SPECIFICATION

MODEL
K-EC190-K230-38K

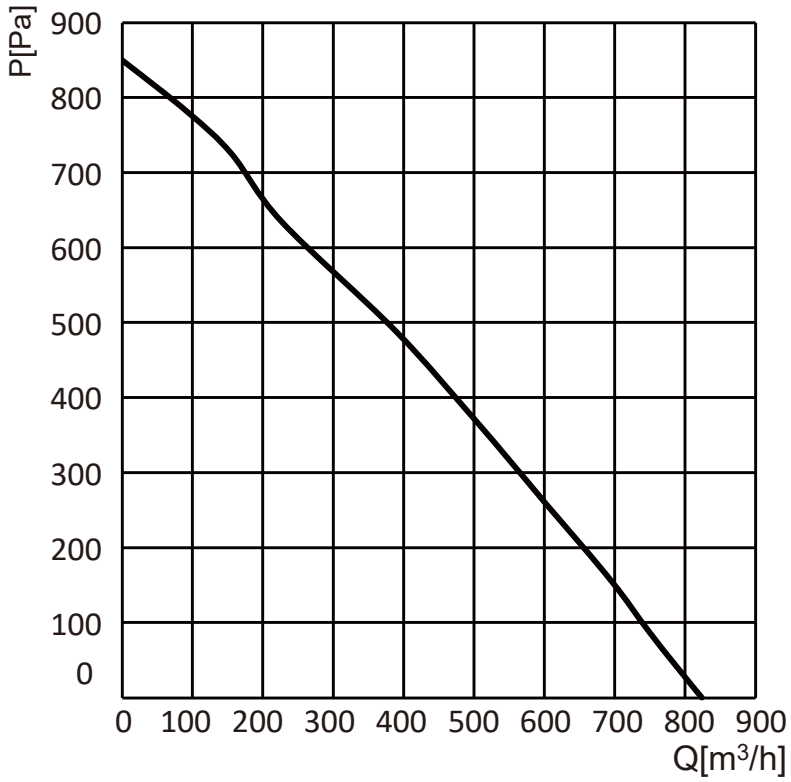
1.Technical Data

Item	Specifications
Phase	1~
Voltage	230VAC
Voltage Range	184~276VVAC
Frequency	50/60Hz
Speed	3800±5%RPM
Max.Input Power	115W
Max.Input Current	0.9A
Noise	78dB-A
Max.Ambient Temperature	+60℃
Min.Ambient Temperature	-25℃

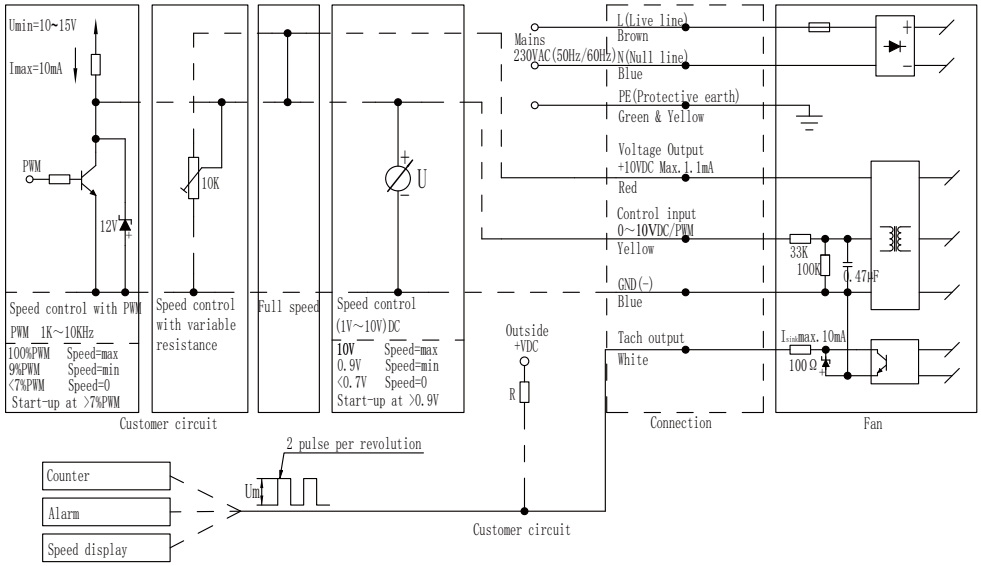
2.Mechanical Requirements

Item	Specifications
Dimensions	226×226×88.5
Motor Size	72
Impeller Material	PA6+GF
Number of Blades	7
Air Flow Direction	Surrounding Wind
Rotation Direction	Clockwise(viewed from the rotor end)
Surface Treatment Nethod of Rotor	Electrophoresis(black)
Rotor Casing	Stretch
Insulation Level	Class F
Protection Level	IP55
Max.Storage Temperature	+80℃
Min.Storage Temperature	-40℃
Operating Humidity	5%~90%RH
Storage Humidity	5%~95%RH
Installation Location	Any
Operation Mode	S1 Continuous operation
Bearing	Ball bearings (high temperature)
Technical Characteristics	(1)10VDC output,maximum current 10mA(2)0-10VDC/PWM control input,PWM amplitude recommended 10VDC(3)Locked rotor protection(4)Overheat protection(5)Overvoltage protection; (6)Undervoltage protection(7)Overcurrent protection(8)Soft start
Cable Length	3000±100mm
Electrical Strength	AC1800V, 50Hz for 1 second, leakage current ≤ 10mA, no breakdown or flashover phenomenon.

3.Performance Curve

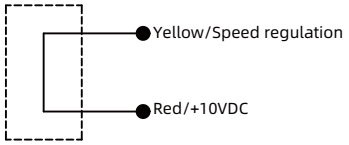
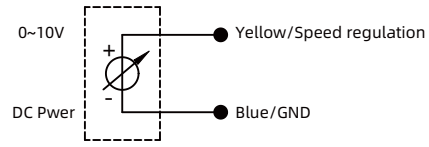
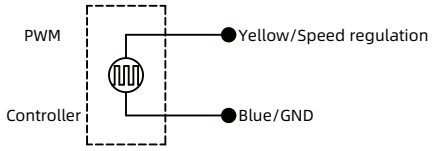
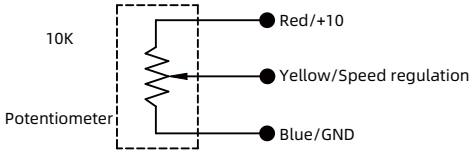


4.Wiring Diagram

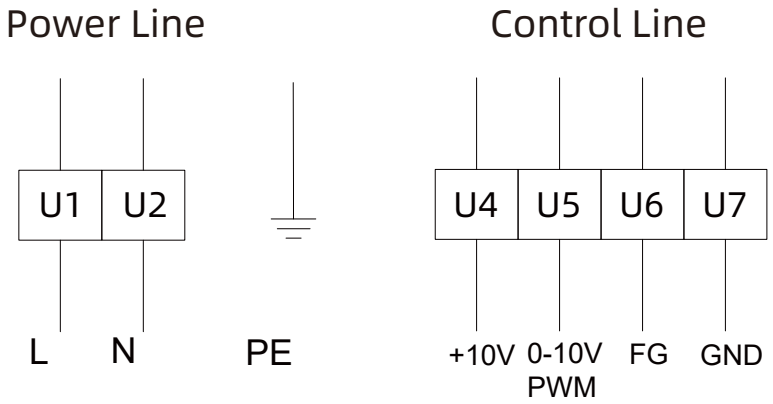


Lead Wire	Connect	Name	Colour	Function
Power Wire		PE	Yellow/Green	Grounding wire
	U1	L	Brown	Supply voltage, phase (fire wire)
	U2	N	Blue	Supply voltage, phase (zero wire)
Control Wire	U4	+10V	Red	Fixed output voltage 10VDC ± 5%, Imax. 10mA, supply voltage for external devices (such as potentiometers); SELV
	U5	Speed regulation	Yellow	0-10V/PWM (PWM recommended amplitude 10V) control input, SELV
	U6	Signal feedback	White	Speed monitoring output terminal, 1pulses/ revolution (pulse number can be customized or ch anged to RD signal); SELV
	U7	GND	Blue	Reference ground potential for controller interface, SELV

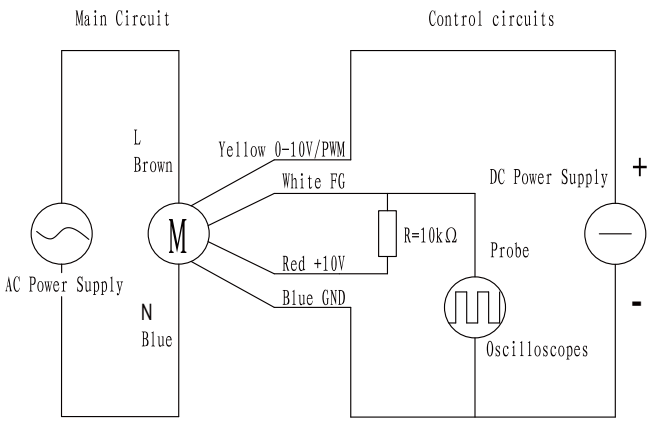
5.Speed Regulation Settings

5-1.Full speed operation	
	Red yellow short circuit The wind turbine is running at full speed
5-2.Voltage speed regulation input 0-10VDC(±0.2V)	
	Using a DC power supply requires support for voltage regulation of 0-10VDC The fan starts when the voltage is higher than 1.0VDC The fan stops when the voltage is below 0.5VDC The starting voltage of the fan needs to be greater than 1.0VDC
5-3.PWM speed regulation, PWM frequency 1K~10K, recommended amplitude 10V, duty cycle 0%-100%(±2%)	
	PWM duty cycle control PWM recommended amplitude 10VDC (± 5%) PWM frequency 1KHz~10KHz When the PWM duty cycle is higher than 10%, the fan starts When the PWM duty cycle is less than 5%, the fan stops The PWM duty cycle for fan startup needs to be greater than 10% PWM
5-4.Potentiometer speed regulation	
	Suggest using a 10K potentiometer for speed regulation The fan starts when the voltage is higher than 1.0VDC The fan stops when the voltage is below 0.5VDC The starting voltage of the fan needs to be greater than 1.0V DC

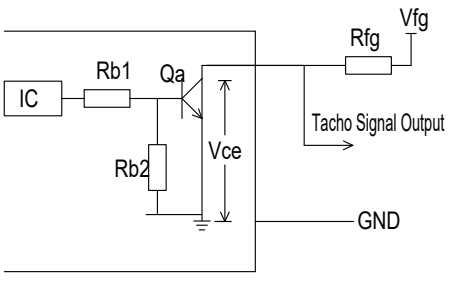
6.Wiring Labels



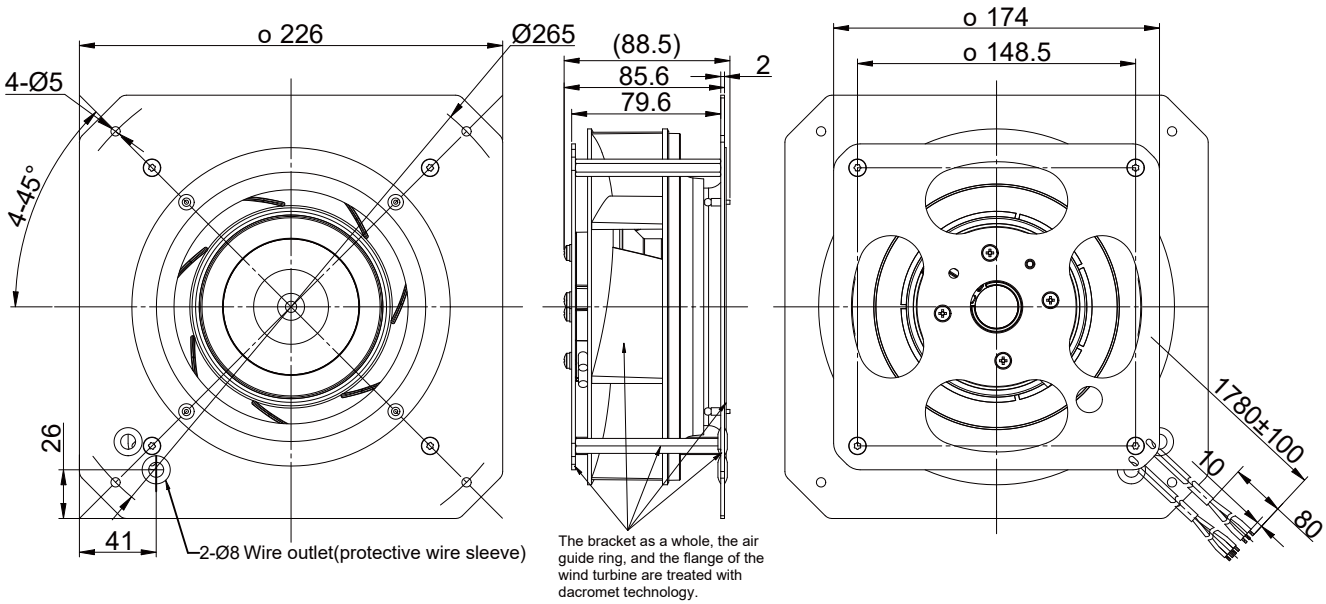
7.Signal Feedback Wiring Diagram



The fan has a speed output signal, and the waveform of the output signal is shown in the following figure; Vfg and pull-up resistance are the external parts of the customer, with Vfg=(3.3-30) VDC and R ≥ 1000 × (Vfg) Ω.



8.Outline Drawing



The bracket as a whole, the air guide ring, and the flange of the wind turbine are treated with dacromet technology.