EVERFLOW

SPECIFICATION FOR APPROVAL

CUSTOMER	:	奎源
DESCRIPTION	:	DC Fan
EVERFLOW PART No.	:	R121225SUAF63MAR
CUSTOMER PART No.	:	N/A
SAMPLE No.	:	EF-E24100052
DOCUMENT No.	:	121085
DATE	:	2024/10/17
REVISION	:	A

CUSTOMER APPROVED BY

APPROVED BY	CHECKED BY	PREPARED BY
工程部 2024.10.18 刁荣华		Tang Rong

鑫賀 EVERFLOW PRECISION ELECTRONICS(DONGGUAN) CO., LTD.

GEKENG YANJIANG INDUSTRIAL ZONE, HENG LI TOWN, DONG GUAN CITY, GUANG DONG.

TEL: 86-0769-83796589 83796590

FAX: 86-0769-83797588 83727163

http://www.everflowtech.com

HISTORY

Rev.	DESCRIPTION	DATE
A	NEW VERSION	2024/10/17

SPECIFICATION FOR APPROVAL

1. SCOPE

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

2. CHARACTERS

No.	ITEM	SPECIFICATION
2 - 1	Rated Voltage	12.0 V DC
2 - 2	Starting Voltage	N/A
2 - 3	Operating Voltage Range	10.8 ~ 13.2 V DC Duty cycle =100%
2 - 4	Rated Current	0.35 A (Max. 0.40 A) Duty cycle =100%
2 - 5	Rated Power	4.20 W (Max. 4.80 W) Duty cycle =100%
2 - 6	Start Peak Current	N/A In Free Air & At 12 V DC
2 - 7	UL Current On Label	0.40 A
2 - 8	Rated Speed	0 RPM Duty cycle =0% 3000±10% RPM Duty cycle =100% (Testing Speed after Continuous 3 Minutes Operation at Ambient Temperature of 25°C)
2 - 9	Air Flow (At Zero Static Pressure)	99.41 CFM (Min. 89.47 CFM) 2.82 m^3/min (Min. 2.53 m^3/min) Duty cycle =100%
2 - 10	Static Pressure (At Zero Air Flow)	5.14 mm-H_2O (Min. 4.16 mm-H_2O) 0.20 inch-H_2O (Min. 0.16 inch-H_2O) Duty cycle =100%
2 - 11	Sound Pressure Level	43.0 dB(A) [Max. 45.0 dB(A)]
2 - 12	Product Type	☑ RoHS ☐ HF
2 - 13	Life Expectancy	50000 HRS at 40°C, 65% humidity and 90% CL.
2 - 14	Bearing Type	☐ Two Ball ☑ EBR ☐ Ball And Sleeve
2 - 15	Protection & Function	☑ Locked Protection ☐ Impedance Protection ☐ Hot Swap Protection ☐ Current-Limit ☑ Polarity Protection ☐ E-Brake ☑ Auto-Restart
2 - 16	Pole	☐ 4 Pole ☐ 8 Pole ☑ Three Phase
2 - 17	Signal Output	Frequency Generator (FG)
2 - 18	Safety Approval	☑ CE ☑ TUV ☑ UL ☑ UKCA

3. MECHANICAL

No.	ITEM	SPECIFICATION
3 - 1	DIMENSIONS	SEE DIMENSIONS DRAWING
3 - 2	FRAME	☑ PBT (BLACK) PLASTIC (UL 94V-0) ☐ PC PLASTIC (UL 94V-2)
3 - 3	IMPELLER	☑ LCP (BLACK) PLASTIC (UL 94V-0) ☐ PC PLASTIC (UL 94V-2)
3 - 4	WEIGHT	193 GRAMS (REF)

4. ENVIRONMENTAL

4 - 1 OPERATING TEMPERATURE ——— - 10℃ ~ 70℃

4 - 2 STORAGE TEMPERATURE ——— - 20℃ ~ 75℃

4 - 3 OPERATING HUMIDITY ——— 5 TO 90% RH

4 - 4 STORAGE HUMIDITY ——— 5 TO 95% RH

4 - 5 DIRECTION OF ROTATION ——— ☐ CLOCKWISE

☑ COUNTER-CLOCKWISE

VIEWED FROM FRONT OF FAN BLADE.

4 - 6 DIELECTRIC STRENGTH ——— 5 mA MAX. AT 500 V AC 60Hz ONE MINUTE [BETWEEN FRAME AND (+)TERMINAL]

4 - 7 INSULATION STRENGTH ——— 10MEG OHM MIN.AT 500 VDC [BETWEEN FRAME AND (+)TERMINAL]

4 - 8 DROP TEST ——— IN MINIMUM PACKAGING CONDITION, FAN WITHSTAND EACH ONEDROP OF THREE FACES FROM 30cm DISTANCE HEIGHT ONTO 10mm THICKNESS OF WOODEN BOARD

4 - 9 VIBRATION TEST ——— TEMPERATURE: 25°C

ORIENTATION: X, Y, Z

POWER：NON-OPERATING

VIBRATION LEVEL：OVERALL gRMS = 3.2

FREQUENCY(Hz)	PSD (G^2/Hz)
10	0.040
20	0.100
40	0.100
800	0.002
1000	0.002

TEST TIME: 2 HRS FOR EACH DIRECTION

4 - 10 SHOCK TEST ——— TEMPERATURE: 25 °C

ORIENTATION: X, Y, Z

POWER: NON-OPERATING

ACCELERATION: 50G MAX.

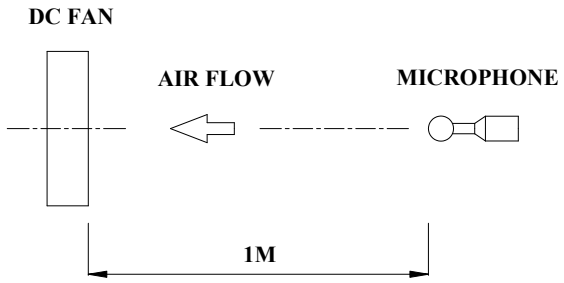
PULSE: 11 ms HALF-SINE WAVE

NUMBER OF SHOCKS: 5 SHOCKS FOR EACH DIRECTION

4 - 11 NOISE TEST ——— MEASURED IN A SEMI-ANECHOIC CHAMBER WITH BACKGROUND NOISE LEVEL BELOW 15 dB(A). THE FAN IS RUNNING IN FREE AIR WITH THE MICROPHONE AT A DISTANCE OF ONE METER FROM THE FAN INTAKE.

NOISE TESTER MODEL:

AWA14411



5. NOTES

5 - 1 EVERFLOW SHALL NOT GUARANTEE THE PERFORMANCE OF THE PRODUCTS IF THE APPLICATION CONDITION FALLS OUTSIDE THE PARAMETERS SET FOR THE SPECIFICATION . A WRITTEN REQUEST SHOULD BE SUBMITTED TO EVERFLOW PRIOR TO APPROVAL IF DEVIATION FROM THIS SPECIFICATION IS REQUIRED.

5 - 2 THE ABOVE STANDARD SHALL BE THE SPECIFIED VALUE AT NORMAL TEMPERATURE(25 ℃) AND NORMAL HUMIDITY(60~65%) UNLESS OTHERWISE NOTED.

5 - 3 IT IS VERY IMPORTANT TO ESTABLISH THE CORRECT POLARITY, POSTIVE(+) AND NEGATIVE(-), BEFORE CONNECTING THE FAN TO THE POWER SOURCE. DAMAGE MAY BE CAUSED TO THE FANS IF CONNECTION IS WITH REVERSE POLARITY. THERE IS NO FOOLPROOF METHOD TO PROTECT AGAINST SUCH ERROR SPECIFICALLY MENTIONED IN THIS SPEC.

5 - 4 PLEASE EXERCISE CAUTION WHEN MOUNTING THE FAN, AS INCORRECT INSTALLATION MAY RESULT IN EXCESSIVE RESONANCE, VIBRATION, SUBSEQUENT NOISE, AND EVEN DAMAGED SCREW HOLES.

5 - 5 PLEASE EXERCISE CAUTION WHEN HANDLING FANS. DAMAGE MAY BE CAUSED IF PRESSURE IS APPLIED TO THE IMPELLER, OR THE FANS ARE HANDLED BY THE LEAD WIRES OR THE FAN WAS HARD-DROPPED TO THE PRODUCTION FLOOR.

5 - 6 ANY REVISIONS ON THE SPECIFICATION SHALL BE DONE BASED ON MUTUAL DISCUSSION AND AGREEMENT.

5 - 7 PLEASE ENSURE THAT ALL THE FANS ARE STORED ACCORDING TO THE SPECIFIED STORAGE TEMPERATURE LIMITS. DO NOT STORE FANS IN A HIGH HUMIDITY ENVIRONMENT. WE HIGHLY RECOMMEND CONDUCTING PERFORMANCE TESTING BEFORE SHIPPING IF THE FANS HAVE BEEN STORED OVER SIX MONTHS.

5 - 8 NOT ALL FANS ARE PROVIDED WITH THE LOCK ROTOR PROTECTION FEATURE. IF YOU IMPAIR THE ROTATION OF THE FANS THAT DO NOT HAVE THIS FUNCTION, THE PERFORMANCE OF THOSE FANS SHALL LEAD TO FAILURE.

5 - 9 EVERFLOW FANS WITHOUT SPECIAL PROTECTION ARE NOT SUITABLE WHERE ANY CORROSIVE FLUIDS ARE INTRODUCED TO THEIR ENVIRONMENT.

5 - 10 IT IS IMPORTANT TO CONSIDER SAFETY WHEN TESTING THE FANS. A SUITABLE FAN GUARD SHOULD BE FITTED TO THE FAN TO GUARD AGAINST ANY POTENTIAL PERSONAL INJURY.

5 - 11 ALL THE FANS SHALL MEET THE QUALITY INSPECTION UNDER SAMPLING PLAN MIL-STD-105E AS FOLLOWS WITH EXCEPTIONS PERTAINING TO CERTAIN SPECIAL DESIGNS. THERE IS NO GUARANTEE THAT THE PRODUCTS SHALL BE FREE FROM SAFETY PROBLEMS OR FAILURES CAUSED BY DISRUPTION DUE TO DUST, SUBMERSION INTO WATER OR ENCROACHMENT BY INSECTS INTO THE HUB.

5 - 12 ANY ITEM WHICH MAYBE NEEDED TO ADD INTO SPECIFICATION SHALL BE DETERMIND BY CUSTOMER’S PRIOR WRITTEN REQUEST. IF NO SUCH REQUEST IS MADE, FAN SHALL BE BASED ON OUR STANDARD SPECIFICATION.

5 - 13 CUSTOMER SHALL CONFIRM THE COMPATIBILITY AND RELIABILITY OF THE FAN IN THE ACTUAL SETUP OR UNIT APPLICATION. THIS INCLUDES CONFIRMATION ON SET OR UNIT LIFE, ELECTRICAL NOISE, MECHANICAL NOISE, VIBRATION, STATIC ELECTRICITY, ELECTRIC POWER NOISE, DRIFT, ELECTRIC RESONANCE BETWEEN MOTOR AND CONTROL CIRCUIT, MECHANICAL RESONANCE BETWEEN MOTOR AND CHASSIS, IRREGULAR MOVEMENT OF SET DUE TO MOTOR NOISE, IRREGULAR MOVEMENT OF SET IN STRONG ELECTROMAGNETIC FIELD, POTENTIAL DAMAGE CAUSED BY LIGHTNING SURGE AND EARTHING METHOD ETC.

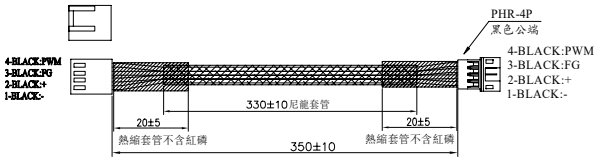
5 - 14 IF ANY ISSUE RELATING TO FAN OCCURS, BOTH PARTIES SHALL DISCUSS ON THIS SPECIFICATION, PROVIDED HOWEVER, THAT OUR GUARANTEE IS ONLY LIMITED TO FANS.

5 - 15 PLEASE BE CERTAIN TO CONNECT AN “4.7 μF OR GREATER” CAPACITOR TO THE FAN EXTERNALLY WHEN THE APPLICATION CALLS FOR USING MULTIPLE FANS IN PARALLEL TO AVOID ANY UNSTABLE POWER.

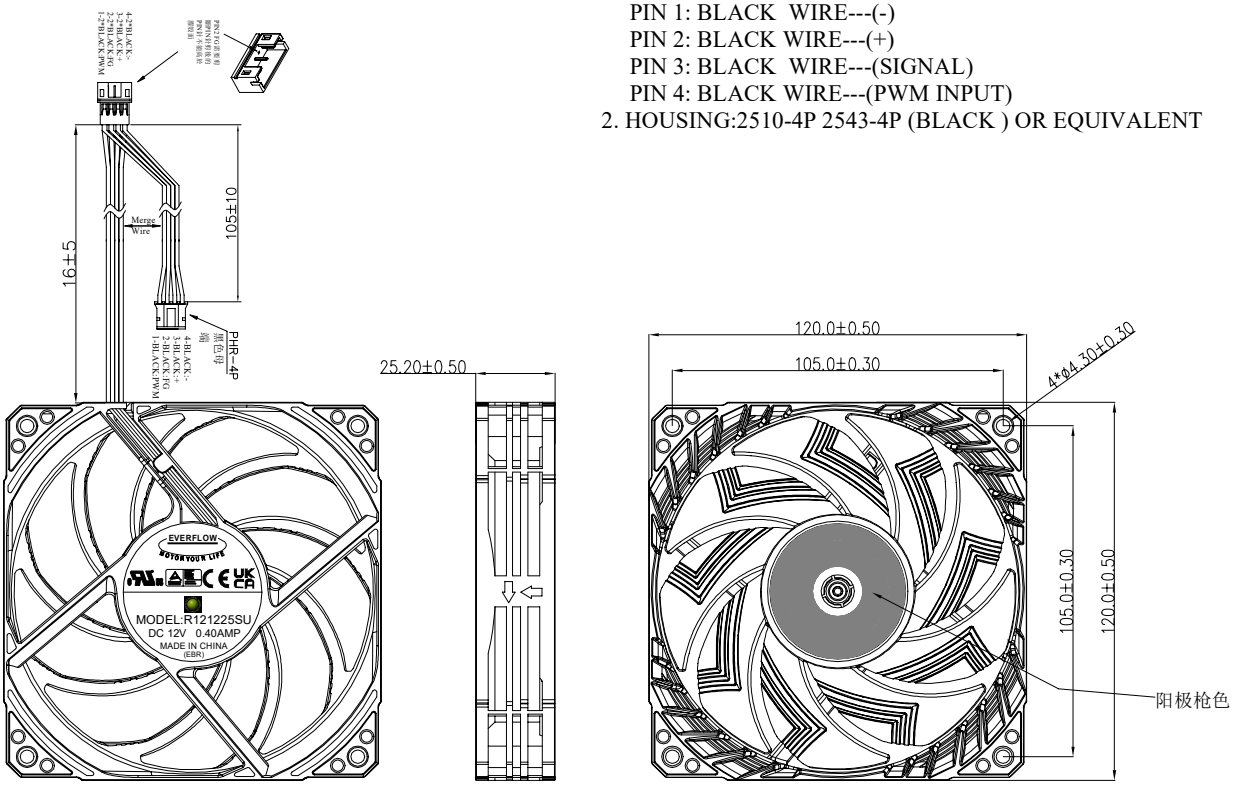
6. DIMENSIONS DRAWING (Unit: mm)

EF Part No. : R121225SUAF63MAR





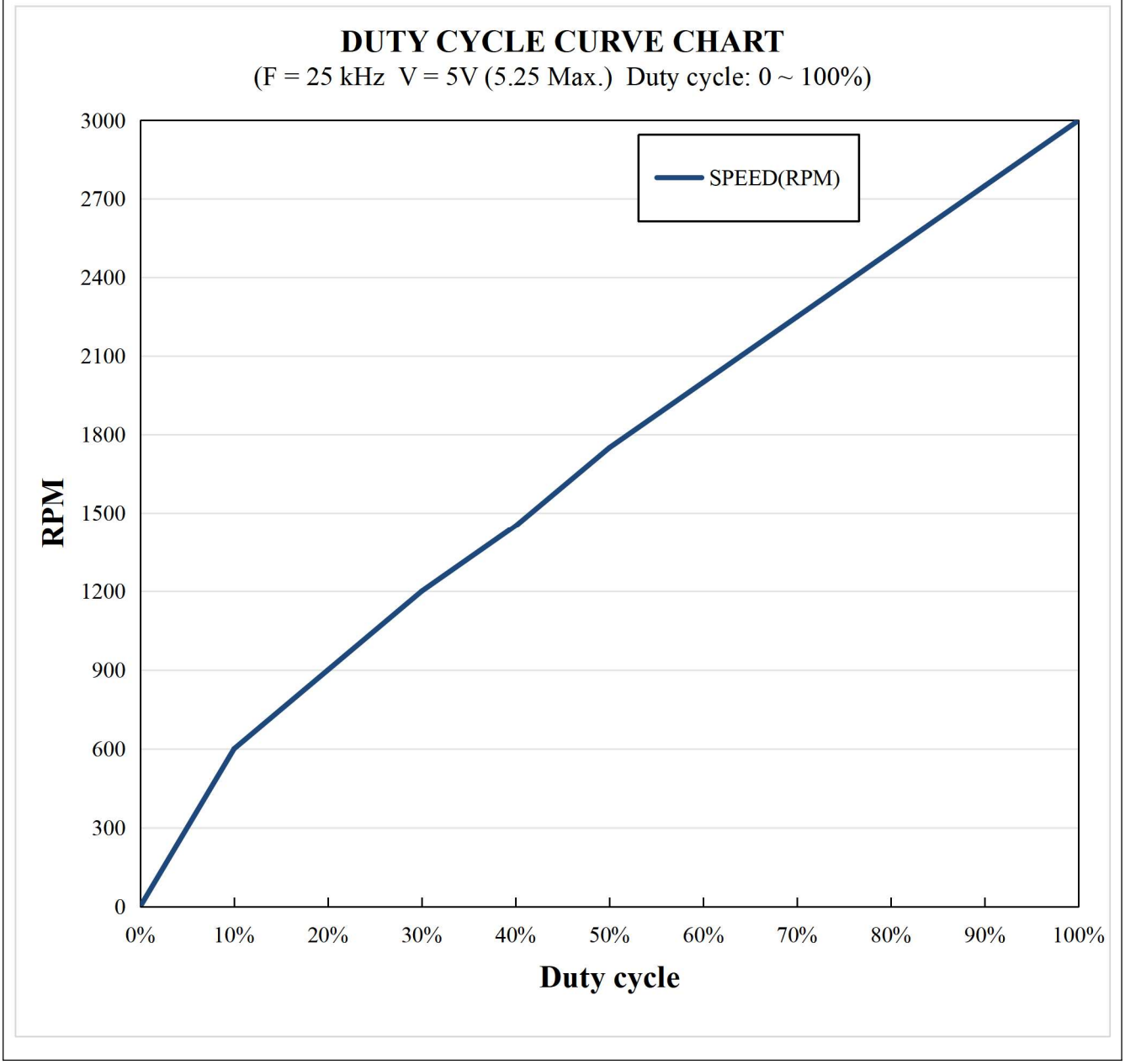
NOTES:
1. LEAD WIRE UL 1061AWG#26
   PIN 1: BLACK WIRE---(-)
   PIN 2: BLACK WIRE---(+)
   PIN 3: BLACK WIRE---(SIGNAL)
   PIN 4: BLACK WIRE---(PWM INPUT)
2. HOUSING:2510-4P 2543-4P (BLACK) OR EQUIVALENT



NOTES:
1. LEAD WIRE UL 1061AWG#26
   PIN 1: 2*BLACK WIRE---(PWM INPUT)
   PIN 2: 2*BLACK WIRE---(SIGNAL)
   PIN 3: 2*BLACK WIRE---(+)
   PIN 4: 2*BLACK WIRE---(-)
2. HOUSING:JST-PHR-4P(BLACK 公端) OR EQUIVALENT

7. DUTY CYCLE CURVE CHART

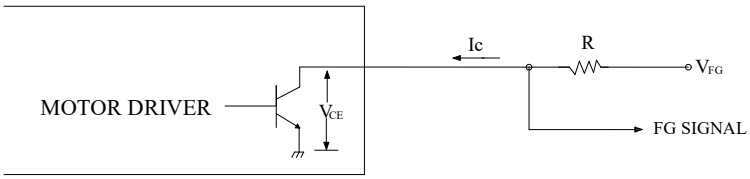
DUTY CYCLE	ROTATION SPEED(RPM)	RANGE(RPM)	CURRENT(A)
0%	0	0	<0.02
100%	3000	± 10%	< 0.40



8. FG CHARACTERISTICS & DEFINITION

- FREQUENCY GENERATOR(FG) SIGNAL

SCHEMATIC:



CAUTION:

PLEASE BE CAREFUL THAT REVOLUTION SIGNAL LEAD WIRE SHOULD NOT DIRECTLY HAVE ANY VOLTAGE APPLIED.(IT WOULD DAMAGE INNER CIRCUIT)

- SIGNAL SPECIFICATION

OUTPUT TYPE: OPEN COLLECTOR

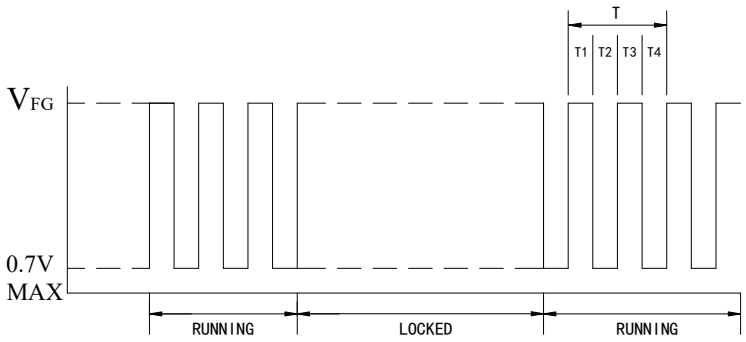
V_{FG} MAXIMUM VOLTAGE = 13.2 V

IC MAXIMUM CURRENT = 5 mA

LOW LEVEL VOLTAGE = 0.7 V MAX

R $\geqslant$ V_{FG} / I_C, WHEN V_{FG} = 3.3 V, WE RECOMMEND R = 10 kΩ

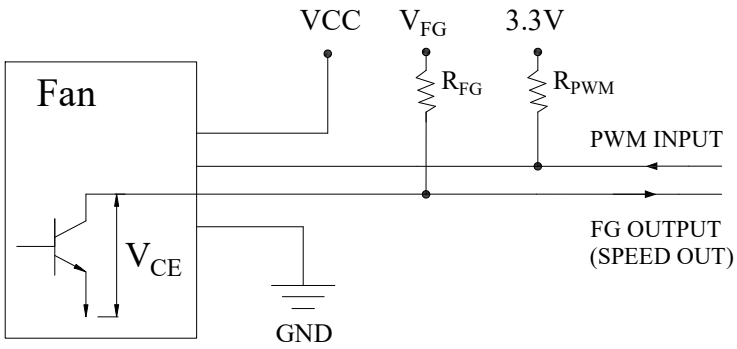
- FREQUENCY GENERATOR WAVEFORM



T = T1 + T2 + T3 + T4 = 60/N Sec, WHERE *N* REPRESENTS RPM

9. PWM CHARACTERISTICS & DEFINITION

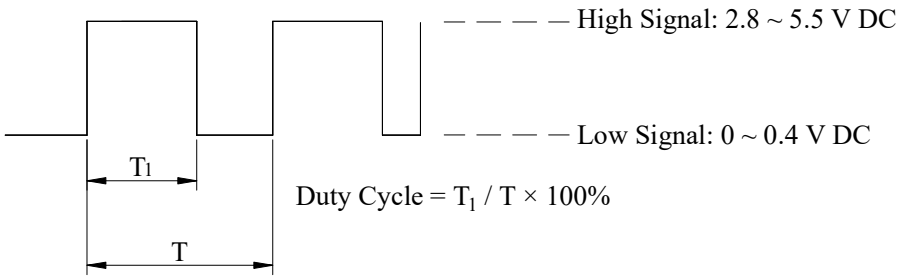
- PWM CIRUIT (FOR REFERENCE)



WHEN V_{PWM} = 3.3 V, WE RECOMMEND R_{PWM} = 1 ~ 10 kΩ

- PWM CONTROL SIGNAL INPUT

SIGNAL VOTAGE RANGE: DC 0V ~ 5.5V



1. THE FREQUENCY OF PWM SIGNAL SHALL BE ABLE TO ACCEPT 21KHZ-28KHZ.
2. AT 100% DUTY CYCLE, THE FAN WILL OPERATE AT MAXIMUM SPEED.
3. THE FAN WILL DEFAULT TO OPERATE AT MAXIMUM SPEED WHEN THE SPEED CONTROL INPUT (PWM) IS LEFT UNCONNECTED.

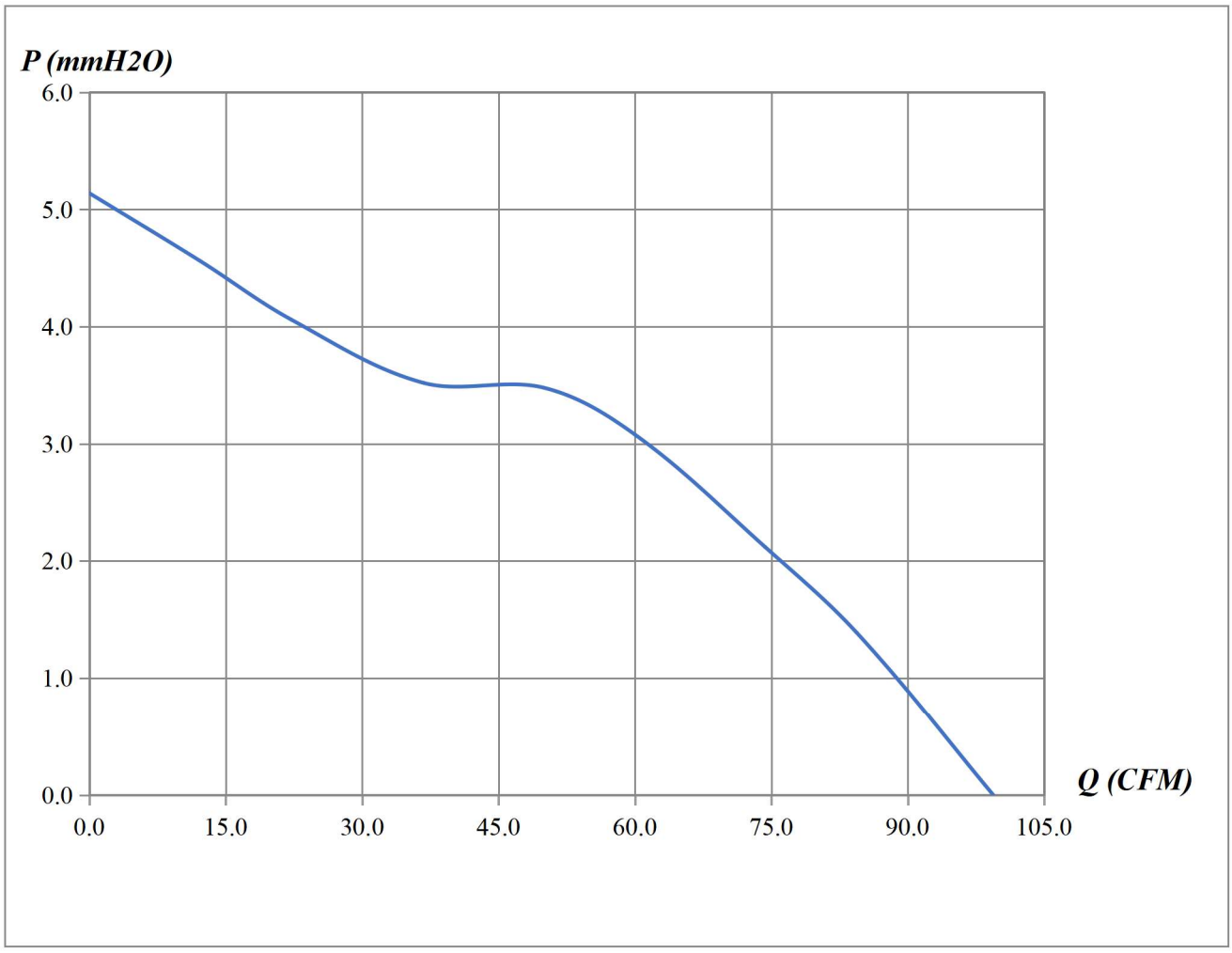
10. P - Q CURVE

TEST CONDITION

INPUT VOLTAGE ———— OPERATION VOLTAGE (12 V DC)

TEMPERATURE ———— ROOM TEMPERATURE

HUMIDITY ———— 65% RH



Zertifikat *Certificate*

Zertifikat Nr. *Certificate No.*
R 50035343

Blatt *Page*
0010

Ihr Zeichen *Client Reference*	**Unser Zeichen** *Our Reference*	**Ausstellungsdatum**	*Date of Issue* (day/mo/yr)
P00989074	ZTW1-YML- 10008452 011	17.03.2023	

Genehmigungsinhaber *License Holder*
Everflow Precision Electronic
(Dong Guan) Co., Ltd.
GeKeng Industrial Zone
Heng Li Town
Dongguan City
523460 Guangdong
P.R. China

Fertigungsstätte *Manufacturing Plant*
Everflow Precision Electronic
(Dong Guan) Co., Ltd.
GeKeng Industrial Zone
Heng Li Town
Dongguan City
523460 Guangdong
P.R. China

Prüfzeichen *Test Mark*

TÜVRheinland ZERTIFIZIERT
Bauart geprüft
Sicherheit
Regelmäßige Produktions-überwachung
www.tuv.com
ID 2000000000

Geprüft nach *Tested acc. to*
EN IEC 62368-1:2020+A11

Zertifiziertes Produkt **(Geräteidentifikation)** **Lizenzentgelte - Einheit**
Certified Product ***(Product Identification)*** ***License Fee - Unit***

Ventilator (DC Fan)

wie Blatt (as page) 01, Änderung (Change)
Bezeichnung (Type Designation):
RX1X2X3X4X5Z, FX1X2X3X4X5Z, TX1X2X3X4X5Z
SX1X2X3X4X5Z, BX1X2X3X4X5Z, KX1X2X3X4X5Z
XX1X2X3X4X5Z (EVERFLOW)
X1 steht für (stands for) : 05, 12, 24
X2 steht für (stands for) : 12, 35, 40, 50, 60, 70, 75, 80, 90
X3 steht für (stands for) : 10, 11, 15, 20, 25, 28, 30, 32
X4 steht für (stands for) : B, D, S
X5 steht für (stands for) : L, M, H, U
Z steht für (stands for) : 20 Variablen, jede Variable kann A-Z, 0-9, "(",")", "-" oder freibleibend
(20 variables, each variable may be A-Z, 0-9, "(",")","-" or blank)
Nennspannung (Rated Voltage): siehe Anlage (see appendix)
Nennstrom (Rated Current) : siehe Anlage (see appendix)

ANLAGE (Appendix): 1

Dem Zertifikat liegt unsere Prüf- und Zertifizierungsordnung zugrunde und es bestätigt die Konformität des Produktes mit den oben genannten Standards und Prüfgrundlagen. Zusätzliche Anforderungen in Ländern, in denen das Produkt in Verkehr gebracht werden soll, müssen zusätzlich betrachtet werden. Die Herstellung des zertifizierten Produktes wird überwacht.
This certificate is based on our Testing and Certification Regulation and states the conformity of the product with the standards and testing requirements as indicated above. Any additional requirements in countries where the product is going to be marketed have to be considered additionally. The manufacturing of the certified product is subject to surveillance.

TÜVRheinland LGA Products GmbH Zertifizierungsstelle

Zertifizierungsstelle

Jacky C. W. Chen

TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg
Tel.: (+49/221)8 06 - 13 71 e-mail: cert-validity@de.tuv.com
Fax: (+49/221)8 06 - 39 35 http://www.tuv.com/safety

10/020 d 04.08 ® TÜV, TUEV and TUV are registered trademarks. Utilisation and application requires prior approval.

Industrial Services, Mobility and Transport,
Product Safety and Quality, Education and
Consulting, IT Services and Innovation

TÜVRheinland®
Precisely Right.

Everflow Precision Electronic (Dong Guan) Co., Ltd.
Frau Li Juan Chen

Date : 17.03.2023
Our ref. : YML ZTW1
Your ref.: P00989074

GeKeng Industrial Zone
Heng Li Town
Dongguan City
523460 Guangdong
P.R. China

Ref : R TÜV-Mark Approval

Type of Equipment : DC Fan
Model Designation : See Certificate
Certificate No. : R 50035343 0010
Report No. : 10008452 011

Dear Frau Li Juan Chen,

The above specified equipment has been tested and found to be in accordance with the relevant requirements.

Please find enclosed your certificate as specified above.

If cancellation of the certificate is submitted by 15 November in a given year, no fee will be charged for the following year.

The certificate is issued with the reservation that the license holder applies all information required in § 6 of the ProdSG related to name and address of the manufacturer or his authorized representative / importer, including their respective contact addresses on the product prior to marketing of the product in the European Economic Area.
In case you have a change regarding your involved local representative for the certificate, please inform us in due time.

With kind regards,

Certification Body

Jacky C. W. Chen

Enclosure

TÜV RHEINLAND TAIWAN LTD.

11F., No. 758, Sec. 4, Bade Rd.,
Songshan Dist., Taipei City 105,
Taiwan, R. O. C.
Tel. (02) 2172-7000
Fax (02) 2172-1322
http: //www.tuv.com

NEW TAIPEI BRANCH:
No. 458-18 & 458-19,
Sec. 2, Fenliao Rd., Linkou Dist.,
New Taipei City 244,
Taiwan, R. O. C.
Tel. (02) 2172-1000
Fax (02) 2172-1322

TAICHUNG BRANCH:
3F., No. 497, Zhongming South Rd.,
West Dist., Taichung City 403,
Taiwan, R. O. C.
Tel. (02) 2172-7000
Fax (02) 2172-1322

KAOHSIUNG BRANCH:
27F.-3, No.80, Minzu 1st Rd.,
Sanmin Dist., Kaohsiung City 807,
Taiwan, R. O. C.
Tel. (07) 262-6000
Fax (07) 380-0577

TÜV Rheinland Group

Appendix to TÜV approved Certificate No.: R 50035343
Certified Product : DC Fan
Report Number : 10008452 011
Type Designation : RX1X2X3X4X5Z, F X1X2X3X4X5Z, TX1X2X3X4X5Z, SX1X2X3X4X5Z, BX1X2X3X4X5Z, KX1X2X3X4X5Z, XX1X2X3X4X5Z (EVERFLOW) (X1=05,12,24; X2=12, 35,40,50,60,70,75,80,90; X3=10,11,15,20,25,28,30,32, X4=B,D,S; X5=L,M,H,U; Z=20 variables, each variable may be A-Z, 0-9, "(",")","-" or blank)

24	(R/F/S/X/T/K)127025(B/D/S)U**Z**	12	0.40
25	(R/F/S/X/T/K)128025(B/D/S)U**Z**	12	0.40
26	(R/F/S/X/T/K)128032(B/D/S)L**Z**	12	0.22
27	(R/F/S/X/T/K)128032(B/D/S)M**Z**	12	0.30
28	(R/F/S/X/T/K)128032(B/D/S)H**Z**	12	0.38
29	(R/F/S/X/T/K)128032(B/D/S)U**Z**	12	0.45
30	(R/F/S/X/T/K)129025(B/D/S)U**Z**	12	0.38
31	(R/F/S/X/T/K)129032(B/D/S)U**Z**	12	1
32	(R/F/S/X/T/K)121225(B/D/S)L**Z**	12	0.20
33	(R/F/S/X/T/K)121225(B/D/S)M**Z**	12	0.25
34	(R/F/S/X/T/K)121225(B/D/S)H**Z**	12	0.32
35	(R/F/S/X/T/K)121225(B/D/S)U**Z**	12	0.40
36	(R/F/S/X/T/K)246015(B/D/S)L**Z**	24	0.14
37	(R/F/S/X/T/K)246015(B/D/S)M**Z**	24	0.18
38	(R/F/S/X/T/K)246015(B/D/S)H**Z**	24	0.20
39	(R/F/S/X/T/K)246015(B/D/S)U**Z**	24	0.27
40	(R/F/S/X/T/K)248025(B/D/S)U**Z**	24	0.21

Date: March 17, 2023

Certification

TÜV Rheinland LGA Products GmbH TÜVRheinland Zertifizierungsstelle

Jacky Chen

UL Product iQ®

GPWV2.E236658 - Fans, Electric - Component

Note: We are enhancing our systems and you may notice duplicate entries/missing/outdated data. During this interim period, please contact our Customer Service at https://www.ul.com/about/locations.

Fans, Electric - Component

EVERFLOW PRECISION ELECTRONIC (DONG GUAN) CO LTD E236658
GE KENG INDUSTRIAL ZONE
HENG LI TOWN
DONGGUAN, GUANGDONG 523460 China

Marking: Company name or tradename "E236658" , or trademark 

, 

, and model designation.

Note: For additional marking information, refer to the Guide Information Page.

Model(s): 103142H, 103142L, 103142M, B126013BH, B126013BM, B126013BU, B127015BH, B127015BM, B127015BU

Model(s): (A)121225(C)((x)(Z) Above (A) may be R or F, (C) may be S, D or B, (x) may be U, H, M or L, (Z) stands for 20 variables, each variable maybe A-Z, 0-9, "(",")", "-" or blank.

Model(s): (A)121238(C)(x)(Z) Above (A) may be R or F, (C) may be S, D or B, (x) may be U, H, M or L, (Z) stands for 20 variables, each variable maybe A-Z, 0-9, "(",")", "-" or blank.

Model(s): (A)124028(C)(D)(Z) Above (A) may be R, F, T represents screw hold on Frame, (C) may be S, D or B represents Bearing Type, (D) may be L, M, H or U represents Fan Speed, (Z) stands for 20 variables, each variable maybe A-Z, 0-9, "(",")", "-" or blank.

Model(s): (A)124028(C)(x)(Z) Above (A) may be R or F, (C) may be S, D or B, (x) may be U, H, M or L, (Z) stands for 20 variables, each variable maybe A-Z, 0-9, "(",")", "-" or blank.

Model(s): (A)126038(C)(x)(Z) Above (A) may be R or F, (C) may be S, D or B, (x) may be U, H, M or L, (Z) stands for 20 variables, each variable maybe A-Z, 0-9, "(",")", "-" or blank.

Model(s): (A)128038(C)(x)(Z) Above (A) may be R or F, (C) may be S, D or B, (x) may be U, H, M or L, (Z) stands for 20 variables, each variable maybe A-Z, 0-9, "(",")", "-" or blank.

Model(s): (A)128056(C)(x)(Z) Above (A) may be R or F, (C) may be S, D or B, (x) may be U, H, M or L, (Z) stands for 20 variables, each variable maybe A-Z, 0-9, "(",")", "-" or blank.

Model(s): (A)128080(C)(x)(Z) Above (A) may be R or F, (C) may be S, D or B, (x) may be U, H, M or L, (Z) stands for 20 variables, each variable maybe A-Z, 0-9, "(",")", "-" or blank.

Model(s): F128080CDZ C may be B, D or S, D may be L, M, H or U.Z may be A through Z,0 through 9,"(" , "),"-" or blank

Model(s): F248080CDZ C may be B, D or S, D may be L, M, H or U.Z may be A through Z,0 through 9,"(" , "),"-" or blank

Model(s): F488080CDZ A may be R, F or T, C may be B, D or S, D may be L, M, H or U.Z may be A through Z,0 through 9,"(" , "),"-" or blank

Model(s): F548080CDZ C may be B, D or S, D may be L, M, H or U.Z may be A through Z,0 through 9,"(" , "),"-" or blank

Model(s): R053010CDZ C may be B, D or S, D may be L, M, H or U.Z may be A through Z,0 through 9,"(" , "),"-" or blank

Model(s): R123010CDZ C may be B, D or S, D may be L, M, H or U.Z may be A through Z,0 through 9,"(" , "),"-" or blank

Feedback

0-9, "(",")", "-" or blank.

Electric Fans - Component, Model(s): (A)128038B(D)(2)(Z) , Where (A) may be R, F, T represents screw hold on Frame, (D) may be L, M, H or U represents Fan Speed, (2) may be (2) or blank, (Z) stands for 20 variables, each variable maybe A-Z, 0-9, "(",")", "-" or blank.

Electric Fans - Component, Model(s): (A)129025(C)(D)(E)(Z) , Where (A) may be R, F, T represents screw hold on Frame, (C) may be S, D or B represents Bearing Type, (D) may be L, M, H or U represents Fan Speed, (E)may be (2), (3), (4), (5) ,(6) or blank represents different frames, (Z) stands for 20 variables, each variable maybe A-Z, 0-9, "(",")", "-" or blank.

Electric Fans - Component, Model(s): B053510BU(Z) , where (Z) stands for 20 variables, each variable may be A through Z,0 through 9,"(" , ")","-" or blank.

Electric Fans - Component, Model(s): B055015BL(Z) , where (Z) stands for 20 variables, each variable may be A through Z,0 through 9,"(" , ")","-" or blank.

Low Voltage Component Fan, Model(s): (A)124020(C)H(5)(Z) , where (A) may be R, F for different numbers of screw holes on frame shapes, (C) may be S, D, B or C for different bearing types, (5) may be (5) or blank, (Z) stands for 20 variables, each variable may be A through Z,0 through 9,"(" , ")","-" or blank.

Low Voltage Component Fan, Model(s): (A)124020(C)L(5)(Z) , where (A) may be R, F for different numbers of screw holes on frame shapes, (C) may be S, D, B or C for different bearing types, (5) may be (5) or blank, (Z) stands for 20 variables, each variable may be A through Z,0 through 9,"(" , ")","-" or blank.

Low Voltage Component Fan, Model(s): (A)124020(C)M(5)(Z) , where (A) may be R, F for different numbers of screw holes on frame shapes, (C) may be S, D, B or C for different bearing types, (5) may be (5) or blank, (Z) stands for 20 variables, each variable may be A through Z,0 through 9,"(" , ")","-" or blank.

Low Voltage Component Fan, Model(s): (A)124020(C)U(5)(Z) , where (A) may be R, F for different numbers of screw holes on frame shapes, (C) may be S, D, B or C for different bearing types, (5) may be (5) or blank, (Z) stands for 20 variables, each variable may be A through Z,0 through 9,"(" , ")","-" or blank.

Low Voltage DC Components Fan, Model(s): (A)124056(Y)(X)(Z) Above (A) may be R or F, (Y) may be S, B, D or C, (X) may be U, H, M or L,(Z) stands for 20 variables, each variable maybe A-Z, 0-9, "(",")", "-" or blank.

Low Voltage DC Components Fan, Model(s): F056025BH(+) Where (+) can be any seven combination of digit or letter.

Low Voltage DC Components Fan, Model(s): R248025BM(+) Where (+) can be any seven combination of digit or letter.

Last Updated on 2023-04-21

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL Solutions' Follow - Up Service. Only those products bearing the UL Mark should be considered to be Certified and covered under UL Solutions' Follow - Up Service. Always look for the Mark on the product.

UL Solutions permits the reproduction of the material contained in Product iQ subject to the following conditions: 1. The Guide Information, Assemblies, Constructions, Designs, Systems, and/or Certifications (files) must be presented in their entirety and in a non-misleading manner, without any manipulation of the data (or drawings). 2. The statement "Reprinted from Product iQ with permission from UL Solutions" must appear adjacent to the extracted material. In addition, the reprinted material must include a copyright notice in the following format: "©2023 UL LLC."

Shenzhen Tian Hai Test Technology Co.,Ltd.

CE Certificate of Conformity

Certification number: TH2302237-C02-C01 Report number: TH2302237-C02-R01

Shenzhen Tian Hai Test Technology Co., Ltd. hereby declares that testing has been completed and reports have been generated for:

Applicant:	EVERFLOW PRECISION ELECTRONIC (DONG GUAN) CO LTD
Address:	GE KENG INDUSTRIAL ZONE HENG LI TOWN DONGGUAN, GUANGDONG, 523460, CN
Manufacturer:	EVERFLOW PRECISION ELECTRONIC (DONG GUAN) CO LTD
Address:	GE KENG INDUSTRIAL ZONE HENG LI TOWN DONGGUAN, GUANGDONG, 523460, CN
Product:	DC FAN
Model:	See the model lists below

And, in accordance with the following applicable directives:

2014/30/EU Electromagnetic Compatibility (EMC)

This product has been assessed against the following applicable standards:

Standard(s): **EN 55032:2015+A1:2020**
EN 55035:2017+A11:2020

Therefore, Shenzhen Tian Hai Test Technology Co., Ltd. hereby acknowledges that the applicant may issue a DECLARATION of CONFORMITY and apply the CE marking in accordance with European Union Rules.

Attestation by:

Thomas Wong

Shenzhen Tian Hai Test Technology Co., Ltd.

Date of Issued: 2023-03-02

4F,A3 BLDG,The Silicon Valley Power intelligent terminal industrial park,Guan lan street,Longhua district,Shenzhen
Tel:+86-755-86615100 Fax:+86-755-86615105 http://www.tianhaitest.com

Attachment of TH2302237-C02-C01					
No.	Series	Model	Voltage(Vdc)	Current(A)	Speed(RPM)
1	7025 Series	(R/F/S/X/T/K)127025(B/D/S)UZ	12	0.40	5400
2	8025 Series	(R/F/S/X/T/K)128025(B/D/S)UZ	12	0.40	4800
3	8032 Series	(R/F/S/X/T/K)128032(B/D/S)LZ	12	0.22	3000
		(R/F/S/X/T/K)128032(B/D/S)MZ	12	0.30	3600
		(R/F/S/X/T/K)128032(B/D/S)HZ	12	0.38	4200
		(R/F/S/X/T/K)128032(B/D/S)UZ	12	0.45	4800
4	9025 Series	(R/F/S/T/K)129025(B/D/S)UZ	12	0.38	3450
5	9032 Series	(R/F/S/X/T/K)129032(B/D/S)UZ	12	1	3600
6	1225 Series	(R/F/S/X/T/K)121225(B/D/S)LZ	12	0.20	2000
		(R/F/S/X/T/K)121225(B/D/S)MZ	12	0.25	2300
		(R/F/S/X/T/K)121225(B/D/S)HZ	12	0.32	2600
		(R/F/S/X/T/K)121225(B/D/S)UZ	12	0.40	2900
7	6015 Series	(R/F/S/X/T/K)246015(B/D/S)LZ	24	0.14	3600
		(R/F/S/X/T/K)246015(B/D/S)MZ	24	0.18	4200
		(R/F/S/X/T/K)246015(B/D/S)HZ	24	0.20	4800
		(R/F/S/X/T/K)246015(B/D/S)UZ	24	0.27	5400
8	8025 (24V)	(R/F/S/X/T/K)248025(B/D/S)UZ	24	0.21	3400
9	4010 (5V) Series	R054010(B/D/S)LZ	5	0.13	5000
		R054010(B/D/S)MZ	5	0.2	6000
		R054010(B/D/S)HZ	5	0.23	7000
		R054010(B/D/S)UZ	5	0.3	8000
10	4040 Series	B124040(B/D/S)LZ	12	0.2	5000
		B124040(B/D/S)MZ	12	0.28	6700
		B124040(B/D/S)HZ	12	0.35	8400
		B124040(B/D/S)UZ	12	0.4	9000
11	6015 Series	B126015(B/D/S)LZ	12	0.14	3600
		B126015(B/D/S)MZ	12	0.2	4200
		B126015(B/D/S)HZ	12	0.3	4800
		B126015(B/D/S)UZ	12	0.4	5400
12	8018 Series	R128018(B/D/S)LZ	12	0.19	2400
		R128018(B/D/S)MZ	12	0.25	3000
		R128018(B/D/S)HZ	12	0.32	3600
		R128018(B/D/S)UZ	12	0.5	4200
13	8080	B128080BMZ	12	0.2	2400

23	7515 Series	B127515BLZ	12	0.40	4000
		B127515BMZ	12	0.50	4500
		B127515BHZ	12	0.60	5000
		B127515BUZ	12	0.80	5500
24	4056 Series	R124056BUZ	12	1.50	12000 / 15000
25	5020 Series	B125020BLZ	12	0.12	3800
		B125020BMZ	12	0.20	4800
		B125020BHZ	12	0.30	5800
		B125020BUZ	12	0.40	6800
26	6015 Series	B126015BLZ	12	0.14	3600
		B126015BMZ	12	0.20	4200
		B126015BHZ	12	0.30	4800
		B126015BUZ	12	0.40	5400
27	7013 Series	R127013(D/B)LZ	12	0.12	3000
		R127013(D/B)MZ	12	0.15	3600
		R127013(D/B)HZ	12	0.25	4200
		R127013(D/B)UZ	12	0.30	4800
28	B7015 Series	B127015BLZ	12	0.35	3600
		B127015BMZ	12	0.45	4200
		B127015BHZ	12	0.60	4800
		B127015BUZ	12	0.80	5400
29	T7015Series	T127015(B/D/S)LZ	12	0.35	3600
		T127015(B/D/S)MZ	12	0.45	4200
		T127015(B/D/S)HZ	12	0.60	4800
		T127015(B/D/S)UZ	12	0.80	5400
30	7525 Series	B127525BLZ	12	0.35	3000
		B127525BMZ	12	0.45	4000
		B127525BHZ	12	0.80	5000
		B127525BUZ	12	1	6000

Z stands for 20 variables, each variable may be A through Z,0 through 9,"(" , ")","-" or blank.
The variable (Z) is for marketing purpose only.

Shenzhen Tian Hai Test Technology Co.,Ltd.

Certificate of Conformity

Certification number: TH2302238-C03-C01 Report number: TH2110138-C03-R01

Shenzhen Tian Hai Test Technology Co.,Ltd. hereby declares that testing has been completed and reports have been generated for:

Applicant:	**EVERFLOW PRECISION ELECTRONIC (DONG GUAN) CO LTD**
Address:	GE KENG INDUSTRIAL ZONE HENG LI TOWN DONGGUAN, GUANGDONG, 523460, CN
Manufacturer:	**EVERFLOW PRECISION ELECTRONIC (DONG GUAN) CO LTD**
Address:	GE KENG INDUSTRIAL ZONE HENG LI TOWN DONGGUAN, GUANGDONG, 523460, CN
Product:	**DC FAN**
Model:	See attachment
Rating:	See attachment
Tested according to:	BS EN IEC 62368-1:2020+A11:2020

The submitted products have been tested by us with the listed standards.

This Attestation of Compliance is issued according to the Great Britain legislation Electrical Equipment (Safety)Regulations 2016. It confirms that the listed product complies with all essential requirements of the Regulations and applies only to the sample and its technical documentation submitted to Shenzhen Tian Hai Test Technology Co.,Ltd. for testing.

After preparation of the necessary technical documentation (which must be kept for up to 10years after the product is placed on the GB market) as well as the UK Declaration of Conformity, the required UKCA marking can be affixed on the product.Other relevant Regulations have to be observed.

UK CA

Attestation by:

Thomas Wong

Shenzhen Tian Hai Test Technology Co.,Ltd.

Date of Issued: 2023-02-28

4F,A3 BLDG,The Silicon Valley Power intelligent terminal industrial park,Guan lan street,Longhua district,Shenzhen

Tel:+86-755-86615100 Fax:+86-755-86615105 http://www.tianhaitest.com

Attachment of TH2302238-C03-C01					
No.	Series	Model	Voltage(Vdc)	Current(A)	Speed(RPM)
1	7025 Series	(R/F/S/X/T/K)127025(B/D/S)UZ	12	0.40	5400
2	8025 Series	(R/F/S/X/T/K)128025(B/D/S)UZ	12	0.40	4800
3	8032 Series	(R/F/S/X/T/K)128032(B/D/S)LZ	12	0.22	3000
		(R/F/S/X/T/K)128032(B/D/S)MZ	12	0.30	3600
		(R/F/S/X/T/K)128032(B/D/S)HZ	12	0.38	4200
		(R/F/S/X/T/K)128032(B/D/S)UZ	12	0.45	4800
4	9025 Series	(R/F/S/T/K)129025(B/D/S)UZ	12	0.38	3450
5	9032 Series	(R/F/S/X/T/K)129032(B/D/S)UZ	12	1	3600
6	1225 Series	(R/F/S/X/T/K)121225(B/D/S)LZ	12	0.20	2000
		(R/F/S/X/T/K)121225(B/D/S)MZ	12	0.25	2300
		(R/F/S/X/T/K)121225(B/D/S)HZ	12	0.32	2600
		(R/F/S/X/T/K)121225(B/D/S)UZ	12	0.40	2900
7	6015 Series	(R/F/S/X/T/K)246015(B/D/S)LZ	24	0.14	3600
		(R/F/S/X/T/K)246015(B/D/S)MZ	24	0.18	4200
		(R/F/S/X/T/K)246015(B/D/S)HZ	24	0.20	4800
		(R/F/S/X/T/K)246015(B/D/S)UZ	24	0.27	5400
8	8025 (24V)	(R/F/S/X/T/K)248025(B/D/S)UZ	24	0.21	3400
9	4010 (5V) Series	R054010(B/D/S)LZ	5	0.13	5000
		R054010(B/D/S)MZ	5	0.2	6000
		R054010(B/D/S)HZ	5	0.23	7000
		R054010(B/D/S)UZ	5	0.3	8000
10	4040 Series	B124040(B/D/S)LZ	12	0.2	5000
		B124040(B/D/S)MZ	12	0.28	6700
		B124040(B/D/S)HZ	12	0.35	8400
		B124040(B/D/S)UZ	12	0.4	9000
11	6015 Series	B126015(B/D/S)LZ	12	0.14	3600
		B126015(B/D/S)MZ	12	0.2	4200
		B126015(B/D/S)HZ	12	0.3	4800
		B126015(B/D/S)UZ	12	0.4	5400
12	8018 Series	R128018(B/D/S)LZ	12	0.19	2400
		R128018(B/D/S)MZ	12	0.25	3000
		R128018(B/D/S)HZ	12	0.32	3600

		F(B/12)1232BHZ	12	0.65	2600
		F(B/12)1232BUZ	12	1	3000
23	7515 Series	B127515BLZ	12	0.40	4000
		B127515BMZ	12	0.50	4500
		B127515BHZ	12	0.60	5000
		B127515BUZ	12	0.80	5500
24	4056 Series	R124056BUZ	12	1.50	12000 / 15000
25	5020 Series	B125020BLZ	12	0.12	3800
		B125020BMZ	12	0.20	4800
		B125020BHZ	12	0.30	5800
		B125020BUZ	12	0.40	6800
26	6015 Series	B126015BLZ	12	0.14	3600
		B126015BMZ	12	0.20	4200
		B126015BHZ	12	0.30	4800
		B126015BUZ	12	0.40	5400
27	7013 Series	R127013(D/B)LZ	12	0.12	3000
		R127013(D/B)MZ	12	0.15	3600
		R127013(D/B)HZ	12	0.25	4200
		R127013(D/B)UZ	12	0.30	4800
28	B7015 Series	B127015BLZ	12	0.35	3600
		B127015BMZ	12	0.45	4200
		B127015BHZ	12	0.60	4800
		B127015BUZ	12	0.80	5400
29	T7015Series	T127015(B/D/S)LZ	12	0.35	3600
		T127015(B/D/S)MZ	12	0.45	4200
		T127015(B/D/S)HZ	12	0.60	4800
		T127015(B/D/S)UZ	12	0.80	5400
30	7525 Series	B127525BLZ	12	0.35	3000
		B127525BMZ	12	0.45	4000
		B127525BHZ	12	0.80	5000
		B127525BUZ	12	1	6000

Z stands for 20 variables, each variable may be A through Z,0 through 9,"(" , ")","-" or blank.
The variable (Z) is for marketing purpose only.

Shenzhen Tian Hai Test Technology Co.,Ltd.

Certificate of Conformity

Certification number: TH2302238-C04-C01 Report number: TH2302238-C04-R01

Shenzhen Tian Hai Test Technology Co., Ltd. hereby declares that testing has been completed and reports have been generated for:

Applicant:	EVERFLOW PRECISION ELECTRONIC (DONG GUAN) CO LTD
Address:	GE KENG INDUSTRIAL ZONE HENG LI TOWN DONGGUAN, GUANGDONG, 523460, CN
Manufacturer:	EVERFLOW PRECISION ELECTRONIC (DONG GUAN) CO LTD
Address:	GE KENG INDUSTRIAL ZONE HENG LI TOWN DONGGUAN, GUANGDONG, 523460, CN
Product:	DC FAN
Model:	See the model lists below
Tested according to:	BS EN 55032:2015+A11:2020 BS EN 55035:2017+A11:2020

The submitted products have been tested by us with the listed standards.

This Attestation of Compliance is issued according to the Great Britain legislation Electromagnetic Compatibility Regulations 2016. It confirms that the listed product complies with all essential requirements of the Regulations and applies only to the sample and its technical documentation submitted to Shenzhen Tian Hai Test Technology Co.,Ltd. for testing.

After preparation of the necessary technical documentation (which must be kept for up to 10years after the product is placed on the GB market) as well as the UK Declaration of Conformity, the required UKCA marking can be affixed on the product.Other relevant Regulations have to be observed.

UKCA

Attestation by:

Thomas Wong

Shenzhen Tian Hai Test Technology Co.,Ltd.

Date of Issued: 2023-03-02

4F,A3 BLDG,The Silicon Valley Power intelligent terminal industrial park,Guan lan street,Longhua district,Shenzhen
Tel:+86-755-86615100 Fax:+86-755-86615105 http://www.tianhaitest.com

Attachment of TH2302238-C04-C01					
No.	Series	Model	Voltage(Vdc)	Current(A)	Speed(RPM)
1	7025 Series	(R/F/S/X/T/K)127025(B/D/S)UZ	12	0.40	5400
2	8025 Series	(R/F/S/X/T/K)128025(B/D/S)UZ	12	0.40	4800
3	8032 Series	(R/F/S/X/T/K)128032(B/D/S)LZ	12	0.22	3000
		(R/F/S/X/T/K)128032(B/D/S)MZ	12	0.30	3600
		(R/F/S/X/T/K)128032(B/D/S)HZ	12	0.38	4200
		(R/F/S/X/T/K)128032(B/D/S)UZ	12	0.45	4800
4	9025 Series	(R/F/S/T/K)129025(B/D/S)UZ	12	0.38	3450
5	9032 Series	(R/F/S/X/T/K)129032(B/D/S)UZ	12	1	3600
6	1225 Series	(R/F/S/X/T/K)121225(B/D/S)LZ	12	0.20	2000
		(R/F/S/X/T/K)121225(B/D/S)MZ	12	0.25	2300
		(R/F/S/X/T/K)121225(B/D/S)HZ	12	0.32	2600
		(R/F/S/X/T/K)121225(B/D/S)UZ	12	0.40	2900
7	6015 Series	(R/F/S/X/T/K)246015(B/D/S)LZ	24	0.14	3600
		(R/F/S/X/T/K)246015(B/D/S)MZ	24	0.18	4200
		(R/F/S/X/T/K)246015(B/D/S)HZ	24	0.20	4800
		(R/F/S/X/T/K)246015(B/D/S)UZ	24	0.27	5400
8	8025 (24V)	(R/F/S/X/T/K)248025(B/D/S)UZ	24	0.21	3400
9	4010 (5V) Series	R054010(B/D/S)LZ	5	0.13	5000
		R054010(B/D/S)MZ	5	0.2	6000
		R054010(B/D/S)HZ	5	0.23	7000
		R054010(B/D/S)UZ	5	0.3	8000
10	4040 Series	B124040(B/D/S)LZ	12	0.2	5000
		B124040(B/D/S)MZ	12	0.28	6700
		B124040(B/D/S)HZ	12	0.35	8400
		B124040(B/D/S)UZ	12	0.4	9000
11	6015 Series	B126015(B/D/S)LZ	12	0.14	3600
		B126015(B/D/S)MZ	12	0.2	4200
		B126015(B/D/S)HZ	12	0.3	4800
		B126015(B/D/S)UZ	12	0.4	5400
12	8018 Series	R128018(B/D/S)LZ	12	0.19	2400
		R128018(B/D/S)MZ	12	0.25	3000
		R128018(B/D/S)HZ	12	0.32	3600

		F(B/12)1232BHZ	12	0.65	2600
		F(B/12)1232BUZ	12	1	3000
23	7515 Series	B127515BLZ	12	0.40	4000
		B127515BMZ	12	0.50	4500
		B127515BHZ	12	0.60	5000
		B127515BUZ	12	0.80	5500
24	4056 Series	R124056BUZ	12	1.50	12000 / 15000
25	5020 Series	B125020BLZ	12	0.12	3800
		B125020BMZ	12	0.20	4800
		B125020BHZ	12	0.30	5800
		B125020BUZ	12	0.40	6800
26	6015 Series	B126015BLZ	12	0.14	3600
		B126015BMZ	12	0.20	4200
		B126015BHZ	12	0.30	4800
		B126015BUZ	12	0.40	5400
27	7013 Series	R127013(D/B)LZ	12	0.12	3000
		R127013(D/B)MZ	12	0.15	3600
		R127013(D/B)HZ	12	0.25	4200
		R127013(D/B)UZ	12	0.30	4800
28	B7015 Series	B127015BLZ	12	0.35	3600
		B127015BMZ	12	0.45	4200
		B127015BHZ	12	0.60	4800
		B127015BUZ	12	0.80	5400
29	T7015Series	T127015(B/D/S)LZ	12	0.35	3600
		T127015(B/D/S)MZ	12	0.45	4200
		T127015(B/D/S)HZ	12	0.60	4800
		T127015(B/D/S)UZ	12	0.80	5400
30	7525 Series	B127525BLZ	12	0.35	3000
		B127525BMZ	12	0.45	4000
		B127525BHZ	12	0.80	5000
		B127525BUZ	12	1	6000

Z stands for 20 variables, each variable may be A through Z,0 through 9,"(" , ")","-" or blank.
The variable (Z) is for marketing purpose only.