

Reversible unit, air source for indoor installation
17,3-30,3 kW



MICS-CN is the Climaveneta range air-cooled heat pumps with gas R410A. These are indoor units that, thanks to the ducted centrifugal fans, may also be installed outdoors. They are fitted with hermetic Scroll compressors and Full Floating technology. The latter is an intelligent electronic unit providing the perfect answer to residential market requirements: compactness, ease of installation and quietness.

Controls

Full Floating technology

The new generation electronic controller allows to manage the chiller by using the Full Floating technology, designed by Climaveneta for improving the system's efficiency for the fans (Floating Fans), for the circulating pump (Floating Flow) and finally for the working temperature (Floating Setpoint). This also allows to achieve all the following benefits: improvement of efficiency in both standard and extreme conditions, much lower operating noise in part load conditions, lower installation time, lower time for system set-up, broader operating limits, faster transient after defrosts.

Version

FF Basic version, with built-in hydronic kit

Features

Structure and base in hot-dip galvanised steel with epoxy powder paint finish.

High efficiency, low pressure drop AISI 316 stainless steel plate heat exchangers, fitted with heating element to provide frost protection.

Control with foolproof device accessible from the outside.

Finned coils made with copper pipes and aluminium fins with large exchange surface area, tested for leaks with dried air at 30 bar.

User interface with display.

Electronic expansion valve

Available water pipe fittings in case of installation under appliance

The circuit includes:

- Multistage centrifugal pump
- Air vent valve
- Differential pressure switch.
- Expansion tank
- Safety valve
- Pressure gauge
- Drain valve.

The full range is also available with the Class A efficiency rating (in heating).

Accessory

- Rubber anti-vibration mounting kit
- Removable metal mesh water filter kit
- Coil protection grids
- Remote control kit

MICS-CN / FF			0072	0092	0122
Power supply	V/ph/Hz		400/3/50	400/3/50	400/3/50
PERFORMANCE					
COOLING ONLY (GROSS VALUE)					
Cooling capacity	(1)	kW	17,3	21,8	30,3
Total power input	(1)	kW	6,50	9,30	10,7
EER	(1)	kW/kW	2,66	2,34	2,83
ESEER	(1)	kW/kW	3,86	3,75	3,78
COOLING ONLY (EN14511 VALUE)					
Cooling capacity	(1)(2)	kW	17,4	21,9	30,4
EER	(1)(2)	kW/kW	2,77	2,44	3,16
ESEER	(1)(2)	kW/kW	4,27	4,09	4,80
Cooling energy class			A	C	A
HEATING ONLY (GROSS VALUE)					
Total heating capacity	(3)	kW	20,2	26,1	33,9
Total power input	(3)	kW	6,50	8,60	11,2
COP	(3)	kW/kW	3,11	3,03	3,03
HEATING ONLY (EN14511 VALUE)					
Total heating capacity	(3)(2)	kW	20,1	26,0	33,8
COP	(3)(2)	kW/kW	3,20	3,14	3,32
Cooling energy class			A	A	A
ENERGY EFFICIENCY					
SEASONAL EFFICIENCY IN COOLING (Reg. EU 2016/2281)					
Ambient refrigeration					
Prated,c	(10)	kW	-	-	-
SEER	(10)(11)		-	-	-
Performance ηs	(10)(12)	%	-	-	-
SEASONAL EFFICIENCY IN HEATING (Reg. EU 813/2013)					
PDesignn	(4)	kW	14,6	18,0	24,8
SCOP	(4)(13)		3,27	3,36	3,60
Performance ηs	(4)(14)	%	128	132	141
Seasonal efficiency class	(4)		A+	A+	A+
EXCHANGERS					
HEAT EXCHANGER USER SIDE IN REFRIGERATION					
Water flow	(1)	l/s	0,83	1,04	1,45
Available unit's head	(1)	kPa	134	150	111
HEAT EXCHANGER USER SIDE IN HEATING					
Water flow	(3)	l/s	0,98	1,26	1,64
Available unit's head	(3)	kPa	102	122	86,7
REFRIGERANT CIRCUIT					
Compressors nr.		N°	2	2	2
No. Circuits		N°	1	1	1
Refrigerant charge		kg	6,60	6,90	11,0
FANS					
Air flow		m³/s	2,50	2,50	5,00
Available static pressure		Pa	120	120	120
NOISE LEVEL					
Sound power level in cooling	(5)(6)	dB(A)	86	86	89
Sound power level in heating	(5)(7)	dB(A)	86	86	89
Sound power level in heating	(5)(8)	dB(A)	78	78	78
SIZE AND WEIGHT					
A	(9)	mm	1040	1040	1630
B	(9)	mm	790	790	790
H	(9)	mm	2000	2000	2000
Operating weight	(9)	kg	350	370	480

Notes:

- 1 Plant (side) cooling exchanger water (in/out) 12°C/7°C; Source (side) heat exchanger air (in) 35°C.
 - 2 Values in compliance with EN14511-3:2013.
 - 3 Plant (side) heat exchanger water (in/out) 40°C/45°C; Source (side) heat exchanger air (in) 7°C - 87% R.H.
 - 4 Seasonal space heating energy efficiency class LOW TEMPERATURE in AVERAGE climate conditions [REGULATION (EU) N. 813/2013]
 - 5 Total sound power of fans, as declared by the maker, at the rated speed of rotation and a useful static head of nominal on the delivery side.
 - 6 Sound power level in cooling, indoors.
 - 7 Sound power level in heating, indoors.
 - 8 Sound power level in heating, outdoors.
 - 9 Unit in standard configuration/execution, without optional accessories.
 - 10 Seasonal energy efficiency of the cooling environment [REGULATION (EU) N. 2016/2281]
 - 11 Seasonal space heating energy index
 - 12 Seasonal energy efficiency of the space cooling
 - 13 Seasonal performance coefficient
 - 14 Seasonal space heating energy efficiency
- The units highlighted in this publication contain HFC R410A [GWP₁₀₀ 2088] fluorinated greenhouse gases.
 Certified data in EUROVENT

