

BLA1HH21 Technical Specification

Update Number
200915-01

Item		Specification				Remark	
1	Communication Interface	PWM				Signal Voltage:V	HIGH : min. 2.0V max. Vcc
							LOW : min. 0.0V max. 0.45V
						Frame Rate:T	3.0~30ms (Default 14.25ms)
						CW/Center/CCW:Td	920/1520/2120μs (Resolution recommends less than 1μs.)
		S.BUS				Futaba Serial Protocol (Please ask us for more information.)	
2	International Protection Code	IP64				Waterproof and Dustproof	
3	Rated Voltage	6.0~7.4V DC				-	
4	Operating Voltage	4.0~8.4V DC				-	
5	Standby Current	≤ 45mA				at 6.0~7.4V	
6	Starting Current	8.6A				at 7.4V	
7	Consumption Current*	LL	Me	UL	unit	at 7.4V , No-Load	
		235	365	545	mA	LL : Low Limit Me : Medium Value UL : Upper Limit	
8	Max. Torque*	LL	Me	UL	unit	at 7.4V	
		25.9	37.0	48.1	kgf-cm		
		2.54	3.63	4.72	N-m		
		359.7	513.8	668.0	ozf-in		
9	Rated Torque*	LL	Me	UL	unit	at 7.4V	
		5.2	7.4	9.6	kgf-cm	20% of Max. Torque	
		0.51	0.73	0.94	N-m		
		71.9	102.8	133.6	ozf-in		
10	No Load Speed*	LL	Me	UL	unit	at 7.4V	
		0.08	0.11	0.14	sec/60°		
		428.6	545.5	750.0	°/sec		
		71.4	90.9	125.0	rpm		
11	Default Travel Angle	CW 60° (920μs) CCW 60° (2120μs)				-	
12	Max Travel Angle	CW 90° (920μs) CCW 90° (2120μs)				Programing tool (CIU-2 or CIU-3,S-Link) required.	
13	BackLash*	≤ 0.5°				-	
14	Operating Temperature Range	-30~+70°C (-22~158°F)				-	
15	Storage Temperature Range	-40~+80°C (-40~176°F)				-	
16	Outer Dimension	1.59 x 0.83 x 1.51 inch (40.5 x 21.0 x 38.4mm)				-	
17	Weight	3.07oz (87g)				-	
18	Case Material	Upper : AL / Middle : AL / Bottom : AL				-	
19	Gear Set Material	1st,2nd,3rd,4th(Final) : Metal				-	
20	Position Sensor	Potentiometer (Contact Type)				-	
21	Motor Type	Brushless DC Motor				-	
22	Cable	Shielded Cable				Cable Length : 15.75 inch (400mm)	
23	Connector	Manufacture	Tyco Electronics				
		Type	TE794617-4				
		Mating	TE794616-4 etc.				
		Pin Assignment	1	White	S.BUS / PWM		
		2	Red	Vcc			
		3	Black	GND			
		4	Shield	Case Shield Line			
24	MTTF	300h				Test Condition at 7.4V / Load : 20% of Max. Torque / 0.5Hz sweep (±60°)	
25	Vibration Resistance *	Operating time ≥ 50h (at 7.4V)				Test Condition	
						Frequency range	80 to 400Hz
						Acceleration	30G (294m/s ²)
						Sweep rate	1.2 min / single-sweep
						Vibration axis	X, Y, Z

* Initial Performance Data at 23±5°C

All Specifications are subject to change without prior notice.

Caution

This product SHOULD NOT be used for the devices that is directly related to human life .

Outer Dimension

