

Water-cooled condensing units and heat pumps with scroll compressors

7 ÷ 55 kW



MU ECHOS /LE

Condensing unit

Unit frame

Unit frame made of sheet steel with epoxy-polyester powder coating and removable panelling with internal cladding in sound insulating matting. The unit frame for sizes 6, 8, and 11 features a RAL 7032 finish and is prearranged for wall installation, while for sizes from 16 to 48 the finish is RAL 5014 and the frame is prearranged for floor-standing installation.

Compressor

Hermetic scroll compressor equipped with thermal overload protection, liquid line sight glass, electric crankcase heater and installed on rubber antivibration mounts

Refrigerant circuit

The circuit includes: charge connection, filter dryer, high and low pressure switches and relief valve. Only sizes from 16 to 48 are equipped with a liquid sight glass.

Condenser

Brazed plate type for well water (in/out 15/30 °C).

Electrical Panel

With main switch, contactors, power and control circuit protection, compressor contactor.

Microprocessor control with function display.

Electrical power supply 230V/1~/50Hz for sizes 6, 8, 11, 400V/3~/50Hz for all other sizes.

Testing

Oil charging and a dry run test are carried out in the factory. The units are delivered with the refrigerant circuit charged with nitrogen.

MU ECHOS /LE/HP

Condensing unit or heat pump

In addition to the components featured on MU ECHOS/LE, this model includes: 4-way reversing valve, thermostatic expansion valve and liquid receiver. Hydraulic circuit with condensing pressure control valve, bypass solenoid valve and water flow switch (ready-installed on sizes 6, 8, 11 supplied separately assembled in kit for all other sizes).

MAIN ACCESSORIES

- Prearrangement for use with cooling tower water (30/35 °C)
- Condensing pressure control valve for well water (supplied as standard on LE/HP model)
- Liquid receiver
- Upward connections for refrigerant and hydraulic circuits
- Special voltages
- Remote control terminal
- Electronic Soft-starter
- Rubber antivibration mounts.

MU ECHOS/LE - R410A TECHNICAL DATA

Unit size		6	8	11	16	19	22
Nominal cooling capacity (*)	kW	6,89	9,67	12,48	18,38	21,38	25,19
Nominal heating capacity (**)	kW	6,9	9,54	12,13	16,85	19,87	23,3
Compressors							
Quantity/Refrigerant circuits	n°	1/1	1/1	1/1	1/1	1/1	1/1
Cooling power input (*)	kW	1,34	1,72	2,66	3,14	3,8	4,43
Heating power input (**)	kW	1,49	1,96	2,96	3,45	4,12	4,84
Capacity steps	%	0-100	0-100	0-100	0-100	0-100	0-100
Condenser characteristics							
Water contents	l	0,14	0,2	0,28	0,39	0,39	0,5
Water flow rate	l/s	0,14	0,19	0,25	0,37	0,44	0,51
Pressure drop	kPa	22,7	21,6	22,6	19,4	26,1	22,2
Noise level (***)	dB(A)	47	47	48	48	48	55
Power supply	V/ph/Hz	230/1~/50 ±5%	230/1~/50 ±5%	230/1~/50 ±5%	400/3N~/50 ±5%	400/3N~/50 ±5%	400/3N~/50 ±5%
Dimensions and weight							
Width	mm	456	456	456	507	507	507
Depth	mm	498	498	498	537	537	537
Height	mm	1000	1000	1000	671	671	671
Operating weight	kg	89	95	98	98	102	104

Unit size		24	28	32	35	42	48
Nominal cooling capacity (*)	kW	27,42	31,86	36,99	40,54	48,96	55,26
Nominal heating capacity (**)	kW	27,57	31,64	37,96	41,33	49,28	55,53
Compressors							
Quantity/Refrigerant circuits	n°	1/1	1/1	1/1	1/1	1/1	1/1
Cooling power input (*)	kW	4,87	5,65	6,35	7,05	8,11	9,15
Heating power input (**)	kW	5,38	6,26	7,18	7,91	8,94	10,13
Capacity steps	%	0-100	0-100	0-100	0-100	0-100	0-100
Condenser characteristics							
Water contents	l	0,59	0,7	0,7	0,84	0,95	1,12
Water flow rate	l/s	0,54	0,63	0,72	0,8	0,97	1,1
Pressure drop	kPa	26,8	25,6	36,2	43,3	36,6	45,5
Noise level (***)	dB(A)	55	57	57	57	58	60
Power supply	V/ph/Hz	400/3N~/50 ±5%	400/3N~/50 ±5%	400/3N~/50 ±5%	400/3N~/50 ±5%	400/3N~/50 ±5%	400/3N~/50 ±5%
Dimensions and weight							
Width	mm	860,5	860,5	862	862	862	862
Depth	mm	542,5	542,5	537	537	537	537
Height	mm	671	671	1020	1020	1020	1020
Operating weight	kg	155	158	189	190	188	232

(*) Evaporator water temperature 7 °C, condenser inlet/outlet water temperature 15-30 °C.

(**) Condenser water temperature 40 °C, evaporator inlet/outlet water temperature 15-10 °C.

(***) Sound pressure levels measured in free field conditions at distance of 1 m from the unit, according to ISO 3746.

This datasheet gives the characteristic data of the basic and standard versions of the series; for details refer to the specific documentation