

Electa-ECOS-B

MHAITI 104÷110 + IUB 06-10

Cooling capacity 3,2÷6,5 kW

Heating capacity 4÷9,5 kW



Features

Efficient and eco-friendly range in R32

Energy class A+++

Temperature of the produced water up to 60°C

Domestic hot water production from -25°C to +45°C outdoor air

Indoor unit complete with circulator, expansion tank, 3-way valve for DHW and electrical resistance.

Touch-screen control panel.

APP for managing the unit via smartphone (iOS and Android)

Tax incentives*



Two-section reversible air-water heat pumps.

Range with hermetic rotary DC Inverter compressors and R32 refrigerant gas.

Construction features

IUB indoor unit

Indoor unit for wall mounting installation:

- Structure: made of galvanised and painted steel plate.
- Water side heat exchanger: adequately insulated stainless steel plates, complete with antifreeze heater.
- Pump unit complete with: EC circulator, automatic air vent valve, safety valve (3 bar), flow switch, expansion tank (10 l), pressure gauge, water filter.
- 3-way valve for the production of domestic hot water.
- Supplementary electrical resistance, system side.
- Control: microprocessor electronic control with touch-screen panel for integrated management of the heat pump and the heating system, according to the various requirements relating to the use of the energy sources:

- 3-way diverter valve management for production of domestic hot water.
- Rapid heating function for domestic hot water.
- Anti-legionella cycle function, with activation timer.
- Auxiliary or supplementary heat source management.
- Operation in silent mode with timer.
- Weekly and daily time bands.
- Holiday mode and antifreeze function.
- Power consumption limiting function.
- 2-way on/off valve management for shutting off a part of the system, in heating or cooling mode.
- Management through room thermostat, as an alternative to the touch-screen panel.
- Unit activation from external contact (remote ON/OFF)

- Unit complete with:
 - Outdoor temperature probe for set-point compensation.
 - Remote ambient air temperature probe, for managing the unit according to the ambient set-point.
 - Water temperature probe for domestic hot water tank (20 m).
 - Communication cable between outdoor and indoor units.
- RS485 interface for serial communication with other devices (Modbus RTU protocol).
- iOS and Android APP for managing the unit via smartphone and tablet.

MHAITI outdoor unit

- Compressor: hermetic, twin rotary DC Inverter with steam injection, complete with thermal protection and casing heater
- Expansion valve: electronic.
- Cooling circuit with economiser
- Air side heat exchanger: finned coil with copper pipes and aluminium-manganese fins with Golden Fin anti-corrosion treatment in epoxy resin and hydrophilic treatment, complete with protection grilles.
- Fan: axial type impeller with DC brushless motors, equipped with internal thermal protection, accident protection grilles and proportional electronic device for continuous fan rotation speed regulation.
- Structure: made of galvanised and painted steel plate RAL9002, complete with condensate drain pan and unit base antifreeze heater.

Models

MHAITI+USB: 2-section air-water heat pump.

Separately supplied accessories

KSA – Rubber anti-vibration mounts.

KPRE – Wiring for RS485 serial connection to the touch-screen panel.

Technical data

MHAITI outdoor unit		104	106	108	110	
IUB indoor unit		06	06	10	10	
❶ Heating capacity	kW	4	5,9	8	9,5	
❶ Absorbed power	kW	1,02	1,51	2,14	2,64	
❶ C.O.P.		3,92	3,91	3,74	3,6	
❷ Heating capacity	kW	4	6	8	9,5	
❷ Absorbed power	kW	0,78	1,2	1,7	2,07	
❷ C.O.P.		5,13	5,00	4,71	4,59	
❸ Cooling capacity	kW	3,2	4,1	5,3	6,5	
❸ Absorbed power	kW	0,94	1,28	1,73	2,27	
❸ E.E.R.		3,42	3,2	3,06	2,86	
❹ Cooling capacity	kW	3,8	5,8	7,0	8,5	
❹ Absorbed power	kW	0,82	1,32	1,75	2,24	
❹ E.E.R.		4,63	4,40	4,00	3,79	
❺ Sound pressure (external unit)	dB(A)	37	37	41	42	
❻ Available circulator head	kPa	76	74	70	63	
Electrical supply	V-ph-Hz	230-1-50	230-1-50	230-1-50	230-1-50	
Internal unit electrical resistance	no. x kW	2 x 1,5	2 x 1,5	2 x 3,0	2 x 3,0	
Refrigeration lines max length/height difference	m / m	20 / 15	20 / 15	25 / 15	25 / 15	
MHAITI outdoor unit		104	106	108	110	
L – Width	mm	975	975	980	980	
H – Height	mm	702	702	788	788	
P – Depth	mm	396	396	427	427	
Weight	kg	55	55	82	82	
IUB indoor unit		06	06	10	10	
L – Width	mm	460	460	460	460	
H – Height	mm	860	860	860	860	
P – Depth	mm	315	315	315	315	
Weight	kg	62	62	62	62	
ENERGY PERFORMANCE		MHAITI	104	106	108	110
		IUB	06	06	10	10
AMBIENT HEATING – Low temperature application 35°C						
❸ Pdesignh (EN 14825)	kW		5	6	7	9
❸ SCOP (EN 14825)			4,66	4,54	4,60	4,60
❹ ηs	%		184	179	181	181
❹ Energy class			A+++	A+++	A+++	A+++
AMBIENT HEATING – Average application temperature 55°C						
❸ Pdesignh (EN 14825)	kW		5	5	7	8
❸ SCOP (EN 14825)			3,27	3,25	3,31	3,25
❹ ηs	%		128	127	129	127
❹ Energy class			A++	A++	A++	A++

Data at the following conditions:

- ❶ Air: 7°C D.B. – 6°C W.B. – Water: 40/45°C.
- ❷ Air: 7°C D.B. – 6°C W.B. – Water: 30/35°C.
- ❸ Air: 35°C D.B. – Water: 12/7°C.
- ❹ Air: 35°C D.B. – Water: 23/18°C.
- ❺ In open field (Q = 2) at 5 m from the unit.
- ❻ Weight refers to the most complete set up.
Performance according to EN 14511
- ❸ In Average climatic conditions.
- ❹ Seasonal energy efficiency: ambient heating in Average climate (EU Regulations No.811/2013 and No.813/2013 – class between D and A+++)



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