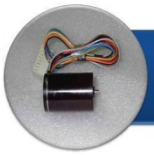


BL2230

Report for Brushless Motor Testing Data Sheet

Series No: BL2230(2232)- - - P 2

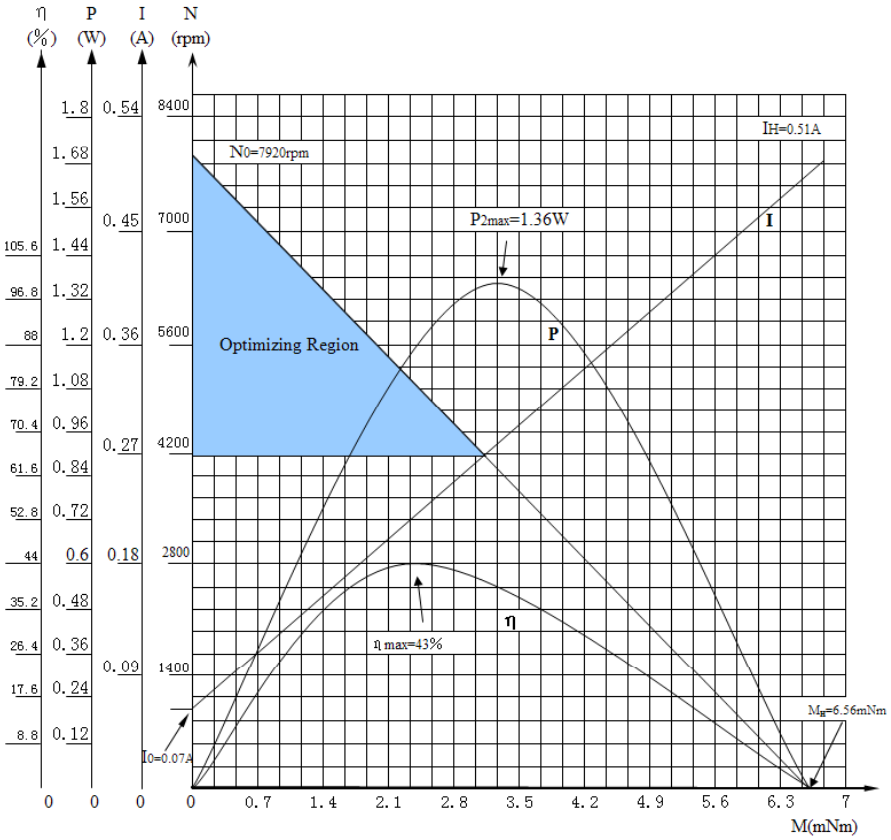
No.	Testing Item		Tested Values					Unit
1	Nominal voltage	U_N	6	6	12	24		V
2	Terminal resistance, phase to phase	R	5.6	42	20.5	20.5		Ω
3	Output power	P_{2max}	1.43	0.19	1.36	5.99		W
4	Efficiency	η_{max}	58	54	43	52		%
5	No-load speed	n_o	6400	2100	7920	15660		rpm
6	No-load current	I_o	0.06	0.01	0.07	0.09		A
7	Stall torque	M_H	8.55	3.37	6.56	14.60		mNm
8	Friction torque	MF	0.51	0.25	0.89	1.22		mNm
9	Speed constant	k_n	1129.94	376.34	749.65	706.84		rpm/V
10	Back-EMF constant	k_E	0.89	2.66	1.33	1.41		mV/rpm
11	Torque constant	k_M	8.45	25.37	12.74	13.51		mNm/A
12	Current constant	k_I	**0.12**	**0.04**	**0.08**	**0.07**		A/mNm
13	Slope of n-M curve	$\Delta n/\Delta M$	748.74	622.94	1206.41	1072.56		rpm/mNm
14	Mechanical time constant	τ_m	14.82	12.33	23.88	21.23		ms
15	Rotor inertia	J	1.89	1.89	1.89	1.89		gcm^2
16	Angular acceleration	α_{max}	45.23	17.84	34.74	77.25		$10^3 rad/s^2$
17	Sensor		Sensorless		SL&HS	Hall Sensor		
18	Driver		DR1802		DR1802& DR3006	DR3006		
19	Weight		44					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}	0.86	0.12	0.98	3.91		W
27	Efficiency	η_{opt}	58	54	43	52		%
28	Speed	n_{opt}	3953	1222	3852	8866		rpm
29	Load Current	I_{opt}	**0.25**	**0.04**	**0.19**	**0.31**		A
30	Operating Torque	M_{opt}	2.08	0.92	2.42	4.21		mNm

Note:

(1) The I_0 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.

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