Specification For Approval

Customer : Vertiv

Description : EC FAN

Customer Part No. : _____ Rev : _____

Delta Model No. : GTB063PUU38R-V001 Rev : 01

Safety Model No. : EMBP5E5FHL

Sample Issue No. : _____

Sample Issue Date : 06/07/2022

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

Approved by : _____

Date : _____

GTB063PUU38R-V001 Delta Datasheet
sales@fansco.com
www.fansco.com

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GTB063PUU38R-V001

Electronically Commutated (EC) Fan

Centrifugal Fan

ϕ 636 x 383 mm

GTB063PUU38R-V001 Delta Datasheet
sales@fansco.com
www.fansco.com

Technical features

Input Side	
Nominal Voltage	3~ 400V_{ac} 50/60Hz
Input Source	3~ 380V_{ac} - 480V_{ac}
Power @ Free air	2490 W
Power @ Max. load	3700 W
Output Side	
Speed (RPM)	1600
Qmax. (CMH / CFM)	20381 / 11989
Pmax. (Pa / inAq)	1138 / 4.57
Noise (dB-A) @ Qmax.	89
Functions	
Passive power factor correction	
Control input 0-10V_{DC} / PWM	
Output +10V_{DC} (±10%), max. 10mA.	
RS485 control bus (MODBUS (V20) RTU / 8N1)	
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
Material (Bracket / Nozzle)	N/A / Plastic
Bearing system	Ball bearings
Weight (kg)	27.5
Electrical leads	Via terminal block
Environmental	
Operating temperature range	-25 ~ +40 ℃
Storage temperature range	-40 ~ +70 ℃
Safety	
Safety	UL, cUL, CE
IP Level	IP54
EMC	EN61000-6-2 , EN61000-6-3
Protection class	I
Insulation class	F
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.

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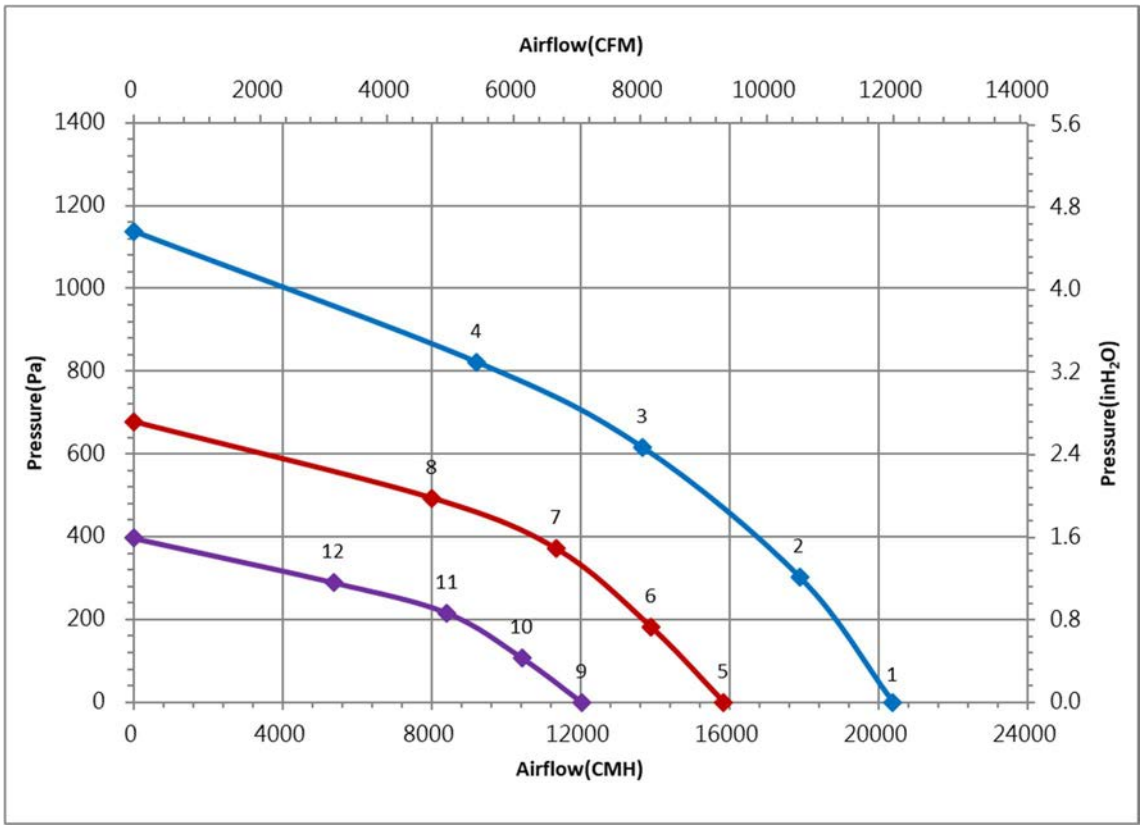
P & Q curves



Measure data:

	P [Pa]	Q [CMH]	N [R.P.M.]	P1 [W]	I [A]	Lp [dB(A)]
1	0	20381	1603	2490	3.99	89
2	302	17879	1605	3318	5.32	
3	616	13656	1560	3728	5.98	
4	822	9213	1589	3739	6.00	
5	0	15844	1250	1193	1.91	85
6	181	13892	1250	1585	2.54	
7	371	11352	1250	1900	3.05	
8	493	8009	1250	1858	2.98	
9	0	12028	950	541	0.87	77
10	107	10422	950	723	1.16	
11	216	8418	950	847	1.36	
12	289	5368	950	815	1.31	

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.

ErP Directive:

	Actual	2015
Over all Eff (%)	65.7	57.5
Eff Grade N	70.2	62.0
Power (kW)	3.7	
Air flow (CMH)	13656	
Pressure (Pa)	616	
Speed (RPM)	1560	

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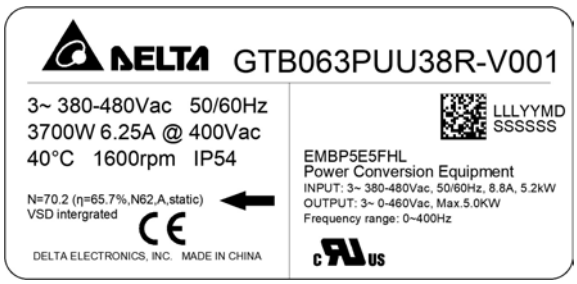
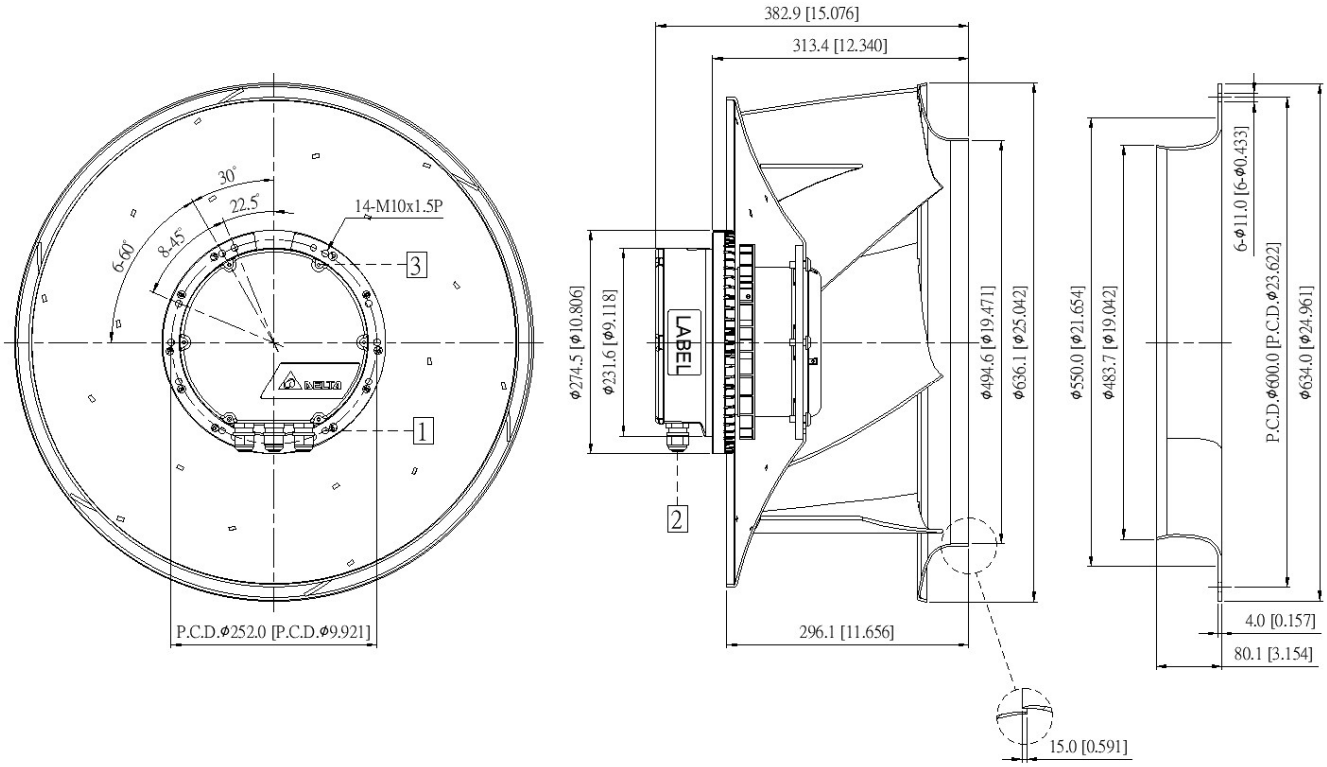
Dimension drawing

Label :



Fan :



Note :

UNIT : mm[INCH]

1. Depth of screw : 25mm max..
2. Cable diameter : Ø7.0 ~ Ø12.7mm.
3. Open the cover and refer to definition of terminal block.

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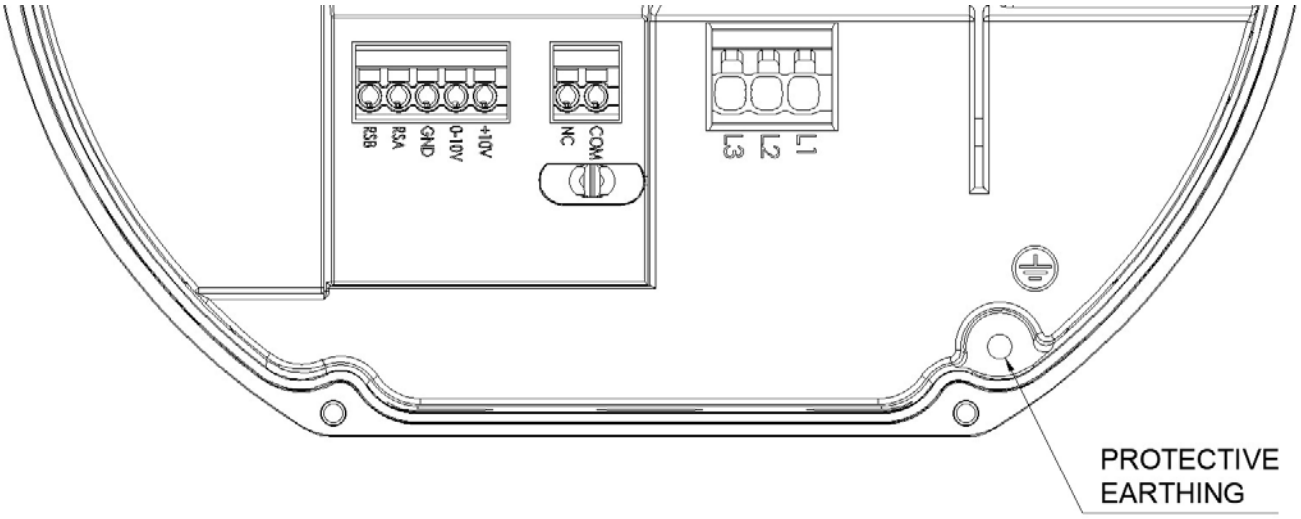
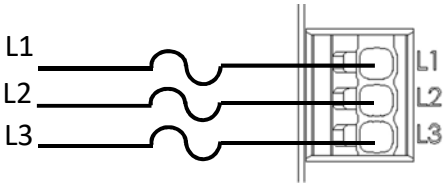
Definition of terminal block



	Text	Functions
Power	L1	AC main (3~ 380-480VAC)
	L2	AC main (3~ 380-480VAC)
	L3	AC main (3~ 380-480VAC)
Status	COM	Alarm relay, common (2A/250VAC)
	NC	Alarm relay, open by failure
Signal	+10V	10VDC output, MAX 10mA (For external potentiometer)
	0-10V	Speed control, input 0-10VDC
	GND	Ground
	RSA	RS485-A
	RSB	RS485-B

Wiring diagram

Input: 3-phase power



Branch Circuit Protector: 20A class CC fuse
Fuse must be UL listed and CSA certified,
or UL listed and cUL certified.

Overvoltage category - OVC II.
For use in Pollution Degree 2 Environment.

The drive is suitable for use in a circuit capable of delivering not more than 5000 rms symmetrical amperes, 480 volts maximum.

The power input wire shall be copper conductors rated 60/75℃.

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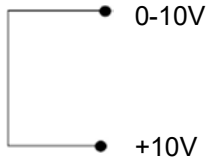
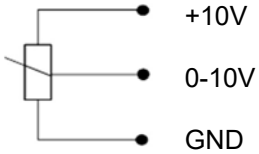
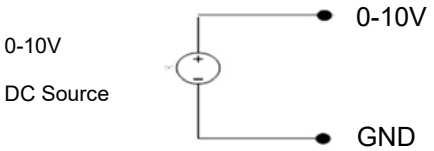
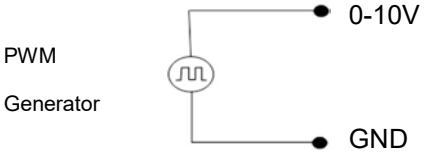
Speed setting	
Full Speed  	**Short 0-10V & +10V** Fan will run at full speed.
 	**Connector 1-10kΩ variable resistor** Between **+10V** with **GND** and 0-10V Vary the variable resistance，to change the ‘(0-10V)’ voltage (0...10V), then change FAN speed。
Voltage Control  	**Use voltage source supply 0~10V_{DC} voltage** DC+ : connect to (0-10V)(+) DC - : connect to GND (-)
PWM Control  	**PWM duty control** PWM amplitude is 10VDC (+-5%) Frequency Range is100Hz...100kHz -PWM duty higher than 15%, fan start up。 -PWM duty lower than 5%, fan stop。

<table>
<tr><th colspan="2">Signal function</th></tr>
<tr><td>RS485 control function</td><td>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.
Note: A MODBUS over Serial Line Cable must be shielded. At one end of each cable its shield must be connected to protective ground.</td></tr>
<tr><td>Voltage / PWM</td><td>The speed comparison will control level.
<table>
<tr><th>Voltage (V) ± 5%</th><th>PWM(%) ± 5%</th><th>Speed (RPM)</th></tr>
<tr><td>0 ~ 0.5</td><td>0 ~ 5</td><td>0</td></tr>
<tr><td>1.5</td><td>15</td><td>100 ± 50 RPM</td></tr>
<tr><td>6.0</td><td>60</td><td>950 ± 8%</td></tr>
<tr><td>9.5</td><td>95</td><td>1600 ± 5%</td></tr>
</table></td></tr>
<tr><td>Alarm state</td><td>Normal State: NC and COM will CLOSE.
Alarm State: NC and COM will OPEN.</td></tr>
</table>

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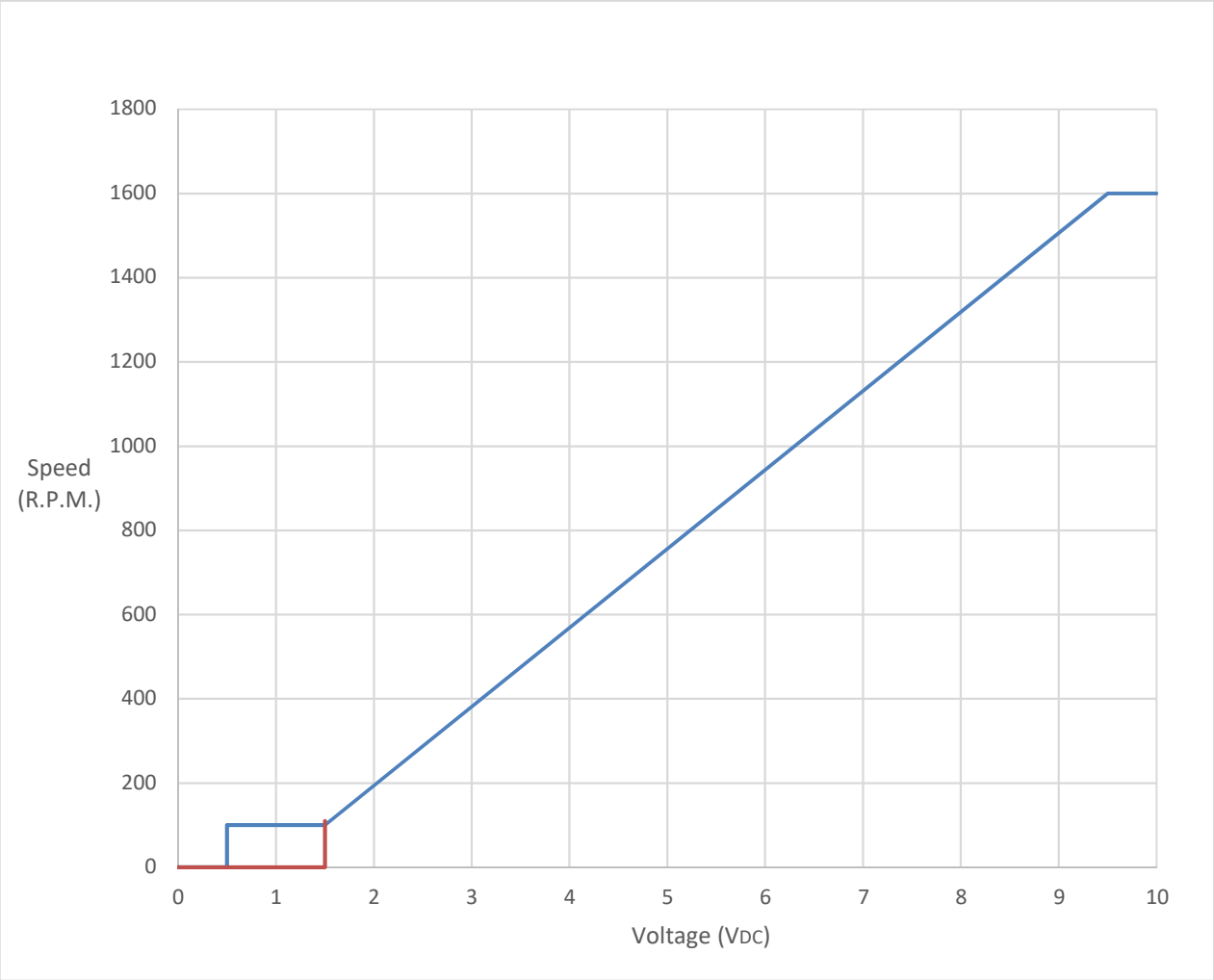
Control Voltage VS. RPM Curve



Voltage (V_{DC}), PWM duty (%)

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