

EC188-CB500D-
3300WAI
EC MOTOR FAN
EXT ROTOR.

DATASHEET-
INSTALLATION GUIDE.

En-GB
METRIC.
AI Series



TRANSMONK
simply precise.

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: -30 to +50 degree Celsius

Operating humidity range: 30% to 95% RH

Operating altitude: \leq 1000 m

Ambient atmospheric pressure: 80-110 Kpa

Transportation/Storing temperatures range: -40 ~ +80 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)

Product specification

Nominal data

Fan model	EC188-CB500D-3300WAI
Motor type	EC external rotor
Power Supply	3 ~ 400 Volt
Voltage range	320-460
Frequency	50-60Hz
Input power	3300 Watts
Speed	1800 RPM
Current	4.95 Amp
Airflow@0 pa	13832 CMH
Sound power	89db
Impeller type	Backward curve

Technical data

Protection class	IP54
Thermal class	F(155 degree)
Fan life*	~ 30,000 to 40,000 hours
Weight	25 Kg
Rotation direction	Clockwise, viewed toward rotor
Certification	CE
Impeller material	Aluminium
Rotor	Die-casting Aluminium
Bearing	Maintenance free ball bearing

Product specification

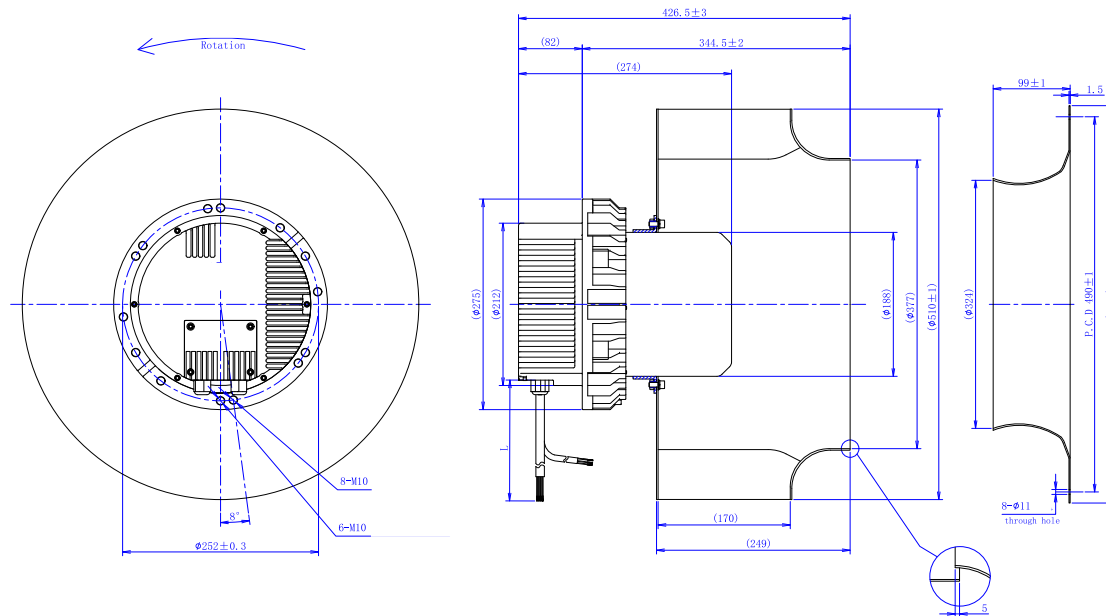
Technical data

Installation mode	Horizontal / Vertical
Control method	0 - 10 VDC / PWM
Power output	+ 10 V DC
Tech output	12 Pulse/Rotation**
Inbuilt protection	Over/Under temperature, voltage & current Locked rotor

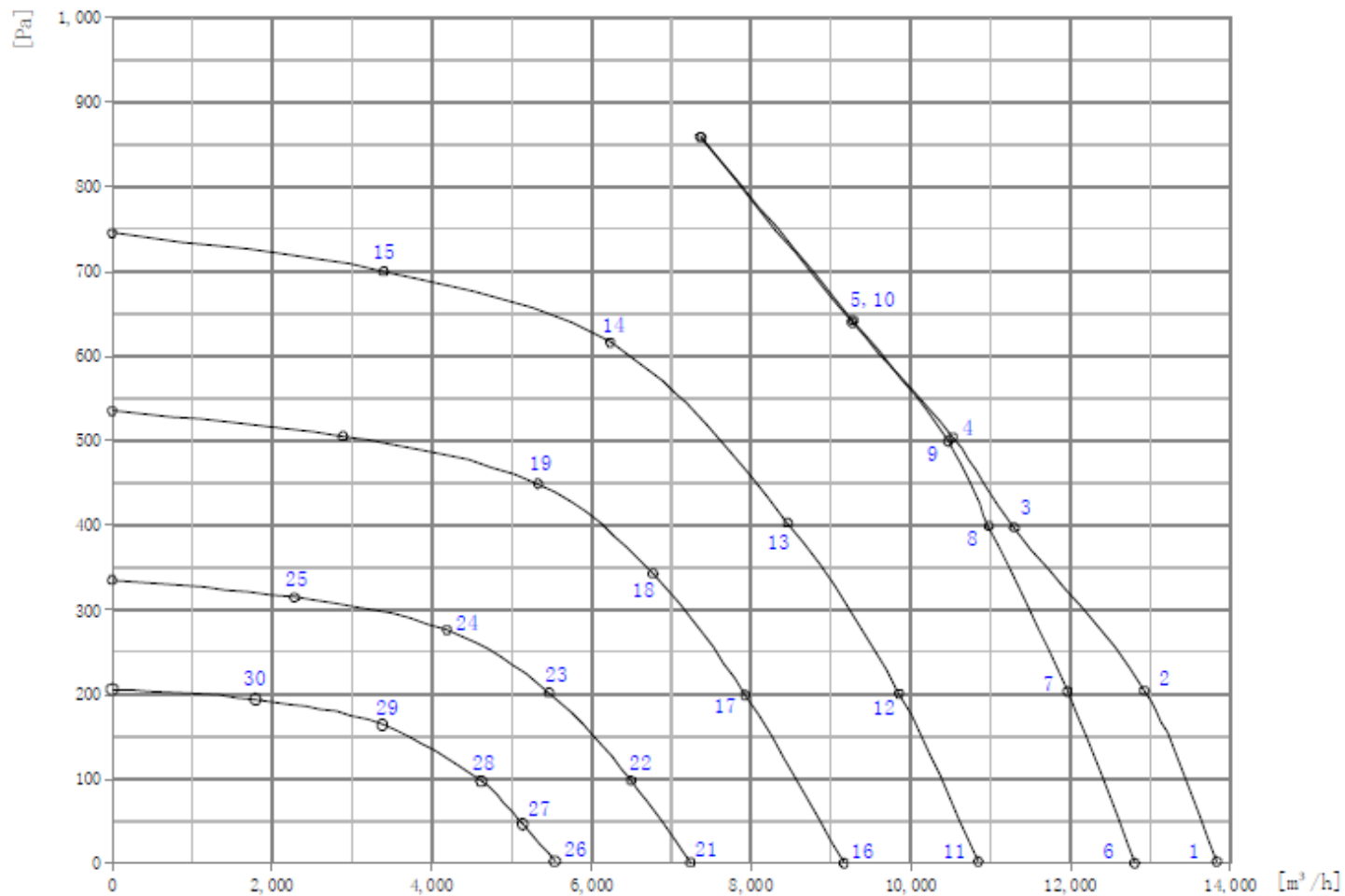
*If the fan is running continuously at rated voltage, rated load and maximum operating temperature

**Needs 10KOhm pull-up resistance between +10V line & tach output line

Drawing (all dimensions are in mm)



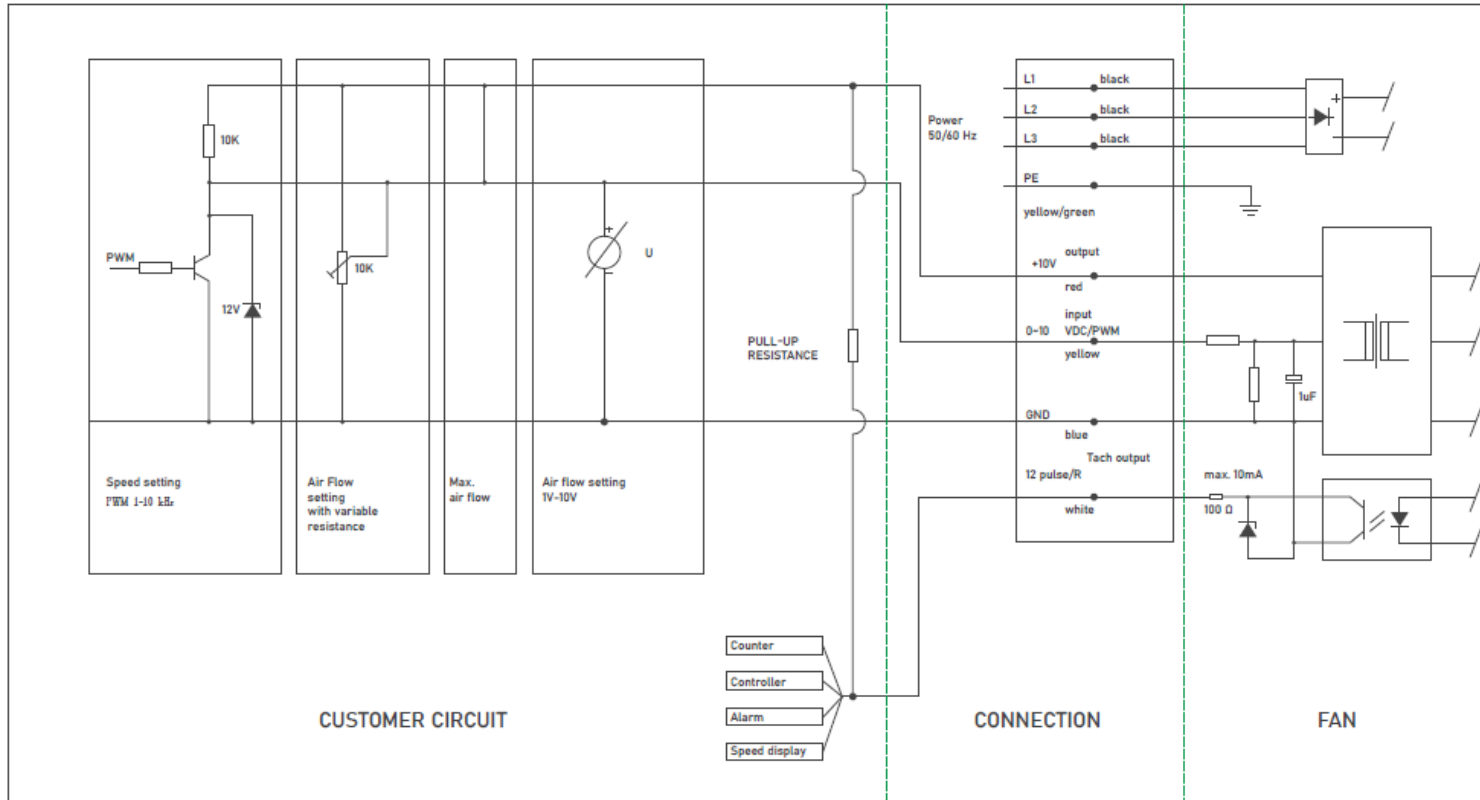
Performance curve



Data point table

Input volt	RPM	Power(watt)	Current (Amp)	Airflow (CMH)	Pressure (Pa)
10V	1808	3055	5.00	13832	0
	1811	3354	5.43	12929	200
	1728	3291	5.34	11298	400
	1666	3196	5.20	10524	500
	1630	3111	5.06	9268	640
7.5V	1670	2446	4.00	12807	0
	1677	2759	4.52	11962	200
	1667	3025	4.94	10977	400
	1669	3128	5.10	10467	500
	1636	3130	5.12	9272	643
6.5V	1413	1495	2.51	10845	0
	1415	1748	2.92	9852	201
	1411	1957	3.24	8458	400
	1410	1935	3.20	6235	616
	1407	1507	2.52	3400	700
5.5V	1204	936	1.62	9164	0
	1195	1139	1.94	7926	200
	1198	1249	2.12	6774	343
	1198	1215	2.07	5333	450
4.5V	943	482	0.91	7241	0
	943	566	1.05	6499	100
	942	627	1.15	5469	200
	942	617	1.14	4190	276
	942	489	0.92	2282	315
3.5V	734	251	0.52	5542	0
	736	286	0.59	5140	50
	735	319	0.64	4625	100
	735	327	0.66	3381	164
	736	263	0.55	1796	194

Wiring Diagram (Three 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