

# TCAEY-THAEY 105÷111

## Mini-Y Range



Fan coil systems

Radiant systems



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

### Construction features

**Compressor:** hermetic, rotary Scroll compressor, complete with thermal protection.

**Water side heat exchanger:** adequately insulated stainless steel plate exchanger, complete with antifreeze heater and water flow differential pressure switch.

**Air side heat exchanger:** featuring finned coil with copper pipes and aluminium fins, complete with protection grille.

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

**Control:** microprocessor electronic control available in 2 versions: **standard**, with AdaptiveFunction logic, and **IDRHOSS** compatible, with evolved AdaptiveFunction logic.

**Structure:** in galvanised and painted sheet steel, complete with condensation drain pan for THAEY.

### Models

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

**THAEY:** heat pump unit.

### PUMP unit

Pumping group complete with: electric circulation pump, expansion tank with membrane, manual bleed valve and safety valve.

### TANK & PUMP unit

Pumping group complete with: water buffer tank, electric circulation pump, expansion tank with membrane, manual air bleed valve, automatic air bleed valve and safety valve.

### Factory fitted accessories

- -10°C condensation control.
- Low pressure switch.
- Crankcase heater compressor.
- Electrical heater for the air side exchanger only for heat pump operation at external air temperature of below -5°C.

### Option with control



- Digital input for double set-point.
- 4-20 mA analogue input for shifting set-point.

### Accessories supplied loose

- Antivibration rubber mountings.
- -10°C condensation control.
- Water filter
- Low pressure switch.
- Antifreeze electric heater on the buffer tank.
- Remote keyboard with display.
- Serial interfaces for connection to BMS (proprietary protocol, Modbus RTU, LonWorks).
- Serial converters (RS485/RS232, RS485/USB) in the case of centralised unit management.

### Option with control



- Clock card
- Serial interface (CAN-bus - Controller Area Network) for the **IDRHOSS** system.
- GSM 900/1800 modem kit for remote unit management.
- Rhoss supervision system for unit monitoring and remote management.

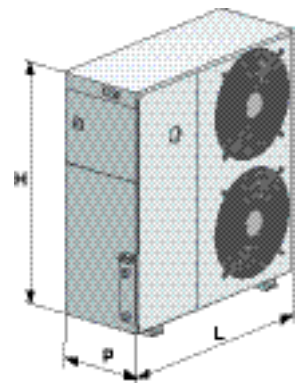


**PUMP unit**



Expansion tank

Circulation pump



TCAEY-THAEY MODEL		105	107	109	111
❶ Nominal cooling capacity	kW	5,5	6,9	8,8	10,8 / 11,1
❶ E.E.R.		2,74	2,58	2,66	2,62 / 2,61
❶ E.S.E.E.R.		3,15	2,77	3,16	3,11 / 3,15
❶ Absorbed power (*)	kW	2,00	2,67	3,32	4,12 / 4,25
❷ Nominal heating capacity	kW	5,8	7,5	9,7	12,0 / 12,4
❷ C.O.P.		2,74	2,71	2,84	2,72 / 2,78
❷ Absorbed power (*)	kW	2,13	2,77	3,41	4,42 / 4,45
❸ Cooling capacity (radiating)	kW	7,5	8,9	12,1	14,5 / 14,8
❸ E.E.R. (radiating)		3,71	3,27	3,53	3,20 / 3,06
❸ Absorbed power (radiating) (*)	kW	2,02	2,72	3,43	4,53 / 4,83
❸ Heating capacity (radiating)	kW	6,00	7,90	9,90	12,2 / 12,6
❸ C.O.P. (radiating)		3,70	3,73	3,76	3,66 / 3,77
❸ Absorbed power (radiating) (*)	kW	1,62	2,12	2,63	3,33 / 3,34
❹ Sound pressure	dB(A)	46	47	47	47
Scroll/step compressor	No.	1/1	1/1	1/1	1/1
Circuits	No.	1	1	1	1
Water tank content	l	19	19	30	30
❶ Available head pressure	kPa	55	55	85	75
Main supply	V-ph-Hz	230-1-50	230-1-50 / 400-3+N-50	230-1-50 / 400-3+N-50	230-1-50 / 400-3+N-50
<b>DIMENSIONS AND WEIGHTS</b>		<b>105</b>	<b>107</b>	<b>109</b>	<b>111</b>
<b>L</b> - Width	mm	990	990	990	990
<b>H</b> - Height <b>PUMP</b>	mm	905	905	1.090	1.090
<b>H</b> - Height <b>TANK &amp; PUMP</b>	mm	905	905	1.295	1.295
<b>P</b> - Depth	mm	380	380	380	380
❹ Weight <b>TCAEY</b>	kg	131	133	157	166
❹ Weight <b>THAEY</b>	kg	141	143	167	176

**In the following conditions:**

- ❶ Air: 35°C - Water: 7/12°C
- ❷ Air: 7°C B.S. - 6°C W.B. - Water: 45/40°C.
- ❸ Air: 35°C - Water: 18/23°C - ❹ Air: 7°C B.S. - 6°C W.B. - Water 35/30°C
- ❹ At 5 m from the unit, coil side, in free field (Q = 2).
- ❹ The weight refers to the unit in its most complete form
- ❹ ESEER (European Seasonal EER) - European seasonal average efficiency

(\*) Unit without electric pump