



BLDC Motor with Encoder



BLDC Motor with Encoder with Brake



BLDC Motor with Encoder with Brake with PI Gear Box

Miniature Motors for Compact Applications

Part Number	5 V 25 28 5	5 V 25 28	5 V 30 46	5 V 30 46 8	5 V 30 46 7	
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Values at Nominal Voltage

DC Bus Voltage	24	24	24	24	36	V
No Load Speed	12800	11800	8.400	16.900	15.700	rpm
No Load Current	0,15	0,25	0,38	0,9	0,65	A
Nominal Speed	10800	10900	7500	16000	14500	rpm
Nominal Torque	20	30	120	118	120	mNm
Nominal Current	1,3	2	4,8	9,6	6,1	A
Stall Torque	0,132	0,46	3,2	2,7	2,6	Nm
Stall Current	7,5	24	114	200	120	A

Torque Constant	17,9	19,4	27,7	13,5	21,9	mNm/A
Speed Constant	533	491	345	705	435	rpm/V
Resistance	3,2	1	0,42	0,12	0,3	Ohm
Inductance	0,22	0,05	0,08	0,02	0,045	mH
Max. Efficiency	78	79	88	88	88	%
Number of Poles	2	4	4	4	4	
Mechanical Time Constant	5,8	4	2	2,5	2	ms

Dimensions

Outer Diameter	25	25	30	30	30	mm
Length including Encoder	67	67	84	84	84	mm
Shaft Diameter	3	3	4	4	4	mm
Shaft Length	10	10	16	16	16	mm

Encoder - Obligatory

Supply Voltage			5			V. DC
Counts per turn			2048			
Type			incremental with line driver			

Brake - Optional

Supply Voltage			24			V. DC
Holding Torque			0,1			Nm
Nominal Power			0,2			W

Miniature Motors for Compact Applications



BLDC Motor with Ball Screw



BLDC Motor with Encoder with Brake with Pl. Gear Box with Worm Gear Box



BLDC Motor with Encoder with Brake with Pl. Gear Box with Ball Screw

Part Number	5 V 30 46 2	5 V 35 46	5 V 40 80	5 V 40 80 2	5 V 40 80 3	
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Values at Nominal Voltage

DC Bus Voltage	48	24	24	24	48	V
No Load Speed	16800	17500	4.650	15.000	9.250	rpm
No Load Current	0,38	1,8	0,4	1,2	0,4	A
Nominal Speed	16000	16000	4200	13000	8600	rpm
Nominal Torque	120	170	270	270	270	mNm
Nominal Current	4,8	15	5,8	19	5,8	A
Stall Torque	3,2	3	6	4	6	Nm
Stall Current	114	266	120	265	120	A

Torque Constant	27,7	13,1	50,2	15,2	50,2	mNm./A
Speed Constant	345	729	190	625	190	rpm/V
Resistance,	0,42	0,09	0,39	0,083	0,39	Ohm
Inductance,	0,08	0,013	0,1	0,023	0,1	mH
Max. Efficiency	89	83	91	89	93	%
Number of Poles	4	4	4	2	4	
Mechanical Time Constant	2	3	3	1,75	3	ms

Dimensions

Outer Diameter	30	35	40	40	40	mm
Length including Encoder	84	90	127	127	127	mm
Shaft Diameter	4	5	5	5	5	mm
Shaft Length	16	16,5	20	20	20	mm

Encoder - Obligatory

Supply Voltage			5			V. DC
Counts per turn	2048			4096		
Type	incremental with line driver					

Brake - Optional

Supply Voltage	24					V. DC
Holding Torque	0,1					Nm.
Nominal Power	0,2					W.

available upon request

Applicable to Slotless BLDC Motors



		5 V 25 28			5 V 30 46			5 V 30 46			5 V 30 46					
		5 V 25 28	5 V 30 46	5 V 35 46	5 V 30 46	5 V 35 46	5 V 40 80	5 V 30 46	5 V 35 46	5 V 40 80	5 V 30 46	5 V 35 46	5 V 40 80			
Code Number		8 RD P GN 22			8 RD P GN 26			8 RD P GN 32			8 RD P GN 42K			mm		
Outer Diameter		22			26			32			42K					
Number of Stage		1	2	3	1	2	3	1	2	3	1	2	3			
Reduction Ratio	i			64			81,37			64			49			
				80			112,67			72			56			
				16	112		12,25	143,97			81		12,25	64		
				20	140		18,78	199,33			100		14	70		
				4	28	196	3,5	26	216	4	32	256	3,5	30	184	
				5	35	245	4,33	33,22	276	4,5	36	288	4	30,67	235,11	
				7	49	343	6	46	352,67	5,2	41,6	332,8	5	38,33	293,89	
										6,25	50	400	6	46	352,67	
										8	64	512	7,67	58,78	450,63	
		Continuous Rated Torque	ST Type	0,1	0,5	1,5	0,3	1	3	0,4	2	6	0,7	4	15	Nm
AB Type	0,1		0,5	1,5	0,3	1	3	0,4	2	6	0,7	4	15	Nm		
AH Type	0,2		1	1,5	0,6	2	3	0,8	4	6	1,4	8	15	Nm		
DB Type	-		-	-	-	-	-	0,8	4	6	1,4	8	15	Nm		
Maximum Efficiency at Rated Torque		90	85	80	90	85	80	90	85	80	90	85	80	%		
Intermittent Torque	ST Type	0,2	1	3	0,6	2	6	0,8	4	12	1,4	8	30	Nm		
	AB Type	0,2	1	3	0,6	2	6	0,8	4	12	1,4	8	30	Nm		
	AH Type	0,4	1,5	3	1,2	3	6	1,6	6	12	3	15	30	Nm		
	DB Type	-	-	-	-	-	-	1,6	6	12	3	15	30	Nm		
Weight		50	75	100	70	90	115	135	180	250	315	400	485	gr		
Average No Load Backlash	ST Type	20	35	50	20	35	50	20	35	50	20	35	50	arcmin≤		
	AB Type	10	20	30	10	20	30	12	20	30	12	20	30	arcmin≤		
	AH Type	20	35	50	20	35	50	20	35	50	20	35	50	arcmin≤		
	DB Type	-	-	-	-	-	-	8	12	15	8	12	15	arcmin≤		
Output Shaft Diameter		4	4	4	5	5	5	6	6	6	12	12	12	mm		
Output Shaft Length		12	12	12	14	14	14	16	16	16	17	17	17	mm		
Length Excluding Shaft		21	28	35	25	33	41	29	38	47	38	50,5	63	mm		
Temperature Range	ST Type	-30 / +90			-30 / +90			-30 / +90			-25 / +90			°C		
	AB Type	-30 / +90			-30 / +90			-30 / +90			-25 / +90			°C		
	AH Type	-40 / +90			-40 / +90			-40 / +90			-25 / +90			°C		
	DB Type	-			-			-40 / +90			-25 / +90					

ST Type : Standard Configuration

AB Type : Reduced Backlash

AH Type : Heavy Duty

DB Type : Low Backlash