

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 254 kW



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.

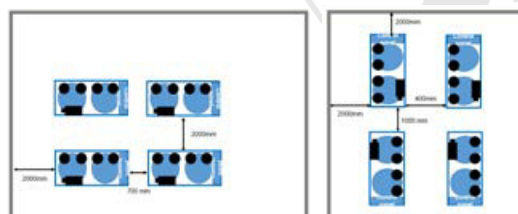
ECODESIGN REGULATIONS CATEGORY:	EFFICIENCY METRIC:	TOMORROW'S STANDARDS MET TODAY:
Comfort Heating	SCOP/ηsh	Amichi™ Heat Pump: Sept. 2017 Compliant (Tier 2)
Comfort Cooling	SEER/ηsc	Amichi™ Chiller: Jan. 2021 Compliant (Tier 2)
Process Cooling (Med. Temp.)	SEPR	Amichi™ Chiller: July 2018 Compliant (Tier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

Greater design flexibility

- 9 package models or modular combinations
- Controls can be parent/child controller if application requires
- Maximum of 32 units below 130 kW
- Maximum of 16 units above 130 kW



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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	78	99	122	159	188	221	254
	EER		2.84	2.79	3.11	3.00	2.95	3.12	3.04	3.08	3.06
	SEER		4.38	4.5	4.43	4.24	4.42	4.24	4.28	4.17	4.34
	ηs,c		172	177	174	167	174	167	168	164	171
	Cooling capacity h/p units	kW	44	60	78	99	122	159	188	221	254
	Heating capacity h/p units	kW	50	61	87	99	132	161	191	231	254
	COP		3.05	3.07	3.23	3.12	2.97	3.26	3.22	3.22	3.06
	SCOP		3.45	3.44	3.4	3.41	3.54	3.32	3.36	3.47	3.3
	ηs,h		135	134	133	133	138	130	131	136	129
Refrigerant	Sound power level STD / LN	dB(A)	80/75	82/77	81/77	83/79	84/80	86/82	87/82	88/83	89/84
	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		Fixed / Variable Speed Drive Pump					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.

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_s calculated according to Ecodesign regulation for chillers comfort cooling and heating (813/2013, 2016/2281)

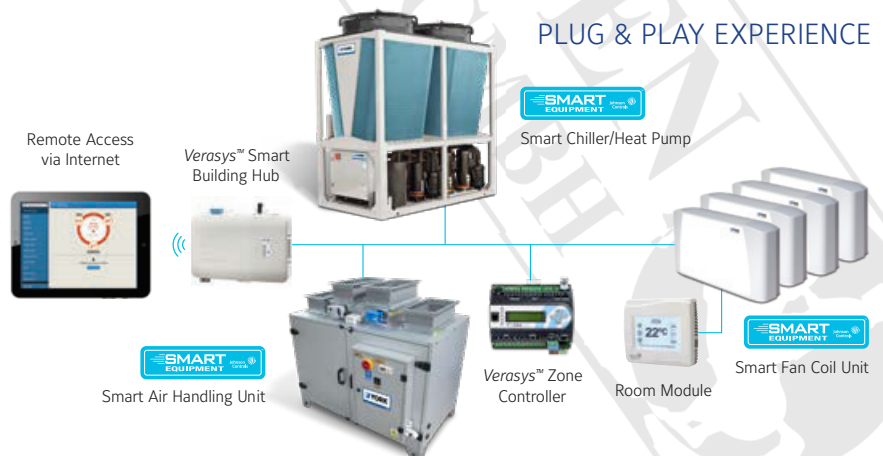
Ecodesign figures are calculated following variable outlet approach.

For other Ecodesign calculations, please contact your JCI representative.

The above data is based on Johnson Control's selection software YORKworks 18.06. Please refer to the latest version of the software for specific projects

Advanced Control Made Easy

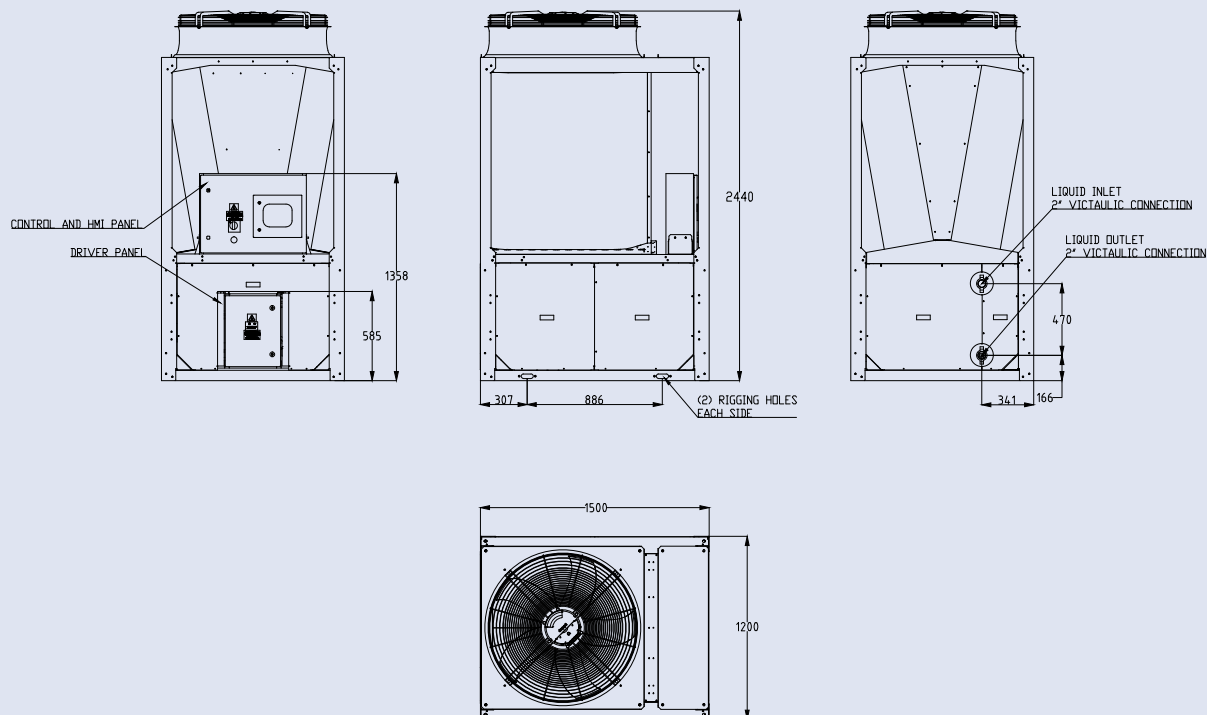
To help maximize efficiency and keep you in control, the YORK® Amichi™ Series comes standard with integrated Smart Equipment. This technology allows the equipment to connect seamlessly to building controls like our world-class Verasys™ system, where smart-enabled equipment can self-identify and interoperate.



Manufacturer reserves the rights to change specifications without prior notice.

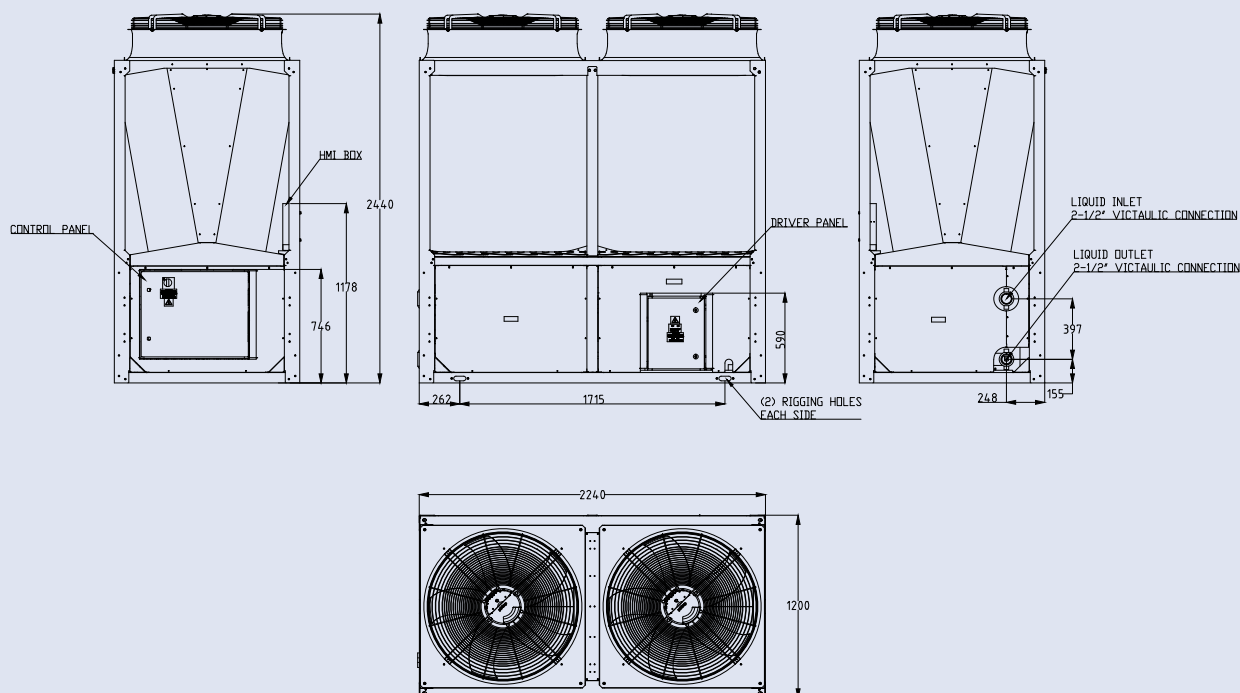
Dimensions and hydraulic connections

YMAA-YMPA 045 and 065 Single unit



All dimensions in mm. Drawings not a scale.

YMAA-YMPA 080 to 130 Single unit

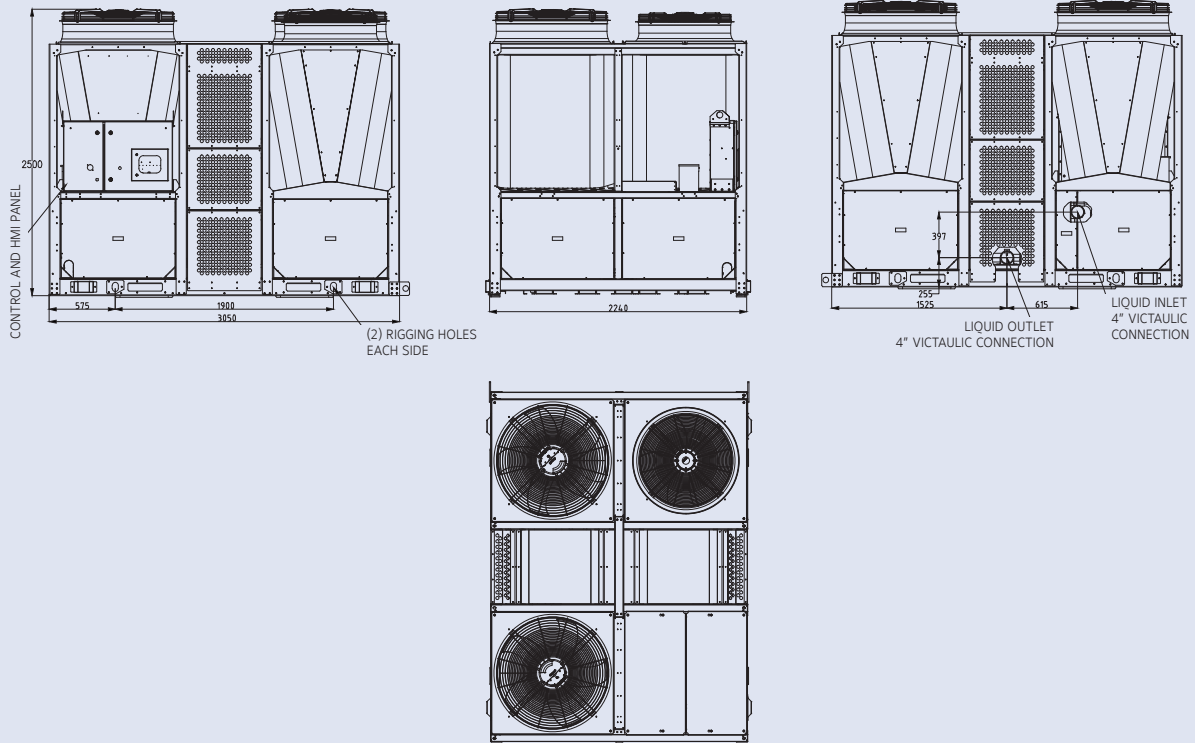


All dimensions in mm. Drawings not a scale.

YMAA 045 to 260 / YMPA 045 to 260

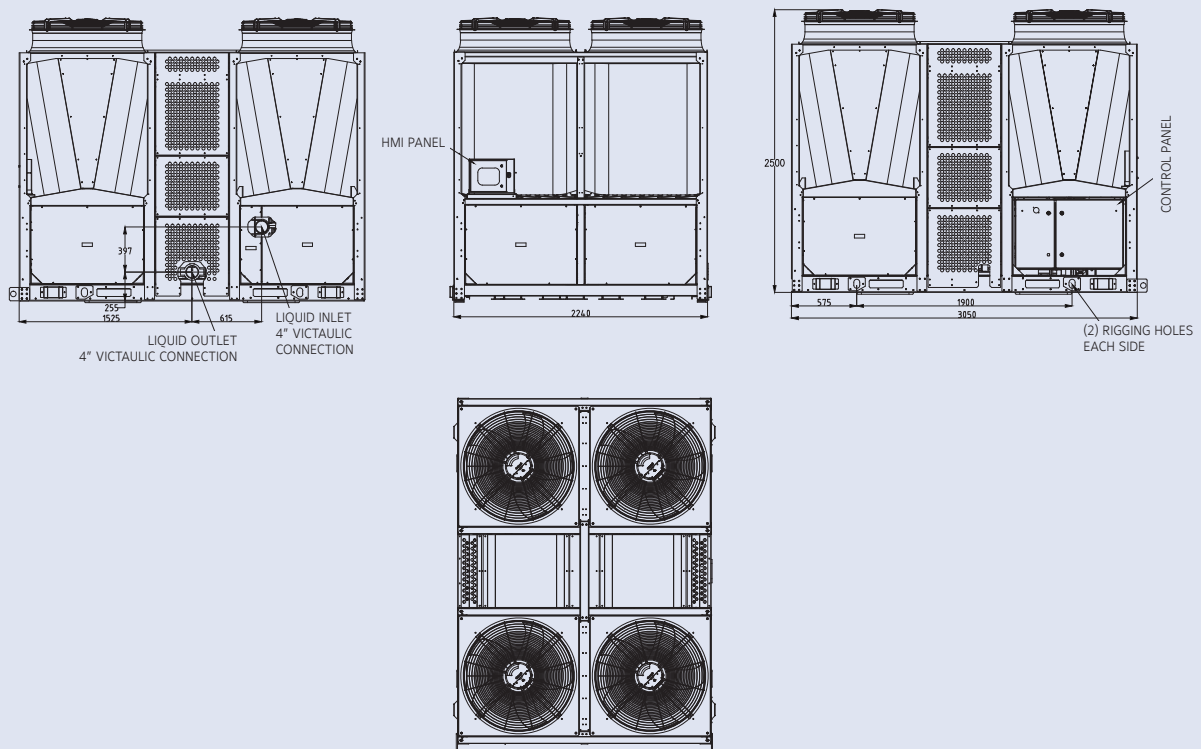


YMAA-YMPA 160 and 200 Single unit



All dimensions in mm. Drawings not a scale.

YMAA-YMPA 230 and 260 Single unit



All dimensions in mm. Drawings not a scale.