



**R410A**



**DOUBLE SKIN PACKAGED  
ROOF TOP UNITS WITH SCROLL  
COMPRESSORS AND RADIAL FANS  
OR EC INVERTER PLUG-FANS FOR  
100% FRESH AIR OPERATION.  
FROM 50 kW to 200 kW (FROM 15 TON TO 56 TON)**

### GENERAL DESCRIPTION

The double skin packaged Roof Top units are the ideal solution for air conditioning of wide surface areas for public use such as halls, shopping centres, cafeterias, restaurants and health centres. Units are designed for operation with 100% of external air, to ensure maximum air renewal. Those units feature Scroll compressors and radial fans or EC Inverter Plug-Fans. The EC Inverter Plug-Fans with high energy efficiency backward blades are managed by an electronic control adjusting fans' rotational speed to adapt the air flow to the system capacity. The units are equipped with extruded aluminium alloy sections and 50 mm-thick sandwich panelling.

They have a high degree of modularity and adaptability to every plant-engineering need; it is also possible to add various solutions for the air treatment sections. The filters help to keep the air quality at a suitable level in order to guarantee appropriate hygiene standards.

### VERSIONS:

**RTAXT/K/FA** - Cooling only with radial fans

**RTAXT/K/EC/FA** - Cooling only with EC Inverter Plug-Fans

### FEATURES:

**Structure** of base perimeter made of steel sheet elements galvanised. Frame made of extruded aluminium alloy profiles connected by 3 way joints. Assembling of the base to the frame is of dual support and grants the walking on the base

panels installation without sticking out screws. 50mm thick sandwich panels made of prepainted steel sheet; water proofing granted by gaskets having shape memory for perfect seal up even after repeated removals. Section connection is effected by means of assembling conic stirrups and water proofing is granted by gaskets.

**Scroll** compressors with oil sight glass, internal overheat protection and crankcase heater.

**Condenser** and evaporator with copper tube and aluminium finned coil.

**Delivery** radial fans coupled to 3-phase motors by V belt and variable pulley.

**High efficiency** delivery reverse blade EC INVERTER PLUG-FANS, with electronic speed control to easily adapt to the system characteristics.

**R410A** refrigerant.

**Electrical** board includes: door interlocking isolator; fuses; thermal protection relays on compressors; thermocontacts for the fans of the condensing unit; contactors for the fan motors of the air handling unit.

**Electrical** board with dedicated components sizing and ventilation system for unit operation at high outdoor ambient temperature.

**Electronic** proportional device to decrease the sound level, with a continuous regulation of the fan speed. This device allows also the cooling

## ACCESSORIES

### FACTORY FITTED ACCESSORIES:

IM	Automatic circuit breakers
SL	Unit silencing
RFM	Cooling circuit shut-off valve on discharge line
RFL	Cooling circuit shut-off valve on liquid line
CT	Condensing control down to 0°C
CC	Condensing control down to -20°C
TXC	Condensing coil with pre-coated fins
TXE	Evaporating coil with pre-coated fins
FT/M	Soft bag filters efficiency M6-F7-F8
FT/R	Rigid bag filters efficiency M6-F7-F8
FS	Anti-sand filter
AT	Constant air flow regulation control
AT/P	Constant available static pressure regulation control

EHG	Electrical heater with step regulation
SQ	Air quality sensor
PF	Filter differential pressure switch
IS	Modbus RTU protocol, RS485 serial interface
ISB	BACnet MSTP protocol, RS485 serial interface
ISBT	BACnet TCP/IP protocol, Ethernet port
ISL	LonWorks protocol, FTT-10 serial interface
CP	Potential free contacts
RP	Coils protection metallic guards

### LOOSE ACCESSORIES:

MN	High and low pressure gauges
CR	Remote control panel
AG	Rubber shock absorbers



Cooling



Scroll



Radial



EC Inverter Plug-Fan



XT upto 55°C



R410A

## IKM RTAXT/K/FA 50-120

MODEL		50	65	80	90	105	120	130	150	170	200	
Cooling	Cooling Capacity (1)	kW	53.2	64.2	77.9	91.9	104	118	132	148	171	197
		TON	15.3	18.3	22.2	25.9	29.6	33.6	37.5	42.1	48.6	56.0
	Absorbed power (1), (2)	kW	25.6	27.9	33.6	35.3	42.7	49.1	53.8	63.0	74.8	87.6
		kW	52.9	63.9	77.7	90.9	104	117	131	148	170	196
	Cooling Capacity (3)	kW	52.9	63.9	77.7	90.9	104	117	131	148	170	196
		TON	15.0	18.2	22.1	25.8	29.5	33.3	37.2	42.1	48.3	55.7
Absorbed power (2), (3)	kW	19.5	22.1	26.9	27.9	33.6	38.9	42.3	49.9	59.4	70.3	
	m <sup>3</sup> /s	0.90	1.17	1.53	1.76	2.08	2.08	2.22	2.56	3.00	3.61	
Air treatment section	Airflow	cfm	1907	2479	3242	3729	4407	4407	4704	5424	6357	7649
		Pa	250	250	250	250	250	250	250	250	250	250
	Available static pressure	in WG	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
		Fans	n°	1	1	1	1	1	1	1	1	1
Filter	type	G4	G4	G4	G4	G4	G4	G4	G4	G4	G4	
	m <sup>3</sup> /s	0.90	1.17	1.53	1.76	2.08	2.08	2.22	2.56	3.00	3.61	
Air treatment section (EC version)	Airflow	cfm	1907	2479	3242	3729	4407	4407	4704	5424	6357	7649
		Pa	250	250	250	250	250	250	250	250	250	250
	Available static pressure	in WG	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
		Fans	n°	1	1	1	1	1	1	1	1	1
Filter	type	G4	G4	G4	G4	G4	G4	G4	G4	G4	G4	
	Compressor	n°	2	2	2	2	4	4	4	4	4	
Condensing section	Refrigerant circuits	n°	1	1	1	1	2	2	2	2	2	
	Capacity steps	n°	2		4							
Electrical characteristics	Power supply	V/Ph/Hz	400/3/50									
	Max. running current	A	43	49	59	67	85	93	106	115	117	146
	Max. starting current	A	137	147	156	181	165	187	203	229	212	290
	Power supply	V/Ph/Hz	400/3/50									
Electrical characteristics (EC version)	Max. running current	A	39	45	55	63	81	89	102	111	113	142
	Max. starting current	A	133	143	151	177	161	183	199	225	208	286
Sound pressure	STD/MS versions (5)	dB(A)	63	63	63	63	66	63	63	63	63	63
Sound pressure (EC version)	STD/MS versions (5)	dB(A)	62	62	62	62	65	62	62	62	62	62
Weight	Transport weight	Kg	630	698	830	988	1206	1226	1236	1442	1473	1675
	Operating weight	Kg	615	683	815	973	1191	1206	1216	1422	1453	1655
Weight (EC version)	Transport weight	Kg	595	663	795	953	1171	1191	1201	1407	1438	1640
	Operating weight	Kg	580	648	780	938	1156	1171	1181	1387	1418	1620

### NOTES :

1. Evaporator inlet air temperature 46°C d.b./29°C w.b., ambient air temperature 46°C.
2. Excluded the power absorbed by fans of air treatment section.
3. Evaporator inlet air temperature 35°C d.b./27°C w.b.; ambient air temperature 35°C.
4. Sound pressure level measured in free field conditions at 1m from the unit. According to ISO 3744.

## DIMENSIONS


DIMENSIONS			50	65	80	90	105	120	130	150	170	200
L	STD/MS	mm	2060	2310	2560	3690	3690	3690	3690	4110	4210	5650
W	STD/MS	mm	2200	2200	2200	2200	2200	2200	2200	2200	2200	2200
H	STD/MS	mm	2320	2320	2320	2320	2320	2320	2320	2320	2320	2320

## DIMENSIONS & CLEARANCE AREA

IKM RTAXT/K/FA 50-120

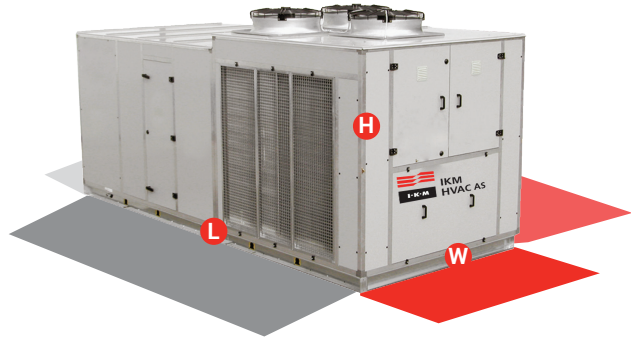
800	1700	800	1700
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 Electrical board side

IKM RTAXT/K/FA 130-200

1000	1700	1000	1700
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**IKM**  
**HVAC AS**

