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.)

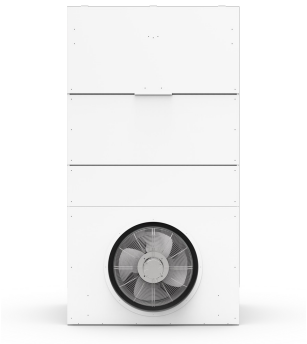
Easy to install

- 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 10 Packaged

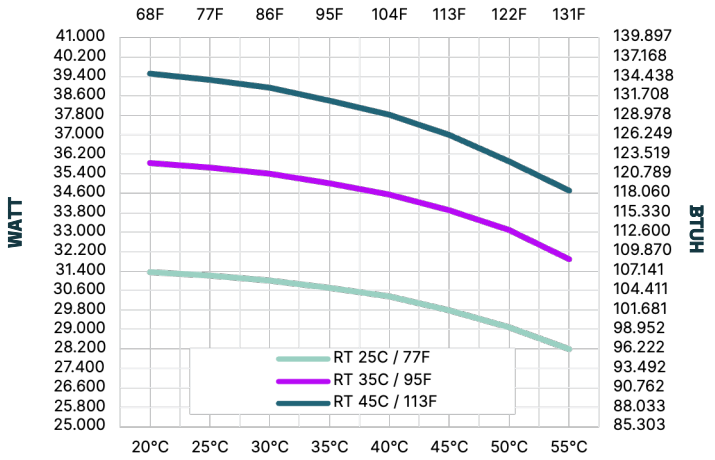
A3 + C5 model specifications

Product series name	VAE 10 Packaged A3		VAE 10 Packaged C5	
Model	**A3 – 3x400 VAC**		**C5 – 3x460 VAC**	
Part numbers				
Refrigerant	**R454b**		**R454b**	
Edge Config.	1834123		1834143	
Telecom Config.	1834223		1834243	
Cooling and Heating performance				
Active Cooling	**Watt**	**BTU/h**	**Watt**	**BTU/h**
Nominal	35,000	119,420	35,000	119,420
At 27°C/35°C (81°F/95°F)	31,000	105,780	31,000	105,780
At 35°C/35°C (95°F/95°F)	35,000	119,420	35,000	119,420
At 35°C/55°C (95°F/131°F)	17,200	58,680	17,200	58,680
Energy Efficiency Ratio	**Watt/Watt**	**BTU/Wh**	**Watt/Watt**	**BTU/Wh**
At 27°C/35°C (81°F/95°F)	2.93	10	2.93	10
Free Cooling	**Watt/°K**	**Watt/°F**	**Watt/°K**	**Watt/°F**
Nominal	2,300	1280	2,300	1280
Air Flow Ratings	**m3/hr.**	**CFM**	**m3/hr.**	**CFM**
Airflow, internal loop	6,800	4,000	6,800	4,000
Airflow, external loop	5,950	3,500	5,950	3,500
Free Cooling				
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		11	
Heater Inrush Current	23		21	

Product series name	VAE 10 Packaged A3	VAE 10 Packaged C5
Model	**A3 – 3x400 VAC**	**C5 – 3x460 VAC**
Electrical data		
Active Cooling	**VAC**	**VAC**
Nominal voltage	400	460
Operating range	360-440	440-480
Power Consumption	**Watt**	**Watt**
Power Consumption at 35°C/35°C (95°F/95°F)	9,480	9,480
Power Consumption at 35°C/55°C (95°F/131°F)	8,380	8,380
Power Consumption At 27°C/35°C (81°F/95°F)	9,380	9,380
Starting Current (Amp)	12	12
MCA Full Load Amps	17.6	17.6
Max Over Current Protection	25	25
Free Cooling	**VAC**	**VAC**
Nominal Voltage	400	460
Operating Range	360-440	440-480
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)	70 (Normal Operation) / 65 (Night Mode with noise abatement)	
Unit dimensions & weight		
Height mm/in.	2,395/94.3	2,395/94.3
Width mm/in.	1,338/52.7	1,338/52.7
Depth mm/in.	1,100/43.3	1,100/43.3
Weight kg/lb	540/1190	540/1190

Cooling capacity (50/60Hz)

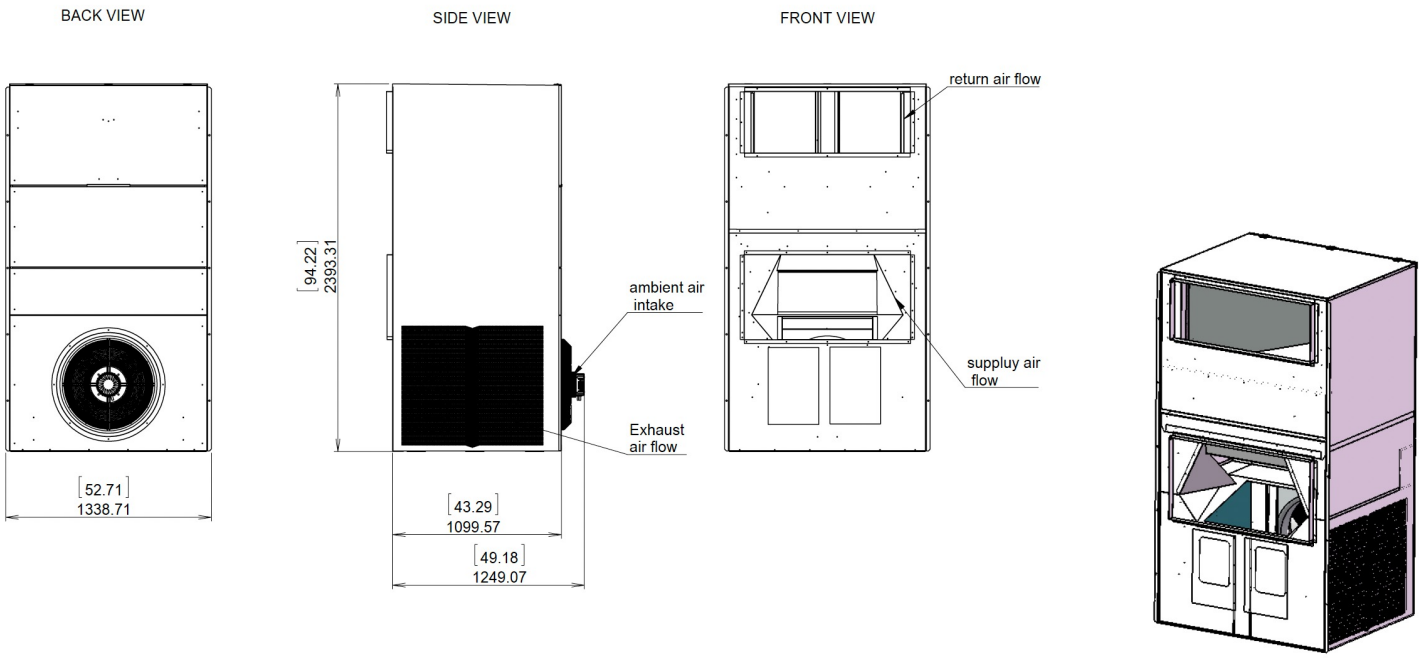
VAE 10 Packaged (A3 / 3x400 VAC)



360° rotation view



Product dimension in mm (in.)



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

