WinPACK ECO EXP

TXAEU 4140÷4330

Cooling capacity 135,7÷333,6 kW
Heating capacity 144,3÷351,4 kW

Features

Multi-purpose units with TER up to 7.96

R454B refrigerant gas

Integrated MASTER/SLAVE control

Tax incentives*

EXPsystems - Air cooled multi-purpose ecological system with axial fans. Range with scroll hermetic compressors and R454B refrigerant gas.

Construction features

• Compressor: scroll type, rotary, hermetic complete with thermal protection and casing heater.

• 4 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 and accident protection grilles. The electric fans are fitted with a proportional electronic device for continuous regulation of the rotation speed.

• 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 and fan circuit breaker switches;

– electronic expansion valve;

– display of cooling circuit high/low pressure;

– master/slave control up to 4 units in parallel;

– clock board;

– control of Variable Primary Flow (VPF_R).

Versions

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

Models

• TXAETU: EXPsystems unit.

• TXAEQU: super silenced EXPsystems 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 440 - 700 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.
• Inverter pump control for unit start-up.
• Recovery side VPF_R control.
• Condensing control with fans with EC motor.
• 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 valves.
• Refrigerant leak detector.
• Cooling circuit high and low pressure gauges.
• Double safety valves.
• Metal filters or coil protection nets.
• Copper/copper or copper/pre-painted aluminium coils.
• Control of min/max power supply voltage.
• Digital input for double set-point.
• 4-20 mA analogue signal for shifting set-point.
• Electrical panel resistance, buffer tank, electric pumps, if present.
• Interfaces for serial communication with other devices.
• Anti-vibration mounts.

Separately supplied accessories

• Remote keypad with display.

• Rhoss supervisors for unit monitoring and remote management.

• Rhoss sequencer for integrated management of multiple chillers.

Technical data

TXAETU MODEL		4140	4160	4190	4210	4230	4260	4300	4330
COOLING OPERATIONS (AUTOMATIC 1 MODE)									
❶ Nominal cooling capacity	kW	141,7	157,7	189,7	213,6	232,9	263,7	298,6	333,6
❶ Absorbed power	kW	47,9	54,4	63,4	74,2	82,9	90,9	103	117,5
❶ E.E.R.		2,96	2,9	2,99	2,88	2,81	2,9	2,9	2,84
COOLING OPERATIONS + TOTAL RECOVERY (AUTOMATIC 2 MODE)									
❸ Nominal cooling capacity	kW	143,6	159,5	192	215,5	235,4	266,3	302	336,6
❸ Recovery heating capacity	kW	183,5	204,5	244,5	275,5	301,6	339,6	385,7	430,7
❸ T.E.R.		7,87	7,75	7,92	7,83	7,75	7,91	7,83	7,79
HEATING OPERATIONS (MODE SELECT 1-2 AUTOMATIC 3)									
❷ Nominal heating capacity	kW	147,3	163,3	197,3	224,3	244,3	271,3	313,4	351,4
❷ Absorbed power	kW	45	50,4	61,1	68,6	75,2	84,3	96,1	109,8
❷ C.O.P.		3,27	3,24	3,23	3,27	3,25	3,22	3,26	3,2
TXAEQU MODEL		**4140**	**4160**	**4190**	**4210**	**4230**	**4260**	**4300**	**4330**
COOLING OPERATIONS (AUTOMATIC 1 MODE)									
❶ Nominal cooling capacity	kW	135,7	149,7	181,7	202,7	219,7	255,7	287,7	323,6
❶ Absorbed power	kW	51	56,9	64	75,9	85,5	89,4	102	112,8
❶ E.E.R.		2,66	2,63	2,84	2,67	2,57	2,86	2,82	2,87
COOLING OPERATIONS + TOTAL RECOVERY (AUTOMATIC 2 MODE)									
❸ Nominal cooling capacity	kW	144,2	160,3	192,7	216,5	236,6	267,1	302,9	337,6
❸ Recovery heating capacity	kW	184	205,2	245,3	276,6	302,8	340,3	386,6	431,6
❸ T.E.R.		7,92	7,8	7,96	7,87	7,8	7,93	7,86	7,82
HEATING OPERATIONS (MODE SELECT 1-2 AUTOMATIC 3)									
❷ Nominal heating capacity	kW	144,3	159,4	194,3	219,3	238,3	268,3	308,4	347,4
❷ Absorbed power	kW	44,3	49,3	58,9	66,5	73,5	81,3	92,9	105,3
❷ C.O.P.		3,26	3,23	3,3	3,3	3,24	3,3	3,32	3,3
TXAETU-TXAEQU MODEL		**4140**	**4160**	**4190**	**4210**	**4230**	**4260**	**4300**	**4330**
❹ TXAETU sound pressure	dB(A)	54	55	57	57	58	60	61	62
❹ TXAEQU sound pressure	dB(A)	48	49	51	51	52	54	55	56
❺ TXAETU sound power	dB(A)	86	87	89	89	90	92	93	94
❺ TXAEQU sound power	dB(A)	80	81	83	83	84	86	87	88
Scroll compressors/steps	n.	4/4	4/4	4/4	4/4	4/4	4/4	4/4	4/4
Circuits	n.	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
DIMENSIONS AND WEIGHTS		**4140**	**4160**	**4190**	**4210**	**4230**	**4260**	**4300**	**4330**
L – Width	mm	3450	3450	4800	4800	4800	4800	5300	5300
H – Height	mm	2000	2000	2030	2030	2030	2030	2030	2030
P – Depth	mm	1520	1520	2090	2090	2090	2090	2090	2090
❻ TXAETU weight	kg	1670	1685	2405	2550	2610	2750	3030	3250
❻ TXAEQU weight	kg	1735	1750	2495	2640	2700	2840	3120	3340

SEASONAL ENERGY PERFORMANCE		4140	4160	4190	4210	4230	4260	4300	4330
TXAETU MODEL SEASONAL PERFORMANCE IN HEATING MODE									
③ Pdesignh (EN 14825)	kW	127	142	171	194	212	236	275	309
③ SCOP (EN 14825)		3,67	3,64	3,62	3,66	3,62	3,59	3,62	3,52
④ ηs	%	144	143	142	143	142	140	142	138
TXAEQU MODEL SEASONAL PERFORMANCE IN HEATING MODE									
③ Pdesignh (EN 14825)	kW	124	139	168	190	207	234	270	305
③ SCOP (EN 14825)		3,67	3,65	3,73	3,72	3,64	3,72	3,71	3,66
④ ηs	%	144	143	146	146	143	146	146	143

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 Evaporator output water: 7°C, nominal flow rate. Recovery output water: 45°C, nominal flow rate.

❹ In open field (Q = 2) at 10 m from the unit.

❺ Total sound power level in dB(A) based on measurements carried out in accordance with regulation UNI EN-ISO 9614.

❻ Weight referred to the unit without load and not accessorised.

Performance according to EN 14511.
T.E.R.: Total efficiency ratio

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)

RHOSS S.P.A.
Via Oltre Ferrovia, 32
33033 Codroipo (UD) - ITALY
tel. +39 0432 911611
rhoss@rhoss.com

rhoss.com