



## Range from 155 to 320kW

The Zeus series from Aqua Chiller offers robust screw chillers designed specifically for the demanding Australian climate, with capacities ranging from 155 kW to 322 kW. Engineered for reliability and efficiency, the Zeus chillers are the ideal solution for large-scale industrial applications that require powerful and consistent cooling.

## Benefits

Built for the toughest environments, the Zeus series incorporates advanced features like compressor motor protection, electronic expansion valves, and shell-and-tube evaporators to ensure optimal performance under all conditions. These chillers also include compressor suction and discharge valves, an INT 69 RCY motor protection module, and a pCO5 advanced Carel controller for dependable cooling management. To enhance durability and longevity, the Zeus series is equipped with additional safeguards such as phase monitoring, rotation detection, and anti-vibration dampers. These features make the Zeus series the ultimate choice for critical industrial cooling needs, delivering unmatched reliability and performance for large-scale applications.

## Features

- Compressor suction and discharge valves.
- Compressor crankcase heater.
- Oil level switch.
- INT 69 RCY motor protection module.
- Compressor motor protector switch.
- Part-winding start.
- Electronic expansion valve.
- Suction and discharge pressure transducers.
- Carel pCO5 controller.
- Anti vibration dampers.
- Flow-switch.
- Main interlock switch.
- Alarm output relay.
- Carel pCOxcontrol card.
- Phase monitoring and rotation detection relay.
- Back-up battery for EEV.
- Shell and tube evaporators.

### 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.



## 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.

# Specifications: 155-332 kW

Aqua Chiller Model name		AC-ZEU-VSA-168	AC-ZEU-VSA-190	AC-ZEU-VSA-231
Cooling Capacity +7C supply +35C ambient	kW	155.1	175.8	199.0
Compressor Power Input	kW	46.0	52.0	59.1
Refrigerant		R134a	R134a	R134a
Outdoor Installation		Suitable	Suitable	Suitable
Expansion Device		Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Operating Current	Amp	70	87	97
Max Current Draw	Amp	169	145	152
Locked Rotor Amps	Amp	298	373	405
Condenser Type		Copper Pipes, Aluminum Fins	Copper Pipes, Aluminum Fins	Copper Pipes, Aluminum Fins
Number of Condensers		2	2	2
Fan Type		Axial (Ø80)	Axial (Ø80)	Axial (Ø80)
Fan quantity		3	4	4
Fan power input	kW	3x1.2	4x1.2	4x1.2
Fan air flow	m <sup>3</sup> /h	3x22500	4x22500	4x22500
Fan Speed Control		Yes	Yes	Yes
Compressor Type		Twin Screw	Twin Screw	Twin Screw
No. Compressors		1	1	1
Compressor Capacity Control	Stepless	0%, then stepless from 50% to 100%	0%, then stepless from 50% to 100%	0%, then stepless from 50% to 100%
Number of refrigerant circuits		1	1	1
Evaporator type		Shell & tube	Shell & tube	Shell & tube
Evaporator flow rate	m <sup>3</sup> /h	26.7	30.2	34.2
Tank volume		Option	Option	Option
Number of pumps		Option	Option	Option
Pump Pressure		Option	Option	Option
Type of flow protection		Flow switch	Flow switch	Flow switch
Water Inlet Connection Size	DN	125	125	125
Water Outlet Connection Size	DN	125	125	125
Type of controller		Carel pCO5 Series	Carel pCO5 Series	Carel pCO5 Series
Modbus		Option	Option	Option
Supervisory connection and web interface card		Option	Option	Option
HP Control		Pressure Switch and Transducer	Pressure Switch and Transducer	Pressure Switch and Transducer
LP Control		Transducer	Transducer	Transducer
Dimensions	mm	1300 W x 3900 D x 2530 H	1300 W x 5000 D x 2550 H	1300 W x 5000 D x 2550 H
Dry Weight	kg	1950	2350	2380

## 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+



Utilises screw compressors for large cooling capacity requirements.

AC-ZEU-VSA-274	AC-ZEU-VSA-308	AC-ZEU-VSA-355
238.4	277.2	321.5
70.9	84.3	95.2
R134a	R134a	R134a
Suitable	Suitable	Suitable
Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
117	138	155
180	198	221
434	530	587
Copper Pipes, Aluminum Fins	Copper Pipes, Aluminum Fins	Copper Pipes, Aluminum Fins
2	4	4
Axial (Ø80)	Axial (Ø80)	Axial (Ø80)
6	6	6
6x1.2	6x1.2	6x1.2
6x22500	6x22500	6x22500
Yes	Yes	Yes
Twin Screw	Twin Screw	Twin Screw
1	1	1
0%, then stepless from 50% to 100%	0%, then stepless from 50% to 100%	0%, then stepless from 50% to 100%
1	1	1
Shell & tube	Shell & tube	Shell & tube
41.0	47.7	55.7
Option	Option	Option
Option	Option	Option
Option	Option	Option
Flow switch	Flow switch	Flow switch
125	125	125
125	125	125
Carel pCO5 Series	Carel pCO5 Series	Carel pCO5 Series
Option	Option	Option
Option	Option	Option
Pressure Switch and Transducer	Pressure Switch and Transducer	Pressure Switch and Transducer
Transducer	Transducer	Transducer
2200 W x 3900 D x 2620 H	2200 W x 3900 D x 2620 H	2200 W x 3900 D x 2530 H
2730	2750	2950

## Features

- Compressor internal protectors respond to over-current and overheating.
- High and low pressure protection.
- Temperature protection via high and low alarm.
- Flow switch protection.
- Fan speed controller.
- Receiver, filter dryer and sight glass on refrigerant circuit.
- Integrated insulated water buffer tank and pump.

## 3 year warranty

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