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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



SPECIFICATION FOR APPROVAL  
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Customer:

Description:	EC FAN		
Customer P/N:		REV:	
Delta Model NO.:	GTB036FUC23R N1	Safety Model NO.:	GTB036FUC23
Sample Rev:	X02	Issue NO:	
Sample Issue Date:		Quantity:	

1. SCOPE:

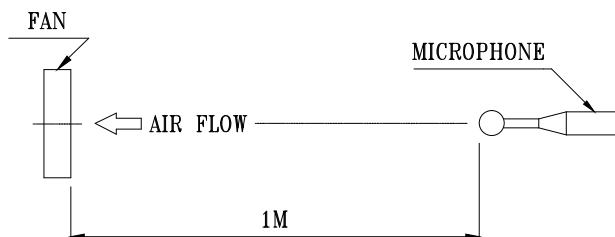
THIS SPECIFICATION DEFINES THE ELECTRICAL AND MECHANICAL CHARACTERISTICS OF THIS CENTRIFUGAL FAN.

2. NOMINAL DATA:

UNLESS SPECIFIED, ALL READINGS AND TESTS ARE BASED ON 25 DEG C, 65% RH.

ITEM	DESCRIPTION	
NOMINAL VOLTAGE	1 $\phi$	230 VAC 50/60Hz
NOMINAL VOLTAGE RANGE	1 $\phi$	200 - 277 VAC
INPUT POWER @ FREE-AIR		320 W
INPUT POWER @ MAX. LOAD		500 W
INPUT CURRENT (MAX)		3.60 A
SPEED		1730 R.P.M. (REF.)
MAX. AIR FLOW (AT ZERO STATIC PRESSURE)		4202 ( MIN. 3781) M <sup>3</sup> /H
		2473 ( MIN. 2226) CFM
MAX. AIR PRESSURE (AT ZERO AIR FLOW)		502.2 ( MIN. 406.8) Pa
		2.016 ( MIN. 1.633) inchH <sub>2</sub> O
ACOUSTICAL NOISE (AVG.) @ FREE-AIR		72.0 (MAX 77.0) dB(A)

- NOTES: 1. ALL READINGS ARE MEASURED AFTER STABLY WARMING UP THROUGH 10 MINUTES.  
 2. THE VALUES WRITTEN IN PARENS , ( ), ARE LIMITED SPEC.  
 3. ACOUSTICAL NOISE MEASURING CONDITION:



NOISE IS MEASURED AT NOMINAL VOLTAGE IN FREE AIR IN ANECHOIC CHAMBER WITH B & K SOUND LEVEL METER WITH MICROPHONE AT A DISTANCE OF ONE METER FROM THE FAN INTAKE.

PART NO:

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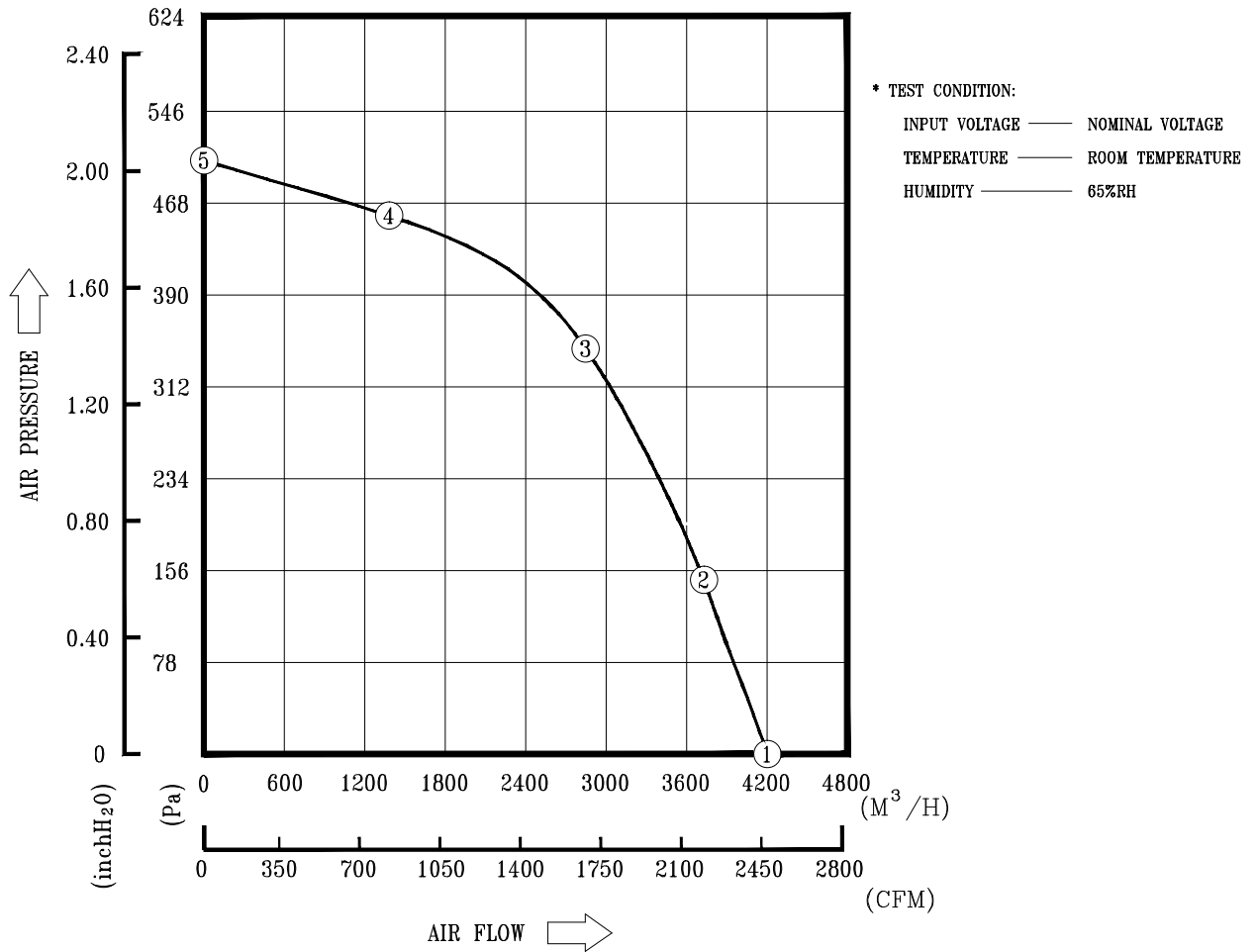
3. FEATURES:

DIRECTION OF ROTATION	CLOCKWISE, SEEN ON ROTOR
BEARING SYSTEM	BALL BEARINGS
WEIGHT	7.1 K.G. (REF.)
MATERIAL OF ELECTRONICS HOUSING	DIE-CAST ALUMINUM
MATERIAL OF IMPELLER	ALUMINUM SHEET
ELECTRICAL LEADS	LEAD WIRE
MOTOR PROTECTION	OVER TEMPERATURE PROTECTED
LEAKAGE CURRENT	$\leq 3.5$ mA
INSULATION CLASS	B
TYPE OF PROTECTION	IP54
PROTECTION CLASS	I
POWER FACTOR CORRECTION	PASSIVE
OPERATING TEMPERATURE	-25~+60 °C (REF.)
STORAGE TEMPERATURE	-40~+70 °C (REF.)
EMC	EN61000-6-1/3 , EN61000-3-2/3
SAFETY	UL, cUL & TUV
LIFE EXPECTANCE	* 60,000 HOURS CONTINOUS OPERATION AT 40 °C WITH 15 ~ 65 %RH.
FUNCTIONS	- CONTROL INPUT 0-10VDC or PWM PATTERN - OUTPUT +10VDC( $\pm 10\%$ ), max. 10mA - RS485 CONTROL BUS - ALARM RELAY, LOCKED ROTOR PROTECTION, SOFT START - VOLTAGE/CURRENT MONITORING

PART NO:

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4. P & Q CURVE:



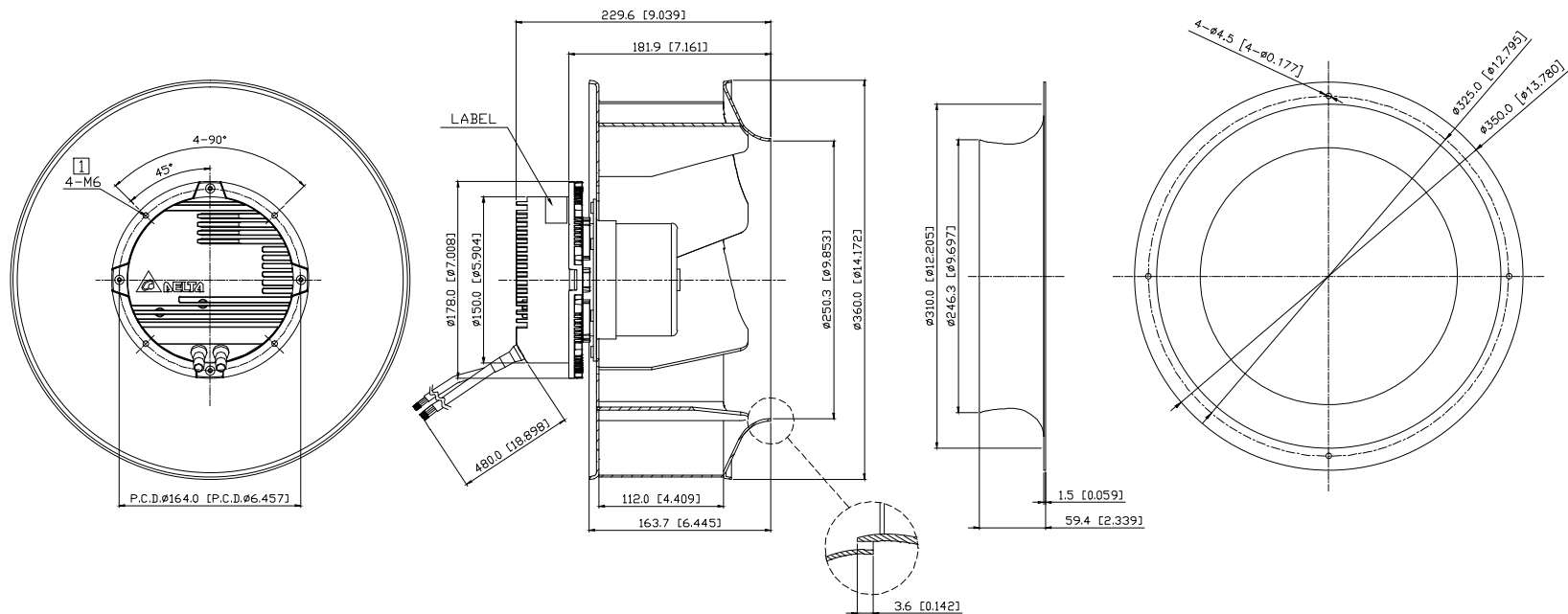
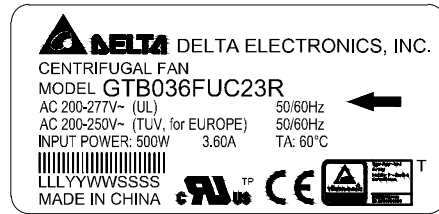
MEASURED DATA:

	P	Q	N	P1	I	Lp
	[Pa]	[M <sup>3</sup> /H]	[R.P.M.]	[W]	[A]	[dB(A)]
1	0	4202	1700	320	2.06	72.0
2	146.0	3739	1702	412	2.62	
3	343.0	2858	1698	488	3.06	
4	442.0	1896	1707	460	2.90	
5	501.8	0	1722	204	1.30	

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5. DIMENSION DRAWING:  
LABEL



UNIT: mm [INCH]

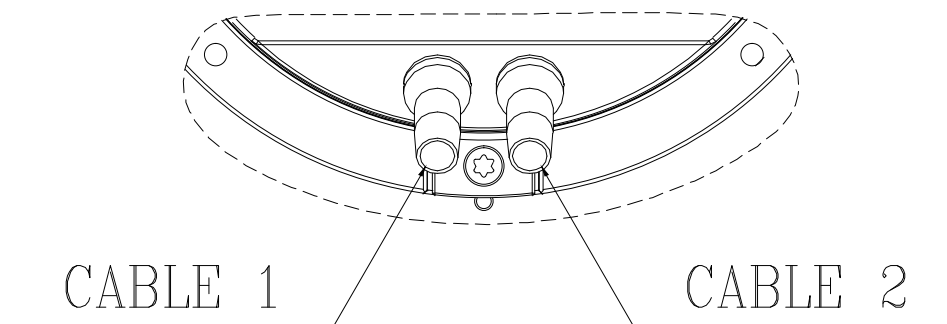
NOTE:

1. DEPTH OF SCREW: 6~8mm.
2. THIS PRODUCT IS RoHS COMPLIANT.

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6. DEFINITION OF CABLE:

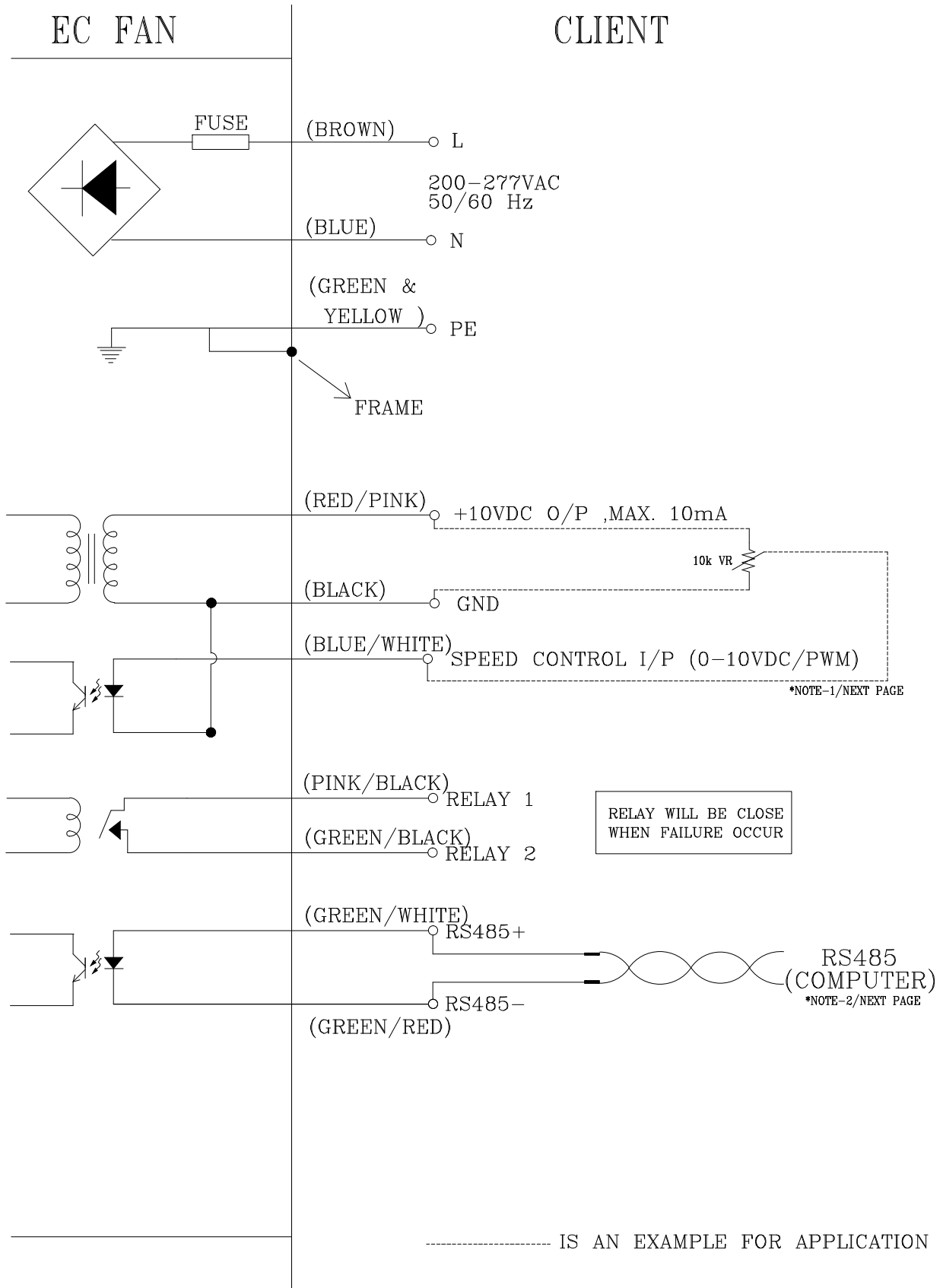


CABLE	COLOR	FUNCTIONS
1	BROWN	L
1	BLUE	N
1	GREEN/YELLOW	EARTH
<hr/>		
2	RED/PINK	+10V
2	BLUE/WHITE	PWM
2	BLACK	GND
2	GREEN/RED	RS485-
2	GREEN/WHITE	RS485+
2	PINK/BLACK	RELAY 1
2	GREEN/BLACK	RELAY 2

PART NO:

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7. LEAD WIRE CONNECTION:



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PART NO:  
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8. FUNCTION CONTROL: VOLTAGE CONTROL

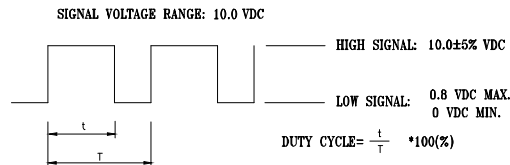
\*NOTE-1: SPEED CONTROL SIGNAL

A. VOLTAGE CONTROL

- CONTROL VOLTAGE RANGE SHALL BE 0-10 VDC.
- VOLTAGE AT 10 VDC THE FAN WILL SPIN AT MAXIMUM SPEED.
- VOLTAGE HIGHER THAN 1.5 VDC, THE FAN WILL START UP.
- VOLTAGE LOWER THAN 0.5 VDC, THE FAN WILL STOP.

B. PWM CONTROL

- THE AMPLITUDE VOLTAGE SHALL BE 10VDC. (100Hz~100kHz)



- PWM DUTY HIGHER THAN 15 % , THE FAN WILL START UP.
- PWM DUTY LOWER THAN 5 % , THE FAN WILL STOP.

- THE SPEED COMPARISON WITH CONTROL LEVEL:

VOLTAGE(V)	PWM DUTY(%)	SPEED (R.P.M.) (REF.)
0.0	0	0
9.5	95	1730

9. FUNCTION CONTROL: RS485 CONTROL

\*NOTE-2: RS485 CONTROL FUNCTION

- SELECT THE CONTROL MODE OF SPEED, FIXED SPEED OR FIXED PWM DUTY.
- SPEED AND POWER CONSUMPTION FEEDBACK.
- ALLOW MULTIPLE FANS CONTROL AND STATUS PATROL.



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9. CONTROL LEVEL & SPEED CURVE:

