

Technical Data



THERMAL IQ chillers are designed to supply chilled water to heat developing processes. The units are manufactured in Australia to suit local condition and give our customer the solutions they need.

About Us

THERMAL IQ is Australia's largest manufacturer of small capacity specialised industrial water chillers. The technical team at THERMAL IQ have a combined 50 years in the Australian chiller industry – our history goes directly back to the pioneers of chiller manufacturing in Australia – Blackmore and Singleman. No other company can offer this level of engineering experience and support for our customers critical applications.

Rather than offer imported chillers THERMAL IQ has dedicated itself to providing locally specified and manufactured chillers which are supplied with components sourced from the industry's tier one suppliers. With specifying chillers experience counts and no other company has the experience to offer the advice and solutions the market requires.

As the Australian market grows and diversifies, THERMAL IQ can offer expert advice on chillers, heat pumps, variable speed high efficiency scroll chillers, large scale condensing units, air handling and more.

THERMAL IQ is backed by a nationwide team of service technicians who are trained in the operation and maintenance of THERMAL IQ chillers.

Chiller Applications

Industrial process chillers are designed to circulate water to a heat producing process via a water pump. The water brings the heat back to the chiller where the compression cycle cools the water before it is returned to the heat process.



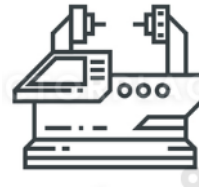
Laboratories



Food preparation



Medical Apps



Process cooling



Distilling

Features

The chillers are supplied with – as standard

- An internal 80L buffer tank to protect the compressor from excessive start, close temperature tolerance, reduces thermal spikes and allows for vented design with no need for hydronics kit
- Suitable for indoor or outdoor installation
- Rugged galvanized steel construction
- Components sourced from the industry's leading suppliers
- R134a refrigerant for high ambient temperature operation and the lowest GWP of all contemporary refrigerants
- Comprehensive 12 months warranty on all parts and labour
- HP/LP and flow switch safeties as standard
- Highly accurate electronic controller
- 316SS plate heat exchanger condenser
- Comprehensive factory testing before dispatch
- Evaporator protection on all models



REANTAL UNITS

THERMAL IQ - has a range of chillers available for rental to provide temporary cooling solutions.

Chillers from 3 to 50kW are available – they are easy to install and provide reliable cooling for any application.

Water temperatures from -5C to 25C are available.

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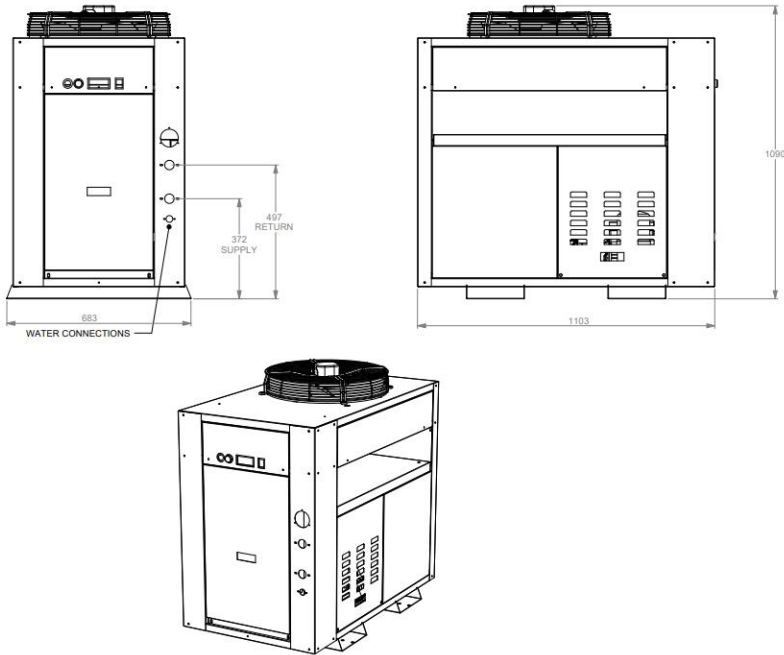
Model		TC03	TC08	TC10	TC12	TC15	TC25
System type	Chiller	Heat rejection		Air			
Capacity ASHRAE COND	kW	3.4	7.6	10	12	15	25
Total power input	kW	2.2	3.5	5.1	5.5	7.1	12.0
Power requirements	V/Hz/Ph	380-415/50/3 – Available in single phase					
COMPRESSOR	Scroll Hermetic	Start method		DOL			
Motor size	HP	1.5	2.6	3.5	4.0	5.0	12.0
FLA	Amps	4.5	7.0	11	12	14.0	23
CONDENSER	Air cooled – heavy duty – high ambient design						
Material	Aluminum, blue fin on copper tube						
CONDENSER FANS	External, axial fans, 4 pole – speed controlled						
Fan diameter	mm	500		450	500		
No fans		1		2	2		
EVAPORATOR	Plate heat exchanger						
No. refrigeration circuits		1					
Chilled water flow rate	l/min	8.0	22	28	34	40	70
Pressure drop	kPa	50					
Inlet / outlet CHW Temperature	C	Customer specific					
Working temp range	C	05/25 – Standard unit					
Water connections	mm	1" FBSP					
Evaporator protection		Flow switch					
CONTROLLER	Standard electronic – Dixell						
Shipping weight - dry	Kg	165	170	190	200	300	350
Buffer Tank	Litres	75		85	175		
BMS protocols	Modbus available	Buffer tank construction			Stainless steel		

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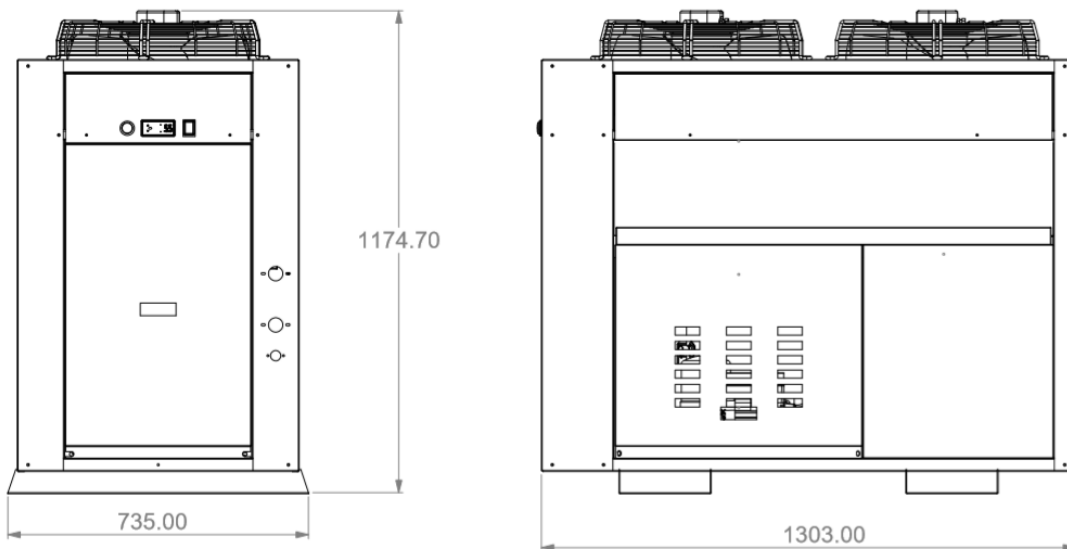
Model		TC30	TC50
System type	Chiller	Heat rejection	Air
Capacity	kW	35	50
ASHRAE COND			
Total power input	kW	15.5	22.5
Power requirements	V/Hz/Ph	380-415/50/3	
COMPRESSOR	Scroll Hermetic	Start method	DOL
Motor size	HP	15	25
FLA	Amps	33	50
CONDENSER	Air cooled – heavy duty – high ambient design		
Material	Aluminum, blue fin on copper tube		
CONDENSER FANS	External, axial fans, 4 pole – speed controlled		
Fan diameter	mm	500	
No fans		3	
EVAPORATOR	Plate heat exchanger		
No. refrigeration circuits		1	
Chilled water flow rate	l/s	1.6	2.3
Pressure drop	kPa	50	
Inlet / outlet CHW Temperature	C	Project specific	
Working temp range	C	05/25 – Standard unit	
Water connections	mm	1 1/2" FBSP	
Evaporator protection		Flow switch	
CONTROLLER	Standard electronic – Dixell		
Shipping weight - dry	Kg	650	800
Buffer Tank	Litres	410	
BMS protocols	Modbus available	Buffer tank construction	Stainless steel

Dimensions

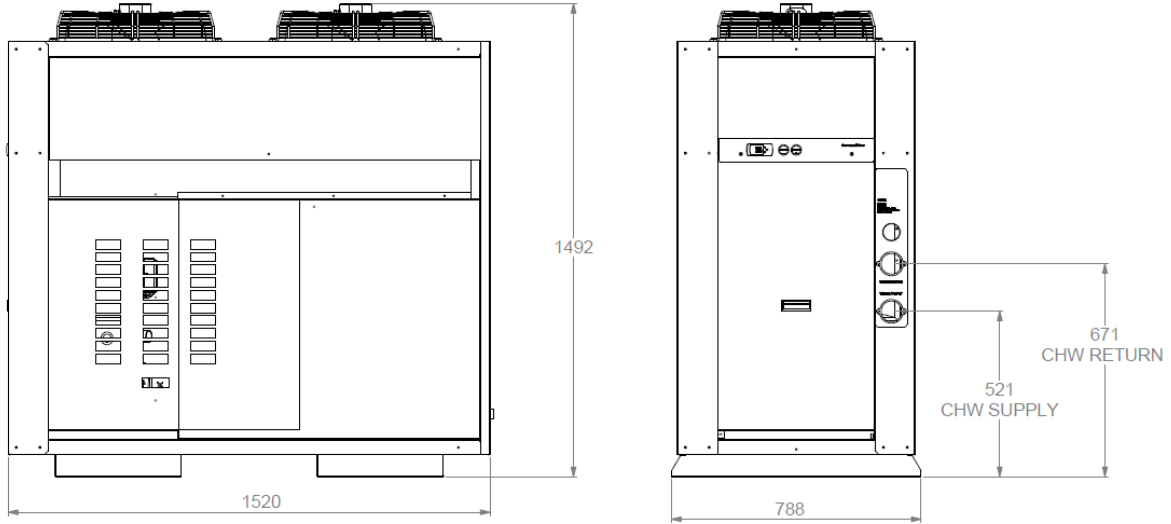
TC03 and TC08 Unit



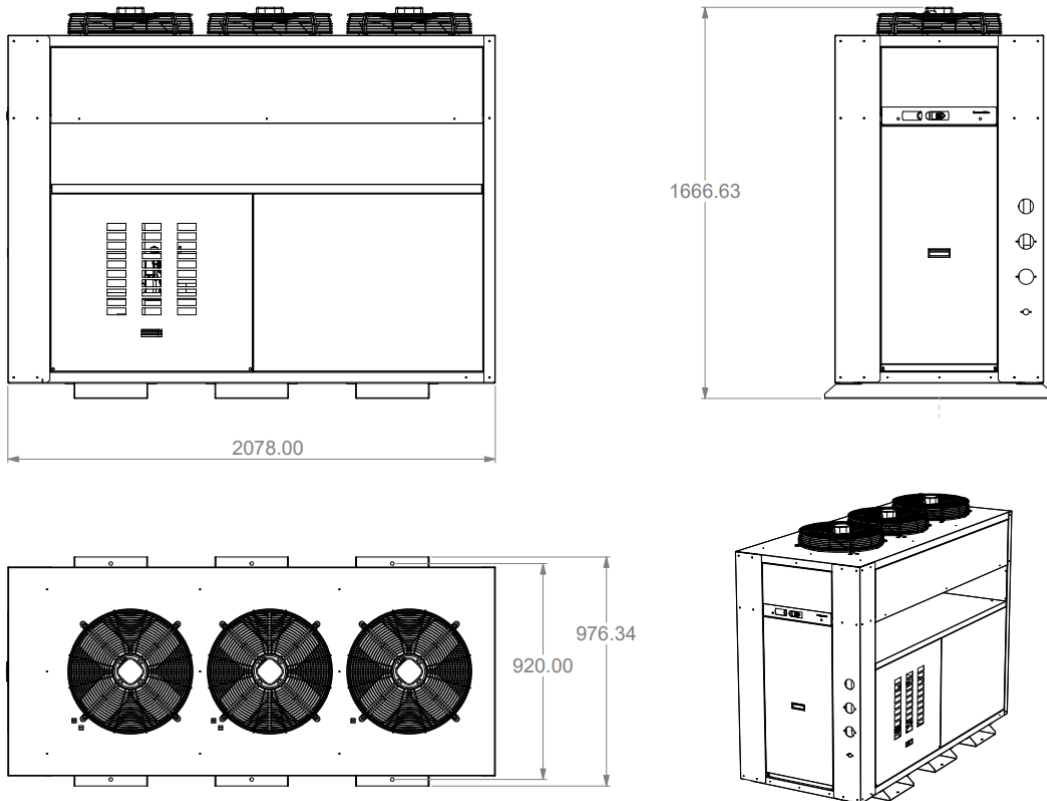
TC10 and TC12



Dimensions TC15 and TC25



TC30 and TC50



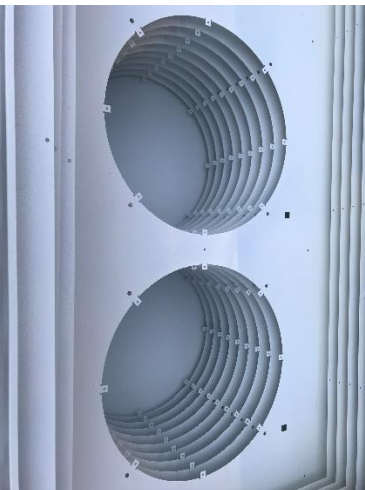
excellence in heat transfer



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