

WinFLOW ECO WinFLOW

TCHET-THHET 4185÷4395

Cooling capacity 180,2÷396,9 kW

Heating capacity 205,4÷455,7 kW



Features

Efficient and eco-friendly range in R454B

Applications with well water, water mains, geothermal probes or dry cooler

Extended operating limits

Touch interface (optional)

Free-Cooling management

Integrated MASTER/SLAVE control

Tax incentives*



Packaged water-cooled water chillers and reversible heat pumps on the cooling circuit with water-cooling system. Series with scroll hermetic compressors and R454B or R410A refrigerant gas.

Construction features

- Compressor: hermetic rotary scroll complete with thermal protection and crankcase heater.
- Primary side (user) heat exchanger: with stainless steel plates, complete with closed cell polyurethane foam rubber insulation and water flow differential pressure switch.
- Disposal side heat exchanger (well, mains, geothermal probes or dry cooler): with stainless steel plates, complete with closed cell polyurethane foam rubber insulation and water flow differential pressure switch (for THHETU-THHETY).
- Control: microprocessor electronic control with Adaptive Function Plus logic.
- Structure: made of galvanised and painted steel plate with polyester powder coating.
- The unit is also complete with:
 - 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;
- 0-10V analogue signal for condensing/evaporating control performed by external device;
- control of Variable Primary Flow (VPF_R).

Versions

- T - High efficiency version

Models

- TCHETU: unit designed for cooling only with R454B gas.

- TCHETY: unit designed for cooling only with R410A gas.
- THHETU: heat pump unit with R454B gas.
- THHETY: heat pump unit with R410A gas.

Factory fitted accessories

- Primary side (user) PUMP: with single or double electric pump, one of which automatic in standby. The electric pumps are available in the low or high pressure head versions. ➔
- PUMP disposal side (well, mains, geothermal probes or dry cooler): with single or double electric pump (possibly regulated via inverter) including an automatic actuation pump in standby. The electric pumps are available in the low or high pressure head versions. ➔
- Free-Cooling Management.
- Dry-Cooler Management.
- Desuperheater.
- 100% heat recovery (only for TCHETU-TCHETY).
- Setup for heat pump operation (only for TCHETU-TCHETY).
- Primary side (user) inverter pump management.
- Power factor correction capacitors ($\cos\phi > 0.94$).
- Soft-starter.
- Energy parameter measuring device.
- Cooling circuit outlet and intake valves (TCHETY-TCHETU-THHETY).
- Cooling circuit outlet valves (THHETU).
- Refrigerant leak detector.
- Forced limit of power consumption.
- Cooling circuit high and low pressure gauges.
- Double safety valves.
- Technical compartment soundproofing.
- Compressor soundproof enclosures
- Control of min/max power supply voltage and backup battery.
- Low temperature water production.

- Digital input for double set-point.
- 4-20mA analogue signal for shifting set-point.
- Heat exchanger antifreeze heaters, electrical panel, electric pumps and heat exchangers for heat recovery if applicable.
- Interfaces for serial communication with other devices.
- Colour touch user keypad (fitted on the machine or remotely) with 7" display.
- Set-up for outdoor installation.
- Anti-vibration mounts.

Separately supplied accessories

- 3-way modulating condensing control valve.
- 2-way modulating condensing control valve.
- Outdoor air temperature probe for set-point compensation.
- Water filter.
- Remote keypad with display.
- Thermostat with display.
- Rhoss supervisors for unit monitoring and remote management.
- Rhoss sequencer for integrated management of multiple chillers.

Technical data

TCHETU MODEL		4185	4210	4240	4275	4305	4350	4395
❶ Cooling capacity	kW	183	209	236,3	267,9	299,1	344	387,6
❶ Absorbed power	kW	38,4	45,2	51	58,4	65,9	75,8	87,3
❶ E.E.R.		4,77	4,62	4,63	4,59	4,54	4,54	4,44
THHETU MODEL		4185	4210	4240	4275	4305	4350	4395
❷ Heating capacity	kW	205,4	237,4	268,2	303,7	339,5	393,8	444,3
❷ Absorbed power	kW	48,1	56,7	63,9	74,1	85,3	97,5	112,5
❷ C.O.P.		4,27	4,19	4,2	4,1	3,98	4,04	3,95
❶ Cooling capacity	kW	180,2	206,3	232,6	262,2	292,9	337,8	380,3
❶ E.E.R.		4,6	4,47	4,46	4,4	4,35	4,36	4,26
TCHETU-THHETU MODEL		4185	4210	4240	4275	4305	4350	4395
❸ Sound pressure	dB(A)	47	47	48	49	51	52	53
❸ Sound power	dB(A)	79	79	80	81	83	84	85
❸ Sound power with soundproofing set-up	dB(A)	76,5	76,5	77,5	78,5	80,5	81,5	82,5
Scroll compressor/steps	no.	4/4	4/4	4/4	4/4	4/4	4/4	4/4
Circuits	no.	2	2	2	2	2	2	2
Electrical supply	V-ph-Hz	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50
DIMENSIONS AND WEIGHTS		4185	4210	4240	4275	4305	4350	4395
❹ L – Width	mm	2510	2510	2510	2510	2510	2510	2510
❹ L – Width	mm	3740	3740	3740	3740	3740	3740	3740
H – Height	mm	1860	1860	1860	1860	1860	1860	1860
P – Depth	mm	870	870	870	870	870	870	870
❷ TCHETU weight	kg	1095	1105	1140	1310	1455	1515	1530
❷ THHETU weight	kg	1125	1135	1180	1360	1505	1565	1585
SEASONAL ENERGY PERFORMANCE		4185	4210	4240	4275	4305	4350	4395
TCHETU MODEL SEASONAL PERFORMANCE IN COOLING MODE								
❶ Pdesignc (EN 14825)	kW	183	209	236,3	267,9	299,1	344	387,6
❶ SEER (EN 14825)		6,34	6,36	6,5	6,49	6,56	6,54	6,6
❷ ηs,c	%	251	251	257	257	260	259	261
THHETU MODEL SEASONAL PERFORMANCE IN COOLING MODE								
❶ Pdesignc (EN 14825)	kW	-	-	-	-	292,9	337,8	380,3
❶ SEER (EN 14825)		-	-	-	-	6,34	6,32	6,39
❷ ηs,c	%	-	-	-	-	251	250	253
THHETU MODEL SEASONAL PERFORMANCE IN HEATING MODE								
❸ Pdesignh (EN 14825)	kW	244	282	319	362	-	-	-
❸ SCOP (EN 14825)		6,93	6,79	6,69	6,63	-	-	-
❹ ηs	%	269	264	260	257	-	-	-
TCHETY MODEL		4185	4210	4240	4275	4305	4350	4395
❶ Cooling capacity	kW	187,7	214	242,4	275	307,6	352,8	396,9
❶ Absorbed power	kW	40,2	47,3	53,5	61,1	69	79,3	91,7
❶ E.E.R.		4,67	4,52	4,53	4,5	4,46	4,45	4,33
THHETY MODEL		4185	4210	4240	4275	4305	4350	4395
❷ Heating capacity	kW	210,9	243,5	275,3	311,5	347,4	403,6	455,7
❷ Absorbed power	kW	50,5	59,4	66,8	77,9	89,3	102,4	118,1
❷ C.O.P.		4,18	4,1	4,12	4	3,89	3,94	3,86
❶ Cooling capacity	kW	184,8	211,2	238,6	269,2	300,6	346,4	389,4
❶ E.E.R.		4,52	4,38	4,38	4,32	4,27	4,28	4,16
TCHETY-THHETY MODEL		4185	4210	4240	4275	4305	4350	4395
❸ Sound pressure	dB(A)	47	47	48	49	51	52	53
❸ Sound power	dB(A)	79	79	80	81	83	84	85
❸ Sound power with soundproofing set-up	dB(A)	76,5	76,5	77,5	78,5	80,5	81,5	82,5
Scroll compressor/steps	no.	4/4	4/4	4/4	4/4	4/4	4/4	4/4
Circuits	no.	2	2	2	2	2	2	2
Electrical supply	V-ph-Hz	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50
DIMENSIONS AND WEIGHTS		4185	4210	4240	4275	4305	4350	4395
❹ L – Width	mm	2510	2510	2510	2510	2510	2510	2510
❹ L – Width	mm	3740	3740	3740	3740	3740	3740	3740
H – Height	mm	1860	1860	1860	1860	1860	1860	1860

P – Depth	mm	870	870	870	870	870	870	870
⑦ TCHETY weight	kg	1095	1105	1140	1310	1455	1515	1530
⑦ THHETY weight	kg	1125	1135	1180	1360	1505	1565	1585
SEASONAL ENERGY PERFORMANCE		4185	4210	4240	4275	4305	4350	4395
TCHETY MODEL SEASONAL PERFORMANCE IN COOLING MODE								
① Pdesignc (EN 14825)	kW	187,7	214	242,4	275	307,6	352,8	396,9
① SEER (EN 14825)		6,24	6,23	6,42	6,39	6,44	6,42	6,47
② $\eta_{s,c}$	%	247	246	254	253	255	254	256
THHETY MODEL SEASONAL PERFORMANCE IN COOLING MODE								
① Pdesignc (EN 14825)	kW	-	-	-	-	300,6	346,4	389,4
① SEER (EN 14825)		-	-	-	-	6,26	6,22	6,25
② $\eta_{s,c}$	%	-	-	-	-	247	246	247
THHETY MODEL SEASONAL PERFORMANCE IN HEATING MODE								
③ Pdesignh (EN 14825)	kW	249	287	325	368	-	-	-
③ SCOP (EN 14825)		6,82	6,7	6,61	6,56	-	-	-
④ η_s	%	265	260	256	254	-	-	-

Data at the following conditions:

- ① Chilled water: 12/7°C – Condenser water: 30/35°C.
- ② Hot water: 40/45°C. – Evaporator water: 10/7°C.
- ③ In open field (Q = 2) at 10 m from the unit.
- ④ Total sound power level in dB(A) based on measurements carried out in accordance with regulation UNI EN-ISO 9614.
- ⑤ Width referred to a unit with standard set up.
- ⑥ Width referring to the PUMP setup, up to a maximum of 4 pumps.
- ⑦ Weight refers to the unit empty with soundproofing.
Performance according to EN 14511.
- ① Low temperature application (7°C)
- ② Seasonal energy efficiency: low temperature cooling (EU Regulation 2016/2281)
- ③ In Average climatic conditions, low temperature application (35°C)
- ④ Seasonal energy efficiency: low temperature heating in Average climate (EU Regulations No.811/2013 and No.813/2013)



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