# INDUSTRIAL CHILLERS

Aqua Cooler's Industrial Cooling Solutions



Your Partner In Cool.





## **About Us**

Formed in 1994 by the amalgamation of three companies specialising in chilled technology, Aqua Cooler has a proud heritage dating back to 1946 with the manufacture of packaged water chiller units. With over 50 years experience in the industry, no other Australian brand can offer the same level of attention to detail and quality.

Today, the company offers a wide range of industrial process chilling products in four ranges, providing a solution from small indoor scientific chillers in our gladiator range through to large roof top packaged units containing dual refrigeration and water circuit redundancy for mission critical process cooling.

Aqua Cooler offers a host of products and solutions to the market, in addition to a resource-packed aftermarket service. With over 50 years in refrigeration and an intimate understanding of our customer's process cooling needs allow us to provide unparalleled level of specialised aftermarket service.

Your Partner In Cool.







## Aqua Chiller Applications

There's an AquaChiller process chiller to fit every application. We regularly supply industries such as medical imaging, healthcare, plastic manufacturing, mining and mineral production, pharmaceutical, farming, laser and waterjet cutting, data centres, food processors and almost any other process imaginable that requires water cooling.



A. P. A. F.

Scientific Applications



Agriculture



Healthcare



Chemical & Pharma



Machine Tools



Plastics



Laser



Food Processing

# Aqua Cooler is Trusted By:











# Which Aqua Chiller Range is right for me?

Aqua Chiller has a solution for a wide range of industrial cooling requirements. Our chillers are categorised into four ranges, each with their own unique features and benefits. From a small chiller suitable for indoor laboratory equipment, to a large dual redundancy Gladiator HYDRA unit suitable for critical applications, we can provide you with the best solution.

# Factors to consider with selection of models

Each Industrial Chiller range offers its own unique features and benefits, designed to deliver ultimate value to our customers. With multiple levels of technology, you only pay for what you really need.

# Additional options and bespoke solutions

Need any additional options such as an upgraded pump, remote condenser, close hysteresis or low temperature options? Our team can help. Contact us to speak with our in-house engineering and sales team to devise a customised solution to suit your chilling needs.





#### Full Range Features

- Your choice of refrigerant (R134a, R410a).
- Built with world-market-leading component brands such as Emerson and Danfoss compressors.
- Hydrophilic-coated aluminium condenser fins with an upgrade e-coating option for additional corrosion protection.
- High-quality build with galvanised frames and panels forming a stylish and practical structure.
- Laden with safety features, such as phase failure protection, flow switch protection, high and low pressure protection and over-heating protection, included as a standard feature in all chillers.
- Available in both air-cooled and water-cooled configurations and open or closed loop pipework to suit the process needs.
- Various water pump options to suit high and low pressure applications.
- Multiple evaporator types available including coil-in-tank, plate heat exchanger, or shell and tube (on request).

#### Full Range Benefits

- Wide operating limits means Aqua Cooler's Aqua Chiller can be used in a broad range of situations, particularly important for the harsh Australian climate.
- Most models' internal buffer tanks ensure that temperature remains consistent under varying loads, we also offer closed loop versions for existing chillers.
- Simple to use PCB controller; set-and-forget reliability.
- A large selection of chiller models are available to suit a wide range of applications.
- With over 50 years in refrigeration and an intimate understanding of our customer's process cooling needs Aqua Cooler's proud history allows you to select an Aqua Chiller with confidence.



Feature	GLADIATOR	Thermal	GLADIATOR TAN	GLADIATOR
High Quality Build Suitable for Outdoor Use	✓	✓	$\checkmark$	$\checkmark$
Choice of Refrigerant	R410a / R134a	R410a / R134a	R410a / R134a	R410a / R134a
Hydrophilic Blue Fin Aluminium Condenser	$\checkmark$	✓	✓	✓
Optional Blygold Condenser Coating	✓	$\checkmark$	✓	✓
Evaporator Options	Coil in Tank, Plate Pack	Coil in Tank, Plate Pack	Plate Pack	Pate Pack
Controller	Basic PCB	Advanced PCB	Advanced PCB	Advanced PCB
Internal Buffer Tanks	✓	$\checkmark$	$\checkmark$	$\checkmark$
Compressor Brand	Panasonic/ Emerson/ Danfoss	Emerson/Danfoss	Emerson/Danfoss	Emerson/Danfoss
Electrical Components	Schneider	Schneider	Schneider	Schneider
Various Pump Options	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
BMS Connectivity	RS485 Modbus RTU	BACnet /Modbus	BACnet /Modbus	BACnet /Modbus
Internal Network Web Interface	×	✓	$\checkmark$	$\checkmark$
Fan Speed Controller	HP Control	✓	$\checkmark$	✓
Closed Loop Option	✓	$\checkmark$	$\checkmark$	$\checkmark$
Flow Protection	Switch	Meter	Meter	Meter
Pressure Sensors	Manual	Transducers	Transducers	Transducers
Phase Fail Protection	✓	✓	$\checkmark$	✓
Optional Aqua Cooler Advanced Monitoring Solution	Limited	✓	✓	✓
Data Logging	×	$\checkmark$	$\checkmark$	✓
Mounting Options	Castors, Skid	Castors, Skid	Skid	Skid
Redundant Refrigeration Circuit	×	×	✓	$\checkmark$
Redundant Water Cirucit	×	×	×	$\checkmark$
Remote Condenser Option	✓	✓	$\checkmark$	$\checkmark$
UPS Option (pump only)	✓	✓	✓	$\checkmark$

# Our Chillers at a glance.

#### Electrical

Every component in our chillers have been selected for reliability and longevity. Electrical components including breakers and relays are sourced from reputable suppliers such as Schneider. Our controllers are easy to use with "set and forget" reliability.

## Compressors

Our chiller's compressors bring you long lasting reliability and durability with exceptionally high standards of quality. Only the best of the best makes the cut, such as Emerson and Danfoss.

### Pumps

A range of pump options are available for our chiller range. All of which are sourced from highly reputable and market leading manufacturers. Closed loop options are available to suit external pumps or tanks.



## Optional Features



External tank



Glycol compatibility



Remote condenser



External pump / tank



Pump upgrades



#### Enclosure

The stylish and practical structural enclosure is robustly constructed with a rigid frame, powder coated galvanised aluminium panels and heavy-duty castors or skid channels. Our chillers are designed for indoor or outdoor installation.

#### Condensers

Aqua Cooler uses a custom-designed and manufactured condensors in our chillers. An advanced hydophilic coating on the condenser is included as a standard feature and an option of blygold coating exists for extreme environments.

## Evaporators

Our chillers are equipped as standard with an efficient coil-in-tank or shell-and-tube type (model dependant) evaporator, with the option to upgrade to an even high-performing plate-type exchanger.

#### Internal Tanks

Most of our chillers are equipped with an integrated internal buffer tank to cover peak loads or in situations where a surge in demand exceeds.



Close tolerance upgrade



Fan upgrades

## Quality Assured

All Aqua Cooler chillers 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 Cooler's products are designed and built to last.



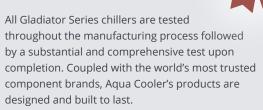


The Gladiator range is a value-focused, affordable and reliable option for your industrial cooling needs without sacrificing quality. The Gladiator range of process chillers from Aqua Cooler boast an impressive set of features and benefits such as world leading refrigeration components, set and forget PCB controller, and robustly constructed powder coated frame.

#### Features

- Your choice of refrigerant (R134a, R410A).
- Built with world-market-leading component brands such as Emerson and Danfoss compressors.
- Hydrophilic-coated aluminium condenser fins with an upgrade e-coating option for additional corrosion protection.
- High-quality build with galvanised frames and panels forming a stylish and practical structure.
- Laden with safety features, such as phase failure protection, flow switch protection, high and low pressure protection included as a standard feature in all G Series chillers.
- Available in both air-cooled and water-cooled configurations and open or closed loop pipework to suit the process needs.
- Various water pump options to suit high and low pressure applications.
- Multiple evaporator types available including coil-in-tank, shell-and-tube or plate heat exchanger.
- Manually controlled water bypass valve to reduce water flow to suit applications.
- Supports remote start/stop/on/off, remote alarm signal output, and remote run signal.

# Quality Assured



#### Benefits

- Wide operating limits means Aqua Cooler's Gladiator Chillers can be used in a broad range of situations, particularly important for the harsh Australian climate.
- Internal buffer tanks ensure that temperature remains consistent under varying loads.
- Simple to use PCB controller; Set-and-forget reliability.
- A large selection of Gladiator models are available to suit a wide range of applications.
- With over 50 years in refrigeration and an intimate understanding of our customer's process cooling needs, Aqua Cooler's proud history allows you to select a Gladiator Chiller with confidence.





# Specifications: 1-31 kW

	Cooling Capacity	Input Power		Cui Dra	rrent w (A)		Refrigeran	nt		Comp	oressor		Cond
Model	kW	kW	Power	Operation	Maximum	Туре	Charge (kg)	Control method	Туре	Number in Chiller	Brand	Power (kW)	Туре
GA0.6-410-CC	1.5	1.3		4.4	6.4	R410A	0.6		Rotary	1	Panasonic	0.6	
GA0.6-410-PP	1.5	1.3		4.4	6.4	R410A	0.6		Rotary	1	Panasonic	0.6	
GA0.6-A-CC	1.6	1.3		4.3	5.6	R134a	0.6		Rotary	1	Haili	0.6	
GA0.6-A-PP	1.7	1.2		4.3	5.6	R134a	0.6		Rotary	1	Haili	0.5	
GA1-410-CC	2.5	1.6	1 <sub>P</sub>	6.1	8.6	R410A	0.7	]	Rotary	1	Panasonic	0.9	
GA1-A-CC	2.7	1.9	1PH/220V/50HZ	8.3	18	R134a	1.0		Rotary	1	Emerson	1.2	
GA1-A-PP	3.0	1.9	)V/5(	8.5	18	R134a	1.0	_	Rotary	1	Emerson	1.2	
GA1-410-PP	3.1	1.6	Ž.	6.1	8.6	R410A	0.7		Rotary	1	Panasonic	0.9	
GA2-410-CC	4.2	2.4		9.3	15	R410A	1.2	Cap	Rotary	1	Panasonic	1.6	
GA2-A-CC	4.5	2.6		12	26	R134a	1.2	Capillary	Rotary	11	Emerson	1.8	
GA2-A-PP	5.0	2.6		12	26	R134a	1.2		Rotary	1	Emerson	1.8	
GA2-410-PP	5.3	2.4		9.3	15	R410A	1.2		Rotary	1	Panasonic	1.6	
GA3-410-CC	6.5	3.6		7.0	12	R410A	2.0		Scroll	1	Panasonic	2.5	¥
GA3-A-CC	7.0	3.5		8.3	15	R134a	3.0		Scroll	1	Emerson	2.5	dropl
GA3-410-PP	7.9	3.6		7.1	12	R410A	2.0		Scroll	1	Panasonic	2.6	hilic /
GA3-A-PP	7.8	3.5		8.3	15	R134a	3.0		Scroll	1	Emerson	2.6	l lum
GA5-A-CC	11	4.8		12	25	R134a	5.0		Scroll	1	Emerson	3.9	uniur
GA5-410-CC	11	4.8		8.9	16	R410A	3.3		Scroll	1	Panasonic	4.0	Hydrophilic Alumunium fin with low noise rotor
GA6-A-CC	12	5.3		12	26	R134a	6.6	Expansion Valve	Scroll	1	Emerson	4.3	with
GA5-A-PP	12	4.9		12	25	R134a	5.0	Capillary	Scroll	1	Emerson	4.0	low n
GA6-410-CC	13	5.6		10	21	R410A	4.2	Expansion Valve	Scroll	1	Danfoss	4.6	io.
GA5-410-PP	14	4.8	(.)	9.0	16	R410A	3.3	Capillary	Scroll	1	Panasonic	4.1	rotor
GA6-A-PP	14	5.4	SPH/	12	26	R134a	6.6	_	Scroll	1	Emerson	4.4	fan
GA6-410-PP	16	5.7	3PH/415V/50HZ	10	21	R410A	4.2		Scroll	1	Danfoss	4.8	
GA8(D)-A-CC	17	7.5	/50H	11	35	R134a	8.0		Scroll	2	Emerson	2.9	
GA8(D)-410-CC	18	8.2	N N	16	32	R410A	5.2		Scroll	2	Panasonic	3.3	
GA8(D)-A-PP	19	7.6		11	35	R134a	8.0		Scroll	2	Emerson	3.0	
GA8(D)-410-PP	22	8.3		16	32	R410A	5.2	храг	Scroll	2	Panasonic	3.4	
GA10(D)-A-CC	22	9.4		22	37	R134a	10	noion .	Scroll	2	Emerson	3.9	
GA10(D)-410-CC	22	9.7		19	33	R410A	6.5	Expansion Valve	Scroll	2	Danfoss	4.0	
GA10(D)-A-PP	24	9.6		23	37	R134a	10	Φ	Scroll	2	Emerson	4.0	
GA12(D)-410-CC	26	11		20	42	R410A	8.4	]	Scroll	2	Danfoss	4.6	
GA10(D)-410-PP	26	9.9		19	33	R410A	6.5	]	Scroll	2	Danfoss	4.1	
GA12(D)-A-CC	28	12		27	57	R134a	13	]	Scroll	2	Danfoss	5.1	
GA12(D)-410-PP	31	12		20	42	R410A	8.4		Scroll	2	Danfoss	4.8	

- 1. Nominal cooling capacity is calculated with 7°C chilled-water supply and 35°C inlet cooling air temperature at system flow rate and pressure
- 2. Working conditions:
  - Recommended temperature range of chilled fluid: 3°C and 25°C. Use of glycol recommended for set points under 3°C.
  - Temperature difference between inlet and outlet chilled fluid between 3°C and 10°C
  - We recommend the use of R134a when ambient temperatures are expected to reach 40°C+
- 3. Operation current draw (OCD) per phase at design point Measure under Evaporating Temp: 2°C | Condensing Temp: 50°C | Superheat: 5K | Subcooling: 2K
- 4. The flow rate is the nominal flow rate at the available lift. The actual flow rate will depend on the load requirement and the pump curve. Non-standard pump available on request.



(m3/h) 2400 Coi 2400 Coi	Type oil in Tank	Tank volume	Inlet/						<b>Option</b> 1 / Pipes				
2400 Coi		volume		Avail	51 5 (1/)		Avail	51 5		Length	Width	Height	Weight
2400 Coi	oil in Tank		outlet pipe calibre	Lift (m)	Flow Rate (L/s)	Model	Lift (m)	Flow Rate (L/s)	Model	(mm)	(mm)	(mm)	(Kg)
		16	1/2"	21	2 m3/h   0.56 L/s	CHLF2-30	35	2 m3/h   0.56 l/s	CHLF2-50	715	730	1140	110
2400 Coi	oil in Tank	16	1/2"	21	2 m3/h   0.56 L/s	CHLF2-30	35	2 m3/h   0.56 l/s	CHLF2-50	715	730	1140	110
2.00	oil in Tank	16	1/2"	21	2 m3/h   0.56 L/s	CHLF2-30	35	2 m3/h   0.56 l/s	CHLF2-50	715	730	1140	110
2400 Coi	oil in Tank	16	1/2"	21	2 m3/h   0.56 L/s	CHLF2-30	35	2 m3/h   0.56 l/s	CHLF2-50	715	730	1140	110
2400 Coi	oil in Tank	16	1/2"	21	2 m3/h   0.56 L/s	CHLF2-30	35	2 m3/h   0.56 l/s	CHLF2-50	715	730	1140	120
2400 Coi	oil in Tank	22	1/2"	21	2 m3/h   0.56 L/s	CHLF2-30	35	2 m3/h   0.56 l/s	CHLF2-50	715	730	1140	130
2400 Coi	oil in Tank	16	1/2"	21	2 m3/h   0.56 L/s	CHLF2-30	35	2 m3/h   0.56 l/s	CHLF2-50	715	730	1140	130
2400 Coi	oil in Tank	16	1/2"	21	2 m3/h   0.56 L/s	CHLF2-30	35	2 m3/h   0.56 l/s	CHLF2-50	715	730	1140	120
3600 Coi	oil in Tank	20	1/2"	21	2 m3/h   0.56 L/s	CHLF2-30	35	2 m3/h   0.56 l/s	CHLF2-50	715	730	1140	140
3600 Coi	oil in Tank	50	1/2"	21	2 m3/h   0.56 L/s	CHLF2-30	35	2 m3/h   0.56 l/s	CHLF2-50	1165	570	1185	160
3600 Coi	oil in Tank	16	1/2"	21	2 m3/h   0.56 L/s	CHLF2-30	35	2 m3/h   0.56 l/s	CHLF2-50	1165	570	1185	160
3600 Coi	oil in Tank	20	1/2"	21	2 m3/h   0.56 L/s	CHLF2-30	35	2 m3/h   0.56 l/s	CHLF2-50	715	730	1140	140
4500 Coi	oil in Tank	50	1"	21	2 m3/h   0.56 L/s	CHLF2-30	42	2 m3/h   0.56 l/s	CHLF2-60	1165	570	1185	160
4500 Coi	oil in Tank	50	1"	21	2 m3/h   0.56 L/s	CHLF2-30	42	2 m3/h   0.56 l/s	CHLF2-60	1565	560	1230	190
4500 Pla	ate Pack	20	1"	21	2 m3/h   0.56 L/s	CHLF2-30	42	2 m3/h   0.56 l/s	CHLF2-60	1165	570	1185	160
4500 Pla	ate Pack	20	1"	21	2 m3/h   0.56 L/s	CHLF2-30	42	2 m3/h   0.56 l/s	CHLF2-60	1565	560	1230	190
4500 Coi	oil in Tank	60	1"	22	4 m3/h   1.11 L/s	CHLF4-30	38	4 m3/h   1.11 l/s	CHLF4-50	1565	560	1230	200
4500 Coi	oil in Tank	60	1"	22	4 m3/h   1.11 L/s	CHLF4-30	38	4 m3/h   1.11 l/s	CHLF4-50	1565	560	1230	190
4500 Coi	oil in Tank	75	1"	22	4 m3/h   1.11 L/s	CHLF4-30	38	4 m3/h   1.11 l/s	CHLF4-50	1645	780	1640	350
4500 Pla	ate Pack	30	1"	22	4 m3/h   1.11 L/s	CHLF4-30	38	4 m3/h   1.11 l/s	CHLF4-50	1565	560	1230	200
4500 Coi	oil in Tank	75	1"	22	4 m3/h   1.11 L/s	CHLF4-30	38	4 m3/h   1.11 l/s	CHLF4-50	1565	560	1230	200
4500 Pla	ate Pack	30	1"	22	4 m3/h   1.11 L/s	CHLF4-30	38	4 m3/h   1.11 l/s	CHLF4-50	1565	560	1230	190
4500 Pla	ate Pack	30	1"	22	4 m3/h   1.11 L/s	CHLF4-30	38	4 m3/h   1.11 l/s	CHLF4-50	1645	780	1640	350
4500 Pla	ate Pack	30	1"	22	4 m3/h   1.11 L/s	CHLF4-30	38	4 m3/h   1.11 l/s	CHLF4-50	1565	560	1230	200
9000 Coi	oil in Tank	120	1-1/2"	30	4 m3/h   1.11 L/s	CHLF4-40	42.5	8 m3/h   2.22 l/s	CHLF8-50	1645	780	1640	580
9000 Coi	oil in Tank	120	1-1/2"	30	4 m3/h   1.11 L/s	CHLF4-40	42.5	8 m3/h   2.22 l/s	CHLF8-50	1645	780	1640	350
9000 Pla	ate Pack	85	1-1/2"	30	4 m3/h   1.11 L/s	CHLF4-40	42.5	8 m3/h   2.22 l/s	CHLF8-50	1645	780	1640	580
9000 Pla	ate Pack	85	1-1/2"	30	4 m3/h   1.11 L/s	CHLF4-40	42.5	8 m3/h   2.22 l/s	CHLF8-50	1645	780	1640	350
9000 Coi	oil in Tank	200	1-1/2"	30	4 m3/h   1.11 L/s	CHLF4-40	42.5	8 m3/h   2.22 l/s	CHLF8-50	1645	780	1640	700
9000 Coi	oil in Tank	200	1-1/2"	30	4 m3/h   1.11 L/s	CHLF4-40	42.5	8 m3/h   2.22 l/s	CHLF8-50	1645	780	1640	580
9000 Pla	ate Pack	85	1-1/2"	30	4 m3/h   1.11 L/s	CHLF4-40	42.5	8 m3/h   2.22 l/s	CHLF8-50	1645	780	1640	700
9000 Coi	oil in Tank	200	2"	25.5	8 m3/h   2.22 L/s	CHLF8-30	42.5	8 m3/h   2.22 l/s	CHLF8-50	1645	780	1640	700
9000 Pla	ate Pack	85	1-1/2"	30	4 m3/h   1.11 L/s	CHLF4-40	42.5	8 m3/h   2.22 l/s	CHLF8-50	1645	780	1640	580
9000 Coi	oil in Tank	200	2"	25.5	8 m3/h   2.22 L/s	CHLF8-30	42.5	8 m3/h   2.22 l/s	CHLF8-50	2015	990	1780	830
9000 Pla	ate Pack	85	2"	25.5	8 m3/h   2.22 L/s	CHLF8-30	42.5	8 m3/h   2.22 l/s	CHLF8-50	1645	780	1640	700

- Compressor internal protectors respond to over-current and overheating
- High- and Low-Pressure Protection
- Temperature Protection via High and Low Alarm
- Flow Switch Protection
- Phase Sequence or Missing Phase Protection
- Low Water Level Alarm Protection



# Specifications: 32 kW+

	Cooling Capacity	Input Power		Cu Dra	rrent w (A)		Refrigeran	t		Comp	ressor		Conde
Model	kW	kW	Power	Operation	Maximum	Туре	Charge (kg)	Control method	Туре	Number in Chiller	Brand	Power (kW)	Туре
GA12(D)-A-PP	32	12		27	57	R134a	13		Scroll	2	Danfoss	5.2	
GA15(D)-A-CC	34	15	]	34	69	R134a	17		Scroll	2	Danfoss	6.3	
GA15(D)-410-CC	34	14		27	55	R410A	11		Scroll	2	Danfoss	5.7	
GA15(D)-A-PP	38	16		34	69	R134a	17		Scroll	2	Danfoss	6.4	
GA15(D)-410-PP	40	14		28	55	R410A	11		Scroll	2	Danfoss	5.9	
GA20(D)-410-CC	45	19	]	34	57	R410A	14		Scroll	2	Danfoss	7.5	
GA20(D)-410-PP	53	20		35	57	R410A	14		Scroll	2	Danfoss	7.7	
GA20(D)-A-CC	57	25	]	49	107	R134a	22		Scroll	2	Danfoss	10.5	
GA25(D)-410-CC	58	26		47	81	R410A	18		Scroll	2	Danfoss	10.0	
GA20(D)-A-PP	63	26	]	50	107	R134a	22		Scroll	2	Danfoss	10.8	Į.
GA30(D)-410-CC	67	28		53	87	R410A	21		Scroll	2	Danfoss	11.3	Hydrophilic Alumunium fin with low noise rotor fan
GA25(D)-410-PP	69	26	]	48	82	R410A	18		Scroll	2	Danfoss	10.3	hilic
GA25(D)-A-CC	71	32	]	65	149	R134a	28		Scroll	2	Danfoss	13.0	MuM
GA25(D)-A-PP	79	32	3PH/415V/50HZ	66	149	R134a	28	Expansion Valve	Scroll	2	Danfoss	13.3	uniur
GA30(D)-410-PP	79	28	415\/.	54	87	R410A	21	nsion	Scroll	2	Danfoss	11.7	n fin
GA40(F)-410-CC	89	35	,50H2	64	110	R410A	28	Valve	Scroll	4	Danfoss	7.5	with _
GA30(D)-A-CC	90	36		67	168	R134a	33	W.	Scroll	2	Danfoss	15.6	ow n
GA30(D)-A-PP	100	37	]	68	168	R134a	33		Scroll	2	Danfoss	16.0	oise r
GA40(F)-410-PP	106	36		66	110	R410A	28		Scroll	4	Danfoss	7.7	otor
GA40(F)-A-CC	114	47	]	94	210	R134a	44		Scroll	4	Danfoss	10.5	ล้า
GA50(F)-410-CC	116	48		85	153	R410A	35		Scroll	4	Danfoss	10.0	
GA40(F)-A-PP	127	48	]	95	210	R134a	44		Scroll	4	Danfoss	10.8	
GA60(F)-410-CC	133	53		99	168	R410A	42		Scroll	4	Danfoss	11.3	
GA50(F)-410-PP	137	49	]	86	153	R410A	35		Scroll	4	Danfoss	10.3	
GA50(F)-A-CC	142	60		121	289	R134a	55		Scroll	4	Danfoss	13.0	
GA50(F)-A-PP	158	61	]	122	289	R134a	55		Scroll	4	Danfoss	13.3	
GA60(F)-410-PP	158	55	]	101	168	R410A	42		Scroll	4	Danfoss	11.7	
GA60(F)-A-CC	179	70	]	129	329	R134a	66		Scroll	4	Danfoss	15.6	
GA60(F)-A-PP	200	72		130	329	R134a	66		Scroll	4	Danfoss	16.0	

- 1. Nominal cooling capacity is calculated with 7°C chilled-water supply and 35°C inlet cooling air temperature at system flow rate and pressure
- 2. Working conditions:
  - Recommended temperature range of chilled fluid: 3°C and 25°C. Use of glycol recommended for set points under 3°C.
  - $\bullet\,$  Temperature difference between inlet and outlet chilled fluid between 3°C and 10°C
  - We recommend the use of R134a when ambient temperatures are expected to reach 40°C+
- 3. Operation current draw (OCD) per phase at design point Measure under Evaporating Temp: 2°C | Condensing Temp: 50°C | Superheat: 5K | Subcooling: 2K
- 4. The flow rate is the nominal flow rate at the available lift. The actual flow rate will depend on the load requirement and the pump curve. Non-standard pump available on request.



nser		Evaporator		<b>W</b> Sta	ater Pump Standard Cinless Steel #304 Pump	Option / Pipes	<b>W</b> a Stair	nter Pump Upgrade O nless Steel #304 Pump	Option o / Pipes	1	Dimensions a	nd Weight	
Cooling air flow	Туре	Tank	Inlet/ outlet pipe	Avail	Flow Rate (L/s)	Model	Avail Lift (m)	Flow Rate (L/s)	Model	Length	Width	Height	Weight
(m3/h)	Туре	volume	calibre	Lift (m)	How Rate (L/S)	Model	Lift (m)	Flow Rate (E/S)	Model	(mm)	(mm)	(mm)	(Kg)
9000	Plate Pack	85	2"	25.5	8 m3/h   2.22 L/s	CHLF8-30	42.5	8 m3/h   2.22  /s	CHLF8-50	2015	990	1780	830
9600	Coil in Tank	300	2"	25.5	8 m3/h   2.22 L/s	CHLF8-30	39.5	12 m3/h   3.33 l/s	CHLF12-40	2065	1130	1820	890
9600	Coil in Tank	300	2"	25.5	8 m3/h   2.22 L/s	CHLF8-30	39.5	12 m3/h   3.33 l/s	CHLF12-40	2015	990	1780	830
9600	Plate Pack	145	2"	25.5	8 m3/h   2.22 L/s	CHLF8-30	39.5	12 m3/h   3.33 l/s	CHLF12-40	2065	1130	1820	890
9600	Plate Pack	145	2"	25.5	8 m3/h   2.22 L/s	CHLF8-30	39.5	12 m3/h   3.33 l/s	CHLF12-40	2015	990	1780	830
13000	Coil in Tank	350	2"	34	10 m3/h l 2.77 L/s	CDMF10-4	39.5	12 m3/h   3.33 l/s	CHLF12-40	2065	1130	1820	890
13000	Plate Pack	170	2"	34	10 m3/h l 2.77 L/s	CDMF10-4	39.5	12 m3/h   3.33 l/s	CHLF12-40	2065	1130	1820	890
13000	Coil in Tank	350	2"	34	10 m3/h l 2.77 L/s	CDMF10-4	39.5	12 m3/h   3.33 l/s	CHLF12-40	2165	1130	2150	960
18000	Coil in Tank	350	2-1/2"	34.5	15m3/h   4.17 L/s	CDMF15-3	45	15 m3/h   4.17 l/s	CHLF15-40	2165	1130	2150	960
13000	Plate Pack	170	2"	34	10 m3/h l 2.77 L/s	CDMF10-4	39.5	12 m3/h   3.33 l/s	CHLF12-40	2165	1130	2150	960
18000	Coil in Tank	460	2-1/2"	34.5	15 m3/h l 4.17 L/s	CDMF15-3	45	15 m3/h   4.17 l/s	CHLF15-40	2065	1480	2000	1250
18000	Plate Pack	170	2-1/2"	34.5	15m3/h   4.17 L/s	CDMF15-3	45	15 m3/h   4.17 l/s	CHLF15-40	2165	1130	2150	960
18000	Coil in Tank	350	2-1/2"	34.5	15m3/h   4.17 L/s	CDMF15-3	45	15 m3/h   4.17 l/s	CHLF15-40	2065	1480	2000	1250
18000	Plate Pack	170	2-1/2"	34.5	15m3/h   4.17 L/s	CDMF15-3	45	15 m3/h   4.17 l/s	CHLF15-40	2065	1480	2000	1250
18000	Plate Pack	220	2-1/2"	34.5	15 m3/h l 4.17 L/s	CDMF15-3	45	15 m3/h   4.17 l/s	CHLF15-40	2065	1480	2000	1250
18000	Coil in Tank	580	2-1/2"	23	20 m3/h   5.55 L/s	CDLF20-2	40	32 m3/h   8.88 l/s	CDLF32-30	2165	1660	2050	1350
18000	Coil in Tank	460	2-1/2"	34.5	15 m3/h l 4.17 L/s	CDMF15-3	45	15 m3/h   4.17 l/s	CHLF15-40	2065	1560	2000	1350
18000	Plate Pack	220	2-1/2"	34.5	15 m3/h l 4.17 L/s	CDMF15-3	45	15 m3/h   4.17 l/s	CHLF15-40	2065	1560	2000	1350
18000	Plate Pack	240	2-1/2"	23	20 m3/h   5.55 L/s	CDLF20-2	40	32 m3/h   8.88 l/s	CDLF32-30	2165	1660	2050	1350
18000	Coil in Tank	580	2-1/2"	23	20 m3/h   5.55 L/s	CDLF20-2	40	32 m3/h   8.88 l/s	CDLF32-30	2785	1760	2050	1650
26000	Coil in Tank	620	3"	27	32 m3/h   8.88 L/s	CDLF32-20	40	32 m3/h   8.88 l/s	CDLF32-30	2785	1760	2050	1650
18000	Plate Pack	240	2-1/2"	23	20 m3/h   5.55 L/s	CDLF20-2	40	32 m3/h   8.88 l/s	CDLF32-30	2785	1760	2050	1650
26000	Coil in Tank	750	3"	27	32 m3/h   8.88 L/s	CDLF32-20	40	32 m3/h   8.88 l/s	CDLF32-30	3135	2200	2000	1850
26000	Plate Pack	345	3"	27	32 m3/h   8.88 L/s	CDLF32-20	40	32 m3/h   8.88 l/s	CDLF32-30	2785	1760	2050	1650
26000	Coil in Tank	620	3"	27	32 m3/h   8.88 L/s	CDLF32-20	40	32 m3/h   8.88 l/s	CDLF32-30	3135	2200	2000	1850
26000	Plate Pack	345	3"	27	32 m3/h   8.88 L/s	CDLF32-20	40	32 m3/h   8.88 l/s	CDLF32-30	3135	2200	2000	1850
26000	Plate Pack	345	3"	27	32 m3/h   8.88 L/s	CDLF32-20	40	32 m3/h   8.88 l/s	CDLF32-30	3135	2200	2000	1850
26000	Coil in Tank	750	3"	27	32 m3/h   8.88 L/s	CDLF32-20	40	32 m3/h   8.88 l/s	CDLF32-30	3135	2200	2000	1850
26000	Plate Pack	345	3′	27	32 m3/h   8.88 L/s	CDLF32-20	40	32 m3/h   8.88 l/s	CDLF32-30	3135	2200	2000	1850

- Compressor internal protectors respond to over-current and overheating
- High- and Low-Pressure Protection
- Temperature Protection via High and Low Alarm
- Flow Switch Protection
- Phase Sequence or Missing Phase Protection
- Low Water Level Alarm Protection







Aqua Cooler's Thermal X range contains our R Series design which has stood the test of time in the harshest Australian conditions. With over 5,500 installs worldwide, Aqua Cooler's R Series is backed by 50 years of history and experience. Each R Series includes our advanced PCB controller as a standard feature which allows advanced control including a web-based interface via IP, HLI capability via RS485, Modbus, Bacnet, and more.

#### Features

- Thermal X Series industrial process chillers are Australian designed and tested.
- A high ambient temperature operation of up to 46°c with R134a
- Advanced PCB controller with Australian designed software allows advanced control - Web page interface via IP, HLI capability RS485, Modbus, Bacnet, and more.
- Extensive parameter settings to suit a variety of applications.
- Advanced safety controls will ensure your chiller remains safe. Features such as phase protection, thermal overload, low flow protection, water freeze protection and more as a standard feature.
- Improved data logging via USB or webpage download.
- Variable speed drive options on fans ensure your Thermal X chiller is only working as hard as it needs to.
- Open or closed loop pipework options to suit the requirements of the process.
- Refrigerant options of R134a or R410A.
- High efficiency scroll and rotary compressors made by industry leading brands.
- Manually controlled water bypass valve to reduce water flow to suit applications.
- View critical parameters such as pressures, water flow rate, and temperatures via the PCB.
- Supports remote start/stop/on/off, remote alarm signal output, and remote run signal.

#### **Benefits**

- Using the advanced PCB, multi-chiller control options are available that allow benefits such as redundancy control, remote start / stop and performance monitoring.
- Your Aqua Cooler R Series industrial process chiller can be tailored to your unique requirements ensuring you have the most effective and efficient solution to your project. Talk to us about any required customisations.
- Wide operating limits means Aqua Cooler's R Series can be used in a broad range of situations, particularly important for the harsh Australian climate.
- Internal buffer tanks ensure that temperature remains consistent under varying loads.
- Rely on over 50 years of industry experience and over 5,500 Thermal X chillers to be sure you're making the right investment.



## Quality Assured

All Aqua Cooler chillers 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 Cooler's products are designed and built to last.



# Specifications: 1-17 kW

	Cooling Capacity	Inp	out Power	Cur Drav	rent v (A)	ı	Refrigerant			Со	mpressor	
Model	kW	kW	Power	Operation	Maximum	Туре	Charge (kg)	Control method	Туре	Number in Chiller	Brand	Power (kW)
R150A1-A-CC	1.6	1.8		7.1	10.4	R134a	1.0		Rotary	1	Haili	0.8
R150A1-A-PP	2.0	1.8		6.8	10.1	R134a	1.0		Rotary	1	Haili	0.8
R180A1-A-CC	2.3	1.9	_	8.2	18.0	R134a	1.4		Rotary	1	Emerson	1.0
R150A1-410-CC	2.5	1.9	1PH/240V/50HZ	6.3	9.2	R410A	0.9		Rotary	1	Panasonic	0.9
R150A1-410-PP	2.6	1.9	.40V.	6.3	9.2	R410A	0.9		Rotary	1	Panasonic	0.9
R230A1-A-CC	2.7	2.2	/50H	8.0	20.0	R134a	2.1		Rotary	1	Emerson	1.3
R180A1-410-CC	2.8	1.9	2	6.9	10.2	R410A	1.6		Rotary	1	Panasonic	1.0
R180A1-A-PP	3.3	1.9		6.1	17.7	R134a	1.4		Rotary	1	Emerson	1.0
R180A1-410-PP	3.6	2.1	]	7.0	10.2	R410A	1.6		Rotary	1	Panasonic	1.1
R300A3-A-CC	3.8	2.5	3PH/415V/50HZ	6.5	13.0	R134a	2.6		Scroll	1	Danfoss	1.6
R230A1-A-PP	3.8	2.3	1PH/240V/50HZ	7.9	19.7	R134a	2.1		Rotary	1	Emerson	1.3
R330A3-A-CC	4.2	3.0	2011/4451//50117	6.2	13.0	R134a	3.0		Scroll	1	Emerson	2.0
R300A3-410-CC	4.2	2.9	3PH/415V/50HZ	5.9	12.0	R410A	2.6		Scroll	1	Danfoss	2.0
R230A1-410-CC	4.3	2.6	1PH/240V/50HZ	9.3	14.5	R410A	2.0		Rotary	1	Panasonic	1.6
R330A3-410-CC	5.0	3.5	3PH/415V/50HZ	7.1	12.0	R410A	3.2		Scroll	1	Danfoss	2.5
R300A3-A-PP	5.2	2.6		6.3	12.7	R134a	2.6	]	Scroll	1	Danfoss	1.7
R230A1-410-PP	5.2	2.6	1PH/240V/50HZ	9.2	14.5	R410A	2.0	Ţ.	Rotary	1	Panasonic	1.6
R330A3-A-PP	5.8	3.2		6.1	12.7	R134a	3.0	Expansion Valve	Scroll	1	Emerson	2.3
R300A3-410-PP	5.9	3.0		6.5	12.0	R410A	2.6	on <	Scroll	1	Danfoss	2.0
R420A3-A-CC	6.2	4.2	1	9.8	18.0	R134a	3.1	ak e	Scroll	1	Emerson	2.1
R330A3-410-PP	6.9	3.6	]	7.3	12.0	R410A	3.2		Scroll	1	Danfoss	2.7
R420A3-410-CC	7.0	4.3	1	8.0	17.0	R410A	4.2		Scroll	1	Danfoss	2.3
R540A3-A-CC	8.0	4.4		11.5	18.2	R134a	3.5		Scroll	1	Danfoss	2.4
R420A3-A-PP	8.1	4.2		8.8	17.0	R134a	3.1		Scroll	1	Emerson	2.2
R670A3-A-CC	9.1	5.1	Lu Lu	13.0	21.0	R134a	4.2		Scroll	1	Danfoss	3.1
R540A3-410-CC	9.3	4.7	3PH/415V/50HZ	9.6	17.5	R410A	3.2		Scroll	1	Danfoss	2.7
R420A3-410-PP	9.4	4.3	115V.	8.1	17.0	R410A	4.2		Scroll	1	Emerson	2.3
R540A3-A-PP	9.7	4.5	/50H	10.1	17.2	R134a	3.5		Scroll	1	Danfoss	2.4
R670A3-A-PP	11	5.1		12.0	20.0	R134a	4.2		Scroll	1	Danfoss	3.1
R670A3-410-CC	11	5.5		11.1	19.0	R410A	5.5		Scroll	1	Danfoss	3.5
R830A3-A-CC	12	5.9		15.4	28.0	R134a	4.8		Scroll	1	Danfoss	3.9
R540A3-410-PP	12	4.8		9.6	17.5	R410A	3.2		Scroll	1	Emerson	2.7
R830A3-A-PP	14	6.0		14.4	27.0	R134a	4.8		Scroll	1	Danfoss	3.9
R830A3-410-CC	14	6.1		11.2	23.0	R410A	5.9		Scroll	1	Danfoss	4.1
R670A3-410-PP	15	5.5	]	11.1	19.0	R410A	5.5		Scroll	1	Danfoss	3.5
R1000A3-A-CC	16	7.1		19.5	40.0	R134a	6.4		Scroll	1	Danfoss	5.1

- 1. Nominal cooling capacity is calculated with 7°C chilled-water supply and 35°C inlet cooling air temperature at system flow rate and pressure
- 2. Working conditions:
  - Recommended temperature range of chilled fluid: 3°C and 25°C. Use of glycol recommended for set points under 3°C.
  - Temperature difference between inlet and outlet chilled fluid between 3°C and 10°C
  - We recommend the use of R134a when ambient temperatures are expected to reach 40°C+
- 3. Operation current draw (OCD) per phase at design point Measure under Evaporating Temp: 2°C | Condensing Temp: 50°C | Superheat: 5K | Subcooling: 2K
- 4. The flow rate is the nominal flow rate at the available lift. The actual flow rate will depend on the load requirement and the pump curve. Non-standard pump available on request.



Con	denser	Ev	vaporator		V St	<b>Vater Pump Standard (</b> ainless Steel #304 Pump	<b>Option</b> o / Pipes			Dimensions a	nd Weight	
_	Cooling air	_	Tank	Inlet/outlet	Avail			Upgraded Pump Options	Length	Width	Height	Weight
Туре	flow (m3/h)	Туре	volume	pipe calibre	Lift (m)	Flow Rate (L/s)	Model		(mm)	(mm)	(mm)	(kg)
	2200	Coil in Tank	80	1"	44	2 m3/h   0.56 L/s	CHLF2-60		1170	640	1335	150
	2200	Plate Pack	21	1"	44	2 m3/h   0.56 L/s	CHLF2-60		1170	640	1335	150
	2200	Coil in Tank	80	1"	44	2 m3/h   0.56 L/s	CHLF2-60		1170	640	1335	160
	2200	Coil in Tank	80	1"	44	2 m3/h   0.56 L/s	CHLF2-60	]	1170	640	1335	150
	2200	Plate Pack	21	1"	44	2 m3/h   0.56 L/s	CHLF2-60		1170	640	1335	150
	2200	Coil in Tank	80	1"	44	2 m3/h   0.56 L/s	CHLF2-60	]	1170	640	1335	170
	2200	Coil in Tank	80	1"	44	2 m3/h   0.56 L/s	CHLF2-60		1170	640	1335	160
	2200	Plate Pack	21	1"	44	2 m3/h   0.56 L/s	CHLF2-60	]	1170	640	1335	160
	2200	Plate Pack	21	1"	44	2 m3/h   0.56 L/s	CHLF2-60		1170	640	1335	160
	2200	Coil in Tank	80	1"	44	2 m3/h   0.56 L/s	CHLF2-60	] [	1170	640	1335	180
	2200	Plate Pack	21	1"	44	2 m3/h   0.56 L/s	CHLF2-60		1170	640	1335	170
	2200	Coil in Tank	80	1"	44	2 m3/h   0.56 L/s	CHLF2-60		1170	640	1335	190
.=	2200	Coil in Tank	80	1"	44	2 m3/h   0.56 L/s	CHLF2-60	] _ [	1170	640	1335	180
ydrop	2200	Coil in Tank	80	1"	44	2 m3/h   0.56 L/s	CHLF2-60	onta	1170	640	1335	170
ohilic	2200	Coil in Tank	80	1"	44	2 m3/h   0.56 L/s	CHLF2-60	Ct us	1170	640	1335	190
Alu	2200	Plate Pack	21	1"	44	2 m3/h   0.56 L/s	CHLF2-60	for	1170	640	1335	180
nuni:	2200	Plate Pack	21	1"	44	2 m3/h   0.56 L/s	CHLF2-60	pe c.	1170	640	1335	170
Hydrophilic Alumunium fin with low noise rotor fan	2200	Plate Pack	21	1"	44	2 m3/h   0.56 L/s	CHLF2-60	Contact us for specialised pumping requirements	1170	640	1335	190
n wit	2200	Plate Pack	21	1"	44	2 m3/h   0.56 L/s	CHLF2-60	d pu	1170	640	1335	180
h lov	9000	Coil in Tank	180	1"	45	4 m3/h   1.11 L/s	CHLF4-60	n n n	1685	810	1600	350
noi.	2200	Plate Pack	21	1"	44	2 m3/h   0.56 L/s	CHLF2-60	g rec	1170	640	1335	190
se ro	9000	Coil in Tank	180	1"	45	4 m3/h   1.11 L/s	CHLF4-60	qui rer	1685	810	1600	350
tor fa	9000	Coil in Tank	180	1"	45	4 m3/h   1.11 L/s	CHLF4-60	ment	1685	810	1600	380
'n	9000	Plate Pack	70	1"	44	4 m3/h   1.11 L/s	CHLF4-60	] id	1685	810	1600	350
	9000	Coil in Tank	180	1"	45	4 m3/h   1.11 L/s	CHLF4-60		1685	810	1600	410
	9000	Coil in Tank	180	1"	45	4 m3/h   1.11 L/s	CHLF4-60		1685	810	1600	380
	9000	Plate Pack	70	1"	45	4 m3/h   1.11 L/s	CHLF4-60		1685	810	1600	350
	9000	Plate Pack	70	1"	44	4 m3/h   1.11 L/s	CHLF4-60		1685	810	1600	380
	9000	Plate Pack	70	1"	44	4 m3/h   1.11 L/s	CHLF4-60		1685	810	1600	410
	9000	Coil in Tank	180	1"	45	4 m3/h   1.11 L/s	CHLF4-60		1685	810	1600	410
	9000	Coil in Tank	180	1"	45	4 m3/h   1.11 L/s	CHLF4-60		1685	810	1600	440
	9000	Plate Pack	70	1"	45	4 m3/h   1.11 L/s	CHLF4-60		1685	810	1600	380
	9000	Plate Pack	70	1"	44	4 m3/h   1.11 L/s	CHLF4-60	] [	1685	810	1600	440
	9000	Coil in Tank	180	1"	45	4 m3/h   1.11 L/s	CHLF4-60	] [	1685	810	1600	440
	9000	Plate Pack	70	1"	45	4 m3/h   1.11 L/s	CHLF4-60	] [	1685	810	1600	410
	9000	Coil in Tank	180	1"	45	4 m3/h   1.11 L/s	CHLF4-60		1685	810	1600	470

- Phase Sequence or Missing Phase Protection
- Low Water Flow Protection
- High Pressure Protection
- Low Pressure Protection
- Thermal Overload Protection
- High and Low CHW Supply Temperature Warning and Alarms
- High and Low CHW Return Temperature Warning and Alarms
- High Ambient Alarms
- Low Water Tank Alarm



# Specifications: 17-112 kW

	Cooling Capacity	Input	Power	Cur Drav	rent v (A)		Refrigerant			Comp	ressor	
Model	kW	kW	Power	Operation	Maximum	Туре	Charge (kg)	Control method	Туре	Number in Chiller	Brand	Power (kW)
R1200A3-A-CC	17	8.5		21.6	40.0	R134a	7.0			1	Danfoss	6.5
R830A3-410-PP	17	6.1		11.2	23.0	R410A	5.9			1	Danfoss	4.1
R1000A3-410-CC	18	7.1		14.5	29.0	R410A	7.9			1	Danfoss	5.1
R1000A3-A-PP	19	8.3		18.9	39.0	R134a	6.4			1	Danfoss	6.3
R1330A3-A-CC	20	9.6		23.7	39.0	R134a	8.4			1	Danfoss	7.6
R1200A3-A-PP	20	8.9		21.0	39.0	R134a	7.0			1	Danfoss	6.9
R1200A3-410-CC	20	8.0		15.6	30.0	R410A	9.2			1	Danfoss	5.9
R1000A3-410-PP	21	7.2		14.7	29.0	R410A	7.9			1	Danfoss	5.2
R1330A3-A-PP	23	9.8		22.9	38.0	R134a	8.4			1	Danfoss	7.8
R1500A3-A-CC	24	11		27.3	49.3	R134a	8.9			1	Emerson	6.9
R1330A3-410-CC	24	8.9	3PF	17.0	29.0	R410A	11	Ţ.		1	Danfoss	6.9
R1200A3-410-PP	24	8.1	3PH~415V/50HZ	15.8	30.0	R410A	9.2	Expansion Valve	Scroll	1	Danfoss	6.1
R1500A3-A-PP	27	11	5V/5	25.7	47.6	R134a	8.9	on V	<u>o</u>	1	Emerson	7.1
R1330A3-410-PP	27	9.1	SHO	17.2	29.0	R410A	11	alve		1	Danfoss	7.0
R1500A3-410-CC	29	12		22.8	37.2	R410A	13			1	Danfoss	7.9
R1500A3-410-PP	34	12		23.0	37.2	R410A	13			1	Emerson	8.0
R2000A3-A-CC	36	16		32.2	65.3	R134a	15			1	Emerson	12.2
R2000A3-410-CC	37	14		27.8	45.8	R410A	17			1	Danfoss	10.5
R2000A3-A-PP	38	16		30.6	63.6	R134a	15			1	Emerson	12.3
R2000A3-410-PP	42	15		28.1	45.8	R410A	17			1	Emerson	10.8
R2500A3-A-CC	44	19		34.8	83.3	R134a	18			1	Emerson	15.5
R2500A3-410-CC	47	18		32.9	58.2	R410A	23			1	Danfoss	14.5
R2500A3-A-PP	48	20		33.4	81.6	R134a	18			1	Emerson	15.9
R2500A3-410-PP	55	19		33.4	58.2	R410A	23			1	Emerson	14.9

- 1. Nominal cooling capacity is calculated with 7°C chilled-water supply and 35°C inlet cooling air temperature at system flow rate and pressure
- 2. Working conditions:
  - Recommended temperature range of chilled fluid: 3°C and 25°C. Use of glycol recommended for set points under 3°C.
  - Temperature difference between inlet and outlet chilled fluid between 3°C and 10°C
  - $\bullet$  We recommend the use of R134a when ambient temperatures are expected to reach 40°C+
- 3. Operation current draw (OCD) per phase at design point Measure under Evaporating Temp: 2°C | Condensing Temp: 50°C | Superheat: 5K | Subcooling: 2K
- 4. The flow rate is the nominal flow rate at the available lift. The actual flow rate will depend on the load requirement and the pump curve. Non-standard pump available on request.

Cond	denser	Ev	vaporator		<b>V</b> St	<b>Vater Pump Standard</b> ainless Steel #304 Pum <sub>l</sub>	<b>Option</b> o / Pipes			Dimensions a	nd Weight	
T	Cooling air	T	Tank	Inlet/outlet	Avail	Flow Rate (L/s)	Model	Upgraded Pump Options	Length	Width	Height	Weight
Туре	Cooling air flow (m3/h)	Туре	volume	pipe calibre	Lift (m)	Flow Rate (L/s)	iviodei		(mm)	(mm)	(mm)	(kg)
	9000	Coil in Tank	180	1"	45	4 m3/h   1.11 L/s	CHLF4-60	] [	1685	810	1600	500
	9000	Plate Pack	70	1"	45	4 m3/h   1.11 L/s	CHLF4-60	] [	1685	810	1600	440
	9000	Coil in Tank	180	1"	45	4 m3/h   1.11 L/s	CHLF4-60	] [	1685	810	1600	470
	9000	Plate Pack	70	1"	44	4 m3/h   1.11 L/s	CHLF4-60		1685	810	1600	470
	9000	Coil in Tank	180	1"	45	4 m3/h   1.11 L/s	CHLF4-60	] [	1685	810	1600	530
	9000	Plate Pack	70	1"	44	4 m3/h   1.11 L/s	CHLF4-60		1685	810	1600	500
Ξ	9000	Coil in Tank	180	1"	45	4 m3/h   1.11 L/s	CHLF4-60		1685	810	1600	500
Hydrophilic Alumunium fin with low noise rotor fan	9000	Plate Pack	70	1"	45	4 m3/h   1.11 L/s	CHLF4-60	Contact us for specialised pumping requirements	1685	810	1600	470
ohilic	9000	Plate Pack	70	1"	44	4 m3/h   1.11 L/s	CHLF4-60	ct us	1685	810	1600	530
Alur	13000	Coil in Tank	495	11/2"	39.5	12 m3/h   3.33 L/s	CHLF12-40	for	2615	1000	1830	700
nuni:	9000	Coil in Tank	180	1"	45	4 m3/h   1.11 L/s	CHLF4-60	spec.	1685	810	1600	530
um fi	9000	Plate Pack	70	1"	45	4 m3/h   1.11 L/s	CHLF4-60	alise	1685	810	1600	500
n wit	13000	Plate Pack	270	11/2"	39.5	12 m3/h   3.33 L/s	CHLF12-40	d pu	2615	1000	1830	700
h lov	9000	Plate Pack	70	1"	45	4 m3/h   1.11 L/s	CHLF4-60	n pin	1685	810	1600	530
noi:	13000	Coil in Tank	495	11/2"	39.5	12 m3/h   3.33 L/s	CHLF12-40	g rec	2615	1000	1830	700
se ro	13000	Plate Pack	270	11/2"	39.5	12 m3/h   3.33 L/s	CHLF12-40	quire (	2615	1000	1830	700
tor fa	13000	Coil in Tank	495	11/2"	39.5	12 m3/h   3.33 L/s	CHLF12-40	ment	2615	1000	1830	750
'n	13000	Coil in Tank	495	11/2"	39.5	12 m3/h   3.33 L/s	CHLF12-40	] 'vi	2615	1000	1830	750
	13000	Plate Pack	270	11/2"	39.5	12 m3/h   3.33 L/s	CHLF12-40		2615	1000	1830	750
	13000	Plate Pack	270	11/2"	39.5	12 m3/h   3.33 L/s	CHLF12-40		2615	1000	1830	750
	13000	Coil in Tank	495	1½"	39.5	12 m3/h   3.33 L/s	CHLF12-40		2615	1000	1830	850
	13000	Coil in Tank	495	1½"	39.5	12 m3/h   3.33 L/s	CHLF12-40	] [	2615	1000	1830	850
	13000	Plate Pack	270	1½"	39.5	12 m3/h   3.33 L/s	CHLF12-40		2615	1000	1830	850
	13000	Plate Pack	270	1½"	39.5	12 m3/h   3.33 L/s	CHLF12-40	<u> </u>	2615	1000	1830	850

- Phase Sequence or Missing Phase Protection
- Low Water Flow Protection
- High Pressure Protection
- Low Pressure ProtectionThermal Overload Protection
- High and Low CHW Supply Temperature Warning and Alarms
- High and Low CHW Return Temperature Warning and Alarms
- High Ambient Alarms
- Low Water Tank Alarm





For applications requiring an extra level of redundancy, the Gladiator Titan specification builds on the exceptional performance of our Gladiator range by introducing refrigeration circuit redundancy. The Titan specification is powered by our Advanced PCB controller which allows advanced control including a web-based interface via IP, HLI capability via RS485, Modbus, Bacnet, and more.

#### Features

- · A high ambient temperature operation of up to 46°c with R134a (R410a is also available).
- · Advanced PCB controller with Australian designed software allows advanced control - Web page interface via IP, HLI capability RS485, Modbus, Bacnet, and more.
- Extensive parameter settings to suit a variety of applications.
- Advanced safety controls will ensure your chiller remains safe. Features such as phase protection, thermal overload, low flow protection, water freeze protection and more as standard chiller features.
- Improved data logging via USB or webpage download.
- Variable speed drive options ensure your Gladiator Plus chiller is only working as hard as it needs to.
- Open or closed loop pipework options to suit the requirements of the process.
- Refrigerant options of R134a or R410a.
- High efficiency scroll compressors made by industry leading brands.
- · Dual compressors for redundancy.
- Manually controlled water bypass valve to reduce water flow to suit applications.
- View critical parameters such as pressures, water flow rate, and temperatures via the PCB.

# Quality Assured

designed and built to last.



by a substantial and comprehensive test upon completion. Coupled with the world's most trusted component brands, Aqua Cooler's products are

#### Benefits

- Using the advanced PCB, multi-chiller control options are available that allow benefits such as redundancy control, remote start / stop and performance monitoring.
- Your Aqua Cooler Gladiator Titan Series industrial process chiller can be tailored to your unique requirements ensuring you have the most effective and efficient solution to your project. Talk to us about any required customisations.
- Wide operating limits means Aqua Chiller's Gladiator Titan Series can be used in a broad range of situations, particularly important for the harsh Australian climate.
- Internal buffer tanks ensure that temperature remains more consistent under varying loads.
- Dual redundant compressors to soften impact of any service interventions required.
- Rely on over 50 years of industry experience to be sure you're making the right investment.





# Specifications: 23-100 kW

#### Gladiator Titan

	Cooling Capacity	Input	Power	Cur Dra	rent w (A)		Refrigerant			Coi	mpressor	
Model	kW	kW	Power	Operation	Maximum	Туре	Charge (kg)	Control method	Туре	Number in Chiller	Brand	Power (kW)
GA10(D)-A-PP-TTN	23	9		21	41	R134a	7.2			2	Danfoss	3.8
GA10(D)-410-PP-TTN	27	10	]	18	32	R410A	6.0	]		2	Panasonic	4.1
GA15(D)-A-PP-TTN	32	14		30	64	R134a	12			2	Danfoss	5.2
GA18(D)-A-PP-TTN	38	18	]	37	73	R134a	12	]		2	Danfoss	6.4
GA15(D)-410-PP-TTN	40	14	] <sub></sub>	28	55	R410A	10	]		2	Danfoss	5.9
GA18(D)-410-PP-TTN	46	18	]	33	60	R410A	10	Xpar		2	Danfoss	6.7
GA20(D)-A-PP-TTN	48	21	115V	42	79	R134a	15	Expansion	Scroll	2	Danfoss	7.8
GA20(D)-410-PP-TTN	53	20	3PH/415V/50HZ	37	59	R410A	12	Valve	_	2	Danfoss	7.7
GA25(D)-A-PP-TTN	63	28		55	112	R134a	18	0		2	Danfoss	10.8
GA25(D)-410-PP-TTN	69	25		45	79	R410A	15			2	Danfoss	10.3
GA30(D)-A-PP-TTN	79	34	]	67	151	R134a	24	]		2	Danfoss	13.3
GA30(D)-410-PP-TTN	79	30	]	56	89	R410A	18	]		2	Danfoss	11.7
GA35(D)-A-PP-TTN	100	39	1	71	171	R134a	24	1		2	Danfoss	16.0

- 1. Nominal cooling capacity is calculated with 7°C chilled-water supply and 35°C inlet cooling air temperature at system flow rate and pressure
- 2. Working conditions:
  - Recommended temperature range of chilled fluid: 3°C and 25°C. Use of glycol recommended for set points under 3°C.
  - Temperature difference between inlet and outlet chilled fluid between 3°C and 10°C
  - $\bullet\,$  We recommend the use of R134a when ambient temperatures are expected to reach 40°C+
- 3. Operation current draw (OCD) per phase at design point Measure under Evaporating Temp: 2°C | Condensing Temp: 50°C | Superheat: 5K | Subcooling: 2K
- 4. The flow rate is the nominal flow rate at the available lift. The actual flow rate will depend on the load requirement and the pump curve. Non-standard pump available on request.

Cond	lenser	Ev	/aporator		<b>V</b> Sta	Vater Pump Standard ainless Steel #304 Pum	<b>Option</b> o / Pipes			Dimensions a	nd Weight	
Туре	Cooling air flow (m3/h)	Туре	Tank	Inlet/outlet	Avail	Flow Rate (L/s)	Model	Upgraded Pump Options	Length	Width	Height	Weight
.,,,,	flow (m3/h)	37-	volume	pipe calibre	Lift (m)				(mm)	(mm)	(mm)	(kg)
	4600	Plate Pack	85	1-1/2"	34	2.23	CHLF8-40		1365	1120	1340	500
Hyd	4600	Plate Pack	85	1-1/2"	34	2.23	CHLF8-40	Cor	1365	1120	1340	450
Hydrophilic	9000	Plate Pack	145	2"	43	2.78	CDMF10-5	Contact	1965	1560	1875	900
	9000	Plate Pack	170	2"	47	4.17	CDMF15-4	us for specialised	1965	1560	1875	1000
Alumunium	6400	Plate Pack	145	1-1/2"	43	2.78	CDMF10-5	or spe	1695	1550	1680	700
	6400	Plate Pack	170	2"	47	4.17	CDMF15-4	ecia III	1965	1560	1875	950
fin	<b>⋽</b> 9000	Plate Pack	170	2"	47	4.17	CDMF15-4		1965	1560	1875	1100
with	9000	Plate Pack	170	2"	47	4.17	CDMF15-4	pumping	1965	1560	1875	1050
low n	9600	Plate Pack	170	2"	47	4.17	CDMF15-4		2365	1480	1900	1350
noise	9000	Plate Pack	170	2"	47	4.17	CDMF15-4	requirements	1965	1560	1875	1150
rotor	13000	Plate Pack	220	2"	47	5.56	CDMF20-4	ireme	2365	1600	1980	1500
r fan	9600	Plate Pack	220	2"	47	5.56	CDMF20-4	nts	2365	1480	1900	1400
	13000	Plate Pack	240	2"	47	5.56	CDMF20-4		2365	1600	1980	1600

- Phase Sequence or Missing Phase Protection
- Low Water Flow Protection
- High Pressure Protection
- Low Pressure ProtectionThermal Overload Protection
- High and Low CHW Supply Temperature Warning and Alarms
- High and Low CHW Return Temperature Warning and Alarms
- High Ambient Alarms
- Low Water Tank Alarm





The Gladiator Hydra specification provides ultimate level of protection for processes that are mission critical. Utilising both refrigeration and water circuit redundancy, Hydra specification makes sure you are protected when you need it the most. The Hydra specification is powered by our Advanced PCB controller, allowing advanced control including a web-based interface via IP, HLI capability via RS485, Modbus, Bacnet, and more.

#### Features

- A high ambient temperature operation of up to 46°c with R134a (R407c also available).
- Advanced PCB controller with Australian designed software allows advanced control - Web page interface via IP, HLI capability RS485, Modbus, Bacnet, and more.
- Extensive parameter settings to suit a variety of applications.
- Advanced safety controls will ensure your chiller remains safe. Features such as phase protection, thermal overload, low flow protection, water freeze protection and more as standard chiller features.
- Improved data logging via USB or webpage download.
- Variable speed drive options are available to ensure your Gladiator Hydra chiller is only working as hard as it needs to.
- Open or closed loop pipework options to suit the requirements of the process.
- Refrigerant options of R134a or R410a.
- High efficiency scroll made by industry leading brands.
- Dual compressor for redundancy of refrigeration circuit.
- · Dual pumps for redunancy of water circuit.
- Manually controlled water bypass valve to reduce water flow to suit applications.
- View critical parameters such as pressures, water flow rate, and temperatures via the PCB.

#### **Benefits**

- Using the advanced PCB, multi-chiller control options are available that allow benifits such as redundancy control, remote start / stop and performance monitoring.
- Your Aqua Cooler Gladiator Hydra Series industrial process chiller can be tailored to your unique requirements ensuring you have the most effective and efficient solution to your project. Talk to us about any required customisations.
- Wide operating limits means Aqua Chiller's Gladiator Hydra Series can be used in a broad range of situations, particularly important for the harsh Australian climate.
- Internal buffer tanks ensure that temperature remains consistent under varying loads.
- Dual redunant compressors and pumps to soften impact of any service interventions required.



# Quality Assured

All Hydra chillers 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 Cooler's products are designed and built to last.



# Specifications: 25-100 kW

## Gladiator Hydra

	Cooling Capacity	Input	Power		rent w (A)		Refrigerant			Com	pressor	
Model	kW	kW	Power	Operation	Maximum	Туре	Charge (kg)	Control method	Туре	Number in Chiller	Brand	Power (kW)
GA10(D)-A-PP-HYD	23	11		23	43	R134a	7.2			2	Danfoss	3.8
GA10(D)-410-PP-HYD	27	12	1	21	35	R410A	6.0			2	Panasonic	4.1
GA15(D)-A-PP-HYD	32	16		34	67	R134a	12			2	Danfoss	5.2
GA18(D)-A-PP-HYD	38	22	1	44	80	R134a	12			2	Danfoss	6.4
GA15(D)-410-PP-HYD	40	17	ω.	32	59	R410A	10			2	Danfoss	5.9
GA18(D)-410-PP-HYD	46	22	]	40	67	R410A	10	- Xpar		2	Danfoss	6.7
GA20(D)-A-PP-HYD	48	24	115V	49	86	R134a	15	nsion	Scroll	2	Danfoss	7.8
GA20(D)-410-PP-HYD	53	24	3PH/415V/50HZ	43	66	R410A	12	Expansion Valve	_	2	Danfoss	7.7
GA25(D)-A-PP-HYD	63	34	N	64	122	R134a	18	Ф		2	Danfoss	10.8
GA25(D)-410-PP-HYD	69	29		52	86	R410A	15			2	Danfoss	10.3
GA30(D)-A-PP-HYD	79	39	]	77	160	R134a	24			2	Danfoss	13.3
GA30(D)-410-PP-HYD	79	36		66	99	R410a	18			2	Danfoss	11.7
GA35(D)-A-PP-HYD	100	44	]	81	180	R134a	24			2	Danfoss	16.0

- 1. Nominal cooling capacity is calculated with 7°C chilled-water supply and 35°C inlet cooling air temperature at system flow rate and pressure
- 2. Working conditions:
  - Recommended temperature range of chilled fluid: 3°C and 25°C. Use of glycol recommended for set points under 3°C.
  - Temperature difference between inlet and outlet chilled fluid between 3°C and 10°C
  - $\bullet\,$  We recommend the use of R134a when ambient temperatures are expected to reach 40°C+
- 3. Operation current draw (OCD) per phase at design point Measure under Evaporating Temp: 2°C | Condensing Temp: 50°C | Superheat: 5K | Subcooling: 2K
- 4. The flow rate is the nominal flow rate at the available lift. The actual flow rate will depend on the load requirement and the pump curve. Non-standard pump available on request.

Condenser		Evaporator			<b>Water Pump Standard Option</b> Stainless Steel #304 Pump / Pipes			Dimensions and Weight			
Туре	Cooling air flow (m3/h)	Туре	Tank volume	Inlet/outlet pipe calibre	Avail Lift (m)	Flow Rate (L/s)	Model	Length	Width	Height	Weight
								(mm)	(mm)	(mm)	(kg)
Hydrophilic Alumunium fin with low noise rotor fan	4600	Plate Pack	85	1-1/2"	34	2.23	CHLF8-40 x2	1365	1120	1340	520
	4600	Plate Pack	85	1-1/2"	34	2.23	CHLF8-40 x2	1365	1120	1340	470
	9000	Plate Pack	145	2"	43	2.78	CDMF10-5 x2	1965	1560	1875	920
	9000	Plate Pack	170	2"	47	4.17	CDMF15-4 x2	1965	1560	1875	1020
	6400	Plate Pack	145	1-1/2"	43	2.78	CDMF10-5 x2	1695	1550	1680	720
	6400	Plate Pack	170	2"	47	4.17	CDMF15-4 x2	1965	1560	1875	970
	9000	Plate Pack	170	2"	47	4.17	CDMF15-4 x2	1965	1560	1875	1120
	9000	Plate Pack	170	2"	47	4.17	CDMF15-4 x2	1965	1560	1875	1070
	9600	Plate Pack	170	2"	47	4.17	CDMF15-4 x2	2365	1900	1980	1370
	9000	Plate Pack	170	2"	47	4.17	CDMF15-4 x2	1965	1560	1875	1170
	13000	Plate Pack	220	2"	47	5.56	CDMF20-4 x2	2365	1900	1980	1520
	9600	Plate Pack	220	2"	47	5.56	CDMF20-4 x2	2365	1900	1980	1420
	13000	Plate Pack	240	2"	47	5.56	CDMF20-4 x2	2365	1900	1980	1620

- Phase Sequence or Missing Phase Protection
- Low Water Flow Protection
- High Pressure Protection
- Low Pressure Protection
- Thermal Overload Protection
- High and Low CHW Supply Temperature Warning and Alarms
- High and Low CHW Return Temperature Warning and Alarms
- High Ambient Alarms
- Low Water Tank Alarm

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