

# AMICHI™ Series Air cooled Scroll DC Inverter chiller and heat pump

YMAA 045 to 260 / YMPA 045 to 260

A complete range from 44 kW up to 255 kW



**NEW**



**SMART  
EQUIPMENT**

## Exceeding Efficiency Standards

The YORK® Amichi™ Series Air-cooled DC Inverter Scroll Chiller and Heat Pump have been designed to meet tomorrow's efficiency standards today. Delivering performance beyond typical chiller and heat pump efficiency levels, the YORK® Amichi™ Series meets or exceeds stringent regulatory requirements (see chart, below) through an optimized combination of YORK® efficiency enhancing technologies.

ECODESIGN REGULATIONS CATEGORY:	EFFICIENCY METRIC:	TOMORROW'S STANDARDS MET TODAY:
Comfort Heating	SCOP/ηsh	<b>Amichi™ Heat Pump:</b> Sept. 2017 Compliant (Tier 2)
Comfort Cooling	SEER/ηsc	<b>Amichi™ Chiller:</b> Jan. 2021 Compliant (Tier 2)
Process Cooling (Med. Temp.)	SEPR	<b>Amichi™ Chiller:</b> July 2018 Compliant (Tier 2)
Process Cooling (High Temp.)	SEPR	<b>Amichi™ Chiller:</b> Jan. 2021 Compliant (Tier 2)

## Performance Without Compromise

The YORK® Amichi™ Series is a no-compromise solution for a variety of climates and locations. It can maintain efficiency in a variety of conditions without kits or add-ons (down to -18°C ambient in cooling mode and -15°C ambient in heating mode). With the smallest footprint across the widest capacity range on the market, the YORK® Amichi™ Series is also the perfect solution for high performance in smaller spaces. Our systems offer two levels of sound performance. If requirements call for sound attenuation beyond our standard low-noise levels, an optional Ultra Quiet Kit can further reduce sound power by 6 dBA, providing one of the quietest units available.

## A History of Reliability

With the YORK® Amichi™ Series Air-cooled Scroll Chiller and Heat Pump, we're building on our legacy of cooling solutions and technology leadership. We don't judge success based on theoretical findings, but real-world experience. Our first generation modular chiller was built over a decade ago. We use DC inverter technology proven in over three decades of use. Our use of inverter scroll technology dates to 1985. And every new YORK® chiller is subjected to a Highly Accelerated Life Test (HALT) during the design product development stages, allowing us to simulate a variety of extreme conditions and ensuring long term operational reliability and quality.



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## Technical features

Model			YMAA / YMPA								
			45	65	80	100	130	160*	200*	230*	260*
Performance	Cooling capacity c/o units	kW	44	60	77	99	122	164	189	219	255
	EER		2.87	2.78	3.08	2.99	2.94	3	3	3	3
	SEER		4.30	4.21	4.35	4.37	4.33	Meet Ecodesign Regulations			
	ηs,c		169	166	171	172	170				
	Cooling capacity h/p units	kW	44	60	77	99	122	164	189	219	255
	Heating capacity h/p units	kW	50	61	88	100	132	167	190	232	256
	COP		3.03	3.04	3.27	3.18	2.98	3,04	2,99	3,03	2,98
	SCOP		3.32	3.28	3.39	3.36	3.31	Meet Ecodesign Regulations			
	ηs,h	%	130	128	133	131	129				
Refrigerant	Sound power level STD / LN	dB(A)	80/75	82/77	81/77	83/79	84/80	87/81	89/82	91/84	92/85
	Refrigerant circuits	#	1	1	2	2	2	3	3	4	4
	Refrigerant (R410A) charge	kg	9.5	12.3	17.6	20.5	22.8	29.5	32	43.3	46
Compressor	Type		DC Scroll Inverter + Scroll								
	Capacity steps	%	Stepless (Inverter)								
Air side heat exchanger	Quantity		2	2	3	3	4	5	6	7	8
	Fan motor type		EC motor								
	Fans quantity		1	1	2	2	2	3	3	4	4
	Working ambient temp. cooling mode		-18 ~ 48°C								
	Working ambient temp. heat. mode		-15 ~ 25°C								
Water side heat exchanger	Type		Plate Heat Exchanger								
	Unit water volume (w/o pump kit)	l	9	10	11	14	15	27	29	32	34
	Pump Type		Variable Speed Drive Pump								
	Nominal water flow	l/s	2.1	2.9	3.7	4.7	5.8	7.4	9.1	10.5	11.9
	Pressure drop	kPa	25	24	23	30	38	23	29	41	38
	Working range water leaving temp. cooling		-8 ~ 20°C								
	Working range water leaving temp. heating		25 ~ 55°C								
Dimensions & Weight	Height (w/o pump kit)	mm	2440					2500			
	Width (w/o pump kit)	mm	1200					3050			
	Depth (w/o pump kit)	mm	1500			2240					
	Operating weight (w/o pump kit)	kg	575	598	875	901	979	1922	2003	2235	2316

YMAA: Cooling only units models. YMPA: Air to water heat pump models.

\* models with preliminary info.

Net values at Eurovent nominal conditions:

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

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

SEER and SCOP calculated according to EN14511 and EN14825

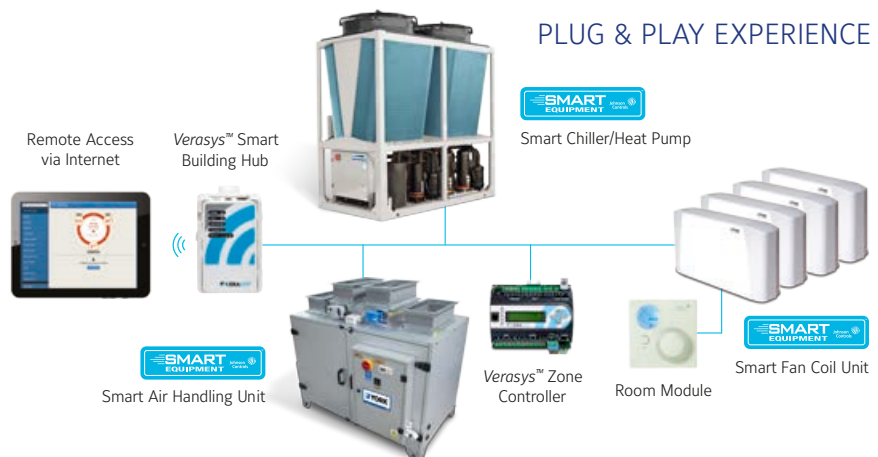
η<sub>s</sub> calculated according to Ecodesign regulation for chillers comfort cooling and heating (813/2013, 2016/2281)

For other Ecodesign calculations, please contact your JCI representative.

The above data is based on Johnson Control's selection software YORKworks 17.06. Please refer to the latest version of the software for specific projects

## Advanced Control Made Easy

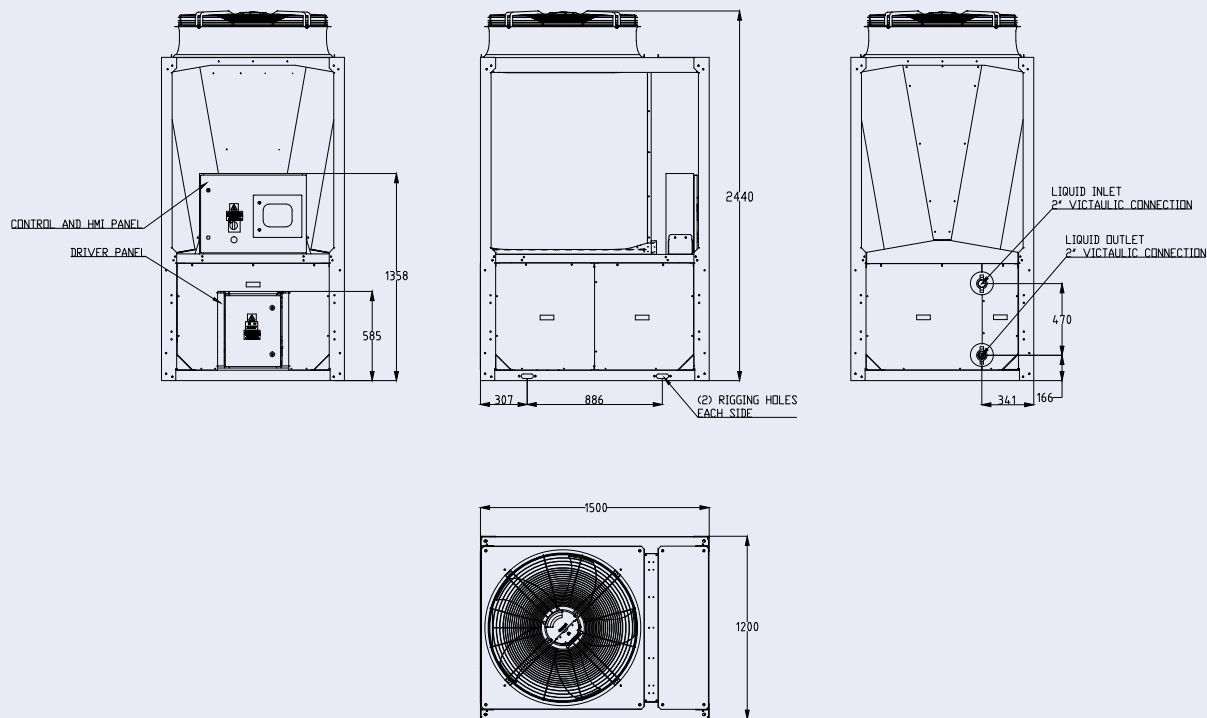
To help maximize efficiency and keep you in control, the YORK® Amichi™ Series comes standard with integrated Smart Equipment. This technology allows the equipment to connect seamlessly to building controls like our world-class Verasys™ system, where smart-enabled equipment can self-identify and interoperate.



Manufacturer reserves the rights to change specifications without prior notice.

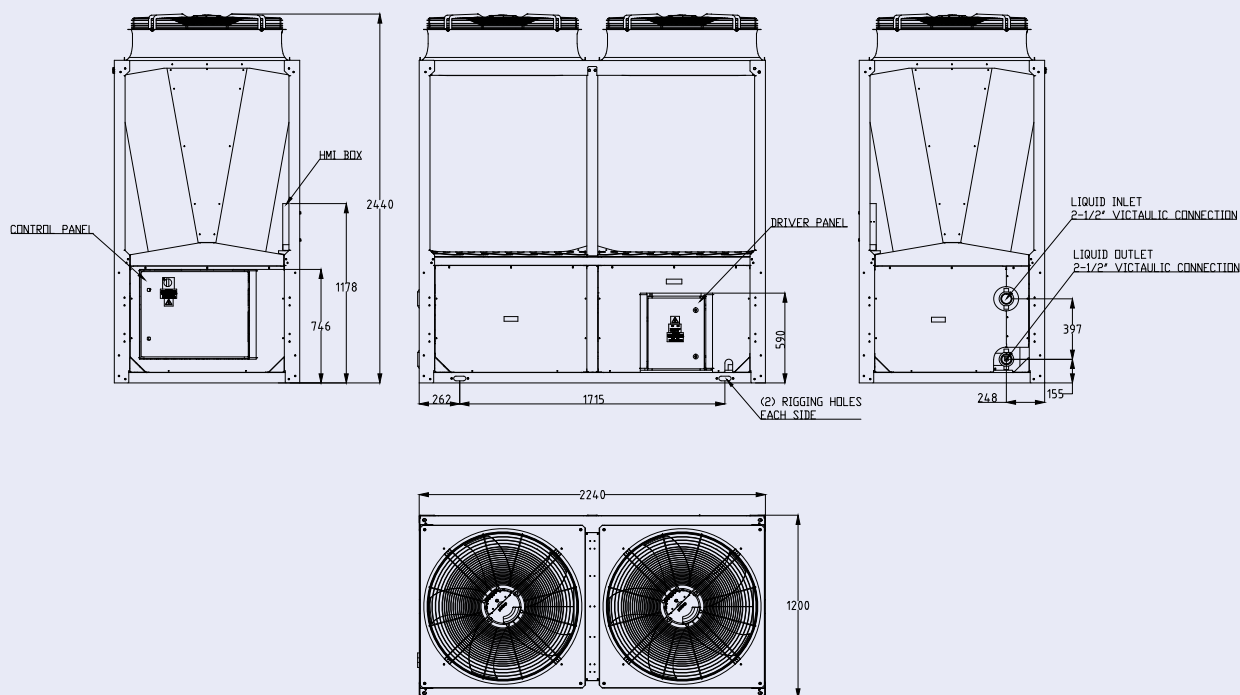
# Dimensions and hydraulic connections

## YMAA-YMPA 045 and 065 Single unit



All dimensions in mm. Drawings not a scale.

## YMAA-YMPA 080 to 130 Single unit

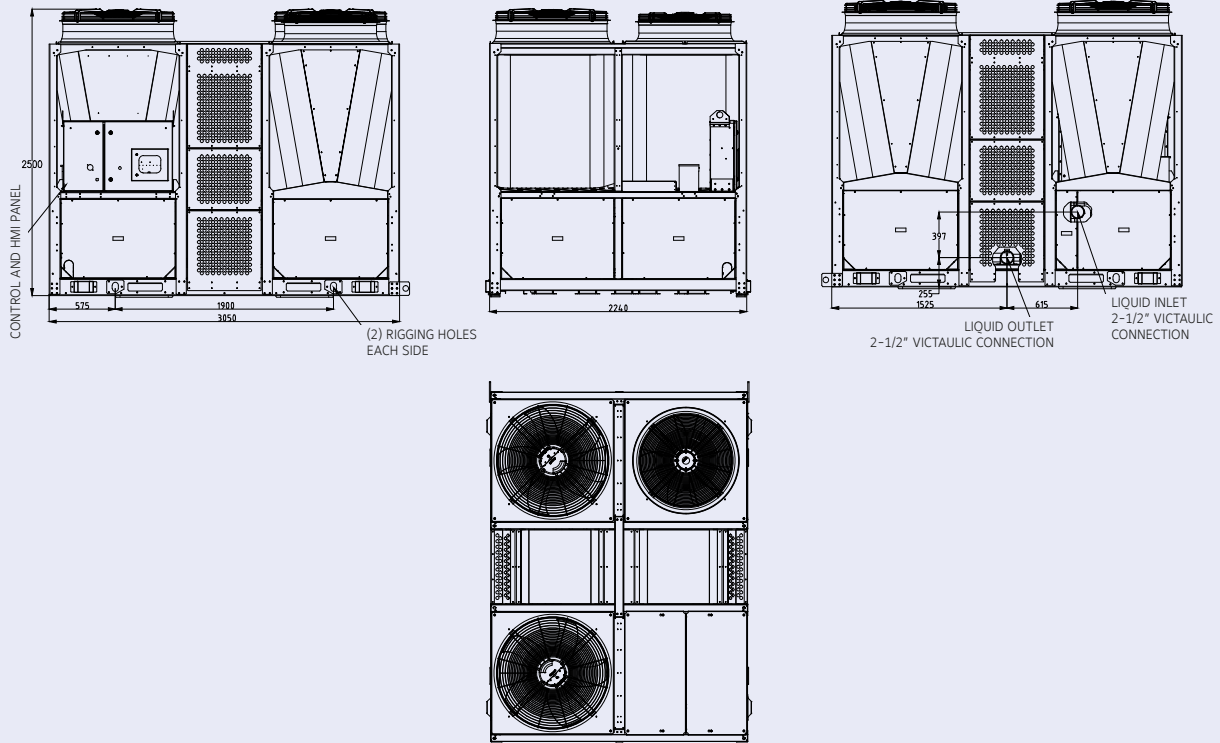


All dimensions in mm. Drawings not a scale.

# YMAA 045 to 260 / YMPA 045 to 260

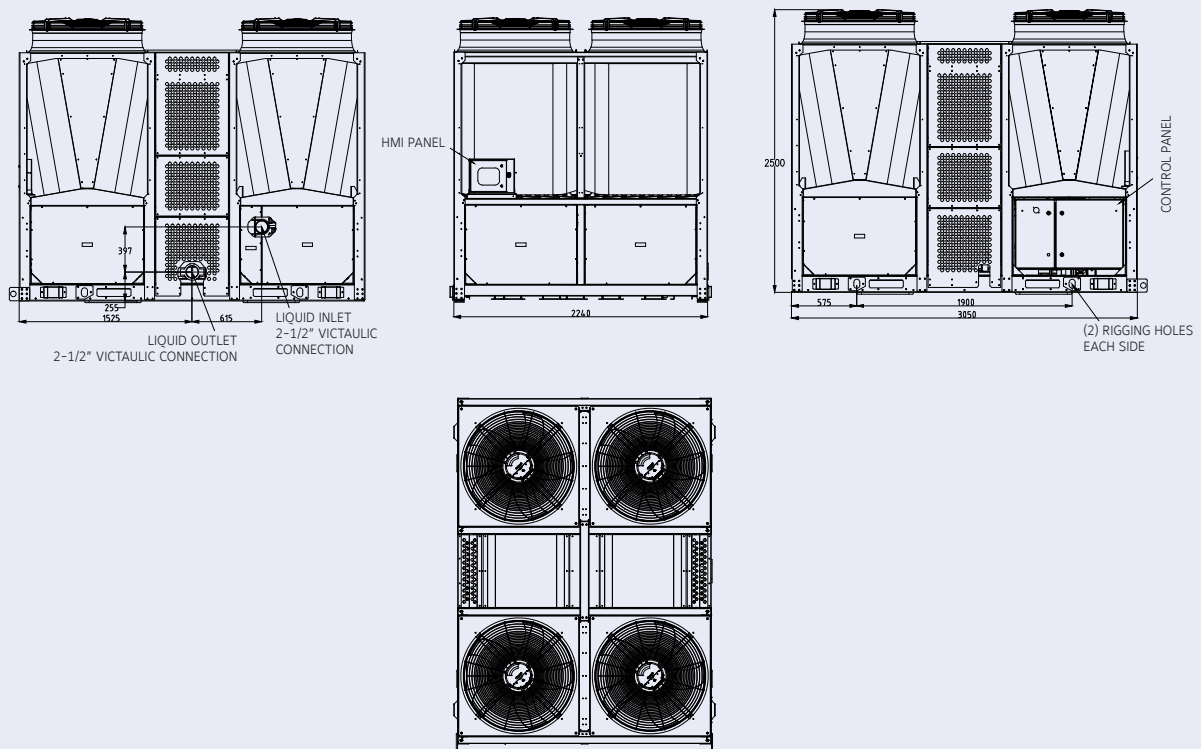


## YMAA-YMPA 160 and 200 Single unit



All dimensions in mm. Drawings not a scale.

## YMAA-YMPA 230 and 260 Single unit



All dimensions in mm. Drawings not a scale.