

TFAEY-TGAEY 4160÷4320

Y-Pack Range FREECOOLING



Air-cooled water chillers in Freecooling mode (TFAEY) and Freecooling NO-GLYCOL mode (TGAEY) 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.

4 capacity steps with high efficiency at partial loads.

Water side heat exchanger (evaporator): stainless steel plate exchanger, complete with closed cell polyurethane foam rubber insulation and water flow differential pressure switch.

Heat exchanger (water-water) in Freecooling NO-GLYCOL mode: stainless steel plate exchanger, complete with closed cell polyurethane foam rubber insulation and water flow differential pressure switch.

Air side heat exchanger (condenser): 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: microprocessor electronic control **iDRHOSS** compatible, with Adaptive Function Plus logic for connection with the main BMS on the market (MODBUS RTU, LON).

Structure: load-bearing structure in galvanised and painted sheet steel with polyester powder coating.

The unit is also complete with:

- Unit with compressor and fan thermal overload switches.

Versions

- **T** - High efficiency version(TFAEY-TGAEY).
- **S** - Silenced version (TFAESY-TGAESY).

Models

TFAEY: high efficiency unit in Freecooling mode

TFAESY: silenced unit in Freecooling mode

TGAEY: high efficiency unit in Freecooling NO-GLYCOL mode

TGAESY: silenced unit in Freecooling NO-GLYCOL mode

Factory fitted accessories

- PUMP with single or double pump, including an automatic pump in standby complete with safety valve. The pumps are available in the low or high pressure versions.
- Electronic expansion valve.
- Power factor correction capacitors ($\cos\phi > 0.91$).
- Refrigerant circuit high and low pressure gauges.
- Metal filters or coil protection grilles.
- Unit with copper/copper, copper/tin-plated copper or copper/pre-painted aluminium coils.
- Digital input for double set-point
- 4-20 mA analogue input for shifting set-point.
- Evaporator antifreeze electric heater, pumps if present.
- Serial interface for connection with external BMS.

Accessories supplied loose

- Antivibration mountings.
- Remote keyboard with display.
- Clock card.
- GSM 900/1800 modem kit for remote unit management.
- Rhoss supervision system for unit monitoring and remote management.



PRELIMINARY

TFAETY-TFAESY MODEL		4160	4180	4200	4230	4260	4290	4320	
FREE-COOLING OFF									
❶	Nominal cooling capacity	kW	178	202	224	251	286	326	361
❶	Nominal cooling capacity	kW	170	197	215	240	274	312	344
❶	E.E.R.		3,3	3,4	3,3	3,2	3,3	3,2	3,1
❶	E.E.R.		3,2	3,3	3,1	3,1	3,2	3,1	2,9
❶	Absorbed power	kW	53,8	59,3	68,4	78,5	85,6	102,0	117,0
❶	Absorbed power	kW	53,0	59,3	69,2	77,2	85,2	101,0	118,0
FREE-COOLING ON 100%									
❷	Nominal cooling capacity	kW	178	202	224	251	286	326	361
❷	Nominal cooling capacity	kW	170	197	215	240	274	312	344
❷	E.E.R.		21,3	24,4	26,9	20,5	22,8	19,5	21,5
❷	E.E.R.		33,0	37,8	41,4	31,7	35,2	30,0	32,9
❷	Absorbed power	kW	8	8	8	12	12	16	16
❷	Absorbed power	kW	5	5	5	7,5	7,5	10	10
❷	Total Freecooling temperature	°C	-0,3	0,4	-0,2	0,1	0,3	-0,2	-1,4
❷	Total Freecooling temperature	°C	-1,6	-1,1	-1,8	-1,6	-1,4	-1,9	-3,3
TFAETY-TFAESY MODEL			4160	4180	4200	4230	4260	4290	4320
❸	Sound pressure level	dB(A)	65	67	67	69	69	70	70
❸	Sound pressure level	dB(A)	60	61	61	63	64	65	65
❹	Sound power level	dB(A)	89	91	91	93	93	94	94
❹	Sound power level	dB(A)	85	86	86	88	89	90	90
Scroll/step compressor	No.		4/4	4/4	4/4	4/4	4/4	4/4	4/4
Circuits	No.		2	2	2	2	2	2	2
Main 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	400-3+N-50

In the following conditions:

- ❶ Air: 30°C - Water: 10/15°C - Ethylene glycol 30%
- ❷ Water: 10/15°C - Ethylene glycol 30%
- ❸ At 5 m from the unit, coil side, in free field (Q = 2).

❹ Total sound power level in dB(A) on the basis of measurements taken in accordance with ISO 3744

❶ TFAESY Silenced version

DIMENSIONS AND WEIGHTS		4160	4180	4200	4230	4260	4290	4320
L - Width	mm	4.800	4.800	4.800	4.800	5.300	5.300	5.300
H - Height	mm	2.030	2.030	2.030	2.030	2.030	2.030	2.030
P - Depth	mm	2.090	2.090	2.090	2.090	2.090	2.090	2.090

