

# CONDENSING UNITS R407C – R22

REMOTE AIR CONDENSING UNITS FOR PRECISION AIR CONDITIONING UNITS EDM...

WITH SCROLL COMPRESSORS AND CENTRIFUGAL FANS



MCR 211 CO

## MCR...C Series

1 or 2 circuit units - Cooling capacities from 6 to 76 kW

Air condensing units to be connected to precision air conditioning units EDM...

Designed for internal installation, supplied with centrifugal fans

Coated with zinc steel plates, treated and then painted

1 or 2 cooling circuit depending on the capacity

Operating temperatures from +15 °C to +45 °C in the standard version

The units are supplied with nitrogen charge

Available versions:

**MCR...C** with centrifugal fan and vertical air flow

**MCR...C K** with ecological gas R407C charge

**MCR...C O** with centrifugal fan and horizontal air flow (from model 201)

**MCR...C O K** with ecological gas R407C charge

### Made up of:

High-efficiency scroll compressor (COP 3.37 under ARI conditions), with low sound level (on average 6dB (A) less than the equivalent hermetic compressors), internal heat protection, installed on rubber vibration dampers, supplied with oil sump heater when necessary.

Heat-exchange external coil with high-efficiency aluminium fins and copper pipe designed for cooling fluids; independent circuits.

Centrifugal fans with the electric motors directly coupled through a belt-pulley system (on the smallest models it is foreseen the installation of directly fitted motors) and provided with magneto thermal protection (short circuit and overload) and protection grid.

The cooling circuit is composed of: safety device, high and low pressure switches, high and low pressure gauges, liquid receiver, shut-off valve on liquid line, shut-off valve on compressor discharge.

### Accessories

1M	Higher available pressure for fan
2M	Higher available pressure for fan
AE	Electrical power supply different from standard
GP	Condensing coil protection grid
IM	Seawood packing
PA	Rubber-type vibration dampers
RG	Low temperature operation (-20 °C) with modulating fans speed regulation
RM	Epoxy coating of condensing coil for sea environment
RR	Condensing coil with copper/copper fins for condensing coil
RV	Personalized RAL paint

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## MCR...C Technical data

MODEL	MCR...C	131	151	161	181	211	241	281	361	421	561	541
Cooling capacity with R407C 1)	kW	12,9	15,3	19,4	21,2	25,6	28,4	32,0	41,8	46,9	53,6	52,1
Absorbed power with R407C 1)	kW	3,2	4,0	4,7	5,2	6,6	7,0	7,9	10,5	12,2	14,5	13,9
Nominal absorbed current with R407C 1)	A	6,3	7,8	8,3	10,2	12,3	13,4	15,3	20,6	22,7	29,1	27,0
Cooling capacity with R22 1)	kW	13,5	15,9	20,2	22,0	26,6	29,5	33,3	43,4	48,7	55,6	54,1
Absorbed power with R22 1)	kW	3,12	3,81	4,5	5	6,36	6,78	7,63	10,1	11,73	14,0	13,4
Nominal absorbed current with R22 1)	A	6,0	7,5	8	9,83	11,8	13	15	20	22	28	26
<b>Centrifugal fans</b>												
Quantity	n	2	2	2	2	2	2	2	2*	2*	2	2
Rotation speed	rpm	850	850	1275	1275	915	915	975	746	858	782	919
Motors power	kW	0,5	0,5	1,1	1,1	2,20	2,20	3,00	3,00	3,00	4,40	8,00
Total air flow	l/s	2083	2083	1861	1861	2444	2400	2500	3111	3611	5800	5800
Available pressure	Pa	40	40	165	165	80	80	80	80	80	80	80
Nominal absorbed current	A	5,0	5,0	9,2	9,2	5,30	5,30	6,70	5,30	6,70	10,60	18,80
Sound pressure level 2)	dB(A)	57	57	59	59	66	67	67	74	74	75	75
<b>Scroll compressors</b>												
Quantity	n	1	1	1	1	1	1	1	1	1	1	1
Circuits	n	1	1	1	1	1	1	1	1	1	1	1
Nominal absorbed current	A	6,1	7,5	8,6	10,1	13,5	14,9	16,7	18,5	23,3	15	16
Maximum absorbed current	A	14	17	22	24	23,5	25	29	32	39	30	32
Inrush current	A	44	56	63	86	53	111	111	149	149	154	168
<b>Dimensions</b>												
Length	mm	1100	1100	1100	1100	1320	1320	1320	1665	1665	2120	2120
Width	mm	750	750	750	750	750	750	750	750	750	778	778
Height	mm	1100	1100	1100	1100	1250	1250	1250	1460	1460	1570	1570
Weight	kg	150	155	170	180	250	255	285	365	405	655	660
<b>Power supply</b>												
ED...M	model	141-151	171	201 - 221	241	251-291	301 - 321	341-361-351	451-431-471	531 - 521	601	581

## MCR...C Technical data

MODEL	MCR...C	601	671	761	482	562	702
Cooling capacity with R407C 1)	kW	58,4	65,4	73,6	48,1	55,6	67,9
Absorbed power with R407C 1)	kW	16,0	19,3	23,9	15,4	17,5	22,2
Nominal absorbed current with R407C 1)	A	30,2	36,4	42,6	27,7	31,6	39,6
Cooling capacity with R22 1)	kW	60,6	67,0	76,4	50,8	58,7	71,2
Absorbed power with R22 1)	kW	15,5	18,6	23,0	14,1	16,1	20,2
Nominal absorbed current with R22 1)	A	29	35	41	26,6	30,4	38,1
<b>Centrifugal fans</b>							
Quantity	n	2	2	2	2	2	2
Rotation speed	rpm	640	640	745	782	919	640
Motors power	kW	6,00	6,00	11,00	4,4	8	6
Total air flow	l/s	6840	6840	6840	4640	5800	6840
Available pressure	Pa	80	80	80	80	80	80
Nominal absorbed current	A	13,40	13,40	24,00	10,6	18,8	13,4
Sound pressure level 2)	dB(A)	73	73	73	68	71	71
<b>Scroll compressors</b>							
Quantity	n	1	1	1	2	2	2
Circuits	n	1	1	1	2	2	2
Nominal absorbed current	A	19	19	24,5	30	32	38
Maximum absorbed current	A	38	38	46	51	63	67
Inrush current	A	170	170	184	154	168	207
<b>Dimensions</b>							
Length	mm	2280	2280	2280	2120	2120	2280
Width	mm	990	990	990	778	778	990
Height	mm	1845	1845	1845	1570	1570	1845
Weight	kg	665	685	705	752	782	856
<b>Power supply</b>							
ED...M	model	651	721	821	572-602-622	682 - 762	842 - 892

-- not available

1) Nominal condition referred to: Evaporating temperature 2 °C - External air temperature 35 °C

2) Measured at 1 m in open field (ISO 3746) with air suction and air discharge in ducts

2\* = 1 tandem fans driven with 1 motor.