

Apex Series

AC-APE-VMP-I-460-TP



Introducing the Apex range from Aqua Chiller—our premium selection of industrial chillers, designed to deliver unmatched performance and reliability in outdoor Australian conditions. With capacities ranging from 20 to 100 kW, the Apex chillers feature advanced variable speed scroll compressors from Danfoss, ensuring precise cooling and energy efficiency.

Features

- Capacity range 20-100 kW.
- High efficiency and quiet operation with variable speed driven scroll compressors and EC Brushless fans
- Chiller has stepless capacity control in 1% increments from 25% through to 100% - ensuring the chiller only works as hard as it needs to at all times.
- 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.
- Less refrigerant charge by using an efficient brazed plate heat exchanger as the evaporator.
- Equipped with a electronic expansion valve.
- Includes a generously sized copper pipe aluminum finned condenser coil for high efficiency.
- Features the Carel pCO5 series advanced controller with optional web control card, remote display or RS485 capabilities.
- 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.
- 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

The Apex series represents the peak of industrial cooling solutions, delivering unmatched efficiency and precise cooling control with state-of-the-art technology. Equipped with Danfoss variable speed compressors, electronic expansion valves, EBM brushless EC fans, and Carel pCO5 control technology, these chillers adapt perfectly to your cooling demands, significantly reducing energy waste.

Each unit undergoes rigorous testing under real-world conditions before dispatch and is built for longevity, with a galvanized steel frame and a thermally insulated stainless steel water tank and pump.. Designed for those who demand top-tier performance, the Apex series ensures reliable cooling and is backed by a comprehensive 3-year warranty (b).

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

Email: care@aquacooler.com

Phone: 1300 278 226

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AC-APE-VMP-I-460-TP



Specifications

Model	AC-APE-VMP-I-460-TP	
Cooling Capacity +7C supply +35C ambient	kW	40
Compressor Power Input	kW	12.8
Fan Power Input	kW	0.8
Pump Power Input	kW	1.5
Combined Power Input	kW	15.1
Power Supply	V/Ph/Hz	415/3/50
Operating Current	Amp	20.3
Max Current Draw	Amp	31.5
Type of Refrigerant	R410a	
Outdoor Installation	Suitable	
Expansion Device	Electronic Expansion Valve	
Condenser Type	Copper Pipes, Aluminum Fins	
Fan Type	EC Axial (Ø80)	
No. of Fans	1	
Fan Motor Power	kW	2
Fan Speed Control	10%-100%	
Condenser Air Flow Rate	m3/h	15600
Compressor Type	AC Inverter Scroll	
No. Compressors	1	
Compressor Capacity Control Steps	%	0%, then stepless from 25% to 100%
Number of Refrigerant Circuits	1	
Evaporator Type	Braze Plate Heat Exchanger	
Evaporator Flow Rate	m3/h	6.9
Tank	Included, non-pressurised	
Tank Material	AISI 304 Stainless Steel	
Tank Volume	L	300
No of Pumps	1	
Pump Type	AISI SS304 Centrifugal	
Pump Pressure	bar	4 bar
Flow Protection	Yes	
Water Inlet Connection Size	DN	32
Water Outlet Connection Size	DN	32
Type of Controller	Carel pCO5	
Modus	Yes	
Supervisory connection and web interface card	Option	
HP Control	Semi Auto Reset Switch and Transducer	
HP Gauge	Transducer	
LP Control	Yes	
LP Gauge	Transducer	
Dimensions	mm	1050 W x 1900 D x 2050 H
Dry Weight	Kg	600

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

Registered Company Name:	Aqua Cooler Pty Ltd
ABN Number:	88 151 215 351
Address	38-44 Relentless Court PARK RIDGE QLD 4125
Postal Address:	PO Box 3225 LOGANHOLME QLD 4128
Telephone:	1300 278 226
Website:	www.aquachiller.com
Email:	care@aquachiller.com

Your Partner in Cool.

Online: www.aquacooler.com

Email: care@aquacooler.com

Phone: 1300 278 226

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