

PRODUCT CATALOGUE



R410A



**AIRCOOLED CONDENSING UNITS
AND REVERSIBLE CONDENSING
UNITS WITH RADIAL FANS AND
ROTARY/ SCROLL COMPRESSOR**

FROM 5 kW TO 37 kW

GENERAL DESCRIPTION

Condensing units and reversible aircooled condensing units, with centrifugal fans for indoor installation. The range consists of 13 models covering a cooling capacity from 5 to 37 kW.

VERSIONS:

IKM IMRA/K - cooling only

IKM MRA/K/WP - reversible heat pump

TECHNICAL FEATURES:

Frame. With pre-painted self-supporting frame, in galvanized sheet. Stainless-steel screws.

Compressors. Rotary 1-phase (4.5kW-8kW), 1-phase Scroll hermetic compressor (9kW-11kW) and 3-phase Scroll hermetic compressor (13kW-36.5kW), complete with overload protection (klixon) embedded in the motor and crankcase, if needed, installed on rubber vibrations absorbing.

Fans. Double inlet centrifugal type statically and dynamically balanced directly driven by a single-phase (4.5-11), three-phase (13-21); belt driven connected to a three-phase electric motor (26.5-36.5).

Condenser. Copper tubes and aluminium finned coil. Complete with moisture drain pan in the heat pump version.

Electrical board. Includes: main switch with door lock device; fuses; compressor and electronic board to control the main functions of the unit (WP only).

IKM MRA/K Version: Refrigerant circuit. The circuit, in copper tubing, includes: manual reset high pressure switch and automatic reset low pressure switch; automatic reset low pressure switch and flare connections with valve (4.5-21) or connections to be brazed (26.5-36.5).

IKM MRA/K/WP Version: Refrigerant circuit. The circuit, in copper tubing, includes: 2-ways dryer filter; expansion valve; check valve; 4-ways reverse valve; manual reset high pressure switch; automatic reset low pressure switch; liquid and humidity indicator and flare connections with valve (4.5-21) or connections to be brazed (26.5-36.5).

FACTORY FITTED ACCESSORIES:

RL - Liquid receiver to guarantee the liquid phase of the cooling fluid (included WP).

VS - Solenoid valve on the liquid side to avoid liquid reflux (excluded WP).

LOOSE ACCESSORIES:

CC - Condensation control obtained by means of continuous adjustment of the fan rotation speed (4.5kW-21kW) or with motorized damper (26.5kW-36.5kW) up to outside air temperatures of -20° C in cooling.

RP - Coil protection guards in steel with cathodolysis treatment and painting.

AG - Rubber vibration dampers to be inserted at the bottom of the unit to dampen possible vibrations due to the type of floor where the machine is installed.

OPERATING RANGE	COOLING		HEATING	
	min	max	min	max
Evaporator temperature	- 2 °C	10 °C	---	---
Average condensing temperature	---	---	35 °C	60 °C
Ambient air temperature	10 °C *	46 °C	- 10 °C	20 °C

*This value can be reduced until -20°C with an optional accessory supplied prefabricated (CC).

TECHNICAL DATA

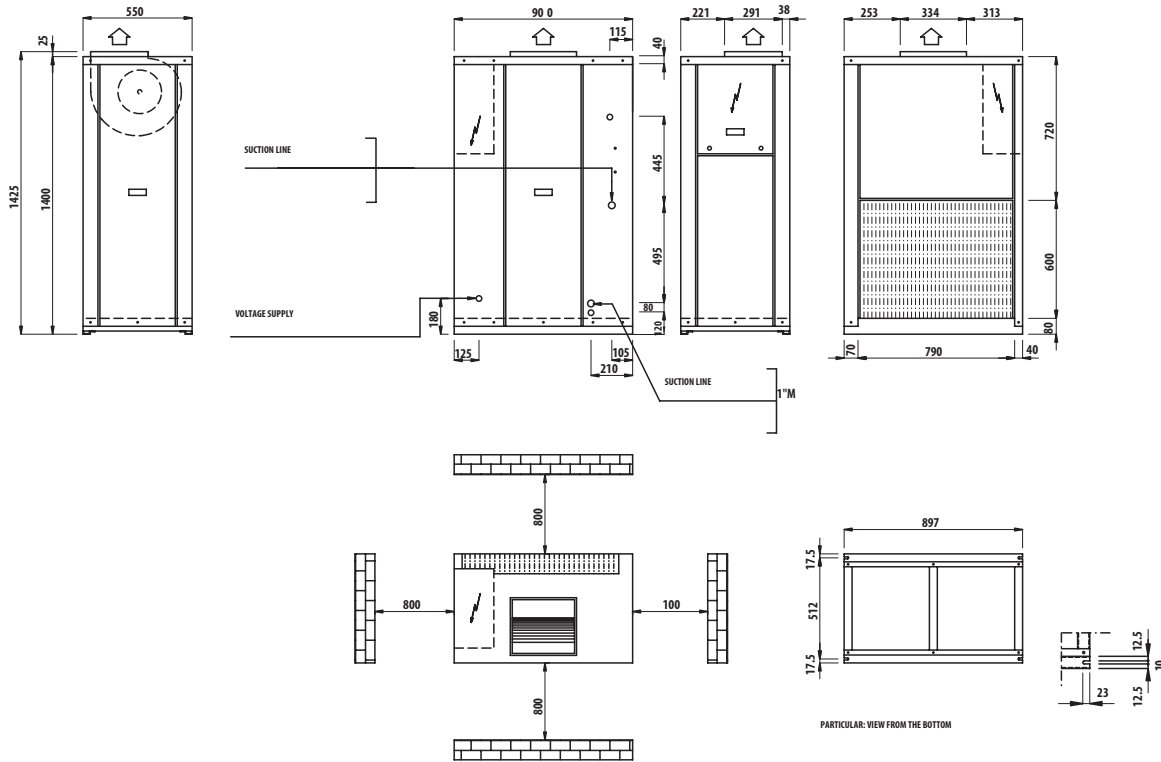
MODEL		4.5	5.5	7	8	9	11	13	16	19	21	26.5	31	36.5	
Cooling:															
Cooling Capacity	kW	4,5	5,6	6,8	8,0	9,2	10,8	13,2	15,8	19,1	21,2	26,4	30,9	36,6	
Heating:															
Heating capacity	kW	4,8	5,9	7,3	8,4	9,7	11,3	13,7	16,8	19,9	22,0	27,4	33,2	40,9	
Compressor	n°	1	1	1	1	1	1	1	1	1	1	1	1	1	
Type	kW	←----- Rotary -----→				←----- Scroll -----→			←----- Scroll -----→						
Cooling power input	kW	1,3	1,7	2,0	2,4	2,8	3,6	3,8	4,8	5,9	5,9	8,1	8,2	10,5	
Heating power input	kW	1,4	1,8	2,2	2,5	2,9	3,7	3,9	5,0	6,1	7,0	8,3	8,8	10,9	
Fans:															
Air Flow	m³/s	0,94	0,94	0,94	0,94	0,90	0,90	1,92	1,89	1,89	1,89	3,17	3,17	3,56	
Available static pressure	Pa	90	90	80	80	80	80	115	115	115	115	150	150	160	
N° x nominal input	n°x kW	1x0,25	1x0,25	1x0,25	1x0,25	1x0,25	1x0,25	1x1,10	1x1,10	1x1,10	1x1,10	1x2,20	1x2,20	1x3,0	
Oil charge	kg	0,4	0,4	0,6	0,6	0,7	1,0	1,6	1,6	1,6	1,6	3,3	3,3	3,3	
Sound pressure - DIN (1)	dB(A)	57	57	57	58	58	59	60	60	61	71	71	71	72	
Sound pressure - ISO (2)	dB(A)	49	49	49	49	51	52	52	52	53	62	62	62	63	
Connections															
Suction line	∅ "	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	3/4"	3/4"	7/8"	7/8"	1" 1/8"	1" 1/8"	1" 1/8"	
	∅ mm	16	16	16	16	16	16	18	18	22	22	28	28	28	
Liquid line	∅ "	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	
	∅ mm	10	10	10	10	10	10	12	12	12	12	12	12	12	
Weight															
Transport weight	kg	120	121	123	126	131	133	190	200	202	204	313	319	334	

ELECTRICAL DATA

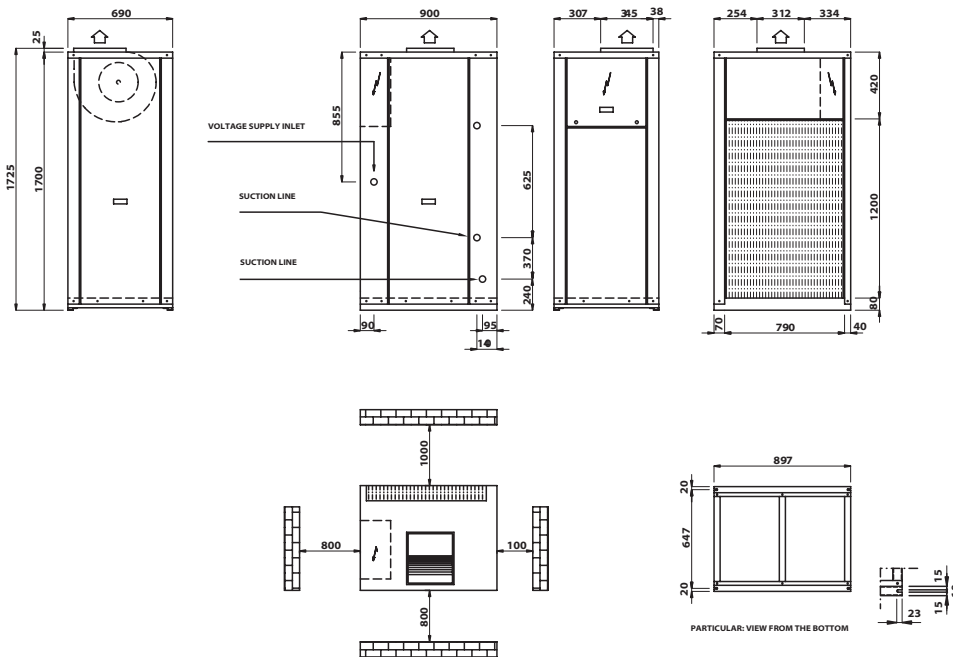
MODEL		4.5	5.5	7	8	9	11	13	16	19	21	26.5	31	36.5	
Maximun absorbed power	kW	1,9	2,3	2,8	2,9	3,7	4,1	4,8	5,6	6,6	7,3	9,7	11,8	12,8	
Maximun starting current	A	40	46	65	65	82	89	61	64	61	77	146	151	147	
Full load current	A	10	12	13	14	17	21	11	14	14	15	27	33	35	
Fan motor nomin. abs. power	kW	1x0,25	1x0,25	1x0,25	1x0,25	1x0,25	1x0,25	1x1,10	1x1,1	1x1,1	1x1,1	1x2,2	1x2,2	1x3,0	
Fan motor nomin. abs. current	A	1X2,9	1X2,9	1X2,9	1X2,9	1X2,9	1X2,9	1X3,7	1X3,7	1X3,7	1X3,7	1X4,8	1X4,8	1X6,5	
Power supply	V/~ /Hz	←----- 230/1/50 ±5% -----→							←----- 400/3+N/50 ±5% -----→						
Control power supply	V/~ /Hz	←----- 230-24/1/50 ±5% -----→													

Cooling: Evaporating temperatur 5 °C, ambient air temperature 35 °C.
 Heating: Condensing temperatur 40 °C, ambient air temperature 7 °C d.b. /6 °C w.b.
 (1) Sound pressure level measured in free field conditions at 1 m from the unit and at 1,5 m from the ground. According to DIN 45635.
 (2) Average sound pressure level measured in free field conditions at 1 m,
 * Weights: for heat pump unit increase the weight 10%.

DIMENSIONS, CLEARANCES AND REFRIGERATION CONNECTIONS

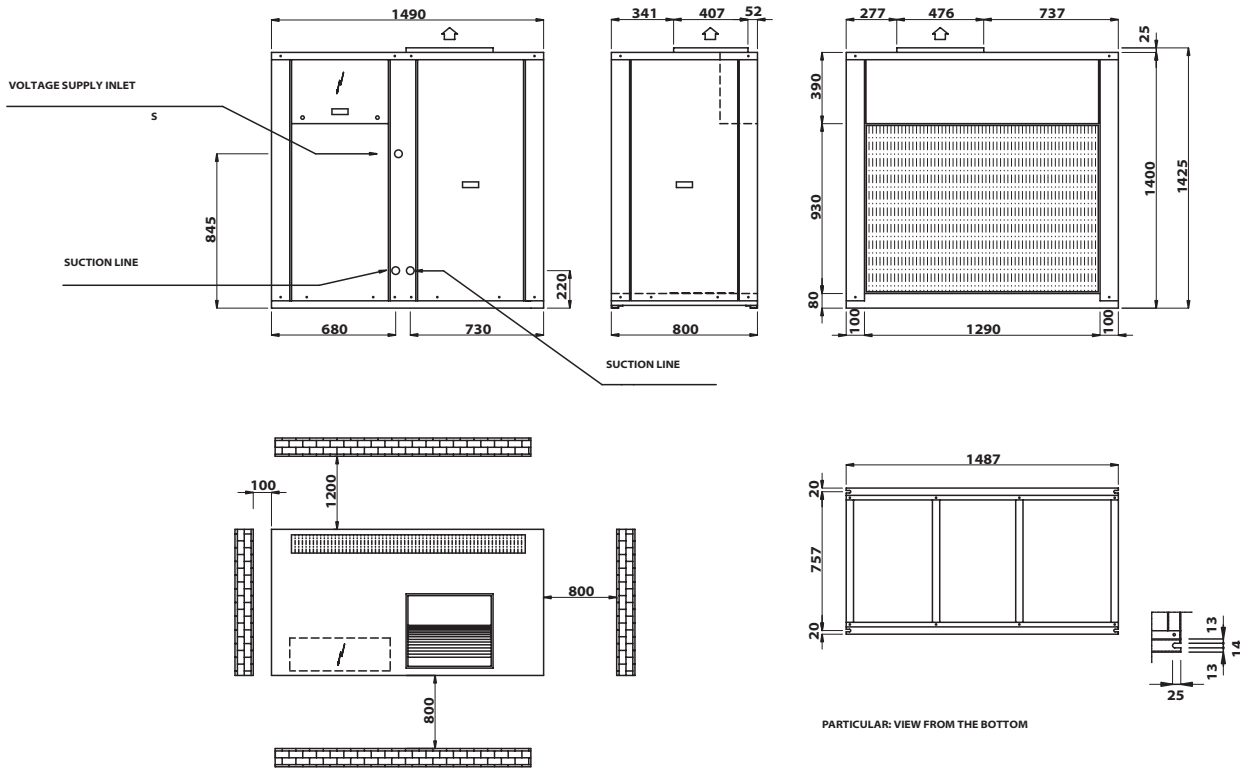


MODEL		4.5	5.5	7	8	9	11
Suction line	Ø	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"
Liquid line	Ø	3/8"	3/8"	3/8"	3/8"	3/8"	3/8"



MODEL		13	16	19	21
Suction line	Ø	3/4"	3/4"	7/8"	7/8"
Liquid line	Ø	1/2"	1/2"	1/2"	1/2"

DIMENSIONS, CLEARANCES AND REFRIGERATION CONNECTIONS



MODEL		26.5	31	36.5
Suction line	Ø	1 1/8"	1 1/8"	1 1/8"
Liquid line	Ø	1/2"	1/2"	1/2"



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