Model No. B3P133-EC072-101

EC Backward Curved Centrifugal Fan

Technical data

Voltage [1]	AC 230 [V]
Frequency	50/60 [Hz]
Speed	4500 ±10% [min^{-1}]
Power nom. / Current nom.	50 [W] / 0.4 [A]
Power max. / Current max	53 [W] / 0.43 [A]
Air flow	max. 301 [m^3/h]
Noise	69 [dBA]
Degree of protection	IP44
Leakage current [2]	max. 3.5 [mA]
Dielectric resistance [3]	AC 1800V
Insulation class	B class
Control input [4]	0-10V VDC/PWM
Output	+10VDC
Tach output [5]	1 Pulse/R
Protected mode	Over-temperature / over-current/ locked protected
Appearance	There should not be any defects and dirty which Spoil goods value
Mass	Approx 1.2 [kg]
Lead wire pulled Out strength	min. 20
Balancing grade	G 6.3
L10 life	min. 40.000 [h]
Impeller material	PA66

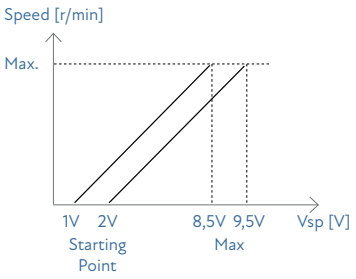

Fig. 1

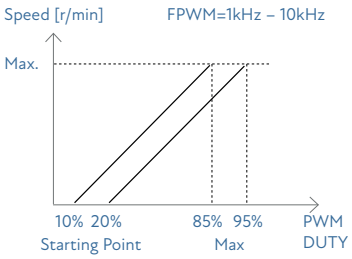

Fig. 2

Environmental requirement

Storage temperature range	-25 – 60 [°C]
Operating, storage humidity	30 – 95 [%] RH non condensing
Operating temperature range	-25 – 60 [°C]
	heat sink of ic 115 [°C] max
	other electronic parts 85 [°C] max
	ball bearing 80 [°C] max
	coil 120 [°C] max

Power<125W, not subject to the ErP directive regulations

[1] AC 200 – 277 V range

[2] Testing conditions: AC 260 V, 3 s

[3] Tripping current 10 mA, 1s

[4] See Fig.1, Fig.2

[5] Duty 30% ~ 70%, +10V, tach output 10KΩ, it needs 10KΩ pull-up resistance between +10V line and tach output line

Angle Tolerance	Classification of a shorter side of subjected angle			
	X≤10	10<X≤50	50<X≤120	120<X≤400
Tolerance	±1°	±30’	±20’	±10’

General Tolerance	Classification of basic dimension			
	X≤6	6<X≤30	0<X≤120	120<X≤400
Tolerance	±0.1	±0.2	±0.3	±0.5

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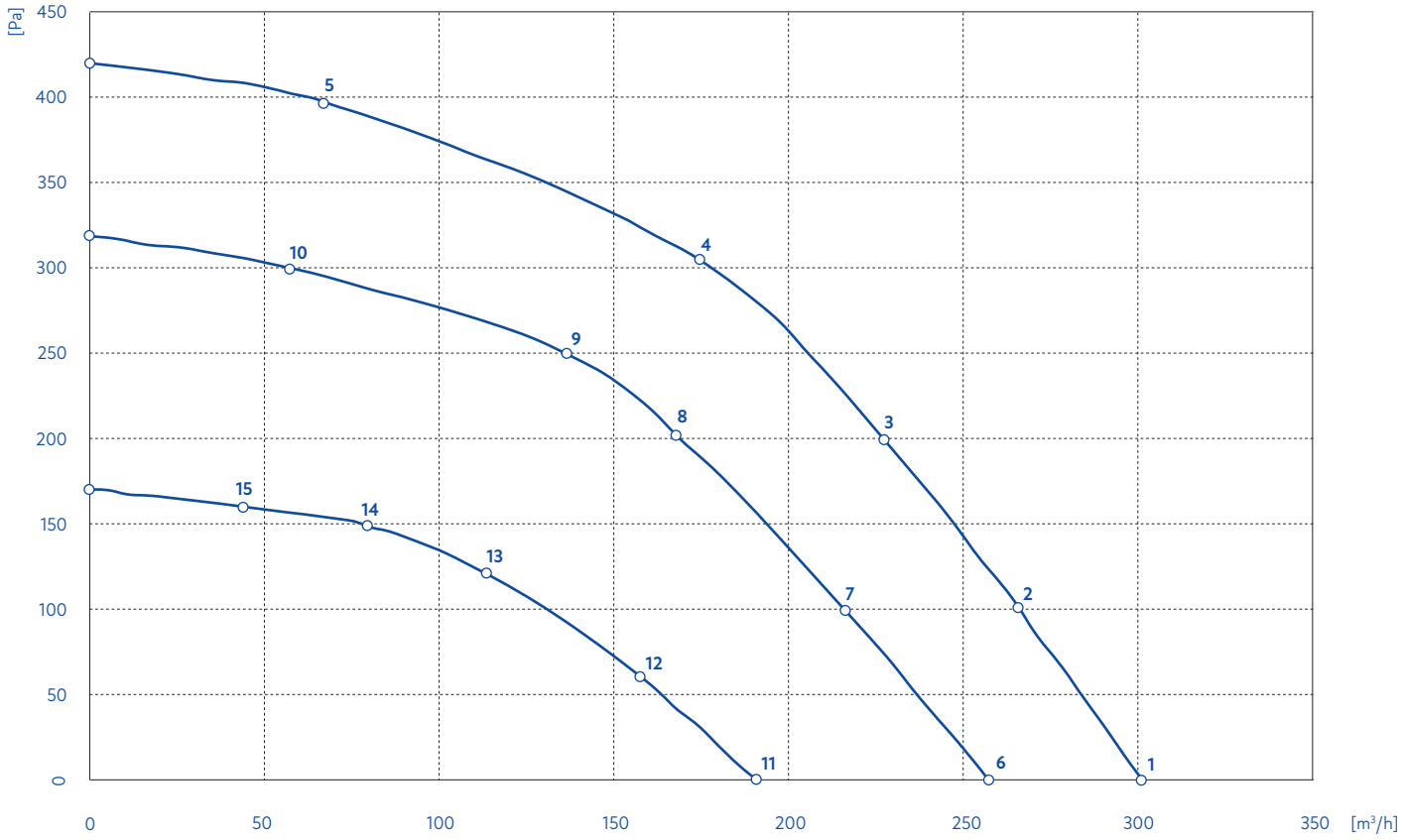
Air performance



Item	Voltage [V]	Frequency [Hz]	Speed [min⁻¹]	Power [W]	Current [A]	Airflow [m³/h]	Pressure [Pa]	Vsp [V]
1	230	50	4462	51	0.41	301	0	
2	230	50	4462	52	0.42	266	100	
3	230	50	4461	53	0.43	227	199	10
4	230	50	4459	52	0.42	174	305	
5	230	50	4462	39	0.32	67	397	
6	230	50	3817	34	0.28	257	0	
7	230	50	3830	35	0.29	216	99	
8	230	50	3859	36	0.30	168	202	8
9	230	50	3867	34	0.29	137	250	
10	230	50	3876	26	0.23	57	300	
11	230	50	2813	15	0.15	191	0	
12	230	50	2832	16	0.15	158	60	
13	230	50	2837	16	0.15	114	121	6.2
14	230	50	2838	14	0.14	80	149	
15	230	50	2838	13	0.13	44	160	

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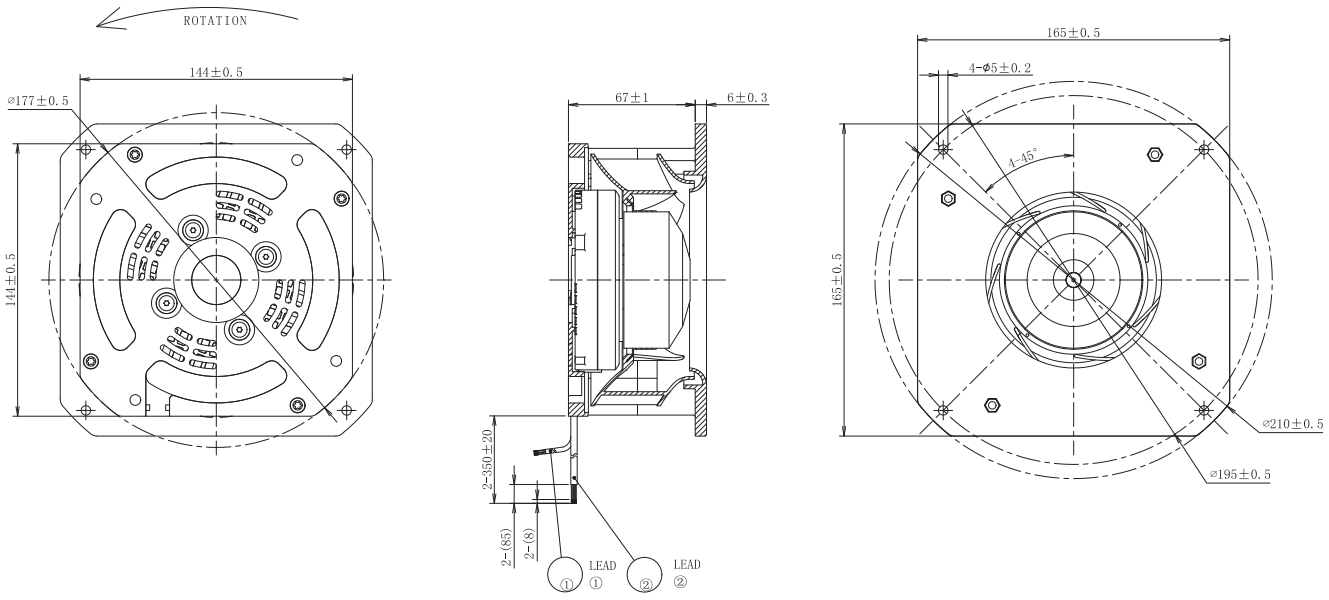
Note in use

- Since this motor has no reversing connection, to prevent motor damaged by over starting current, the peak current can not exceed 2.5A,
- Please do not perform extraction and insertion of the connector under revolution irrespective of power on and power off,
- Do not add shock to the ball bearing,
- Fan can be cooled by ventilation, please consider ventilated condition around the fan when using it,
- Do not carry with lead wires when handle a fan, if add huge strength to lead wires that the soldered part in fan may be shed,
- Do not use relay or other mechanical switch on power supply line, because impact voltage may damage the fan,
- Switch on/off the device by the control input,
- Evaluate the fan refer to this specifications. If the load or power supply voltage of the motor should be changed, please contact with us.

Others

- The intellectual asset of the fan in the form of patent belongs to our corporation so any patent problem will not be caused during the actual application. Our corporation will not be responsible for any patent dispute or problem that caused by the product method and new technique project which are developed by using this fan,
- It should be assured that this specification can not be revealed to any third party without the consent of our corporation,
- Materials of motor contain six substances Pb Cr (VI+) Cd Hg PBB and PBDE those contents comply with the RoHS instruction,
- The company reserves the right to make modifications and changes.

Product drawing



Line	Connection	Color	Function
1	L	brown	Single-phase 50/60 Hz
	N	blue	
	PE	yellow / green	Protective earth
2	+10V	red	+10V output
	0-10V/PWM	yellow	Speed control input
	GND	blue	GND
	Tach	white	Tach output EC072, EC092: 1 pulse/R EC102, EC137: 12 pulse/R

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Notes on various control possibilities and their applications