

Amichi-S Series

Air cooled Scroll DC Inverter reversible heat pump

YVAG 012 to 018

A complete range from 11.2 kW up to 17.8 kW



High Efficiency

Providing the lowest possible operating costs

Our new **YORK® Amichi-S** is designed for real world efficiency. Part load performances meet the highest efficiency values and delivers performance beyond typical heat pump efficiency levels in cooling and heating. The new reversible heat pumps exceed the requirements for the Ecodesign regulations for Heat Pumps through an optimized combination of YORK efficiency-enhancing technologies.

YORK® Amichi-S uses high efficiency DC inverter compressor together with advanced variable frequency drive technology which ensures stable operation across the entire operating range. Compressor frequency range goes from 15 ~ 120%, to quickly and efficiently meet the needs of residential load changes. **YORK® Amichi-S** units not only uses a high efficiency DC inverter compressor, but also dual fans equipped with high efficiency, low noise DC inverter motor which adjusts the air flow to exactly match the capacity in a more accurate and efficient way.

Low Sound Optimized

Thanks to the **YORK® Amichi-S** component design, the unit sound emissions are as low as 54 dB(A) Sound Pressure at full load, reducing to as low as 40 dB(A) at part load operation.

YORK® Amichi-S also has Silent Mode available, which reduces the sound level emissions by 5 dB(A) below full load levels.

Perfect Comfort in a Wide Operating Range

Wide operating envelope

With the wide operating range, **YORK® Amichi-S** is perfect for all climates. It does not matter if the ambient temperature in summer is 48°C or if in winter is -20°C, as the unit will maintain the efficiency in stable operation, to provide users with the most comfortable air conditioning experience. With the heating outlet water temperatures up to 52°C, the unit is perfect for radiant panels. The unit contains a 2 liters expansion tank as a standard built-in component.

Easy Installation and Operation

Modular concept

The small packaged **YORK® Amichi-S** heat pump comes as standards with a hydronic loop circulating pump, water flow switch, safety valve, fill valve and wye-strainer, saving space in the room and making installations easy and fast. The pumps can provide up to 150 kPa available static pressure.

The units are designed for modular installations (up to 4 module combinations among all the models) to meet the needs of different residential and light commercial building demands. This permits installed capacities from 11.2-72 kW.



Exactly control at real time

YORK® Amichi-S unit comes with RS485 interface, through the Modbus protocol, together with easy access and user-friendly real-time control. New control solution has been developed for a quick and easy installation in a domestic application.

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Technical features

Model			YVAG012	YVAG014	YVAG016	YVAG018
Performance	Nominal Cooling Capacity	kW	11.18	14.26	15.95	17.80
	Cooling Power Input	kW	4.01	5.28	5.74	6.95
	EER		2.80	2.70	2.81	2.58
	SEER		4.05	4.32	4.52	4.42
	$\eta_{s,c}$		159	170	178	174
	Nominal Heating Capacity	kW	10.94	13.11	15.41	18.46
	Heating Power Input	kW	3.65	4.28	4.68	6.28
	COP		2.95	3.05	3.28	2.94
	SCOP		3.51	3.58	4.07	3.94
	$\eta_{s,h}$		136	139	158	153
	Energy Class at 35°C		A+	A+	A++	A++
Sound Power Level	dB(A)	68	70	70	74	
Refrigerant	Refrigerant charge R410A	kg	2.8	3.3	4.0	4.0
Compressor	Type		Scroll DC Inverter			
	Quantity	#	1	1	1	1
Air side heat exchanger	Fan motor type		Brushless DC Fan Motor			
	Fans quantity	#	2	2	2	2
	Airflow	m ³ /h	2500 ~ 6600	2500 ~ 6600	2500 ~ 6600	2500 ~ 6600
	Working ambient temperature cooling mode		-5 ~ 48°C			
	Working ambient temperature heating mode		-20 ~ 25°C			
Water side heat exchanger	Type		Braze Plate Heat Exchanger			
	Pump Type		Multiple-stage centrifugal pump			
	Nominal water flow	m ³ /h	1.9	2.4	2.7	3.1
	Unit external head	kPa	150	130	120	110
	Working range water leaving temp. cooling		-10 ~ 15°C			
	Working range water leaving temp. heating		30 ~ 52°C			
	Expansion tank	l	2 (for all models)			
Dimensions and weight	Height	mm	1320			
	Width	mm	995			
	Depth	mm	360			
	Operating weight	kg	126	128	141	141
Electrical	Power supply	V/ph/Hz	230V/1ph/50Hz (3-Phase kit available)			

Net values at Eurovent nominal conditions:

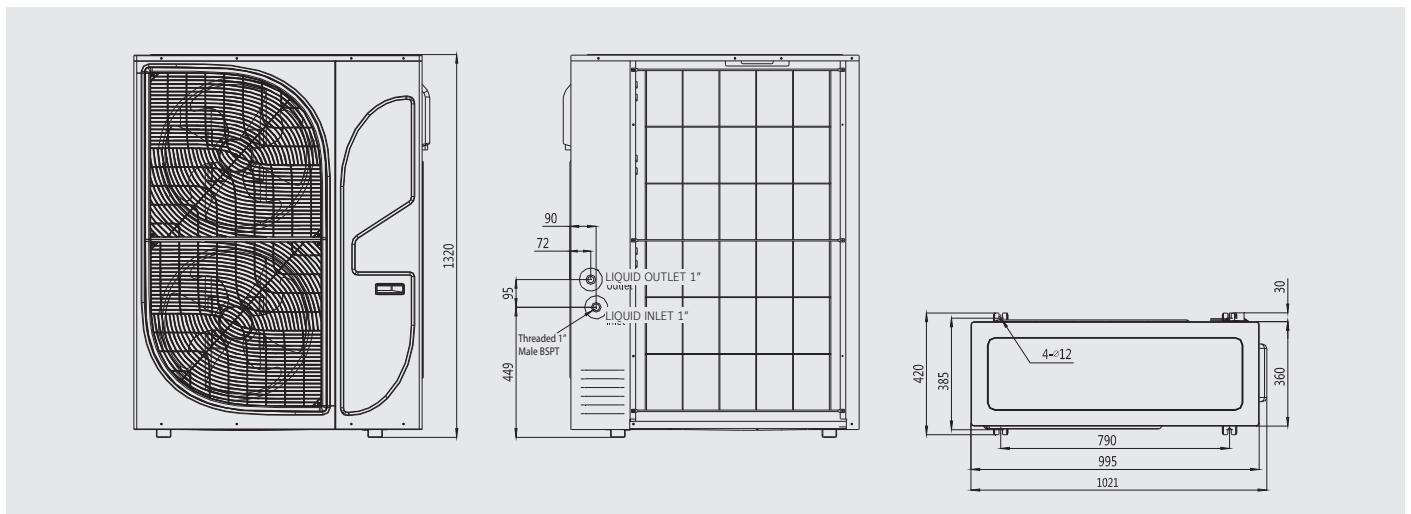
Cooling capacities in kW given for 12/7°C water leaving temperature Δt 5°C and 35°C ambient temperature.

Heating capacities in kW given for 40/45°C water leaving temperature and 7°C ambient temperature.

Ecodesign figures are calculated following fixed water and variable outlet approach (FW/VO). For other Ecodesign calculations, please contact your JCI representative.

Dimensions and hydraulic connections

YVAG 012 to 018



All dimensions in mm. Drawings not in scale.



Manufacturer reserves the rights to change specifications without prior notice.