THERMAL IQ
2/8 GUNYA STREET
REGENTS PARKS NSW 2143

(02) 8710 8106

HOT WATER HEAT PUMPS – AIR to WATER

5 to 200kW Heating Capacity



The principles at Thermal IQ have been at the forefront of providing innovative HVAC solutions across Australia and Southeast Asia dating back to 1946, now with more than six decades of combined experience. Our family is one of the founders of the Australian HVAC manufacturing industry with our roots being in cooling for the rail, the medical imaging and data centre industries.
We are now expanding into heat pumps and heat transfer solutions to ensure we are able to offer our expertise for the coming electrification of heating water for all industry.

While the HVAC industry has pulled back from OEM manufacturing in Australia – we remain committed to local manufacturing to ensure the expertise is not lost and we are better able to respond to our customer needs with clear and reliable information.

FEATURES AS STANDARD

- *IP66 RATED ENCLOSURES*
- *Sturdy powder coated galvanised steel construction*
- *HOT GAS INJECTION EVAPORATOR PROTECTION*
- *Coaxial heat exchanger condensers*
- *R134a REFRIGERANT FOR HIGH WATER TEMPERATURES – TO 65°C*
- *Integrated primary water pumps available for process heating*
- *CHOICE OF CONTROLLERS TO SUIT SITE SPARES*
- *Highly accurate PLC controller*
- *MASTER CONTROLLER AVAILABLE TO CONTROL UP TO 8 HEAT PUMPS*
- *External cabling protected with steel wire glands*
- *COAXIAL SHELL AND TUBE HEAT EXCHANGERS*
- *Coil protection on all models*

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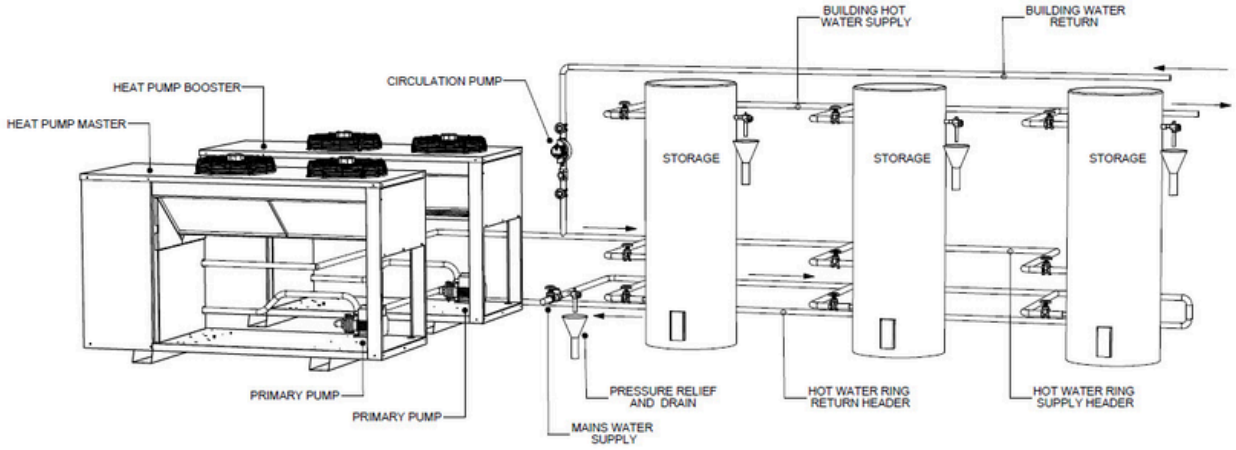
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PRODUCT RANGE – TECHNICAL DATA

SEGREGATED VOLTAGES

Model	Heating Cap. – kW[3]	Nominal HP	Power input – Kw[1]	Current Draw – A[2]	A	B	C	Shipping wight
TH08	8	3.0	2.4	6.3	1450	735	1180	175
TH10	10.5	3.5	2.8	7.3	1450	735	1180	175
TH15	15.6	5.0	3.9	9.1	1450	735	1180	185
TH18	18	6	4.9	13.6	1750	820	1250	260
TH20	20	6.5	5.6	15.4	1750	820	1250	260
TH23	23	7.0	6.1	16.5	1750	820	1250	270
TH26	26.8	8.0	6.9	16.8	1750	820	1250	280
TH30	31	12	7.5	17.4	2075	890	1330	400
TH35	35	13	8.2	19.3	2075	890	1330	450
TH40	40	15	9.6	24.0	2075	890	1330	475
TH50	53	20	12.3	26.1	2500	1100	2150	750
TH60	65	25	15.2	31.5	2500	1100	2150	800
TH80	82	30	19.0	38.3	2600	1200	2150	825
TH100	106	2 x 20	24.0	48.8	2500	2000	2150	850
TH120	130	2 x 25	29.8	60.6	2500	2000	2150	880
TH150	160	2 x 30	38	76.6	2600	2000	2150	1060

Heat pump performance is based on 45°C water supply - 20°C ambient – 65% RH 7SST 50SCT



MADE IN AUSTRALIA THERMAL IQ is a Thermex Solutions business

thermal IQ

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GENERAL INFORMATION

Model	Air flow – m/hr	Fans -mm	Min flow rate -l/s²	Fan type/ poles	Condenser	Pressure drop - kPa	Water connections
TH08	8800	450 x 2	0.4	Axial - 4	Coaxial	52	1" FBSP
TH10	8800	450 x 2	0.5	Axial – 4	Coaxial	55	1" FBSP
TH15	8800	450 x 2	0.7	Axial - 4	Coaxial	56	1" FBSP
TH18	13200	500 x 2	0.8	Axial – 4	Coaxial	54	1 ¼" FBSP
TH20	13200	500 x 2	0.9	Axial – 4	Coaxial	56	1 ¼" FBSP
TH23	13200	500 x 2	1.0	Axial – 4	Coaxial	57	1 ¼" FBSP
TH26	13200	500 x 2	1.2	Axial – 4	Coaxial	59	1 ¼" FBSP
TH30	16400	630 x 2	1.4	Axial - 6	Shell and Tube	60	1 ½" FBSP
TH35	16400	630 x 2	1.6	Axial – 6	Shell and tube	62	1 ½" FBSP
TH40	16400	630 x 2	1.9	Axial - 6	Shell and tube	61	1 ½" FBSP
TH50	16440	630 x 2	2.3	Axial - 6	Shell and tube	60	1 ½" FBSP
TH60	16440	630 x 2	2.8	Axial – 6	Shell and tube	60	2" FBSP
TH80	24600	630 x 3	3.8	Axial - 6	Shell and tube	63	2" FBSP
TH100	32800	630 x 4	4.7	Axial – 6	Shell and tube	61	2" FBSP
TH120	32800	630 x 4	5.7	Axial – 6	Shell and tube	63	2" FBSP
TH150	49300	630 x 6	7.0	Axial – 6	Shell and tube	66	2 ½" FBSP

UNIT INFORMATION	
Evaporator	**Copper tube and aluminum fin – no microchannel**
Cool air discharge	Vertical
Condenser construction	7mm rifle bore copper tube – aluminum fin 14 FPI
Condensing capacity control	Head pressure fan speed control
Condenser coating	Nano (blue fin) coated for corrosion protection
Condenser	
Condenser protection – standard models	Flow switch and bypass
Compressor type	Scroll
Refrigerant	R134a
Compressor start method	DOL
Chassis construction	Powder-coated galvanized steel – welded hot-dipped galvanized frame on units > 80kW
Electrical	
Control circuit	24VDC
Electrical panel	IP66

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CHILLER OPTIONS

BMS Connectivity	The chiller can be connected to the high or low level BMS Low level connectivity will be dry contact for • Master run • Master fault High level connectivity is Modbus, SNMP and Bacnet over Ethernet without the need for a gate way
Tandem/ N+1 (T)	The heat pump can be wired if they are to be installed in a N+1 arrangement so the lead unit manages the duty cycling of the heat pumps and controls the heat pump if a fault should develop in one of the units
Potable water supply (I)	The heat pumps can be manufactured to deliver water for potable water application. A typical installation requires the heat pump to be connected to the main water and the pressure from the main is used to supply the process.
Remote Condensers (R)	The chiller can be manufactured as a split system. The evaporator can be installed indoors in a plant room for example and the condenser installed outdoors. Typically, the maximum distance between the 2 halves of the chiller is 20 meters – for longer runs contact Thermal IQ's engineering staff
High corrosive environments	If the unit is to be installed in an environment with corrosive elements present the heat pump can be manufactured in such a way to extend the life of the unit These environments can be • Coastal which high levels of salt spray present • Mining with Sulphur present The coils on the units can be coated to extend their life – the coil will lose efficiency if the bond between the copper and the aluminum starts to break down The units can be constructed with stainless steel cabinets The electrical enclosures are IP66 as standard
Soft starters	In installations where the power supply is not robust soft starters can be supplied on the compressors to limit the in-rush current on compressor start up

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WARRANTY

- THERMEX Solutions warrants all it products for 12 months from the agreed commissioning date – no later than 30 days from invoicing date.
- The warranty is to the first purchases of the unit
- The warranty covers all parts and labour to rectify the unit
- The warranty is subject to THERMEX Solutions terms and conditions which will be provided at the time of order
- Warranty is subject to THERMEX Solutions full terms and conditions



CONTACT

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