

TCAE-THAE 5350÷6450

Y-Power Range



Packaged air-cooled water chillers and reversible heat pumps with axial fans. Range with hermetic Scroll compressors and R410A refrigerant.

Construction features

Compressor: hermetic, rotary Scroll compressor, complete with thermal protection and crankcase heater.

5 or 6 capacity steps with high efficiency at partial loads.

Electronic expansion valve: as standard on all models.

Water side heat exchanger: stainless steel plate exchanger with closed cell polyurethane foam rubber insulation, complete with water flow differential pressure switch and Victaulic connections.

Air side heat exchanger: finned coil exchanger with copper pipes and aluminium fins.

Fan: electric axial fan with external rotor, equipped with internal thermal protection and complete with protection grille.

Control: electronic microprocessor control prepared for connection with the main BMS on the market (MODBUS RTU, LON).

Structure: in galvanised and pre-painted sheet steel, with polyester powder coating.

The unit is also complete with:

- Low and high pressure gauges for each refrigerant circuit.

Versions

- **B** - Standard version (TCAEBY-THAEBY).
- **S** - Silenced version with lower fan speed and soundproofed compressor cover (TCAESY-THAESY).
- **I** - Soundproofed version with soundproofed compressor cover (TCAEIY-THAEIY).

Models

TCAEBY: unit designed for cooling only.

TCAESY: silenced unit designed for cooling only.

TCAEIY: soundproofed unit designed for cooling only.

THAEBY: heat pump unit.

THAESY: silenced heat pump unit.

THAEIY: soundproofed heat pump unit.

Factory fitted accessories

- PUMP with single or double electric pump, including an automatic pump in standby. The electric pumps are available in the low or high pressure versions.
- TANK&PUMP with 1,100-litre built-in buffer tank and single or double electric pump, complete with expansion tank, air bleed valves, safety valve and water pressure gauge.
- Desuperheater.
- 100% heat recovery.
- Thermostat with display for the heat recovery/desuperheater.
- -10°C condensation control.
- -15°C condensation control.
- Power factor correction capacitors ($\cos\phi > 0.94$).
- Unit with compressor and fan thermal overload switches.
- Lower protection grilles.
- Evaporator antifreeze heater, buffer tank and heat exchangers for heat recovery if present.
- Digital input for double set-point.
- Display of refrigerant circuit high/low pressure.
- Control of min/max power supply voltage.
- 4-20 mA analogue input for shifting set-point.
- Unit with copper/pre-painted aluminium/ copper/copper or copper/tin-plated copper coils.
- Serial interface for connection with external BMS.

Accessories supplied loose

- Spring antivibration mountings.
- Protective coil grilles.
- Remote keyboard with display.



TCAEBY-TCAESY MODEL		5350	6370	6410	6450	
❶	Nominal cooling capacity	kW	345,1	365,3	410,2	455,1
❷	Nominal cooling capacity	kW	338,2	354,3	397,9	446,0
❸	E.E.R.		2,85	2,81	2,68	2,60
❹	E.E.R.		2,80	2,72	2,57	2,50
❺	E.S.E.E.R.		3,85	3,77	3,62	3,52
❻	E.S.E.E.R.		3,77	3,66	3,47	3,38
❼	Absorbed power	kW	121,0	130,2	153,2	175,0
❽	Absorbed power	kW	121,0	130,2	154,7	178,5
THAEBY-THAESY MODEL		5350	6370	6410	6450	
❶	Nominal heating capacity	kW	372,0	393,6	434,2	486,2
❷	Nominal heating capacity	kW	353,4	373,9	412,5	461,9
❸	C.O.P.		2,95	2,92	2,89	2,85
❹	C.O.P.		2,92	2,89	2,86	2,82
❺	Nominal cooling capacity	kW	338,2	357,8	402,0	446,1
❻	Nominal cooling capacity	kW	331,4	350,6	394,0	437,2
❼	Absorbed power	kW	126,0	134,7	150,2	170,9
❽	Absorbed power	kW	121,0	129,3	144,2	164,1
TCAEBY-TCAESY-THAEBY-THAESY MODEL		5350	6370	6410	6450	
❶	Sound power level	dB(A)	95	95	96	96
❷	Sound power level	dB(A)	89	89	90	90
	Scroll/step compressor	No.	5/5	6/6	6/6	6/6
	Circuits	No.	2	2	2	2
	Main supply	V-ph-Hz	400-3+N-50	400-3+N-50	400-3+N-50	400-3+N-50
DIMENSIONS AND WEIGHTS			5350	6370	6410	6450
L - Width	mm		4.830	4.830	4.830	4.830
H - Height	mm		2.340	2.340	2.340	2.340
P - Depth	mm		2.260	2.260	2.260	2.260
❶	Weight TCAE	kg	3.300	3.450	3.500	3.520
❷	Weight THAE	kg	3.500	3.640	3.680	3.710

In the following conditions:

- ❶ Air 35°C - Water: 7/12°C - ❷ Air: 7°C, 70% U.R. - Water 40/45°C
- ❸ At 1 m from the unit in free field (Q = 2) (average value measured on 4 sides)
- ❹ Total sound power level in dB(A) on the basis of measurements taken in accordance with ISO 3744.
- ❺ Weight refers to the fully accessorised unit when empty.
- ❻ ESEER (European Seasonal EER) - European seasonal average efficiency.

❷ TCAES-THAES silenced versions

