

PRODUCT SPECIFICATION

Customer:

Name : EC Fan

Model: FL-EC800V-400-110A1-01-B

Version: V9,20230504

Edit:

Auditing:

Approval:

1.General

This specification defines the general data, mechanical, electrical characteristics, environment and experiment, performance curve, Outline Drawing and precautions of the EC brushless external rotor motorized axial fan and so on.

Standard:

GB 12350-2009 《Safety requirements of small power motors》

GB/T 21418-2008 《General specification for permanent magnet brushless motor system》

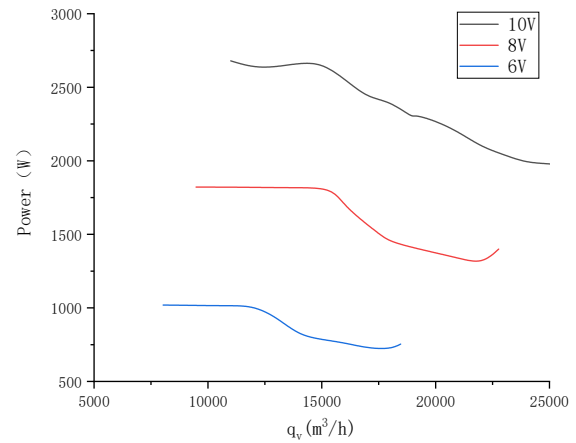
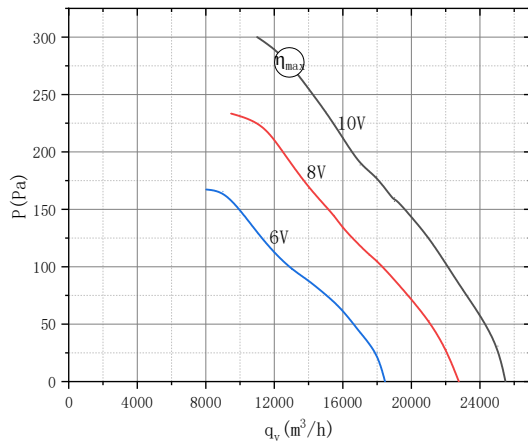
JB/T 10562-2006 《General technical requirement for general axial fan》

2、General Data

No.	Name	Parameter
2.1	Max Air Flow	25500 m ³ /h
2.2	Rated Speed	1020 r/min
2.3	Input Power	2100W
2.4	Rated Voltage	400V
2.5	Operating Voltage	380-480 VAC
2.6	Start Voltage	≤300VAC
2.7	Rated Current	≤4.1A
2.8	Noise Level	≤83dB(A)
2.9	Direction	CCW(seen on rotor of motor)
2.10	Insulation Class	F
2.11	Speed Control	0~10VDC & PWM & Modbus RTU
2.12	Grounding Resistance	≤0.1 Ω

No.	Name	Parameter
2.13	Withstand voltage	Voltage:1800VAC 50Hz Tripping current:10mA Time: 60 s
2.14	Insulation Resistance	Voltage:500VDC Resistance: $\geq 50M\Omega$
2.15	Electrical Protection	Undervoltage protection Overvoltage protection Overcurrent protection Locked rotor protection Automatic restart capability Soft start
2.16	IP Class	IP54
2.17	RoHS	All the material meets RoHS standard.
2.18	Impeller	Aluminum alloy,Grey
2.19	Grid, Square frame	Iron,Black
2.20	Bearing	Deep groove ball bearings
2.21	Weight	50Kg
2.22	Package	Carton+ pallet
2.23	Operating Temperature	-40℃ to 60℃
2.24	Operating Humidity	5% to 90% RH
2.25	Electric Wire	RV90,4-1.5mm ² , Length 7000mm
2.26	Control Wire	RV90,5-0.3mm ² , Length 7000mm

3、Performance curve and Rating plate



FL-EC800V-400-110A1-01-B

380-480V 50/60Hz 1800/2100W 1020r/min CL.F IP54

Erp2015(N40) N=43.4 $\eta_{statA}=39.8\%$

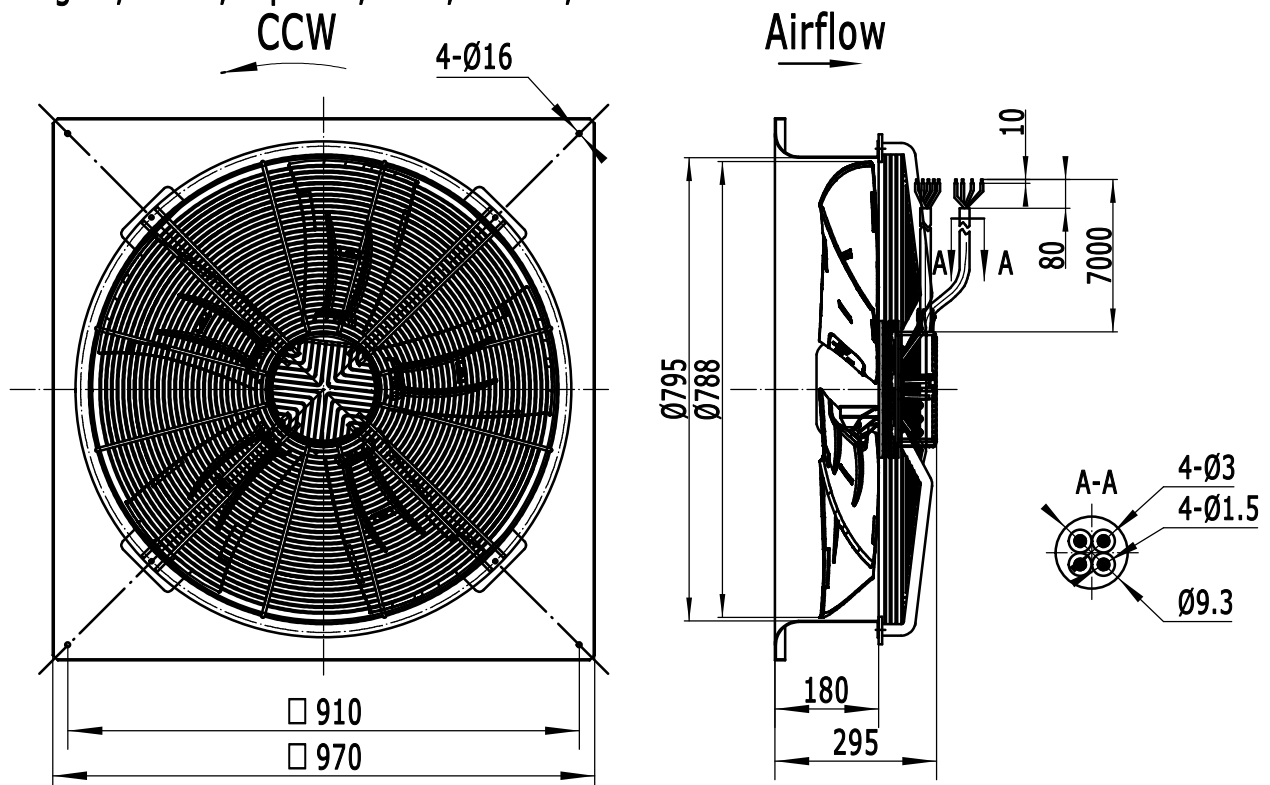
Blk:L1 Bro:L2 Blu:L3 Yel-Gre:PE

Red:+10VDC Output Gre:A+ Yel:B- Whi:GND Blk:Ain XX/XX EPFR



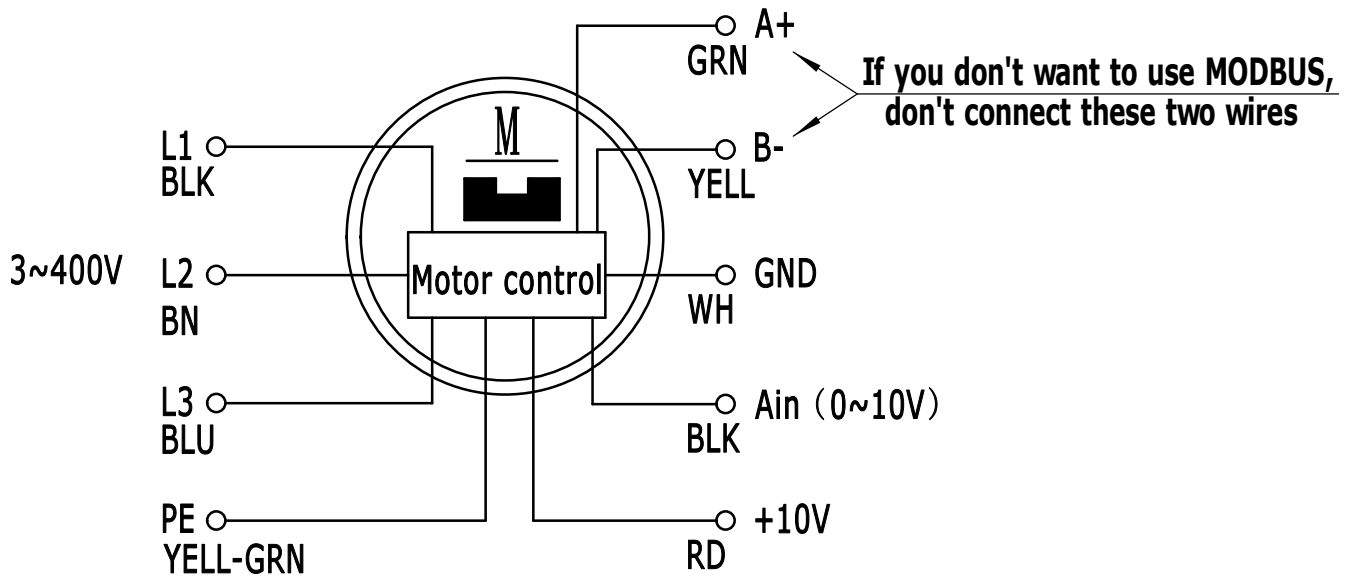
4、Outline Drawing

Painting of grid,frame,impeller,bolts,screws,motor with EXTRA PROTECTION FOR RUST.

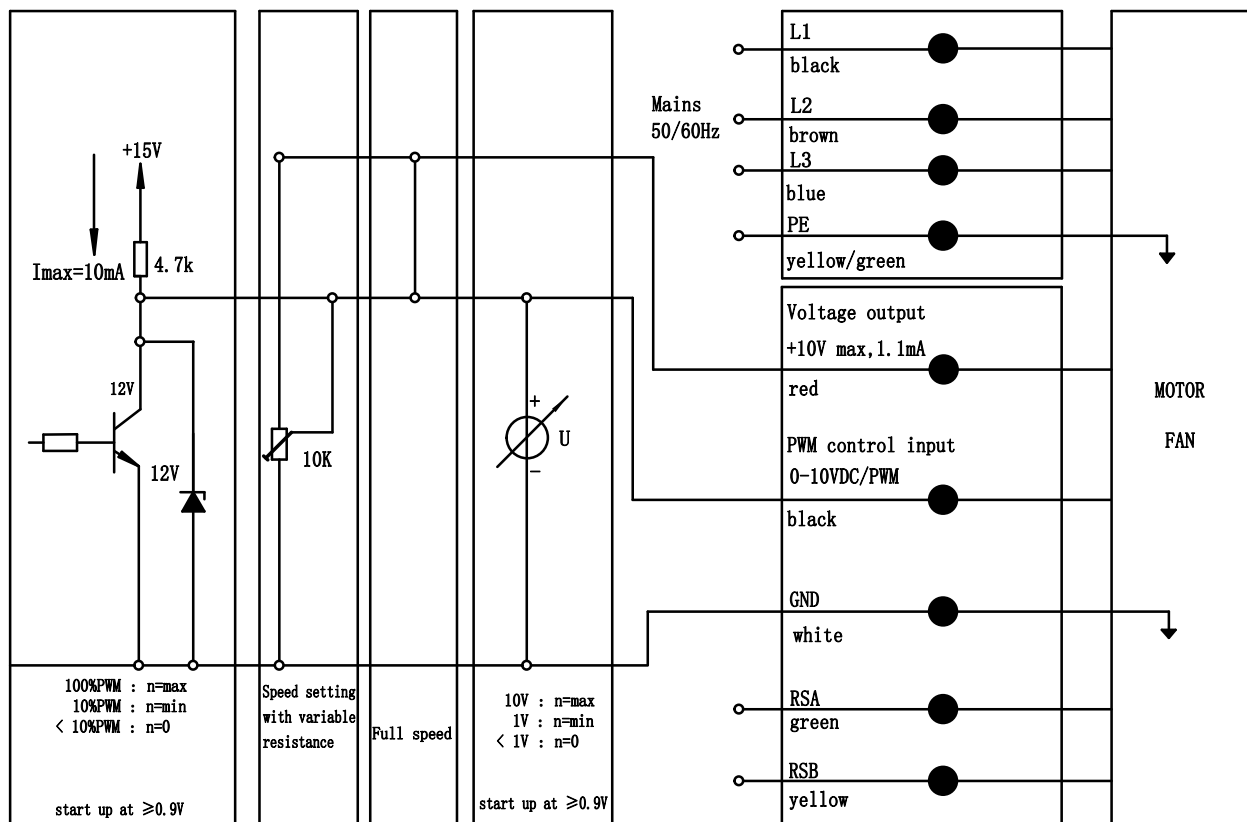


5、Connection Diagram

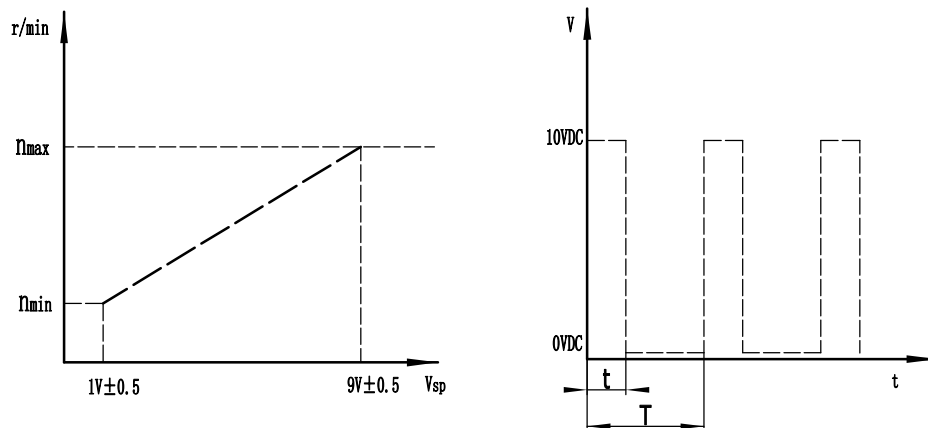
(1). Motor connection diagram:



(2).Interface Circuit:



(3). Speed control signal diagram:



3.1. The speed control signal: 0~10VDC /PWM

3.2. At full speed, speed wire can be directly connected with 48VDC or 24VDC or 12VDC or 10VDC direct line.

3.3. PWM frequency 1~10kHz, duty cycle 0~100%. The speed control signal of support for 0.9~10VDC Analog voltage pulse with PWM compatible.

6、Precautions

6.1、The fan can be operate after the yellow and green wire of the fan connecting the ground effective, High risk, to prevent grounding caused by electric shock or not affected operation.

6.2、The red, black, white, yellow, green lines of the fan are not allowed to access the high voltage ac power supply, to prevent burn out the fan.

6.3、Green line prohibits direct connection red + 10 VDC or external dc power supply voltage output line. You need to connect an external resistor when you want the Square wave speed signal output. Details see the connecting screen.

6.4、Fan may need to wait for a few seconds after the power supply to start running, ban after electrify immediately touch wind turbines or touch under low speed wind turbines, to prevent personal injury.

6.5、Please read carefully the "technical specification before use the product".