EC92-CB225E-140WP EC MOTOR FAN EXT ROTOR.

DATASHEET-INSTALLATION GUIDE.

En-GB METRIC. CXP Series

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#### 1.0 Introduction

The specification describes the standards, operating environment, and technical requirements of the product. 2.0 Requirements of product standards and safety regulations

- 2.1 Standards and requirements of the product followed
  - 2.1.1 GB12350 (Safety requirements of small power motors)
  - 2.1.2 EN60335-1 (Safety requirements of household and similar electrical appliances)
- 2.2 The fan is CCC and CE approved.
- 2.3 All materials are ROHS compliant
- 3.0 Mechanical requirements
  - 3.1 Motor magnetic materials
    - QZ-2 180 degree Celsius / High Strength enamelled wire QZ-2 180 degree Celsius

Stator and Rotor permeability magnetic material: Silicon Steel

- Rotor: Die-Casting Aluminium
- 3.2 Balancing: The residual unbalance weight is less than the permit value of G6.3 (balancing precision grade, according to the standard of JB/T9101) when the fan is running at rated voltage and frequency.
- 3.3 Vibration: Vibration speed virtual value of fans accord with JB/T8689.
- 3.4 Lifespan: The fan is designed to run for a lifespan of 30,000~40,000 hours when the fan is running at rated voltage, rated load and maximum operating temperature.
- 4.0 Electrical Protection: The motor is equipped with the overload protection function, cut off temperature is between 150-160 degrees Celsius and reset temperature is between 90-120 degree Celsius

Leakage current: According to GB 12350

Installation mode: Horizontal & Vertical

Mode of speed regulation: Please provide the controller details with which you want to regulate the fan speed

## 5.0 Quality requirements

Quality requirements in accordance with ISO9001:2000 and inhouse quality standards

6.0 Operating and storing environmental requirements

Operating temperature range: -20 to +60 degree Celsius

- Operating humidity range: 30% to 95% RH
- Operating altitude: </= 1000 m
- Ambient atmospheric pressure: 80-110 Kpa
- Transportation/Storing temperatures range: -25 ~ +60 degree Celsius
- Transportation/Storing humidity range: 30% ~ +95% RH
- Packaging: Carton / Wooden packing
- 7.0 Standard of noise test: As per ISO 13347 (Determination of fan sound power levels under standardized laboratory conditions)

## **General Technical data**

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### **Product specification**

Nominal data	
Fan model	EC92-CB225E-140WP
Motor type	EC external rotor
Power Supply	1 ~ 230 Volt
Voltage range	200-227
Frequency	50-60Hz
Input power	140 Watts
Speed	3000 RPM
Current	1.0 Amp
Airflow@0 pa	1270 CMH
Sound power	71db
Impeller type	Backward curve
Technical data	
Protection class	IP44
Thermal class	B(135 degree)
Fan life*	~ 30,000 to 40,000 hours
Weight	2.2Kg
Rotation direction	Clockwise, viewed toward rotor
Certification	CE
Impeller material	GRP
Rotor	Die-casting Aluminium

Maintenance free ball bearing

# General Technical data

Bearing

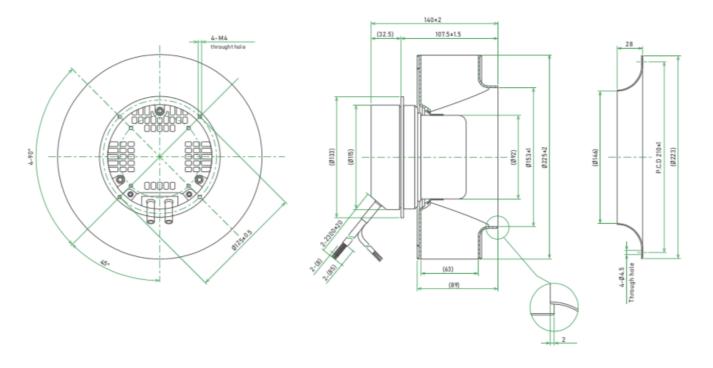
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### **Product specification**

Installation mode	Horizontal / Vertical
Control method	0 - 10 VDC / PWM
Power output	+ 10 V DC
Tech output	1 Pulse/Rotation**
Inbuilt protection	Over/Under temperature, voltage & current Locked rotor

\*If the fan is running continuously at rated voltage, rated load and maximum operating temperature \*\*Needs 10K0hm pull-up resistance between +10V line & tach output line

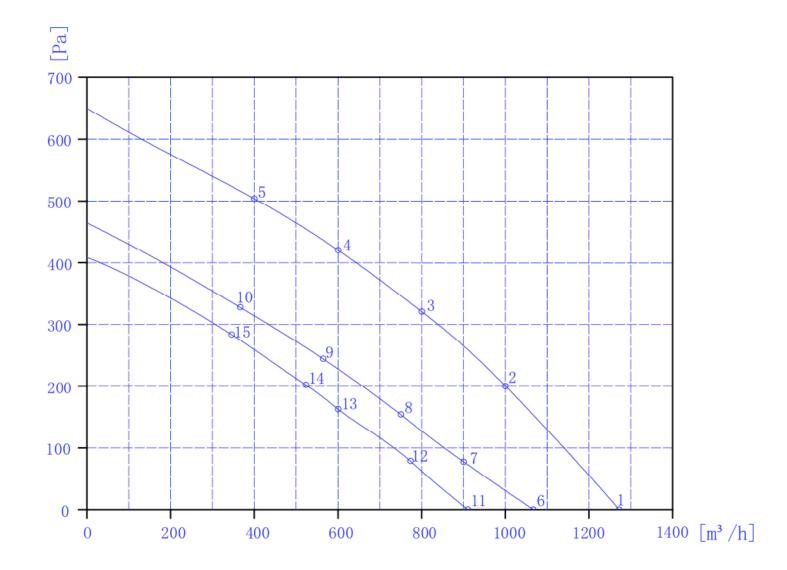
### Drawing (all dimensions are in mm)



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### Performance curve



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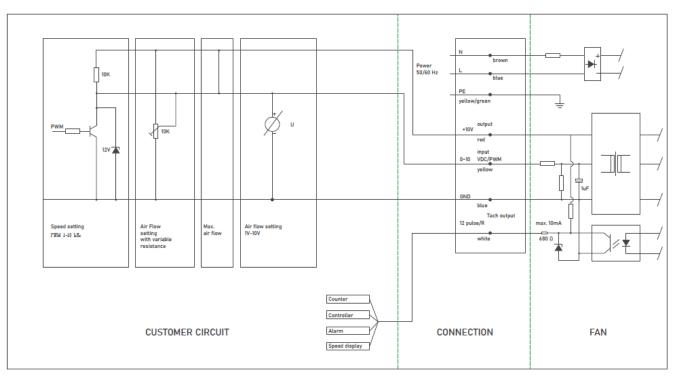
### Data point table

Number	RPM	Power(watt)	Current (Amp)	Airflow (CMH)	Pressure (Pa)
1	3038	152.8	1.21	1270	0
2	2937	163.2	1.29	1000	200
3	2870	169.5	1.34	800	320
4	2876	170.8	1.35	600	420
5	2965	162.5	1.29	400	502
6	2477	84.7	0.67	1070	0
7	2423	90.4	0.72	900	75
8	2404	91.6	0.73	750	150
9	2371	96.0	0.76	565	250
10	2400	93.4	0.74	370	325
11	2193	61.5	0.49	907	0
12	2188	70.3	0.56	770	80
13	2163	71.6	0.57	600	155
14	2155	73.8	0.58	520	201
15	2203	73.7	0.58	350	280

**General Technical data** 

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### Wiring Diagram (single phase)



#### **Important Note**

Cannot be used in coal mines where methane mixed gas and coal dust may cause explosion hazard.

Keep away from rotating parts when the fan is in running condition.

Cannot be placed and used in places where corrosive gas or steam is present.

Do not touch any of the high voltage line when the product is powered on.

The bearings used are ball bearings so please prevent the rotor from direct impact.

In order to avoid the circuit from breakdown OR insulation from damage, do not pull the wire harness while moving the product.

Customer fan unit should connect to ground well.

Do not touch the fan blade in running condition

Please use the fan under the conditions specified in this datasheet and contact us in case of any queries

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