

# TCAEY-THAEY 5350÷6450

## Y-Power Range



**Packaged air-cooled reversible water chillers and 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 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 (TCAEY-THAEY).
- **S** - Silenced version with lower fan speed and soundproofed compressor cover (TCAESY-THAESY).
- **I** - Soundproofed version with soundproofed compressor cover (TCAEY-THAEY).

### Models

**TCAEY:** unit designed for cooling only.

**TCAESY:** silenced unit designed for cooling only.

**TCAEY:** soundproofed unit designed for cooling only.

**THAEY:** heat pump unit.

**THAESY:** silenced heat pump unit.

**THAEY:** soundproofed heat pump unit.

### Factory fitted accessories

- PUMP with single or double pump, including an automatic pump in standby. The pumps are available in the low or high pressure versions.
- TANK&PUMP with 1,100-litre built-in buffer tank and single or double 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.
- Bottom compartment 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.
- Protection coil grilles.
- Remote keyboard with display.
- Rhoss sequencer for the integrated management of several water chillers.



TCAEBY-TCAESY MODEL		5350	6370	6410	6450	
❶	Nominal cooling capacity	kW	345,1	365,3	410,2	455,1
❶	Nominal cooling capacity	kW	338,2	354,3	397,9	446,0
❶	E.E.R.		2,85	2,81	2,68	2,60
❶	E.E.R.		2,80	2,73	2,58	2,50
●	E.S.E.E.R.		4,30	4,35	4,31	4,26
●	E.S.E.E.R.		4,01	4,05	4,01	3,97
❶	Absorbed power	kW	121,0	130,2	153,2	175,0
❶	Absorbed power	kW	120,6	129,8	154,3	178,1
THAEBY-THAESY MODEL		5350	6370	6410	6450	
❷	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
❷	C.O.P.		2,95	2,92	2,89	2,85
❷	C.O.P.		2,92	2,89	2,86	2,82
❶	Nominal cooling capacity	kW	338,2	357,8	402,0	446,1
❶	Nominal cooling capacity	kW	331,4	350,6	394,0	437,2
❷	Absorbed power	kW	126,0	134,7	150,2	170,9
❷	Absorbed power	kW	120,6	128,9	143,8	163,7
TCAEBY-TCAESY-THAEBY-THAESY MODEL		5350	6370	6410	6450	
❸	Sound pressure level	dB(A)	77	77	78	78
❸	Sound pressure level	dB(A)	71	71	72	72
❹	Sound power level	dB(A)	95	95	96	96
❹	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	400-3-50	400-3-50	400-3-50	400-3-50
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
❺	Weight TCAE	kg	3.300	3.450	3.500	3.520
❺	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 D.B. - 6°C W.B. - 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 accessorised unit when empty with RPE - KRP
- ESEER (European Seasonal EER) - Average European seasonal efficiency

❶ TCAESY-THAESY silenced versions

