

# Sentinel Series

AC-SEN-VMP-430-TP



The Sentinel series from Aqua Chiller is a reliable range of outdoor chillers, designed to handle capacities from 6 kW to 110 kW. Tailored for Australian conditions and built with European precision, these units incorporate top-tier components like Danfoss/Copeland compressors and Carel controllers to ensure dependable and consistent cooling performance.

## Features

- Range 6kW to 110kW.
- European built and designed for Australian conditions.
- Onsite commissioning included (a).
- 3 year warranty included as standard (b).
- Compact, space saving design, suitable for indoor or outdoor installation with an electrical panel protected by a double enclosure.
- Galvanized steel frame further protected with polyester powder paint.
- Heavy duty adjustable feet to provide stability.
- High efficiency and quiet operation with scroll compressors.
- Less refrigerant charge by using an efficient brazed plate heat exchanger as the evaporator.
- Equipped with a thermostatic expansion valve.
- Includes a generously sized copper pipe aluminum finned condenser coil for high efficiency.
- Includes fan speed controller.
- Features the Carel  $\mu$ Chiller microprocessor controller with Carel APPLICA NFC technology - connects your mobile phone to the chiller for parameter monitoring and easy changes.
- Optional Modbus capability and remote control panel.
- Thermally insulated stainless steel water tank.
- Internal stainless steel pump with 4 bar of pressure.
- Convenient pressure gauge included on the case for water pressure, high and low refrigerant pressures.
- Easy to service design.
- Non corrosive pipe material.
- Flow switch protection.
- High and low pressure protection.
- Thermal overloads on motors.
- Phase Rotation, Fail, and Frequency protection.
- Alarm output contact.
- Remote on/off contact.
- Anti Freezing Alarm to protect evaporator.
- All models are tested under real conditions before shipment.
- Installation and maintenance plans are available.



## Benefits

Engineered for outdoor reliability, the Sentinel series combines durable construction with industry-leading components, making it the ideal solution for long-term, efficient operation. The efficient brazed plate heat exchanger reduces refrigerant charge, while the thermally insulated stainless steel water tank ensures steady and reliable cooling. Designed with a focus on ease of maintenance, these chillers feature practical elements such as an internal pump, flow switch protection, and a fan speed controller, all contributing to enhanced usability. Each unit undergoes rigorous testing to guarantee optimal performance right out of the box. With a 3-year warranty the Sentinel series provides peace of mind, making it a solid and dependable choice for outdoor cooling needs.

## Notes

- (a) Onsite commissioning included in metro areas only. Additional travel fees apply for areas outside of metro regions and will be specified on quotation.
- (b) 3 year warranty valid when unit installed to our specifications verified by Aqua Chiller commissioning visit. 6 month maintenances must be completed and logged on our website by qualified personel. Annual water treatment and filter changes must occur with proof provided. Aqua Chiller can offer install and maintenance packages to suit.

## 3 year warranty

All Aqua Chiller units are tested throughout the manufacturing process followed by a substantial and comprehensive test upon completion. Coupled with the world's most trusted component brands, Aqua Chiller's products are designed and built to last.



Your Partner in Cool.

Online: [www.aquacooler.com](http://www.aquacooler.com)

Email: [care@aquacooler.com](mailto:care@aquacooler.com)

Phone: 1300 278 226

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## Specifications

Model	AC-SEN-VMP-430-TP	
Cooling Capacity +7C supply +35C ambient	kW	39.3
Compressor Power Input	kW	11.8
Fan Power Input	kW	0.6
Pump Power Input	kW	2.2
Combined Power Input	kW	15.2
Power Supply	V/Ph/Hz	415/3/50
Operating Current	Amp	22.5
Max Current Draw	Amp	38.6
Locked Rotor Amps	Amp	197
Type of Refrigerant	R410a	
Outdoor Installation	Suitable	
Expansion Device	Thermostatic Expansion Valve	
Condenser Type	Copper Pipes, Aluminum Fins	
Fan Type	Axial (Ø63)	
No. of Fans	2	
Fan Motor Power	kW	2x0.6
Fan Speed Control	Yes	
Condenser Air Flow Rate	m3/h	2x11000
Compressor Type	Scroll	
No. Compressors	1	
Compressor Capacity Control Steps	%	0 or 100%
Number of Refrigerant Circuits	1	
Nominal Compressor Power	HP	15
Evaporator Type	Braze Plate Heat Exchanger	
Evaporator Flow Rate	m3/h	6.8
Tank	Included, non-pressurised	
Tank Material	AISI 304 Stainless Steel	
Tank Volume	L	200
No of Pumps	1	
Pump Type	Centrifugal	
Pump Power Input	kW	2.2
Pump Pressure	bar	4 bar
Flow Protection	Flow-switch	
Water Inlet Connection Size	DN	40
Water Outlet Connection Size	DN	40
Type of Controller	Carel uChiller	
HP Control	Semi Auto Reset Switch	
HP Gauge	Yes	
LP Control	Transducer	
LP Gauge	Yes	
Dimensions	mm	1050 W x 1900 D x 1850 H
Dry Weight	Kg	550

## Notes

- Nominal cooling capacity is calculated with 7°C chilled-water supply and 35°C inlet cooling air temperature at system flow rate and pressure
- Recommended temperature range of chilled fluid: 3°C and 25°C. Use of glycol recommended for set points under 6°C.
- Temperature difference between inlet and outlet chilled fluid between 4°C and 7°C. Contact us for temperature splits outside of this range
- All figures are at the rating point of 7c supply in 35c ambient.
- We recommend the use of R134a when ambient temperatures are expected to reach 42°C+

## Features

- Flow switch protection.
- High and low pressure protection.
- Thermal overloads on motors.
- Phase Rotation, Fail, and Frequency protection.
- Alarm output contact.
- Remote on/off contact.
- Anti freezing alarm to protect evaporator.
- All models are tested under real conditions before shipment.
- Installation and maintenance plans are available.

## Company details

<b>Registered Company Name:</b>	Aqua Cooler Pty Ltd
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