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SERVICE MANUAL

sincloir

ODVLHČOVAČE



CFO-12E

CFO-20E

CE Standard, 1Ph 220-230V 50Hz R407C

Dehumidifier

1.2 Technical specifications

Table 1-1

Model		CFO-12E	CFO-20E
Power supply		1Ph 220-230V 50Hz	
Dehumidifying Capacity (L/day)		12	20
Rated input (W)		210	400
Rated current (A)		0.9	1.8
Air flow (M ³ /h)		120	150
Motor	Fan speed (rpm)	520/450/400	570/510/450
	Output power (W)	5.5	5.5
	Working capacitor (uF)	1	
Fan type/piece		Axial fan-1	
Diameter -length		234-46	
Evaporator		Aluminum fin-copper tube	
Row-fin distance (mm)		10-1.8	12-1.6
Working area (m ²)		0.047	0.056
Condenser		Aluminum fin-copper tube	
Row-fin distance (mm)		10-1.3	12-1.3
Working area (m ²)		0.047	0.056
Compressor model		Rotary	
Compressor		XB357VMCC	YB645VMCC
Power (W)		170	295
Protect equipment		LYDN 96X	LYGN 78X
Starting method		capacitor	
Working current (A)		0.8	1.4
Working temp.		Exhaust temperature ≤ 115°C	
Compressor capacitor (uF)		4.8	6.5
Throttling method		Capillary	
Fuse(A)		3.15	3.15
Noise (dB(A))		41	43
dimension	Width (mm)	380	
	Height (mm)	545	
	Depth (mm)	261.5	
Net weight (kg)		12.5	14
Refrigerant		R134a	
Refrigerant charge(g)		140	170

The technical data are subject to change without notice .Please refer to the nameplate of the unit.

1.3 Outlines and dimensions



Fig. 1-3



Fig. 1-4



Fig. 1-5



Fig. 1-6

Dehumidifier

1.5 Circuit diagram

1.5.1 Circuit diagram for CFO-12E, CFO-20E

This circuit diagrams are subject to change without notice.

Please refer to the ones stuck on the machines.

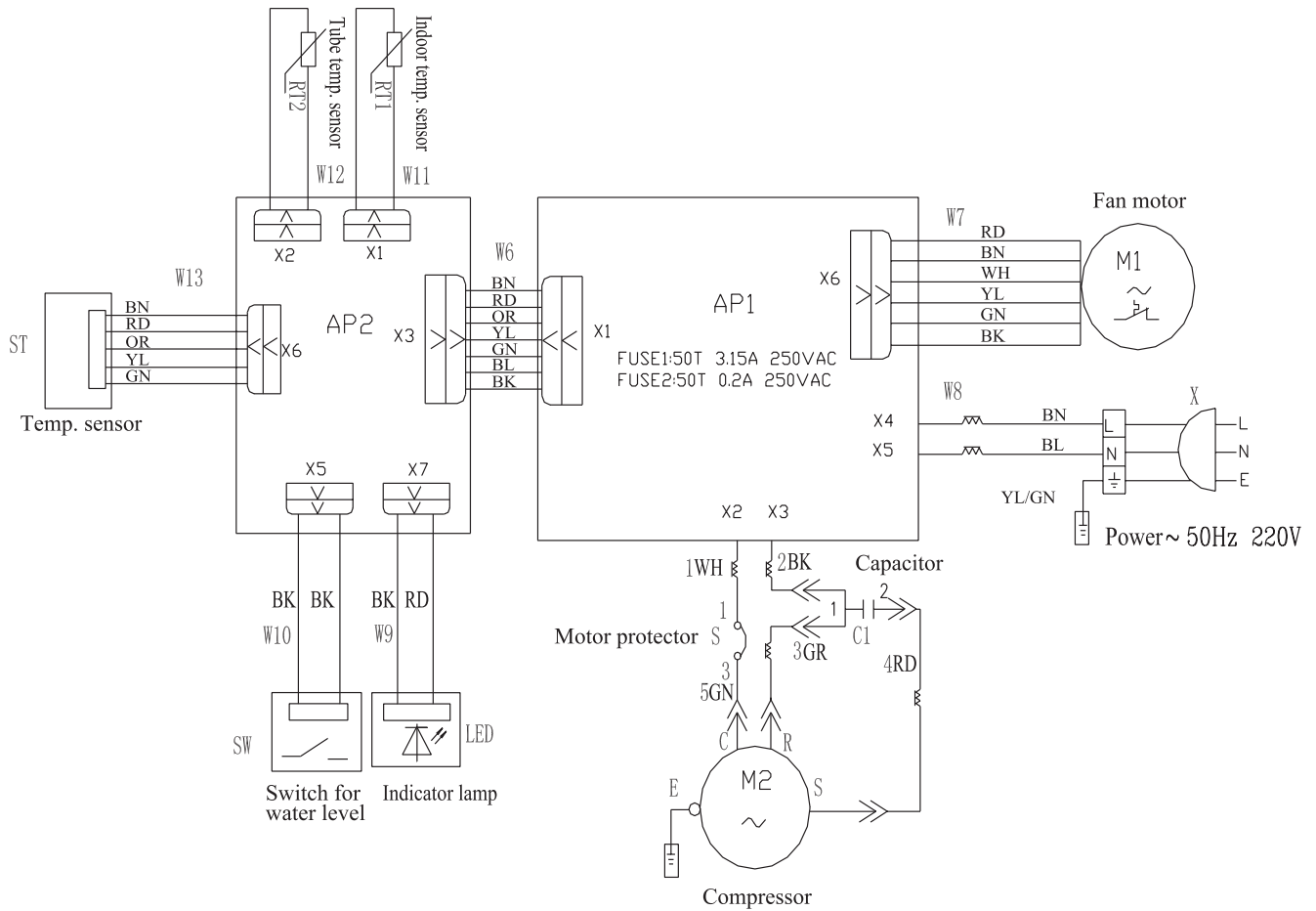


Fig. 1-8

1.6 PCB function manual

Control for E type

A. Main control function: Dehumidify

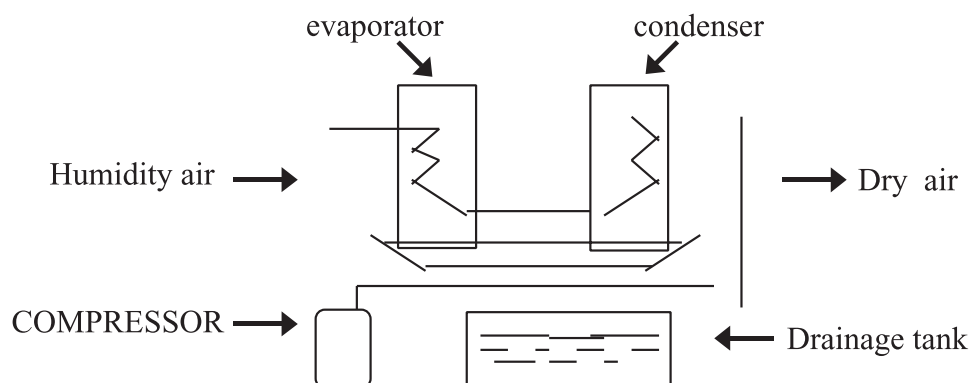
B. Aim of the control

1. Fan motor:(include drying clothes, dehumidifying and silence)
2. Compressor
3. Mode lamp(drying clothes , dehumidifying and silence)
4. humidity lamp(continuous dehumidify, 50%, 60%, 70%)
5. Full lamp

C. The input parameter of the PCB

1. Temperature of the indoor environment : T Ring(Detect only before the starting of the compressor)
2. Temperature of the tube of the Evaporator : T Tube(the same tube temperature sense as T Ring)
3. Humidity of the indoor environment :H Ring
4. Power switch :S switch
5. Mode switch : S mode
6. Humidity select : S humidity
7. Liquid switch: S Liquid
8. Quick detect switch :S quick detector

D. Systematic diagram of the dehumidifying cycle



E. Main control function

1. Control key

- (1) S switch : Control On and Off. When adding electricity, power lamp light, press switch key to start running with default mode, press switch key again to stop running.
- (2) S mode : Press this key, you can control system's 4 mode, corresponding mode indicator light will bright: silence (low wind speed) → dehumidify (medium wind speed) → drying clothes (high wind speed). Starting default mode is dehumidify mode.
- (3) S humidity : Set dehumidify of room, 4 kinds : continuous dehumidify 、50% 、60% 、70%. corresponding mode indicator light will bright. Starting default mode is continuum mode.

2. Humidity control:

Press the humidity select key, the unit will run continuously without the humidity compare in 10 seconds.

50%: when detect H Ring<45%, stop the unit, H Ring>55%, run the unit;

60%: when detect H Ring<55%, stop the unit, H Ring>65%, run the unit;

70%: when detect H Ring<65%, stop the unit, H Ring>75%, run the unit;

continuous dehumidify: the unit runs continuously.

3. Mode

The system have 4modes: Off, Dehumidify, Drying clothes and Silence.

OFF : compressor and fan motor stop, mode lamp and humidity lamp extinguish, power lamp light..

Dehumidifying: humidity lamp light, others extinguish; fan motor is running at medium wind speed, compressor startup;

Drying clothes: Drying clothes lamp light, others extinguish; fan motor is running at high wind speed, compressor startup;

Silence: Silence lamp light, others extinguish; fan motor is running at low wind speed, compressor startup.

Dehumidifier

4. Protect function

(1) Work range: set $T1=2^{\circ}\text{C}$, $T2=38^{\circ}\text{C}$, when $T\text{ Ring} \leq T1-1^{\circ}\text{C}$ or $T\text{ Ring} \geq T2+1^{\circ}\text{C}$, compressor don't start in order to protect the units from working in bad environment, and humidify lamp light, humidify and switch key is active, mode key is inactive.

(2) 3 minutes protect : After you stop running, put through power supply to renew start, fan motor startup, compressor automatically delay 3 minutes to startup.

(3) Water full protection: when water is full in water tank, Full Lamp will light, compressor and fan motor will stop.

(4) Anti-freezing function : After the compressor start for 10 minutes, if detect $T\text{ Tube} \leq -5^{\circ}\text{C}$ for continuous 3 minutes, compressor will stop, and Fan motor maintain running state; when $T\text{ Tube} \geq 4^{\circ}\text{C}$ or the time of the defrosting reach 20 minutes, compressor will reset, and fan motor maintain running state.

(5) High temperature mode: when $T\text{ Ring} \geq 35$, the high temperature mode startup, Fan motor only can ran at high speed, and mode key is inactive.

F. Quick check function

When S quick detector is in short circuit, running one second will consider as one minute. This function only use for test, in usual time S quick detector should break.

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PARTS GUIDE

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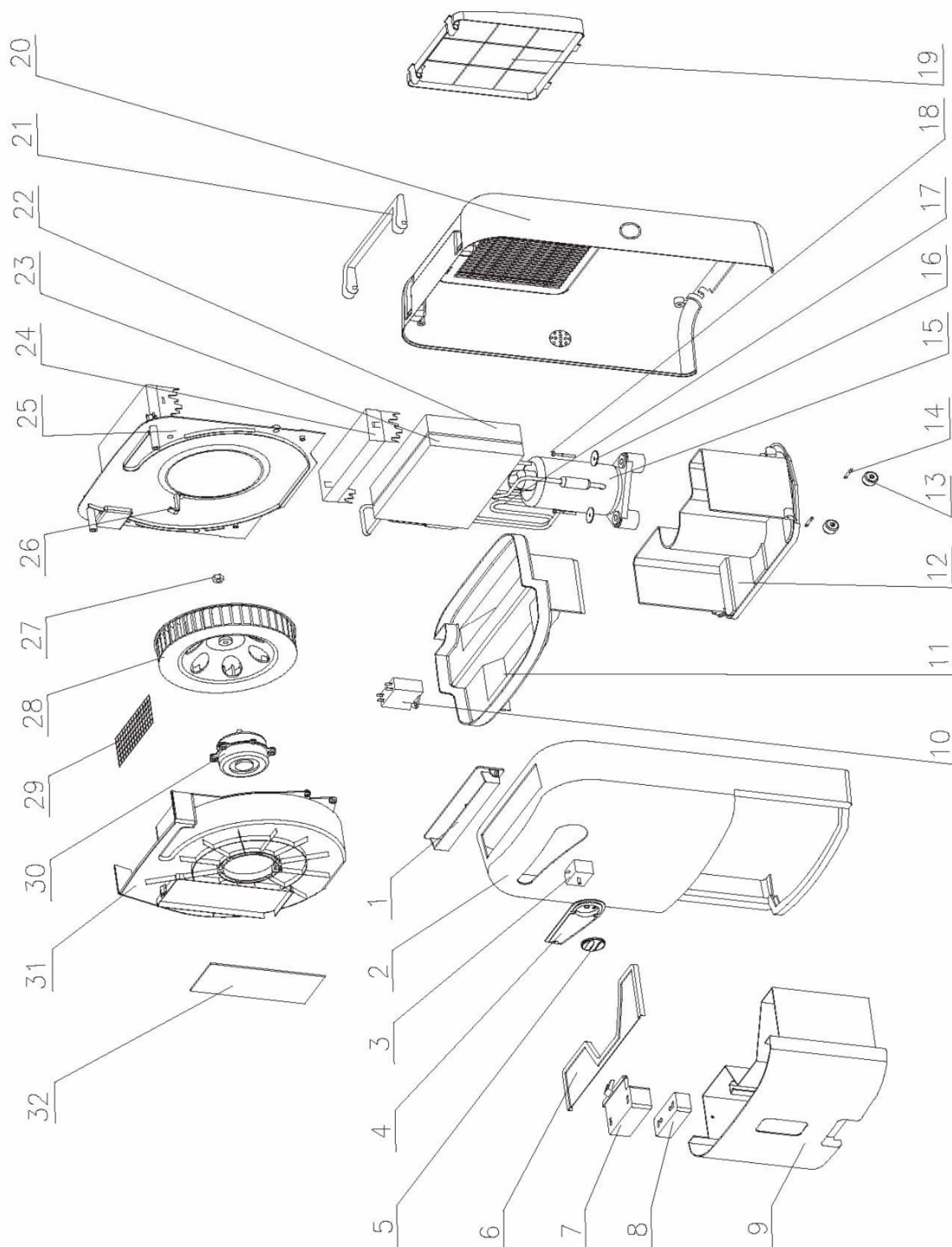
CFO-12E

CFO-20E

CE Standard, 1Ph 220-230V 50Hz R407C

Explosive view and spare parts list of dehumidifier

CFO-12E, CFO-20E



No.	Description	Part Code	Updated		Qty	Price Rank
			Part code	Date		
CFO-12E						
1	Air guider	10512384			1	AE
2	Front case	01513420			1	AR
3	Lo-volt PCB	30021001			1	AW
4	Button supporting plate	45037004			1	AD
6	Protecting plate	01491531			1	AC
7	Buoy supporter	12497002			1	AD
8	Buoy	12497001			1	AC
9	Water tank	20186505			1	AH
10	Comp. Capacitor	33000028			1	AF
11	Water tray	12412050			1	AH
12	Base assy	22226504			1	AH
13	Castor	24236551			2	AC
14	Crank	10546521			2	AA
15	Compressor	00100040			1	BH
16	Gasket	70411201			3	AE
17	Pipes	06106421			1	AW
18	Bolt	70140555			3	AC
19	Filter	11126503			1	AH
20	Rear case	01513413			1	AU
21	Handle	26233432			1	AD
22	Evaporator	01036501			1	AZ
23	Condenser	01136501			1	AY
24	Fixing clamp	20196501			1	AD
25	Cover of propeller housing	12104110			1	AL
26	Positioning sticker	10511133			1	AC
27	Nut	70310133			1	AC
28	Centrifugal fan	10356501			1	AM
29	Grille	22416551			1	AD
30	Motor	15016501			1	AU
31	Propeller housing	12102010			1	AL
32	PCB	30021001			1	AW

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8	Buoy	12497001			1	AB
9	Water tank	20186505			1	AH
10	Comp. Capacitor	33010032			1	AF
11	Water tray	12412050			1	AH
12	Base assy	22226504			1	AH
13	Castor	24236551			2	AC
14	Crank	10546521			2	AA
15	Compressor	00100041			1	BH
16	Gasket	70411201			3	AE
17	Pipes	06102422			1	AW
18	Bolt	70140555			3	AC
19	Filter	11126503			1	AH
20	Rear case	01513413			1	AU
21	Handle	26233432			1	AD
22	Evaporator	01036503			1	AZ
23	Condenser	01136503			1	AY
24	Fixing clamp	20190000			1	AD
25	Cover of propeller housing	12104110			1	AL
26	Positioning sticker	10511133			1	AC
27	Nut	70310133			1	AC
28	Centrifugal fan	10356501			1	AM
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