Model No. B3P190-EC072-101

EC Backward Curved Centrifugal Fan+



Technical data

Voltage [1]	AC 230 [V]
Frequency	50/60 [Hz]
Speed	3200 ±10% [min^{-1}]
Power nom. / Current nom.	70 [W] / 0.53 [A]
Power max. / Current max	87 [W] / 0.68 [A]
Air flow	max. 773 [m^3/h]
Noise	70 [dBA]
Degree of protection	IP54
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 1.8 [kg]
Lead wire pulled Out strength	min. 20
Balancing grade	G 6.3
L10 life	min. 40.000 [h]
Impeller material	PA66

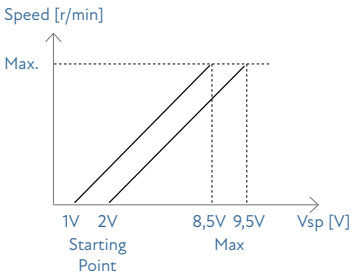


Fig. 1

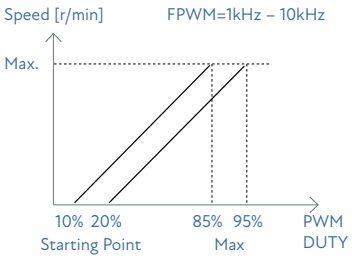


Fig. 2

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

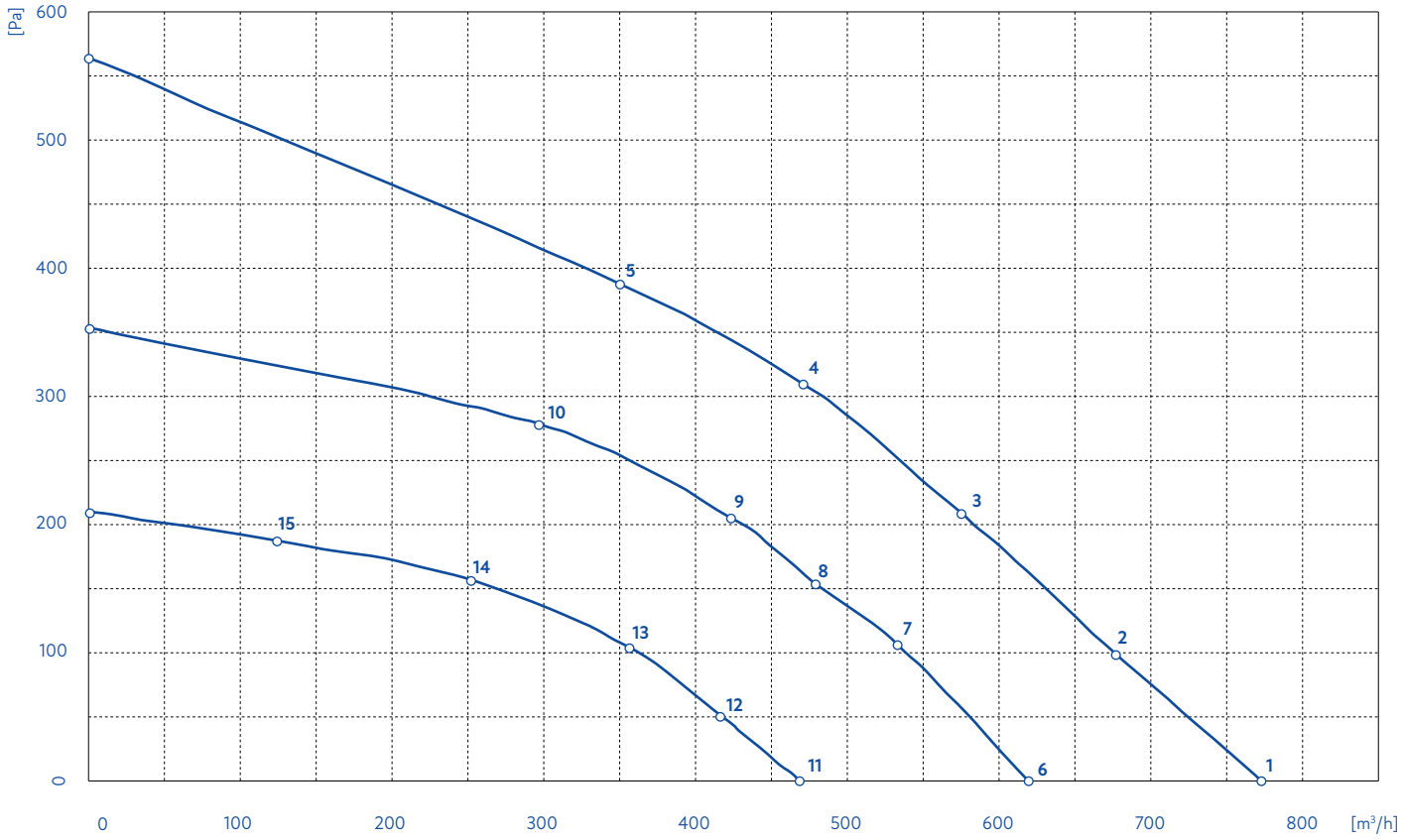
[5] Duty 30% ~ 70%, +10V, tach output 10KΩ, it needs 10KΩ pull-up resistance between +10V line and tach output line

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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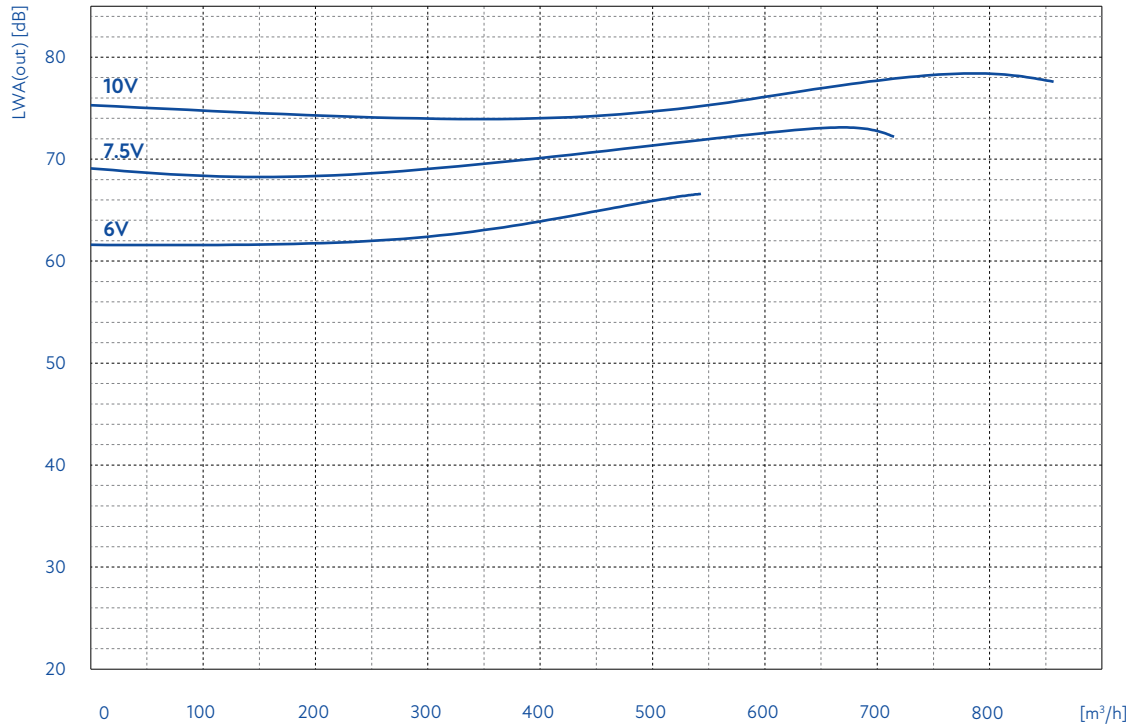
Air performance

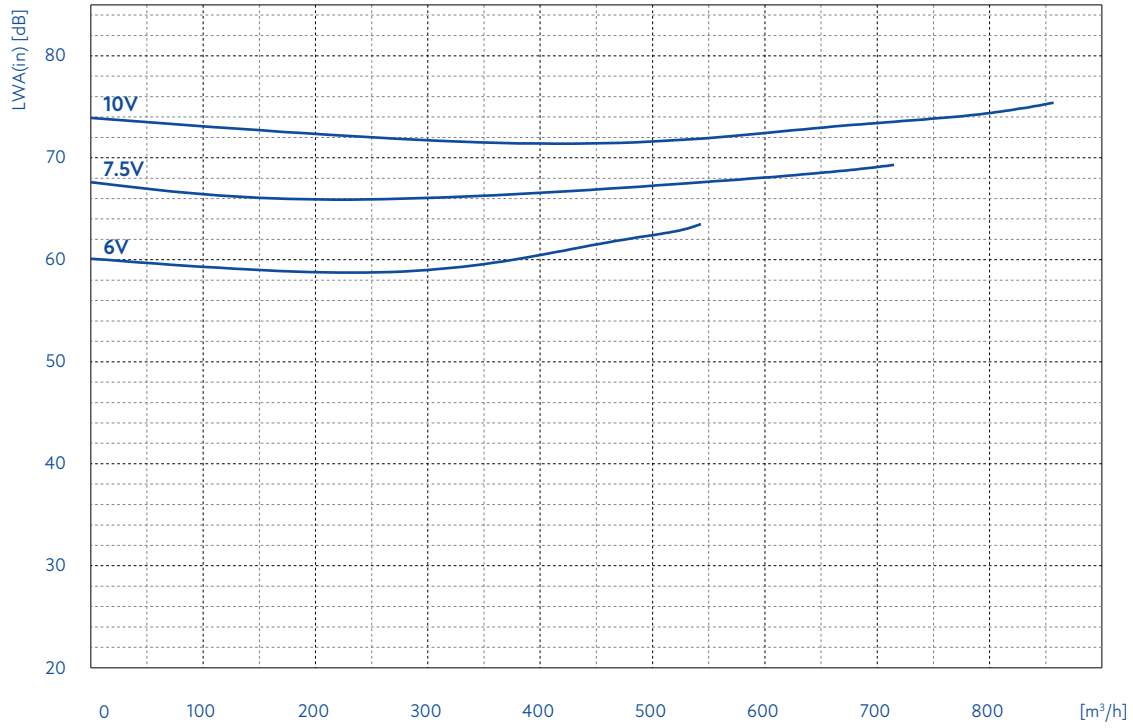


Item	Voltage [V]	Frequency [Hz]	Speed [min⁻¹]	Power [W]	Current [A]	Airflow [m³/h]	Pressure [Pa]	Vsp [V]
1	230	50	3268	72	0.57	773	0	
2	230	50	3215	79	0.62	677	100	
3	230	50	3171	83	0.65	576	209	10
4	230	50	3144	87	0.68	471	310	
5	230	50	3159	86	0.67	350	388	
6	230	50	2667	41	0.34	621	0	
7	230	50	2663	49	0.4	533	107	
8	230	50	2667	50	0.41	479	154	7.5
9	230	50	2667	53	0.43	424	206	
10	230	50	2667	53	0.44	296	278	
11	230	50	2040	20	0.2	470	0	
12	230	50	2040	23	0.22	416	52	
13	230	50	2040	25	0.22	356	104	6
14	230	50	2038	25	0.21	252	157	
15	230	50	2038	22	0.20	124	188	

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Acoustics





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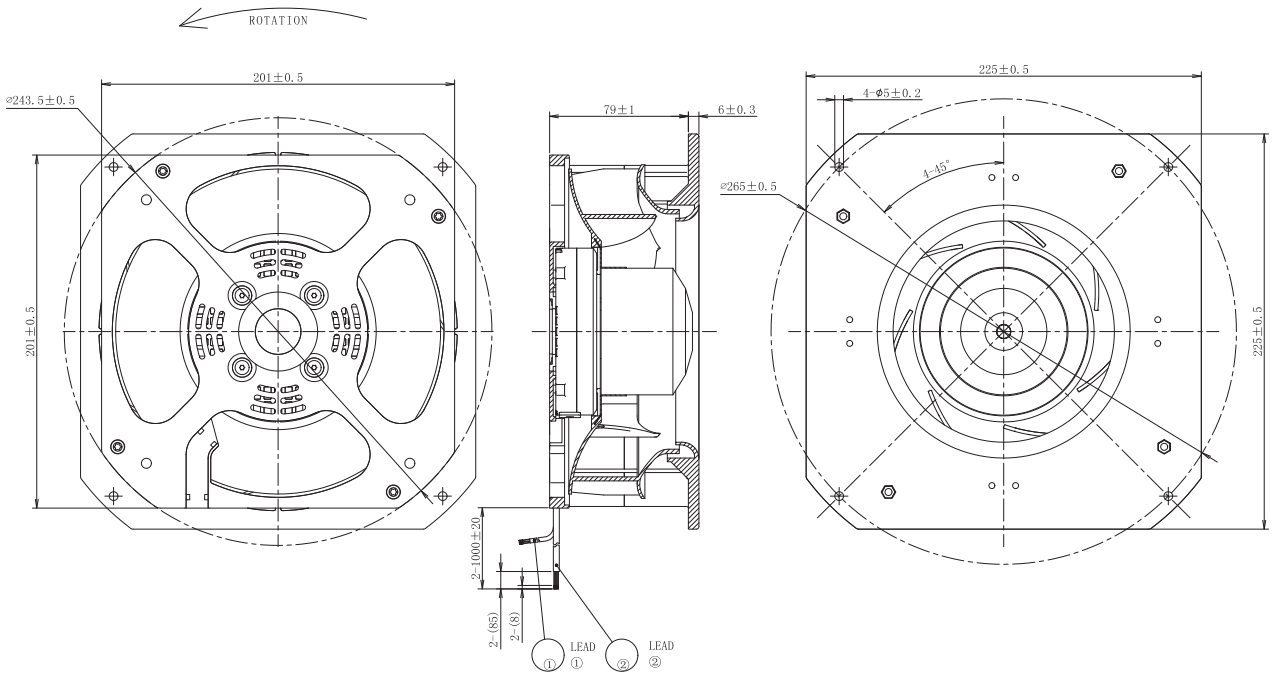
Note in use

- 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.

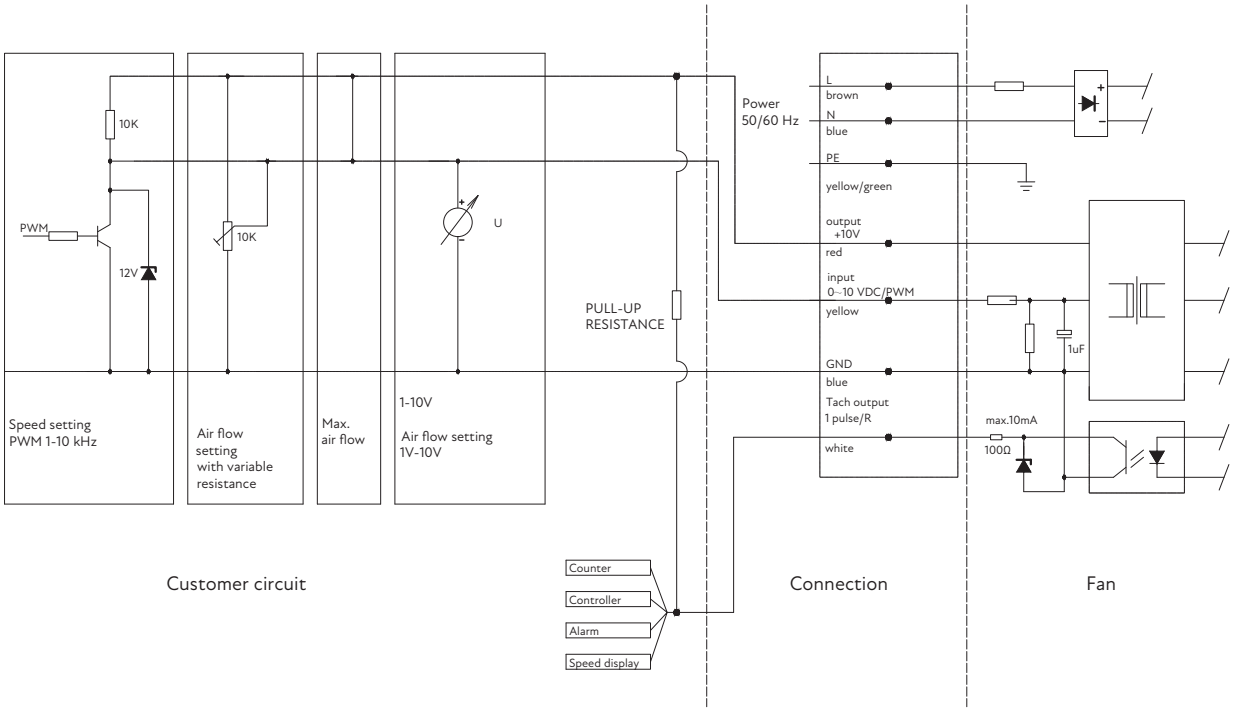
Product drawing



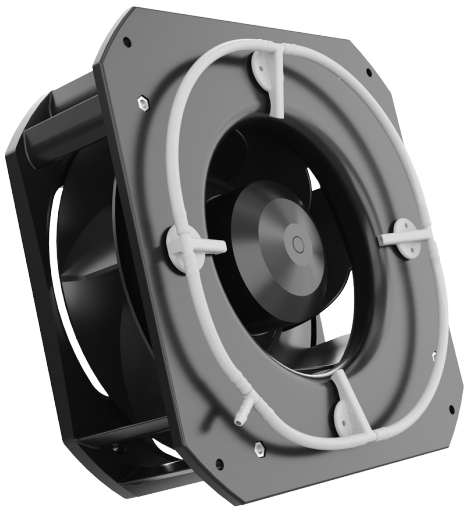
Line	Connection	Color	Function
1	L	brown	Single-phase 50/60 Hz
	N	blue	
	PE	yellow / green	Protective earth
2	+10V	red	+10V output
	0-10V/PWM	yellow	Speed control input
	GND	blue	GND
	Tach	white	Tach output EC072, EC092: 1 pulse/R EC102, EC137: 12 pulse/R

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Notes on various control possibilities and their applications



Accessories



- PMC-SET (Pressure Measuring Set)