



RTC air conditioner COMPACT ROOF TOP

RANGE : RTC
TECHNOLOGY : AIR CONDENSING /AIR EVAPORATING
REFRIGERANT : R513A for HOT CLIMATE CONDITIONS UP TO 55°C
R32 for STANDARD CONDITIONS UP TO 45°C

VOLTAGE : 400VAC/50Hz/3P+N
440VAC/60Hz/3P+N

FUNCTIONS :
- COOLING
- HEATING
- VENTILATING
- DEHUMIDIFICATION

R32

R513A

BUILT FOR INTENSIVE COOLING

DESCRIPTION

RTCs are high-quality industrial air conditioners for intensive use. This unit uses SCROLL compressors from 3 to 6HP depending on the model, with a total cooling capacity of up to 20 kW for the 6HP using R32 F-Gas. It offers a wide range of options, including free cooling, temperature and humidity control, or simply ventilation. This rooftop version is available in different configurations, from hot desert climates to tropical, continental and cold climates. We use different types of gas, compressors and components to adapt our product to your application and location.

The riveted aluminum construction of the body and frame guarantees high structural rigidity for minimum weight. Aluminum increases durability, resisting corrosion and abrasion from sandy winds in desert areas. The design is also engineered to withstand high winds in hurricane zones.

The refrigeration design is ultra-classic, and the components used in our air conditioners are top-of-the-range standards recognized by the refrigeration market for rapid interchangeability worldwide. Same classic design for the electrical panel and its components. These units are using logic controller, modes TCP/IP compliant.

APPLICATION

Main applications are the energy systems cooling, the specific cooling for industrial equipments, the shelter and container air conditioning.

RTC – ROOF TOP AIR CONDITIONERS

MAIN DATA	UNIT	RTC03-400-STD-A1	RTC04-400-STD-A1	RTC05-400-STD-A1	RTC06-400-STD-A1
TOTAL COOLING CAPACITY (1)	kW	11,54	13,9	15,3	19,3
SENSIBLE COOLING CAPACITY (1)	kW	11,4	13,8	15,1	19,1
REFRIGERANT	F-GAS	R32	R32	R32	R32
VOLTAGE (admissible range)	U	400Vac/50Hz/3P+N (380~415)	400Vac/50Hz/3P+N (380~415)	400Vac/50Hz/3P+N (380~415)	400Vac/50Hz/3P+N (380~415)
OUTDOOR CONDITIONS (COOLING)	T°C	-10°C <T°< 45°C	-10°C <T°< 45°C	-10°C <T°< 45°C	-10°C <T°< 45°C
NOMINAL POWER INPUT (1)	kW	3,85	4,5	4,95	6,2
COP (1)	RATE	3,00	3,09	3,09	3,11
MAIN DATA	UNIT	RTC03-440-STD-A1	RTC04-440-STD-A1	RTC05-440-STD-A1	RTC06-440-STD-A1
TOTAL COOLING CAPACITY (1)	kW	12,8	15,4	16,8	21,9
SENSIBLE COOLING CAPACITY (1)	kW	12,7	15,2	16,6	21,7
REFRIGERANT	F-GAS	R32	R32	R32	R32

VOLTAGE (admissible range)	U	440Vac/60Hz/3P+N (410~480)	440Vac/60Hz/3P+N (410~480)	440Vac/60Hz/3P+N (410~480)	440Vac/60Hz/3P+N (410~480)
OUTDOOR CONDITIONS (COOLING)	T°C	-10°C < T° < 45°C	-10°C < T° < 45°C	-10°C < T° < 45°C	-10°C < T° < 45°C
NOMINAL POWER INPUT (1)	kW	4,15	4,75	5,2	6,6
COP (1)	RATE	3,08	3,24	3,23	3,32
MAIN DATA	UNIT	RTC03-400-HCC-A1	RTC04-400-HCC-A1	RTC05-400-HCC-A1	RTC06-400-HCC-A1
TOTAL COOLING CAPACITY (2)	kW	6,8	8,2	10	12
SENSIBLE COOLING CAPACITY (2)	kW	6,7	8,1	9,9	11,9
REFRIGERANT	F-GAS	R513A	R513A	R513A	R513A
VOLTAGE (admissible range)	U	400Vac/50Hz/3P+N (380~415)	400Vac/50Hz/3P+N (380~415)	400Vac/50Hz/3P+N (380~415)	400Vac/50Hz/3P+N (380~415)
OUTDOOR CONDITIONS (COOLING)	T°C	0°C < T° < 55°C	0°C < T° < 55°C	0°C < T° < 55°C	0°C < T° < 55°C
NOMINAL POWER INPUT (2)	kW	3,13	3,58	4,3	5
COP (2)	RATE	2,17	2,29	2,33	2,40
MAIN DATA	UNIT	RTC03-440-HCC-A1	RTC04-440-HCC-A1	RTC05-440-HCC-A1	RTC06-440-HCC-A1
TOTAL COOLING CAPACITY (1)	kW	8,5	9,8	12,4	15
SENSIBLE COOLING CAPACITY (1)	kW	8,4	9,7	12,3	14,9
REFRIGERANT	F-GAS	R513A	R513A	R513A	R513A
VOLTAGE (admissible range)	U	440Vac/60Hz/3P+N (410~480)	440Vac/60Hz/3P+N (410~480)	440Vac/60Hz/3P+N (410~480)	440Vac/60Hz/3P+N (410~480)
OUTDOOR CONDITIONS (COOLING)	T°C	0°C < T° < 55°C	0°C < T° < 55°C	0°C < T° < 55°C	0°C < T° < 55°C
NOMINAL POWER INPUT (2)	kW	3,61	4,05	4,1	5,8
COP (2)	RATE	2,35	2,42	3,02	2,59
MAIN DATA	UNIT	ALL VERSION	ALL VERSION	ALL VERSION	ALL VERSION
NUMBER OF COOLING CIRCUIT	Qty	1	1	1	1
AIR TEMPERATURE INLET RANGE	T°C DB	18°C < T° < 31°C	18°C < T° < 31°C	18°C < T° < 31°C	18°C < T° < 31°C
AIR RH INLET RANGE	RH%	30% < RH < 80%	30% < RH < 80%	30% < RH < 80%	30% < RH < 80%
OUTDOOR CONDITIONS (HEATING)	T°C	-30°C < T° < 30°C	-30°C < T° < 30°C	-30°C < T° < 30°C	-30°C < T° < 30°C
NOMINAL AIR FLOW	m³/h	2400	3000	3500	4500
NOMINAL STATIC PRESSURE	Pa	400	400	400	400
ELECTRIC HEATERS CAPACITY	kW	3	3	3	3
HEATERS STAGE	Qty	1	1	1	1
CONTROLLER TYPE	ID	PLC	PLC	PLC	PLC
MODBUS RS 485 TCP/IP		YES	YES	YES	YES
COMPRESSOR TYPE		SCROLL	SCROLL	SCROLL	SCROLL
EVAPORATOR FAN NUMBER	Qty	1	1	1	1

COMPRESSOR NUMBER	Qty	1	1	1	1
CONDENSER FAN NUMBER	Qty	1	1	1	1
AUXILIARY VOLTAGE	U	24Vac	24Vac	24Vac	24Vac
SOUND PRESSURE at 3m – free field -	dbA	64	64	64	65
LENGHT	mm	2380	2380	2380	2380
WIDTH	mm	1306 (1498 with FEET)	1306 (1498 with FEET)	1306 (1498 with FEET)	1306 (1498 with FEET)
HEIGHT	mm	690	690	690	690
NET WEIGHT	Kg	272	274	278	278

(1) Data conditions are full operating cooling capacity stabilized at constant heat load. Indoor conditions are 21°CDB with a relative humidity of 35%RH, evaporator at 7,2°C. Gas superheat is setted and stabilized at 11,1°K on evaporator coil, gas condensing temperature is 45°C and subcooling is setted and stabilized at 8,3°K on condenser coil. Altitude is + 26m corresponding to 1013HPa. Values are obtained with perfect state of cleanliness of the exchangers.

(2) Data conditions are full operating cooling capacity stabilized at constant heat load. Indoor conditions are 21°CDB with a relative humidity of 35%RH, evaporator at 7,2°C. Gas superheat is setted and stabilized at 11,1°K on evaporator coil, gas condensing temperature is 54,4°C and subcooling is setted and stabilized at 8,3°K on condenser coil. Altitude is + 26m corresponding to 1013HPa. Values are obtained with perfect state of cleanliness of the exchangers.

INCLUDED FEATURES

- HEATING / COOLING / VENTILATING / DEHUMIDIFYING
- TCP/IP - RJ45 PORT COMMUNICATION
- MODBUS COMMUNICATION
- INTERNAL HUMIDITY PROBE
- EXTERNAL TEMPERATURE SENSOR
- SUPERHEAT SENSOR WITH LP TRANSDUCER
- SUBCOOLING SENSOR WITH HP TRANSDUCER
- C4L COAT PAINTING
- COMPRESSOR CRANKCASE HEATER
- RA - DEFAULT DRY CONTACT FOR ALARM SYNTHESIS
- RS - UNIT RUN DRY CONTACT INFORMATION
- RHP - ON/OFF THERMOSTATIC CONDENSING MANAGEMENT

ADDITIONAL OPTIONS

- VARIABLE SPEED CONDENSING FAN
- VARIABLE SPEED COMPRESSOR
- ELECTRONIC DIRECT EXPANSION VALVE
- SOFT START SYSTEM
- COLD CLIMATE CONDITIONS -20°C
- HEAT PUMP MODE
- SMOKE DETECTION
- SALT ATMOSPHER TREATMENT
- SPECIAL C5M COAT PAINTING
- SPECIAL COLOUR ON DEMAND
- CLOSED WOOD BOX FOR UNITARY AIR/BOAT FREIGHT

COMPLIANCE

RTC rev A unit complies with applicable IEC standards and regulations, in particular:

MACHINERY DIRECTIVE	2006/42/EC
LOW VOLTAGE DIRECTIVE	2006/95/EC
ELECTROMAGNETIC COMPATIBILITY DIRECTIVE	2004/108/EC
PRESSURE EQUIPMENT DIRECTIVE	97/23/EC

TRANSPORTATION

PALLET :	IPCC CERTIFIED WOODEN CRATE, PROTECTION FOAM AND FILM
HS CODE :	8158200
COUNTRY OF ORIGIN :	FRANCE

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