

- Rhoss
- Cooling: 352,7 - 816,5 kW
- Heating: 363,3 - 791,5 kW
- R454B (A2L)



Air cooled multi-purpose ecological system type WinPOWER ECO EXP

- **WinPOWER ECO EXP TXAEU 4370÷6830 EXPsystems** – Air cooled multi-purpose ecological system with axial fans

Total Efficiency Ratio

- TER up to 7,86

Seasonal Energy Efficiency Ratio

- SEER up to 5.29 with FIEC accessory (EC fans)

Seasonal Coefficient of Performance

- SCOP up to 3.89

Brand

- Rhoss

Capacity

- Cooling: **352,7 - 816,5 kW**
- Heating: **363,3 - 791,5 kW**

Refrigerant

- R454B (A2L)

Compressors

- Hermetic rotary, scroll type

Configuration

- T - High efficiency version
- Q - Super silenced version complete with compressor technical compartment soundproofing and reduced speed fans

Specifications

- Compressor: hermetic rotary, scroll type, complete with thermal protection and casing heater
- Up to 6 capacity steps with high efficiency at partial loads
- Main and secondary heat exchangers: crossed flow stainless steel plate exchangers, complete with antifreeze heater, closed cell polyurethane foam rubber insulation and water flow differential pressure switch
- Air side heat exchanger: finned coil with copper pipes and aluminium fins
- Fan: external rotor axial type electric fans equipped with internal thermal protection, accident protection grilles and proportional electronic device for continuous fan rotation speed adjustment
- 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 thermal magnetic circuit breakers, heat exchanger antifreeze heater
 - display of cooling circuit high and low pressure
 - electronic expansion valve
 - clock board
 - Master/Slave control up to 4 units in parallel
 - control of Variable Primary Flow (VPF_R)

Models

- TXAETU: EXPsystems unit
- TXAEQU: super silenced EXPsystems unit

Accessories

- **Factory fitted accessories**
 - PUMP with single or double electric pump, one of which automatic in standby. The electric pumps are available in the main and secondary/recovery heat exchanger low or high head set-ups
 - Inverter pump control for unit start-up
 - Recovery side VPF_R control
 - Desuperheater
 - Condensing control with fans with EC motor
 - Condensing control with over-pressure fans (T version only)
 - Power factor correction capacitors (cosφ > 0.94)
 - Forced limit of power consumption
 - Forced noise limit
 - Energy parameter measuring device
 - Soft starter
 - Compressor box and soundproofed cooling circuit
 - Compressor soundproof enclosures
 - Cooling circuit outlet valves
 - Refrigerant leak detector
 - Cooling circuit high and low pressure gauges
 - Double safety valves
 - Coil protection nets or buffer panels
 - Bottom compartment protection nets
 - Pre-painted copper/aluminium coils, copper/copper or with hydrophilic treatment
 - Digital input for double set-point
 - 4-20 mA analogue signal for shifting set-point
 - Electrical panel antifreeze heater, coil tanks, electric pumps and desuperheater, if applicable
 - Interfaces for serial communication with other devices
 - Colour touch user keypad (fitted on the machine or remotely) with 7" display
 - Spring anti-vibration mounts
 - Protective packaging
- **Separately supplied accessories**
 - 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											
TXAETU Model		4370	4410	4450	5490	5520	5560	6600	6630	6660	6730	6780	6830
Cooling operation (Automatic 1 mode)													
1 Nominal cooling capacity	kW	360,7	391,7	431,7	474,6	494,6	542,6	585,5	611,6	641,5	714,5	763,5	816,5
1 Absorbed power	kW	110,3	125,1	137,9	151,1	159	174,5	184,1	192,9	203	227,5	243,2	261,7
1 E.E.R.		3,27	3,13	3,13	3,14	3,11	3,11	3,18	3,17	3,16	3,14	3,14	3,12
Cooling operation + total recovery (Automatic 2 mode)													
3 Nominal cooling capacity	kW	347,8	384,1	430,9	461,9	482,1	536,9	575,2	602,6	639,5	706,5	754,9	806,6
3 Recovery heating capacity	kW	442,3	490,1	546,1	589,9	616	681,8	731,2	764,7	808,5	897,8	958,8	1026,6
3 T.E.R.		8,02	7,92	8,14	7,86	7,84	8,05	8,02	8,09	8,22	8,03	8,05	7,98
Heating operations (Mode select 1-2 automatic 3)													
2 Nominal heating capacity	kW	368,3	400,3	435,4	482,4	508,4	544,4	591,5	623,4	645,5	688,5	746,5	791,5
2 Absorbed power	kW	110,6	121,7	133,1	145,7	154,1	165,5	179,8	189,5	196,8	212,5	230,4	245,8
2 C.O.P.		3,33	3,29	3,27	3,31	3,3	3,29	3,29	3,29	3,28	3,24	3,24	3,22
4 TXAETU sound pressure	dB(A)	62,5	63,5	63,5	64,5	64,5	64,5	65	65	66	67	67	68
5 TXAETU sound power	dB(A)	95	96	96	97	97	97	98	98	99	100	100	101
Scroll compressors/steps	n.	4/4	4/4	4/4	5/5	5/5	5/5	6/6	6/6	6/6	6/6	6/6	6/6
Circuits	n.	2	2	2	2	2	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	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50
Data at the following conditions:													
1 Air: 35°C – Water: 12/7°C													
2 Air: 7°C D.B. – 6°C W.B. – Water: 40/45°C													
3 Evaporator output water: 7 , nominal flow rate. Recovery output water: 45°C, nominal flow rate													
4 In open field (Q = 2) at 10 m from the unit													
5 Total sound power level in dB(A) based on measurements carried out in accordance with regulation UNI EN-ISO 9614													

Technical data													
TXAEQU Model		4370	4410	4450	5490	5520	5560	6600	6630	6660	6730	6780	6830
Cooling operations (Automatic 1 Mode)													
1 Nominal cooling capacity	kW	352,7	381,7	420,7	463,6	482,6	528,6	572,5	595,6	624,6	696,5	744,5	796,5
1 Absorbed power	kW	110,6	126	140,2	152	160,3	177,4	185,3	194,6	202,1	229,1	244,9	263,7
1 E.E.R.		3,19	3,03	3	3,05	3,01	2,98	3,09	3,06	3,09	3,04	3,04	3,02
Cooling operation + total recovery (Automatic 2 mode)													
3 Nominal cooling capacity	kW	348,8	385,3	432,2	463,3	483,6	538,5	576,9	604,5	641,6	709	757,8	809,3
3 Recovery heating capacity	kW	443,2	491,3	547,3	591,2	617,4	683,3	732,7	766,4	810,4	900,3	961,6	1029,2
3 T.E.R.		8,05	7,95	8,18	7,9	7,88	8,08	8,06	8,13	8,25	8,07	8,08	8,01
Heating operations (Mode select 1-2 automatic 3)													
2 Nominal heating capacity	kW	363,3	395,3	429,3	475,4	500,4	537,4	582,5	613,4	636,5	678,5	735,5	779,5
2 Absorbed power	kW	106,9	118,4	129,7	141,1	149,4	161,4	174,4	184,2	191,1	206,2	224,2	239,1
2 C.O.P.		3,4	3,34	3,31	3,37	3,35	3,33	3,34	3,33	3,33	3,29	3,28	3,26
4 TXAEQU sound pressure	dB(A)	55	55,5	55,5	56,5	56,5	56,5	57	57	57	58	58	59
5 TXAEQU sound power	dB(A)	87	88	88	89	89	89	90	90	90	91	91	92
Scroll compressors/steps	n.	4/4	4/4	4/4	5/5	5/5	5/5	6/6	6/6	6/6	6/6	6/6	6/6
Circuits	n.	2	2	2	2	2	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	400-3-50	400-3-50	400-3-50	400-3-50	400-3-50
Data at the following conditions:													
1 Air: 35°C – Water: 12/7°C.													
2 Air: 7°C D.B. – 6°C W.B. – Water: 40/45°C.													
3 Evaporator output water: 7, nominal flow rate. Recovery output water: 45°C, nominal flow rate.													
4 In open field (Q = 2) at 10 m from the unit.													
5 Total sound power level in dB(A) based on measurements carried out in accordance with regulation UNI EN-ISO 9614.													
Seasonal efficiency													
TXAEU Model seasonal performance in cooling mode		4370	4410	4450	5490	5520	5560	6600	6630	6660	6730	6780	6830
1 Pdesignc (EN 14825)	kW	-	-	-	-	494,6	542,6	585,5	611,6	641,5	714,5	763,5	816,5
1 SEER (EN 14825)		-	-	-	-	4,81	4,79	4,93	4,89	4,84	4,84	4,86	4,8
2 ηs,c	%	-	-	-	-	189	189	194	193	191	191	191	189
TXAEU Model seasonal performance in cooling mode													
1 Pdesignc (EN 14825)	kW	-	-	-	-	482,6	528,6	572,5	595,6	624,6	696,5	744,5	796,5
1 SEER (EN 14825)		-	-	-	-	4,78	4,76	4,9	4,86	4,8	4,81	4,83	4,77
2 ηs,c	%	-	-	-	-	188	188	193	191	189	189	190	188
TXAEU seasonal performance in heating mode													
3 Pdesignh (EN 14825)	kW	303	331	359	398	-	-	-	-	-	-	-	-
3 SCOP (EN 14825)		3,78	3,77	3,75	3,79	-	-	-	-	-	-	-	-
4 ηs	%	148	148	147	149	-	-	-	-	-	-	-	-
3 Pdesignh (EN 14825)	kW	298	326	354	392	-	-	-	-	-	-	-	-
3 SCOP (EN 14825)		3,86	3,83	3,79	3,83	-	-	-	-	-	-	-	-
4 ηs	%	151	150	148	150	-	-	-	-	-	-	-	-
Data at the following conditions:													
1 Low temperature application (7°C), not Eurovent certified													
2 Seasonal energy efficiency: low temperature cooling (EU Regulation 2016/2281), not Eurovent certified													
3 In Average climatic conditions, low temperature application (35°C), not Eurovent certified													
4 Seasonal energy efficiency: low temperature heating in Average climate (EU Regulations No.811/2013 and No.813/2013), not Eurovent certified													
Dimensions													
		4370	4410	4450	5490	5520	5560	6600	6630	6660	6730	6780	6830
L - Width	mm	4840	4840	4840	5940	5940	5940	7100	7100	7100	8200	9300	9300
H - Height	mm	2480	2480	2480	2480	2480	2480	2480	2480	2480	2480	2480	2480
P - Depth	mm	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260
6 TXAEU weight	kg	3430	3550	3600	4310	4380	4410	5240	5310	5340	5925	6450	6630
6 TXAEQU weight	kg	3890	4010	4060	4870	4940	4970	5910	5980	6010	6615	7180	7360
Data at the following conditions:													
6 Weight refers to the unit without load													