MidiPACK-I

TCAITY-THAITY 120÷130

Cooling capacity: 18.8÷29.3 kW - Heating capacity: 20÷30.4 kW

√ Hot water up to -15°C outdoor air

√ Temperature of the produced water up to 60°C

√ Version with pump or with pump and storage tank

√ Integrated MASTER/SLAVE control

Web code: CYI02

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

Construction features

• Compressor: scroll type, rotary, hermetic with Inverter actuation, complete with thermal protection and casing heater.
• Water side heat exchanger: adequately insulated stainless steel plates, complete with antifreeze heater and water flow differential pressure switch.
• Air side heat exchanger: featuring finned coil with copper pipes and aluminium fins for TCAITY with hydrophilic treatment for THAITY, complete with protection grilles.
• Fan: external rotor axial type electric fans equipped with internal thermal protection, accident protection grilles and proportional electronic device for continuous fan rotation speed regulation.
• Control: microprocessor electronic control with Adaptive Function Plus logic.
• Structure: made of galvanised and painted steel plate, complete with condensate drain pan and unit base antifreeze heater for THAITY.
• The unit is also complete with:
- outdoor air temperature probe for set-point compensation;
- electronic expansion valve;
- display of cooling circuit high and low pressure;
- Master/Slave control up to 4 units in parallel;
- clock board.

Version

T - High efficiency.

Models

TCAITY: unit designed for cooling only.
THAITY: heat pump unit.

PUMP set-up

• Pump unit complete with: EC circulator with 3 speed selector or continuous speed regulation or electric pump, membrane expansion tank, manual air vent valve, safety valve and pressure gauge.

TANK&PUMP set up
• Pump unit complete with: inertial buffer tank, circulator or electric circulation pump, membrane expansion tank, manual air vent valve, safety valve, and pressure gauge.

Factory fitted accessories

• Forced Download. Compressor partialisation or switch-off to limit power and current consumption (digital input).
• Condensing control with fans with EC motor.
• Silenced set up.
• Antifreeze heater on the tank.
• Circulator/electric pump antifreeze heater.
• Pre-painted copper/coils or copper/copper coils.
• Digital input for double set-point.

• 4-20 mA analogue signal for shifting set-point.

Separately supplied accessories

• 3-way valve for the production of domestic hot water, managed by regulation.
• Additional electrical resistance for heat pump, managed by regulation.
• Remotely controllable outdoor air temperature probe for set-point compensation.
• Water filter.
• Rubber anti-vibration mounts.
• Remote keypad with display.
• Interfaces for serial communication with other devices.
• RS485/USB serial converter.
• Rhoss supervisors for unit monitoring and remote management.

Technical Data

	TCAITY MODEL		120	125	130
❶	Cooling capacity	kW	18,8	25,2	29,3
❶	Absorbed power	kW	6,53	8,72	10,17
❶	E.E.R.		2,88	2,89	2,88
	THAITY MODEL		**120**	**125**	**130**
❷	Heating capacity	kW	20	25,6	30,4
❷	Absorbed power	kW	6,15	7,83	9,5
❷	C.O.P. NOM		3,25	3,27	3,2
❸	Heating capacity	kW	21,1	26,1	30,7
❸	Absorbed power	kW	5,2	6,41	7,62
❸	C.O.P.		4,06	4,07	4,03
❹	Heating capacity	kW	14,8	18,1	21,3
❹	Absorbed power	kW	4,92	6,51	7,61
❹	C.O.P.		3,01	2,78	2,8
❶	Cooling capacity	kW	18,5	24,1	28,3
❶	E.E.R.		2,7	2,75	2,71
	TCAITY-THAITY MODEL		**120**	**125**	**130**
❺	Sound pressure	dB(A)	47	50	51
❶	P0 circulator available head	kPa	77	80	67
	Buffer tank water content	l	110	110	110
	Electrical supply	V-ph-Hz	400-3+N-50	400-3+N-50	400-3+N-50
	DIMENSIONS AND WEIGHT		**120**	**125**	**130**
	L - PUMP width	mm	1522	1522	1522
	L - TANK&PUMP width	mm	1625	1625	1625
	H - PUMP height	mm	1280	1280	1280
	H - TANK&PUMP height	mm	1590	1590	1590
	P - PUMP Depth	mm	600	600	600
	P - TANK&PUMP Depth	mm	600	600	600
❻	PUMP Weight	kg	245	265	275
❻	TANK&PUMP Weight	kg	445	465	475
	SEASONAL ENERGY PERFORMANCE		**120**	**125**	**130**
	TCAITY MODEL SEASONAL PERFORMANCE IN COOLING MODE				
①	Pdesignc (EN 14825)	kW	18,8	25,2	29,3
①	SEER (EN 14825)		4,31	4,36	4,32
②	ηs,c	%	169	171	170
	THAITY MODEL SEASONAL PERFORMANCE IN HEATING MODE - Low temperature application 35°C				
③	Pdesignh (EN 14825)	kW	21	26	30
③	SCOP (EN 14825)		4,17	3,63	3,88
④	ηs	%	164	142	152
④	Energy class		A++	A+	A++
	THAITY MODEL SEASONAL PERFORMANCE IN HEATING MODE - Medium temperature application 55°C				
③	Pdesignh (EN 14825)	kW	19	-	-
③	SCOP (EN 14825)		3,41	-	-
④	ηs	%	133	-	-
④	Energy class		A++	-	-

Data at the following conditions:

❶ Air: 35°C D.B. - Water: 12/7°C.

❷ Air: 7°C D.B. - 6°C W.B. - Water: 40/45°C.

❸ Air: 7°C D.B. - 6°C W.B. - Water: 30/35°C.

❹ Air: -7°C D.B. - Water: 30/35°C.

❺ In open field (Q = 2) at 5 m from the unit.

❻ Weight refers to the most complete setup.

Performance according to EN 14511. P0 setup.

① Low temperature application (7°C)

② Seasonal energy efficiency: low temperature cooling (EU Regulation 2016/2281)

③ In Average climatic conditions.

④ Seasonal energy efficiency: ambient heating in Average climate (EU Regulations No.811/2013 and No.813/2013)

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