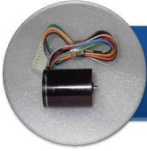
**BL2243****Report for Brushless Motor Testing Data Sheet****Series No: BL2243- - P 2**

No.	Testing Item		Tested Values				Unit
1	Nominal voltage	U_N	12	24	24		V
2	Terminal resistance, phase to phase	R	7	5.5	30.8		Ω
3	Output power	P_{2max}	4.67	23.61	3.55		W
4	Efficiency	η_{max}	61	60	41		%
5	No-load speed	n_o	7510	40200	6000		rpm
6	No-load current	I_o	0.08	0.22	0.1		A
7	Stall torque	M_H	23.77	22.43	22.61		mNm
8	Friction torque	MF	1.16	1.19	3.33		mNm
9	Speed constant	k_n	656.47	1763.93	286.81		rpm/V
10	Back-EMF constant	k_E	1.52	0.57	3.49		mV/rpm
11	Torque constant	k_M	14.55	5.41	33.30		mNm/A
12	Current constant	k_I	0.07	0.18	0.03		A/mNm
13	Slope of n-M curve	$\Delta n/\Delta M$	315.90	1792.07	265.31		rpm/mNm
14	Mechanical time constant	τ_m	3.64	20.64	3.06		ms
15	Rotor inertia	J	1.10	1.10	1.10		gcm ²
16	Angular acceleration	α_{max}	216.12	203.93	205.59		10 ³ rad/s ²
17	Sensor		SL&HS	Hall sensor	Hall sensor		
18	Driver		DR1802 DR3006	DR3006	DR3006		
19	Weight		95				g
20	Operating temperature range		-30~+85				
21	Commutation		Electronically commutation				
22	Ball Bearing		EZO & NMB				
23	Housing material		Aluminum, black anodized				
24	Magnet material		Sintered Nd-Fe-B				
25	Direction of rotation		Electronically reversible				
The Operating Data For η_{max} of Customer's Specifications							
26	Output Power	P_{2opt}	2.67	13.78	2.58		W
27	Efficiency	η_{opt}	61	60	41		%
28	Speed	n_{opt}	4844	25470	2836		rpm
29	Load Current	I_{opt}	0.36	0.95	0.26		A
30	Operating Torque	M_{opt}	5.26	5.17	8.68		mNm

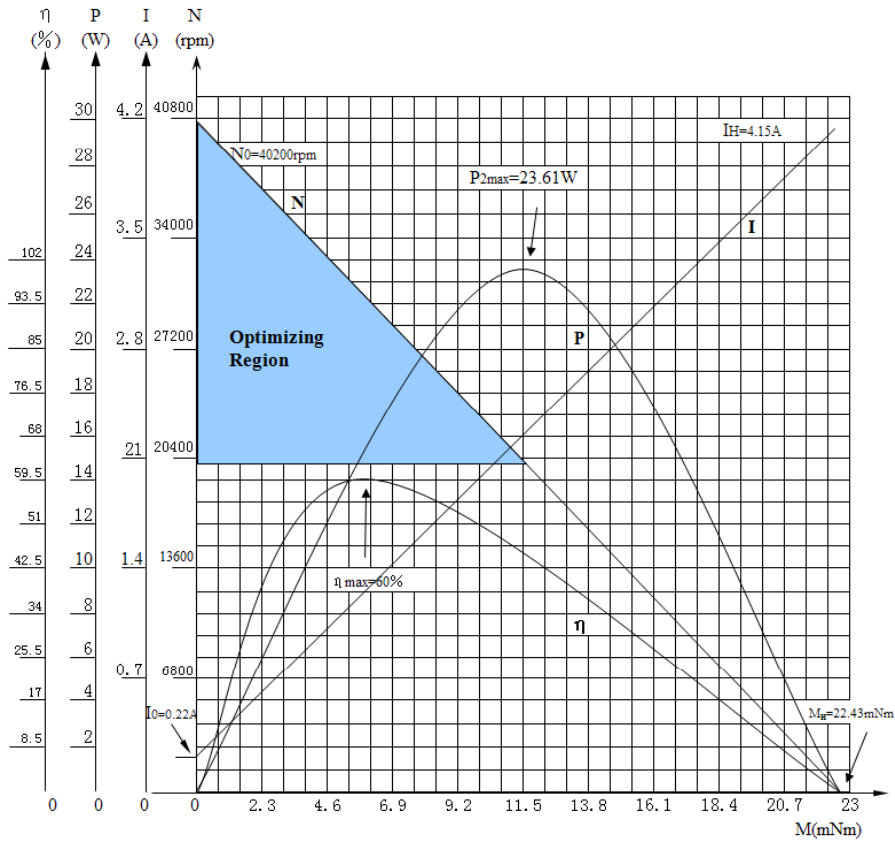
Note:

- (1) The I_o is pure current of motor in this data sheet that means it not included the driver's current..
- (2) This type of motor can be assemble for planetary Gearbox which type of IG22 and made from Shayang Ye Co., Taiwan, and please to see Gearbox' s sheet attached if you have need it.



BL2243

Operating Curve



Note:(1)The I_0 is pure current of motor in this curve drawing that means it not included the driver's current.

(2)We have suggested there has a optimizing region for this motor's operating as hatched in drawing.

Drawing

