SPECIFICATION FOR APPROVAL FOR REFERENCE

CUSTOMER : TBD

DESCRIPTION : AXIAL FAN

DIMENSIONS : 80mm*80mm*38mm

PEAK MODEL : A8038BBMNG2400SR

PEAK PART NO. : CF803800RG0000A0

VERSION : X0

Please send us back one copy as soon as you affirmed this specification, With your signed approval in order to make quick arrangement for product

Issued:	Checked:	Approved:	Customer Approved:	ISSUE DATE	2024.10.10
Chaomin.Yuan	Yangyang.Xu	Andy.Li		REVISION DATE	

No. 258 Dongping Road, Bacheng, Kunshan, Jiangsu, China

TEL: 0512-57880361

FAX: 0512-50368883

http: www.elepeak.com

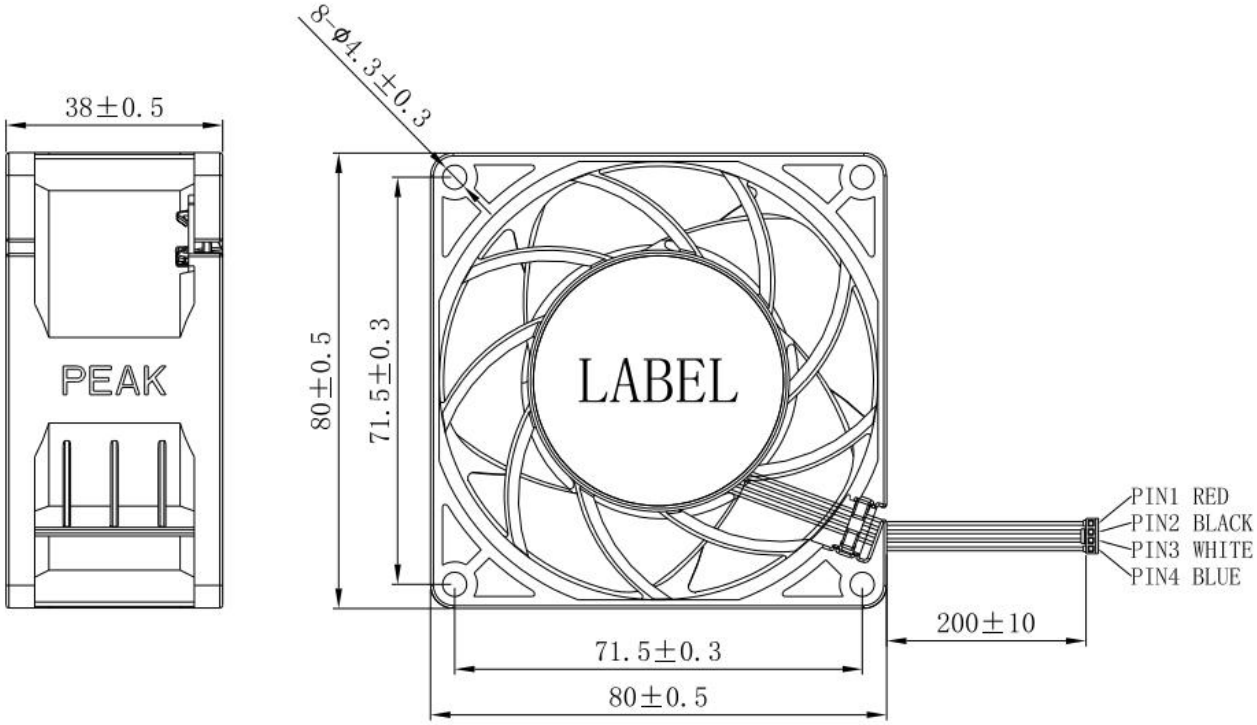
1. SCOPE:

THIS SPECIFICATION DEFINES THE ELECTRICAL AND MECHANICAL CHARACTERISTICS OF THE DC BRUSHLESS FAN.

2.CHARACTERS:

ITEMS	DESCRIPTION	
BEARING SYSTEM	Ball Bearing	
DIRECTION OF ROTATION	Clockwise(viewed from the label side)	
MATERIALS OF FRAME	Plastic	
MATERIALS OF FAN BLADE	Plastic	
RATED VOLTAGE	12V	
MINIMUM STARTING VOLTAGE	9V	
OPERATION VOLTAGE	10.8~13.2V	
RATED CURRENT (IN FREE AIR)	0.6(MAX : 0.72) A	
RATED POWER (IN FREE AIR)	7.2(MAX :8.64) W	
CURRENT ON LABEL (IN FREE AIR)	0.84A	
SPEED @100% Duty(IN FREE AIR)	8200±10% RPM	
SPEED CONTROL TYPE	PWM CONTROLLER	
SIGNAL OUTPUT	ROTATE DETECTION (RD)	
AIR FLOW(AT ZERO STATIC PRESSURE)	69.2(Min : 62.3) CFM	117.(Min : 105.9) m^3/ h
AIR PRESSURE(AT ZERO AIRFLOW)	35(Min : 29) mm-H2O	351(Min :285) Pa
	1.41 (Min : 1.14) inch-H2O	
ACOUSTIC NOISE	54.5 (Max : 58.5) dB - A	
INSULATION RESISTANCE	10 MEGA OHM MIN. AT 500 VDC (BETWEEN FRAME AND (+) TERMINAL)	
DIELECTRIC STRENGTH	5 mA MAX. AT 500 VAC 60Hz ONE MINUTE, (BETWEEN FRAME AND (+) TERMINAL)	
LIFE EXPECTANCE(L10)	70000HRS AT 40°C ROOM,HUMIDITY 15%~65%RH	
OPERATING TEMPERATURE	-10 TO +70 °C	
STORAGE TEMPERATURE	-25 TO +75 °C	
OPERATING HUMIDITY	5 TO 90 % RH	
STORAGE HUMIDITY	5 TO 95 % RH	
WEIGHT	217 g (REF.)	

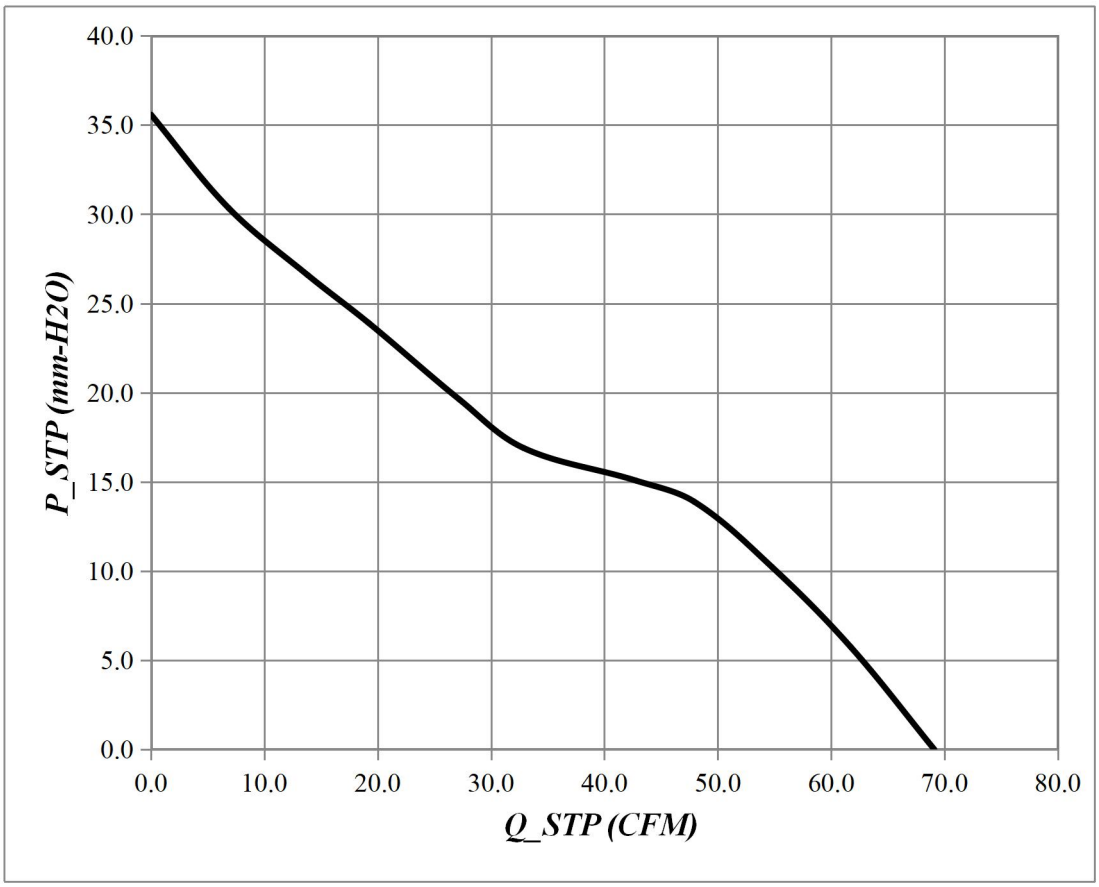
DIMENSION DRAWING



NOTES:

1. HOUSING：JS-3025S-4P
2. LEAD WIRE: UL10368 AWG24#
   PIN1：RED WIRE ------ (+)
   PIN2：BLACK WIRE ------ (-)
   PIN3：WHITE WIRE ------ (RD)
   PIN4：BLUE WIRE ------ (PWM)
3. FRAME TYPE: FLANGE
4. UNITS: mm
5. THIS PRODUCT IS RoHS COMPLIANT

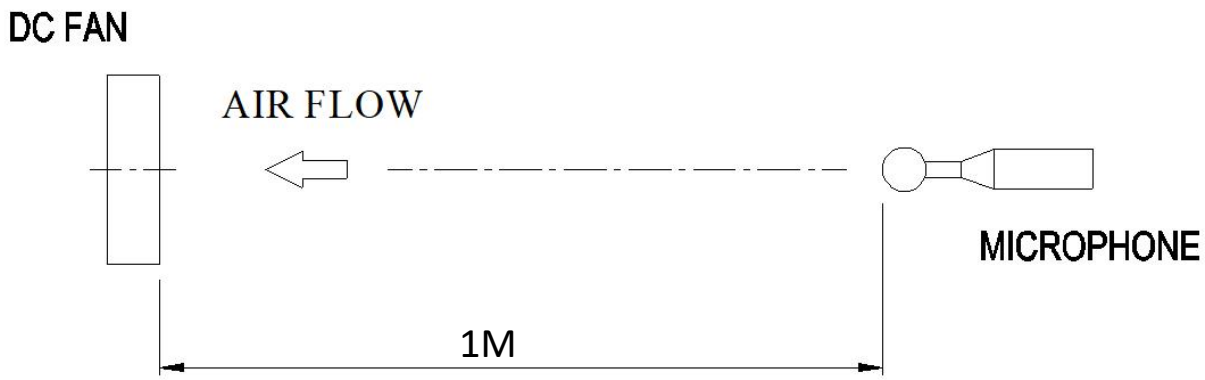
PQ CURVE



TEST CONDITION: INPUT VOLTAGE-----OPERATION VOLTAGE
TEMPERATURE-----ROOM TEMPERATURE
HUMIDITY-----65%RH

ACOUSTIC NOISE MEASURING

MEASURED IN A SEMI-ANECHOIC CHAMBER WITH BACKGROUND NOISE LEVEL BELOW 18dB(A)



1 METER FROM MICROPHONE TO FAN INTAKE

THE FAN IS RUNNING IN FREE AIR UNDER SHAFT HORIZONTAL CONDITION WITH THE MICROPHONE AT DISTANCE OF 1 METER FROM THE FAN INTAKE.

SPEED CONTROL FUNCTION

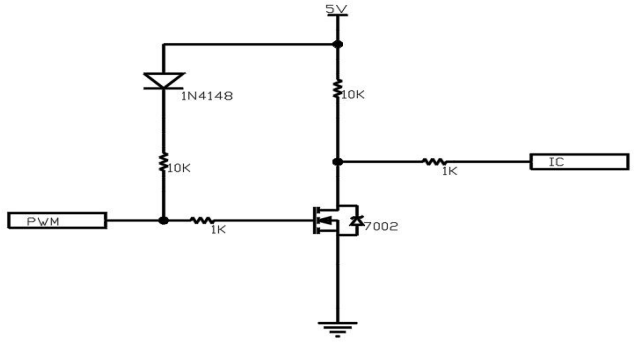
❖ PWM SIGNAL DESCRIPTION

1. CONTROL SIGNAL: PWM CONTROL
2. THE RANGE OF SIGNAL VOLTAGE: LOW LEVEL VOLTAGE: MIN. >0V , MAX.<0.5V
   HIGH LEVEL VOLTAGE: MIN. >2.8V, MAX≤13.2V
3. THE FREQUENCY OF PWM SIGNAL SHALL BE ABLE TO ACCEPT 15KHZ~30KHZ

❖ FAN SPEED CONTROL DESCRIPTION

1. FAN INPUT VOLTAGE (POSITIVE) :12VDC
2. PWM FREQUENCY :25KHZ
3. THE FAN SPEED WILL SPIN AT MAXIMUM WHEN THE DUTY CYCLE IS 100%.
4. THE FAN SPEED WILL SPIN AT MINIMUM RPM WHEN THE DUTY CYCLE IS 0%
5. THE FAN SPEED WILL SPIN AT 0~8200 RPM WHEN THE DUTY CYCLE IS 0~100%
6. THE FAN SPEED WILL SPIN AT MAXIM UM WHEN THE LEAD WIRE OF PWM SIGNAL DISCONNECTED
7. THE FAN WILL BE ABLE TO START WHEN THE DUTY CYCLE IS 0%

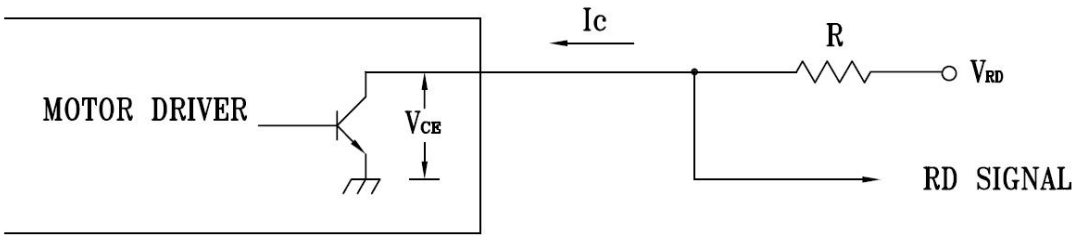
❖ PWM CONTROL LEAD WIRE INPUT IMPEDANCE:



❖ PWM DUTY CYCLE VS. RPM(AT Ta=25°C)

Duty Cycle (%)	R.P.M(REF.)	Current(A)
0	1600±400	0.03
100	8200±10%	0.60

ROTATION DETECTOR (RD) SIGNAL



❖ **SCHEMATIC**

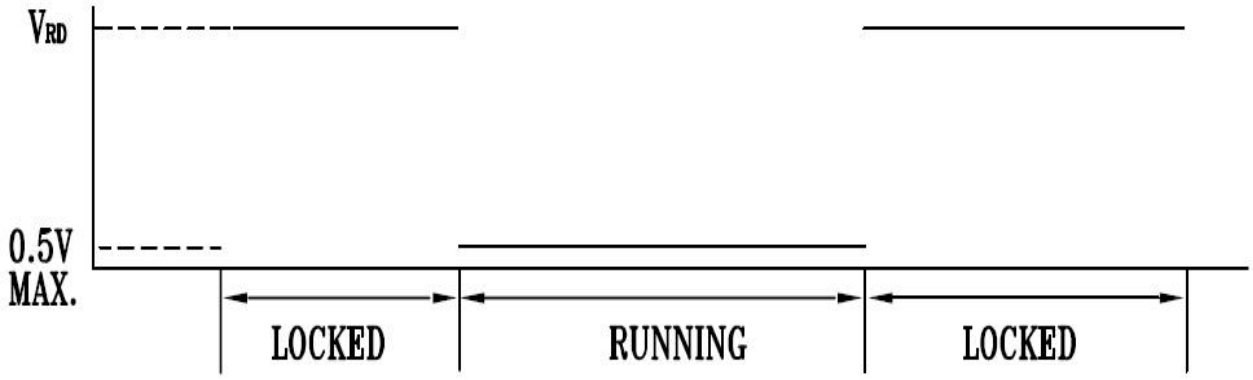
CAUTION:

THE LEAD WIRE OF RD SIGNAL CAN NOT TOUCH
THE LEAD WIRE OF POSITIVE OR NEGATIVE.

❖ **SIGNAL SPECIFICATION**

OUTPUT TYPE: OPEN COLLECTOR
VFG MAXIMUM VOLTAGE = 13.2V
IC MAXIMUM CURRENT =10 mA
LOW LEVEL VOLTAGE = 0.7V MAX.
R ≥ VRD / IC

❖ THE WAVEFORM FOR ROTATION DETECTOR:



PRODUCT SAFETY AND USAGE INSTRUCTIONS

1. PLEASE DON'T USE THIS PRODUCT BEYOND THIS SPECIFICATION RANGE, IT MAY CAUSE PRODUCT'S BREAKDOWN.
2. BE CAREFUL WITH INSTALLING PRODUCT IN YOUR MACHINE, HIT, DROP, SHAKE MAY CAUSE PRODUCT'S MECHANISM PROBLEM.
3. DO NOT PRESS THE FAN BLADES OR HUB WHEN HANDLING THE FAN, AVOID CUSHING THE FRAME SIDE AND HITTING/PRESSING THE FAN BASE, DO NOT PULL OUT THE ROTOR/BLADES.
4. MAKE SURE THAT V(+) AND GND ARE CONNECTED CORRECTLY, OTHERWISE FAN WILL NOT START UP.
5. TOUCH IMPELLER DURING OPERATING WILL CAUSE INJURY OR FAN'S FAILURE, MAKE SURE FAN IS OPERATING ON ENVIRONMENT WITHOUT LOCKING POSSIBILITY.
6. AVOID PULLING CABLE WHEN TAKING THE FAN, IT MAY CAUSE ELECTRIC/BEARING FAILURE.
7. FANS MUST BE INSTALLED CORRECTLY, IMPROPER MOUNTING MAY CAUSE SEVERE RESONNANCE ,VIBRATION AND NOISE.
8. THE "LIFE EXPECTANCY OF THIS FAN HAS NOT BEEN EVALUATED FOR USE IN COMBINATION WITH ANY END APPLICATION. THEREFORE, THE LIFE EXPECTANCY TEST REPORTS(L10 AND MTTF REPORT) THAT RELATE TO THIS FAN ARE ONLY FOR REFERENCE.
9. THIS FAN IS WARRANTED AGAINST ALL DEFECTS WHICH ARE PROVED TO BE FAULT IN OUR WORKMANSHIP AND MATERIAL FOR ONE YEAR FROM THE DATE OF OUR DELIVERY. THE SOLE RESPONSIBILITY UNDER THE WARRANTY SHALL BE LIMITED TO THE REPAIR OF THE FAN OR THE REPLACEMENT THEREOF, AT PEAK SOLE DISCRETION. PEAK WILL NOT BE RESPONSIBLE FOR THE FAILURES OF ITS FANS DUE TO IMPROPER HANDLING, MISUSE OR THE FAILURE TO FOLLOW SPECIFICATIONS OR INSTRUCTIONS FOR USE. IN THE EVENT OF WARRANTY CLAIM, THE CUSTOMER SHALL IMMEDIATELY NOTIFY PEAK FOR VERIFICATION. PEAK WILL NOT BE RESPONSIBLE FOR ANY CONSEQUENTIAL DAMAGE TO THE CUSTOMER'S EQUIPMENT AS A RESULT OF ANY FANS PROVEN TO BE DEFECTIVE.