Specification For Approval

Customer : _____

Description : EC FAN

Customer Part No. : _____ Rev : ____

Delta Model No. : GTM025FUC19R Rev : 01

Safety Model No. : GTB025FUC19

Sample Issue No. : _____

Sample Issue Date : 03/25/2019

Please send one copy of this specification back after you signed approval for production pre-arrangement

Approved by : _____

Date : _____

Delta Electronics, Inc.
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Taoyuan City, 33341, Taiwan FAX : +886-3-359-1991

*** SAMPLE HISTORY ***

CUSTOMER：

CUSTOMER P/N：

DELTA MODEL：GTM025FUC19R

REV	DESCRIPTION	DRAWN	CHECKED		APPROVED	ISSUE DATE
			ME	EE		
00	Issue spec.	鍾明翰 03/08'17	鍾明翰 03/08'17	林科亦 03/08'17	賴偉銘 03/08'17	03/08'17
01	MODIFY P & Q CURVES.	邱瀞美 03/25'19	邱瀞美 03/25’19	林科亦 03/25'19	顏承偉 03/25'19	03/25'19

Smarter. Greener. Together.

GTM025FUC19R

Electronically Commutated (EC) Fan

Centrifugal Fan

400 x 400 x 236.2 mm

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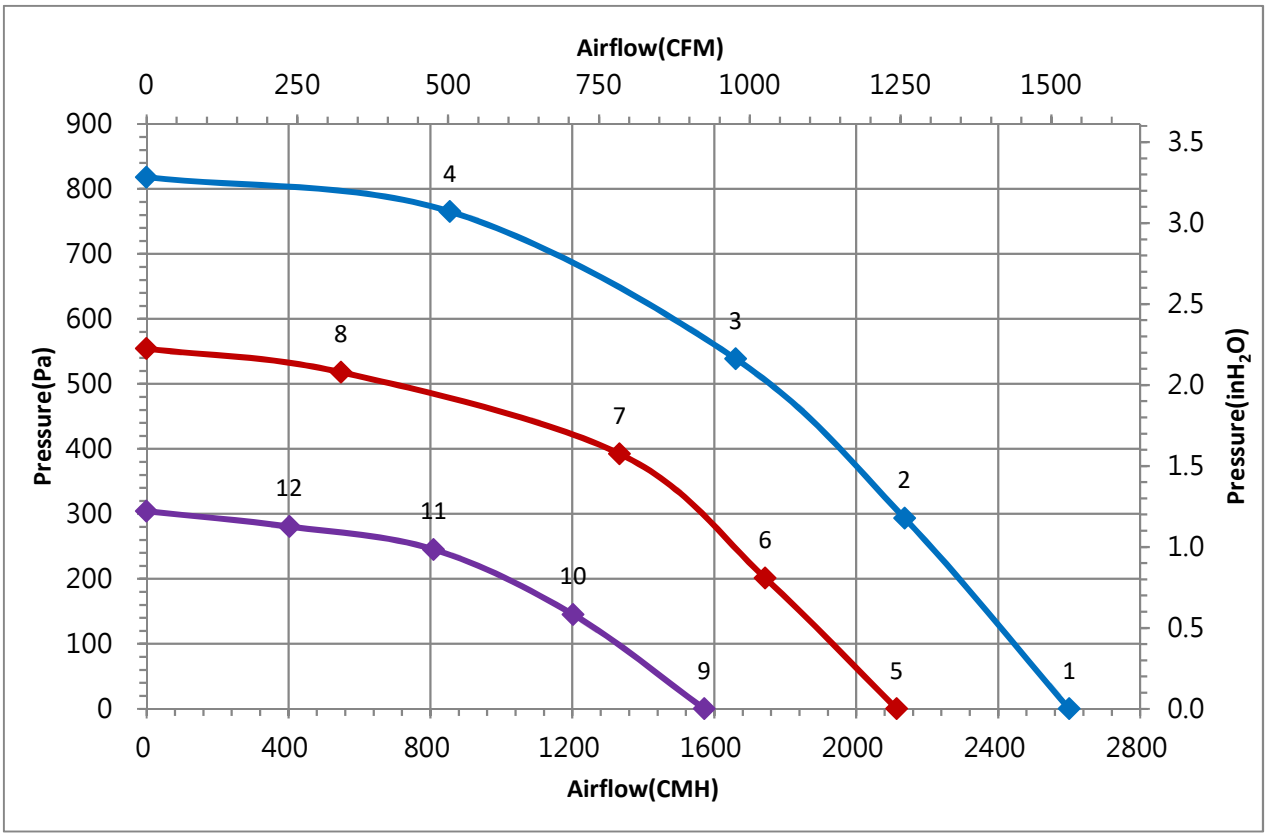
Technical features

Input Side	
Nominal Voltage	1~ 230Vac 50/60Hz
Input Source	1~ 200Vac - 277Vac
Power @ Free air	415 W
Power @ Max. load	500 W
Output Side	
Speed (RPM)	3050
Qmax. (CMH / CFM)	2600 / 1530
Pmax. (Pa / inAq)	818 / 3.28
Noise (dB-A) @ Qmax.	79.0
Functions	
Passive power factor correction	
Control input 0~10V_{DC} / PWM pattern.	
Output +10V_{DC} (±10%), max. 10mA.	
RS485 control bus	
Alarm relay, Locked rotor protection, Soft start.	
Voltage / Current monitoring.	

Physical	
Rotation Direction	CW, Seen on rotor
Material (Impeller / Frame)	Aluminum sheet / Die-cast aluminum
Bearing system	Ball bearings
Weight (kg)	10.5
Electrical leads	Lead wire
Environmental	
Operating temperature range	-25 ~ +60 ℃
Storage temperature range	-40 ~ +70 ℃
Safety	
Safety	UL , cUL , TUV
IP Level	IP54
EMC	EN61000-6-1/3 , EN61000-3-2/3
Protection class	I
Insulation class	B
Leakage current	<= 3.5 mA
Motor protection	Over temperature protected
Life expectance	60,000 hrs at 40 ℃ / 15 ~ 65 %RH

NOTE : Delta reserves the right to change specifications and other product information without prior notice.

P & Q curves



Measure data:

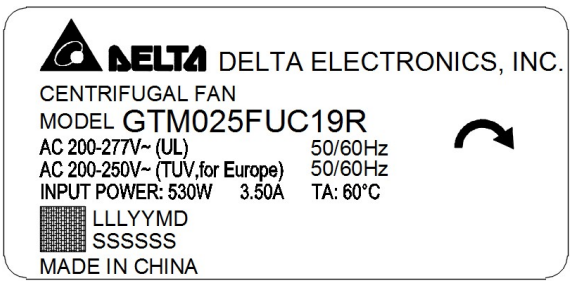
	P [Pa]	Q [CMH]	N [R.P.M.]	P1 [W]	I [A]	Lp [dB(A)]
1	0	2600	3051	415	2.68	79.0
2	293	2136	3046	480	3.09	
3	539	1660	3007	497	3.22	
4	765	855	3048	421	2.72	
5	0	2114	2506	221	1.49	72.2
6	201	1744	2504	266	1.77	
7	392	1333	2497	287	1.9	
8	518	548	2501	214	1.45	
9	0	1572	1843	95	0.69	68.3
10	145	1202	1838	117	0.83	
11	245	809	1840	118	0.84	
12	281	403	1842	93	0.68	

Test Condition :

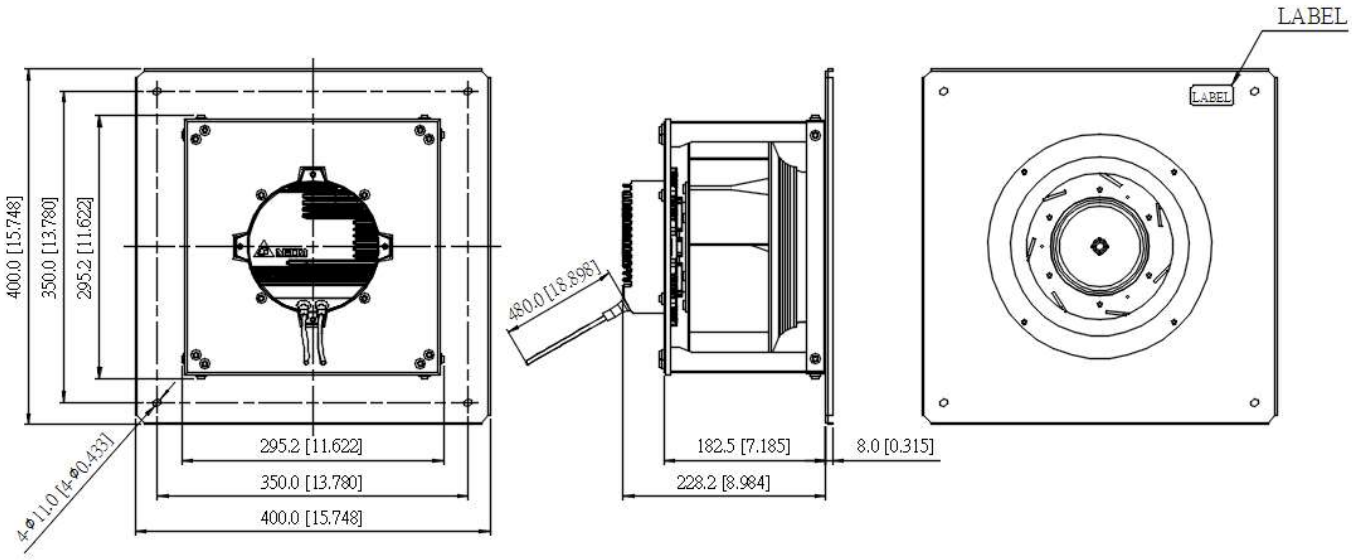
- Input Voltage: Nominal Voltage
- Temperature : Room Temperature
- Humidity : 65%RH
- Measured with inlet cone.
- Noise (Lp) is measured at a distance of one meter from the inlet side.

Dimension drawing

Label :

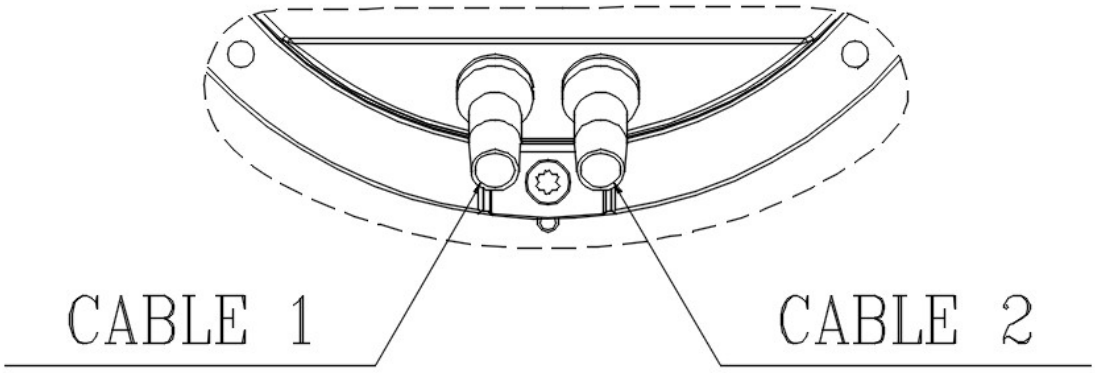


Fan :



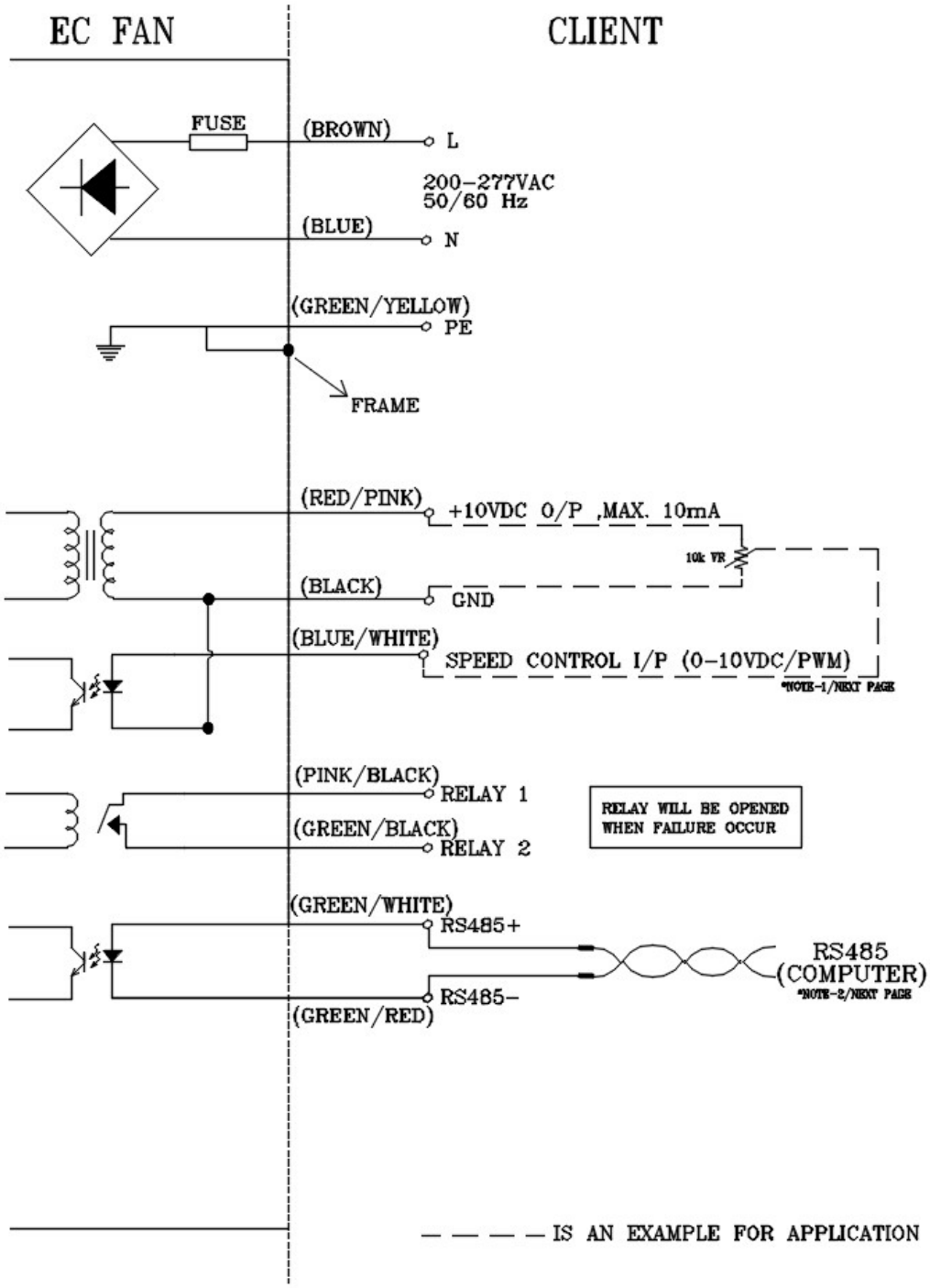
UNIT : mm[INCH]

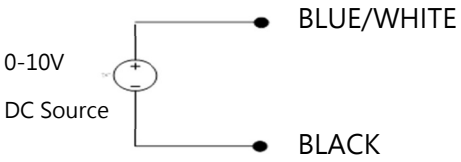
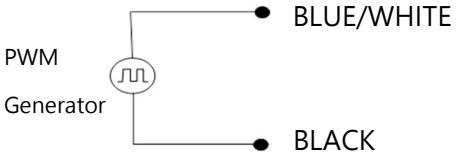
Definition of cable



Cable	Wire type	Text	Functions
1	UL 2464 18AWG 3C	Brown	L
		Blue	N
		Green / Yellow	Earth
2	UL 2464 24AWG 7C	Red / Pink	+10V
		Blue / White	PWM
		Black	GND
		Green / Red	RS485-
		Green / White	RS485+
		Pink / Black	Relay 1
		Green / Black	Relay 2

Lead wire connection:



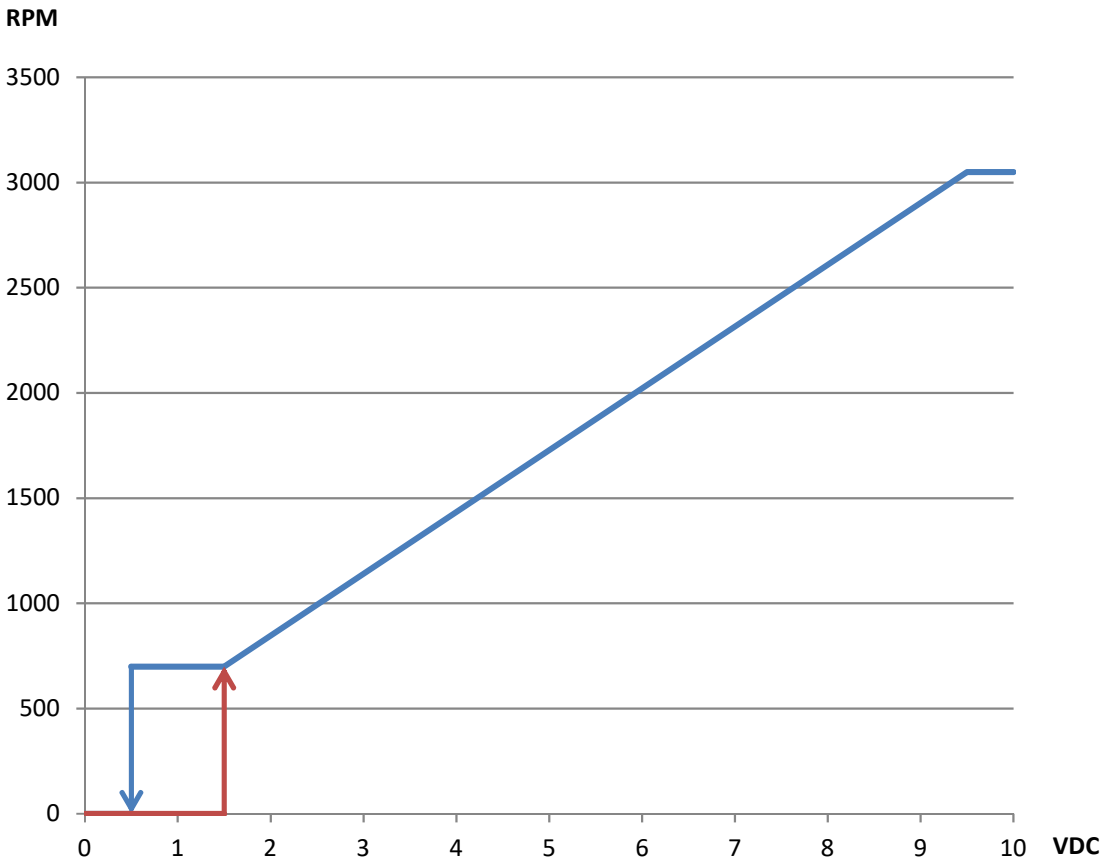
Speed setting	
Full Speed  	**Short RED/PINK & BLUE/WHITE** Fan will run full speed.
Voltage Control  	**Use voltage source support 0~10VDC voltage** DC+ : connector BLUE/WHITE DC - : connector BLACK -Voltage higher than 1.5VDC, fan start up. -Voltage lower than 0.5VDC , fan stop
PWM Control  	**PWM duty control** PWM amplitude is 10VDC(+-5%) Frequency Range is 100Hz ~ 100kHz -PWM duty higher than 15%, fan start up。 -PWM duty lower than 5%, fan stop。

Signal function	
RS485 control function	**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.
Voltage control	The speed comparison will control level

Voltage (V)	PWM (%)	Speed (RPM) (REF)
0	0	0
1.5	15	730 ± 50 RPM
6.0	60	2050 ± 8%
9.5	95	3050 ± 5%

Alarm state	**Open with Failure (Relay1/Relay2)**

Control Voltage VS. RPM Curve



Voltage(VDC) , PWM duty (%)

Voltage	0	0.5	1	1.5	2	3	4	5	6	7	8	9	10	VDC
PWM duty	0	5	10	15	20	30	40	50	60	70	80	90	100	%

Mouser Electronics

Authorized Distributor

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GTM025FUC19R