

**JWA 051-172 S/K/P**

**Agua  
Cooling**

Incorporating

  
**STADCO  
COOLING**



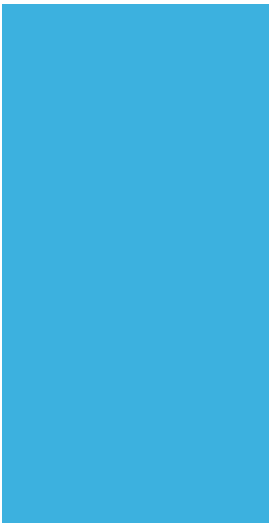
## **R410A**

Air cooled water chillers with a brazed plate or shell and tube evaporators, axial fans and scroll compressors from 44kW to 170kW

**CE**

n° 1370  
according to  
97/23/EC (P.E.D.)





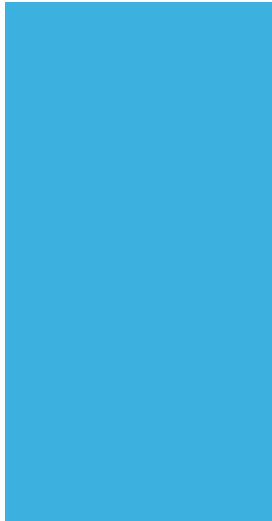
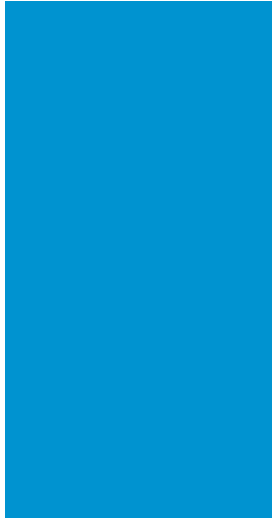
The complete solution  
to all your cooling needs



**JWA 051-172 S/K/P**

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# The complete solution to all your cooling needs



## JWA 051-172 S/K/P

### General Description

Air cooled water chiller units, with axial fans for outdoor installation.

The range consists of 10 models covering a cooling capacity from 44 to 170 kW.

### Versions

- JWA – cooling only
- JWA/SSL – super silenced cooling only

### Technical features

#### Frame

Self-supporting galvanized steel frame further protected with polyester powder painting. Easy to remove panels allow access to the inside of the unit for maintenance and other necessary operations.

#### Compressor

Scroll hermetic type with oil sight glass. They are furnished with an internal overheat protection and crankcase heater, installed on rubber shock absorbers.

#### Fans

Axial fans directly coupled to a three-phase electric motor with external rotor. A safety fan guard is fitted on the air flow discharge. On the super silenced units the fans have a low rpm.

#### Condenser

Made up of a finned battery with copper pipes and aluminium fins. Circuits on the refrigerant side are made to create one circuit in models 051-131 and two independent circuits in models 152-172.

#### Evaporator

AISI 316 stainless steel braze welded plate type: With one circuit on the refrigerant side and one on the water side in models 051-131; with two independent circuits on the refrigerant side and one on the water side in models 152-172. **Shell and tube available on request.**

#### Electrical board

Includes: main switch with door safety interlock; fuses, overload protection for compressors and thermocontacts for fans; interface relays; electrical terminals for external connections.

#### Microprocessor

For automatic control of the unit, allowing continuous display of the operational status of the unit, control set point and actual water temperature and, in case of partial or total block of the unit, indication of low flow.

#### JWA and JWA/SSL version refrigerator circuits

Made of copper pipe, it includes the following components on all models: Thermostatic expansion valve with external equalisation; dehydrator filter; liquid and humidity indicator; high and low pressure gauges (fixed calibration).

#### JWA, JWA/SSL hydraulic circuit

Includes: Evaporator, temperature sensor, antifreeze probe, differential waterpressure gauge and manual air breather valve.



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## Factory Fitted Accessories

- IM** – **Overloads** instead of fuses and thermal relays.
- SL** – **Unit silencing** the compressors are equipped with sound-absorbing covering.
- RF** – **Cooling circuit valves** to shut off and avoid gas migration during transport and stand-by periods.
- CC** – **Condensation control** obtained by means of continuous adjustment of the fan rotation speed to allow the unit to work in ambients down to  $-20^{\circ}\text{C}$ .
- DS** – **Desuperheater** with 20% heat recovery.
- RT** – **Total heat regeneration** with 100% recovery.
- SI** – **Inertial tank 400 l**: models 051-131.  
– **Inertial tank 600 l**: models 152-172.
- PS** – **Circulating pump** installed inside the unit.
- PD** – **Double circulating pump** installed inside the unit, operating on run and stand-by, the pump with the least number of working hours is activated first.

## Loose Accessories

- MN** – **High and low pressure gauges** for every refrigeration circuit.
- CR** – **Remote control panel** to be inserted in the room for remote control of the unit, with the same functions as the main controller.
- IS** – **RS 485 serial interface** for connection to controls and centralised supervision systems.
- RP** – **Coil protection guards** in steel with cataphoresis treatment and painting.
- FP** – **Coil protection grills** with woven metal filter.
- AG** – **Rubber vibration dampers** to be inserted at the bottom of the unit to dampen possible vibrations due to the type of floor where the machine is installed.
- AM** – **Spring shock absorbers** to be inserted at the bottom of the unit to dampen possible vibrations.

## Reference Conditions

All technical data, indicated on pages 5 and 6, refer to the following unit operating conditions:

- Cooling:
  - entering water temperature  $12^{\circ}\text{C}$
  - leaving water temperature  $6^{\circ}\text{C}$
  - ambient air on condenser  $32^{\circ}\text{C}$
- Sound pressure level (DIN 45635): measured in free field conditions at 1m from the unit and at 1.5m from the ground.

The power supply is 400V/3Ph/50Hz; auxiliary supply is 230V/1Ph/50Hz.

Operating Range		Cooling	
		Min.	Max.
Inlet water temperature	$^{\circ}\text{C}$	8	25
Outlet water temperature	$^{\circ}\text{C}$	5	20
Water thermal difference	$^{\circ}\text{C}$	3	9
Ambient air temperature	$^{\circ}\text{C}$	-20	46
Minimum chilled water outlet temperature with glycol mixture	$^{\circ}\text{C}$	-8	
Max. operating pressure heat exchanger water side	kPa	1000	

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## JWA 051-172 S/K/P

### Technical Data - Models 051 - 091

Model		051	061	071	081	091
<b>Cooling:</b>						
Cooling capacity (1)	kW	44	53	61	71	81
Absorbed power (1)	kW	15.2	18.2	20.9	24.2	27.3
<b>Evaporator:</b>						
Water flow (1)	l/s	1.76	2.11	2.44	2.82	3.21
Pressure drops (1)	kPa	34	36	31	36	32
Water connections	"G	1½"	1½"	1½"	1½"	1½"
Water volume	dm <sup>3</sup>	2.6	3.1	3.6	4	4.6
<b>Compressor:</b>						
Unitary absorbed power (1)	kW	6.9	8.4	9.4	11.1	12.7
Unitary absorbed current (1)	A	15.3	15.8	17.8	19.5	24.7
Oil charge	kg	3.3	3.3	3.3	3.3	6.7
<b>Standard version and with SL accessory:</b>						
Airflow	m <sup>3</sup> /s	4.8	4.7	7.1	7.1	7.3
Fans	n°	1	1	2	2	2
Nominal power – fans	kW	1.3	1.3	2.0	2.0	2.0
Nominal current – fans	A	2.5	2.5	5.0	5.0	5.0
Sound pressure level (1)	dB(A)	66	66	70	70	70
Sound press. level with SL accessory (1)	dB(A)	64	64	68	68	68
Refrigerant charge R410A	kg	12	14	14	14	18
Length	mm	2350	2350	2350	2350	2350
Width	mm	1100	1100	1100	1100	1100
Height	mm	1920	1920	1920	1920	2220
Transport weight	kg	595	624	663	682	791
Transport weight with SL accessory	kg	605	634	673	692	801
ST transport weight	kg	610	639	678	697	806
ST transport weight with SL accessory	kg	620	649	688	707	816
<b>SSL version:</b>						
Airflow	m <sup>3</sup> /s	4.1	3.9	5.7	5.7	6.0
Fans	n°	2	2	2	2	2
Nominal power – fans	kW	0.6	0.6	1.5	1.5	1.5
Nominal current – fans	A	1.2	1.2	2.7	2.7	2.7
Sound pressure level (1)	dB(A)	62	62	66	66	66
Refrigerant charge R410A	kg	12	14	17	17	24
Length	mm	2350	2350	2350	2350	2350
Width	mm	1100	1100	1100	1100	1100
Height	mm	1920	1920	1920	1920	2220
Transport weight	kg	630	664	713	732	831
ST transport weight	kg	645	679	728	757	846
<b>Total electrical consumption:</b>						
Power supply	V/Ph/Hz	<----- 400 / 3 / 50 ----->				
Starting current	A	182	162	182	199	202
Max. current	A	50	61	64	76	78

(1) Reference conditions on page 4.



## Technical Data - Models 101 - 172

Model		101	111	131	152	172
<b>Cooling:</b>						
Cooling capacity (1)	kW	93	106	123	141	170
Absorbed power (1)	kW	30.7	36.3	41.9	48.2	55.1
<b>Evaporator:</b>						
Water flow (1)	l/s	3.71	4.24	4.9	5.61	6.78
Pressure drops (1)	kPa	33	33	39	26	27
Water connections	"G	2½"	2½"	2½"	2½"	2½"
Water volume	dm <sup>3</sup>	6.3	7.6	8.2	8.6	10
<b>Compressor:</b>						
Unitary absorbed power (1)	kW	9.6	10.8	12.6	11.0	12.6
Unitary absorbed current (1)	A	17.9	18.9	24.8	19.9	24.2
Oil charge	kg	3.3	3.3	6.7	3.3	6.7
<b>Standard version and with SL accessory:</b>						
Airflow	m <sup>3</sup> /s	7.1	9.7	9.7	11.4	15.0
Fans	n°	2	2	2	2	3
Nominal power – fans	kW	2.0	4.0	4.0	4.0	5.6
Nominal current – fans	A	5.0	8.0	8.0	8.0	12.0
Sound pressure level (1)	dB(A)	70	71	71	71	71
Sound press. level with SL accessory (1)	dB(A)	68	69	69	69	69
Refrigerant charge R410A	kg	24	24	26	28	32
Length	mm	2350	2350	2350	3550	3550
Width	mm	1100	1100	1100	1100	1100
Height	mm	2220	2220	2220	2220	2220
Transport weight	kg	878	927	1036	1135	1374
Transport weight with SL accessory	kg	893	942	1051	1155	1394
ST transport weight	kg	898	947	1056	1155	1394
ST transport weight with SL accessory	kg	918	967	1076	1175	1414
<b>SSL version:</b>						
Airflow	m <sup>3</sup> /s	7.7	9.2	8.9	11.8	---
Fans	n°	2	2	2	3	---
Nominal power – fans	kW	2.5	2.5	2.5	3.8	---
Nominal current – fans	A	5	5	5	7.5	---
Sound pressure level (1)	dB(A)	66	66	66	67	---
Refrigerant charge R410A	kg	24	27	31	32	---
Length	mm	2350	3550	3550	3550	---
Width	mm	1100	1100	1100	1100	---
Height	mm	2220	2220	2220	2220	---
Transport weight	kg	918	1057	1226	1285	---
ST transport weight	kg	938	1077	1246	1305	---
<b>Total electrical consumption:</b>						
Power supply	V/Ph/Hz	<----- 400 / 3 / 50 ----->				
Starting current	A	212	237	241	272	281
Max. current	A	94	114	117	149	157

(1) Reference conditions on page 4.

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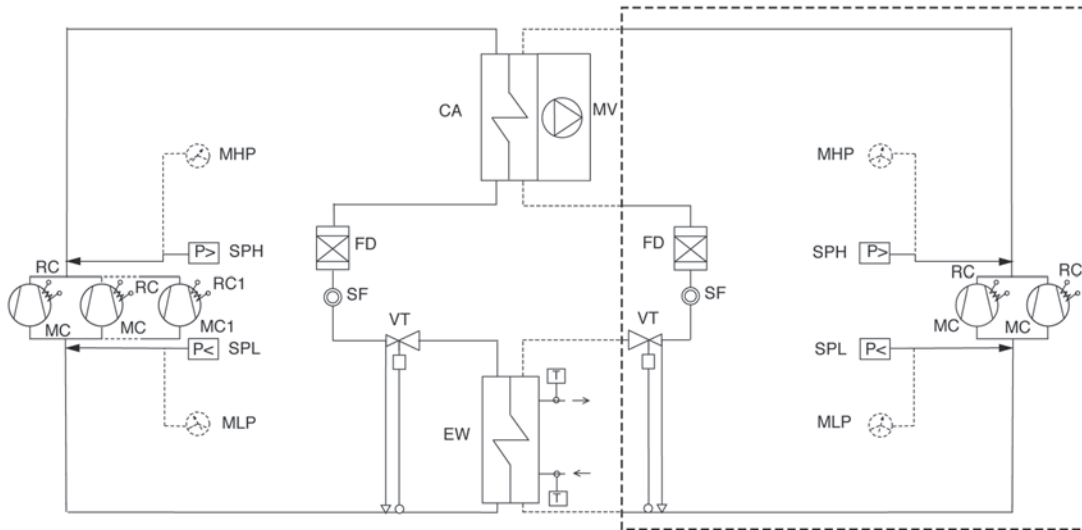
### Cooling Capacity

Model	To (°C)	Ambient Air Temperature °C											
		25		28		32		35		40		45	
		kWf	kWe	kWf	kWe	kWf	kWe	kWf	kWe	kWf	kWe	kWf	kWe
051	5	45.8	13.4	44.6	14.1	43.0	15.1	41.4	15.9	39.0	17.4	36.4	19.0
	6	47.4	13.5	46.2	14.2	44.0	15.2	43.0	16.1	40.2	17.6	37.6	19.2
	7	49.0	13.6	47.8	14.4	45.8	15.4	44.6	16.2	41.8	17.7	38.8	19.3
	8	50.6	13.8	49.4	14.5	47.4	15.5	45.8	16.3	43.0	17.8	40.2	19.4
	9	52.6	13.8	51.0	14.5	48.6	15.6	47.4	16.4	44.6	17.9	---	---
	10	54.2	14.0	52.6	14.7	50.2	15.7	48.6	16.6	47.0	18.0	---	---
061	5	54.9	16.0	53.5	16.9	51.6	18.1	49.7	19.1	46.7	20.9	43.6	22.9
	6	56.8	16.2	55.4	17.0	53.0	18.2	51.6	19.3	48.2	21.1	45.1	23.0
	7	58.7	16.3	57.3	17.2	54.9	18.4	53.5	19.4	50.1	21.2	46.6	23.2
	8	60.6	16.5	59.2	17.3	56.8	18.6	54.9	19.6	51.6	21.4	48.2	23.3
	9	63.0	16.6	61.1	17.4	58.3	18.7	56.8	19.7	53.5	21.5	49.7	23.6
	10	64.9	16.7	63.0	17.6	60.2	18.8	58.3	19.9	56.3	21.6	51.1	23.7
071	5	63.4	18.5	61.8	19.4	59.5	20.8	57.3	21.9	54.0	23.9	50.4	26.1
	6	65.6	18.6	64.0	19.6	61.0	20.9	59.5	22.1	55.7	24.2	52.0	26.2
	7	67.8	18.8	66.2	19.8	63.4	21.1	61.8	22.3	57.9	24.3	53.8	26.5
	8	70.0	18.9	68.4	19.9	65.6	21.3	63.4	22.4	59.5	24.5	55.7	26.6
	9	72.8	19.1	70.6	20.0	67.3	21.4	65.6	22.6	61.8	24.6	---	---
	10	75.0	19.2	72.8	20.2	69.5	21.6	67.3	22.8	65.1	24.8	---	---
081	5	73.5	21.3	71.5	22.5	69.0	24.1	66.4	25.4	62.5	27.7	58.4	30.3
	6	76.0	21.6	74.1	22.7	71.0	24.2	69.0	25.6	64.5	28.0	60.3	30.5
	7	78.6	21.7	76.6	22.9	73.5	24.5	71.5	25.8	67.1	28.2	62.3	30.7
	8	81.1	21.9	79.2	23.0	76.0	24.7	73.5	26.0	69.0	28.4	64.5	31.0
	9	84.3	22.0	81.8	23.2	77.9	24.8	76.0	26.1	71.5	28.5	---	---
	10	86.9	22.3	84.3	23.4	80.5	25.0	77.9	26.4	75.4	28.7	---	---
091	5	83.6	24.0	81.4	25.3	78.5	27.1	75.6	28.6	71.2	31.3	66.5	34.3
	6	86.5	24.3	84.3	25.6	81.0	27.3	78.5	28.9	73.4	31.7	68.6	34.5
	7	89.4	24.4	87.2	25.8	83.6	27.6	81.4	29.1	76.3	31.8	70.9	34.8
	8	92.3	24.7	90.2	26.0	86.5	27.9	83.6	29.4	78.5	32.1	73.4	35.0
	9	96.0	24.8	93.1	26.1	88.7	28.0	86.5	29.5	81.4	32.2	75.6	35.3
	10	98.9	25.1	96.0	26.3	91.6	28.3	88.7	29.8	85.8	32.5	77.8	35.5
101	5	96.5	27.0	93.9	28.5	90.6	30.5	87.2	32.2	82.1	35.3	76.7	38.6
	6	99.8	27.3	97.3	28.7	93.0	30.7	90.6	32.5	84.7	35.6	79.2	38.9
	7	103	27.5	100	29.0	96.5	31.1	93.9	32.8	88.1	35.8	81.8	39.2
	8	106	27.7	104	29.2	99.8	31.3	96.5	33.0	90.6	36.1	84.7	39.4
	9	111	27.9	107	29.4	102	31.5	99.8	33.2	93.9	36.3	---	---
	10	114	28.2	111	29.6	106	31.8	102.3	33.6	99.0	36.5	---	---
111	5	110	31.9	107	33.6	103	36.1	99.7	38.1	93.8	41.8	87.6	45.8
	6	114	32.2	111	33.9	106	36.3	103	38.5	96.8	42.2	90.5	46.1
	7	118	32.4	115	34.3	110	36.7	107	38.8	100	42.4	93.5	46.4
	8	122	32.8	119	34.5	114	37.1	110	39.1	103	42.8	96.8	46.7
	9	126	33.0	123	34.7	117	37.3	114	39.3	107	43.0	---	---
	10	130	33.3	126	35.0	121	37.6	117	39.7	113	43.3	---	---
131	5	127	36.8	124	38.8	120	41.6	115	44.0	109	48.3	101	52.9
	6	132	37.1	129	39.1	123	41.9	120	44.4	112	48.8	105	53.3
	7	136	37.4	133	39.5	127	42.4	124	44.8	116	49.0	108	53.7
	8	141	37.8	137	39.8	132	42.8	127	45.2	120	49.4	112	54.0
	9	146	38.0	142	40.0	135	43.0	132	45.4	124	49.7	115	54.5
	10	151	38.4	146	40.4	140	43.4	135	45.9	131	50.0	119	54.9
152	5	146	42.3	142	44.6	137	47.9	132	50.7	124	55.6	116	60.9
	6	151	42.7	147	45.0	141	48.2	137	51.1	128	56.2	120	61.4
	7	156	43.0	152	45.4	146	48.8	142	51.5	133	56.5	124	61.8
	8	161	43.4	157	45.7	151	49.2	146	52.0	137	56.9	128	62.2
	9	167	43.7	162	46.0	155	49.5	151	52.3	142	57.2	132	62.8
	10	172	44.1	167	46.5	160	49.9	155	52.8	150	57.6	---	---
172	5	176	48.3	172	50.9	166	54.8	160	57.9	150	63.6	140	69.7
	6	183	48.8	178	51.4	170	55.1	166	58.4	155	64.3	145	70.2
	7	189	49.1	184	51.9	176	55.8	172	58.9	161	64.6	150	70.7
	8	195	49.6	190	52.3	183	56.3	176	59.4	166	65.1	155	71.2
	9	203	49.9	196	52.6	187	56.6	183	59.8	172	65.4	160	71.9
	10	209	50.4	203	53.1	193	57.1	187	60.4	181	65.9	164	72.4

kWf: Cooling capacity (kW)      kWe: Power input (kW)

To: Evaporator leaving water temperature ( $\Delta t_{in/out} = 5\text{ K}$ ) - The evidenced areas indicate conditions not admitted of operation for SSL versions.

## Refrigeration Circuit Diagram



- The components enclosed within the dotted lines refer to two circuits models (142-172)

	Description		Description
<b>CA</b>	Condenser	<b>MV</b>	Axial fans
<b>EW</b>	Evaporator	<b>RC</b>	Crank case heater
<b>FD</b>	Filter-drier	<b>RC1</b>	Crank case heater (101-131)
<b>MC</b>	Compressor	<b>SF</b>	Sight glass
<b>MC1</b>	Compressor (101-131)	<b>SPH</b>	High pressure switch
<b>MHP</b>	High pressure gauge (accessory)	<b>SPL</b>	Low pressure switch
<b>MLP</b>	Low pressure gauge (accessory)	<b>VT</b>	Expansion valve

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## JWA 051-172 S/K/P

### Water Circuit

#### General characteristics

##### Water circuit JWA, JWA/SSL version

Includes: evaporator, temperature sensor, antifreeze sensor, differential pressure switch and manual air release valves.

##### SI – Water circuit with additional inertial tank

Includes: evaporator, insulated inertial tank complete with the anti-freeze heater on the units in heat pump version, temperature sensor, antifreeze sensor, differential water pressure switch, manual air vent.

##### PS – Water circuit with additional circulation pump

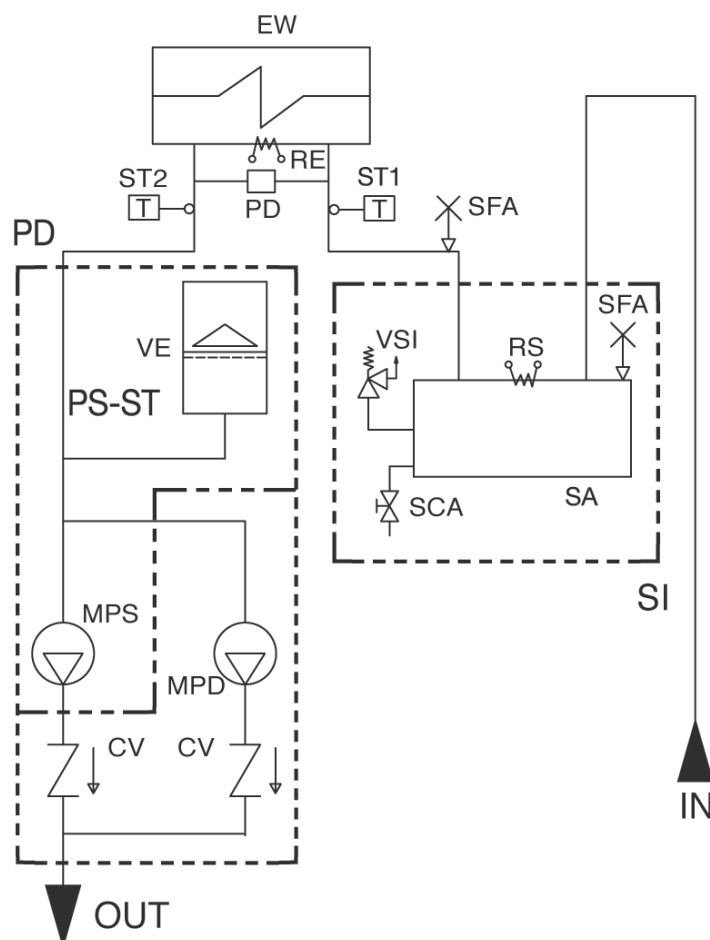
Includes: evaporator, temperature sensor, antifreeze sensor, differential water pressure switch, circulation pump, expansion vessel, safety valve and thermal relay.

##### PD – Water circuit with additional double circulation pump

Includes: evaporator, temperature sensor, antifreeze sensor, differential water pressure switch, double circulation pump, expansion vessel, safety valve, check valve and thermal relay.

#### STD water circuit diagram

The components enclosed within the dotted line are accessories.





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## Unit with Tank and Pump

### Technical data

Model	051	061	071	081	091	101	111	131	152	172	
/	400	400	400	400	400	400	400	400	600	600	Storage tank volume
kW	0.75	0.75	0.75	0.75	1.1	1.5	1.5	1.5	1.5	1.85	Nominal power – pump
kPa	135	130	127	125	165	155	150	140	135	130	Head pressure (1)
kPa	600	600	600	600	600	600	600	600	600	600	Max. working pressure
/	12	12	12	12	12	12	12	12	18	18	Expansion vessel volume

#### Weight calculation:

The weight in operation indicated below is composed of:

- weight of the storage tank (empty);
- weight of the pump and pipework.

The value is then to be added to the TRANSPORT WEIGHT of the machine referred to. The result is the total weight of the unit in operation. This is a necessary detail to calculate the concrete base of the chiller and select antivibration mounts

Additional Weight in Operation and Water Connections												
Model	051	061	071	081	091	101	111	131	152	172		
kg	535	535	535	535	535	535	535	535	820	820	<b>SI</b>	Additional weight while functioning.
"G	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"		Water connections
kg	15	15	15	15	15	20	20	20	20	20	<b>PS</b>	Additional weight while functioning.
"G	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"		Water connections
kg	31	31	31	31	31	41	41	41	41	41	<b>PD</b>	Additional weight while functioning.
"G	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"		Water connection

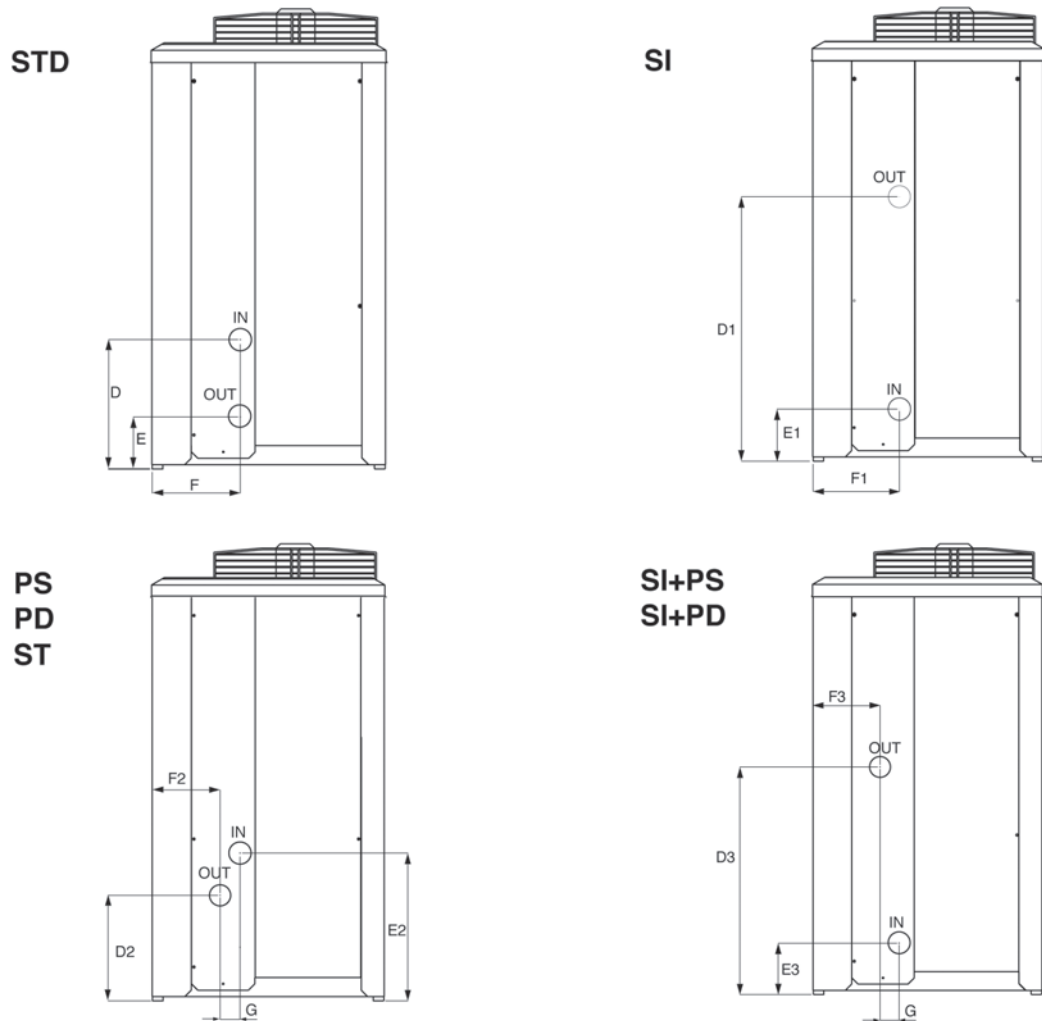
(1) Reference conditions on page 4.

# The complete solution to all your cooling needs



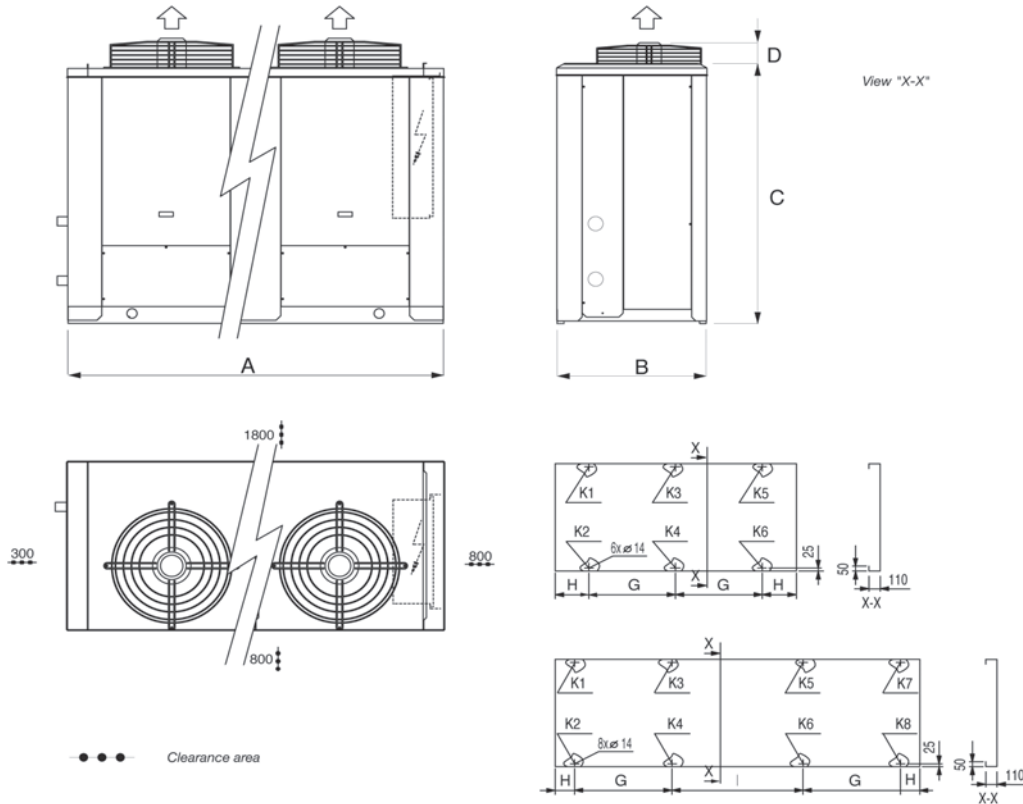
## JWA 051-172 S/K/P

### Position of Water Connections



Model		051	061	071	081	091	101	111	131	152	172
D	mm	715	715	715	715	955	955	955	645	645	645
E	mm	245	245	245	245	245	245	245	245	245	245
F	mm	415	415	415	415	415	415	415	415	415	415
G	mm	95	95	95	95	95	95	95	95	95	95
D1	mm	830	830	830	830	830	830	830	830	830	830
E1	mm	250	250	250	250	250	250	250	250	250	250
F1	mm	415	415	415	415	415	415	415	415	415	415
D2	mm	500	500	500	500	500	500	500	500	500	500
E2	mm	715	715	715	715	715	955	955	645	645	645
F2	mm	320	320	320	320	320	320	320	320	320	320
D3	mm	1095	1095	1095	1095	1095	1095	1095	1095	1095	1095
E3	mm	250	250	250	250	250	250	250	250	250	250
F3	mm	320	320	320	320	320	320	320	320	320	320

## Dimensions, Weights and Clearances



Model	051			061			071			081			091			101			111			131			152			172			
	STD	SL	SSL	STD	SL	SSL	STD	SL	SSL	STD	SL	SSL	STD	SL	SSL	STD	SL	SSL	STD	SL	SSL	STD	SL	SSL	STD	SL	SSL	STD	SL	SSL	
A	mm	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	2350	3550	3550	3550	3550	3550	3550	3550	3550	---
B	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	---
C	mm	1675	1675	1675	1675	1675	1675	1675	1675	1675	1675	1675	1675	1975	1975	1975	1975	1975	1975	1975	1975	1975	1975	1975	1975	1975	1975	1975	1975	1975	---
D	mm	245	245	245	245	245	245	245	245	245	245	245	245	245	245	245	245	245	245	245	245	245	245	245	245	245	245	245	245	245	---
G	mm	844	844	844	844	844	844	844	844	844	844	844	844	844	844	844	844	844	844	844	844	844	950	844	844	950	950	950	950	950	---
H	mm	331	331	331	331	331	331	331	331	331	331	331	331	331	331	331	331	331	331	331	331	331	191	331	331	191	191	191	191	191	---
I	mm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1268	1268	1268	1268	1268	---

	051			061			071			081			091			101			111			131			152			172			
	STD	SL	SSL	STD	SL	SSL	STD	SL	SSL	STD	SL	SSL	STD	SL	SSL	STD	SL	SSL	STD	SL	SSL	STD	SL	SSL	STD	SL	SSL	STD	SL	SSL	
K1	kg	75	75	80	80	80	85	85	85	90	90	90	100	100	100	110	120	125	125	125	115	145	145	135	135	140	145	165	170	---	
K2	kg	100	100	105	105	105	110	115	115	110	120	120	120	140	140	140	150	155	160	160	165	140	180	185	165	105	105	125	135	135	---
K3	kg	95	95	100	100	100	105	100	100	120	100	100	110	115	115	125	130	130	135	140	140	135	155	155	150	145	150	170	175	180	---
K4	kg	110	115	115	115	120	125	125	130	135	130	135	140	155	160	160	165	170	170	175	180	160	195	200	185	120	120	140	145	145	---
K5	kg	100	100	105	105	105	110	110	110	120	110	110	120	125	125	135	140	140	145	150	150	125	170	170	140	165	170	180	195	200	---
K6	kg	120	125	130	125	130	135	135	140	145	140	145	150	165	170	170	185	190	195	195	195	155	205	210	180	145	145	165	170	170	---
K7	kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	110	---	---	130	180	185	200	215	220	---
K8	kg	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	130	---	---	155	155	155	175	190	190	---
Tot.	kg	600	610	635	630	640	670	670	680	720	690	700	740	800	810	840	890	905	930	940	955	1070	1050	1065	1240	1150	1170	1300	1390	1410	---

Fans																															
N°	1	1	2	1	1	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3		

# The complete solution to all your cooling needs

## JWA 051-172 S/K/P



### Sound Pressure Level

The sound level values indicated in accordance with DIN 45635 in dB(A) have been measured in free field conditions. The measurement is taken at 1m distance from the opposite side of the condensing coil and at a height of 1.5m with respect to the base of the machine. On the noise levels that are indicated, a tolerance of +/- 3dB(A) should be considered (according to DIN 45635). The values refer to a machine without pump.

STD										
Hz	051	061	071	081	091	101	111	131	152	172
63	64.0	64.5	66.0	66.5	66.5	67.0	68.0	68.0	68.0	68.0
125	66.0	65.0	67.0	67.0	67.5	67.5	68.0	68.0	68.5	69.0
250	66.0	66.5	72.0	72.5	72.5	72.5	73.0	73.0	73.0	73.5
500	63.0	63.5	66.5	67.0	67.0	67.5	68.0	68.5	69.0	69.0
1000	60.5	60.5	64.0	64.0	64.5	65.0	65.0	65.0	65.0	65.5
2000	56.5	57.5	61.5	61.5	61.5	61.5	61.5	61.5	62.0	62.0
4000	54.0	53.5	57.0	57.5	58.0	58.0	58.5	58.5	59.0	59.5
8000	40.0	41.0	42.5	43.0	43.5	43.5	44.0	44.0	44.5	44.5
Tot. dB(A)	65.6	65.9	69.7	70.0	70.1	70.4	70.7	70.8	71.1	71.4

SL										
Hz	051	061	071	081	091	101	111	131	152	172
63	63.5	64.0	65.0	66.0	66.0	66.5	67.5	67.5	67.5	67.5
125	64.5	63.5	65.0	65.5	66.0	66.0	66.5	66.5	66.5	66.5
250	64.5	65.0	68.5	69.0	69.5	70.0	71.0	71.5	71.5	71.5
500	61.0	61.5	65.0	65.0	65.0	65.5	66.0	66.0	66.5	66.5
1000	58.5	58.5	61.5	62.0	62.0	62.0	62.5	62.5	62.5	63.0
2000	55.5	56.5	60.0	60.0	60.5	60.5	60.5	60.5	61.0	61.0
4000	53.0	52.5	56.0	56.5	57.0	57.5	57.5	57.5	58.0	58.5
8000	39.5	40.5	42.0	42.5	43.0	43.0	43.5	43.5	43.5	44.0
Tot. dB(A)	63.9	64.3	67.6	67.9	68.1	68.4	68.8	68.9	69.2	69.4

SSL										
Hz	051	061	071	081	091	101	111	131	152	172
63	63.0	63.5	64.5	65.0	65.5	65.5	66.0	66.5	67.0	---
125	63.0	62.5	63.5	64.0	64.5	65.0	65.5	65.5	65.5	---
250	63.0	63.5	66.5	66.5	67.0	67.0	67.5	67.5	68.0	---
500	58.5	59.0	62.5	62.5	63.0	63.0	63.5	63.5	64.0	---
1000	56.0	56.5	59.5	59.5	59.5	59.5	59.5	60.0	60.5	---
2000	54.0	54.5	58.0	58.0	58.0	58.0	58.5	58.5	59.5	---
4000	52.0	52.0	55.0	55.5	56.0	56.5	56.5	56.5	57.0	---
8000	39.0	40.0	41.5	42.0	42.5	42.5	43.0	43.0	43.0	---
Tot. dB(A)	62.0	62.4	66.0	65.6	65.9	66.0	66.3	66.4	67.0	---



Incorporating



## Microprocessor Control System

A microprocessor controls all the functions of the unit and allows any adjustments to be made. The set-points and operating parameters are set directly into the microprocessor. This type of microprocessor enables the adjustment of up to four compressors. It has a visual alarm signal, push buttons for the various functions, and offers a continuous control of the system as well as saving all the data in case of a cut in the power supply. Through the display, one can input and have an indication of set values.

### Principal functions

Indication of entering and leaving water temperature; identification and display of blocks by means of alphanumerical code; control of one or two pumps; differential pressure switch alarm delay at start-up; prestarting of the fans; hour counter of compressors in operation; automatic changeover of compressor and pump sequence; compressors start individually and not together; frost protection; remote on-off; operation signalling; manual operation; manual reset; pump down stop.

### Alarms

High and low pressure and overload on each compressor; antifreeze; flow switch; configuration error.

### Accessories

Electronic card for connection to management and service systems; remote display.

Due to continual product development, details contained within this brochure may change without notice and are therefore purely indicative.







