CHAPTER 1 - JUNIOR LINE

JWA 7÷20 S/IK/P/A

A CLASS energy efficiency aircooled liquid Chillers and Heat Pumps with axial fans, Inverter Scroll compressor, plate exchanger and high efficiency EC Inverter circulator

idroinverter

JWA 24÷40 S/IK/P/A

A CLASS energy efficiency aircooled liquid Chillers and Heat Pumps with axial fans, Inverter Scroll compressor and plate exchanger

idroinverter

JWA/FC 24÷40 S/K/P

Aircooled liquid Chillers Free-Cooling with axial fans, Scroll compressor and plate exchanger

AQUA PLUS

JWR 7÷34 S/IK/P/A

A CLASS energy efficiency aircooled liquid Chillers and Heat Pumps with EC Inverter Plug-Fans, Inverter Scroll compressor and plate exchanger for indoor ducted installation

idroinverter

JWA 051÷172 S/IK/P/A

A CLASS energy efficiency aircooled liquid Chillers and Heat Pumps with axial fans, Inverter Scroll compressors and plate exchanger

idroinverter

JWA 051÷172 S/K/P/AF

A CLASS energy efficiency aircooled liquid Chillers and Heat Pumps with axial fans, Scroll compressors and plate exchanger

AQUA PLUS AQUA Logik

JWA/WP 051÷172 S/K/P/A

A CLASS energy efficiency aircooled reversible Heat Pumps with axial fans, Scroll compressors and plate exchanger

AQUA PLUS AQUA Logik

CHAPTER 1 - JUNIOR LINE

LEGENDA

Version
- Cooling only
- Heating only
- Cooling & Heating

Compressor
- Rotary
- Inverter Scroll
- Digital Scroll
- Scroll
- Inverter Screw
- Screw
- Turbocor
- Inverter Centrifugal
- Centrifugal

Fan
- Axial
- Radial
- High ESP Radial
- EC Inverter Plug-Fan

Exchanger
- Plate
- Shell and Tube
- Flooded Shell and Tube
- Microchannel

Solution
- Free-Cooling
- Domestic Hot Water
- AquaLogik
- A Class Cooling
- A Class Heating

Solution
- 4-Pipe system
- Web Monitoring
- Silenced
- Super silenced
- Single Skin
- Double Skin
- Mixing Box
- Economizer
- Economizer and Thermodynamic Coil-Boost Heat Recovery
- Economizer and Cross-flow Heat Recovery
- Economizer and Wheel Heat Recovery

Refrigerant
- R410A
- R452B
- R454B
- R407C
- R134A
- R513A
- R1234ze
- H_2O

CHAPTER 1 - JUNIOR LINE

JWA 081÷211 W/H/A

0 125 250

Aircooled liquid Chillers with axial fans,
Scroll compressor and shell and tube exchanger

idroinverter

JWA/ML/ST 11÷18 S/Z/P

0 125 250

A CLASS energy efficiency aircooled dedicated Heat Pumps with domestic hot water production, axial fans, Scroll compressor, plate exchanger and hydronic kit

MIDYLINE AQUA Logik

JWA/ML/ST 24÷40 S/Z/P

0 125 250

A CLASS energy efficiency aircooled dedicated Heat Pumps with domestic hot water production, axial fans, Scroll compressor, plate exchanger and hydronic kit

MIDYLINE AQUA Logik

JWA/ML/ST 052÷082 S/Z/P

0 125 250

A CLASS energy efficiency aircooled dedicated Heat Pumps with domestic hot water production, axial fans, Scroll compressors, plate exchanger and hydronic kit

MIDYLINE AQUA Logik

JWA/EP 051÷191 S/K/P

0 125 250

Aircooled 4-Pipe multifunctional units with axial fans, Scroll compressors and plate exchangers

ENERGY POWER

JWH/WP 4÷40 S/K/P

0 125 250

Watercooled Heat Pumps with Rotary/Scroll compressor and plate exchangers

AQUA PLUS

JWH 051÷172 S/K/P

0 125 250

Watercooled liquid Chillers and Heat Pumps with Scroll compressors and plate exchangers

AQUA PLUS

CHAPTER 1 - JUNIOR LINE

LEGENDA

Version
- Cooling only
- Heating only
- Cooling & Heating

Compressor
- Rotary
- Inverter Scroll
- Digital Scroll
- Scroll
- Inverter Screw
- Screw
- Turbocor
- Inverter Centrifugal
- Centrifugal

Fan
- Axial
- Radial
- High ESP Radial
- EC Inverter Plug-Fan

Exchanger
- Plate
- Shell and Tube
- Flooded Shell and Tube
- Microchannel

Solution
- Free-Cooling
- Domestic Hot Water
- AquaLogik
- A Class Cooling
- A Class Heating

Solution
- 4-Pipe system
- Web Monitoring
- Silenced
- Super silenced
- Single Skin
- Double Skin
- Mixing Box
- Economizer
- Economizer and Thermodynamic Coil-Boost Heat Recovery
- Economizer and Cross-flow Heat Recovery
- Economizer and Wheel Heat Recovery

Refrigerant
- R410A
- R452B
- R454B
- R407C
- R134A
- R513A
- R1234ze
- H_2O

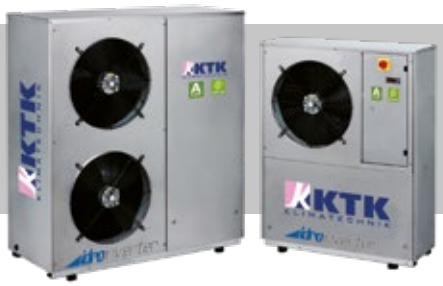
Cooling

Heating

CHAPTER 1 - JUNIOR LINE

JUNIOR LINE

Aircooled, Watercooled & Condenserless liquid Chillers and Heat Pumps for small and medium areas. Condensing units.



JWA 7÷20 S/IK/P/A

A CLASS ENERGY EFFICIENCY AIRCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH AXIAL FANS, INVERTER SCROLL COMPRESSOR, PLATE EXCHANGER AND HIGH EFFICIENCY EC INVERTER CIRCULATOR.

idroinverter

The JWA 7÷20 S/IK/P/A series is the winning choice for ideal comfort in residential and commercial environments. The range, in A CLASS energy efficiency, features Inverter technology on the compressor, for a high efficiency at partial loads. The range excels for its compact sizes, quietness and optimised water circuit, on a peraluman structure. Particular design features enable immediate and effective use, easy installation and lasting reliability. These extremely compact and high-tech units offer you ideal comfort in all seasons.
The unit features high efficiency integrated circulator with EC Inverter brushless electronic motor.
The Heat Pump version is designed for **hot water production up to 55 °C.**

The units are compliant to the ErP Regulation.

FROM 6.0 KW TO 22 KW.

VERSION

JWA
Cooling only
JWA/WP
Reversible Heat Pump

FEATURES

- Structure with supporting frame, in peraluman, galvanized sheet and with rubber shock absorbers on the frame.
- DC INVERTER Scroll compressor with internal overheat protection and crankcase heater.
- Axial fans with low ventilation and special wing profile, directly coupled to external rotor motors.
- Condenser made of copper tubes and aluminium finned coil, complete with drain pan for WP version only.
- Evaporator AISI 316 stainless steel braze welded plates type, complete with water differential pressure switch. On the Heat Pump units it is always installed an antifreeze heater.
- Electronic expansion valve.
- R410A refrigerant.
- Electrical board includes: main switch with door lock device, fuses, compressor and pump remote control switch.
- Condensing Control is included: electronic proportional device that ensures efficient and continuous functioning of the unit with outside air temperature down to –20 °C in cooling mode. It also allows to reduce the sound level especially at night. It consists of a fans speed controller with continuous speed regulation and high and low pressure transducers on cooling circuit.
- Functioning in heating mode with outside air temperature down to -15 °C.
- Water circuit includes: water differential pressure switch, high efficiency EC Inverter circulator, safety valve and expansion vessel.
- High efficiency circulator with EC Inverter brushless electronic motor with 3 speeds selectable by the user.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES:	
TX	Coil with pre-coated fins
FE	Antifreeze heater for evaporator

LOOSE ACCESSORIES:	
CR	Remote control panel
IS	Modbus RTU protocol, RS485 serial interface
RP	Coils protection metallic guards
FP	Coils protection metallic guards with filter

TECHNICAL DATA - JWA 7÷20 S/IK/P/A

MODEL			7	9	11	14	16	18	20
Cooling	Cooling capacity (1)	kW	6.0	7.6	9.3	12.4	15.7	19.0	22.4
	Absorbed power (1)	kW	1.8	2.4	3.0	3.8	4.9	6.0	7.2
	EER (1)		3.33	3.17	3.10	3.26	3.20	3.17	3.11
Cooling (EN14511)	Cooling capacity (1)	kW	6.0	7.6	9.3	12.4	15.6	18.9	22.5
	Absorbed power (1)	kW	1.8	2.4	3.0	3.8	4.9	6.0	7.2
	EER (1)		3.33	3.17	3.10	3.26	3.18	3.15	3.13
	SEER (2)		4.12	4.11	4.10	4.68	4.74	4.71	4.72
	Energy Efficiency (2)	%	162	161	161	184	187	185	186
Heating	Heating capacity (3)	kW	6.7	8.8	10.9	14.1	17.5	20.9	24.8
	Absorbed power (3)	kW	1.9	2.5	3.2	4.0	4.9	5.9	7.0
	COP (3)		3.53	3.52	3.41	3.53	3.57	3.54	3.54
Heating (EN14511)	Heating capacity (3)	kW	6.7	8.8	10.9	14.1	17.5	20.9	24.8
	Absorbed power (3)	kW	1.9	2.5	3.2	4.0	4.9	5.9	7.0
	COP (3)		3.53	3.52	3.41	3.53	3.57	3.54	3.54
	SCOP (4)		3.49	3.34	3.45	3.42	3.56	3.60	3.85
	Energy Efficiency (4)	%	136	131	135	134	139	141	151
	Energy Class (5)		A+	A+	A+	A+	A+	A+	A++
Compressor	Quantity	n°	1	1	1	1	1	1	1
Electrical characteristics	Power supply	V/Ph/Hz	230/1/50			400/3+N/50			
	Max. running current	A	16	16	16	13	13	15	18
	Max. starting current	A	10	10	10	8	8	9	10
Water circuit	Water flow	l/s	0.29	0.36	0.44	0.59	0.75	0.91	1.07
	Pump available static pressure	kPa	53	56	52	76	82	70	60
	Water connections	"G	1"	1"	1"	1"	1"	1"	1"
Sound pressure (6)		dB(A)	51	52	55	57	58	59	60
Weights	Transport weight	Kg	101	113	123	195	197	199	201
	Operating weight	Kg	126	138	148	245	247	249	251

DIMENSIONS

MODEL			7	9	11	14	16	18	20
L	STD	mm	870	870	870	1160	1160	1160	1160
W	STD	mm	320	320	320	500	500	500	500
H	STD	mm	1100	1100	1100	1270	1270	1270	1270

CLEARANCE AREA

JWA 7÷11 S/IK/P/A

200 | 200 | 800 | 200

JWA 14÷20 S/IK/P/A

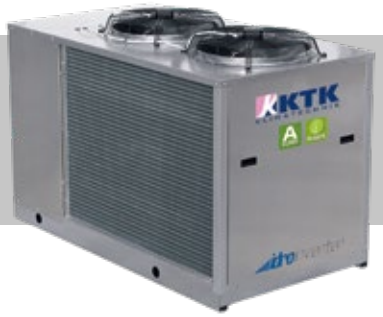
200 | 200 | 800 | 200

Electrical board side

NOTES

1. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
2. Seasonal energy efficiency of cooling at low temperature. According to EU Regulation n. 2016/2281.
3. Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
4. Seasonal energy efficiency of heating at low temperature with average climatic conditions. According to EU Regulation n. 813/2013.
5. Seasonal energy efficiency class of heating at low temperature with average climatic conditions. According to EU Regulation n. 811/2013..
6. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.

N.B. Weights of WP version are specified on technical brochure.



JWA 24÷40 S/IK/P/A

A CLASS ENERGY EFFICIENCY AIRCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH AXIAL FANS, INVERTER SCROLL COMPRESSOR AND PLATE EXCHANGER.

idroinverter

The liquid Chillers and Heat Pumps of the JWA 24÷40 S/IK/P/A series, with R410A refrigerant, are designed to satisfy the needs of small and medium domestic and service sector environments.
With a peraluman structure corrosion-resistant over time, these units can be combined with Fan Coil units or with intermediate heat exchangers for process cooling applications.
All units feature A CLASS energy efficiency and are equipped with Inverter control on Scroll compressor for a better efficiency at partial loads (SEER/SCOP). The Microchannel condensing coil, available on the dedicated version, ensures an even higher efficiency (high EER), having a better heat exchange than traditional coils.
A wide range of accessories, factory fitted or supplied separately, complete the outstanding versatility and functionality of the series.
The Heat Pump version is designed for **hot water production up to 55 °C.**

The units are compliant to the ErP Regulation.

On request, units can be supplied with **R452B (JWA 24÷40 S/IG/P/A)** or **R454B (JWA 24÷40 S/IL/P/A)** refrigerant.

FROM 26 KW TO 42 KW.

VERSION

JWA
Cooling only
JWA/MC
Cooling only with MICROCHANNEL condensing coil
JWA/WP
Reversible Heat Pump

FEATURES

- Structure with supporting frame, in peraluman and galvanized sheet.
- DC INVERTER Scroll compressor with oil sight glass, internal overheat protection and crankcase heater.
- Axial fans with low ventilation and special wing profile, directly coupled to external rotor motors.
- Condenser made of copper tube and aluminum finned coils or aluminium MICROCHANNEL coils.
- Evaporator AISI 316 stainless steel braze welded plates type, complete with water differential pressure switch. On the Heat Pump units it is always installed an antifreeze heater.
- Electronic expansion valve.
- R410A refrigerant. On request R452B or R454B refrigerant.
- Electrical board includes: main switch with door lock device, fuses and pump remote control switch.
- Condensing Control is included: electronic proportional device that ensures efficient and continuous functioning of the unit with outside air temperature down to –20 °C in cooling mode. It also allows to reduce the sound level especially at night. It consists of a fans speed controller with continuous speed regulation and high and low pressure transducers on cooling circuit.
- Functioning in heating mode with outside air temperature down to -15 °C.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES:

BT	Low water temperature kit
TX	Coil with pre-coated fins
TXB	Coil with epoxy treatment
PS	Single circulating pump
FE	Antifreeze heater for evaporator

LOOSE ACCESSORIES:

CR	Remote control panel
IS	Modbus RTU protocol, RS485 serial interface
RP	Coils protection metallic guards
FP	Coils protection metallic guards with filter
AG	Rubber shock absorbers

TECHNICAL DATA - JWA 24÷40 S/IK/P/A

MODEL			24	27	34	40
Cooling STD versions	Cooling capacity (1)	kW	25.8	30.5	35.9	42.3
	Absorbed power (1)	kW	8.0	9.5	11.3	13.4
	EER (1)		3.23	3.21	3.18	3.16
Cooling STD versions (EN14511)	Cooling capacity (1)	kW	25.6	30.3	35.7	42.1
	Absorbed power (1)	kW	8.1	9.7	11.5	13.6
	EER (1)		3.16	3.12	3.10	3.10
	SEER (2)		4.42	4.16	4.21	4.22
	Energy Efficiency (2)	%	174	163	165	166
Cooling MC versions	Cooling capacity (1)	kW	25.8	30.5	35.9	42.3
	Absorbed power (1)	kW	7.9	9.4	11.2	13.3
	EER (1)		3.27	3.24	3.21	3.18
Cooling MC versions (EN14511)	Cooling capacity (1)	kW	25.6	30.3	35.7	42.1
	Absorbed power (1)	kW	8.0	9.6	11.4	13.5
	EER (1)		3.20	3.16	3.13	3.12
	SEER (2)		4.48	4.21	4.26	4.27
	Energy Efficiency (2)	%	176	165	167	168
Heating STD versions	Heating capacity (3)	kW	28.7	34.3	40.4	48.0
	Absorbed power (3)	kW	8.1	9.9	11.8	14.0
	COP (3)		3.54	3.46	3.42	3.43
Heating STD versions (EN14511)	Heating capacity (3)	kW	28.9	34.5	40.7	48.3
	Absorbed power (3)	kW	8.3	10.1	12.0	14.3
	COP (3)		3.48	3.42	3.39	3.38
	SCOP (4)		3.34	3.23	3.33	3.41
	Energy Efficiency (4)	%	131	126	130	133
	Energy Class (5)		A+	A+	A+	A+
Compressor	Quantity	n°	1	1	1	1
Evaporator	Water flow	l/s	1.23	1.46	1.72	2.02
	Pressure drops	kPa	20	29	31	31
	Water connections	"G	1 ¼"	1 ¼"	1 ¼"	1 ¼"
Electrical characteristics	Power supply	V/Ph/Hz	400/3+N/50			
	Max. running current	A	21	24	27	34
	Max. starting current	A	11	14	15	18
Unit with pump	Pump available static pressure	kPa	140	115	150	105
	Water connections	"G	1 ¼"	1 ¼"	1 ¼"	1 ¼"
Sound pressure	STD versions (6)	dB(A)	60	61	62	62
	MC versions (6)	dB(A)	59	60	61	61
Weights	Transport weight	Kg	224	239	269	283
	Operating weight	Kg	229	244	275	289

DIMENSIONS

MODEL			24	27	34	40
L	STD/MC	mm	1850	1850	1850	1850
W	STD/MC	mm	1000	1000	1000	1000
H	STD/MC	mm	1300	1300	1300	1300

CLEARANCE AREA

JWA 24÷40 S/IK/P/A

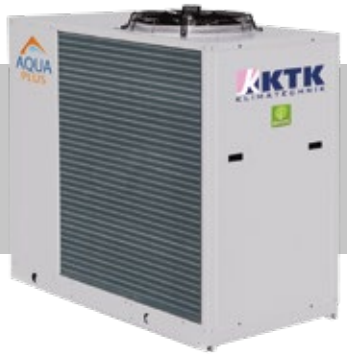
500	800	800	800

Electrical board side

NOTES

1. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
2. Seasonal energy efficiency of cooling at low temperature. According to EU Regulation n. 2016/2281.
3. Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
4. Seasonal energy efficiency of heating at low temperature with average climatic conditions. According to EU Regulation n. 813/2013.
5. Seasonal energy efficiency class of heating at low temperature with average climatic conditions. According to EU Regulation n. 811/2013..
6. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.

N.B. Data of MC version are specified on technical brochure.
N.B. Weights of WP version are specified on technical brochure.



JWA/FC 24÷40 S/K/P

AIRCOOLED LIQUID CHILLERS FREE-COOLING WITH AXIAL FANS, SCROLL COMPRESSOR AND PLATE EXCHANGER.

The liquid Chillers of the JWA/FC 24÷40 S/K/P series, with R410A refrigerant, offer innovative technology to meet the needs of systems for both domestic as well as industrial applications requiring the production of cooled water continuously year-round.
During the cold months, in the **FREE-COOLING** operation mode, the return liquid of the system is cooled directly by forced convection of outdoor air through the condensing coil, thus saving energy by not operating the unit's Scroll compressors. A 3-way valve system is controlled by the electronic microprocessor controller, allowing functioning in CHILLER, FREE-COOLING or MIXED (simultaneously CHILLER and FREE-COOLING) modes.

The units are compliant to the ErP 2021 Regulation for process cooling application.

FROM 28 KW TO 43 KW.

VERSION

JWA/FC
Cooling only
JWA/FC/SP
Cooling only with tank and pump

FEATURES

- Self-supporting galvanized steel frame protected with additional protection achieved via polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Axial fans with low ventilation and special wing profile, directly coupled to external rotor motors.
- Condenser made of copper tubes and aluminium finned coil combined with FREE-COOLING coil.
- Evaporator AISI 316 stainless steel braze welded plates type, complete with water differential pressure switch.
- R410A refrigerant.
- Electrical board includes: main switch with door lock device, fuses, compressor and pump remote control switch.
- Condensing Control is included: electronic proportional device that ensures efficient and continuous functioning of the unit with outside air temperature down to –20 °C. It also allows to reduce the sound level especially at night. It consists of a fans speed controller with continuous speed regulation, high and low pressure transducers on cooling circuit and an electrical heater on electrical board.
- Water circuit for SP version includes: insulated tank, circulating pump, safety valve, gauge and expansion vessel.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES:	
BT	Low water temperature kit
TX	Coil with pre-coated fins
PS	Single circulating pump

LOOSE ACCESSORIES:	
CR	Remote control panel
IS	Modbus RTU protocol, RS485 serial interface
RP	Coils protection metallic guards
AG	Rubber shock absorbers

TECHNICAL DATA - JWA/FC 24÷40 S/K/P

MODEL			24	27	34	40
Cooling	Cooling capacity (1)	kW	27.9	31.4	37.3	42.8
	Absorbed power (1)	kW	9.5	11.0	13.9	15.6
	EER (1)		2.94	2.85	2.68	2.74
Cooling (EN14511)	Cooling capacity (1)	kW	27.5	30.9	36.7	42.1
	Absorbed power (1)	kW	9.9	11.5	14.5	16.3
	EER (1)		2.78	2.69	2.53	2.58
	SEPR (2)		5.61	5.62	5.21	5.22
Free-Cooling cycle	Air temperature (3)	°C	-1.7	-2.7	0.5	-1.2
	Absorbed power (3)	kW	0.98	0.98	1.96	1.96
Compressor	Quantity	n°	1	1	1	1
Water circuit	Water flow	l/s	1.55	1.74	2.07	2.37
	Pressure drops	kPa	117	142	132	141
	Water connections	"G	1"	1"	1"	1"
Electrical characteristics	Power supply	V/Ph/Hz	400/3+N/50			
	Max. running current	A	20	22	29	32
	Max. starting current	A	144	144	162	201
Unit SP version	Water flow	l/s	1.55	1.74	2.07	2.37
	Pump available static pressure	kPa	109	152	150	129
	Tank water volume	l	100	100	100	100
	Water connections	"G	1"	1"	1"	1"
Sound pressure	STD/SP version (4)	dB(A)	60	61	61	61
Weights	Transport weight (5)	Kg	415	430	470	485
	Operating weight (5)	Kg	437	452	499	515

DIMENSIONS

MODEL			24	27	34	40
L	STD/SP	mm	1850	1850	1850	1850
W	STD/SP	mm	900	900	900	900
H	STD/SP	mm	1840	1840	1840	1840

CLEARANCE AREA

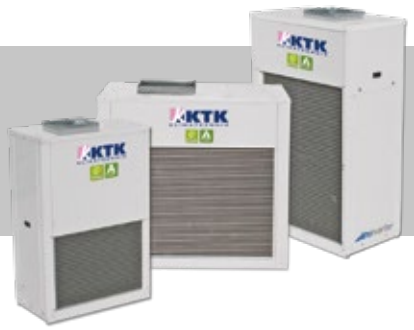
JWA/FC 24÷40 S/K/P

500	800	800	800

Electrical board side

NOTES

1. Chilled water (with ethylene glycol at 30%) from 15 to 10 °C, ambient air temperature 35 °C.
2. Seasonal energy efficiency of process cooling at high temperature. According to EU Regulation n. 2016/2281.
3. Ambient air temperature at which the cooling capacity indicated in point (1) is reached.
4. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
5. Unit without tank and pump.



JWR 7÷34 S/IK/P/A

A CLASS ENERGY EFFICIENCY AIRCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH EC INVERTER PLUG-FANS, INVERTER SCROLL COMPRESSOR AND PLATE EXCHANGER FOR INDOOR DUCTED INSTALLATION.

idroinverter

The A CLASS indoor liquid Chillers of the JWR 7÷34 S/IK/P/A series, with R410A refrigerant and EC Inverter Plug-Fans, are designed for small and medium domestic or service sector systems with particular difficulty in positioning units outside the building.
With a prepainted plate structure, these units can be combined with Fan Coil units or with intermediate heat exchangers for process cooling applications.
These units are equipped with particular technical and design adjustments that enable an immediate and efficient use, in addition to remarkably quiet operation and a significant useful head of the fan.
A wide range of accessories, factory fitted or supplied separately, complete the outstanding versatility and functionality of the series.
The Heat Pump version is designed for **hot water production up to 55 °C.**

The units are compliant to the ErP Regulation.

On request, models 24÷34 can be supplied with **R452B (JWR 24÷34 S/IG/P/A)** or **R454B (JWR 24÷34 S/IL/P/A)** refrigerant.

FROM 6.0 KW TO 36 KW.

VERSION

JWR
Cooling only
JWR/WP
Reversible Heat Pump

FEATURES

- Self-supporting prepainted steel frame.
- DC INVERTER Scroll compressor with internal overheat protection and crankcase heater.
- High efficiency reverse blade EC INVERTER PLUG-FAN, with electronic speed control.
- Condenser made of copper tubes and aluminium finned coil, complete with drain pan for WP version only.
- Evaporator AISI 316 stainless steel braze welded plates type, complete with water differential pressure switch. On the Heat Pump units it is always installed an antifreeze heater.
- Electronic expansion valve.
- R410A refrigerant. On request R452B or R454B refrigerant.
- Electrical board includes: main switch with door lock device, fuses, compressor (7÷20) and pump remote control switch.
- Condensing Control is included: electronic proportional device that ensures efficient and continuous functioning of the unit with outside air temperature down to –20 °C in cooling mode. It also allows to reduce the sound level especially at night. It consists of a fans speed controller with continuous speed regulation and high and low pressure transducers on cooling circuit.
- Functioning in heating mode with outside air temperature down to -15 °C.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES:	
BT	Low water temperature kit
TX	Coil with pre-coated fins
PS	Single circulating pump
FE	Antifreeze heater for evaporator

LOOSE ACCESSORIES:	
CR	Remote control panel
IS	Modbus RTU protocol, RS485 serial interface
RP	Coils protection metallic guards
FP	Coils protection metallic guards with filter
AG	Rubber shock absorbers

TECHNICAL DATA - JWR 7÷34 S/IK/P/A

MODEL			7	9	11	14	16	18	20	24	27	34
Cooling	Cooling capacity (1)	kW	6.0	7.6	9.3	12.4	15.7	19.0	22.4	25.8	30.5	35.9
	Absorbed power (1)	kW	1.9	2.5	3.1	4.3	5.4	6.5	7.7	9.3	10.3	12.1
	EER (1)		3.16	3.04	3.00	2.88	2.91	2.92	2.91	2.77	2.96	2.97
Cooling (EN14511)	Cooling capacity (1)	kW	6.0	7.6	9.3	12.4	15.6	18.9	22.5	25.6	30.3	35.7
	Absorbed power (1)	kW	1.9	2.5	3.1	4.3	5.4	6.5	7.7	9.4	10.5	12.3
	EER (1)		3.16	3.04	3.00	2.88	2.89	2.91	2.92	2.72	2.89	2.90
	SEER (2)		4.12	4.11	4.10	4.32	4.30	4.23	4.33	4.32	4.10	4.12
	Energy Efficiency (2)	%	162	161	161	170	169	166	170	170	161	162
Heating	Heating capacity (3)	kW	6.7	8.8	10.9	14.1	17.5	20.9	24.8	28.7	34.3	40.4
	Absorbed power (3)	kW	2.0	2.6	3.3	4.5	5.4	6.4	7.5	9.4	10.7	12.6
	COP (3)		3.35	3.38	3.30	3.13	3.24	3.27	3.31	3.05	3.21	3.21
Heating (EN14511)	Heating capacity (3)	kW	6.7	8.8	10.9	14.1	17.5	20.9	24.8	28.9	34.5	40.7
	Absorbed power (3)	kW	2.0	2.6	3.3	4.5	5.4	6.4	7.5	9.6	10.9	12.8
	COP (3)		3.35	3.38	3.30	3.13	3.24	3.27	3.31	3.01	3.17	3.18
	SCOP (4)		3.38	3.27	3.41	3.30	3.43	3.49	3.77	3.21	3.23	3.22
	Energy Efficiency (4)	%	132	128	133	129	134	137	148	125	126	126
	Energy Class (5)		A+	A+	A+	A+	A+	A+	A+	A+	A+	A+
Compressor	Quantity	n°	1	1	1	1	1	1	1	1	1	1
Evaporator	Water flow	l/s	0.29	0.36	0.44	0.59	0.75	0.91	1.07	1.23	1.46	1.72
	Pressure drops	kPa	18	14	18	25	20	29	30	20	29	31
	Water connections	"G	1"	1"	1"	1 ¼"	1 ¼"	1 ¼"	1 ¼"	1 ¼"	1 ¼"	1 ¼"
Fan available static pressure		Pa	80	80	80	115	115	115	115	150	150	150
Electrical characteristics	Power supply	V/Ph/Hz	230/1/50			400/3+N/50						
	Max. running current	A	17	17	17	14	14	16	19	22	22	25
	Max. starting current	A	11	11	11	9	9	10	11	12	12	13
Unit with pump	Pump available static pressure	kPa	53	56	52	76	82	70	60	140	115	150
	Water connections	"G	1"	1"	1"	1 ¼"	1 ¼"	1 ¼"	1 ¼"	1 ¼"	1 ¼"	1 ¼"
Sound pressure (6)		dB(A)	52	53	54	58	58	59	60	62	63	63
Weights	Transport weight	Kg	131	136	143	203	213	215	217	353	359	374
	Operating weight	Kg	132	137	144	205	215	217	219	356	362	377

DIMENSIONS

MODEL			7	9	11	14	16	18	20	24	27	34
L	STD	mm	900	900	900	900	900	900	900	1500	1500	1500
W	STD	mm	550	550	550	690	690	690	690	800	800	800
H	STD	mm	1500	1500	1500	1750	1750	1750	1750	1600	1600	1600

CLEARANCE AREA

JWR 7÷11 S/IK/P/A

100 | 800 | 800 | 800

JWR 14÷20 S/IK/P/A

100 | 800 | 800 | 1000

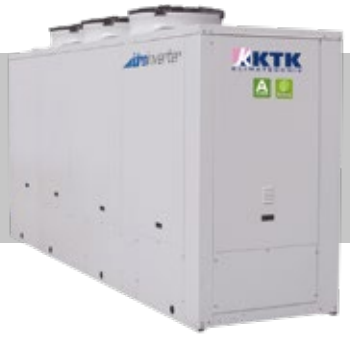
JWR 24÷34 S/IK/P/A

1200 | 800 | 800 | 100

Electrical board side

NOTES

1. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
2. Seasonal energy efficiency of cooling at low temperature. According to EU Regulation n. 2016/2281.
3. Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
4. Seasonal energy efficiency of heating at low temperature with average climatic conditions. According to EU Regulation n. 813/2013.
5. Seasonal energy efficiency class of heating at low temperature with average climatic conditions. According to EU Regulation n. 811/2013..
6. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.



JWA 051÷172 S/IK/P/A

A CLASS ENERGY EFFICIENCY AIRCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH AXIAL FANS, INVERTER SCROLL COMPRESSORS AND PLATE EXCHANGER.

idroinverter

FROM 50 KW TO 179 KW.

The A CLASS energy efficiency liquid Chillers and Heat Pumps of JWA 051÷172 S/IK/P/A series, with R410A refrigerant, are designed to satisfy the needs of medium-sized service sector or industrial ambients. They are used, combined with Fan Coil units, for the air conditioning or heating of the rooms or to remove the heat developed during industrial processes.
They are equipped with axial fans, Inverter Scroll compressors and plate exchanger, even in the super silent version. All units feature A CLASS energy efficiency and are equipped with Inverter control on Scroll compressor for a better efficiency at partial loads (SEER/SCOP). The Microchannel condensing coils, available on dedicated versions, ensure an even higher efficiency (high EER), having a better heat exchange than traditional coils. Furthermore, Inverter control is also available on circulating pump and fans (EC Inverter) for a further efficiency improvement. A wide range of accessories, factory fitted or supplied separately, complete the outstanding versatility and functionality of the series.
Are available as option the new **EC Inverter fans with high available static pressure and efficiency for indoor ducted installation.**
The Heat Pump versions are designed for **hot water production up to 55 °C.**

The units are compliant to the ErP Regulation.

On request, units can be supplied with **R452B (JWA 051÷172 S/IG/P/A)** or **R454B (JWA 051÷172 S/IL/P/A)** refrigerant.

VERSION

JWA
Cooling only
JWA/MC
Cooling only with MICROCHANNEL condensing coil
JWA/WP
Reversible Heat Pump
JWA/SSL
Super silenced cooling only
JWA/MC/SSL
Super silenced cooling only with MICROCHANNEL condensing coil
JWA/WP/SSL
Super silenced reversible Heat Pump

FEATURES

- Self-supporting galvanized steel frame protected with additional protection achieved via polyester powder painting.
- DC INVERTER Scroll and ON-OFF Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Axial fans directly coupled to an electric motor with external rotor.
- Condenser made of copper tube and aluminum finned coil or aluminium MICROCHANNEL coil.
- Evaporator AISI 316 stainless steel braze welded plates type with one circuit on the refrigerant side and one on the water side in 051÷131 models; with two independent circuits on the refrigerant side and one on the water side in 152÷172 models, complete with water differential pressure switch. On the Heat Pump units it is always installed an antifreeze heater.
- Electronic expansion valve.
- Electronic high and low pressure gauges.
- R410A refrigerant. On request R452B or R454B refrigerant.
- Electrical board includes: main switch with door safety interlock, fuses, thermal protection relays for compressors and thermocontacts for fans.
- Condensing Control is included: electronic proportional device that ensures efficient and continuous functioning of the unit with outside air temperature down to –20 °C in cooling mode. It also allows to reduce the sound level especially at night. It consists of a fans speed controller with continuous speed regulation, high and low pressure transducers on cooling circuit and an electrical heater on electrical board.
- Functioning in heating mode with outside air temperature down to -15 °C.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES:

IM	Automatic circuit breakers
SL	Unit silencement
RFM	Cooling circuit shut-off valve on discharge line
RFL	Cooling circuit shut-off valve on liquid line
BT	Low water temperature kit
EC	EC Inverter fans
ECH	EC Inverter fans with high available static pressure
DS	Desuperheater
RT	Total heat recovery
TX	Coil with pre-coated fins
TXB	Coil with epoxy treatment
PS	Single circulating pump
PSI	Inverter single circulating pump
PD	Double circulating pump
PDI	Inverter double circulating pump
FE	Antifreeze heater for evaporator
FN	Antifreeze heater for pipes
FG	Antifreeze heater for single pump and pipes
FM	Antifreeze heater for double pump and pipes
IS	Modbus RTU protocol, RS485 serial interface
IST	Modbus TCP/IP protocol, Ethernet port
ISB	BACnet MSTP protocol, RS485 serial interface
ISBT	BACnet TCP/IP protocol, Ethernet port
ISL	LonWorks protocol, FTT-10 serial interface
ISS	SNMP protocol, Ethernet port

LOOSE ACCESSORIES:

MN	High and low pressure gauges
CR	Remote control panel
RP	Coils protection metallic guards
FP	Coils protection metallic guards with filter
AG	Rubber shock absorbers
AM	Spring shock absorbers

TECHNICAL DATA - JWA 051÷172 S/IK/P/A

MODEL			051	061	071	081	091	101	111	131	152	172
Cooling STD versions	Cooling capacity (1)	kW	49.9	57.7	65.7	74.8	85.9	97.7	112	130	152	179
	Absorbed power (1)	kW	15.6	18.1	20.4	23.6	27.0	30.3	35.0	40.5	47.2	55.6
	EER (1)		3.20	3.19	3.22	3.17	3.18	3.22	3.20	3.21	3.22	3.22
Cooling STD versions (EN14511)	Cooling capacity (1)	kW	49.6	57.4	65.4	74.4	85.4	97.2	112	129	151	178
	Absorbed power (1)	kW	15.9	18.4	20.7	24.0	27.5	30.8	35.6	41.1	47.8	56.2
	EER (1)		3.12	3.12	3.16	3.10	3.11	3.16	3.15	3.14	3.16	3.17
	SEER (2)		4.41	4.55	4.41	4.39	4.42	4.43	4.49	4.39	4.40	4.34
	Energy Efficiency (2)	%	173	179	173	173	174	174	177	173	173	171
Cooling MC versions	Cooling capacity (1)	kW	49.9	57.7	65.7	74.8	85.9	97.7	112	130	152	179
	Absorbed power (1)	kW	15.4	17.9	20.2	23.4	26.7	30.0	34.7	40.1	46.7	55.0
	EER (1)		3.24	3.22	3.25	3.20	3.22	3.26	3.23	3.24	3.25	3.25
Cooling MC versions (EN14511)	Cooling capacity (1)	kW	49.6	57.4	65.4	74.4	85.4	97.2	112	129	151	178
	Absorbed power (1)	kW	15.7	18.2	20.5	23.8	27.2	30.5	35.2	40.7	47.3	55.6
	EER (1)		3.16	3.15	3.19	3.13	3.14	3.19	3.18	3.17	3.19	3.20
	SEER (2)		4.45	4.60	4.45	4.43	4.46	4.47	4.53	4.43	4.44	4.38
	Energy Efficiency (2)	%	175	181	175	174	175	176	178	174	175	172
Heating STD versions	Heating capacity (3)	kW	53.7	62.2	71.0	80.7	92.6	105	121	140	164	193
	Absorbed power (3)	kW	16.2	18.7	21.2	24.5	28.0	31.4	36.4	41.8	49.0	57.7
	COP (3)		3.31	3.33	3.35	3.29	3.31	3.34	3.32	3.35	3.35	3.34
Heating STD versions (EN14511)	Heating capacity (3)	kW	54.1	62.6	71.4	81.2	93.2	106	122	141	165	194
	Absorbed power (3)	kW	16.6	19.2	21.6	25.1	28.8	32.2	37.2	43.0	50.0	58.8
	COP (3)		3.26	3.26	3.31	3.24	3.24	3.30	3.28	3.27	3.30	3.30
	SCOP (4)		3.47	3.43	3.42	3.58	3.6	3.46	3.52	3.49	3.44	3.43
	Energy Efficiency (4)	%	136	134	134	140	141	135	138	137	135	134
	Energy Class (5)		A+	A+	A+	A+	-	-	-	-	-	-
Compressor	Quantity	n°	2	2	2	2	2	2	2	2	4	4
	Refrigerant circuits	n°	1	1	1	1	1	1	1	1	2	2
	Capacity steps	n°	Stepless									
Evaporator	Water flow	l/s	2.38	2.76	3.14	3.57	4.10	4.67	5.35	6.21	7.26	8.55
	Pressure drops	kPa	41	40	32	39	47	40	35	44	33	30
	Water connections	"G	1 ½"	1 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50									
	Max. running current	A	45	45	54	54	63	69	89	89	112	129
	Max. starting current	A	128	128	176	176	187	237	230	230	245	297
Unit with pump	Pump available static pressure	kPa	140	135	140	125	130	180	175	160	160	145
	Water connections	"G	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
ECH fan available static pressure	STD versions	Pa	70	60	100	80	75	80	80	80	75	65
	SSL versions	Pa	70	60	95	90	80	80	80	80	---	---
	MC versions	Pa	60	65	95	80	80	75	75	75	75	75
	MC/SSL versions	Pa	60	65	95	80	80	75	75	75	---	---
Sound pressure	STD versions (6)	dB(A)	63	65	66	66	67	68	68	69	68	68
	STD versions with SL accessory (6)	dB(A)	61	62	64	64	65	66	66	67	66	66
	SSL versions (6)	dB(A)	58	60	61	61	62	62	62	63	---	---
	MC versions (6)	dB(A)	62	64	65	65	66	67	67	68	67	67
	MC versions with SL accessory (6)	dB(A)	60	61	63	63	64	65	65	66	65	65
	MC/SSL versions (6)	dB(A)	57	59	60	60	61	61	61	62	---	---
Weights	Transport weight	Kg	614	688	747	756	765	857	1086	1095	1449	1494
	Operating weight	Kg	620	695	755	765	775	870	1100	1110	1470	1520

DIMENSIONS

MODEL			051	061	071	081	091	101	111	131	152	172
L	STD-MC	mm	2350	2350	2350	2350	2350	3550	3550	3550	4700	4700
	SSL-MC/SSL	mm	2350	2350	2350	3550	3550	3550	4700	4700	---	---
W	STD-SSL-MC-MC/SSL	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
H	STD-MC	mm	1920	2220	2220	2220	2220	1920	2220	2220	2220	2220
	SSL-MC/SSL	mm	1920	2220	2220	1920	1920	2220	2220	2220	---	---

CLEARANCE AREA

JWA 051÷172 S/IK/P/A

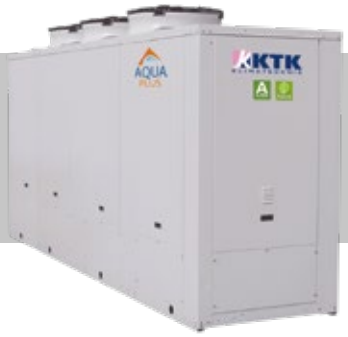
300	800	800	1800

Electrical board side

NOTES

1. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
2. Seasonal energy efficiency of cooling at low temperature. According to EU Regulation n. 2016/2281.
3. Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
4. Seasonal energy efficiency of heating at low temperature with average climatic conditions. According to EU Regulation n. 813/2013.
5. Seasonal energy efficiency class of heating at low temperature with average climatic conditions. According to EU Regulation n. 811/2013..
6. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.

N.B. Weights of SSL and WP versions are specified on technical brochure.
N.B. Data of MC versions are specified on technical brochure.



JWA 051÷172 S/K/P/AF

A CLASS ENERGY EFFICIENCY AIRCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH AXIAL FANS, SCROLL COMPRESSORS AND PLATE EXCHANGER.

The liquid Chillers and Heat Pumps of the JWA 051÷172 S/K/P/AF series, with R410A refrigerant, are designed for medium-sized service sector or industrial ambients and feature A CLASS energy efficiency. They are used, combined with Fan Coil units, for the air conditioning or heating of the rooms or to remove the heat developed during industrial processes.
Equipped with axial fans, Scroll compressors and plate exchanger, even in the super silent version, these units can be completed by a hydraulic circuit with tank, with pump, with tank and pump or with AQUALOGIK technology.
The AQUALOGIK smart control system optimises the water set point and modulates the power supply voltage of the pump and the fans, thus making the use of the inertial tank superfluous. This obtains high energy efficiency, quiet operation and optimised dimensions and costs.
A wide range of accessories, factory fitted or supplied separately, complete the outstanding versatility and functionality of the series.
Are available as option the new **EC Inverter fans with high available static pressure and efficiency for indoor ducted installation.**
The Heat Pump versions are designed for **hot water production up to 55 °C.**

The units are compliant to the ErP Regulation.

On request, units can be supplied with **R452B (JWA 051÷172 S/G/P/AF)** or **R454B (JWA 051÷172 S/L/P/AF)** refrigerant.

FROM 51 KW TO 183 KW.

VERSION

JWA
Cooling only
JWA/WP
Reversible Heat Pump
JWA/SSL
Super silenced cooling only
JWA/WP/SSL
Super silenced reversible Heat Pump
JWA/ST
Cooling only with AQUALOGIK technology
JWA/WP/ST
Reversible Heat Pump with AQUALOGIK technology
JWA/SSL/ST
Super silenced cooling only with AQUALOGIK technology
JWA/WP/SSL/ST
Super silenced reversible Heat Pump with AQUALOGIK technology

FEATURES

- Self-supporting galvanized steel frame protected with additional protection achieved via polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Axial fans directly coupled to an electric motor with external rotor.
- Condenser made of copper tubes and aluminium finned coil.
- Evaporator AISI 316 stainless steel braze welded plates type with one circuit on the refrigerant side and one on the water side in 051÷131 models; with two independent circuits on the refrigerant side and one on the water side in 152÷172 models, complete with water differential pressure switch. On the Heat Pump units it is always installed an antifreeze heater.
- R410A refrigerant. On request R452B or R454B refrigerant.
- Electrical board includes: main switch with door safety interlock, fuses, thermal protection relays for compressors and thermocontacts for fans.
- On ST versions water circuit includes: INVERTER circulating pump, safety valve and expansion vessel.
- On ST versions Condensing Control is included: electronic proportional device that ensures efficient and continuous functioning of the unit with outside air temperature down to –20 °C in cooling mode. It also allows to reduce the sound level especially at night. It consists of a fans speed controller with continuous speed regulation, an high/low pressure transducer on cooling circuit and an electrical heater on electrical board.
- Functioning in heating mode with outside air temperature down to -15 °C.
- Microprocessor control and regulation system (with AQUALOGIK technology on ST versions).

ACCESSORIES

FACTORY FITTED ACCESSORIES:

IM	Automatic circuit breakers
SL	Unit silencement
RFM	Cooling circuit shut-off valve on discharge line
RFL	Cooling circuit shut-off valve on liquid line
CT	Condensing control down to 0 °C
CC	Condensing control down to -20 °C
BT	Low water temperature kit
EC	EC Inverter fans
ECH	EC Inverter fans with high available static pressure
DS	Desuperheater
RT	Total heat recovery
TX	Coil with pre-coated fins
SI	Inertial tank
PS	Single circulating pump
PD	Double circulating pump
FE	Antifreeze heater for evaporator
FN	Antifreeze heater for pipes
FO	Antifreeze heater for tank and pipes
FG	Antifreeze heater for single pump and pipes
FM	Antifreeze heater for double pump and pipes
FUM	Antifreeze heater for tank, single pump and pipes
FDM	Antifreeze heater for tank, double pump and pipes
SS	Soft start
IS	Modbus RTU protocol, RS485 serial interface

LOOSE ACCESSORIES:

MN	High and low pressure gauges
CR	Remote control panel
RP	Coils protection metallic guards
FP	Coils protection metallic guards with filter
AG	Rubber shock absorbers
AM	Spring shock absorbers

TECHNICAL DATA - JWA 051÷172 S/K/P/AF

MODEL			051	061	071	081	091	101	111	131	152	172
Cooling	Cooling capacity (1)	kW	51.1	59.1	67.2	76.6	87.9	100	115	133	156	183
	Absorbed power (1)	kW	16.0	18.5	20.9	24.2	27.6	31.0	35.8	41.5	48.3	56.9
	EER (1)		3.19	3.19	3.22	3.17	3.18	3.23	3.21	3.20	3.23	3.22
Cooling (EN14511)	Cooling capacity (1)	kW	50.8	58.7	66.9	76.2	87.4	99.5	114	132	155	182
	Absorbed power (1)	kW	16.3	18.9	21.2	24.6	28.1	31.5	36.3	42.2	48.9	57.5
	EER (1)		3.12	3.11	3.16	3.10	3.11	3.16	3.14	3.13	3.17	3.17
	SEER (2)		4.17	4.21	4.20	4.19	4.19	4.22	4.25	4.16	4.16	4.18
	Energy Efficiency (2)	%	164	165	165	165	165	166	167	163	163	164
Heating	Heating capacity (3)	kW	55.4	64.1	72.9	83.1	95.3	109	124	144	169	198
	Absorbed power (3)	kW	16.8	19.4	22.0	25.4	28.8	32.5	37.7	43.4	51.0	59.7
	COP (3)		3.30	3.30	3.31	3.27	3.31	3.35	3.29	3.32	3.31	3.32
Heating (EN14511)	Heating capacity (3)	kW	55.8	64.5	73.3	83.6	95.9	110	125	145	170	199
	Absorbed power (3)	kW	17.3	19.9	22.5	26.1	29.7	33.4	38.6	44.7	52.1	61.2
	COP (3)		3.23	3.24	3.26	3.20	3.23	3.29	3.24	3.24	3.26	3.25
	SCOP (4)		3.36	3.32	3.31	3.43	3.45	3.35	3.37	3.34	3.33	3.32
	Energy Efficiency (4)	%	131	130	129	134	135	131	132	131	130	130
	Energy Class (5)		A+	A+	A+	A+	-	-	-	-	-	-
Compressor	Quantity	n°	2	2	2	2	2	3	3	3	4	4
	Refrigerant circuits	n°	1	1	1	1	1	1	1	1	2	2
	Capacity steps	n°	2					3			4	
Evaporator	Water flow	l/s	2.44	2.82	3.21	3.66	4.20	4.78	5.49	6.35	7.45	8.74
	Pressure drops	kPa	43	42	33	41	49	42	37	46	35	31
	Water connections	"G	1 ½"	1 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50									
	Max. running current	A	38	44	51	57	68	73	85	102	113	136
	Max. starting current	A	132	142	148	172	212	169	200	246	229	280
Electrical characteristics (ST versions)	Power supply	V/Ph/Hz	400/3/50									
	Max. running current	A	42	48	54	60	71	78	90	106	118	140
	Max. starting current	A	135	145	152	176	215	173	204	250	233	284
Unit with tank and pump	Pump available static pressure	kPa	140	135	130	125	160	175	160	140	130	140
	Tank water volume	l	400	400	400	400	400	400	400	400	600	600
	Water connections	"G	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
Unit ST versions	Water flow	l/s	2.44	2.82	3.21	3.66	4.20	4.78	5.49	6.35	7.45	8.74
	Pump available static pressure	kPa	140	135	130	125	160	150	145	130	120	105
	Water connections	"G	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
ECH fan available static pressure	STD versions	Pa	70	60	100	80	75	80	80	80	75	65
	SSL versions	Pa	70	60	95	90	80	80	80	80	---	---
	ST versions	Pa	70	60	100	80	75	80	80	80	75	65
	SSL/ST versions	Pa	70	60	95	90	80	80	80	80	---	---
Sound pressure	STD and ST versions (6)	dB(A)	63	63	66	66	66	66	67	68	68	68
	With SL accessory (6)	dB(A)	61	61	64	64	64	64	65	66	66	66
	SSL and SSL/ST versions (6)	dB(A)	58	58	61	61	61	61	61	61	---	---
Weights	Transport weight (7)	Kg	574	606	625	679	728	836	973	1015	1305	1367
	Operating weight (7)	Kg	570	650	700	710	720	850	990	1000	1380	1420
Weights (ST versions)	Transport weight	Kg	589	621	640	694	743	856	993	1035	1325	1387
	Operating weight	Kg	593	625	645	700	749	863	1002	1044	1340	1407

DIMENSIONS

MODEL			051	061	071	081	091	101	111	131	152	172
L	STD-ST	mm	2350	2350	2350	2350	2350	3550	3550	3550	4700	4700
	SSL-SSL/ST	mm	2350	2350	2350	3550	3550	3550	4700	4700	--	--
W	STD-SSL-ST-SSL/ST	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
H	STD-SSL-ST-SSL/ST	mm	1920	2220	2220	2220	2220	1920	2220	2220	2220	2220
	SSL-SSL/ST	mm	1920	2220	2220	1920	1920	2220	2220	2220	---	---

CLEARANCE AREA

JWA 051÷172 S/K/P/AF

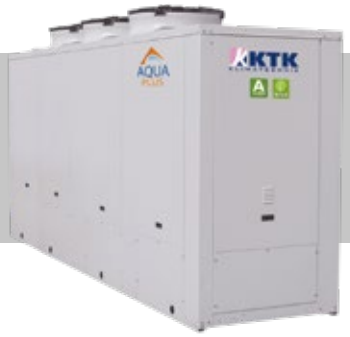
300	800	800	1800

NOTES

1. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
2. Seasonal energy efficiency of cooling at low temperature. According to EU Regulation n. 2016/2281.
3. Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
4. Seasonal energy efficiency of heating at low temperature with average climatic conditions. According to EU Regulation n. 813/2013.
5. Seasonal energy efficiency class of heating at low temperature with average climatic conditions. According to EU Regulation n. 811/2013..
6. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
7. Unit without tank and pump.

N.B. Weights of SSL and WP versions are specified on technical brochure.

Electrical board side



JWA/WP 051÷172 S/K/P/A

A CLASS ENERGY EFFICIENCY AIRCOOLED REVERSIBLE HEAT PUMPS WITH AXIAL FANS, SCROLL COMPRESSORS AND PLATE EXCHANGER.

The reversible Heat Pumps of the JWA/WP 051÷172 S/K/P/A series, with R410A refrigerant, are designed for medium-sized service sector or industrial ambients and feature A CLASS energy efficiency. They are used, combined with terminal units, for the heating or air conditioning of the rooms and are supplied with Modbus RTU protocol through RS485 serial interface.
Equipped with axial fans, Scroll compressors and plate exchanger, even in the super silent version, these units can be completed by a hydraulic circuit with tank, with pump, with tank and pump or with AQUALOGIK technology.
The AQUALOGIK smart control system optimises the water set point and modulates the power supply voltage of the pump and the fans, thus making the use of the inertial tank superfluous. This obtains high energy efficiency, quiet operation and optimised dimensions and costs.
A wide range of accessories, factory fitted or supplied separately, complete the outstanding versatility and functionality of the series.
Are available as option the new **EC Inverter fans with high available static pressure and efficiency for indoor ducted installation.**
Units are designed for **hot water production up to 55 °C.**

The units are compliant to the ErP Regulation.

On request, units can be supplied with **R452B (JWA/WP 051÷172 S/G/P/A)** or **R454B (JWA/WP 051÷172 S/L/P/A)** refrigerant.

FROM 56 KW TO 197 KW.

VERSION

JWA/WP
Reversible Heat Pump
JWA/WP/SSL
Super silenced reversible Heat Pump
JWA/WP/ST
Reversible Heat Pump with AQUALOGIK technology
JWA/WP/SSL/ST
Super silenced reversible Heat Pump with AQUALOGIK technology

FEATURES

- Self-supporting galvanized steel frame protected with additional protection achieved via polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Axial fans directly coupled to an electric motor with external rotor.
- Condenser made of copper tubes and aluminium finned coil.
- Evaporator AISI 316 stainless steel braze welded plates type with one circuit on the refrigerant side and one on the water side in 051÷131 models; with two independent circuits on the refrigerant side and one on the water side in 152÷172 models, complete with water differential pressure switch. On the units it is always installed an antifreeze heater.
- R410A refrigerant. On request R452B or R454B refrigerant.
- Electrical board includes: main switch with door safety interlock, fuses, thermal protection relays for compressors and thermocontacts for fans.
- On ST versions water circuit includes: INVERTER circulating pump, safety valve and expansion vessel.
- On ST versions Condensing Control is included: electronic proportional device that ensures efficient and continuous functioning of the unit with outside air temperature down to –20 °C in cooling mode. It also allows to reduce the sound level especially at night. It consists of a fans speed controller with continuous speed regulation, an high/low pressure transducer on cooling circuit and an electrical heater on electrical board.
- Functioning in heating mode with outside air temperature down to -15 °C.
- Microprocessor control and regulation system (with AQUALOGIK technology on ST versions).

ACCESSORIES

FACTORY FITTED ACCESSORIES:

IM	Automatic circuit breakers
SL	Unit silencement
RFM	Cooling circuit shut-off valve on discharge line
RFL	Cooling circuit shut-off valve on liquid line
CT	Condensing control down to 0 °C
CC	Condensing control down to -20 °C
BT	Low water temperature kit
EC	EC Inverter fans
ECH	EC Inverter fans with high available static pressure
DS	Desuperheater
RT	Total heat recovery
TX	Coil with pre-coated fins
SI	Inertial tank
PS	Single circulating pump
PD	Double circulating pump
FN	Antifreeze heater for pipes
FO	Antifreeze heater for tank and pipes
FG	Antifreeze heater for single pump and pipes
FM	Antifreeze heater for double pump and pipes
FUM	Antifreeze heater for tank, single pump and pipes
FDM	Antifreeze heater for tank, double pump and pipes
SS	Soft start
IS	Modbus RTU protocol, RS485 serial interface

LOOSE ACCESSORIES:

MN	High and low pressure gauges
CR	Remote control panel
RP	Coils protection metallic guards
AG	Rubber shock absorbers
AM	Spring shock absorbers

TECHNICAL DATA - JWA/WP 051÷172 S/K/P/A

MODEL			051	061	071	081	091	101	111	131	152	172
Heating	Heating capacity (1)	kW	55.7	63.6	71.4	81.6	94.2	109	124	142	163	197
	Absorbed power (1)	kW	16.9	19.5	21.8	24.4	28.2	33.3	37.2	43.2	49.9	59.0
	COP (1)		3.30	3.26	3.28	3.34	3.34	3.27	3.33	3.29	3.27	3.34
Heating (EN14511)	Heating capacity (1)	kW	56.0	63.9	71.7	81.9	94.6	109	124	143	164	198
	Absorbed power (1)	kW	17.1	19.8	22.2	24.8	28.6	33.7	37.8	44.1	50.9	60.2
	COP (1)		3.27	3.23	3.23	3.30	3.31	3.23	3.28	3.24	3.22	3.29
	SCOP (2)		3.43	3.39	3.38	3.50	3.52	3.42	3.44	3.41	3.40	3.39
	Energy Efficiency (2)	%	134	133	132	137	138	134	135	133	133	133
	Energy Class (3)		A+	A+	A+	A+	-	-	-	-	-	-
Cooling	Cooling capacity (4)	kW	48.2	54.9	62.5	71.9	82.3	94.5	108	125	139	161
	Absorbed power (4)	kW	15.8	18.7	20.7	23.7	28.5	32.0	35.6	41.8	48.0	56.7
	EER (4)		3.05	2.94	3.02	3.03	2.89	2.95	3.03	2.99	2.90	2.84
Cooling (EN14511)	Cooling capacity (4)	kW	48.0	54.6	62.2	71.6	82.0	94.2	108	124	138	160
	Absorbed power (4)	kW	16.0	19.0	21.0	24.0	28.8	32.3	36.0	42.4	48.6	57.4
	EER (4)		3.00	2.87	2.96	2.98	2.85	2.92	3.00	2.92	2.84	2.79
Compressor	Quantity	n°	2	2	2	2	2	3	3	3	4	4
	Refrigerant circuits	n°	1	1	1	1	1	1	1	1	2	2
	Capacity steps	n°			2				3		4	
Evaporator	Water flow	l/s	2.30	2.62	2.99	3.44	3.93	4.52	5.16	5.97	6.64	7.69
	Pressure drops	kPa	28	30	31	28	28	23	29	39	38	37
	Water connections	"G	1 ½"	1 ½"	1 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50									
	Max. running current	A	35	41	48	54	65	72	81	102	109	132
	Max. starting current	A	130	140	144	169	209	169	197	246	225	276
Electrical characteristics (ST versions)	Power supply	V/Ph/Hz	400/3/50									
	Max. running current	A	39	45	51	57	68	77	86	106	114	136
	Max. starting current	A	133	143	148	173	212	173	201	250	229	280
Unit with tank and pump	Pump available static pressure	kPa	155	150	140	135	150	195	185	165	160	150
	Tank water volume	l	400	400	400	400	400	400	400	400	600	600
	Water connections	"G	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
Unit ST versions	Water flow	l/s	2.30	2.62	2.99	3.44	3.93	4.52	5.16	5.97	6.64	7.69
	Pump available static pressure	kPa	155	145	140	135	125	165	150	135	130	120
	Water connections	"G	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
ECH fan available static pressure	STD versions	Pa	70	60	100	100	100	95	60	65	60	65
	SSL versions	Pa	70	60	65	60	60	95	60	60	60	60
	ST versions	Pa	70	60	100	100	100	95	60	65	60	65
	SSL/ST versions	Pa	70	60	65	60	60	95	60	60	60	60
Sound pressure	STD and ST versions (5)	dB(A)	62	62	65	65	65	66	68	68	69	70
	With SL accessory (5)	dB(A)	60	60	63	63	63	64	66	66	67	68
	SSL and SSL/ST versions (5)	dB(A)	58	58	61	61	60	60	63	63	64	66
Weights	Transport weight (6)	Kg	635	644	693	760	807	926	1076	1126	1235	1414
	Operating weight (6)	Kg	640	650	700	770	820	940	1090	1140	1250	1430
Weights (ST versions)	Transport weight	Kg	650	659	708	775	822	946	1096	1146	1255	1434
	Operating weight	Kg	655	665	715	785	830	960	1110	1160	1270	1450

DIMENSIONS

MODEL			051	061	071	081	091	101	111	131	152	172
L	STD-ST	mm	2350	2350	2350	2350	2350	2350	3550	3550	3550	3550
	SSL-SSL/ST	mm	2350	2350	2350	2350	2350	3550	3550	4700	4700	4700
W	STD-SSL-ST-SSL/ST	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
H	STD-SSL-ST-SSL/ST	mm	1920	1920	1920	2220	2220	2220	2220	2220	2220	2220

CLEARANCE AREA

JWA/WP 051÷172 S/K/P/A

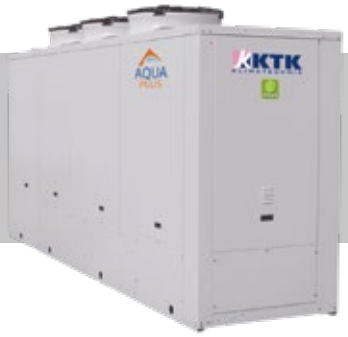
300	800	800	1800

NOTES

1. Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
2. Seasonal energy efficiency of heating at low temperature with average climatic conditions. According to EU Regulation n. 813/2013.
3. Seasonal energy efficiency class of heating at low temperature with average climatic conditions. According to EU Regulation n. 811/2013..
4. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
5. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
6. Unit without tank and pump.

N.B. Weights of SSL versions are specified on technical brochure.

Electrical board side



JWA 051÷172 S/K/P

AIRCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH AXIAL FANS,SCROLL COMPRESSORS AND PLATE EXCHANGER.

The liquid Chillers and Heat Pumps of the JWA 051÷172 S/K/P series, with R410A refrigerant, are designed for medium-sized service sector or industrial ambients.
They are used, combined with Fan Coil units, for the air conditioning of the rooms or to remove the heat developed during industrial processes. They can be supplied with Modbus RTU protocol through RS485 serial interface.
Equipped with axial fans, Scroll compressors and plate exchanger, even in the super silent version, these units can be completed by a hydraulic circuit with tank, with pump, with tank and pump or with AQUALOGIK technology.
The AQUALOGIK smart control system optimises the water set point and modulates the power supply voltage of the pump and the fans, thus making the use of the inertial tank superfluous. This obtains high energy efficiency, quiet operation and optimised dimensions and costs.
A wide range of accessories, factory fitted or supplied separately, complete the outstanding versatility and functionality of the series.
Are available as option the new **EC Inverter fans with high available static pressure and efficiency for indoor ducted installation.**

Cooling only units are compliant to the ErP 2021 Regulation for process cooling application; for comfort cooling application they are compliant if provided with EC or ECH accessory (EC Inverter fans).
Heat pump units are compliant to the ErP Regulation.

On request, units can be supplied with **R452B (JWA 051÷172 S/G/P)** or **R454B (JWA 051÷172 S/L/P)** refrigerant.

FROM 48 KW TO 178 KW.

VERSION

JWA
Cooling only
JWA/WP
Reversible Heat Pump
JWA/SSL
Super silenced cooling only
JWA/WP/SSL
Super silenced reversible Heat Pump
JWA/ST
Cooling only with AQUALOGIK technology
JWA/WP/ST
Reversible Heat Pump with AQUALOGIK technology
JWA/SSL/ST
Super silenced cooling only with AQUALOGIK technology
JWA/WP/SSL/ST
Super silenced reversible Heat Pump with AQUALOGIK technology

FEATURES

- Self-supporting galvanized steel frame protected with additional protection achieved via polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Axial fans directly coupled to an electric motor with external rotor.
- Condenser made of copper tubes and aluminium finned coil.
- Evaporator AISI 316 stainless steel braze welded plates type with one circuit on the refrigerant side and one on the water side in 051÷131 models; with two independent circuits on the refrigerant side and one on the water side in 152÷172 models, complete with water differential pressure switch. On the Heat Pump units it is always installed an antifreeze heater.
- R410A refrigerant. On request R452B or R454B refrigerant.
- Electrical board includes: main switch with door safety interlock, fuses, thermal protection relays for compressors and thermocontacts for fans.
- On ST versions water circuit includes: INVERTER circulating pump, safety valve and expansion vessel.
- On ST versions Condensing Control is included: electronic proportional device that ensures efficient and continuous functioning of the unit with outside air temperature down to –20 °C in cooling mode. It also allows to reduce the sound level especially at night. It consists of a fans speed controller with continuous speed regulation, an high/low pressure transducer on cooling circuit and an electrical heater on electrical board.
- Microprocessor control and regulation system (with AQUALOGIK technology on ST versions).

ACCESSORIES

FACTORY FITTED ACCESSORIES:

IM	Automatic circuit breakers
SL	Unit silencement
RFM	Cooling circuit shut-off valve on discharge line
RFL	Cooling circuit shut-off valve on liquid line
CT	Condensing control down to 0 °C
CC	Condensing control down to -20 °C
BT	Low water temperature kit
EC	EC Inverter fans
ECH	EC Inverter fans with high available static pressure
DS	Desuperheater
RT	Total heat recovery
TX	Coil with pre-coated fins
SI	Inertial tank
PS	Single circulating pump
PD	Double circulating pump
FE	Antifreeze heater for evaporator
FN	Antifreeze heater for pipes
FO	Antifreeze heater for tank and pipes
FG	Antifreeze heater for single pump and pipes
FM	Antifreeze heater for double pump and pipes
FUM	Antifreeze heater for tank, single pump and pipes
FDM	Antifreeze heater for tank, double pump and pipes
SS	Soft start
IS	Modbus RTU protocol, RS485 serial interface

LOOSE ACCESSORIES:

MN	High and low pressure gauges
CR	Remote control panel
RP	Coils protection metallic guards
FP	Coils protection metallic guards with filter
AG	Rubber shock absorbers
AM	Spring shock absorbers

TECHNICAL DATA - JWA 051÷172 S/K/P

MODEL			051	061	071	081	091	101	111	131	152	172
Cooling	Cooling capacity (1)	kW	47.6	54.9	63.5	72.9	83.4	95.9	110	127	147	178
	Absorbed power (1)	kW	16.1	18.8	21.8	25.0	28.3	31.6	37.9	43.3	50.1	58.2
	EER (1)		2.96	2.92	2.91	2.92	2.95	3.03	2.90	2.93	2.93	3.06
Cooling (EN14511)	Cooling capacity (1)	kW	47.3	54.5	63.1	72.4	82.9	95.3	110	126	147	177
	Absorbed power (1)	kW	16.4	19.2	22.2	25.4	28.7	32.3	38.5	43.9	50.9	59.2
	EER (1)		2.88	2.84	2.84	2.85	2.89	2.95	2.85	2.87	2.88	2.99
	SEER (2)		3.93	3.95	3.99	3.96	3.95	3.93	3.92	3.98	3.91	3.92
	Energy Efficiency (2)	%	154	155	157	155	155	154	154	156	153	154
	SEER with EC or ECH accessory (2)		4.11	4.11	4.14	4.11	4.16	4.13	4.12	4.18	4.21	4.27
	Energy Efficiency with EC or ECH accessory (2)	%	161	161	163	161	163	162	162	164	165	168
Heating	Heating capacity (3)	kW	54.1	61.8	71.4	80.3	90.4	106	120	135	154	187
	Absorbed power (3)	kW	17.3	19.6	23.1	25.4	28.8	33.4	38.5	43.8	50.5	60.4
	COP (3)		3.13	3.15	3.09	3.16	3.14	3.16	3.12	3.08	3.06	3.10
Heating (EN14511)	Heating capacity (3)	kW	54.5	62.3	71.9	80.9	90.9	107	121	136	155	188
	Absorbed power (3)	kW	17.8	20.2	23.7	26.1	29.5	34.6	39.5	45.1	51.8	62.0
	COP (3)		3.06	3.08	3.03	3.10	3.08	3.09	3.06	3.02	2.99	3.03
	SCOP (4)		3.23	3.20	3.21	3.28	3.29	3.28	3.20	3.25	3.24	3.25
	Energy Efficiency (4)	%	126	125	125	128	129	128	125	127	127	127
	Energy Class (5)		A+	A+	A+	A+	-	-	-	-	-	-
Compressor	Quantity	n°	2	2	2	2	2	3	3	3	4	4
	Refrigerant circuits	n°	1	1	1	1	1	1	1	1	2	2
	Capacity steps	n°	2					3			4	
Evaporator	Water flow	l/s	2.27	2.62	3.03	3.48	3.98	4.58	5.27	6.06	7.04	8.49
	Pressure drops	kPa	45	48	43	48	43	58	46	53	48	48
	Water connections	"G	1 ½"	1 ½"	1 ½"	1 ½"	1 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50									
	Max. running current	A	35	41	48	54	65	69	81	98	105	132
	Max. starting current	A	130	140	144	169	209	166	197	242	221	276
Electrical characteristics (ST versions)	Power supply	V/Ph/Hz	400/3/50									
	Max. running current	A	39	45	51	57	68	73	86	102	110	136
	Max. starting current	A	133	143	148	173	212	170	201	246	226	280
Unit with tank and pump	Pump available static pressure	kPa	140	130	130	115	135	160	165	150	145	130
	Tank water volume	l	400	400	400	400	400	400	400	400	600	600
	Water connections	"G	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
Unit ST versions	Water flow	l/s	2.27	2.62	3.03	3.48	3.98	4.58	5.27	6.06	7.04	8.49
	Pump available static pressure	kPa	135	130	125	115	110	130	135	120	115	100
	Water connections	"G	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
ECH fan available static pressure	STD versions	Pa	90	80	100	100	100	80	95	75	60	60
	SSL versions	Pa	85	85	75	75	70	50	70	60	60	---
	ST versions	Pa	90	80	100	100	100	80	95	75	60	60
	SSL/ST versions	Pa	90	90	80	80	85	50	70	55	50	---
Sound pressure	STD and ST versions (6)	dB(A)	61	61	64	64	65	66	67	67	67	67
	With SL accessory (6)	dB(A)	59	59	62	62	63	64	65	65	65	65
	SSL and SSL/ST versions (6)	dB(A)	57	57	60	60	61	62	63	63	63	---
Weights	Transport weight (7)	Kg	595	624	663	682	791	878	927	1036	1135	1374
	Operating weight (7)	Kg	600	630	670	690	800	890	940	1050	1150	1390
Weights (ST versions)	Transport weight	Kg	610	639	678	697	806	898	947	1056	1155	1394
	Operating weight	Kg	615	645	685	705	815	910	960	1070	1170	1410

DIMENSIONS

MODEL			051	061	071	081	091	101	111	131	152	172
L	STD-ST	mm	2350	2350	2350	2350	2350	2350	2350	2350	3550	3550
	SSL-SSL/ST	mm	2350	2350	2350	2350	2350	2350	3550	3550	3550	---
W	STD-SSL-ST-SSL/ST	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
H	STD-SSL-ST-SSL/ST	mm	1920	1920	1920	1920	2220	2220	2220	2220	2220	2220

CLEARANCE AREA

JWA 051÷172 S/K/P

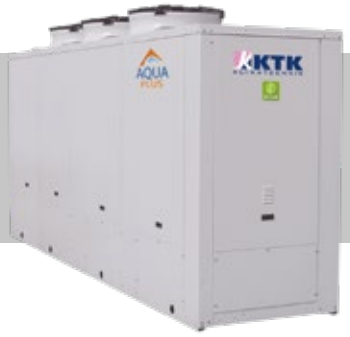
300	800	800	1800

NOTES

1. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
2. Seasonal energy efficiency of cooling at low temperature. According to EU Regulation n. 2016/2281.
3. Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
4. Seasonal energy efficiency of heating at low temperature with average climatic conditions. According to EU Regulation n. 813/2013.
5. Seasonal energy efficiency class of heating at low temperature with average climatic conditions. According to EU Regulation n. 811/2013..
6. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
7. Unit without tank and pump.

N.B. Weights of SSL and WP versions are specified on technical brochure.

Electrical board side



JWA/FC 051÷172 S/K/P

AIRCOOLED LIQUID CHILLERS FREE-COOLING WITH AXIAL FANS, SCROLL COMPRESSORS AND PLATE EXCHANGER.

The liquid Chillers of the JWA/FC 051÷172 S/K/P series, with R410A refrigerant, offer innovative technology for both domestic as well as industrial applications requiring the production of cooled water continuously year-round.
During the cold months, in the **FREE-COOLING** operation mode, the return liquid of the system is cooled directly by forced convection of outdoor air through the condensing coil, thus saving energy by not operating the unit's Scroll compressors. A 3-way valve system is controlled by the electronic microprocessor controller, allowing functioning in CHILLER, FREE-COOLING or MIXED (simultaneously CHILLER and FREE-COOLING) modes.
Are available as option the new **EC Inverter fans with high available static pressure and efficiency for ducted installation.**

The units are compliant to the ErP 2021 Regulation for process cooling application.

On request, units can be supplied with **R452B (JWA/FC 051÷172 S/G/P)** or **R454B (JWA/FC 051÷172 S/L/P)** refrigerant.

FROM 53 KW TO 174 KW.

VERSION

JWA/FC
Cooling only

FEATURES

- Self-supporting galvanized steel frame protected with additional protection achieved via polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Axial fans directly coupled to an electric motor with external rotor.
- Condenser made of copper tubes and aluminium finned coil combined with FREE-COOLING coil.
- Evaporator AISI 316 stainless steel braze welded plates type with one circuit on the refrigerant side and one on the water side in 051÷131 models; with two independent circuits on the refrigerant side and one on the water side in 152÷172 models, complete with water differential pressure switch.
- Electronic high and low pressure gauges.
- R410A refrigerant. On request R452B or R454B refrigerant.
- Electrical board includes: main switch with door safety interlock, fuses, thermal protection relays for compressors and thermocontacts for fans.
- Condensing Control is included: electronic proportional device that ensures efficient and continuous functioning of the unit with outside air temperature down to –20 °C. It also allows to reduce the sound level especially at night. It consists of a fans speed controller with continuous speed regulation, high and low pressure transducers on cooling circuit and an electrical heater on electrical board.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES:

IM	Automatic circuit breakers
SL	Unit silencement
RFM	Cooling circuit shut-off valve on discharge line
RFL	Cooling circuit shut-off valve on liquid line
BT	Low water temperature kit
EC	EC Inverter fans
ECH	EC Inverter fans with high available static pressure
TX	Coil with pre-coated fins
SI	Inertial tank
PS	Single circulating pump
PD	Double circulating pump
SS	Soft start
IS	Modbus RTU protocol, RS485 serial interface
IST	Modbus TCP/IP protocol, Ethernet port
ISB	BACnet MSTP protocol, RS485 serial interface
ISBT	BACnet TCP/IP protocol, Ethernet port
ISL	LonWorks protocol, FTT-10 serial interface
ISS	SNMP protocol, Ethernet port

LOOSE ACCESSORIES:

MN	High and low pressure gauges
CR	Remote control panel
RP	Coils protection metallic guards
AG	Rubber shock absorbers
AM	Spring shock absorbers

TECHNICAL DATA - JWA/FC 051÷172 S/K/P

MODEL			051	061	071	081	091	101	111	131	152	172
Cooling	Cooling capacity (1)	kW	52.7	59.5	68.1	76.7	85.7	99.1	114	130	151	174
	Absorbed power (1)	kW	18.1	20.3	23.3	26.1	29.3	36.8	42.2	48.4	54.4	64.9
	EER (1)		2.91	2.93	2.92	2.94	2.92	2.69	2.70	2.69	2.78	2.68
Cooling (EN14511)	Cooling capacity (1)	kW	52.0	58.8	67.3	75.9	84.9	98.2	113	129	150	172
	Absorbed power (1)	kW	18.8	21.0	24.1	26.9	30.1	37.7	43.5	49.9	55.7	66.4
	EER (1)		2.77	2.80	2.79	2.82	2.82	2.60	2.60	2.59	2.69	2.59
	SEPR (2)		5.11	5.13	5.12	5.14	5.12	5.11	5.09	5.08	5.15	5.14
Free-Cooling cycle	Air temperature (3)	°C	2.1	1.3	0.0	-2.4	-3.5	1.0	0.0	-1.1	-3.0	-4.8
	Absorbed power (3)	kW	2	2	2	2	2	6	6	6	8	8
Compressor	Quantity	n°	2	2	2	2	2	3	3	3	4	4
	Refrigerant circuits	n°	1	1	1	1	1	1	1	1	2	2
	Capacity steps	n°	2					3			4	
Water circuit	Water flow	l/s	2.72	3.07	3.52	3.96	4.43	5.09	5.88	6.70	7.78	8.93
	Pressure drops	kPa	115	105	120	100	100	100	135	145	102	106
	Water connections	"G	2"	2"	2"	2"	2"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50									
	Max. running current	A	35	41	48	54	65	76	85	102	113	136
	Max. starting current	A	130	140	144	169	209	173	201	246	229	280
Unit with tank and pump	Pump available static pressure	kPa	120	125	100	115	100	190	145	125	150	125
	Tank water volume	l	400	400	400	400	400	400	400	400	600	600
	Water connections	"G	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
ECH fan available static pressure		Pa	110	110	110	105	105	60	60	60	65	65
Sound pressure	STD version (4)	dB(A)	63	63	63	63	64	65	66	66	67	67
	With SL accessory (4)	dB(A)	61	61	60	60	62	63	64	64	65	65
Weights	Transport weight (5)	Kg	923	932	951	980	999	1308	1317	1350	1472	1510
	Operating weight (5)	Kg	970	980	1000	1030	1050	1390	1400	1435	1560	1600

DIMENSIONS

MODEL			051	061	071	081	091	101	111	131	152	172
L	STD	mm	3550	3550	3550	3550	3550	4700	4700	4700	4700	4700
W	STD	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
H	STD	mm	2220	2220	2220	2220	2220	2235	2235	2235	2235	2235

CLEARANCE AREA

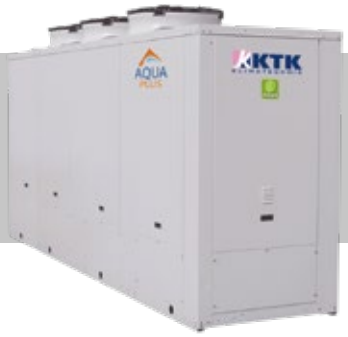
JWA/FC 051÷172 S/K/P

300	800	800	1800

NOTES

1. Chilled water (with ethylene glycol at 30%) from 15 to 10 °C, ambient air temperature 35 °C.
2. Seasonal energy efficiency of process cooling at high temperature. According to EU Regulation n. 2016/2281.
3. Ambient air temperature at which the cooling capacity indicated in point (1) is reached.
4. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
5. Unit without tank and pump.

Electrical board side



JWA 051÷172 S/K

AIRCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH AXIAL FANS, SCROLL COMPRESSORS AND SHELL AND TUBE EXCHANGER.

The liquid Chillers and Heat Pumps of the JWA 051÷172 S/K series, with R410A refrigerant, are designed for medium-sized service sector or industrial ambients.
They are used, combined with Fan Coil units, for the air conditioning of the rooms or to remove the heat developed during industrial processes. They can be supplied with Modbus RTU protocol through RS485 serial interface.
Equipped with axial fans, Scroll compressors and shell and tube exchanger, even in the super silent version, these units can be completed by a hydraulic circuit with tank, with pump, with tank and pump or with AQUALOGIK technology.
The AQUALOGIK smart control system optimises the water set point and modulates the power supply voltage of the pump and the fans, thus making the use of the inertial tank superfluous. This obtains high energy efficiency, quiet operation and optimised dimensions and costs.
A wide range of accessories, factory fitted or supplied separately, complete the outstanding versatility and functionality of the series.
Are available as option the new **EC Inverter fans with high available static pressure and efficiency for indoor ducted installation.**

Cooling only units are compliant to the ErP 2021 Regulation for process cooling application; for comfort cooling application they are compliant if provided with EC or ECH accessory (EC Inverter fans).
Heat pump units are compliant to the ErP Regulation.

On request, units can be supplied with **R452B (JWA 051÷172 S/G)** or **R454B (JWA 051÷172 S/L)** refrigerant.

FROM 49 KW TO 179 KW.

VERSION

JWA
Cooling only
JWA/WP
Reversible Heat Pump
JWA/SSL
Super silenced cooling only
JWA/WP/SSL
Super silenced reversible Heat Pump
JWA/ST
Cooling only with AQUALOGIK technology
JWA/WP/ST
Reversible Heat Pump with AQUALOGIK technology
JWA/SSL/ST
Super silenced cooling only with AQUALOGIK technology
JWA/WP/SSL/ST
Super silenced reversible Heat Pump with AQUALOGIK technology

FEATURES

- Self-supporting galvanized steel frame protected with additional protection achieved via polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Axial fans directly coupled to an electric motor with external rotor.
- Condenser made of copper tubes and aluminium finned coil.
- Shell and tube type evaporator with one circuit on the refrigerant side and one on the water side in 051÷131 models; with two independent circuits on the refrigerant side and one on the water side in 152÷172 models, complete with water differential pressure switch.
- R410A refrigerant. On request R452B or R454B refrigerant.
- Electrical board includes: main switch with door safety interlock, fuses, thermal protection relays for compressors and thermocontacts for fans.
- On ST versions water circuit includes: INVERTER circulating pump, safety valve and expansion vessel.
- On ST versions Condensing Control is included: electronic proportional device that ensures efficient and continuous functioning of the unit with outside air temperature down to –20 °C in cooling mode. It also allows to reduce the sound level especially at night. It consists of a fans speed controller with continuous speed regulation, an high/low pressure transducer on cooling circuit and an electrical heater on electrical board.
- Microprocessor control and regulation system (with AQUALOGIK technology on ST versions).

ACCESSORIES

FACTORY FITTED ACCESSORIES:

IM	Automatic circuit breakers
SL	Unit silencement
RFM	Cooling circuit shut-off valve on discharge line
RFL	Cooling circuit shut-off valve on liquid line
CT	Condensing control down to 0 °C
CC	Condensing control down to -20 °C
BT	Low water temperature kit
EC	EC Inverter fans
ECH	EC Inverter fans with high available static pressure
HR	Desuperheater
HRT/S	Total heat recovery in series
HRT/P	Total heat recovery in parallel
TX	Coil with pre-coated fins
EW	External water connections
SP	Inertial tank
PU	Single circulating pump
PD	Double circulating pump
SPU	Inertial tank and single circulating pump
SPD	Inertial tank and double circulating pump
FE	Antifreeze heater for evaporator
FN	Antifreeze heater for pipes
FQ	Antifreeze heater on evaporator/tank and pipes
FZ	Antifreeze heater for evaporator, single pump and pipes
FH	Antifreeze heater for evaporator, double pump and pipes
FU	Antifreeze heater for evaporator/tank, single pump and pipes
FD	Antifreeze heater for evaporator/tank, double pump and pipes
SS	Soft start
IS	Modbus RTU protocol, RS485 serial interface

LOOSE ACCESSORIES:

MN	High and low pressure gauges
CR	Remote control panel
RP	Coils protection metallic guards
FP	Coils protection metallic guards with filter
AG	Rubber shock absorbers
AM	Spring shock absorbers
FL	Flow switch

TECHNICAL DATA - JWA 051÷172 S/K

MODEL			051	061	071	081	091	101	111	131	152	172
Cooling	Cooling capacity (1)	kW	49.0	55.0	62.4	73.3	84.3	95.2	109	129	149	179
	Absorbed power (1)	kW	16.6	18.8	21.5	25.3	28.6	31.6	37.5	43.7	50.7	58.8
	EER (1)		2.95	2.93	2.90	2.90	2.95	3.01	2.91	2.95	2.94	3.04
Cooling (EN14511)	Cooling capacity (1)	kW	48.8	54.7	62.0	72.8	83.9	94.7	108	128	148	178
	Absorbed power (1)	kW	16.8	19.1	21.9	25.8	29.0	32.1	38.1	44.3	51.4	59.5
	EER (1)		2.90	2.86	2.83	2.82	2.89	2.95	2.83	2.89	2.88	2.99
	SEER (2)		3.95	3.97	3.91	3.92	3.98	3.98	3.86	3.98	4.01	4.02
	Energy Efficiency (2)	%	155	156	153	154	156	156	151	156	157	158
	SEER with EC or ECH accessory (2)		4.14	4.14	4.13	4.10	4.16	4.13	4.10	4.20	4.21	4.27
	Energy Efficiency with EC or ECH accessory (2)	%	163	163	162	161	163	162	161	165	165	168
Heating	Heating capacity (3)	kW	55.7	61.9	70.2	80.7	91.4	105	119	137	156	188
	Absorbed power (3)	kW	17.8	19.6	22.8	25.7	29.1	33.4	38.1	44.2	51.1	61.0
	COP (3)		3.13	3.16	3.08	3.14	3.14	3.14	3.12	3.10	3.05	3.08
Heating (EN14511)	Heating capacity (3)	kW	56.0	62.2	70.7	81.3	91.9	106	120	138	157	189
	Absorbed power (3)	kW	18.0	20.0	23.5	26.6	29.8	34.2	39.1	45.1	52.3	62.3
	COP (3)		3.11	3.11	3.01	3.06	3.08	3.10	3.07	3.06	3.00	3.03
	SCOP (4)		3.28	3.23	3.21	3.24	3.29	3.29	3.21	3.29	3.25	3.25
	Energy Efficiency (4)	%	128	126	125	127	129	129	125	129	127	127
	Energy Class (5)		A+	A+	A+	A+	-	-	-	-	-	-
Compressor	Quantity	n°	2	2	2	2	2	3	3	3	4	4
	Refrigerant circuits	n°	1	1	1	1	1	1	1	1	2	2
	Capacity steps	n°	2					3			4	
Evaporator	Water flow	l/s	2.31	2.60	2.95	3.46	3.98	4.50	5.15	6.09	7.04	8.45
	Pressure drops	kPa	22	29	50	55	40	39	45	36	43	38
	Water connections	"G	1 ½"	1 ½"	2"	2"	2 ½"	2 ½"	2 ½"	3"	3"	3"
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50									
	Max. running current	A	35	41	48	54	65	69	81	98	105	132
	Max. starting current	A	130	140	144	169	209	166	197	242	221	276
Electrical characteristics (ST versions)	Power supply	V/Ph/Hz	400/3/50									
	Max. running current	A	39	45	51	57	68	73	86	102	110	136
	Max. starting current	A	133	143	148	173	212	170	201	246	226	280
Unit with tank and pump	Pump available static pressure	kPa	160	150	125	110	140	180	170	170	150	140
	Tank water volume	l	470	470	470	470	470	470	470	470	660	660
	Water connections	"G	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
Unit ST versions	Water flow	l/s	2.31	2.60	2.95	3.46	3.98	4.50	5.15	6.09	7.04	8.45
	Pump available static pressure	kPa	160	150	120	105	110	145	135	140	120	110
	Water connections	"G	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
ECH fan available static pressure	STD versions	Pa	90	80	100	100	100	80	95	75	60	60
	SSL versions	Pa	85	85	75	75	70	50	70	60	60	---
	ST versions	Pa	90	80	100	100	100	80	95	75	60	60
	SSL/ST versions	Pa	90	90	80	80	85	50	70	55	50	---
Sound pressure	STD and ST versions (6)	dB(A)	61	61	64	64	65	66	67	67	67	67
	With SL accessory (6)	dB(A)	59	59	62	62	63	64	65	65	65	65
	SSL and SSL/ST versions (6)	dB(A)	57	57	60	60	61	62	63	63	63	---
Weights	Transport weight (7)	Kg	641	661	701	719	844	931	971	1112	1192	1428
	Operating weight (7)	Kg	660	680	720	740	870	960	1000	1150	1230	1470
Weights (ST versions)	Transport weight	Kg	655	675	715	735	860	950	990	1130	1210	1450
	Operating weight	Kg	660	690	730	750	875	970	1010	1150	1230	1470

DIMENSIONS

MODEL			051	061	071	081	091	101	111	131	152	172
L	STD-ST	mm	2350	2350	2350	2350	2350	2350	2350	2350	3550	3550
	SSL-SSL/ST	mm	2350	2350	2350	2350	2350	2350	3550	3550	3550	---
W	STD-SSL-ST-SSL/ST	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
H	STD-SSL-ST-SSL/ST	mm	1920	1920	1920	1920	2220	2220	2220	2220	2220	2220

CLEARANCE AREA

JWA 051÷172 S/K

300	800	800	1800

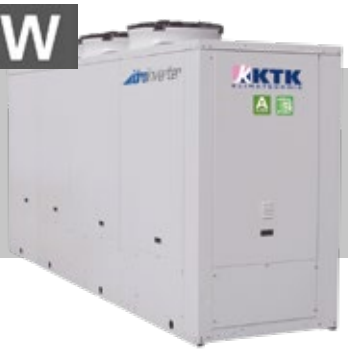
NOTES

1. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
2. Seasonal energy efficiency of cooling at low temperature. According to EU Regulation n. 2016/2281.
3. Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
4. Seasonal energy efficiency of heating at low temperature with average climatic conditions. According to EU Regulation n. 813/2013.
5. Seasonal energy efficiency class of heating at low temperature with average climatic conditions. According to EU Regulation n. 811/2013..
6. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
7. Unit without tank and pump.

N.B. Weights of SSL and WP versions are specified on technical brochure.

Electrical board side

NEW



JWA 081÷211 VV/H/P/A

A CLASS ENERGY EFFICIENCY AIRCOOLED LIQUID CHILLERS WITH AXIAL FANS, (INVERTER) SCREW COMPRESSOR AND PLATE EXCHANGER.

idroinverter

The JWA 081÷211 VV/H/P/A units in A CLASS energy efficiency, with **HFO-R1234ze** refrigerant, are designed to provide an effective solution to highly selective system needs. The latest generation refrigerant HFO-R1234ze, with GWP<1 (Global Warming Potential), is the most environmentally sustainable refrigerant on the market, and meets the strictest international environmental regulations. The innovative heat exchangers, traditional or Microchannel, the Screw compressor and the new design optimized in every detail ensure the reach of the highest efficiency. Furthermore, accessories as the Inverter control on Screw compressor, fans and on circulating pumps (EC Inverter) are also available for getting the highest efficiency at part load. The super silenced versions, obtained through acoustic insulation on compressor and on whole structure and wider exchangers, are particularly suitable for installations where extremely quiet operation are essential for the ideal execution of the system.
Are available as option the new **EC Inverter fans with high available static pressure and efficiency for indoor ducted installation.**

The units are compliant to the ErP 2021 Regulation for process cooling application; for comfort cooling application they are compliant if provided with EC or ECH accessory (EC Inverter fans).

FROM 79 KW TO 208 KW.

VERSION

JWA
Cooling only
JWA/MC
Cooling only with MICROCHANNEL condensing coils
JWA/SSL
Super silenced cooling only
JWA/MC/SSL
Super silenced cooling only with MICROCHANNEL condensing coils

FEATURES

- Self-supporting galvanized steel frame protected with additional protection achieved via polyester powder painting.
- Screw compressor with built-in oil separator, suction filter, crankcase heater, oil sight glass, thermal protection and stepless capacity steps.
- Axial fans directly coupled to an electric motor with external rotor.
- Condenser made of copper tube and aluminum finned coils or aluminium MICROCHANNEL coils.
- Evaporator AISI 316 stainless steel braze welded plates type with one circuit on the refrigerant side and one on the water side, complete with water differential pressure switch.
- Cooling circuit shut-off valves on discharge and liquid line.
- Electronic expansion valve.
- Electronic high and low pressure gauges.
- HFO-R1234ze refrigerant.
- Electrical board includes: main switch with door safety interlock, fuses, thermal protection relay for compressor and thermocontacts for fans.
- Condensing Control is included: electronic proportional device that ensures efficient and continuous functioning of the unit with outside air temperature down to 0 °C. It also allows to reduce the sound level especially at night. It consists of a fans speed controller with continuous speed regulation and high and low pressure transducers on cooling circuit.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES:

IM	Automatic circuit breakers
SL	Unit silencement
CC	Condensing control down to -20 °C
BT	Low water temperature kit
EC	EC Inverter fans
ECH	EC Inverter fans with high available static pressure
RT	Total heat recovery
TX	Coil with pre-coated fins
TXB	Coil with epoxy treatment
SI	Inertial tank
PS	Single circulating pump
PSI	Inverter single circulating pump
PD	Double circulating pump
PDI	Inverter double circulating pump
FE	Antifreeze heater for evaporator
FN	Antifreeze heater for pipes
FO	Antifreeze heater for tank and pipes
FG	Antifreeze heater for single pump and pipes
FM	Antifreeze heater for double pump and pipes
FUM	Antifreeze heater for tank, single pump and pipes
FDM	Antifreeze heater for tank, double pump and pipes
IQ	Inverter on one compressor
SS	Soft start
WM	Web Monitoring - Wireless remote monitoring (GPRS/EDGE/3G/TCP-IP)
IS	Modbus RTU protocol, RS485 serial interface
IST	Modbus TCP/IP protocol, Ethernet port
ISB	BACnet MSTP protocol, RS485 serial interface
ISBT	BACnet TCP/IP protocol, Ethernet port
ISL	LonWorks protocol, FTT-10 serial interface
ISS	SNMP protocol, Ethernet port
IAV	Remote set-point, 0-10 V signal
IAA	Remote set-point, 4-20 mA signal
IAS	Remote signal for second set-point activation
IDL	Demand limit from digital input
CP	Potential free contacts

LOOSE ACCESSORIES:

MN	High and low pressure gauges
CR	Remote control panel
RP	Coils protection metallic guards
FP	Coils protection metallic guards with filter
AG	Rubber shock absorbers
AM	Spring shock absorbers

TECHNICAL DATA - JWA 081÷211 VV/H/P/A

MODEL			081	101	131	171	211
Cooling STD version	Cooling capacity (1)	kW	78.6	101	130	163	208
	Absorbed power (1)	kW	23.9	32.3	39.7	49.6	66.6
	EER (1)		3.29	3.13	3.27	3.29	3.12
Cooling STD version (EN14511)	Cooling capacity (1)	kW	78.5	101	130	163	208
	Absorbed power (1)	kW	23.9	32.4	39.8	49.8	66.9
	EER (1)		3.28	3.12	3.27	3.27	3.11
	SEER (2)		4.09	3.95	3.93	4.06	4.02
	Energy Efficiency (2)	%	161	155	154	159	158
	SEER with EC or ECH accessory (2)		4.68	4.42	4.47	4.52	4.47
	Energy Efficiency with EC or ECH accessory (2)	%	184	174	176	178	176
Cooling MC version	Cooling capacity (1)	kW	78.6	101	130	163	208
	Absorbed power (1)	kW	23.5	31.8	39.1	48.9	65.9
	EER (1)		3.34	3.18	3.32	3.33	3.16
Cooling MC version (EN14511)	Cooling capacity (1)	kW	78.5	101	130	163	208
	Absorbed power (1)	kW	23.5	31.9	39.2	49.1	66.2
	EER (1)		3.34	3.17	3.32	3.32	3.14
	SEER (2)		4.10	3.97	3.93	4.06	4.02
	Energy Efficiency (2)	%	161	156	154	159	158
	SEER with EC or ECH accessory (2)		4.69	4.43	4.48	4.53	4.48
	Energy Efficiency with EC or ECH accessory (2)	%	185	174	176	178	176
Compressor	Quantity	n°	1	1	1	1	1
	Refrigerant circuits	n°	1	1	1	1	1
	Capacity steps	n°	Stepless				
Evaporator	Water flow	l/s	3.76	4.83	6.21	7.79	9.94
	Pressure drops	kPa	9	11	11	12	12
	Water connections	"G	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50				
	Max. running current	A	101	100	133	152	214
	Max. starting current	A	180	190	279	328	435
Unit with tank and pump	Pump available static pressure	kPa	145	205	190	180	150
	Tank water volume	l	600	600	600	600	600
	Water connections	"G	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"
ECH fan available static pressure	STD versions	Pa	110	110	110	110	110
	SSL versions	Pa	110	110	110	110	110
	MC versions	Pa	110	110	110	110	110
	MC/SSL versions	Pa	110	110	110	110	110
Sound pressure	STD version (3)	dB(A)	74	74	75	75	76
	With SL accessory (3)	dB(A)	71	71	72	72	73
	SSL version (3)	dB(A)	66	66	67	68	69
Weights	Transport weight (4)	Kg	1281	1441	1888	1998	2189
	Operating weight (4)	Kg	1300	1480	1930	2050	2260

DIMENSIONS

MODEL			081	101	131	171	211
L	STD-SSL-MC-MC/SSL	mm	3550	3550	4700	4700	4700
W	STD-SSL-MC-MC/SSL	mm	1100	1100	1100	1100	1100
H	STD-SSL-MC-MC/SSL	mm	2200	2200	2200	2200	2200

CLEARANCE AREA

JWA 081÷211 VV/H/P/A

300	800	800	1800

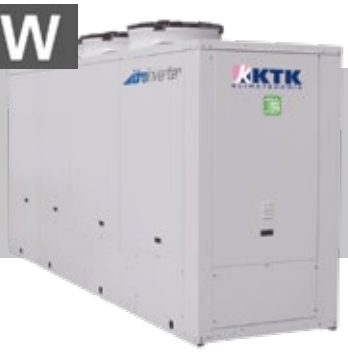
Electrical board side

NOTES

1. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
2. Seasonal energy efficiency of cooling at low temperature. According to EU Regulation n. 2016/2281.
3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
4. Unit without tank and pump.

N.B. Weights of SSL versions are specified on technical brochure.
N.B. Data of MC versions are specified on technical brochure.

NEW



JWA/FC 081÷171 VV/H/P

AIRCOOLED LIQUID CHILLERS FREE-COOLING WITH AXIAL FANS, (INVERTER) SCREW COMPRESSOR AND PLATE EXCHANGER.

idroinverter

The liquid Chillers of the JWA/FC 081÷171 VV/H/P series, with **HFO-R1234ze** refrigerant, offer innovative technology to meet the needs of large systems for both domestic as well as industrial applications requiring the production of cooled water continuously year-round. The latest generation refrigerant HFO-R1234ze, with GWP<1 (Global Warming Potential), is the most environmentally sustainable refrigerant on the market, and meets the strictest international environmental regulations. During the cold months, in **FREE-COOLING** operating mode, the liquid returning from the system is cooled directly by forced convection of outdoor air through the condensing coil, thus saving energy by not operating the unit's Screw compressor. A 3-Way valve system is controlled by the electronic microprocessor controller, allowing functioning in CHILLER, FREE-COOLING or MIXED (simultaneously CHILLER and FREE-COOLING) modes.
Are available as option the new **EC Inverter fans with high available static pressure and efficiency for indoor ducted installation.**

The units are compliant to the ErP 2021 Regulation for process cooling application.

FROM 82 KW TO 170 KW.

VERSION

JWA/FC
Cooling only

FEATURES

- Self-supporting galvanized steel frame protected with additional protection achieved via polyester powder painting.
- Screw compressor with built-in oil separator, suction filter, crankcase heater, oil sight glass, thermal protection and stepless capacity steps.
- Axial fans directly coupled to an electric motor with external rotor.
- Condenser made of copper tubes and aluminium finned coils combined with FREE-COOLING coils.
- Evaporator AISI 316 stainless steel braze welded plates type with one circuit on the refrigerant side and one on the water side, complete with water differential pressure switch.
- Cooling circuit shut-off valves on discharge and liquid line.
- Electronic expansion valve.
- Electronic high and low pressure gauges.
- HFO-R1234ze refrigerant.
- Electrical board includes: main switch with door safety interlock, fuses, thermal protection relay for compressor and thermocontacts for fans.
- Condensing Control is included: electronic proportional device that ensures efficient and continuous functioning of the unit with outside air temperature down to –20 °C. It also allows to reduce the sound level especially at night. It consists of a fans speed controller with continuous speed regulation, high and low pressure transducers on cooling circuit and an electrical heater on electrical board.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES:

IM	Automatic circuit breakers
SL	Unit silencement
BT	Low water temperature kit
EC	EC Inverter fans
ECH	EC Inverter fans with high available static pressure
RT	Total heat recovery
TX	Coil with pre-coated fins
SI	Inertial tank
PS	Single circulating pump
PSI	Inverter single circulating pump
PD	Double circulating pump
PDI	Inverter double circulating pump
IQ	Inverter on one compressor
SS	Soft start
WM	Web Monitoring - Wireless remote monitoring (GPRS/EDGE/3G/TCP-IP)
IS	Modbus RTU protocol, RS485 serial interface
IST	Modbus TCP/IP protocol, Ethernet port
ISB	BACnet MSTP protocol, RS485 serial interface
ISBT	BACnet TCP/IP protocol, Ethernet port
ISL	LonWorks protocol, FTT-10 serial interface
ISS	SNMP protocol, Ethernet port
IAV	Remote set-point, 0-10 V signal
IAA	Remote set-point, 4-20 mA signal
IAS	Remote signal for second set-point activation
IDL	Demand limit from digital input
CP	Potential free contacts

LOOSE ACCESSORIES:

MN	High and low pressure gauges
CR	Remote control panel
RP	Coils protection metallic guards
AG	Rubber shock absorbers
AM	Spring shock absorbers

TECHNICAL DATA - JWA/FC 081÷171 VV/H/P

MODEL			081	101	131	171
Cooling	Cooling capacity (1)	kW	81.7	110	140	170
	Absorbed power (1)	kW	26.8	36.3	44.1	53.5
	EER (1)		3.05	3.03	3.17	3.18
Cooling (EN14511)	Cooling capacity (1)	kW	81.5	110	140	171
	Absorbed power (1)	kW	27.1	36.5	44.8	53.8
	EER (1)		3.01	3.01	3.13	3.18
	SEPR (2)		6.86	7.33	6.89	6.58
Free-Cooling cycle	Air temperature (3)	°C	1	-2	0	-3
	Absorbed power (3)	kW	6	6	8	8
Compressor	Quantity	n°	1	1	1	1
	Refrigerant circuits	n°	1	1	1	1
	Capacity steps	n°	Stepless			
Water circuit	Water flow	l/s	4.44	6.20	7.60	8.53
	Pressure drops	kPa	36	108	80	113
	Water connections	DN	2 1/2"	2 1/2"	2 1/2"	2 1/2"
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50			
	Max. running current	A	105	109	137	156
	Max. starting current	A	184	200	285	334
Unit with tank and pump	Pump available static pressure	kPa	180	110	125	80
	Tank water volume	l	400	400	400	400
	Water connections	DN	2 1/2"	2 1/2"	2 1/2"	2 1/2"
ECH fan available static pressure		Pa	110	110	110	105
Sound pressure	STD version (4)	dB(A)	74	74	75	75
	With SL accessory (4)	dB(A)	71	71	72	72
Weights	Transport weight (5)	Kg	1503	1677	2093	2222
	Operating weight (5)	Kg	1550	1760	2180	2320

DIMENSIONS

MODEL			081	101	131	171
L	STD	mm	3550	4700	4700	4700
W	STD	mm	1100	1100	1100	1100
H	STD	mm	2200	2200	2200	2200

CLEARANCE AREA

JWA/FC 081÷171 VV/H/P

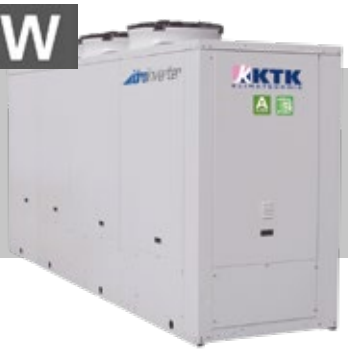
300	800	800	1800

Electrical board side

NOTES

1. Chilled water (with ethylene glycol at 30%) from 15 to 10 °C, ambient air temperature 35 °C.
2. Seasonal energy efficiency of process cooling at high temperature. According to EU Regulation n. 2016/2281.
3. Ambient air temperature at which the cooling capacity indicated in point (1) is reached.
4. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
5. Unit without tank and pump.

NEW



JWA 081÷211 VV/H/A

A CLASS ENERGY EFFICIENCY AIRCOOLED LIQUID CHILLERS WITH AXIAL FANS, (INVERTER) SCREW COMPRESSOR AND SHELL AND TUBE EXCHANGER.

idroinverter

The JWA 081÷211 VV/H/A units in A CLASS energy efficiency, with **HFO-R1234ze** refrigerant, are designed to provide an effective solution to highly selective system needs. The latest generation refrigerant HFO-R1234ze, with GWP<1 (Global Warming Potential), is the most environmentally sustainable refrigerant on the market, and meets the strictest international environmental regulations. The innovative heat exchangers, traditional or Microchannel, the Screw compressor and the new design optimized in every detail ensure the reach of the highest efficiency. Furthermore, accessories as the Inverter control on Screw compressor, fans and on circulating pumps (EC Inverter) are also available for getting the highest efficiency at part load. The super silenced versions, obtained through acoustic insulation on compressor and on whole structure and wider exchangers, are particularly suitable for installations where extremely quiet operation are essential for the ideal execution of the system.
Are available as option the new **EC Inverter fans with high available static pressure and efficiency for indoor ducted installation.**

The units are compliant to the ErP 2021 Regulation for process cooling application; for comfort cooling application they are compliant if provided with EC or ECH accessory (EC Inverter fans).

FROM 79 KW TO 211 KW.

VERSION

JWA
Cooling only
JWA/MC
Cooling only with MICROCHANNEL condensing coils
JWA/SSL
Super silenced cooling only
JWA/MC/SSL
Super silenced cooling only with MICROCHANNEL condensing coils

FEATURES

- Self-supporting galvanized steel frame protected with additional protection achieved via polyester powder painting.
- Screw compressor with built-in oil separator, suction filter, crankcase heater, oil sight glass, thermal protection and stepless capacity steps.
- Axial fans directly coupled to an electric motor with external rotor.
- Condenser made of copper tube and aluminum finned coils or aluminium MICROCHANNEL coils.
- Shell and tube evaporator with one independent circuit on the refrigerant side and one on the water side, complete with water differential pressure switch.
- Cooling circuit shut-off valves on discharge and liquid line.
- Electronic expansion valve.
- Electronic high and low pressure gauges.
- HFO-R1234ze refrigerant.
- Electrical board includes: main switch with door safety interlock, fuses, thermal protection relay for compressor and thermocontacts for fans.
- Condensing Control is included: electronic proportional device that ensures efficient and continuous functioning of the unit with outside air temperature down to 0 °C. It also allows to reduce the sound level especially at night. It consists of a fans speed controller with continuous speed regulation and high and low pressure transducers on cooling circuit.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES:

IM	Automatic circuit breakers
SL	Unit silencement
CC	Condensing control down to -20 °C
BT	Low water temperature kit
EC	EC Inverter fans
ECH	EC Inverter fans with high available static pressure
HRT/S	Total heat recovery in series
HRT/P	Total heat recovery in parallel
TX	Coil with pre-coated fins
TXB	Coil with epoxy treatment
EW	External water connections
SP	Inertial tank
PU	Single circulating pump
PUI	Inverter single circulating pump
PD	Double circulating pump
PDI	Inverter double circulating pump
SPU	Inertial tank and single circulating pump+
SPUI	Inertial tank and Inverter single circulating pump
SPD	Inertial tank and double circulating pump
SPDI	Inertial tank and Inverter double circulating pump
FE	Antifreeze heater for evaporator
FX	Antifreeze heater for evaporator and pipes
FQ	Antifreeze heater on evaporator/tank and pipes
FZ	Antifreeze heater for evaporator, single pump and pipes
FH	Antifreeze heater for evaporator, double pump and pipes
FU	Antifreeze heater for evaporator/tank, single pump and pipes
FD	Antifreeze heater for evaporator/tank, double pump and pipes
IQ	Inverter on one compressor
SS	Soft start
WM	Web Monitoring - Wireless remote monitoring (GPRS/EDGE/3G/TCP-IP)
IS	Modbus RTU protocol, RS485 serial interface
IST	Modbus TCP/IP protocol, Ethernet port
ISB	BACnet MSTP protocol, RS485 serial interface
ISBT	BACnet TCP/IP protocol, Ethernet port
ISL	LonWorks protocol, FTT-10 serial interface
ISS	SNMP protocol, Ethernet port
IAV	Remote set-point, 0-10 V signal
IAA	Remote set-point, 4-20 mA signal
IAS	Remote signal for second set-point activation
IDL	Demand limit from digital input
CP	Potential free contacts

LOOSE ACCESSORIES:

MN	High and low pressure gauges
CR	Remote control panel
RP	Coils protection metallic guards
FP	Coils protection metallic guards with filter
AG	Rubber shock absorbers
AM	Spring shock absorbers
FL	Flow switch

TECHNICAL DATA - JWA 081÷211 VV/H/A

MODEL			081	101	131	171	211
Cooling STD version	Cooling capacity (1)	kW	78.7	99.0	129	165	211
	Absorbed power (1)	kW	23.6	30.8	39.0	48.9	66.7
	EER (1)		3.33	3.21	3.31	3.37	3.16
Cooling STD version (EN14511)	Cooling capacity (1)	kW	78.8	98.9	129	164	211
	Absorbed power (1)	kW	23.4	31.0	39.3	49.6	67.3
	EER (1)		3.37	3.19	3.28	3.31	3.14
	SEER (2)		4.17	3.99	3.99	4.08	3.99
	Energy Efficiency (2)	%	164	157	157	160	157
	SEER with EC or ECH accessory (2)		4.73	4.53	4.53	4.63	4.53
	Energy Efficiency with EC or ECH accessory (2)	%	186	178	178	182	178
Cooling MC version	Cooling capacity (1)	kW	78.7	99.0	129	165	211
	Absorbed power (1)	kW	23.2	30.3	38.4	48.2	66.0
	EER (1)		3.39	3.27	3.36	3.42	3.20
Cooling MC version (EN14511)	Cooling capacity (1)	kW	78.8	98.9	129	164	211
	Absorbed power (1)	kW	23.0	30.5	38.7	48.9	66.6
	EER (1)		3.43	3.24	3.33	3.35	3.17
	SEER (2)		4.18	4.00	4.00	4.09	4.00
	Energy Efficiency (2)	%	164	157	157	161	157
	SEER with EC or ECH accessory (2)		4.74	4.54	4.54	4.64	4.54
	Energy Efficiency with EC or ECH accessory (2)	%	187	179	179	183	179
Compressor	Quantity	n°	1	1	1	1	1
	Refrigerant circuits	n°	1	1	1	1	1
	Capacity steps	n°	Stepless				
Evaporator	Water flow	l/s	3.76	4.73	6.16	7.88	10.08
	Pressure drops	kPa	21	20	23	44	31
	Water connections	"G	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50				
	Max. running current	A	101	100	133	152	214
	Max. starting current	A	180	190	279	328	435
Unit with tank and pump	Pump available static pressure	kPa	140	200	180	150	130
	Tank water volume	l	660	660	660	660	660
	Water connections	"G	2 1/2"	2 1/2"	2 1/2"	2 1/2"	2 1/2"
ECH fan available static pressure	STD versions	Pa	110	110	110	110	110
	SSL versions	Pa	110	110	110	110	110
	MC versions	Pa	110	110	110	110	110
	MC/SSL versions	Pa	110	110	110	110	110
Sound pressure	STD version (3)	dB(A)	74	74	75	75	76
	With SL accessory (3)	dB(A)	71	71	72	72	73
	SSL version (3)	dB(A)	66	66	67	68	69
Weights	Transport weight (4)	Kg	1361	1465	2005	2073	2367
	Operating weight (4)	Kg	1380	1490	2040	2120	2420

DIMENSIONS

MODEL			081	101	131	171	211
L	STD-SSL-MC-MC/SSL	mm	3550	3550	4700	4700	4700
W	STD-SSL-MC-MC/SSL	mm	1100	1100	1100	1100	1100
H	STD-SSL-MC-MC/SSL	mm	2200	2200	2200	2200	2200

CLEARANCE AREA

JWA 081÷211 VV/H/A

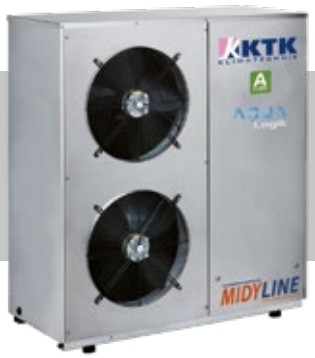
300	800	800	1800

Electrical board side

NOTES

1. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
2. Seasonal energy efficiency of cooling at low temperature. According to EU Regulation n. 2016/2281.
3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
4. Unit without tank and pump.

N.B. Weights of SSL versions are specified on technical brochure.
N.B. Data of MC versions are specified on technical brochure.



JWA/ML/ST 11÷18 S/Z/P

A CLASS ENERGY EFFICIENCY AIRCOOLED DEDICATED HEAT PUMPS WITH DOMESTIC HOT WATER PRODUCTION, AXIAL FANS, SCROLL COMPRESSOR, PLATE EXCHANGER AND HYDRONIC KIT.

MIDYLINE is the line of Heat Pumps dedicated to **hot water production up to 60 °C** and operations up to -20 °C external air temperature, with Scroll compressors, axial fans and integrated hydronic kit. The unit, featuring A CLASS energy efficiency, is designed to singly handle winter heating, summer air conditioning and the production of high temperature hot water, making use of the electrical energy and heat accumulated in the clean air source, free and infinite, which can also transfer heat to homes. Flexibility is the main feature of MIDYLINE series, which is also combined with heating units and managed by the innovative, intelligent AQUALOGIK control system, optimizing the water set-point and regulating power supply voltage to the pump and fans, making the use of an inertial tank unnecessary. This results in performance with elevated energy efficiency, silent functioning, optimized dimensions and costs. MIDYLINE is also able to operate in extreme conditions where the external air temperature is very low, as well as intelligently managing integrated elements such as furnaces and electrical heaters. Based on the external air sensor, the microprocessor activates the single integration elements in the system.

The units are compliant to the ErP Regulation.

FROM 11 KW TO 23 KW.

VERSION

JWA/ML/ST
Heat pump with AQUALOGIK technology

JWA/ML/WP/ST
Reversible heat pump with AQUALOGIK technology

FEATURES

- Structure with supporting frame, in peraluman, galvanized sheet and with rubber shock absorbers on the frame.
- Scroll compressor with internal overheat protection and crankcase heater.
- Axial fans with low ventilation and special wing profile, directly coupled to external rotor motors.
- Condenser made of copper tube and aluminium finned coil, complete with drain pan.
- Evaporator AISI 316 stainless steel braze welded plates type, completed with water differential pressure switch and antifreeze heater.
- R407C refrigerant.
- Electrical board includes: main switch with door lock device, fuses and compressor remote control switch.
- Condensing Control is included: electronic proportional device that ensures efficient and continuous functioning of the unit with outside air temperature down to –20 °C in cooling mode. It also allows to reduce the sound level especially at night. It consists of a fans speed controller with continuous speed regulation, an high/low pressure transducer on cooling circuit and an electrical heater on electrical board.
- Functioning in heating mode with outside air temperature down to -20 °C.
- The production of hot water up to 60 °C is reachable with outside air temperature down to -15 °C. With outside air temperature of -20 °C the reachable production of hot water is up to 45 °C.
- Water circuit includes variable speed circulating pump, safety valve, gauge and expansion vessel.
- Microprocessor control and regulation system with AQUALOGIK technology.

ACCESSORIES

FACTORY FITTED ACCESSORIES:	
EH	Supplementary electrical heater
KC	Gas burner integration kit
TX	Coil with pre-coated fins

LOOSE ACCESSORIES:	
HW	Storage tank for domestic hot water production
CR	Remote control panel
IS	Modbus RTU protocol, RS485 serial interface
RP	Coils protection metallic guards

TECHNICAL DATA - JWA/ML/ST 11÷18 S/Z/P

MODEL			11*	14*	11**	14**	18
Heating	Heating capacity (1)	kW	11.5	16.0	11.5	16.0	22.5
	Absorbed power (1)	kW	3.2	4.6	3.2	4.6	6.5
	COP (1)		3.59	3.48	3.59	3.48	3.46
	Heating capacity (2)	kW	11.3	15.8	11.3	15.8	22.4
	Absorbed power (2)	kW	2.7	3.8	2.7	3.8	5.4
	COP (2)		4.19	4.16	4.19	4.16	4.15
Heating (EN14511)	Heating capacity (1)	kW	11.9	16.4	11.9	16.4	23.0
	Absorbed power (1)	kW	3.2	4.6	3.2	4.6	6.5
	COP (1)		3.72	3.57	3.72	3.57	3.54
	SCOP (3)		4.71	4.95	4.71	4.95	5.12
	Energy Efficiency (3)	%	185	195	185	195	202
	Energy Class (4)		A++	A++	A++	A++	A+
Cooling	Cooling capacity (5)	kW	7.3	10.5	7.3	10.5	16.0
	Absorbed power (5)	kW	2.5	3.6	2.5	3.6	5.2
	EER (6)		2.92	2.92	2.92	2.92	3.08
	Cooling capacity (6)	kW	10.8	15.5	10.8	15.5	21.2
	Absorbed power (6)	kW	2.7	4.0	2.7	4.0	6.1
	EER (6)		4.00	3.88	4.00	3.88	3.48
Cooling (EN14511)	Cooling capacity (5)	kW	7.0	10.2	7.0	10.2	15.6
	Absorbed power (5)	kW	2.8	3.9	2.8	3.9	5.6
	EER (5)		2.50	2.62	2.50	2.62	2.79
Compressor	Quantity	n°	1	1	1	1	1
Supplementary electrical heater	Power supply	V/Ph/Hz	230/1/50				
	Heating capacity	kW	4/6	4/6	4/6	4/6	4/6
	Absorbed current	A	18/26	18/26	18/26	18/26	18/26
	Steps	n°	2	2	2	2	2
Electrical characteristics	Power supply	V/Ph/Hz	230/1/50		400/3+N/50		
	Max. running current	A	26	35	13	15	19
	Max. starting current	A	102	165	45	69	106
Water circuit	Water flow	l/s	0.54	0.75	0.54	0.75	1.07
	Pump available static pressure	kPa	231	185	231	185	156
	Water connections	"G	1"	1"	1"	1"	1"
Sound pressure (7)		dB(A)	52	52	52	52	52
Weights	Transport weight	Kg	205	208	205	208	210
	Operating weight	Kg	209	212	209	212	214

DIMENSIONS

MODEL			11*	14*	11**	14**	18
L	STD	mm	1160	1160	1160	1160	1160
W	STD	mm	500	500	500	500	500
H	STD	mm	1270	1270	1270	1270	1270

CLEARANCE AREA

JWA/ML/ST 11÷18 S/Z/P

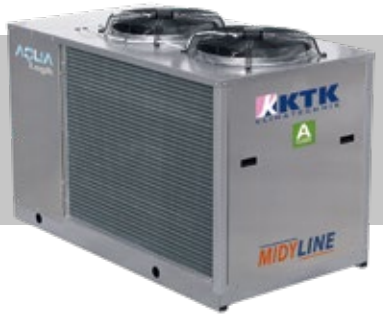
200	200	800	200

Electrical board side

NOTES

1. Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
2. Heated water from 30 to 35 °C, ambient air temperature 7 °C d.b./6 °C w.b.
3. Seasonal energy efficiency of heating at low temperature with average climatic conditions. According to EU Regulation n. 813/2013.
4. Seasonal energy efficiency class of heating at low temperature with average climatic conditions. According to EU Regulation n. 811/2013..
5. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
6. Chilled water from 23 to 18 °C, ambient air temperature 35 °C.
7. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.

N.B. Weights of WP version are specified on technical brochure.
N.B. * = Single phase
N.B. ** = Three phase



JWA/ML/ST 24÷40 S/Z/P

A CLASS ENERGY EFFICIENCY AIRCOOLED DEDICATED HEAT PUMPS WITH DOMESTIC HOT WATER PRODUCTION, AXIAL FANS, SCROLL COMPRESSOR, PLATE EXCHANGER AND HYDRONIC KIT.

MIDYLINE, featuring A CLASS energy efficiency, is the innovative series of Heat Pumps dedicated to **hot water production up to 60 °C** and operation up to -20 °C external air temperature, with Scroll compressors, axial fans and integrated hydronic kit. The unit, designed to originate and control – throughout the year – the best comfort conditions in rooms with a high rate of daily attendance, such as enclosed areas destined to the activities of the service sector, autonomously handles winter heating, summer air conditioning and the production of high temperature sanitary hot water. The MIDYLINE series, designed with an extremely compact structure for simple installation operations, uses only the electric energy and the heat accumulated in the air, to transfer heat to the rooms, thus allowing considerable energy savings, a high rate of reliability and the shortest start-up times. Flexibility is the main feature of the MIDYLINE series, which is indeed combined with terminal units and managed by the innovative, intelligent AQUALOGIK control and optimization system. This makes the use of an inertial tank unnecessary and it guarantees performances with elevated energy efficiency and silent functioning.

The units are compliant to the ErP Regulation.

FROM 30 KW TO 53 KW.

VERSION

JWA/ML/ST
Heat pump with AQUALOGIK technology

JWA/ML/WP/ST
Reversible heat pump with AQUALOGIK technology

FEATURES

- Structure with supporting frame, in peraluman and galvanized sheet.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Axial fans with low ventilation and special wing profile, directly coupled to external rotor motors.
- Condenser made of copper tubes and aluminium finned coils.
- Evaporator AISI 316 stainless steel braze welded plates type, completed with water differential pressure switch and antifreeze heater.
- R407C refrigerant.
- Electrical board includes: main switch with door lock device, fuses and compressor remote control switch.
- Condensing Control is included: electronic proportional device that ensures efficient and continuous functioning of the unit with outside air temperature down to –20 °C in cooling mode. It also allows to reduce the sound level especially at night. It consists of a fans speed controller with continuous speed regulation, an high/low pressure transducer on cooling circuit and an electrical heater on electrical board.
- Functioning in heating mode with outside air temperature down to -20 °C.
- The production of hot water up to 60 °C is reachable with outside air temperature down to -15 °C. With outside air temperature of -20 °C the reachable production of hot water is up to 45 °C.
- Water circuit includes variable speed circulating pump, safety valve, gauge and expansion vessel.
- Microprocessor control and regulation system with AQUALOGIK technology.

ACCESSORIES

FACTORY FITTED ACCESSORIES:

EH	Supplementary electrical heater
KC	Gas burner integration kit
TX	Coil with pre-coated fins

LOOSE ACCESSORIES:

HW	Storage tank for domestic hot water production
CR	Remote control panel
IS	Modbus RTU protocol, RS485 serial interface
RP	Coils protection metallic guards
AG	Rubber shock absorbers

TECHNICAL DATA - JWA/ML/ST 24÷40 S/Z/P

MODEL			24	27	40
Heating	Heating capacity (1)	kW	30.7	40.2	52.6
	Absorbed power (1)	kW	8.0	10.9	13.6
	COP (1)		3.84	3.69	3.87
	Heating capacity (2)	kW	29.8	40.0	50.2
	Absorbed power (2)	kW	6.7	9.2	11.4
	COP (2)		4.45	4.35	4.40
Heating (EN14511)	Heating capacity (1)	kW	31.4	41.1	53.5
	Absorbed power (1)	kW	8.0	10.9	13.6
	COP (1)		3.93	3.77	3.93
	SCOP (3)		4.42	4.32	4.27
	Energy Efficiency (3)	%	174	170	168
	Energy Class (4)		A++	A++	A++
Cooling	Cooling capacity (5)	kW	20.4	28.9	37.3
	Absorbed power (5)	kW	6.6	9.3	11.7
	EER (5)		3.09	3.11	3.19
	Cooling capacity (6)	kW	27.6	39.3	47.8
	Absorbed power (6)	kW	7.7	10.7	12.8
	EER (6)		3.58	3.67	3.73
Cooling (EN14511)	Cooling capacity (5)	kW	19.8	28.2	36.5
	Absorbed power (5)	kW	7.2	10.0	12.5
	EER (5)		2.75	2.82	2.92
Compressor	Quantity	n°	1	1	1
Supplementary electrical heater	Power supply	V/Ph/Hz	400/3/50		
	Heating capacity	kW	6/10	6/10	6/10
	Absorbed current	A	26/43	26/43	26/43
	Steps	n°	2	2	2
Electrical characteristics	Power supply	V/Ph/Hz	400/3+N/50		
	Max. running current	A	28	36	42
	Max. starting current	A	109	139	179
Water circuit	Water flow	l/s	1.47	1.92	2.51
	Pump available static pressure	kPa	230	227	195
	Water connections	"G	2"	2"	2"
Sound pressure (7)		dB(A)	61	62	64
Weights	Transport weight	Kg	220	235	265
	Operating weight	Kg	224	239	269

DIMENSIONS

MODEL			24	27	40
L	STD	mm	1850	1850	1850
W	STD	mm	1000	1000	1000
H	STD	mm	1300	1300	1300

CLEARANCE AREA

JWA/ML/ST 24÷40 S/Z/P

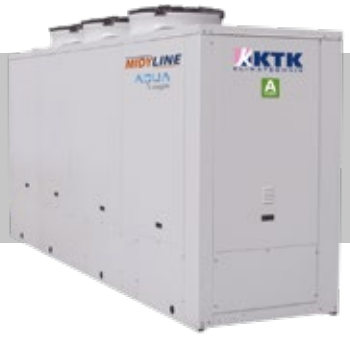
500	800	800	800

Electrical board side

NOTES

1. Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
2. Heated water from 30 to 35 °C, ambient air temperature 7 °C d.b./6 °C w.b.
3. Seasonal energy efficiency of heating at low temperature with average climatic conditions. According to EU Regulation n. 813/2013.
4. Seasonal energy efficiency class of heating at low temperature with average climatic conditions. According to EU Regulation n. 811/2013..
5. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
6. Chilled water from 23 to 18 °C, ambient air temperature 35 °C.
7. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.

N.B. Weights of WP version are specified on technical brochure.



JWA/ML/ST 052÷082 S/Z/P

A CLASS ENERGY EFFICIENCY AIRCOOLED DEDICATED HEAT PUMPS WITH DOMESTIC HOT WATER PRODUCTION, AXIAL FANS, SCROLL COMPRESSORS, PLATE EXCHANGER AND HYDRONIC KIT.

MIDYLINE, featuring A CLASS energy efficiency, is the innovative series of Heat Pumps dedicated to **hot water production up to 60 °C** and operation up to -20 °C external air temperature, with Scroll compressors, axial fans and integrated hydronic kit. The unit, designed to originate and control – throughout the year – the best comfort conditions in rooms with a high rate of daily attendance, such as enclosed areas destined to the activities of the service sector, autonomously handles winter heating, summer air conditioning and the production of high temperature sanitary hot water. The MIDYLINE series, designed with an extremely compact structure for simple installation operations, uses only the electric energy and the heat accumulated in the air, to transfer heat to the rooms, thus allowing considerable energy savings, a high rate of reliability and the shortest start-up times. Flexibility is the main feature of the MIDYLINE series, which is indeed combined with terminal units and managed by the innovative, intelligent AQUALOGIK control and optimization system. This makes the use of an inertial tank unnecessary and it guarantees performances with elevated energy efficiency and silent functioning.
Are available as option the new EC Inverter fans with high available static pressure and efficiency for indoor ducted installation.

The units are compliant to the ErP Regulation.

FROM 56 KW TO 114 KW.

VERSION

JWA/ML/ST
Heat pump with AQUALOGIK technology

JWA/ML/WP/ST
Reversible heat pump with AQUALOGIK technology

JWA/ML/SSL/ST
Super silenced Heat Pump with AQUALOGIK technology

JWA/ML/WP/SSL/ST
Super silenced reversible Heat Pump with AQUALOGIK technology

FEATURES

- Self-supporting galvanized steel frame protected with additional protection achieved via polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Axial fans directly coupled to an electric motor with external rotor.
- Condenser made of copper tubes and aluminium finned coil.
- Evaporator AISI 316 stainless steel braze welded plates type with two independent circuits on the refrigerant side and one on the water side, complete with flow switch and antifreeze heater.
- R407C refrigerant.
- Electrical board includes: main switch with door safety interlock, fuses, thermal protection relays for compressors and pump and thermocontacts for fans.
- Condensing Control is included: electronic proportional device that ensures efficient and continuous functioning of the unit with outside air temperature down to –20 °C in cooling mode. It also allows to reduce the sound level especially at night. It consists of a fans speed controller with continuous speed regulation, an high/low pressure transducer on cooling circuit and an electrical heater on electrical board.
- Functioning in heating mode with outside air temperature down to -20 °C.
- The production of hot water up to 60 °C is reachable with outside air temperature down to -15 °C. With outside air temperature of -20 °C the reachable production of hot water is up to 45 °C.
- Water circuit includes: INVERTER circulating pump, safety valve and expansion vessel.
- Microprocessor control and regulation system with AQUALOGIK technology.

ACCESSORIES

FACTORY FITTED ACCESSORIES:

IM	Automatic circuit breakers
SL	Unit silencement
RFM	Cooling circuit shut-off valve on discharge line
RFL	Cooling circuit shut-off valve on liquid line
EC	EC Inverter fans
ECH	EC Inverter fans with high available static pressure
DS	Desuperheater
KC	Gas burner integration kit
FN	Antifreeze heater for pipes
FG	Antifreeze heater for single pump and pipes
SS	Soft start
TX	Coil with pre-coated fins
IS	Modbus RTU protocol, RS485 serial interface

LOOSE ACCESSORIES:

HW	Storage tank for domestic hot water production
MN	High and low pressure gauges
CR	Remote control panel
RP	Coils protection metallic guards
AG	Rubber shock absorbers
AM	Spring shock absorbers

TECHNICAL DATA - JWA/ML/ST 052÷082 S/Z/P

MODEL			052	062	072	082
Heating	Heating capacity (1)	kW	57.2	78.3	92.7	114
	Absorbed power (1)	kW	16.3	20.8	25.7	33.7
	COP (1)		3.51	3.76	3.61	3.38
	Heating capacity (2)	kW	55.7	74.4	91.1	112
	Absorbed power (2)	kW	13.7	17.4	21.5	27.1
	COP (2)		4.07	4.28	4.24	4.13
Heating (EN14511)	Heating capacity (1)	kW	58.0	79.2	93.6	116
	Absorbed power (1)	kW	16.3	20.8	25.7	33.7
	COP (1)		3.56	3.81	3.64	3.43
	SCOP (3)		4.92	5.52	5.11	4.80
	Energy Efficiency (3)	%	194	218	201	189
	Energy Class (4)		A++	A++	A++	A++
Cooling	Cooling capacity (5)	kW	44.3	60.4	78.6	101
	Absorbed power (5)	kW	16.4	23.6	34.8	39.1
	EER (5)		2.70	2.56	2.26	2.58
	Cooling capacity (6)	kW	60.3	81.8	101	130
	Absorbed power (6)	kW	18.7	27.5	37.6	42.2
	EER (6)		3.22	2.97	2.69	3.08
Cooling (EN14511)	Cooling capacity (5)	kW	43.6	59.6	77.7	99.7
	Absorbed power (5)	kW	17.1	24.4	35.7	40.4
	EER (5)		2.55	2.44	2.18	2.47
Compressor	Quantity	n°	2	2	2	2
	Refrigerant circuits	n°	2	2	2	2
	Capacity steps	n°	2			
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50			
	Max. running current	A	44	56	68	84
	Max. starting current	A	125	159	205	246
Water circuit	Water flow	l/s	2.73	3.74	4.43	5.46
	Pump available static pressure	kPa	165	145	130	110
	Water connections	"G	2 ½"	2 ½"	2 ½"	2 ½"
ECH fan available static pressure	ST versions	Pa	90	80	100	100
	SSL/ST versions	Pa	90	90	80	85
Sound pressure	STD version (7)	dB(A)	60	61	62	64
	With SL accessory (7)	dB(A)	58	59	60	62
	SSL version (7)	dB(A)	56	57	58	60
Weights	Transport weight	Kg	746	837	856	913
	Operating weight	Kg	755	855	875	935

DIMENSIONS

MODEL			052	062	072	082
L	STD	mm	2350	2350	2350	2350
	SSL	mm	2350	2350	2350	3550
W	STD/SSL	mm	1100	1100	1100	1100
H	STD	mm	1920	2220	2220	2220
	SSL	mm	2220	2220	2220	2220

CLEARANCE AREA

JWA/ML/ST 052÷082 S/Z/P

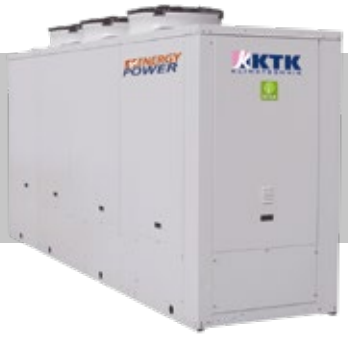
300	800	800	1800

NOTES

1. Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
2. Heated water from 30 to 35 °C, ambient air temperature 7 °C d.b./6 °C w.b.
3. Seasonal energy efficiency of heating at low temperature with average climatic conditions. According to EU Regulation n. 813/2013.
4. Seasonal energy efficiency class of heating at low temperature with average climatic conditions. According to EU Regulation n. 811/2013..
5. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
6. Chilled water from 23 to 18 °C, ambient air temperature 35 °C.
7. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.

N.B. Weights of SSL and WP versions are specified on technical brochure.

Electrical board side



JWA/EP 051÷191 S/K/P

AIRCOOLED 4-PIPE MULTIFUNCTIONAL UNITS WITH AXIAL FANS, SCROLL COMPRESSORS AND PLATE EXCHANGERS.

ENERGYPOWER is the range of high efficiency multifunctional units for 4-Pipe systems.
The units JWA/EP 051÷191 S/K/P feature R410A refrigerant and Scroll compressors activated in series based on the requested thermal load, to reach high EER/COP/TER and SEER/SCOP energy values. Thanks to the advanced control system, the units can simultaneously fulfill the heating, cooling and domestic hot water request of the building. The unit can manage the opposed thermal loads at the same time and reach the highest possible efficiency. ENERGYPOWER units make the traditional layout of the technical plants easier because the production of thermal energy for the several users are joint in one unit only; the result is an advantage in terms of installation, maintenance and management and in the meantime of the comfort needs.
Are available as option the new **EC Inverter fans with high available static pressure and efficiency for indoor ducted installation.**
Units are designed for **hot water production up to 55 °C.**

The units are compliant to the ErP Regulation.

On request, units can be supplied with **R452B (JWA/EP 051÷191 S/G/P)** or **R454B (JWA/EP 051÷191 S/L/P)** refrigerant.

FROM 49 KW TO 190 KW.

VERSION

JWA/EP
Multifunctional unit
JWA/EP/SSL
Super silenced multifunctional unit

FEATURES

- Self-supporting galvanized steel frame protected with additional protection achieved via polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Axial fans directly coupled to an electric motor with external rotor.
- Copper tube and aluminum finned coil.
- Condenser AISI 316 stainless steel braze welded plates type with one circuit on the refrigerant side and one on the water side. On the units it is always installed an antifreeze heater.
- Evaporator AISI 316 stainless steel braze welded plates type with one circuit on the refrigerant side and one on the water side, complete with water differential pressure switch. On the units it is always installed an antifreeze heater.
- Electronic expansion valve.
- Electronic high and low pressure gauges.
- R410A refrigerant. On request R452B or R454B refrigerant.
- Electrical board includes: main switch with door safety interlock, fuses, thermal protection relays for compressors and thermocontacts for fans.
- Condensing Control is included: electronic proportional device that ensures efficient and continuous functioning of the unit with outside air temperature down to –20 °C in cooling mode. It also allows to reduce the sound level especially at night. It consists of a fans speed controller with continuous speed regulation, high and low pressure transducers on cooling circuit and an electrical heater on electrical board.
- Functioning in heating mode with outside air temperature down to -15 °C.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES:

IM	Automatic circuit breakers
SL	Unit silencement
RFM	Cooling circuit shut-off valve on discharge line
RFL	Cooling circuit shut-off valve on liquid line
BT	Low water temperature kit
EC	EC Inverter fans
ECH	EC Inverter fans with high available static pressure
TX	Coil with pre-coated fins
PSC	Single circulating pump cooling side
PSIC	Inverter single circulating pump cooling side
PDC	Double circulating pump cooling side
PDIC	Inverter double circulating pump cooling side
PSH	Single circulating pump heating side
PSIH	Inverter single circulating pump heating side
PDH	Double circulating pump heating side
PDIH	Inverter double circulating pump heating side
FN	Antifreeze heater for pipes
FGC	Antifreeze heater for single pump and pipes cooling side
FMC	Antifreeze heater for double pump and pipes cooling side
FGH	Antifreeze heater for single pump and pipes heating side
FMH	Antifreeze heater for double pump and pipes heating side
SS	Soft start
TS	Touch screen Interface
WM	Web Monitoring - Wireless remote monitoring (GPRS/EDGE/3G/TCP-IP)
IS	Modbus RTU protocol, RS485 serial interface
IST	Modbus TCP/IP protocol, Ethernet port
ISB	BACnet MSTP protocol, RS485 serial interface
ISBT	BACnet TCP/IP protocol, Ethernet port
ISL	LonWorks protocol, FTT-10 serial interface
ISS	SNMP protocol, Ethernet port
IAV	Remote set-point, 0-10 V signal
IAA	Remote set-point, 4-20 mA signal
IAS	Remote signal for second set-point activation
IDL	Demand limit from digital input
CP	Potential free contacts

LOOSE ACCESSORIES:

MN	High and low pressure gauges
CR	Remote control panel
RP	Coils protection metallic guards
AG	Rubber shock absorbers
AM	Spring shock absorbers

TECHNICAL DATA - JWA/EP 051÷191 S/K/P

MODEL			051	061	071	081	091	101	111	121	141	171	191
Cooling only	Cooling capacity (1)	kW	48.6	55.9	63.2	72.2	81.8	92.7	105	118	134	159	190
	Absorbed power (1)	kW	16.8	19.3	21.9	24.4	27.9	32.5	38.0	42.3	46.5	57.4	68.5
	EER (1)		2.89	2.90	2.89	2.96	2.93	2.85	2.76	2.79	2.88	2.77	2.77
Cooling only (EN14511)	Cooling capacity (1)	kW	48.3	55.5	62.8	71.7	81.3	92.2	105	117	133	158	189
	Absorbed power (1)	kW	17.1	19.6	22.3	24.9	28.4	33.1	38.5	42.9	47.2	58.3	69.5
	EER (1)		2.82	2.83	2.82	2.88	2.86	2.79	2.73	2.73	2.82	2.71	2.72
	SEER (2)		4.17	4.18	4.17	4.20	4.19	4.16	4.14	4.14	4.17	4.13	4.13
	Energy Efficiency (2)	%	164	164	164	165	165	163	163	163	164	162	162
Heating only	Heating capacity (3)	kW	52.2	59.7	67.0	75.5	86.0	98.4	111	127	142	171	203
	Absorbed power (3)	kW	16.0	18.7	21.2	23.4	26.5	30.0	35.1	39.5	42.8	52.5	61.2
	COP (3)		3.26	3.19	3.16	3.23	3.25	3.28	3.16	3.22	3.32	3.26	3.32
Heating only (EN14511)	Heating capacity (3)	kW	52.5	60.0	67.4	75.9	86.4	98.8	112	128	143	172	204
	Absorbed power (3)	kW	16.3	19.0	21.6	23.9	27.0	30.5	35.7	40.3	43.9	53.7	62.7
	COP (3)		3.22	3.16	3.12	3.18	3.20	3.24	3.14	3.18	3.26	3.20	3.25
	SCOP (4)		3.49	3.46	3.36	3.36	3.38	3.93	3.58	3.53	3.73	3.73	3.75
	Energy Efficiency (4)	%	137	135	131	131	132	154	140	138	146	146	147
	Energy Class (5)		A+	A+	A+	A+	–	–	–	–	–	–	–
Cooling + Heating	Cooling capacity (6)	kW	49.6	56.5	62.9	71.8	83.3	94.0	110	126	140	168	203
	Heating capacity (6)	kW	64.9	73.9	82.5	94.1	109	123	143	163	181	217	261
	Absorbed power (6)	kW	15.3	17.4	19.6	22.3	25.2	29.4	32.6	37.2	40.7	49.0	58.4
	TER (6)		7.48	7.49	7.42	7.44	7.63	7.38	7.76	7.77	7.89	7.86	7.95
Cooling + Heating (EN14511)	Cooling capacity (6)	kW	49.3	56.2	62.5	71.3	82.8	93.4	109	125	139	167	202
	Heating capacity (6)	kW	65.2	74.3	82.9	94.6	110	124	144	164	182	218	262
	Absorbed power (6)	kW	15.6	17.7	20.0	22.8	25.7	30.0	33.1	37.8	41.4	49.8	59.3
	TER (6)		7.34	7.37	7.27	7.28	7.50	7.25	7.64	7.65	7.75	7.73	7.82
Compressor	Quantity	n°	2	2	2	2	2	3	3	3	2	3	3
	Refrigerant circuits	n°	1	1	1	1	1	1	1	1	1	1	1
	Capacity steps	n°			2				3		2	3	
Evaporator - cooling side	Water flow	l/s	2.32	2.67	3.02	3.45	3.91	4.43	5.02	5.64	6.40	7.60	9.08
	Pressure drops	kPa	35	41	53	50	49	51	38	46	50	52	52
	Water connections	"G	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	3"	3"
Condenser - heating side	Water flow	l/s	2.49	2.85	3.20	3.61	4.11	4.70	5.30	6.07	6.78	8.17	9.70
	Pressure drops	kPa	31	35	38	42	40	35	34	42	48	43	45
	Water connections	"G	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	3"	3"
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50										
	Max. running current	A	40	46	54	59	66	77	84	95	100	128	151
	Max. starting current	A	164	166	178	191	234	201	217	263	314	304	359
Unit with pump - cooling side	Pump available static pressure	kPa	150	140	120	115	130	115	115	95	150	135	115
	Water connections	"G	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	3"	3"
Unit with pump - heating side	Pump available static pressure	kPa	150	140	130	120	135	125	115	160	150	135	115
	Water connections	"G	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	3"	3"
ECH fan available static pressure	STD version	Pa	95	100	95	95	95	100	60	50	60	50	50
	SSL version	Pa	70	85	70	70	70	90	50	50	60	50	50
Sound pressure	STD version (7)	dB(A)	63	64	64	65	65	66	68	68	69	70	70
	With SL accessory (7)	dB(A)	61	62	62	63	63	64	66	66	67	68	68
	SSL version (7)	dB(A)	58	59	59	60	60	61	63	63	64	65	65
Weights	Transport weight	Kg	750	760	815	905	925	1030	1055	1085	1295	1500	1545
	Operating weight	Kg	765	775	830	925	950	1060	1085	1115	1335	1545	1595

DIMENSIONS

MODEL			051	061	071	081	091	101	111	121	141	171	191
L	STD	mm	2350	2350	2350	2350	2350	2350	2350	2350	3550	3550	3550
	SSL	mm	2350	2350	2350	2350	2350	3550	3550	3550	3550	4700	4700
W	STD/SSL	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
H	STD/SSL	mm	1920	1920	1920	2220	2220	2220	2220	2220	2220	2220	2220

CLEARANCE AREA

JWA/EP 051÷191 S/K/P

300	800	800	1800

Electrical board side

NOTES

1. Chilled water from 12 to 7 °C, ambient air temperature 35 °C.
2. Seasonal energy efficiency of cooling at low temperature. According to EU Regulation n. 2016/2281.
3. Heated water from 40 to 45 °C, ambient air temperature 7 °C d.b./6 °C w.b.
4. Seasonal energy efficiency of heating at low temperature with average climatic conditions. According to EU Regulation n. 813/2013.
5. Seasonal energy efficiency class of heating at low temperature with average climatic conditions. According to EU Regulation n. 811/2013..
6. Chilled water from 12 to 7 °C, heated water from 40 to 45 °C.
7. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.

N.B. Weights of SSL version are specified on technical brochure.

JWH/WP 4÷40 S/K/P

HEAT PUMPS WITH ROTARY/SCROLL COMPRESSOR AND PLATE EXCHANGERS.

The JWH/WP 4÷40 S/K/P Heat Pumps, with R410A refrigerant, are designed for small and medium domestic or industrial systems which require medium-low power, space-saving units and quiet operation. These units are ideal for indoor installation and, equipped with a self-contained structure, they reduce the overall dimensions to a minimum while making installation and maintenance operations easier.
These units can be combined with Fan Coil units or with intermediate heat exchangers for process cooling applications.
Equipped with prepainted plate structure, Rotary/Scroll compressor and plate exchangers, these units have cooling and hydraulic circuits complete with everything necessary for quick installation and high energy efficiency, even in tank and pump version.
A wide range of accessories, factory fitted or supplied separately, completes the outstanding versatility and functionality of the series.

The units are compliant to the ErP Regulation.

FROM 5 KW TO 49 KW.

VERSION

JWH/WP
Reversible Heat Pump
JWH/WP/SP
Reversible Heat Pump with tank and pump

FEATURES

- Self-supporting prepainted steel frame.
- Rotary/Scroll compressor with internal overheat protection and crankcase heater, if needed.
- Condenser AISI 316 stainless steel braze welded plates type, with pressostatic valve.
- Evaporator AISI 316 stainless steel braze welded plates type, complete with water differential pressure switch.
- R410A refrigerant.
- Electrical board includes: main switch with door lock device, fuses, compressor and pump remote control switch.
- Water circuit for SP version includes: insulated tank, circulating pump, safety valve, gauge and expansion vessel.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES:	
BT	Low water temperature kit
PS	Single circulating pump
FE	Antifreeze heater for evaporator
FA	Antifreeze heater for tank
VV	Pressure valve and solenoid valve (for WP versions)

LOOSE ACCESSORIES:	
CR	Remote control panel
IS	Modbus RTU protocol, RS485 serial interface
AG	Rubber shock absorbers

TECHNICAL DATA - JWH/WP 4÷40 S/K/P

MODEL			4	5	7	8	9	11	14
Cooling	Cooling capacity (1)	kW	4.6	5.8	7.1	8.3	9.6	11.6	14.3
	Absorbed power (1)	kW	1.1	1.4	1.8	2.0	2.3	2.9	3.4
	EER (1)		4.18	4.14	3.94	4.15	4.17	4.00	4.21
Cooling (EN14511)	Cooling capacity (1)	kW	4.6	5.7	7.0	8.2	9.5	11.5	14.2
	Absorbed power (1)	kW	1.2	1.5	2.0	2.2	2.5	3.2	3.7
	EER (1)		3.83	3.70	3.47	3.80	3.78	3.58	3.80
Heating	Heating capacity (2)	kW	5.9	7.2	8.8	10.4	12.5	14.9	17.5
	Absorbed power (2)	kW	1.4	1.7	2.2	2.5	3.0	3.5	4.3
	COP (2)		4.21	4.24	4.00	4.16	4.17	4.26	4.07
Heating (EN14511)	Heating capacity (2)	kW	5.1	6.7	8.4	9.8	11.9	13.7	17.1
	Absorbed power (2)	kW	1.5	1.8	2.5	2.8	3.7	3.9	4.5
	COP (2)		3.38	3.64	3.31	3.51	3.25	3.56	3.81
	SCOP (3)		4.20	4.15	3.85	4.18	4.31	4.38	4.34
	Energy Efficiency (3)	%	160	158	146	159	164	167	166
	Energy Class (4)		A++	A++	A+	A++	A++	A++	A++
Compressor	Type		Rotary				Scroll		
	Quantity	n°	1	1	1	1	1	1	1
Evaporator	Water flow	l/s	0.22	0.28	0.34	0.40	0.46	0.55	0.68
	Pressure drops	kPa	21	30	44	26	30	45	42
	Water connections	"G	1"	1"	1"	1"	1"	1"	1"
Condenser	Water flow	l/s	0.07	0.09	0.11	0.12	0.14	0.17	0.21
	Pressure drops	kPa	3	4	5	6	8	10	5
	Water connections	"G	1"	1"	1"	1"	1"	1"	1"
Electrical characteristics	Power supply	V/Ph/Hz	230/1/50						400/3+N/50
	Max. running current	A	8	10	13	14	16	22	9
	Max. starting current	A	37	43	62	62	75	86	50
Unit SP versions	Water flow	l/s	0.22	0.28	0.34	0.40	0.46	0.55	0.68
	Pump available static pressure	kPa	40	33	38	55	50	35	128
	Tank water volume	l	50	50	50	50	50	50	50
	Water connections	"G	1"	1"	1"	1"	1"	1"	1"
Sound pressure	STD/SP version (5)	dB(A)	39	39	39	39	41	43	43
Weights	Transport weight (6)	Kg	77	78	80	84	87	90	93
	Operating weight (6)	Kg	78	79	81	85	88	91	95

MODEL			16	18	20	24	27	34	40
Cooling	Cooling capacity (1)	kW	17.1	20.0	23.0	27.7	33.6	39.7	49.2
	Absorbed power (1)	kW	4.1	4.8	5.5	6.8	7.9	9.3	11.5
	EER (1)		4.17	4.17	4.18	4.07	4.25	4.27	4.28
Cooling (EN14511)	Cooling capacity (1)	kW	17.0	19.8	22.8	27.5	33.3	39.4	48.8
	Absorbed power (1)	kW	4.4	5.2	6.0	7.4	8.7	10.1	12.1
	EER (1)		3.86	3.79	3.79	3.72	3.83	3.92	4.03
Heating	Heating capacity (2)	kW	20.8	24.3	28.4	33.8	39.8	47.0	59.5
	Absorbed power (2)	kW	5.4	6.1	7.0	8.2	10.1	11.7	14.4
	COP (2)		3.85	3.98	4.06	4.12	3.94	4.02	4.13
Heating (EN14511)	Heating capacity (2)	kW	19.7	22.5	26.3	31.8	37.9	44.5	56.4
	Absorbed power (2)	kW	5.6	6.3	7.2	8.9	10.8	12.4	15.2
	COP (2)		3.50	3.59	3.67	3.56	3.50	3.58	3.71
	SCOP (3)		3.95	4.05	4.05	4.31	3.94	4.18	4.28
	Energy Efficiency (3)	%	150	154	154	164	150	159	163
	Energy Class (4)		A+	A++	A++	A++	A+	A++	A++
Compressor	Type		Scroll						
	Quantity	n°	1	1	1	1	1	1	1
Evaporator	Water flow	l/s	0.82	0.96	1.10	1.32	1.61	1.90	2.35
	Pressure drops	kPa	29	40	47	48	60	49	54
	Water connections	"G	1"	1"	1"	1"	1"	1"	1"
Condenser	Water flow	l/s	0.25	0.30	0.34	0.41	0.50	0.58	0.73
	Pressure drops	kPa	8	10	13	20	21	22	22
	Water connections	"G	1"	1"	1"	1"	1"	1"	1"
Electrical characteristics	Power supply	V/Ph/Hz	400/3+N/50						
	Max. running current	A	11	14	15	18	20	23	29
	Max. starting current	A	71	74	74	142	142	147	197
Unit SP versions	Water flow	l/s	0.82	0.96	1.10	1.32	1.61	1.90	2.35
	Pump available static pressure	kPa	131	100	93	187	160	131	155
	Tank water volume	l	50	50	50	100	100	100	100
	Water connections	"G	1"	1"	1"	1"	1"	1"	1"
Sound pressure	STD/SP version (5)	dB(A)	44	45	47	49	49	50	50
Weights	Transport weight (6)	Kg	96	98	100	190	198	204	218
	Operating weight (6)	Kg	98	100	102	193	201	207	221

DIMENSIONS

MODEL			4	5	7	8	9	11	14	16	18	20	24	27	34	40
L	STD	mm	550	550	550	550	550	550	550	550	550	550	550	550	550	550
	SP	mm	550	550	550	550	550	550	550	550	550	550	1100	1100	1100	1100
W	STD/SP	mm	550	550	550	550	550	550	550	550	550	550	550	550	550	550
H	STD/SP	mm	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200

CLEARANCE AREA

JWH/WP 4÷40 S/K/P

500 | 800 | 800 | 800

JWH/WP/SP 24÷40 S/K/P

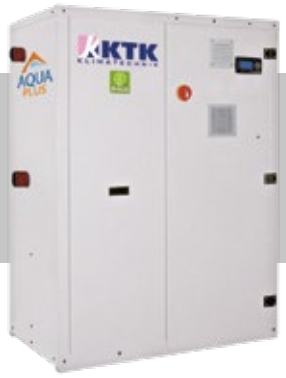
500 | 800 | 800 | 800

Electrical board side

NOTES

1. Chilled water from 12 to 7 °C, water temperature at the condenser from 15 to 35 °C.
2. Heated water from 40 to 45 °C, water temperature at the evaporator from 15 to 10 °C.
3. Seasonal energy efficiency of heating at low temperature with average climatic conditions. According to EU Regulation n. 813/2013.
4. Seasonal energy efficiency class of heating at low temperature with average climatic conditions. According to EU Regulation n. 811/2013..
5. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
6. Unit without tank and pump.

N.B. Weights of WP versions are specified on technical brochure.



JWH 051÷172 S/K/P

WATERCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH SCROLL COMPRESSORS AND PLATE EXCHANGERS.

The JWH 051÷172 S/K/P liquid Chillers and Heat Pumps, with R410A refrigerant, are designed for medium-sized domestic or industrial systems which require medium power, space-saving units and quiet operation. This range is ideal for indoor installation and, equipped with a self-contained structure, it reduces the overall dimensions to a minimum while at the same time making installation and maintenance operations easier. These units are used to remove the heat developed during industrial processes or, combined with Fan Coil units, for the air conditioning of the rooms. They can be supplied with Modbus RTU protocol through RS485 serial interface. Equipped with polyester powder plate painting structure, Scroll compressors and plate exchangers, these units have cooling and hydraulic circuits complete with everything necessary for quick installation and high energy efficiency, even in the version with tank and pump; and a series of accessories, factory fitted or supplied separately, like desuperheater and total heat recovery, rounds off the variety of equipment in this product range.

The units are compliant to the ErP Regulation.

On request, units can be supplied with **R452B JWH (051÷172 S/G/P)** or **R454B (JWH 051÷172 S/L/P)** refrigerant.

FROM 55 KW TO 195 KW.

VERSION

JWH
Cooling only
JWH/WP
Reversible Heat Pump

FEATURES

- Self-supporting galvanized steel frame protected with additional protection achieved via polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Condenser AISI 316 stainless steel braze welded plates type with one circuit on the refrigerant side and one on the water side in 051÷131 models; with two independent circuits on the refrigerant side and one on the water side in 152÷172 models.
- Evaporator AISI 316 stainless steel braze welded plates type with one circuit on the refrigerant side and one on the water side in 051÷131 models; with two independent circuits on the refrigerant side and one on the water side in 152÷172 models, complete with water differential pressure switch.
- R410A refrigerant. On request R452B or R454B refrigerant.
- Electrical board includes: main switch with door safety interlock, fuses, thermal protection relays for compressors, interface relay and terminals for external connections.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES:

IM	Automatic circuit breakers
SL	Unit silencement
RFM	Cooling circuit shut-off valve on discharge line
RFL	Cooling circuit shut-off valve on liquid line
BT	Low water temperature kit
DS	Desuperheater
RT	Total heat recovery
FE	Antifreeze heater for evaporator
FO	Antifreeze heater for tank and pipes
SS	Soft start
IS	Modbus RTU protocol, RS485 serial interface

LOOSE ACCESSORIES:

MN	High and low pressure gauges
CR	Remote control panel
SPU	Inertial tank and single circulating pump
SPD	Inertial tank and double circulating pump
PV2	2-Way electronic pressostatic valve
PV3	3-Way electronic pressostatic valve
AG	Rubber shock absorbers
AM	Spring shock absorbers

TECHNICAL DATA - JWH 051÷172 S/K/P

MODEL			051	061	071	081	091	101	111	131	152	172
Cooling	Cooling capacity (1)	kW	55.4	62.5	72.1	82.5	97.2	112	130	149	170	195
	Absorbed power (1)	kW	12.8	14.3	16.6	18.7	21.8	25.7	28.5	32.8	37.7	43.7
	EER (1)		4.33	4.37	4.34	4.41	4.46	4.36	4.56	4.54	4.51	4.46
Cooling (EN14511)	Cooling capacity (1)	kW	55.0	62.1	71.6	82.0	96.7	111	129	148	169	194
	Absorbed power (1)	kW	13.6	15.3	17.6	19.9	22.9	27.3	29.9	34.3	39.3	45.6
	EER (1)		4.04	4.06	4.06	4.13	4.22	4.08	4.33	4.32	4.31	4.26
	SEER (2)		5.28	5.21	5.22	5.21	5.64	5.20	5.72	6.17	5.78	6.16
	Energy Efficiency (2)	%	203	200	201	200	218	200	221	239	223	238
Heating	Heating capacity (3)	kW	72.5	80.1	93.3	105	121	140	159	180	205	237
	Absorbed power (3)	kW	18.0	20.0	23.2	25.7	28.8	33.2	38.4	42.7	51.7	56.7
	COP		4.03	4.01	4.02	4.09	4.20	4.22	4.14	4.22	3.97	4.18
Heating (EN14511)	Heating capacity (3)	kW	72.8	80.6	93.4	105	122	141	159	180	205	237
	Absorbed power (3)	kW	18.3	20.5	23.3	26.1	29.4	33.9	38.5	42.8	51.8	56.9
	COP (3)		3.98	3.94	4.01	4.04	4.14	4.15	4.13	4.21	3.96	4.17
	SCOP (4)		4.29	4.03	4.77	5.15	5.11	5.05	5.37	5.31	4.76	4.76
	Energy Efficiency (4)	%	164	153	183	198	196	194	207	204	182	182
Compressor	Quantity	n°	2	2	2	2	2	3	3	3	4	4
	Refrigerant circuits	n°	1	1	1	1	1	1	1	1	2	2
	Capacity steps	n°	2					3			4	
Evaporator	Water flow	l/s	2.65	2.99	3.44	3.94	4.64	5.38	6.23	7.14	8.12	9.33
	Pressure drops	kPa	54	48	49	51	44	57	53	59	49	48
	Water connections	"G	1 ¼"	1 ¼"	1 ¼"	1 ¼"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
Condenser	Water flow	l/s	3.26	3.67	4.24	4.84	5.69	6.60	7.59	8.71	9.92	11.41
	Pressure drops	kPa	47	51	52	43	46	54	36	39	43	48
	Water connections	"G	1 ¼"	1 ¼"	1 ¼"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50									
	Max. running current	A	33	39	43	49	60	64	73	90	98	120
	Max. starting current	A	128	137	139	164	204	161	189	234	213	264
Unit with tank and pump	Pump available static pressure	kPa	100	100	90	130	115	120	105	75	110	65
	Tank water volume	l	300	300	300	300	300	300	300	300	300	300
	Water connections	"G	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
Sound pressure	STD version (5)	dB(A)	59	59	60	60	62	61	61	63	64	64
	With SL accessory (5)	dB(A)	56	56	57	57	59	58	58	60	61	61
Weights	Transport weight (6)	Kg	384	393	411	423	453	622	658	681	767	803
	Operating weight (6)	Kg	390	400	420	435	470	640	680	705	790	830

DIMENSIONS

MODEL			051	061	071	081	091	101	111	131	152	172
UNIT	L	mm	1200	1200	1200	1200	1200	2285	2285	2285	2285	2285
	W	mm	680	680	680	680	680	680	680	680	680	680
	H	mm	1520	1520	1520	1520	1520	1520	1520	1520	1520	1520
UNIT + SPU/SPD	L	mm	2310	2310	2310	2310	2310	3395	3395	3395	3395	3395
	W	mm	680	680	680	680	680	680	680	680	680	680
	H	mm	1520	1520	1520	1520	1520	1520	1520	1520	1520	1520

CLEARANCE AREA

JWH 051÷172 S/K/P

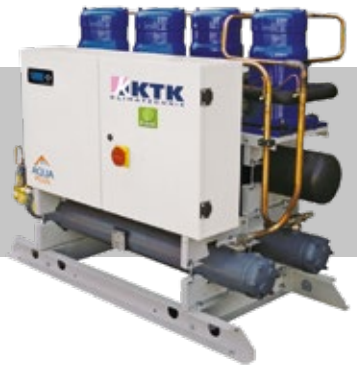
0	300	800	300

NOTES

1. Chilled water from 12 to 7 °C, water temperature at the condenser from 30 to 35 °C.
2. Seasonal energy efficiency of cooling at medium temperature. According to EU Regulation n. 2016/2281.
3. Heated water from 40 to 45 °C, water temperature at the evaporator from 15 to 10 °C.
4. Seasonal energy efficiency of heating at low temperature with average climatic conditions. According to EU Regulation n. 813/2013.
5. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
6. Unit without tank and pump.

N.B. Weights of WP version are specified on technical brochure.

Electrical board side



JWH 051÷172 S/K

WATERCOOLED LIQUID CHILLERS AND HEAT PUMPS WITH SCROLL COMPRESSORS AND SHELL AND TUBE EXCHANGERS.

AQUA PLUS

The JWH 051÷172 S/K liquid Chillers and Heat Pumps, with R410A refrigerant, are designed for medium-sized domestic or industrial systems which require medium power, space-saving units and quiet operation. This range is ideal for indoor installation and, equipped with a self-contained structure, it reduces the overall dimensions to a minimum while at the same time making installation and maintenance operations easier. These units are used to remove the heat developed during industrial processes or, combined with Fan Coil units, for the air conditioning of the rooms. They can be supplied with Modbus RTU protocol through RS485 serial interface. Equipped with Scroll compressors and shell and tube exchangers, these units have cooling and hydraulic circuits complete with everything necessary for quick installation and high energy efficiency, even in the version with tank and pump; a series of accessories, factory fitted or supplied separately, like desuperheater and total heat recovery, rounds off the variety of equipment in this product range.

The units are compliant to the ErP Regulation.

On request, units can be supplied with **R452B (JWH 051÷172 S/G)** or **R454B (JWH 051÷172 S/L)** refrigerant.

FROM 57 KW TO 196 KW.

VERSION

JWH
Cooling only
JWH/WP
Reversible Heat Pump
JWH/SSL
Super silenced cooling only
JWH/WP/SSL
Super silenced reversible Heat Pump

FEATURES

- Self-supporting galvanized steel frame protected with additional protection achieved via polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Shell and tube type condenser with one circuit on the refrigerant side and one on the water side in 051÷131 models; with two independent circuits on the refrigerant side and one on the water side in 152÷172 models.
- Shell and tube type evaporator with one circuit on the refrigerant side and one on the water side in 051÷131 models; with two independent circuits on the refrigerant side and one on the water side in 152÷172 models, complete with water differential pressure switch.
- R410A refrigerant. On request R452B or R454B refrigerant.
- Electrical board includes: main switch with door safety interlock, fuses, thermal protection relays for compressors, interface relay and terminals for external connections.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES:

IM	Automatic circuit breakers
SL	Unit silencement
RFM	Cooling circuit shut-off valve on discharge line
RFL	Cooling circuit shut-off valve on liquid line
BT	Low water temperature kit
HR	Desuperheater
HRT	Total heat recovery
SP	Inertial tank
SPU	Inertial tank and single circulating pump
SPD	Inertial tank and double circulating pump
FE	Antifreeze heater for evaporator
FB	Antifreeze heater for evaporator and tank
FU	Antifreeze heater for evaporator, tank, single pump and pipes
FD	Antifreeze heater for evaporator, tank, double pump and pipes
SS	Soft start
IS	Modbus RTU protocol, RS485 serial interface

LOOSE ACCESSORIES:

MN	High and low pressure gauges
CR	Remote control panel
PV2	2-Way electronic pressostatic valve
PV3	3-Way electronic pressostatic valve
AG	Rubber shock absorbers
AM	Spring shock absorbers
FL	Flow switch

TECHNICAL DATA - JWH 051÷172 S/K

MODEL			051	061	071	081	091	101	111	131	152	172
Cooling	Cooling capacity (1)	kW	57.0	62.6	70.9	82.9	98.3	111	129	151	172	196
	Absorbed power (1)	kW	13.2	14.3	16.4	18.9	22.0	25.7	28.2	33.1	38.2	44.1
	EER (1)		4.32	4.38	4.32	4.39	4.47	4.32	4.57	4.56	4.50	4.44
Cooling (EN14511)	Cooling capacity (1)	kW	56.7	62.2	70.4	82.2	97.6	110	128	150	171	195
	Absorbed power (1)	kW	13.7	14.9	17.2	19.9	23.1	26.9	29.4	34.5	39.7	45.7
	EER (1)		4.14	4.17	4.10	4.14	4.23	4.10	4.36	4.36	4.31	4.27
	SEER (2)		5.21	5.22	5.21	5.22	5.71	5.22	5.74	6.21	5.83	6.19
	Energy Efficiency (2)	%	200	201	200	201	220	201	222	240	225	240
Heating	Heating capacity (3)	kW	74.6	80.3	91.7	106	122	139	158	182	208	238
	Absorbed power (3)	kW	18.6	20.0	22.9	26.0	29.1	33.2	38.0	43.1	52.3	57.3
	COP		4.01	4.02	4.00	4.08	4.19	4.19	4.16	4.22	3.98	4.15
Heating (EN14511)	Heating capacity (3)	kW	75.1	80.9	92.5	106	123	140	159	183	210	239
	Absorbed power (3)	kW	19.3	20.9	24.0	27.1	30.6	34.8	39.6	44.8	54.4	59.4
	COP (3)		3.89	3.88	3.86	3.92	4.03	4.03	4.02	4.08	3.85	4.03
	SCOP (4)		4.16	4.39	4.39	4.53	4.62	4.57	4.85	4.64	4.72	4.84
	Energy Efficiency (4)	%	158	168	168	173	177	175	186	178	181	186
Compressor	Quantity	n°	2	2	2	2	2	3	3	3	4	4
	Refrigerant circuits	n°	1	1	1	1	1	1	1	1	2	2
	Capacity steps	n°	2					3			4	
Evaporator	Water flow	l/s	2.72	2.99	3.39	3.96	4.70	5.30	6.16	7.21	8.22	9.36
	Pressure drops	kPa	32	42	55	74	62	55	57	49	63	49
	Water connections	"G	1 ½"	1 ½"	2"	2"	2"	2 ½"	2 ½"	3"	3"	3"
Condenser	Water flow	l/s	3.35	3.67	4.17	4.86	5.75	6.53	7.51	8.80	10.04	11.47
	Pressure drops	kPa	15	17	18	20	27	33	23	30	20	27
	Water connections	"G	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50									
	Max. running current	A	33	39	43	49	60	64	73	90	98	120
	Max. starting current	A	128	137	139	164	204	161	189	234	213	264
Unit with tank and pump	Pump available static pressure	kPa	150	145	130	140	110	165	165	140	135	105
	Tank water volume	l	470	470	470	470	470	470	470	470	660	660
	Water connections	"G	2"	2"	2"	2"	2"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
Sound pressure	STD version (5)	dB(A)	59	59	61	60	62	62	63	65	65	65
	With SL accessory (5)	dB(A)	56	56	58	57	58	59	60	62	62	62
	SSL version (5)	dB(A)	54	54	56	56	57	57	59	60	60	60
Weights	Transport weight (6)	Kg	465	470	478	488	504	590	606	657	840	856
	Operating weight (6)	Kg	495	500	510	520	540	630	650	710	900	920

DIMENSIONS

MODEL			051	061	071	081	091	101	111	131	152	172
L	STD/SSL	mm	2100	2100	2300	2100	2700	2400	2400	2400	2400	2600
W	STD/SSL	mm	830	830	830	830	830	830	830	830	830	830
H	STD/SSL	mm	1300	1300	1300	1300	1300	1300	1300	1300	1450	1450

CLEARANCE AREA

JWH 051÷172 S/K

500	500	800	1500

NOTES

1. Chilled water from 12 to 7 °C, water temperature at the condenser from 30 to 35 °C.
2. Seasonal energy efficiency of cooling at medium temperature. According to EU Regulation n. 2016/2281.
3. Heated water from 40 to 45 °C, water temperature at the evaporator from 15 to 10 °C.
4. Seasonal energy efficiency of heating at low temperature with average climatic conditions. According to EU Regulation n. 813/2013.
5. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
6. Unit without tank and pump.

N.B. Weights of SSL and WP versions are specified on technical brochure.

Electrical board side

JEE 4÷40 S/K/P

CONDENSERLESS LIQUID CHILLERS AND HEAT PUMPS WITH ROTARY/SCROLL COMPRESSOR AND PLATE EXCHANGER.

The liquid Chillers and Heat Pumps for remote condensation of the JEE 4÷40 S/K/P series, with R410A refrigerant, are designed for domestic or service sector systems which require medium power, space-saving units and quiet operation. Combined with remote condenser, these units are ideal for indoor installation and, equipped with a self-contained structure, they reduce the overall dimensions to a minimum while at the same time making installation and maintenance operations easier. Equipped with prepainted plate structure, Rotary/Scroll compressor and plate exchanger, these units have cooling and hydraulic circuits designed for quick installation and high energy efficiency, even in the version with tank and pump.
A wide range of accessories, factory fitted or supplied separately, completes the outstanding versatility and functionality of the series.

FROM 4 KW TO 42 KW.

VERSION

JEE
Cooling only
JEE/WP
Reversible Heat Pump
JEE/SP
Cooling only with tank and pump
JEE/WP/SP
Reversible Heat Pump with tank and pump

FEATURES

- Self-supporting prepainted steel frame.
- Rotary/Scroll compressor with internal overheat protection and crankcase heater, if needed.
- Evaporator AISI 316 stainless steel braze welded plates type, complete with water differential pressure switch.
- R410A refrigerant.
- Electrical board includes: main switch with door lock device, fuses, compressor and pump remote control switch.
- Water circuit for SP version includes: insulated tank, circulating pump, safety valve, gauge and expansion vessel.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES:

BT	Low water temperature kit
PS	Single circulating pump
RL	Liquid receiver
FE	Antifreeze heater for evaporator
FA	Antifreeze heater for tank

LOOSE ACCESSORIES:

CR	Remote control panel
IS	Modbus RTU protocol, RS485 serial interface
AG	Rubber shock absorbers

TECHNICAL DATA - JEE 4÷40 S/K/P

MODEL			4	5	7	8	9	11	14
Cooling	Cooling capacity (1)	kW	4.0	5.1	6.2	7.3	8.5	10.1	12.1
	Absorbed power (1)	kW	1.4	1.8	2.1	3.0	3.3	3.7	3.3
Heating	Heating capacity (2)	kW	5.1	6.4	8.2	9.4	10.7	13.2	15.5
	Absorbed power (2)	kW	1.5	1.9	2.4	2.7	3.0	4.2	4.5
Compressor	Type		Rotary				Scroll		
	Quantity	n°	1	1	1	1	1	1	1
Evaporator	Water flow	l/s	0.19	0.24	0.30	0.35	0.41	0.48	0.58
	Pressure drops	kPa	15	15	20	18	20	25	35
	Water connections	"G	1"	1"	1"	1"	1"	1"	1"
Connections	Delivery line	Ø mm	12	12	12	12	12	12	16
	Liquid line	Ø mm	10	10	10	10	10	10	12
Electrical characteristics	Power supply	V/Ph/Hz	230/1/50						400/3+N/50
	Max. running current	A	8	10	13	14	16	22	9
	Max. starting current	A	37	43	62	62	75	86	50
Unit SP versions	Water flow	l/s	0.19	0.24	0.30	0.35	0.41	0.48	0.58
	Pump available static pressure	kPa	50	45	75	70	70	60	180
	Tank water volume	l	50	50	50	50	50	50	50
	Water connections	"G	1"	1"	1"	1"	1"	1"	1"
Sound pressure	STD/SP version (3)	dB(A)	39	39	39	39	41	43	43
Weights	Transport weight (4)	Kg	74	75	77	81	84	87	86
	Operating weight (4)	Kg	75	76	78	82	85	88	88

MODEL			16	18	20	24	27	34	40
Cooling	Cooling capacity (1)	kW	14.5	17.0	20.0	24.1	28.8	33.9	41.5
	Absorbed power (1)	kW	5.2	6.0	7.1	7.8	9.3	10.9	13.3
Heating	Heating capacity (2)	kW	18.5	22.0	25.9	30.4	36.4	43.0	53.2
	Absorbed power (2)	kW	5.5	6.5	7.7	8.3	10.1	11.7	14.2
Compressor	Type		Scroll						
	Quantity	n°	1	1	1	1	1	1	1
Evaporator	Water flow	l/s	0.69	0.81	0.96	1.15	1.38	1.62	1.98
	Pressure drops	kPa	28	35	39	40	45	40	40
	Water connections	"G	1"	1"	1"	1"	1"	1"	1"
Connections	Delivery line	Ø mm	16	16	16	22	22	22	22
	Liquid line	Ø mm	12	12	12	12	12	12	16
Electrical characteristics	Power supply	V/Ph/Hz	400/3+N/50						
	Max. running current	A	11	14	15	18	20	23	29
	Max. starting current	A	71	74	74	142	142	147	197
Unit SP versions	Water flow	l/s	0.69	0.81	0.96	1.15	1.38	1.62	1.98
	Pump available static pressure	kPa	170	140	110	215	130	155	235
	Tank water volume	l	50	50	50	100	100	100	100
	Water connections	"G	1"	1"	1"	1"	1"	1"	1"
Sound pressure	STD/SP version (3)	dB(A)	44	45	47	49	49	50	50
Weights	Transport weight (4)	Kg	89	91	93	183	189	195	206
	Operating weight (4)	Kg	91	93	95	186	192	198	209

DIMENSIONS

MODEL			4	5	7	8	9	11	14	16	18	20	24	27	34	40
L	STD	mm	550	550	550	550	550	550	550	550	550	550	550	550	550	550
	SP	mm	550	550	550	550	550	550	550	550	550	550	1100	1100	1100	1100
W	STD/SP	mm	550	550	550	550	550	550	550	550	550	550	550	550	550	550
H	STD/SP	mm	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200

CLEARANCE AREA

JEE 4÷40 S/K/P

500 | 800 | 800 | 800

JEE/SP 24÷40 S/K/P

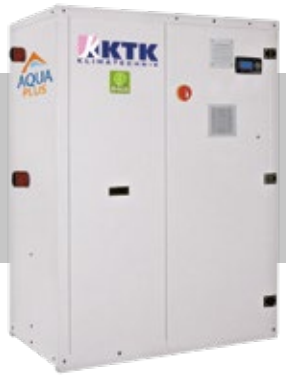
500 | 800 | 800 | 800

Electrical board side

NOTES

1. Chilled water from 12 to 7 °C, condensing temperature 50 °C.
2. Heated water from 40 to 45 °C, evaporating temperature 0 °C.
3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
4. Unit without tank and pump.

N.B. Weights of WP versions are specified on technical brochure.



JEE 051÷172 S/K/P

CONDENSERLESS LIQUID CHILLERS AND HEAT PUMPS WITH SCROLL COMPRESSORS AND PLATE EXCHANGER.

JEE 051÷172 S/K/P series liquid Chillers and Heat Pumps for remote condensation, with R410A refrigerant, are designed to meet the needs of residential or industrial-type systems requiring high power together with space-saving and quiet operation. These units are ideal for indoor installation and, equipped with a self-contained structure, minimise overall dimensions while also facilitating installation and maintenance operations. Equipped with polyester plate powder painting structure, Scroll compressors and plate exchanger they have refrigerant and hydraulic circuits, even in the version with tank, with pump or tank and pump, complete with everything necessary for quick installation operations and for high energy efficiencies. A number of accessories, factory fitted or supplied separately, such as the desuperheater or the total heat recovery, enhance and complete the equipment of this range.

FROM 51 KW TO 176 KW.

VERSION

JEE
Cooling only
JEE/WP
Reversible Heat Pump

FEATURES

- Self-supporting galvanized steel frame protected with additional protection achieved via polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Evaporator AISI 316 stainless steel braze welded plates type with one circuit on the refrigerant side and one on the water side in 051÷131 models; with two independent circuits on the refrigerant side and one on the water side in 152÷172 models, complete with water differential pressure switch.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, fuses, thermal protection relays for compressors, interface relay and terminals for external connections.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES:

IM	Automatic circuit breakers
SL	Unit silencement
RFM	Cooling circuit shut-off valve on discharge line
RFL	Cooling circuit shut-off valve on liquid line
BT	Low water temperature kit
DS	Desuperheater
RT	Total heat recovery
FE	Antifreeze heater for evaporator
FO	Antifreeze heater for tank and pipes
SS	Soft start
IS	Modbus RTU protocol, RS485 serial interface

LOOSE ACCESSORIES:

MN	High and low pressure gauges
CR	Remote control panel
SPU	Inertial tank and single circulating pump
SPD	Inertial tank and double circulating pump
AG	Rubber shock absorbers
AM	Spring shock absorbers

TECHNICAL DATA - JEE 051÷172 S/K/P

MODEL			051	061	071	081	091	101	111	131	152	172
Cooling	Cooling capacity (1)	kW	50.8	57.1	64.3	73.6	87.1	98.8	114	134	149	176
	Absorbed power (1)	kW	15.4	17.3	19.0	21.6	25.8	29.4	32.9	38.7	43.5	51.5
Heating	Heating capacity (2)	kW	59.5	65.8	74.3	84.7	96.5	107	122	148	157	194
	Absorbed power (2)	kW	18.0	20.0	22.3	24.7	27.8	32.8	37.2	41.1	50.8	56.5
Compressor	Quantity	n°	2	2	2	2	2	3	3	3	4	4
	Refrigerant circuits	n°	1	1	1	1	1	1	1	1	2	2
	Capacity steps	n°	2					3			4	
Evaporator	Water flow	l/s	2.43	2.73	3.07	3.52	4.16	4.72	5.42	6.41	7.10	8.41
	Pressure drops	kPa	47	42	41	42	40	48	44	51	41	40
	Water connections	"G	1 ¼"	1 ¼"	1 ¼"	1 ¼"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
Connections	Delivery line	Ø mm	28	28	28	28	28	28	28	28	2 x 28	2 x 28
	Liquid line	Ø mm	22	22	22	22	22	22	22	22	2 x 22	2 x 22
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50									
	Max. running current	A	33	39	43	49	60	64	73	90	98	120
	Max. starting current	A	128	137	139	164	204	161	189	234	213	264
Unit with tank and pump	Pump available static pressure	kPa	105	110	100	135	120	130	120	110	120	100
	Tank water volume	l	300	300	300	300	300	300	300	300	300	300
	Water connections	"G	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"	2 ½"
Sound pressure	STD version (3)	dB(A)	59	59	60	60	62	61	61	63	64	64
	With SL accessory (3)	dB(A)	56	56	57	57	59	58	58	60	61	61
Weights	Transport weight (4)	Kg	347	357	376	386	397	562	581	595	669	708
	Operating weight (4)	Kg	350	360	380	390	405	570	590	605	680	720

DIMENSIONS

MODEL			051	061	071	081	091	101	111	131	152	172
UNIT	L	mm	1200	1200	1200	1200	1200	2285	2285	2285	2285	2285
	W	mm	680	680	680	680	680	680	680	680	680	680
	H	mm	1520	1520	1520	1520	1520	1520	1520	1520	1520	1520
UNIT + SPU/SPD	L	mm	2310	2310	2310	2310	2310	3395	3395	3395	3395	3395
	W	mm	680	680	680	680	680	680	680	680	680	680
	H	mm	1520	1520	1520	1520	1520	1520	1520	1520	1520	1520

CLEARANCE AREA

JEE 051÷172 S/K/P

0	300	800	300

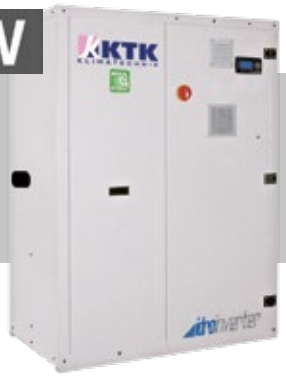
NOTES

1. Chilled water from 12 to 7 °C, condensing temperature 50 °C.
2. Heated water from 40 to 45 °C, evaporating temperature 0 °C.
3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
4. Unit without tank and pump.

N.B. Weights of WP version are specified on technical brochure.

Electrical board side

NEW



JWH 081÷171 VV/H/P/A

A CLASS ENERGY EFFICIENCY WATERCOOLED LIQUID CHILLERS WITH (INVERTER) SCREW COMPRESSOR AND PLATE EXCHANGERS.

idroinverter

The liquid Chillers of the JWH 081÷171 VV/H/P/A series, with A CLASS energy efficiency and **HFO-R1234ze** refrigerant, are designed to satisfy the needs of the service sector or industrial systems requiring high power.
The latest generation refrigerant HFO-R1234ze, with GWP<1 (Global Warming Potential), is the most environmentally sustainable refrigerant on the market, and meets the strictest international environmental regulations.
Equipped with latest generation Screw compressor and plate exchangers, these units have a series of accessories which are factory fitted or supplied separately. Designed and produced to optimize the layout of each component so as to make any necessary maintenance operations more convenient, these units have an essential and compact structure intended for indoor installation. Furthermore, accessories as the Inverter control on one compressor is also available for getting the highest efficiency at part load and a significant reduction of starting current.

The units are compliant to the ErP 2021 Regulation.

FROM 86 KW TO 189 KW.

VERSION

JWH
Cooling only
JWH/SSL
Super silenced cooling only

FEATURES

- Self-supporting galvanized steel frame protected with additional protection achieved via polyester powder painting.
- Screw compressor with built-in oil separator, suction filter, crankcase heater, oil sight glass, thermal protection and stepless capacity steps.
- Condenser AISI 316 stainless steel braze welded plates type with one circuit on the refrigerant side and one on the water side.
- Evaporator AISI 316 stainless steel braze welded plates type with one circuit on the refrigerant side and one on the water side, complete with water differential pressure switch.
- Cooling circuit shut-off valves on discharge and liquid line.
- Electronic expansion valve.
- Electronic high and low pressure gauges.
- HFO-R1234ze refrigerant.
- Electrical board includes: main switch with door safety interlock, fuses, thermal protection relay for compressor.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES:

IM	Automatic circuit breakers
BT	Low water temperature kit
RT	Total heat recovery
FE	Antifreeze heater for evaporator
FO	Antifreeze heater for tank and pipes
IQ	Inverter on one compressor
SS	Soft start
DP	Device for heat pump operation
HTW	Device for high temperature hot water production.
WM	Web Monitoring - Wireless remote monitoring (GPRS/EDGE/3G/TCP-IP)
IS	Modbus RTU protocol, RS485 serial interface
IST	Modbus TCP/IP protocol, Ethernet port
ISB	BACnet MSTP protocol, RS485 serial interface
ISBT	BACnet TCP/IP protocol, Ethernet port
ISL	LonWorks protocol, FTT-10 serial interface
ISS	SNMP protocol, Ethernet port
IAV	Remote set-point, 0-10 V signal
IAA	Remote set-point, 4-20 mA signal
IAS	Remote signal for second set-point activation
IDL	Demand limit from digital input
CP	Potential free contacts

LOOSE ACCESSORIES:

MN	High and low pressure gauges
CR	Remote control panel
SPU	Inertial tank and single circulating pump
SPD	Inertial tank and double circulating pump
PV2	2-Way electronic pressostatic valve
PV3	3-Way electronic pressostatic valve
AG	Rubber shock absorbers
AM	Spring shock absorbers

TECHNICAL DATA - JWH 081÷171 VV/H/P/A

MODEL			081	101	131	171
Cooling	Cooling capacity (1)	kW	86.4	115	152	189
	Absorbed power (1)	kW	16.8	21.7	28.9	35.2
	EER (1)		5.14	5.3O	5.26	5.37
Cooling (EN14511)	Cooling capacity (1)	kW	86.3	115	152	189
	Absorbed power (1)	kW	17.0	22.0	29.3	36.0
	EER (1)		5.08	5.23	5.19	5.25
	SEER (2)		5.51	5.49	5.55	5.60
	Energy Efficiency (2)	%	212	212	214	216
Compressor	Quantity	n°	1	1	1	1
	Refrigerant circuits	n°	1	1	1	1
	Capacity steps	n°	Stepless			
Evaporator	Water flow	l/s	4.13	5.49	7.26	9.03
	Pressure drops	kPa	13	14	13	15
	Water connections	"G	2 ½"	2 ½"	3"	3"
Condenser	Water flow	l/s	4.93	6.52	8.60	10.66
	Pressure drops	kPa	12	11	12	19
	Water connections	"G	2 ½"	2 ½"	3"	3"
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50			
	Max. running current	A	93	92	122	141
	Max. starting current	A	172	183	268	317
Unit with tank and pump	Pump available static pressure	kPa	165	125	125	80
	Tank water volume	l	300	300	300	300
	Water connections	"G	2 ½"	2 ½"	3"	3"
Sound pressure	STD version (3)	dB(A)	74	75	75	76
	SSL version (3)	dB(A)	70	71	71	72
Weights	Transport weight (4)	Kg	922	1189	1390	1506
	Operating weight (4)	Kg	960	1280	1490	1610

DIMENSIONS

MODEL			081	101	131	171
L	UNIT	mm	2800	2800	2800	2800
	UNIT + SPU/SPD	mm	3910	3910	3910	3910
W	UNIT	mm	730	730	730	730
	UNIT + SPU/SPD	mm	730	730	730	730
H	UNIT	mm	1620	1620	1620	1620
	UNIT + SPU/SPD	mm	1620	1620	1620	1620

CLEARANCE AREA

JWH 081÷171 VV/H/P/A

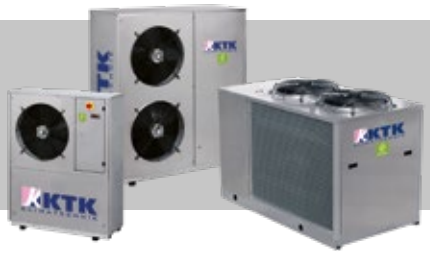
0	300	800	300

NOTES

1. Chilled water from 12 to 7 °C, water temperature at the condenser from 30 to 35 °C.
2. Seasonal energy efficiency of cooling at low temperature. According to EU Regulation n. 2016/2281.
3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.
4. Unit without tank and pump.

N.B. Weights of SSL version are specified on technical brochure.

Electrical board side



JCA 4÷40 S/K

AIRCOOLED CONDENSING UNITS AND REVERSIBLE CONDENSING UNITS WITH AXIAL FANS AND ROTARY/SCROLL COMPRESSOR.

The condensing units and reversible condensing units of the JCA 4÷40 S/K series, with R410A refrigerant, are designed for small and medium-sized domestic or industrial systems.
With a peraluman structure, these outdoor units are combined with evaporators in split system air conditioning installations, allowing the rooms to be cooled and dehumidified or to be heated. They can also be used in combination with hydronic evaporating units, generally in air conditioning applications. They are equipped with Rotary/Scroll compressors and axial fans, and they enable immediate and efficient use thanks to particular technical and design adjustments.
A wide range of accessories, factory fitted or supplied separately, completes the outstanding versatility and functionality of the series.

FROM 4.5 KW TO 46 KW.

VERSION

JCA
Cooling only
JCA/WP
Reversible Heat Pump

FEATURES

- Structure with supporting frame, in peraluman and galvanized sheet.
- Rotary/Scroll compressor with internal overheat protection and crankcase heater, if needed.
- Axial fans with low ventilation and special wing profile, directly coupled to external rotor motors.
- Condenser in copper tubes and aluminium finned coil complete with drain pan for WP version only (4÷20).
- R410A refrigerant.
- Electrical board includes: main switch with door lock device, fuses and compressor remote control switch.
- Microprocessor control and regulation system (WP only).

ACCESSORIES

FACTORY FITTED ACCESSORIES:	
CC	Condensing control down to -20 °C
TX	Coil with pre-coated fins
RL	Liquid receiver
VS	Solenoid valve

LOOSE ACCESSORIES:	
RP	Coils protection metallic guards
FP	Coils protection metallic guards with filter
AG	Rubber shock absorbers

TECHNICAL DATA - JCA 4÷40 S/K

MODEL			4	5	7	8	9	11	14
Cooling	Cooling capacity (1)	kW	4.5	5.6	6.8	8.0	9.2	10.8	13.2
	Absorbed power (1)	kW	1.4	1.8	2.1	2.5	2.9	3.7	4.1
Heating	Heating capacity (2)	kW	4.8	5.9	7.3	8.4	9.7	11.3	13.7
	Absorbed power (2)	kW	1.5	1.9	2.3	2.6	3.0	3.8	4.2
Compressor	Quantity	n°	1	1	1	1	1	1	1
	Type		Rotary				Scroll		
Connections	Suction line	Ø mm	16	16	16	16	16	16	18
	Liquid line	Ø mm	10	10	10	10	10	10	12
Electrical characteristics	Power supply	V/Ph/Hz	230/1/50						400/3+N/50
	Max. running current	A	7	9	11	11	15	18	7
	Max. starting current	A	37	43	62	62	79	86	58
Sound pressure (3)		dB(A)	49	50	49	51	53	54	54
Weights	Transport weight	Kg	81	83	83	87	90	92	109
	Operating weight	Kg	82	84	84	88	91	93	111

MODEL			16	18	20	24	27	34	40
Cooling	Cooling capacity (1)	kW	15.8	19.1	21.2	26.4	30.9	36.6	45.9
	Absorbed power (1)	kW	5.1	6.2	7.1	8.6	9.2	11.5	14.2
Heating	Heating capacity (2)	kW	16.8	19.9	22.0	27.4	33.2	40.9	51.9
	Absorbed power (2)	kW	5.3	6.4	7.3	8.8	9.8	11.9	15.2
Compressor	Quantity	n°	1	1	1	1	1	1	1
	Type		Scroll						
Connections	Suction line	Ø mm	18	22	22	28	28	28	28
	Liquid line	Ø mm	12	12	12	12	12	12	16
Electrical characteristics	Power supply	V/Ph/Hz	400/3+N/50						
	Max. running current	A	10	10	12	23	29	30	39
	Max. starting current	A	61	58	74	142	147	142	167
Sound pressure (3)		dB(A)	54	55	56	59	61	61	61
Weights	Transport weight	Kg	111	113	115	218	232	252	266
	Operating weight	Kg	114	116	118	221	235	256	271

DIMENSIONS

MODEL			4	5	7	8	9	11	14	16	18	20	24	27	34	40
L	STD	mm	870	870	870	870	870	870	1160	1160	1160	1160	1850	1850	1850	1850
W	STD	mm	320	320	320	320	320	320	500	500	500	500	1000	1000	1000	1000
H	STD	mm	1100	1100	1100	1100	1100	1100	1270	1270	1270	1270	1300	1300	1300	1300

CLEARANCE AREA

JCA 4÷11 S/K

200 | 200 | 800 | 200

JCA 14÷20 S/K

200 | 200 | 800 | 200

JCA 24÷40 S/K

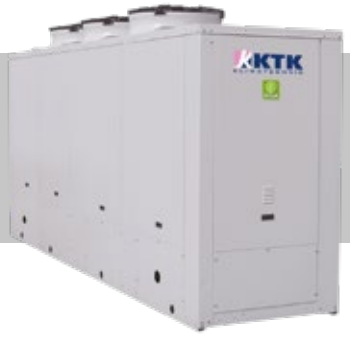
500 | 800 | 800 | 800

Electrical board side

NOTES

1. Average evaporating temperature 5 °C, ambient air temperature 35 °C.
2. Average condensing temperature 40 °C, ambient air temperature 7 °C d.b./6 °C w.b.
3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.

N.B. Weights of WP version are specified on technical brochure.



JCA 051÷172 S/K

AIRCOOLED CONDENSING UNITS AND REVERSIBLE CONDENSING UNITS WITH AXIAL FANS AND SCROLL COMPRESSORS.

The condensing units and reversible condensing units of the JCA 051÷172 S/K series, with R410A refrigerant, are designed to satisfy the needs of medium and large-sized domestic or industrial systems.
These outdoor units are combined with evaporators in split system air conditioning installations, allowing the rooms to be cooled and dehumidified or to be heated. They can also be used in combination with hydronic evaporating units in both air conditioning and industrial process cooling applications. They are equipped with Scroll compressors and axial fans, and they enable immediate and efficient use thanks to particular technical and design adjustments.
A wide range of accessories, factory fitted or supplied separately, completes the outstanding versatility and functionality of the series.

FROM 51 KW TO 188 KW.

VERSION

JCA
Cooling only
JCA/WP
Reversible Heat Pump
JCA/SSL
Super silenced cooling only
JCA/WP/SSL
Super silenced reversible Heat Pump

FEATURES

- Self-supporting galvanized steel frame protected with additional protection achieved via polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Axial fans directly coupled to an electric motor with external rotor.
- Condenser made of copper tubes and aluminium finned coil.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, fuses, thermal protection relays for compressors and thermocontacts for fans.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES:

IM	Automatic circuit breakers
SL	Unit silencement
RFM	Cooling circuit shut-off valve on discharge line
RFL	Cooling circuit shut-off valve on liquid line
CT	Condensing control down to 0 °C
CC	Condensing control down to -20 °C
EC	EC Inverter fans
TX	Coil with pre-coated fins
RL	Liquid receiver
VS	Solenoid valve
BP	Hot gas by-pass valve
FF	Dryer filter and sight glass
SS	Soft start
IS	Modbus RTU protocol, RS485 serial interface
CP	Potential free contacts

LOOSE ACCESSORIES:

MN	High and low pressure gauges
CR	Remote control panel
RP	Coils protection metallic guards
FP	Coils protection metallic guards with filter
AG	Rubber shock absorbers
AM	Spring shock absorbers

TECHNICAL DATA - JCA 051÷172 S/K

MODEL			051	061	071	081	091	101	111	131	152	172
Cooling	Cooling capacity (1)	kW	50.6	58.6	66.9	77.2	88.4	102	117	134	156	188
	Absorbed power (1)	kW	17.4	19.7	22.5	25.8	29.5	34.2	39.2	45.6	53.2	63.2
Heating	Heating capacity (2)	kW	55.5	63.5	73.6	83.9	94.5	109	125	142	162	193
	Absorbed power (2)	kW	14.7	16.0	19.1	21.7	24.4	27.9	32.7	36.6	41.7	49.5
Compressor	Quantity	n°	2	2	2	2	2	3	3	3	4	4
	Refrigerant circuits	n°	1	1	1	1	1	1	1	1	2	2
	Capacity steps	n°	2					3			4	
Connections	Suction line	Ø mm	1x35	1x35	1x35	1x35	1x35	1x42	1x42	1x42	2x35	2x35
	Liquid line	Ø mm	1x22	1x22	1x22	1x22	1x22	1x28	1x28	1x28	2x22	2x22
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50									
	Max. running current	A	40	43	52	56	65	75	85	98	111	132
	Max. starting current	A	163	165	175	188	232	199	218	265	243	299
Sound pressure	STD version (3)	dB(A)	61	61	64	64	65	66	68	68	69	70
	With SL accessory (3)	dB(A)	59	59	62	62	63	64	66	66	67	68
	SSL version (3)	dB(A)	57	57	60	60	61	62	63	63	64	---
Weights	Transport weight	Kg	550	575	615	625	670	770	800	830	980	1090
	Operating weight	Kg	560	585	625	635	680	785	815	845	1005	1120

DIMENSIONS

MODEL			051	061	071	081	091	101	111	131	152	172
L	STD	mm	2350	2350	2350	2350	2350	2350	2350	2350	3550	3550
	SSL	mm	2350	2350	2350	2350	2350	2350	3550	3550	3550	---
W	STD/SSL	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
H	STD/SSL	mm	1920	1920	1920	1920	2220	2220	2220	2220	2220	2220

CLEARANCE AREA

JCA 051÷172 S/K

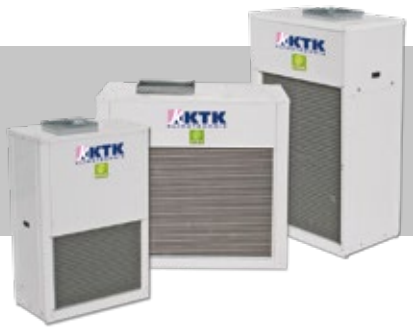
300	800	800	1800

Electrical board side

NOTES

1. Average evaporating temperature 5 °C, ambient air temperature 35 °C.
2. Average condensing temperature 40 °C, ambient air temperature 7 °C d.b./6 °C w.b.
3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.

N.B. Weights of SSL and WP versions are specified on technical brochure.



JCR 4÷34 S/K

AIRCOOLED CONDENSING UNITS AND REVERSIBLE CONDENSING UNITS WITH RADIAL FANS AND ROTARY/SCROLL COMPRESSOR FOR INDOOR DUCTED INSTALLATION.

The indoor condensing units and reversible condensing units of the JCR 4÷34 S/K series, with R410A refrigerant, are intended to satisfy the needs of small and medium-sized domestic or industrial systems with particular difficulty in positioning units outside the building.
With a prepainted plate structure, these units are combined with evaporators in split system air conditioning installations, allowing the rooms to be cooled and dehumidified or to be heated. They can also be used in combination with hydronic evaporating units, generally in air-conditioning applications. They are equipped with Rotary/Scroll compressors and radial fans, with appreciable useful head, and they enable immediate and efficient use thanks to particular technical and design adjustments. A wide range of accessories, factory fitted or supplied separately, completes the outstanding versatility and functionality of the series.

FROM 4.5 KW TO 37 KW.

VERSION

JCR
Cooling only
JCR/WP
Reversible Heat Pump

FEATURES

- Self-supporting prepainted steel frame.
- Rotary/Scroll compressor with internal overheat protection and crankcase heater, if needed.
- Double inlet radial fan statically and dynamically balanced directly driven by a electric motor (4÷20) or belt driven connected to a three-phase electric motor (24÷34).
- Condenser in copper tubes and aluminium finned coil, complete with drain pan for WP version only.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, fuse and compressor remote control switch.
- Microprocessor control and regulation system (WP only).

ACCESSORIES

FACTORY FITTED ACCESSORIES:	
CC	Condensing control down to -20 °C
TX	Coil with pre-coated fins
RL	Liquid receiver
VS	Solenoid valve

LOOSE ACCESSORIES:	
RP	Coils protection metallic guards
FP	Coils protection metallic guards with filter
AG	Rubber shock absorbers

TECHNICAL DATA - JCR 4÷34 S/K

MODEL			4	5	7	8	9	11	14
Cooling	Cooling capacity (1)	kW	4.5	5.6	6.8	8.0	9.2	10.8	13.2
	Absorbed power (1)	kW	1.5	1.9	2.2	2.6	3.0	3.8	4.9
Heating	Heating capacity (2)	kW	4.8	5.9	7.3	8.4	9.7	11.3	13.7
	Absorbed power (2)	kW	1.6	2.0	2.4	2.7	3.1	3.9	5.0
Compressor	Quantity	n°	1	1	1	1	1	1	1
	Type		Rotary				Scroll		
Connections	Suction line	Ø mm	16	16	16	16	16	16	18
	Liquid line	Ø mm	10	10	10	10	10	10	12
Available static pressure		Pa	90	90	80	80	80	80	115
Electrical characteristics	Power supply	V/Ph/Hz	230/1/50						400/3+N/50
	Max. running current	A	10	12	13	14	17	21	11
	Max. starting current	A	40	46	65	65	82	89	61
Sound pressure (3)		dB(A)	51	51	51	52	53	54	59
Weights	Transport weight	Kg	120	121	123	126	131	133	190
	Operating weight	Kg	121	122	124	127	132	134	192

MODEL			16	18	20	24	27	34
Cooling	Cooling capacity (1)	kW	15.8	19.1	21.2	26.4	30.9	36.6
	Absorbed power (1)	kW	5.9	7.0	7.9	10.3	10.4	13.5
Heating	Heating capacity (2)	kW	16.8	19.9	22.0	27.4	33.2	40.9
	Absorbed power (2)	kW	6.1	7.2	8.1	10.5	11.0	13.9
Compressor	Quantity	n°	1	1	1	1	1	1
	Type		Scroll					
Connections	Suction line	Ø mm	18	22	22	28	28	28
	Liquid line	Ø mm	12	12	12	12	12	12
Available static pressure		Pa	115	115	115	150	150	160
Electrical characteristics	Power supply	V/Ph/Hz	400/3+N/50					
	Max. running current	A	14	14	15	27	33	36
	Max. starting current	A	64	61	77	146	151	148
Sound pressure (3)		dB(A)	59	60	60	62	62	64
Weights	Transport weight	Kg	200	202	204	313	319	334
	Operating weight	Kg	203	205	207	316	322	338

DIMENSIONS

MODEL			4	5	7	8	9	11	14	16	18	20	24	27	34
L	STD	mm	900	900	900	900	900	900	900	900	900	900	1500	1500	1500
W	STD	mm	550	550	550	550	550	550	690	690	690	690	800	800	800
H	STD	mm	1425	1425	1425	1425	1425	1425	1725	1725	1725	1725	1425	1425	1425

CLEARANCE AREA

JCR 4÷11 S/K

100 | 800 | 800 | 800

JCR 14÷20 S/K

100 | 800 | 800 | 1000

JCR 24÷34 S/K

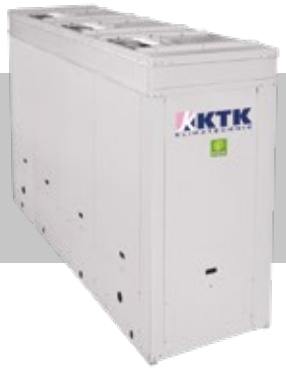
1200 | 800 | 800 | 100

Electrical board side

NOTE

1. Average evaporating temperature 5 °C, ambient air temperature 35 °C.
2. Average condensing temperature 40 °C, ambient air temperature 7 °C d.b./6 °C w.b.
3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.

N.B. Weights of WP version are specified on technical brochure.



JCR 051÷172 S/K

AIRCOOLED CONDENSING UNITS AND REVERSIBLE CONDENSING UNITS WITH RADIAL FANS AND SCROLL COMPRESSORS.

The indoor condensing units and reversible condensing units of the JCR 051÷172 S/K series, with R410A refrigerant, are designed to satisfy the needs of medium-sized domestic or industrial systems with particular difficulty in positioning units outside the building.
These units are combined with evaporators in split system air conditioning installations, allowing the rooms to be cooled and dehumidified or to be heated. They can also be used in combination with hydronic evaporating units in both air conditioning and industrial process cooling applications.
They are equipped with Scroll compressors and radial fans even in a high ESP version, and they enable immediate and efficient use thanks to particular technical and design adjustments.
A wide range of accessories, factory fitted or supplied separately, completes the outstanding versatility and functionality of the series.

FROM 51 KW TO 188 KW.

VERSION

JCR
Cooling only
JCR/AP
Cooling only with high ESP fans
JCR/WP
Reversible Heat Pump
JCR/WP/AP
Reversible Heat Pump with high ESP fans

FEATURES

- Self-supporting galvanized steel frame protected with additional protection achieved via polyester powder painting.
- Scroll compressors with oil sight glass, internal overheat protection and crankcase heater.
- Radial type fans coupled to 3-phase motors by V belt and variable pulley.
- Condenser made of copper tubes and aluminium finned coil.
- R410A refrigerant.
- Electrical board includes: main switch with door safety interlock, fuses, thermal protection relays for compressors and thermocontacts for fans.
- Microprocessor control and regulation system.

ACCESSORIES

FACTORY FITTED ACCESSORIES:

IM	Automatic circuit breakers
SL	Unit silencement
RFM	Cooling circuit shut-off valve on discharge line
RFL	Cooling circuit shut-off valve on liquid line
CC	Condensing control down to -20 °C
TX	Coil with pre-coated fins
RL	Liquid receiver
VS	Solenoid valve
BP	Hot gas by-pass valve
FF	Dryer filter and sight glass
SS	Soft start
IS	Modbus RTU protocol, RS485 serial interface
CP	Potential free contacts

LOOSE ACCESSORIES:

MN	High and low pressure gauges
CR	Remote control panel
RP	Coils protection metallic guards
FP	Coils protection metallic guards with filter
AG	Rubber shock absorbers
AM	Spring shock absorbers

TECHNICAL DATA - JCR 051÷172 S/K

MODEL			051	061	071	081	091	101	111	131	152	172
Cooling	Cooling capacity (1)	kW	50.6	58.6	66.9	77.2	88.4	102	117	134	156	188
	Absorbed power (1)	kW	18.3	21.4	24.9	28.2	31.9	36.6	43.2	49.6	58.2	69.2
Heating	Heating capacity (2)	kW	55.5	63.5	73.6	83.9	94.5	109	125	142	162	193
	Absorbed power (2)	kW	15.6	17.7	21.5	24.1	26.8	30.3	36.7	40.6	46.7	55.5
Compressor	Quantity	n°	2	2	2	2	2	3	3	3	4	4
	Refrigerant circuits	n°	1	1	1	1	1	1	1	1	2	2
	Capacity steps	n°	2					3			4	
Connections	Suction line	Ø mm	1x35	1x35	1x35	1x35	1x35	1x42	1x42	1x42	2x35	2x35
	Liquid line	Ø mm	1x22	1x22	1x22	1x22	1x22	1x28	1x28	1x28	2x22	2x22
Available static pressure	STD version	Pa	165	147	120	120	105	115	135	135	190	105
	High ESP version	Pa	298	288	263	263	245	256	---	---	400	---
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50									
	Max. running current	A	43	48	57	61	70	80	94	107	122	146
	Max. starting current	A	166	169	180	193	237	204	227	275	255	313
Sound pressure	STD version (3)	dB(A)	70	70	70	70	71	73	74	74	75	76
	STD version with SL accessory (3)	dB(A)	68	68	68	68	69	71	72	72	73	74
	High ESP version (3)	dB(A)	71	71	71	71	72	74	---	---	76	---
	High ESP version with SL accessory (3)	dB(A)	69	69	69	69	70	72	---	---	74	---
Weights	Transport weight	Kg	595	600	670	680	725	825	865	895	1080	1185
	Operating weight	Kg	605	610	680	690	735	840	880	910	1105	1215

DIMENSIONS

MODEL			051	061	071	081	091	101	111	131	152	172
L	STD/AP	mm	2350	2350	2350	2350	2350	2350	2350	2350	3550	3550
W	STD/AP	mm	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
H	STD/AP	mm	1705	1705	1705	1705	2005	2005	2005	2005	2005	2005

CLEARANCE AREA

JCR 051÷172 S/K

300	800	800	1800

Electrical board side

NOTES

1. Average evaporating temperature 5 °C, ambient air temperature 35 °C.
2. Average condensing temperature 40 °C, ambient air temperature 7 °C d.b./6 °C w.b.
3. Sound pressure level measured in free field conditions at 1 m from the unit. According to ISO 3744.

N.B. Weights of WP versions are specified on technical brochure.