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.)

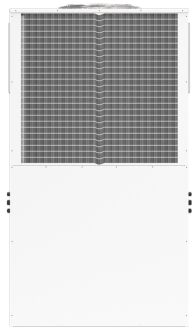
Easy to install

- 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	✓	



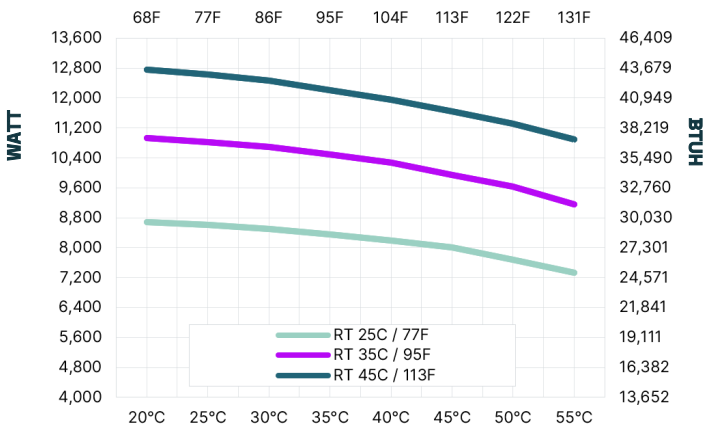
VAE 3 Packaged

A2 + AD model specifications

Product series name	VAE 3 Packaged A2		VAE 3 Packaged AD	
Model	**A2 – 1x230 VAC**		**AD – 1x230 VAC/48VDC**	
Part numbers				
Refrigerant	**R454b**		**R454b**	
Edge Config.	1834101		N/A	
Telecom Config.	1834201		1834261	
Cooling and Heating performance				
Active Cooling	**Watt**	**BTU/h**	**Watt**	**BTU/h**
Nominal	10,500	36,000	10,500	36,000
At 27°C/35°C (81°F/95°F)	10,500	36,000	10,500	36,000
At 35°C/35°C (95°F/95°F)	11,500	39,240	11,500	39,240
At 35°C/55°C (95°F/131°F)	6,000	20,472	6,000	20,472
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	900	500	900	500
Air Flow Ratings	**m3/hr.**	**CFM**	**m3/hr.**	**CFM**
Airflow, internal loop	2,040	1,200	2,040	1,200
Airflow, external loop	2,805	1,650	2,805	1,650
Free Cooling	2,700	1,500	2,700	1,500
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 (22) Amp		13 (22) Amp	
Heater Inrush Current	20		20	

Product series name	VAE 3 Packaged A2	VAE 3 Packaged AD	
Model	**A2 – 1x230 VAC**	**AD – 1x230 VAC/48VDC**	
Electrical data			
Active Cooling	**VAC**	**VAC**	**VDC**
Nominal voltage	230, 1Ø 50/60 Hz	230, 1Ø 50/60 Hz	48
Operating range	187-270 VAC	187-270 VAC	42-60VDC
Power Consumption	**Watt**	**Watt**	
Power Consumption at 35°C/35°C (95°F/95°F)	3,480	2,800	640
Power Consumption at 35°C/55°C (95°F/131°F)	3,750	3,150	640
Power Consumption At 27°C/35°C (81°F/95°F)	3,200	2560	640
Starting Current (Amp)	5	5	3
MCA Full Load Amps	23.8	15.7	13.75
Max Over Current Protection	30	25	16
Free Cooling	**VAC**	**VDC**	
Nominal Voltage	230, 1Ø 50/60 Hz	48	
Operating Range	187-270	42-60	
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)	65 (Normal Operation) / 58 (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	275 / 605	280 / 616	

Cooling capacity (50/60Hz)

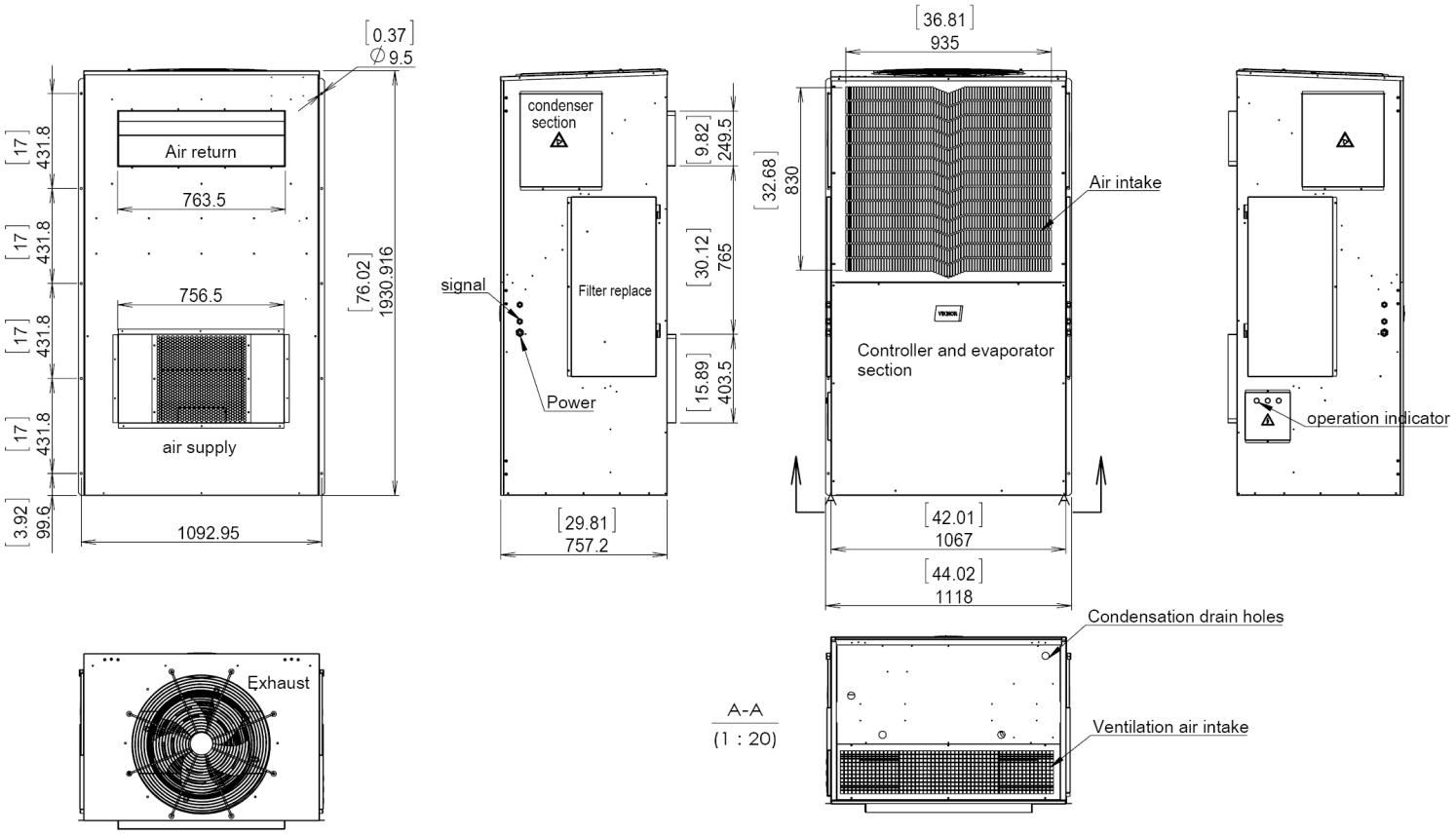


360° rotation view





Product dimension in mm (in.)



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

