



# Specification

**Portable air conditioner  
24V DC**

**LC2820E-AC**



## 1. Specification

Product name		DC 24V Portable Air Conditioner
Model name		LC2820E-AC
Compress type		Miniature BLDC Rotary Compressor
Refrigerant		R134a
Weight		11Kg (24lbs)
External Dimension		565*255*245mm
Heat air dissipation dimension		Φ150mm
Cold air outlet dimension		Φ150mm
Compressor specification	Power Supply	DC24V
	Motor type	BLDC Motor
	Displacement	2.8cm <sup>3</sup> /rev
	Working Current	8A
	Cylinder number	2
	Rotor Pole pairs	3
	Insulation Class	B
	Winding Resistance (25℃)	UV=VW=WU=0.018Ω
	Speed Range	1800rpm~4500rpm
	Speed Regulating Voltage Range	DC 1.0~10V
	Oil & Charge Volume	RL68H&50 ml
Condenser	Power Supply	DC24V
	Power Consumption	16W
Evaporator	Power Supply	DC24V
	Power Consumption	6W

## 2.Characteristic Parameter

### 2.1 Performance Parameter (Speed 4500rpm)

Item	Unit	Rating Parameter
Cooling Capacity	W	$\geq 490 \times 95\%$ (MAX 2,387Btu)
Input Power	W	$\leq 200 \times 105\%$
EER	W/W	$\geq 2.45 \times 95\%$
Test Condition		
Power Supply		DC24V
Condensing Temperature		43°C
Evaporating Temperature		7.2°C
Suction Gas Temperature		35°C
Degree of Super-cooling		8.3°C
Ambient Temperature		35°C

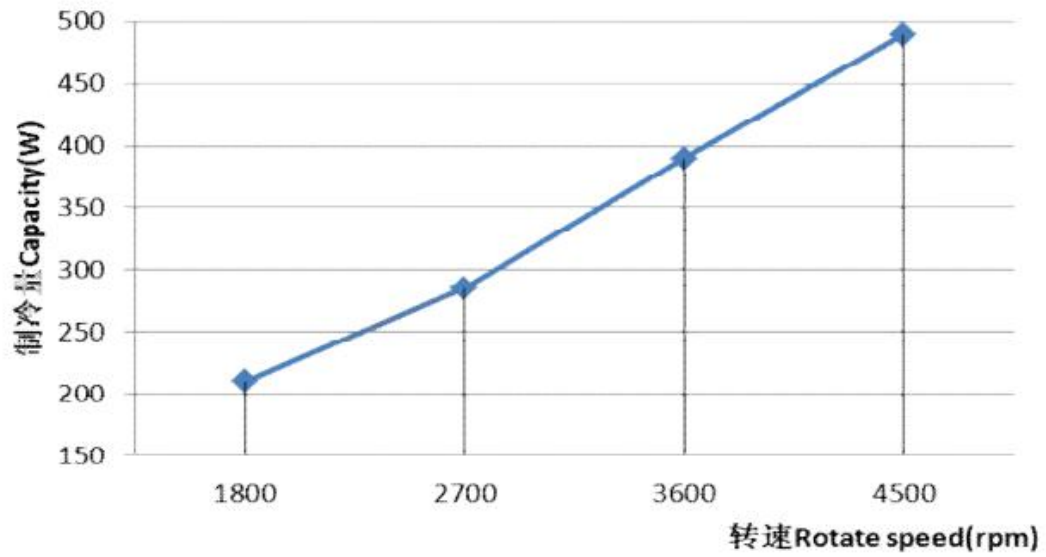
### 2.2 Application Range

Ambient Temperature Range	5~43°C
Evaporating Temperature Range	-5~15°C
Condensing Temperature Range	35~60°C
Amount of Refrigerant	160g
Temperature Setting Range	3~30°C

### 2.3 Other Characteristic

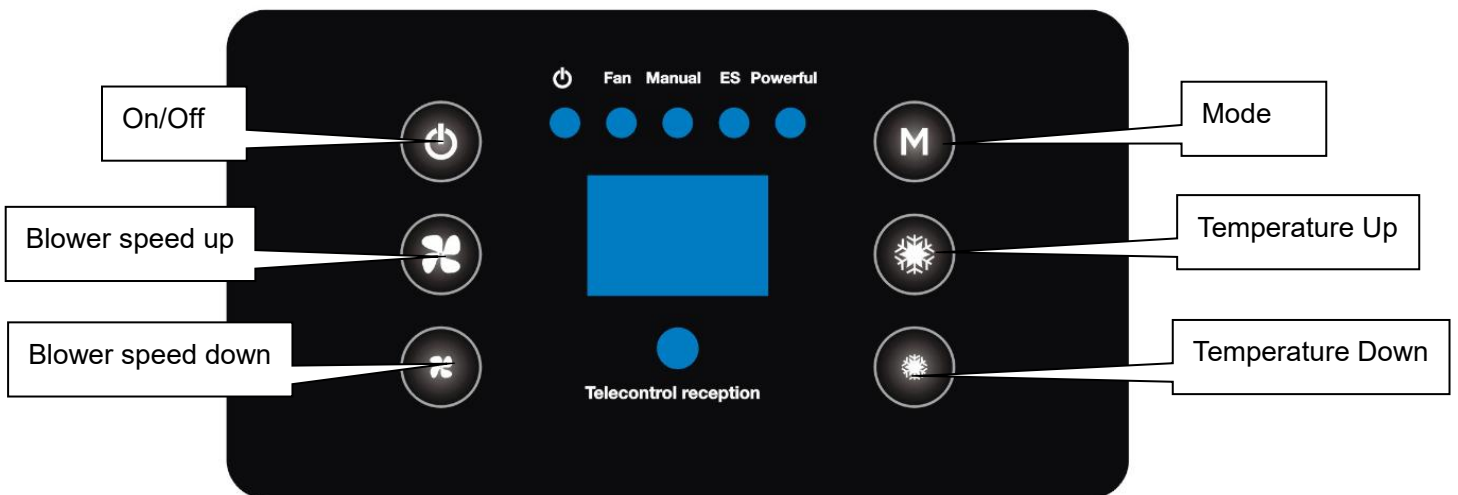
Item	Unit	Numerical Value	Remark
Leakage Testing Pressure	MPa	2.12	
Shell Mechanical Strength	MPa	7.42	
Insulation Resistance	MΩ	$\geq 30$	
Electric Strength		500V1Min or 600V 1 sec	
Residual Moisture	mg	$\leq 15$	
Residual Impurity	mg	$\leq 5$	
Earthing Resistance	Ω	$\leq 0.1$	

## 2.4 Refrigeration capacity/rotate speed curve.



## 2. Operating Instruction

### 3.1 Control Panel Button Description



### 3.2 Display Setting Introduction

- The screen and buttons will light up after connecting power, and first it will show the version of the machine ,then the speed regulation signal.



- In the start up state, it will show the detected temperature.
- Setting target temperature by pressing the temperature UP and DOWN buttons, the screen will display 03P-30P, it means the temperature range is 3-30°C.

### 3.3 Fault Information Code

Fault Code	Fault type	Description
Er2	Undervoltage	Voltage falls below under-voltage point, system enters undervoltage protection and in standby.
Er3	Overvoltage	Power supply voltage higher than overvoltage point, system enters overvoltage protection and in standby.
Er6	Temp.sensor fail	Can't detect temperature, check the temperature sensor.

### 3.4 Mode setting: Press and hold on the mode button

Code	Setting name	Default	Description
2F	Undervoltage	21	Press temperature up and down buttons to set undervoltage protection,the voltage range is 18~23V.
3F	Overvoltage	32	Press temperature up and down buttons to set over voltage protection, the voltage range is 28~32V.
4F	Voltage		Current voltage detected, not adjustable
5F	Ambient Temp.		Ambient Temp detected, not adjustable
6F	Anti-icing Temp.		Anti-icing Temp. detected, not adjustable

### 3. Air Conditioner Accessories List

Part Name	Quantity(piece)	Length (meter)
Portable Air Conditioner	1	
Power Line	1	2
Drain Pipe	1	1

### 4. Dimension(mm)

