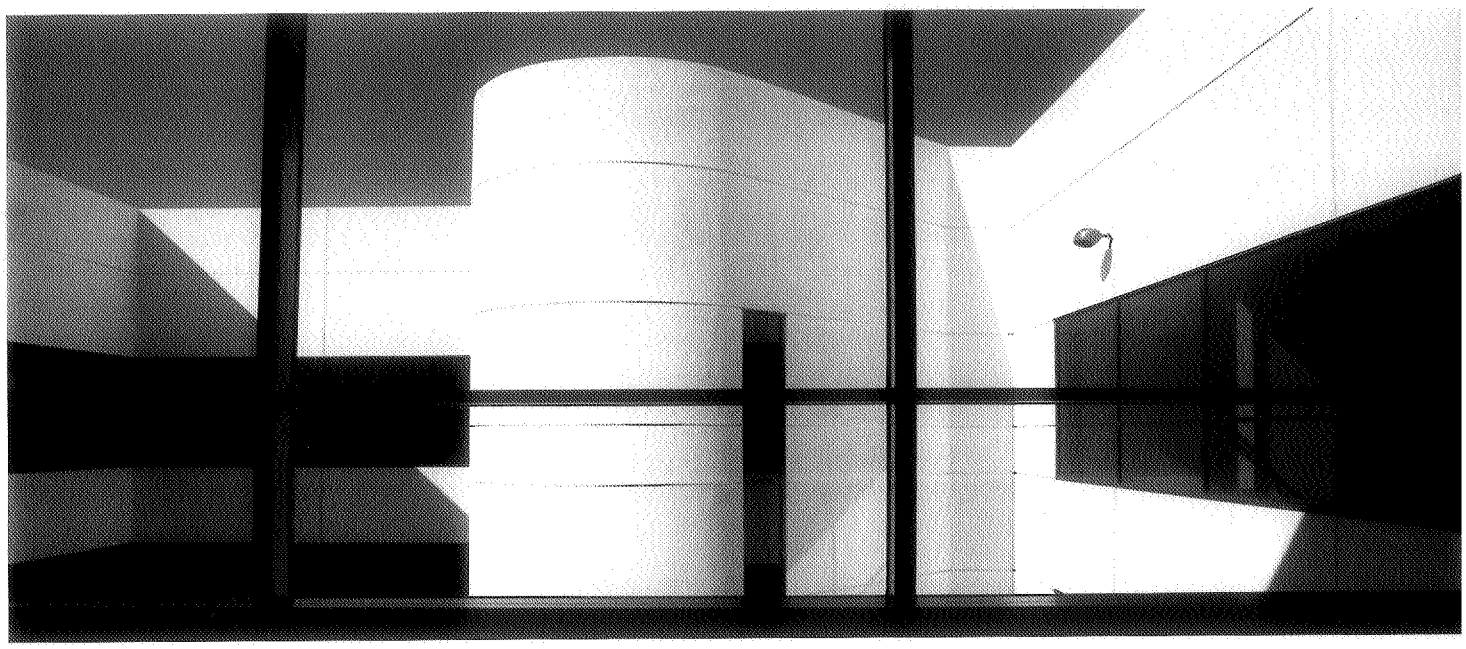
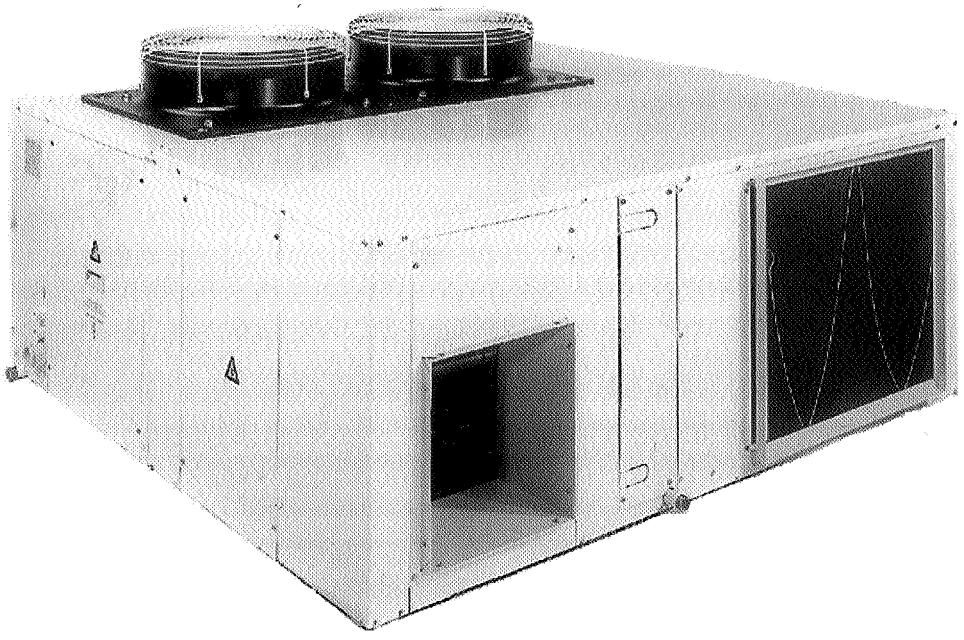
LENNOX

Airtop (Supplement)

WITH REFRIGERANT R-407C



Cooling only FT-K



OPERATION SERVICE AND INSTALLATION MANUAL

Congratulations you have made a wise choice with the purchase of your Lennox split condensing unit.
This product has been designed, assembled and supplied in one of our world class manufacturing facilities and we feel sure that it will meet your expectations.
Lennox an international organisation with world wide distribution takes pride in supplying you with this product.

NOTE: Consult Airtop R-22 manual for additional information on refrigerant connections, unit dimensions, installation and maintenance.

TABLA OF CONTENTS

This model is prepared only and exclusively to work with refrigerant R407C
CAUTION
Do not use any other refrigerant

The refrigerant R407-C is a mixture of other three refrigerants that behave as pure compounds. This fact makes that the operations of installation; service and maintenance must be special, for the next operations:

SYSTEM EVACUATION
Evacuating the system is critical for proper operation of the unit, vacuum must be done until the absolute pressure does not rise above 0,3 mbar, since the compressor oil high hygroscopic degree can cause corrosion in some metallic materials.

REFRIGERANT CHARGING
To maintain the mixture composition, the refrigerant must be charged always in liquid phase. For what it is necessary to have special caution when it is little quantity of refrigerant in the bottle.

LEAKS
If a leak takes place in the system that has produced an important evacuation of the refrigerant charge, instead of recharging the system, it is convenient to eliminate the whole charge completely, the system must be evacuated and charged again or to introduce the charge according to an specified value.

COMPRESSOR OIL
With HCF refrigerant like in the case of R407-C, compressors are used that incorporate ester oil instead of the mineral oil used in compressors that work with HCFC refrigerant, like it is the case of R22.

OPERATION
On a system operated with refrigerant R407-C, during the evaporation phase at constant pressure the temperature increase; and during the condensation phase at constant pressure the temperature decrease a certain value. Consequently the terms “evaporation temperature” and “condensation temperature” should be redefined.

PRODUCT RANGE

COOLING ONLY

MODEL	V / Ph / 50 Hz	NOMINAL CAPACITY W	TOTAL POWER CONSUMPTION kW
		COOLING	COOLING
FT 7K	230 V - 3Ph	18600	8.11
	400 V - 3Ph		
FT 8K	230 V - 3Ph	21700	9.62
	400 V - 3Ph		
FT 10K	230 V - 3Ph	27700	11.90
	400 V - 3Ph		

SPECIFICATIONS

FT-K		FT	7 K	8 K	10 K
Cooling capacity. *		W	18600	21700	27700
Air flow indoor unit : max./min.		m^3/h	4800/2700	6200/5000	6100/4850
Available pressure : max. (1)		Pa	170	170	180
Air flow outdoor unit :		m^3/h	6750	7600	7100
Nominal total input power		kW	8.11	9.62	11.90
Voltage	V/Ph (50 Hz)		**230V / 400V / 3 Ph**		
Compressor	N°/Type		1/Alt.	1/Alt.	1/Alt.
Max. current input		A	36.5/22.4	40.3/24.4	49.3/29.3
Starting currrent		A	135/68	126/78.5	170/105
Weight (indoor unit + outdoor unit)		Kg	250/260	304/320	329/344
Dimensions:	Height	mm	785	815	815
	Length	mm	1465	1615	1615
	Width	mm	1397	1552	1552

* Air intake temperature in indoor interchanger: 27°C DB/19 °C WB
* Air intake temperature in outdoor interchanger: 35 °C DB

(1) With minimum admissible flow volumes

DB: Dry bulb temperature
WB: Wet bulb temperature

ELECTRICAL DATA

FT-K	FT	7 K	8 K	10 K
Compressor	kW	5.75	5.79	7.77
Fan air inlet	kW	0.94	1.92	1.92
Fan air outlet	kW	1.42	1.91	2.21
TOTAL	kW	8.11	9.62	11.90

MAXIMUM CURRENT INPUT

Compressor	230 / 400 V/III	A	26.0/15.0	29.8/17.0	38.8/21.9
Fan air inlet	230 / 400 V/III	A	7.4/4.3	7.4/4.3	7.4/4.3
Fan air outlet	230 / 400 V/III	A	2 x 1.56	2 x 1.56	2 x 1.56
Starting current	230 / 400 V/III	A	145.5/75.4	165.5/85.9	180.5/112.4
TOTAL	230 / 400 V/III	A	36.5/22.4	40.3/24.4	49.3/29.3

CAPACITY TABLE

COOLING CAPACITY IN kW

FT 7K

AIR INLET TEMPERATURE INDOOR UNIT	CAPACITY IN kW	AIR INLET TEMPERATURE OUTDOOR UNIT °C DRY BULB				
		25°C	30°C	35°C	40°C	45°C
21°C DB	TOTAL	17.74	16.93	16.08	15.18	14.21
15°C WB	WORKING	14.21	13.83	13.43	13.01	12.57
24°C DB	TOTAL	19.09	18.22	17.31	16.33	15.27
17°C WB	WORKING	15.31	14.92	14.52	14.09	13.64
27°C DB	TOTAL	20.52	16.59	18.60	17.54	16.39
19°C WB	WORKING	16.36	15.97	15.56	15.13	14.66
29°C DB	TOTAL	22.03	21.03	19.96	18.81	17.55
21°C WB	WORKING	16.33	15.94	15.52	15.08	14.61
32°C DB	TOTAL	23.62	22.54	21.38	20.12	----
23°C WB	WORKING	17.32	16.93	16.50	16.05	----

FT 8K

AIR INLET TEMPERATURE INDOOR UNIT	CAPACITY IN kW	AIR INLET TEMPERATURE OUTDOOR UNIT °C DRY BULB				
		25°C	30°C	35°C	40°C	45°C
21°C DB	TOTAL	20.53	19.56	18.53	17.43	16.24
15°C WB	WORKING	16.75	16.30	15.82	15.32	14.78
24°C DB	TOTAL	22.22	21.18	20.07	18.88	17.59
17°C WB	WORKING	18.13	17.67	17.19	16.68	16.13
27°C DB	TOTAL	24.03	22.91	21.70	20.43	19.02
19°C WB	WORKING	19.47	19.00	18.51	17.99	17.42
29°C DB	TOTAL	25.96	24.75	23.46	22.06	20.53
21°C WB	WORKING	19.49	19.02	18.52	17.99	17.41
32°C DB	TOTAL	28.01	26.70	25.30	23.77	22.10
23°C WB	WORKING	20.75	20.27	19.77	19.23	18.64

FT 10K

AIR INLET TEMPERATURE INDOOR UNIT	CAPACITY IN kW	AIR INLET TEMPERATURE OUTDOOR UNIT °C DRY BULB				
		25°C	30°C	35°C	40°C	45°C
21°C DB	TOTAL	26.38	25.16	23.87	22.49	21.00
15°C WH	WORKING	20.32	19.73	19.11	18.46	17.77
24°C DB	TOTAL	28.43	27.12	25.73	24.24	22.62
17°C WB	WORKING	21.83	21.24	20.61	19.94	19.23
27°C DB	TOTAL	30.61	29.20	27.70	26.08	24.32
19°C WB	WORKING	23.29	22.68	22.04	21.37	20.64
29°C DB	TOTAL	32.93	31.41	29.79	28.03	26.10
21°C WB	WORKING	23.28	22.67	22.02	21.33	20.59
32°C DB	TOTAL	35.38	33.74	31.97	30.05	----
23°C WB	WORKING	24.65	24.03	23.37	22.66	----

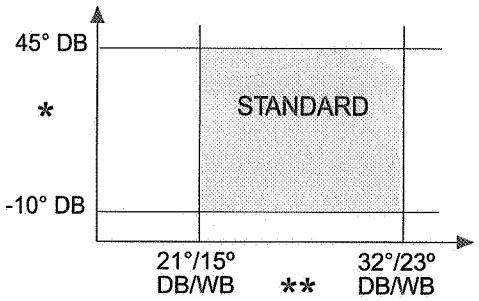
DB - Dry bulb
WB - Wet bulb

OPERATION LIMITS

OPERATING LIMITS UNITS FT-K (COOLING ONLY)

* Air intake temperature into the outdoor unit ºC

** Air intake temperature into the indoor unit ºC



DB.- Dry Bulb
WH.- Wet Bulb

THE LOW AMBIENT CONTROL IS STANDARD

ELECTRIC WIRING DIAGRAM
For electrical connection refer to wiring diagram in the unit.

NOTES

Subject to change without notice.

03-2000

COD.: 33552120

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Lennox Refac, S.A.

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