EC Backward Centrifugal Fan

LWBE3G400-138PT-04

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Model No.:	LWBE3G400-138PT-04
Version Number:	A0
Make :	Zhong
Review :	Jiang
Approvd :	Yao
Date:	2023.11.09

技术专用
朗伟电器

Version number	Notes Remarks	Reason content	Revised by	Date

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Nominal Data

Project1	Unit	Value
Nominal Voltage	[VAC]	3-380
Voltage Range	[VAC]	304~456
Frequency	[Hz]	50/60
Speed	[rpm]	2060±5%
Rated Current	[A]	2.4±10% (3.3A MAX.)
Rated Power	[W]	1100±10%
Maximum Input Power	[W]	1480±10%
Air Flow (Max)	[m3/h]	7459
	[CFM]	4388
Static Pressure (Max)	[Pa]	882
Noise Level (LpAin)	dB(A)	77
Max.Ambient Temp	℃	60
Min.Ambient Temp	℃	-25
Insulation Class		Class F
Protection Type		IP54
Work System		S1

Technical Features

Production Reference Standard	GB12350《Safety requirements of small power motors》 JB/T10563《technical specification for general purposes centrifugal fans》 EN60335-1《Household and similar electrical appliances-safety》 ISO5801-1997《Industrial fans-performance testing using standardized airways》 GB/T2888《Methods of Noise Measurement for Fans Blowers Compressors and Roots Blowers》
Certification	CE
Environmental Protection	RoHS, Reach

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Technical Features

Service Environment	Operating temperature: -25~60℃ ; Operating humidity: 0 ~ 85% RH Storing temperature: -25 ~ 70℃ ; Storing humidity: 0 ~ 95% RH Applicable altitude range: ＜1000m
Life Expectance	40,000Hours(L10). At 40℃ room, humidity 15%~65%RH
Balancing	According to JB/T 9101-1999 requirements G6.3
Vibration Of The Fan	Test method accord with JB/T 8689
Installation Method	Horizontal or vertical installation
Material	Aluminum Alloy (Impeller)
Bearing	Maintenance-free deep groove ball bearings
Weight	/

Electrical Protection

Speed Control	Control input 0~10VDC(RS485 external control box can be connected)
VSP Control	Control signal VSP voltage range 1.5±0.1VDC~9.5±0.2VDC (During normal operation, when the VSP voltage is below 0.9±0.1VDC, the motor switches from operating mode to standby mode)
Signal Output	Tach output: 15 Pulse/R; FG internal open circuit output, external pull-up resistor R, pull-up voltage V+
Auxiliary Power Output	Output 10±0.3VDC, Max Current: 10mA
Protection	Current limiting protection, Over-temperature protection, Over-current protection Locked-rotor protection, Input power supply lacks phase protection
Soft Start	Delay time <35 seconds to full speed
Serial Communication	LWRS485-04

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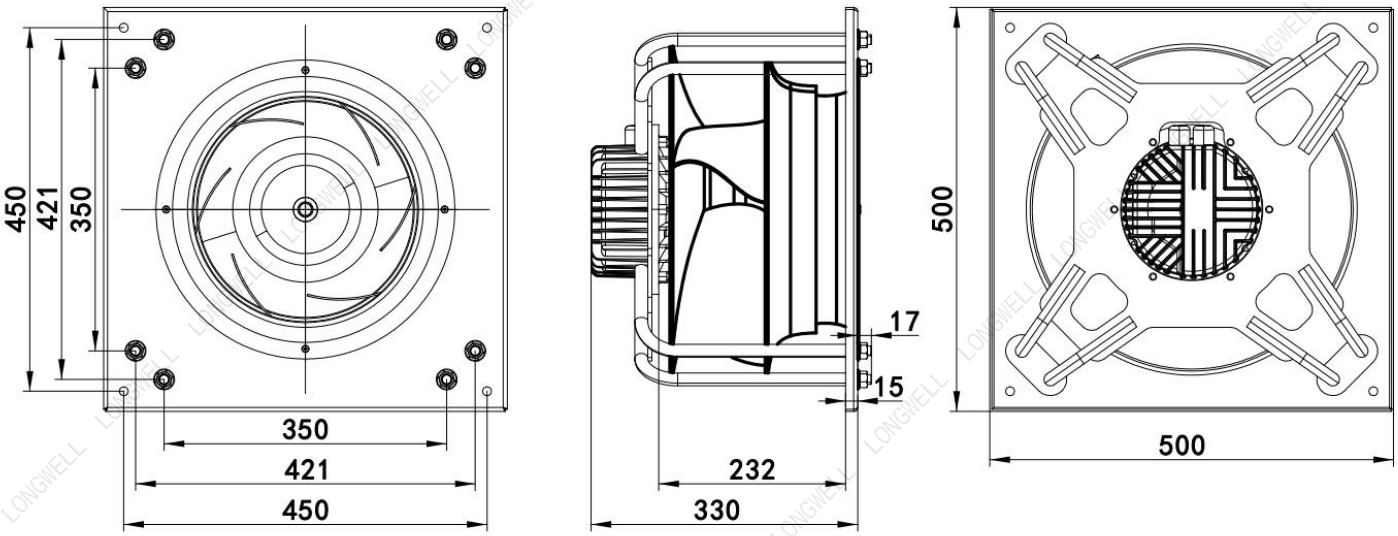
Product Drawing



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Wiring Diagram

L	Color	Function	Functional description	AWG
L1	Yellow/Green	PE	Ground lead	UL21412 16AWG
	Brown	U	Three-phase power supply terminal Voltage	
	Black	V		
	Blue	W		
L2	Orange	Speed Control	Speed regulation signal input terminal,0-10VDC voltage	UL2464 20AWG
	Brown	FG	Velocity feedback pulse output 15 Pulse/R	
	Red	+10VDC	Fixed voltage output 10VDC	
	Black	GND	Ground reference end of control signal	

Label

Confirm by sales team when placing sample order or bulk order

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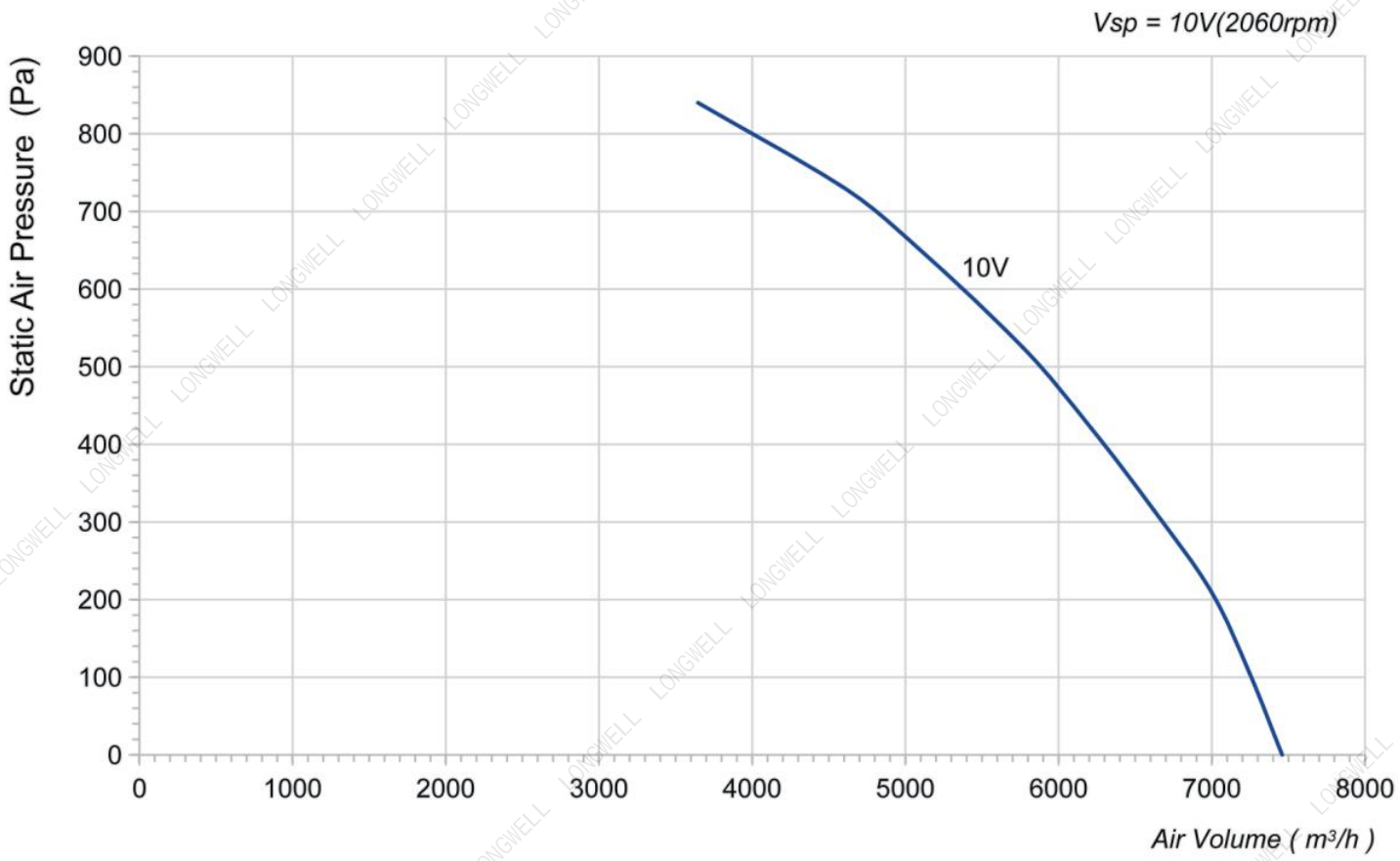
Charts :Air Flow (P-Q)



VSP	Voltage(V)	Speed(RPM)	Power input(W)	Airflow(m^3 /h)	Static pressure(Pa)
10V	400	2060	1100	7459	0
	400	2060	1210	7247	105
	400	2060	1270	6997	210
	400	2060	1372	6622	315
	400	2060	1420	6216	420
	400	2060	1473	5766	525
	400	2060	1472	5194	630
	400	2060	1479	4914	683
	400	2060	1482	4563	735
	400	2060	1340	3646	840

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Warning:

1.The fan and motor must be used within the prescribed scope of temperature and humidity otherwise it will cause an unexpected damage.

2. Fan is not set wrong connection protection，Provide the right voltage and line sequence according to the nameplate otherwise it will damage the product.

3. Wiring depends on the wiring diagram and please connect the earth ground if required. We don't suggest to use the extension cord .Any wrong connection may cause the damage of the fan.

4. Be careful when moving the fan and do not take the blades as a handle because it will cause the distortion and chatter.

5. Connect the thermostat if required otherwise it would damage the motor because of the over temperature.

6. The length of the mounting screws shall not exceed the requirement, otherwise the fan will be damaged.

7. Do not disassemble the fan arbitrarily. It may hurt the capacity of water tightness and dynamic balance or cause other serious problems.

8. The over current protector is necessary in case the damage from the over current.

9. Install the fan as required, any other installing direction would affect the service life of the product.

10. The fan with inlet ring should be installed follow the requirements or it will affect the performance.

11. Users should use the standard cable when install the fan otherwise it will affect the water tightness.

12. The fan should keep away from the children especially the blade and electric parts .And the children are not allowed to operate the fan alone.

13. Do not connect the white signal cable directly to the red signal cable or the external DC power supply. Otherwise, the fan may be damaged.T

14.Please do not perform extraction and insertion of the connector under revolution irrespective of power on and power on and power off , and the fan should not touch or move when running.

15. Do not lift the fan wire when taking the fan, and do not impact the bearing during the handling process.

16. The version change may not be notified, please ask our company for the latest version when necessary.

17.Please be informed that we are not responsible for any damage or accidents caused by violating above rules to install and operate the fan.

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Approval

CUSTOMER APPROVAL

CUSTOMER SIGNATURE:	DATE:

Product Data Confirm:

Speed Control System:

☐ 0-10V

Accessories:

☐ Air Inlet Cone ☐ Pressure nozzle ☐ Custom wire length

Note: Please check and mark the data when you sign the specification sheet

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