Cooling

vikinor

VAE Packaged

Series

Efficient cooling for high density edge data centers and Telecom applications



Main features

- Cooling performance range: 5kW to 35kW (1.5 Ton – 10 Ton)
- Environmentally friendly R513a/R454b Refrigerant (optional: R1234yf)
- Designed for mission critical applications
- Fully integrated intelligent free cooling system
- Intelligent electronic controller with user-friendly interface
- High-capacity cooling in compact, space saving footprint to minimize impact

Application

Designed for enclosures and shelters with high density data processing applications that need strict thermal control.

- Telecommunications equipment
- Edge data center solutions
- Energy storage and BESS solutions
- Industrial automation
- Security and defense systems

Standards, tests and approvals

- IP 55 (IEC60529)
- CE, UL/cUL
- NEMA-3R
- RoHs/REACH/CLP
- Telcordia GR-487 capable

Contact Vikinor

- Sales request: *sales@vikinor.com*
- Service & maintenance: *service@vikinor.com*
- *www.vikinor.com*

Controls

- Inverter-driven variable speed compressor control for active cooling regulation
- Variable speed fan control for optimized airflow and energy efficiency
- User-friendly digital interface with display and integrated controls
- Password-protected setpoint adjustment with day and night operation modes
- Configurable alarm output with automated self-test functionality
- Dedicated input and control logic for smoke detector and door contact
- Input channels for two external temperature sensors
- Native communication interface supporting Modbus RTU (Telecom config.) or SNMP v2 L3 (Edge config.)

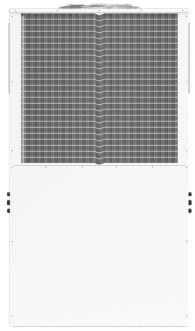
Easy to install

- Standard outside mounted;
- High IP protection and NEMA 4 options available

Features for VAE Packaged Series

Standard and Optional Features across VAE Packaged Series
- Edge data center configuration & Telecom configuration

Features		
	Standard	Optional
Aluzinc material with RAL 9016 traffic white	✓	
Epoxy-coated condenser	✓	
Cold weather package	✓	
Variable speed compressor	✓	
Phase out protection (only 3-phase models)	✓	
Brown out protection	✓	
Heat pump	✓ (Edge)	✓ (Telecom)
Electrical heating function	✓	
Variable speed fans	✓	
Integrated precision Free cooling	✓	
Electronically controlled expansion valve	✓ (Edge)	
Thermostatic expansion valve	✓ (Telecom)	
Input and control logic smoke detector & door contact	✓	
Input for two external temperature sensors	✓	
Day and night-time operation modes	✓	
Self-test functionality	✓	
Over-voltage and under-voltage protection	✓	
Air quality monitoring and control / AQI sensor	✓ (Edge)	✓ (Telecom)
Humidity sensor	✓ (Telecom)	
Active humidity control w. re-heating	✓ (Edge)	✓ (Telecom)
High efficiency F9 / MERV 15 filtration	✓	
F5 / MERV 11 filtration		✓
Modbus RTU communication	✓ (Telecom)	
SNMP version 2 layer 3 communication	✓ (Edge)	✓ (Telecom)
Sand trap		✓
External Lead-Lag controller	✓	



VAE 5 Packaged

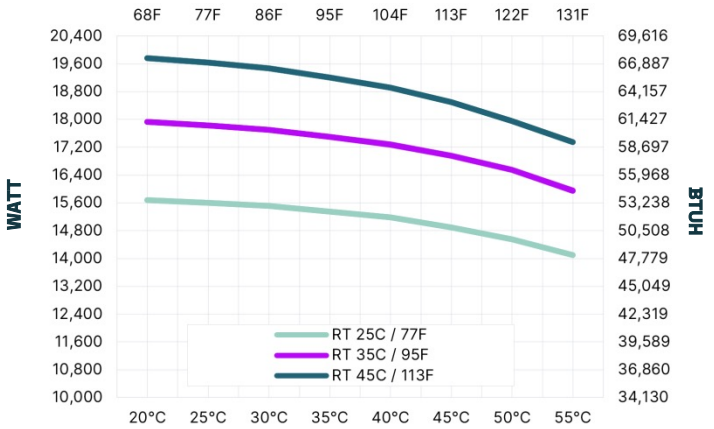
A3 + C5 model specifications

Product series name	VAE 5 Packaged A3		VAE 5 Packaged C5	
Model	**A3 – 3x400 VAC**		**C5 – 3x460 VAC**	
Part numbers				
Refrigerant	**R454b**		**R454b**	
Edge Config.	1834122		1834142	
Telecom Config.	1834222		1834242	
Cooling and Heating performance				
Active Cooling	**Watt**	**BTU/h**	**Watt**	**BTU/h**
Nominal	17,500	60,000	17,500	60,000
At 27°C/35°C (81°F/95°F)	16,000	54,560	16,000	54,560
At 35°C/35°C (95°F/95°F)	17,500	60,000	17,500	60,000
At 35°C/55°C (95°F/131°F)	10,000	3,4120	10,000	3,4120
Energy Efficiency Ratio	**Watt/Watt**	**BTU/Wh**	**Watt/Watt**	**BTU/Wh**
At 27°C/35°C (81°F/95°F)	3.22	11.0	3.22	11.0
Free Cooling	**Watt/°K**	**Watt/°F**	**Watt/°K**	**Watt/°F**
Nominal	1,200	667	1,200	667
Air Flow Ratings	**m3/hr.**	**CFM**	**m3/hr.**	**CFM**
Airflow, internal loop	3,600	2,117	3,600	2,117
Airflow, external loop	3,800	2,235	3,800	2,235
Free Cooling	3,600	2,117	3,600	2,117
Heating	**Watt**	**BTU/h**	**Watt**	**BTU/h**
Auxiliary Heat PTC Heater	3,000 Optional: 6,000	10,200 Optional: 20,500	3,000 Optional: 6,000	10,200 Optional: 20,500
	Amp		**Amp**	
Heating current	13		13	
Heater Inrush Current	20		20	

Product series name	VAE 5 Packaged A3	VAE 5 Packaged C5
Model	**A3 – 3x400 VAC**	**C5 – 3x460 VAC**
Electrical data		
Active Cooling	**VAC**	**VAC**
Nominal voltage	400, 3Ø 50/60 Hz	460, 3ø 50/60 Hz
Operating range	380-440 VAC	430-480 VAC
Power Consumption	**Watt**	**Watt**
Power Consumption at 35°C/35°C (95°F/95°F)	5,200	5,200
Power Consumption at 35°C/55°C (95°F/131°F)	5,540	5,540
Power Consumption At 27°C/35°C (81°F/95°F)	4,820	4,820
Starting Current (Amp)	5	5
MCA Full Load Amps	13	13
Max Over Current Protection	16	16
Free Cooling	**VAC**	**VAC**
Nominal Voltage	400, 3Ø 50/60 Hz	460, 3ø 50/60 Hz
Operating Range	380-440 VAC	430-480 VAC
Max Humidity %	95	95
Unit Design		
Operational Temperature Range	-40°C/-40°F to 50°C/122°F	
Material	Standard: Aluzinc Steel (Optional: Stainless Steel or Aluminum)	
Finish	Powder Coat RAL 9016 Traffic White	
Protection	IP 55, NEMA 3R	
Refrigerant	Low GWP CFC-free R454b	
Agency Approvals/Standards	CE, ETL / UL, RoHS / REACH / CLP, Telcordia GR-487 capable	
Sound Level @ 1.5 m dB(A)	68 (Normal Operation) / 60 (Night Mode with noise abatement)	
Unit dimensions & weight		
Height mm/in.	1,930 / 76	1,930 / 76
Width mm/in.	1,067 / 42	1,067 / 42
Depth mm/in.	762 / 30	762 / 30
Weight kg/lb	290 / 638	290 / 638

Cooling capacity (50/60Hz)

VAE 5 Packaged (A3 / 3x400 VAC)

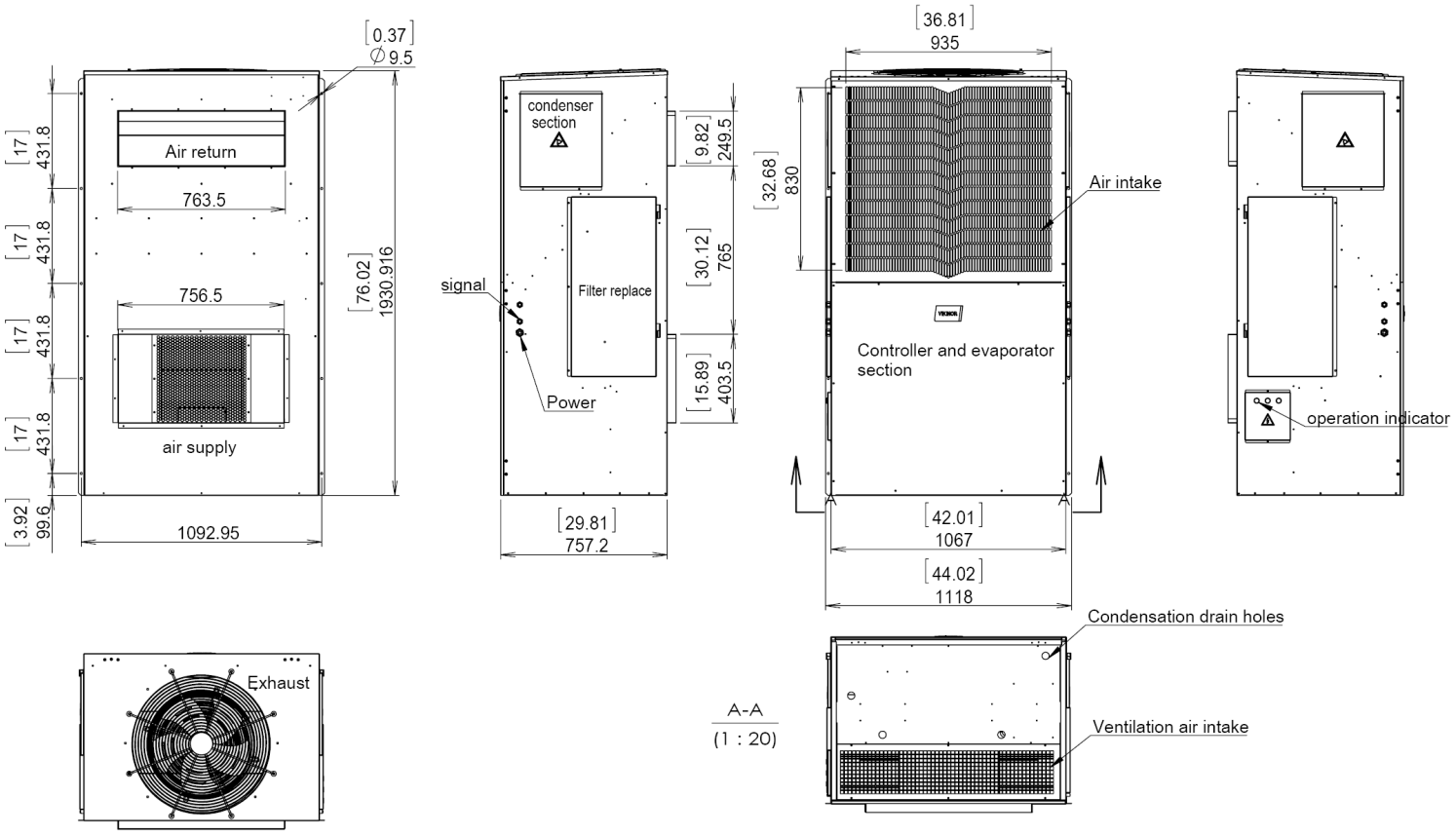


360° rotation view





Product dimension in mm (in.)



Cut-out drawing in mm (in.) view from inside door

