

Air Cooled Chillers & Heat Pumps

EasyPACK-I

TCAIY-THAIY 270-2130



APPLIES TO EUROPEAN DIRECTIVE FOR ENERGY RELATED PRODUCTS



ÜNTES[®]
52
years

EasyPACK-I

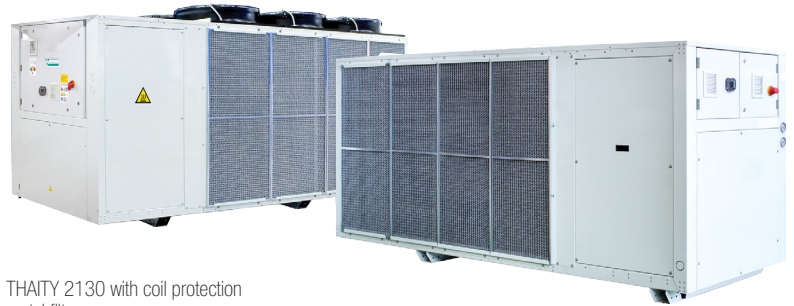
TCAIY-THAIY 270-2130

- ❄️ Cooling capacity: 67,1-130,4 kW
- ☀️ Heating capacity: 71,2-134,6 kW

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READY
2021

APPLIES TO
EUROPEAN
DIRECTIVE
FOR ENERGY
RELATED
PRODUCTS



THAIY 2130 with coil protection
metal filters accessory

TCAIY 2100 with coil protection
metal filters accessory

- Chillers and heat pumps with inverter compressors
- Precise and efficient power modulation
- Plug&Play unit with integrated hydronic module and heat recovery
- Integrated MASTER/SLAVE control



Water chillers and packaged reversible air-cooled heat pumps with axial fans. Range with scroll hermetic compressors, DC Inverter and R410A refrigerant.

Construction features

- Compressor: Scroll type, rotary, hermetic and with Inverter actuation (1+1) complete with thermal protection and casing heater.
- Continuous regulation with high efficiency at partial loads. Water side heat exchanger: with stainless steel plates, complete with closed cell polyurethane foam rubber insulation and water flow differential pressure switch.
- Air side heat exchanger: Featuring micro-channels or finned coil with copper pipes and aluminium fins depending on models/sizes.
- Fan: External rotor axial type electric fans with internal thermal protection, accident protection grilles. The electric fans, based on the sizes, are EC fans or fitted with a proportional electronic device for continuous regulation of the rotation speed.
- Control: Microprocessor electronic control with Adaptive Function Plus logic.
- Structure: Load-bearing structure made of galvanised and painted steel plate with polyester powder coating.
- The unit is also complete with:
 - fan and compressor circuit breaker switches;
 - electronic expansion valve;
 - display of cooling circuit high and low pressure;
 - Master/Slave control up to 4 units in parallel;
 - clock board.

Versions

- T-High efficiency version with oversized condensing section (TCAIY-THAIY).
- Q-Super-silenced version complete with compressor technical compartment soundproofing, reduced speed fans and oversized condensing section (TCAIQY-THAIQY).

Models

- TCAIY: High efficiency unit designed for cooling only.
- TCAIQY: Super silenced unit designed for cooling only.
- THAIY: Heat pump unit.
- THAIQY: Super silenced heat pump unit.

Factory fitted accessories

- PUMP with single or double electric pump, one of which automatic in standby. The electric pumps are available in the low or high head versions.
- TANK&PUMP with 230-440 litre integrated buffer tank (depending on the sizes) and single or double electric pump, complete with expansion tank, air vent valves, safety valve and water side pressure gauge.
- VPF control.
- Desuperheater.
- 100% heat recovery unit.
- Condensing control with fans with EC motor (standard in sizes 270-2100).
- Condensing control with over-pressure fans (T version only)
- Power factor correction capacitors ($\cos\phi > 0.94$).
- Forced limit of power consumption.
- Forced noise limit.
- Energy parameter measuring device.
- Optimised energy efficiency.
- Soft starter.
- Technical compressor compartment soundproofing.
- Compressor soundproof enclosures.
- Cooling circuit outlet and inlet valves.
- Refrigerant leak detector.
- Cooling circuit high and low pressure gauges.
- Double safety valves.
- Metal filters or coil protection nets.
- Microchannel coils with E-coating treatment, copper/copper or pre-painted copper/aluminium depending on the versions.
- Control of min/max power supply voltage.
- Digital input for double set-point.
- 4-20 mA analogue signal for shifting set-point.
- Evaporator antifreeze heater, electrical panel, buffer tank, electric pumps and heat exchangers for heat recovery, if applicable.
- Interfaces for serial communication with other devices.
- Rubber anti-vibration mounts.

Separately supplied accessories

- Remote keypad with display.
- Thermostat with display.
- Untes supervisors for unit monitoring and remote management.
- Untes sequencer for integrated management of multiple chillers.

TCAIY-TCAIQY MODEL		270	280	290	2.100	2.115	2.130	
❶	Nominal cooling capacity	kW	69,8	82,6	90,3	97,9	117	130,4
❶	Nominal cooling capacity	kW	67,8	80,8	87,7	93,4	111,4	125,5
❶	E.E.R.		3,16	3,17	3,15	3,02	3,10	3,14
❶	E.E.R.		3,01	3,06	3,00	2,84	2,90	3,01
❶	Absorbed power	kW	22,09	26,06	28,67	32,42	37,74	41,53
❶	Absorbed power	kW	22,52	26,41	29,23	32,89	38,41	41,69
THAIY-THAIQY MODEL		270	280	290	2.100	2.115	2.130	
❷	Nominal heating capacity	kW	73,4	85,4	92,5	100,6	121,5	134,6
❷	Nominal heating capacity	kW	71,2	83,4	90,4	98,7	117,4	130,6
❷	C.O.P.		3,37	3,34	3,36	3,34	3,37	3,32
❷	C.O.P.		3,31	3,33	3,32	3,30	3,34	3,36
❶	Nominal cooling capacity	kW	67,1	79,3	86,8	93,5	112,6	126,5
❶	Nominal cooling capacity	kW	65	77,9	84,7	90,3	108,6	123,5
❷	Absorbed power	kW	21,78	25,57	27,53	30,12	36,05	40,54
❷	Absorbed power	kW	21,51	25,05	27,23	29,91	35,15	38,87
TCAIY-THAIY MODEL		270	280	290	2.100	2.115	2.130	
❸	TCAIY-THAIY sound pressure	dB(A)	52	53	53	53	55	56
❸	TCAIQY-THAIQY sound pressure	dB(A)	45	46	46	46	49	50
❹	TCAIY-THAIY sound power	dB(A)	84	85	85	85	87	88
❹	TCAIQY-THAIQY sound power	dB(A)	77	77,5	77,5	77,5	81	82
	Scroll/step compressor		no.1+i / continuous regulation	1+i / continuous regulation	1+i / continuous regulation	1+i / continuous regulation	1+i / continuous regulation	1+i / continuous regulation
	Circuits	no.	1	1	1	1	2	2
	Electrical supply	V-ph-Hz	400-3+N-50	400-3+N-50	400-3+N-50	400-3+N-50	400-3+N-50	400-3+N-50
DIMENSIONS AND WEIGHTS		270	280	290	2.100	2.115	2.130	
	L - Width	mm	3.250	3.250	3.250	3.250	3.450	3.450
	H - Height	mm	1.540	1.540	1.540	1.540	2.000	2.000
	P - Depth	mm	1.210	1.210	1.210	1.210	1.520	1.520
❺	TCAIY weight	kg	765	790	795	800	1.125	1.145
❺	THAIY weight	kg	880	915	920	925	1.325	1.345

Data at the following conditions:

- ❶ Air: 35°C - Water: 12/7°C
- ❷ Air: 7°C, D.B. - 6°C W.B. - Water: 40/45°C.
- ❸ In open field (Q = 2) at 10 m from the unit on the coil side.
- ❹ Total sound power level in dB(A) based on measurements carried out in accordance with regulation UNI EN-ISO 9614.
- ❺ Weight referred to the unit without load and not accessorised.

■ TCAIQY-THAIQY super-silenced versions.
Performance according to EN 14511:2018.

SEASONAL ENERGY PERFORMANCE		270	280	290	2.100	2.115	2.130	
TCAIY MODEL SEASONAL PERFORMANCE IN COOLING MODE								
❶	Pdesignc (EN 14825)	kW	69,8	82,6	90,3	97,9	117	130,4
❶	SEER (EN 14825)		4,45	4,55	4,53	4,49	4,19	4,17
❷	ηs,c	%	175	179	178	176	165	164
TCAIQY MODEL SEASONAL PERFORMANCE IN COOLING MODE								
❶	Pdesignc (EN 14825)	kW	67,8	80,8	87,7	93,4	111,4	125,5
❶	SEER (EN 14825)		4,36	4,45	4,39	4,33	4	4,04
❷	ηs,c	%	172	175	173	170	157	159
THAIY MODEL SEASONAL ENERGY PERFORMANCE IN HEATING MODE								
❸	Pdesignh (EN 14825)	kW	71	78	85	92	121	126
❸	SCOP (EN 14825)		4,09	4,18	4,16	4,16	3,99	4,03
❹	ηs	%	161	164	164	163	156	158
❹	Energy class		-	-	-	-	-	-
THAIQY MODEL SEASONAL ENERGY PERFORMANCE IN HEATING MODE								
❸	Pdesignh (EN 14825)	kW	64	77	83	91	111	133
❸	SCOP (EN 14825)		3,99	4,08	4,04	4,06	3,88	3,96
❹	ηs	%	156	160	159	159	152	155
❹	Energy class		A++	-	-	-	-	-

- ❶ Low temperature application (7°C)
- ❷ Seasonal energy efficiency: low temperature cooling (EU Regulation 2016/2281)
- ❸ In Average climatic conditions, low temperature application (35°C)
- ❹ Seasonal energy efficiency: low temperature heating in Average climate (EU Regulations No.811/2013 and No.813/2013)

ÜNTEŞ®

52
years

Export Sales Office

Address: 53. Cadde 1450. Sokak Ulusoy
Plaza No: 9/50 Cukurambar, Ankara, Turkey
Email: export@untes.com.tr
T+90 (312) 287 91 00 F+90 (312) 284 91 00

Manufacturing Plant-1

Air Handling & Ventilations Systems,
Fan Coil Systems
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Address: Istanbul Yolu 37.km
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