844.0	670.5	151.9	822.3	633.5	165.3	798.8	588.2	180.0	768.2
	14	789.6	116.5	906.0	759.7	128.3	888.0	724.4	140.5	864.9	690.0	153.0	843.0	653.2	166.3	819.5	607.0	180.9	787.8
	15	809.7	117.2	926.9	779.5	129.1	908.6	743.2	141.4	884.6	707.9	154.1	862.1	670.5	167.5	838.0	623.0	182.3	805.4
2652	5	643.0	115.0	758.0	616.8	126.6	743.4	585.5	138.5	724.0	553.2	151.1	704.2	516.6	165.2	681.8	477.0	180.3	657.3
	6	664.2	115.9	780.1	637.4	127.6	764.9	605.1	139.6	744.8	572.3	152.3	724.6	535.2	166.4	701.7	494.6	181.6	676.2
	7	685.9	116.7	802.6	658.1	128.6	786.6	**625.2**	**140.7**	**765.9**	591.8	153.4	745.2	554.3	167.7	722.0	512.5	183.0	695.5
	8	708.2	117.4	825.6	679.9	129.3	809.3	645.7	141.8	787.4	611.5	154.7	766.2	573.5	169.0	742.5	530.9	184.3	715.2
	9	730.1	118.4	848.5	701.2	130.4	831.6	666.5	142.8	809.3	631.6	155.8	787.5	593.2	170.2	763.4	549.4	185.6	735.0
	10	752.2	119.3	871.6	722.7	131.4	854.1	687.3	143.9	831.3	652.1	157.0	809.1	613.2	171.4	784.6	568.2	186.9	755.1
	11	774.6	120.2	894.9	744.4	132.5	876.8	708.4	145.0	853.5	672.6	158.2	830.8	633.9	172.4	806.3	587.4	188.1	775.5
	12	795.3	121.1	916.4	766.1	133.5	899.6	729.5	146.2	875.7	693.4	159.4	852.8	654.4	173.6	828.0	607.0	189.2	796.2
	13	819.2	122.2	941.4	787.9	134.6	922.5	750.6	147.4	898.0	714.3	160.6	874.9	674.9	174.8	849.7	626.6	190.3	816.9
	14	841.2	123.1	964.3	809.4	135.6	945.0	771.7	148.5	920.2	735.0	161.8	896.8	695.9	175.8	871.7	646.6	191.2	837.9
	15	862.6	123.9	986.5	830.4	136.5	967.0	791.7	149.5	941.3	754.2	162.9	917.2	714.3	177.1	891.5	663.8	192.8	856.5
2802	5	682.5	121.3	803.7	654.6	133.5	788.1	621.4	146.0	767.4	587.1	159.3	746.4	548.2	174.2	722.4	506.2	190.1	696.3
	6	704.9	122.2	827.1	676.5	134.5	810.9	642.3	147.2	789.5	607.4	160.5	767.9	568.1	175.5	743.6	524.9	191.5	716.4
	7	728.0	123.0	851.0	698.4	135.6	834.0	**663.5**	**148.4**	**811.9**	628.1	161.8	789.8	588.3	176.8	765.1	544.0	192.9	736.9
	8	751.6	123.8	875.4	721.6	136.3	858.0	685.3	149.5	834.7	649.0	163.0	812.0	608.7	178.1	786.8	563.4	194.3	757.7
	9	774.9	124.8	899.7	744.2	137.4	881.6	707.4	150.5	857.9	670.4	164.3	834.7	629.6	179.4	809.0	583.1	195.7	778.8
	10	798.4	125.8	924.2	767.0	138.5	905.5	729.5	151.7	881.2	692.1	165.5	857.6	650.8	180.7	831.5	603.0	197.0	800.1
	11	822.2	126.8	948.9	790.0	139.6	929.7	751.9	152.9	904.8	713.8	166.8	880.6	672.8	181.8	854.6	623.4	198.2	821.7
	12	844.1	127.7	971.7	813.1	140.8	953.9	774.2	154.1	928.4	736.0	168.0	904.0	694.6	183.0	877.5	644.2	199.4	843.6
	13	869.5	128.8	998.3	836.2	141.9	978.1	796.7	155.3	952.0	758.1	169.3	927.4	716.3	184.2	900.6	665.1	200.6	865.7
	14	892.8	129.8	1022.6	859.0	143.0	1002.0	819.0	156.6	975.6	780.1	170.6	950.7	738.6	185.3	923.9	686.3	201.6	887.9
	15	915.5	130.6	1046.2	881.4	143.9	1025.3	840.3	157.6	997.9	800.5	171.8	972.2	758.1	186.7	944.9	704.5	203.2	907.7

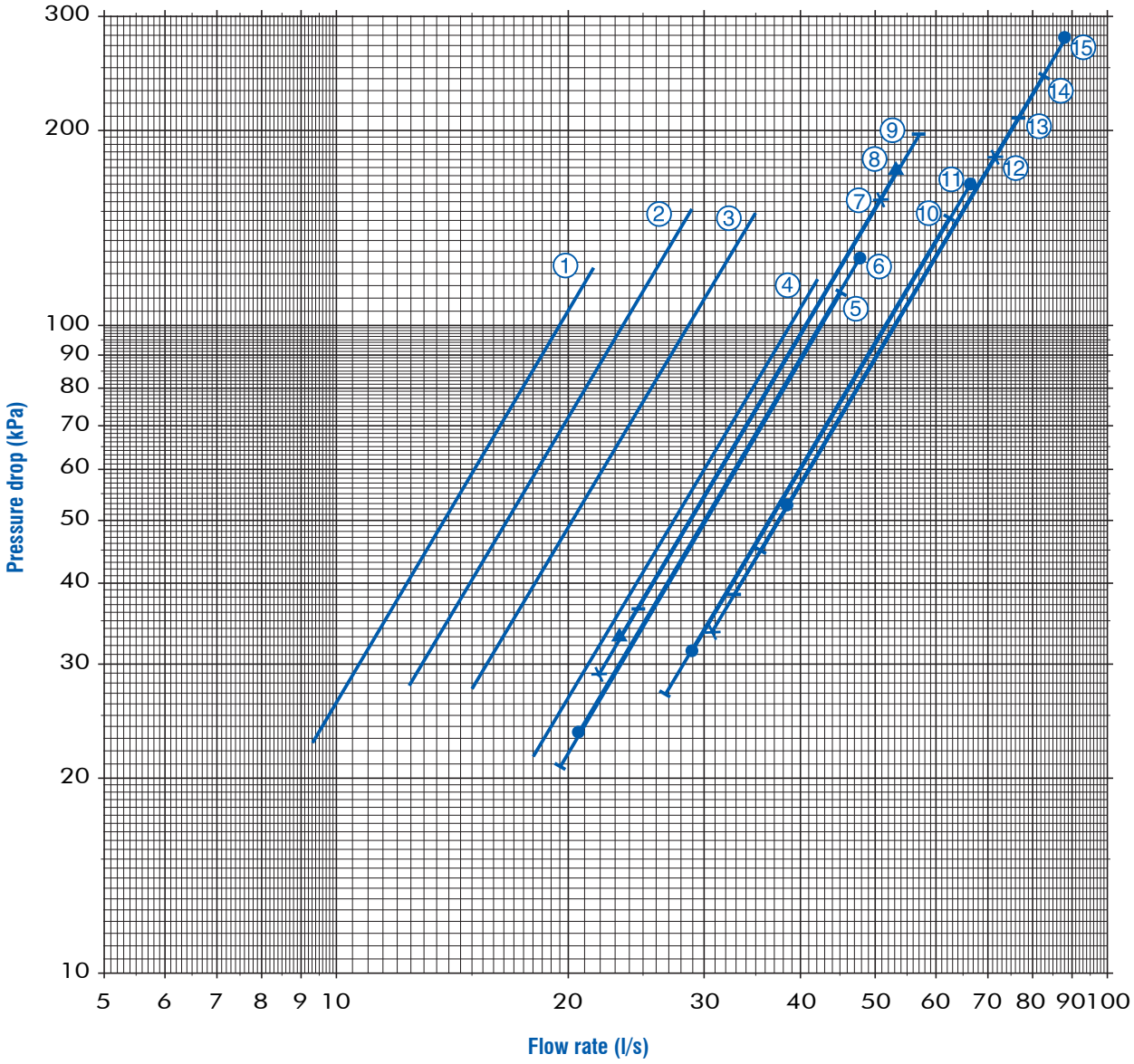
LWT : Leaving water temperature.

Cooling Capacities - SWR 3012 to 4802

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	1085.2	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	777.5	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	892.9	274.7	1167.7	827.0	299.6	1126.6
	10	1132.3	159.1	1291.3	1087.8	212.1	1299.9	1034.6	232.3	1266.9	981.5	253.4	1234.9	923.0	276.7	1199.7	855.2	301.7	1156.9
	11	1166.0	160.3	1326.3	1120.4	213.8	1334.3	1066.3	234.2	1300.4	1012.3	255.4	1267.7	954.2	278.3	1232.5	884.2	303.6	1187.7
	12	1197.0	161.5	1358.5	1153.1	215.5	1368.7	1098.0	236.0	1334.0	1043.8	257.3	1301.0	985.0	280.2	1265.2	913.6	305.4	1219.0
	13	1233.1	162.9	1395.9	1185.9	217.3	1403.2	1129.8	237.9	1367.7	1075.1	259.2	1334.3	1015.9	282.1	1298.0	943.2	307.1	1250.4
	14	1266.1	164.1	1430.3	1218.3	219.0	1437.2	1161.6	239.8	1401.3	1106.4	261.2	1367.6	1047.5	283.8	1331.3	973.3	308.7	1282.0
	15	1298.4	165.1	1463.6	1250.0	220.4	1470.3	1191.7	241.4	1433.1	1135.2	263.1	1398.3	1075.2	285.9	1361.1	999.1	311.2	1310.3
4602	5	1046.3	153.3	1199.7	1003.7	215.5	1219.2	952.7	235.7	1188.5	900.2	257.1	1157.2	840.6	281.1	1121.7	776.2	306.8	1083.0
	6	1080.8	154.5	1235.3	1037.1	217.1	1254.2	984.7	237.6	1222.3	931.3	259.1	1190.4	871.0	283.2	1154.2	804.8	309.1	1113.9
	7	1116.1	155.6	1271.7	1070.8	218.8	1289.6	**1017.3**	**239.5**	**1256.8**	963.0	261.1	1224.1	902.0	285.4	1187.3	834.0	311.4	1145.4
	8	1152.4	156.5	1308.9	1106.4	220.1	1326.5	1050.6	241.3	1291.9	995.1	263.2	1258.2	933.3	287.5	1220.8	863.8	313.6	1177.5
	9	1188.1	157.8	1345.9	1141.0	221.8	1362.9	1084.6	243.0	1327.6	1027.8	265.2	1293.0	965.3	289.6	1254.9	894.0	315.8	1209.9
	10	1224.1	159.1	1383.1	1176.0	223.6	1399.6	1118.5	244.9	1363.4	1061.1	267.1	1328.2	997.9	291.7	1289.5	924.6	318.0	1242.6
	11	1260.5	160.3	1420.8	1211.3	225.4	1436.7	1152.7	246.8	1399.6	1094.4	269.2	1363.6	1031.5	293.4	1324.9	955.9	320.0	1275.9
	12	1294.1	161.5	1455.6	1246.7	227.2	1473.9	1187.1	248.8	1435.9	1128.4	271.2	1399.6	1064.9	295.3	1360.3	987.7	321.9	1309.6
	13	1333.1	162.9	1495.9	1282.1	229.0	1511.1	1221.5	250.7	1472.2	1162.3	273.2	1435.6	1098.3	297.4	1395.7	1019.7	323.8	1343.5
	14	1368.8	164.1	1532.9	1317.1	230.8	1547.9	1255.8	252.8	1508.5	1196.1	275.3	1471.4	1132.4	299.2	1431.6	1052.2	325.4	1377.7
	15	1403.7	165.1	1568.9	1351.3	232.3	1583.6	1288.3	254.4	1542.8	1227.3	277.3	1504.6	1162.4	301.4	1463.8	1080.1	328.0	1408.1
4802	5	1124.8	153.3	1278.2	1079.0	226.5	1305.5	1024.2	247.8	1272.0	967.7	270.3	1237.9	903.6	295.6	1199.2	834.4	322.6	1157.0
	6	1161.9	154.5	1316.4	1114.9	228.2	1343.2	1058.6	249.8	1308.4	1001.2	272.4	1273.6	936.3	297.8	1234.1	865.2	325.0	1190.1
	7	1199.9	155.6	1355.4	1151.2	230.1	1381.2	**1093.6**	**251.8**	**1345.4**	1035.2	274.5	1309.7	969.6	300.0	1269.7	896.6	327.4	1224.0
	8	1238.9	156.5	1395.4	1189.4	231.4	1420.8	1129.5	253.6	1383.1	1069.7	276.7	1346.4	1003.3	302.3	1305.6	928.6	329.7	1258.4
	9	1277.3	157.8	1435.0	1226.6	233.2	1459.8	1165.9	255.5	1421.4	1104.9	278.8	1383.7	1037.7	304.5	1342.2	961.1	332.0	1293.1
	10	1315.9	159.1	1475.0	1264.2	235.1	1499.3	1202.4	257.5	1459.8	1140.7	280.8	1421.5	1072.7	306.6	1379.3	993.9	334.3	1328.3
	11	1355.1	160.3	1515.4	1302.2	237.0	1539.1	1239.2	259.5	1498.7	1176.5	283.0	1459.6	1108.9	308.4	1417.4	1027.6	336.4	1364.0
	12	1391.2	161.5	1552.6	1340.2	238.9	1579.0	1276.1	261.5	1537.7	1213.1	285.1	1498.2	1144.8	310.5	1455.3	1061.8	338.4	1400.2
	13	1433.1	162.9	1595.9	1378.2	240.8	1619.0	1313.1	263.6	1576.7	1249.5	287.2	1536.8	1180.7	312.7	1493.3	1096.2	340.4	1436.6
	14	1471.5	164.1	1635.6	1415.9	242.7	1658.5	1350.0	265.7	1615.7	1285.8	289.4	1575.3	1217.4	314.5	1531.9	1131.2	342.1	1473.3
	15	1509.0	165.1	1674.2	1452.7	244.2	1696.9	1385.0	267.5	1652.5	1319.3	291.5	1610.9	1249.6	316.9	1566.5	1161.1	344.9	1506.0

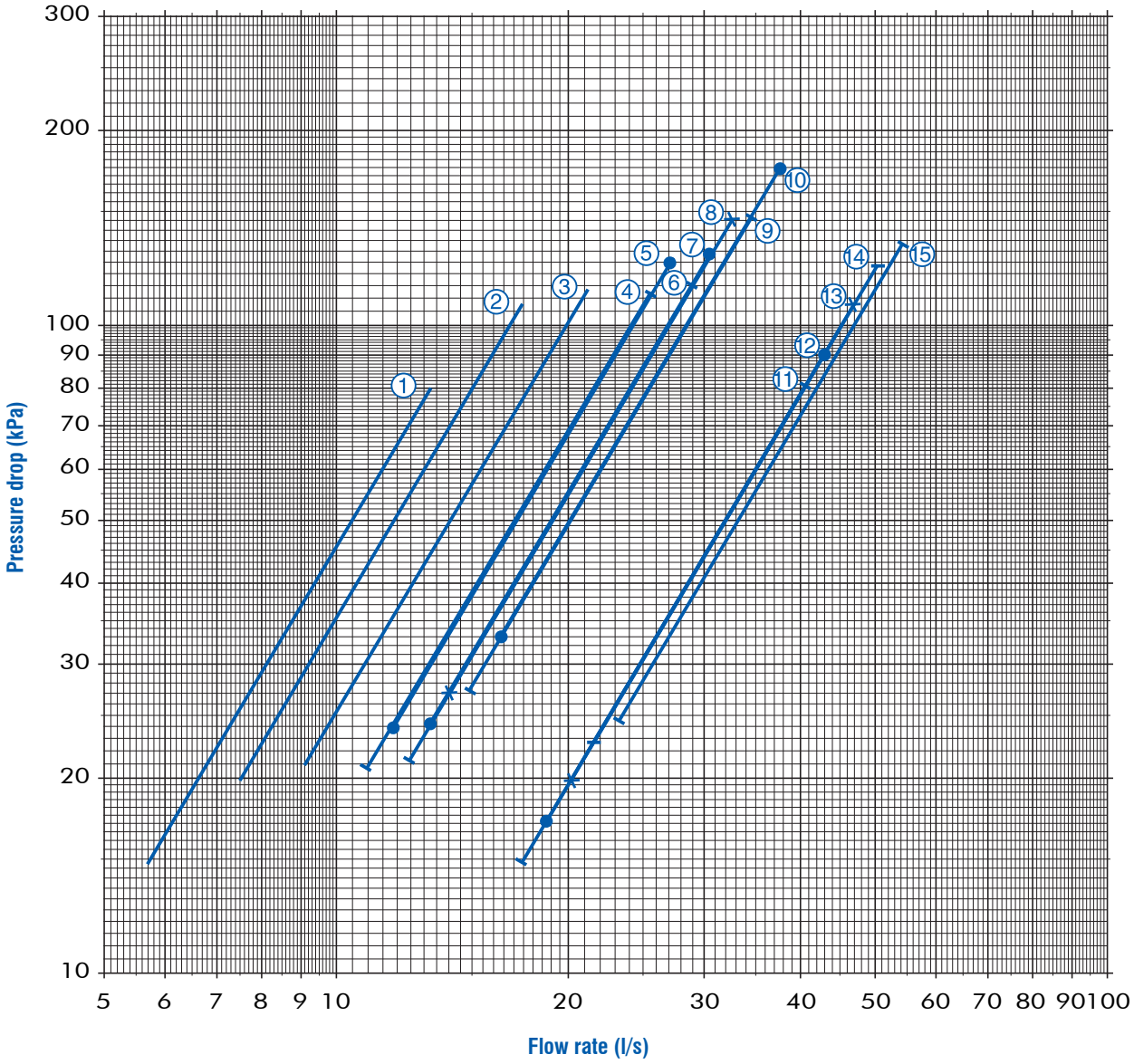
LWT : Leaving water temperature.

Water Pressure Drops - Evaporator



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 - Condensers



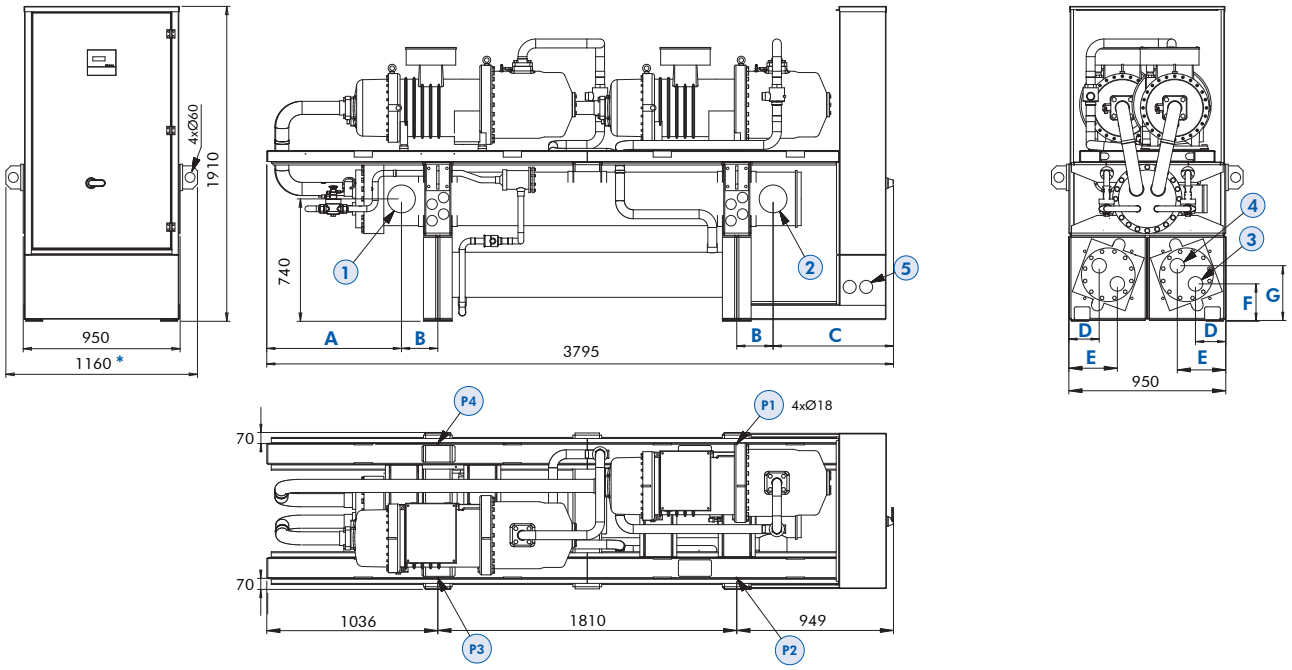
1. Size 1602
2. Size 1902
3. Size 2202
4. Size 2212
5. Size 2352
6. Size 2502
7. Size 2652
8. Size 2802
9. Size 3012
10. Size 3202
11. Size 3412
12. Size 3602
13. Size 4212
14. Size 4602
15. Size 4802

Frame Sizes

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 (mm) - SWS STD Frame 1

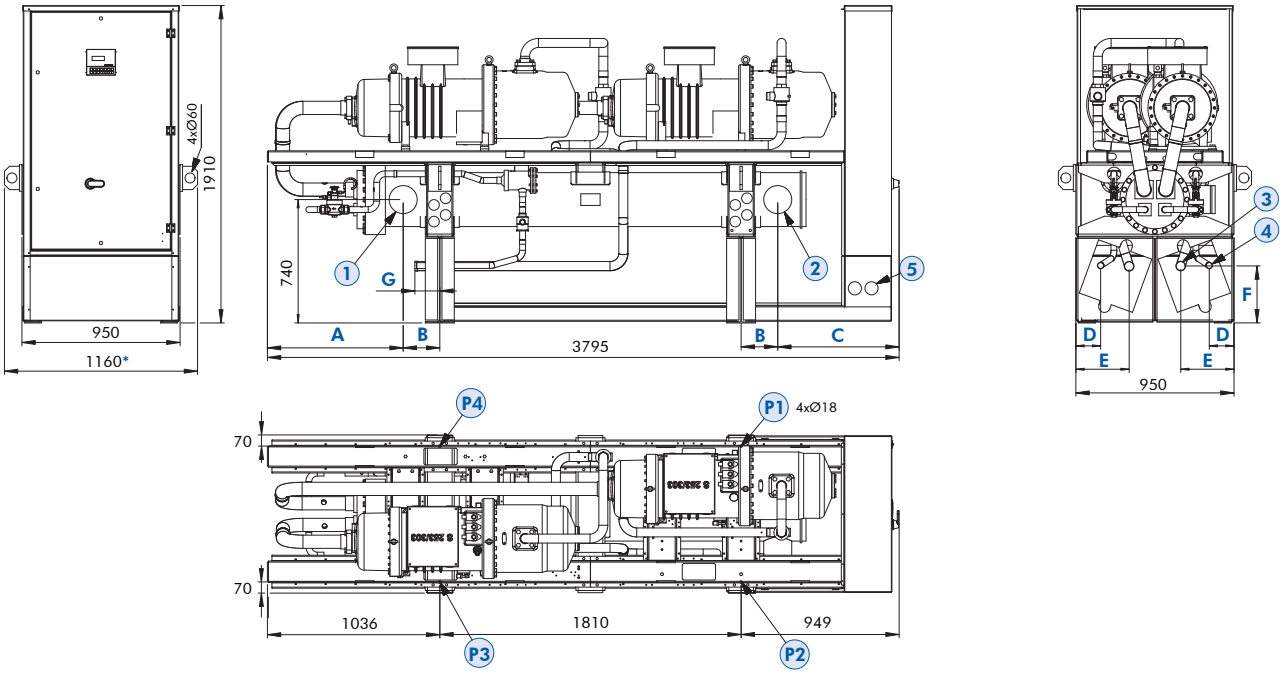


Legend :

* 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
1602	800	235	715	205	275	245	315	DN125 (5")	2"1/2 GAS F
1902	815	220	730	185	295	225	335	DN150 (6")	3" GAS F

Dimensions (mm) - SWR STD Frame 1

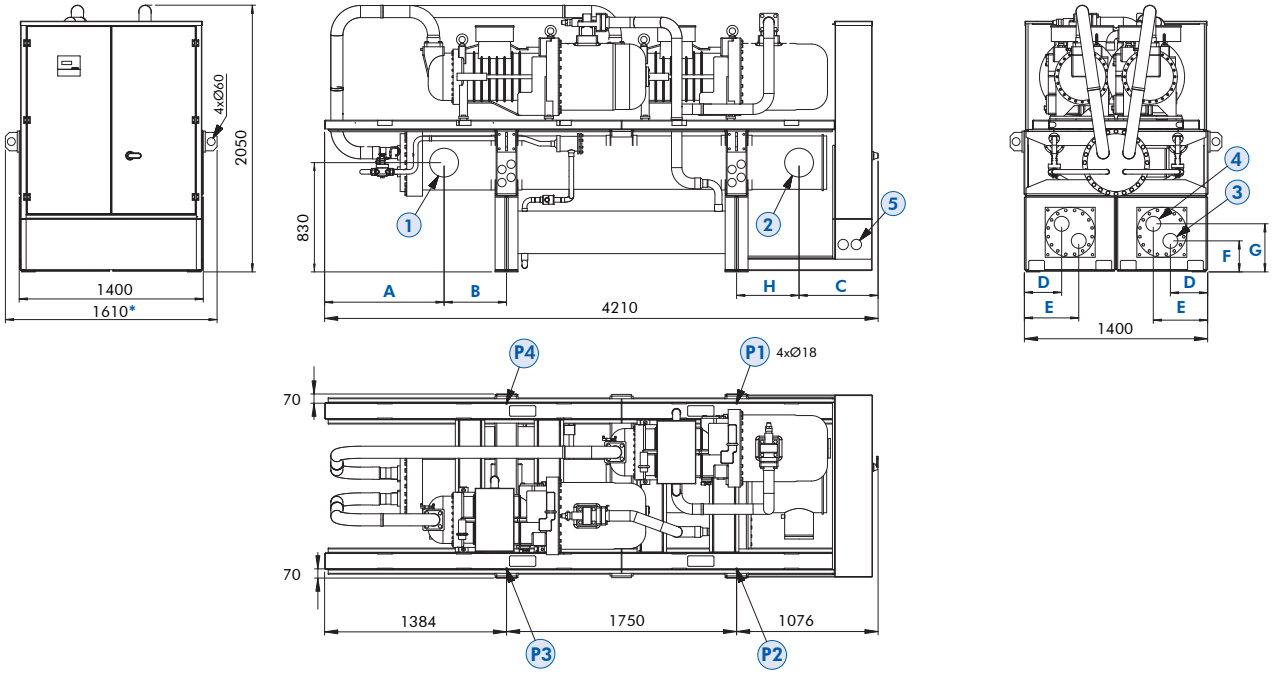


Legend :

* For shipping only
1 Evaporator water inlet
2 Evaporator water outlet
3 Discharge line connection
4 Liquid line connection
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
1602	800	235	715	230	320	340	150	DN125 (5")	1 5/8"	1 3/8"
1902	815	220	730	150	320	340	150	DN150 (6")	2 1/8"	1 3/8"

Dimensions (mm) - SWS STD Frame 2



Legend :

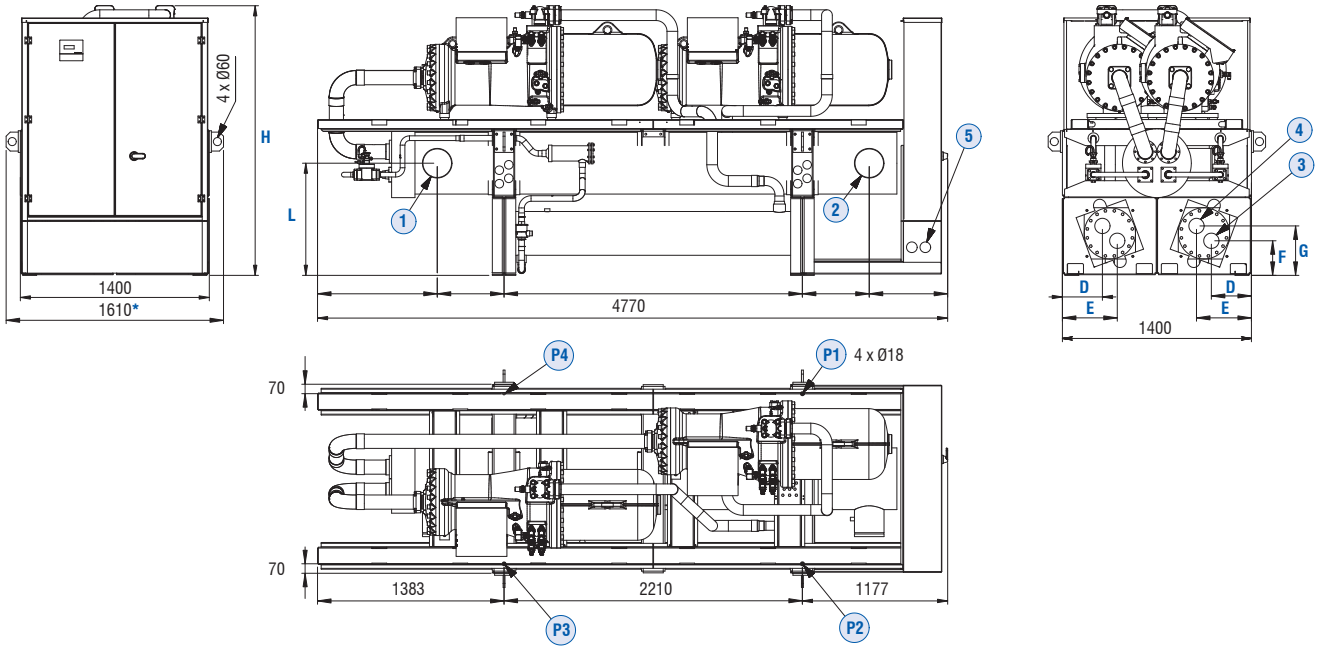
* For shipping only
1 Evaporator water inlet
2 Evaporator water outlet
3 Condenser water inlet
4 Condenser water outlet
5 Power supply cable entry
P1, P2, P3 and P4 : vibrator isolator fixing points

Dimensions	A	B	C	D	E	F	G	H	1-2	3-4
2202	1160	225	850	295	400	245	355	225	DN200 (8")	3" GAS F
2212-2352-2502	1176	208	835	295	405	245	355	208	DN150 (6")	3" GAS F
2652-2802-3012	923	460	587	295	405	245	355	490	DN150 (6")	3" GAS F

SWR STD frame 2

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

Dimensions (mm) - SWS STD Frame 3 & 4



Legend :

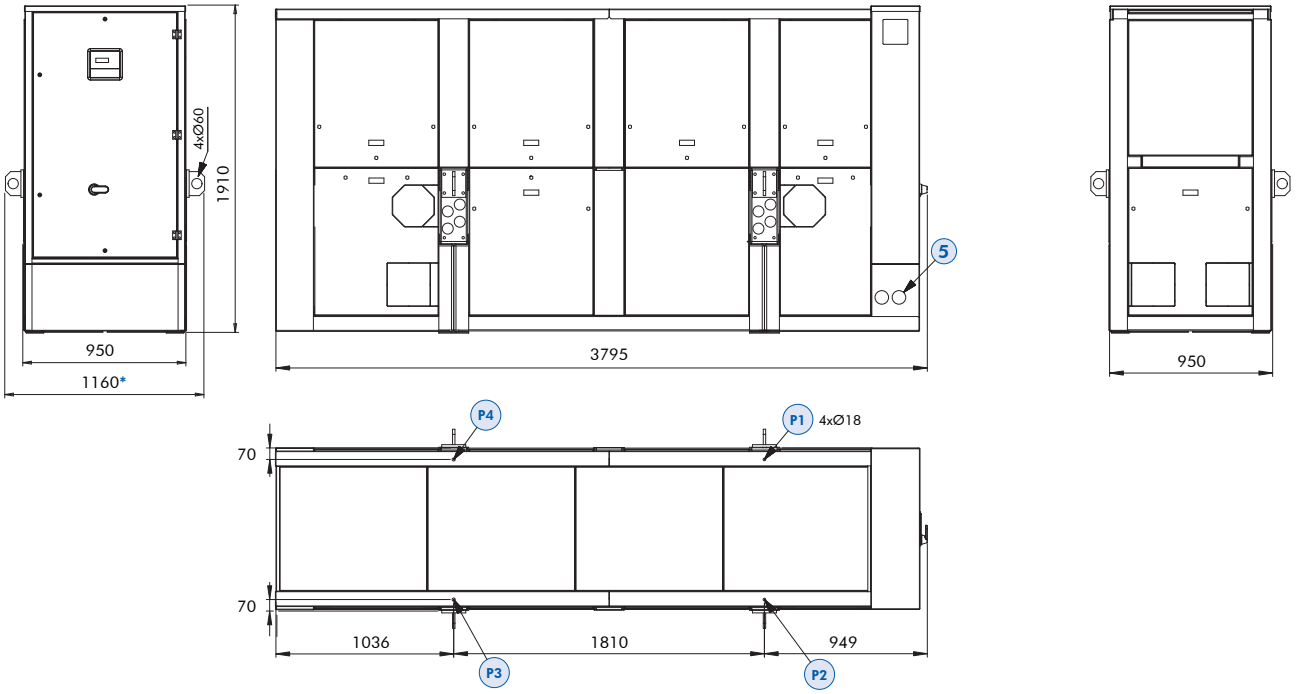
* For shipping only
1 Evaporator water inlet
2 Evaporator water outlet
3 Condenser water inlet
4 Condenser water outlet
5 Power supply cable entry
P1, P2, P3 et P4 : vibration isolator fixing points

Dimensions	A	B	C	D	E	F	G	H	L	1-2	3-4
3202	888	495	682	297	407	256	366	2050	830	DN200 (8")	3" GAS F
3412-3602-4212	888	495	682	297	400	256	366	2050	830	DN200 (8")	DN100 (4")
4602-4802	888	495	682	297	400	256	366	2110	860	DN200 (8")	DN100 (4")

SWR STD Frame 3 & 4

Data available during unit manufacturing. For external dimensions, please refer to SWS STD Frame 3 & 4 dimensions.

Dimensions (mm) - SWS/SWR LN-ELN Frame 1



Legend :

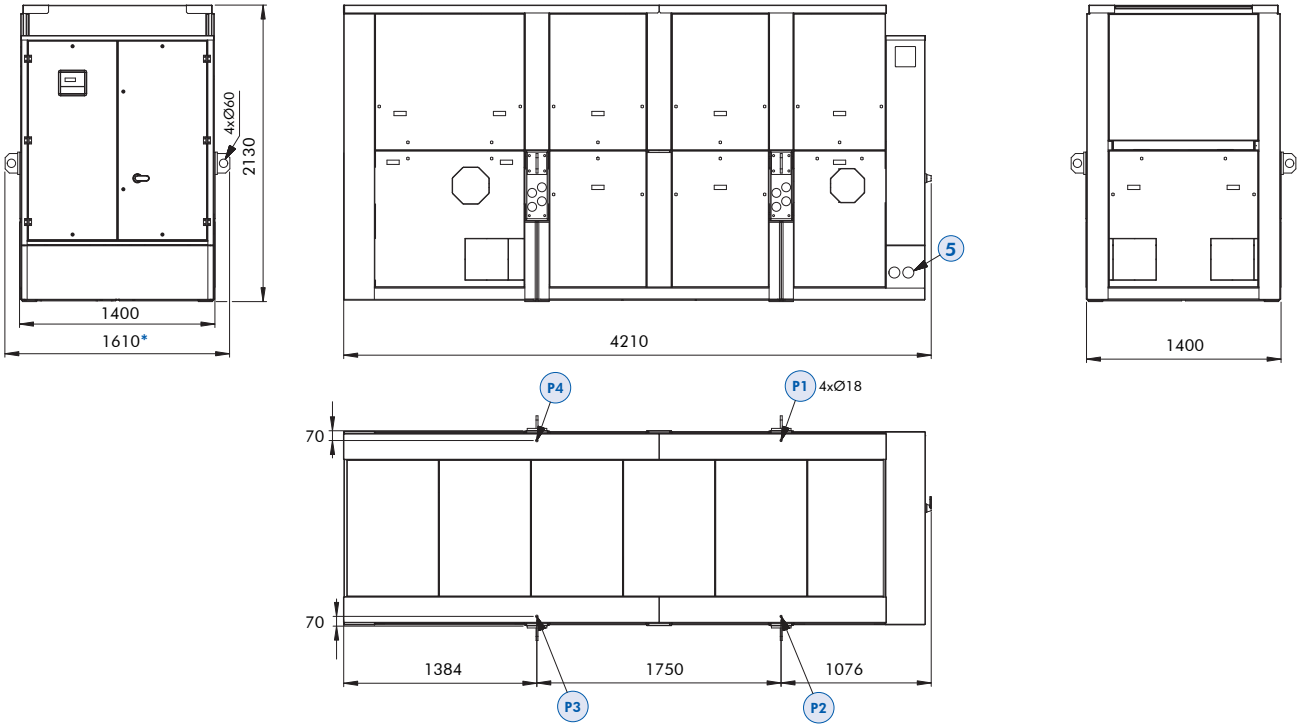
* For shipping only

For connection dimensions, please refer to the drawing of the corresponding STD units.

P1, P2, P3 and P4 : vibration isolator fixing points

5 : Power supply cable entry

Dimensions (mm) - SWS/SWR LN-ELN Frame 2



Legend :

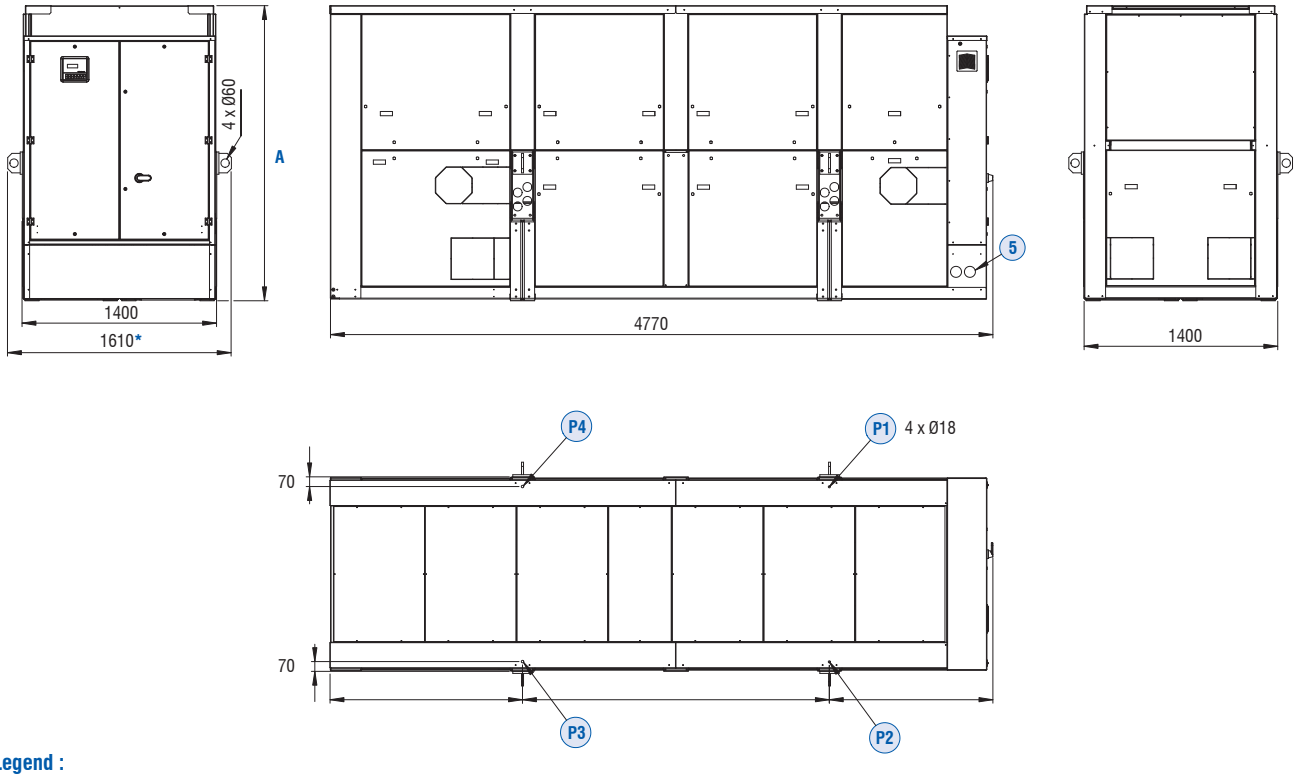
***** For shipping only

For connection dimensions, please refer to the drawing of the corresponding STD units.

P1, P2, P3 and P4 : vibration isolator fixing points

5 : Power supply cable entry

Dimensions (mm) - SWS/SWR LN-ELN Frame 3 & 4



Legend :

* For shipping only

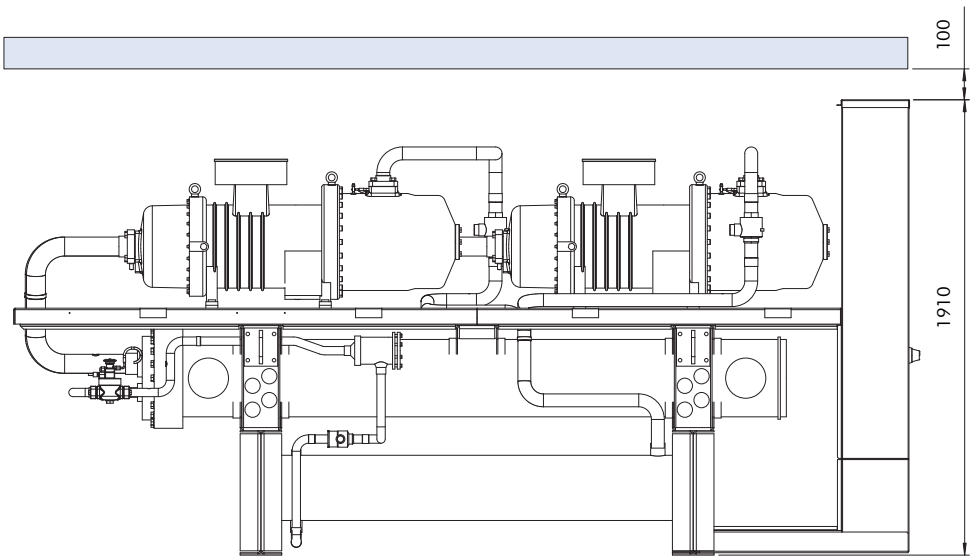
For connection dimensions, please refer to the drawing of the corresponding STD units.

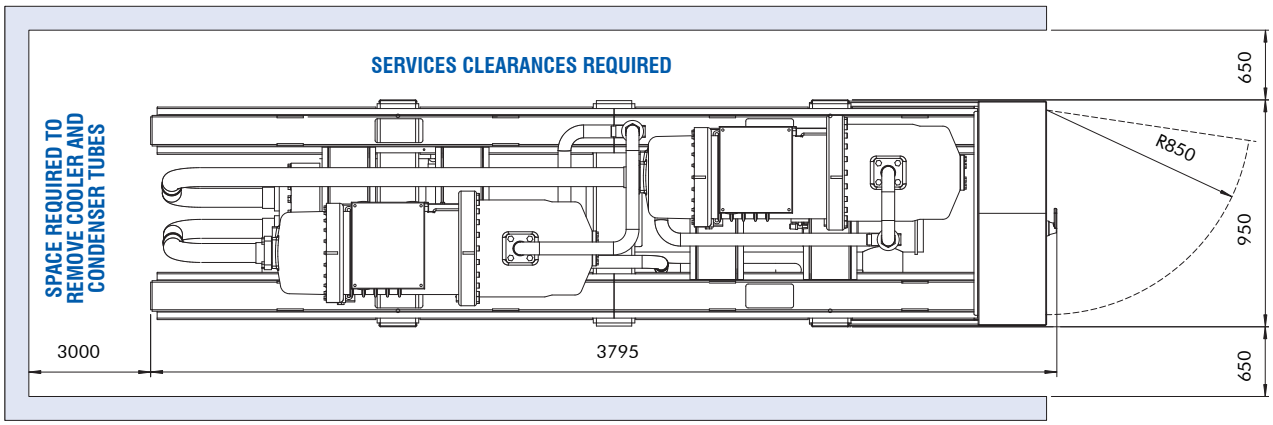
P1, P2, P3 et P4 : vibration isolator fixing points

5 : Power supply cable entry

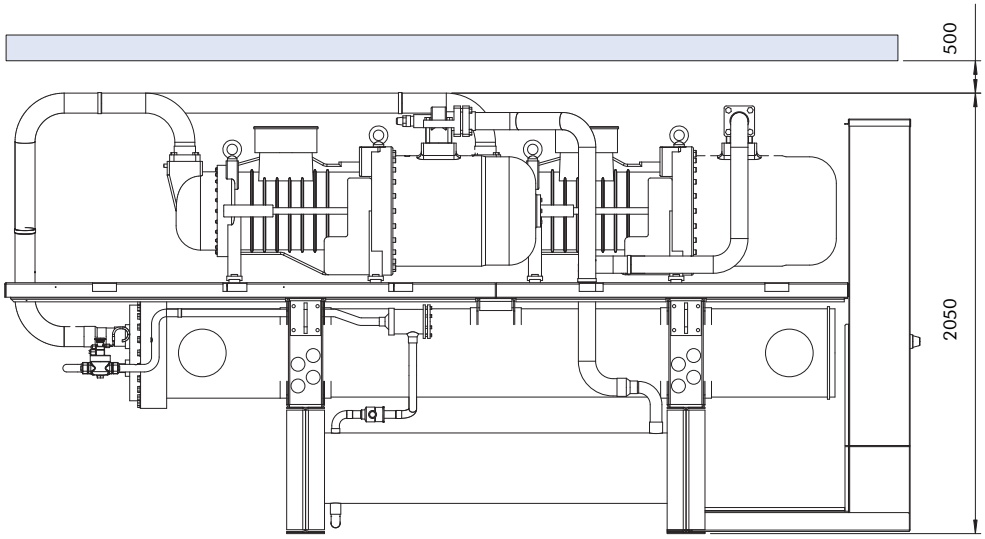
Dimensions	A
3202-3412-3602-4212	2130
4602-4802	2190

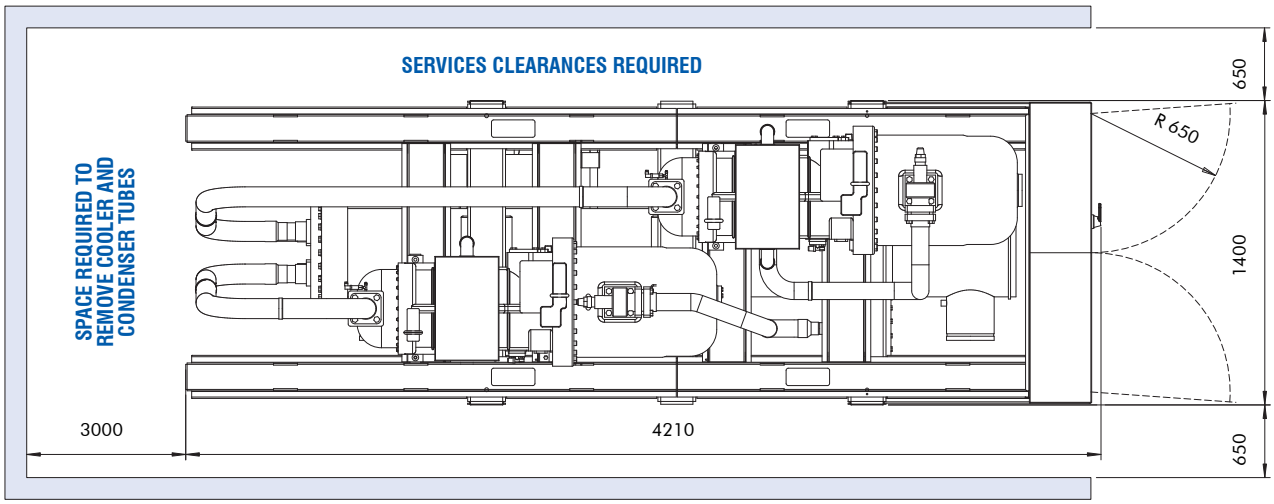
Space Requirements (mm) - SWS/SWR Frame 1



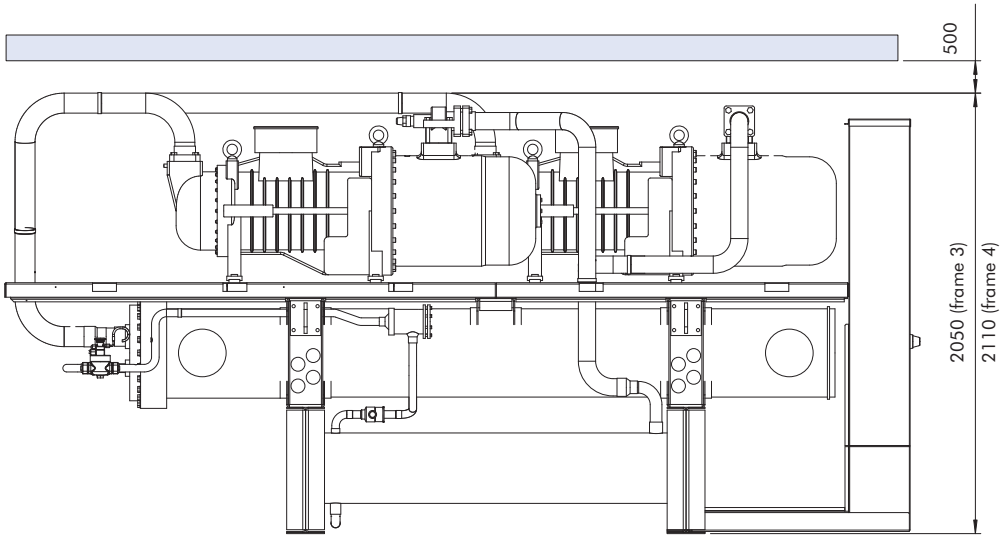


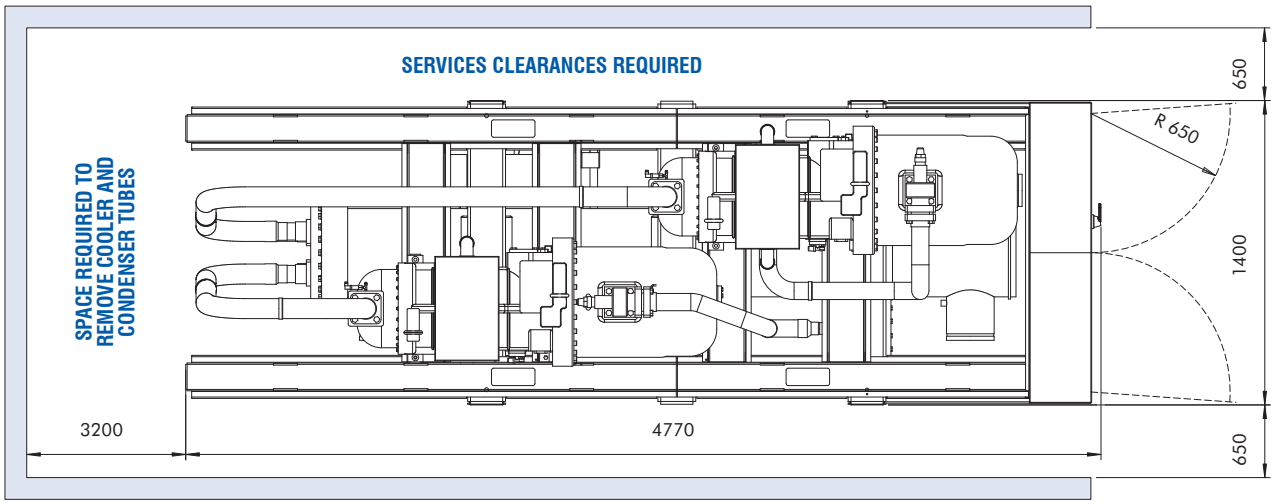
Space Requirements (mm) - SWS/SWR Frame 2





Space Requirements (mm) - SWS/SWR Frame 3 & 4





Notes

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