

# Sentinel Series

AC-SEN-VMP-85-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

**AQUA**  
**CHILLER**

## Specifications

| Model                                       | AC-SEN-VMP-85-TP             |                       |
|---------------------------------------------|------------------------------|-----------------------|
| Cooling Capacity<br>+7C supply +35C ambient | kW                           | 7.7                   |
| Compressor Power Input                      | kW                           | 2.6                   |
| Fan Power Input                             | kW                           | 0.25                  |
| Pump Power Input                            | kW                           | 0.75                  |
| Combined Power Input                        | kW                           | 3.6                   |
| Power Supply                                | V/Ph/Hz                      | 415/3/50              |
| Operating Current                           | Amp                          | 4.6                   |
| Max Current Draw                            | Amp                          | 7                     |
| Locked Rotor Amps                           | Amp                          | 46                    |
| Type of Refrigerant                         | R410a                        |                       |
| Outdoor Installation                        | Suitable                     |                       |
| Expansion Device                            | Thermostatic Expansion Valve |                       |
| Condenser Type                              | Copper Pipes, Aluminum Fins  |                       |
| Fan Type                                    | Axial (Ø45)                  |                       |
| No. of Fans                                 | 1                            |                       |
| Fan Motor Power                             | kW                           | 0.25                  |
| Fan Speed Control                           | Yes                          |                       |
| Condenser Air Flow Rate                     | m3/h                         | 4500                  |
| Compressor Type                             | Scroll                       |                       |
| No. Compressors                             | 1                            |                       |
| Compressor Capacity Control Steps           | %                            | 0 or 100%             |
| Number of Refrigerant Circuits              | 1                            |                       |
| Nominal Compressor Power                    | HP                           | 3                     |
| Evaporator Type                             | Braze Plate Heat Exchanger   |                       |
| Evaporator Flow Rate                        | m3/h                         | 1.3                   |
| Tank                                        | Included, non-pressurised    |                       |
| Tank Material                               | AISI 304 Stainless Steel     |                       |
| Tank Volume                                 | L                            | 50                    |
| No of Pumps                                 | 1                            |                       |
| Pump Type                                   | Centrifugal                  |                       |
| Pump Power Input                            | kW                           | 0.75                  |
| Pump Pressure                               | bar                          | 4 bar                 |
| Flow Protection                             | Flow switch                  |                       |
| Water Inlet Connection Size                 | DN                           | 25                    |
| Water Outlet Connection Size                | DN                           | 25                    |
| Type of Controller                          | Carel uChiller               |                       |
| HP Control                                  | Semi Auto Reset Switch       |                       |
| HP Gauge                                    | Yes                          |                       |
| LP Control                                  | Transducer                   |                       |
| LP Gauge                                    | Yes                          |                       |
| Dimensions                                  | mm                           | 600 W x 960 D x 950 H |
| Dry Weight                                  | Kg                           | 170                   |

## 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                           |
| <b>ABN Number:</b>              | 88 151 215 351                                |
| <b>Address</b>                  | 38-44 Relentless Court<br>PARK RIDGE QLD 4125 |
| <b>Postal Address:</b>          | PO Box 3225<br>LOGANHOLME QLD 4128            |
| <b>Telephone:</b>               | 1300 278 226                                  |
| <b>Website:</b>                 | www.aquachiller.com                           |
| <b>Email:</b>                   | care@aquachiller.com                          |