

PRODUCT OVERVIEW

Our new innovative range of *brushless DC motors (BLDC)* are provided with or without a **patented Internal Drive Electronics inside the motor**, which provides the most extensive range to suit most applications. The range is supplied with a variation of lengths in 16mm, 22mm, 24mm, 28mm, 36mm, 42mm, 56mm, 60mm, 68mm and 90mm diameters, which equates to output power of less than 1 Watt up to 400 Watts with standard interface connectors.



The MBS brushless DC motors are comparable in pricing to standard DC brushed motors without the problems associated with brush life on the commutator. With lifetimes from 10,000 to 50,000 hours, these BLDC motors not only outperform most DC brushed motors, where demands for low vibration and noise with higher speed requirements are the norm, but with the option of an integrated speed controller which can be used with a standard DC input voltage or a PWM frequency input to control the speed.

The range also includes an outer rotor design as an option and the standard motors can be provided with a range of high efficiency planetary gearboxes as standard, with as host of feedback options. Applications include pumps, medical appliances, printers, copiers, scanners, cash registers and more.

TECHNICAL SPECIFICATIONS TABLE

Model Number	Dimensions		Electrical Performance								Stall		Life
	Motor Dia.	Motor Length	Operating Voltage	Rated Voltage	No-load Speed	No-load Current	Rated Torque	Rated Speed	Rated Current	Rated Power	Torque	Current	
	(mm)	(mm)	(VDC)	(VDC)	(rpm)	(A)	(mNm)	(rpm)	(A)	(W)	(mNm)	(A)	
MBS1625-3.7	16	25	2-5	3.7	7500	0.145	0.687	5569	0.297	0.4	2.44	0.35	10000-50000
MBS1625-6-01		25	5-13	6	7800	0.05	0.687	6500	0.15	0.46	4.17	0.9	
MBS1625-12-01		25	5-13	12	7850	0.034	0.687	6570	0.08	0.475	4.26	0.8	
MBS1625-12-02		25	5-13	12	49265	0.314	0.687	47462	0.538	3.413	18.76	0.8	
MBS1625-6-02		25	5-13	6	9995	0.082	1.001	8045	0.261	0.843	5.087	0.9	
MBS1625-12-03		25	5-13	12	26600	0.118	1.501	22565	0.415	3.547	9.895	0.8	
MBS2238-6	22	38	5-14	6	4000	0.09	4.61	3075	0.45	1.49	20.0	0.80	10000-50000
MBS2238-12		38	8-26	12	4480	0.04	3.92	3490	0.19	1.44	17.7	0.85	
MBS2238-24		38	8-26	24	9980	0.08	5.886	8090	0.33	4.98	30.7	0.75	
MBS2418-6	24	18	5-12	6	9260	0.21	2.45	7490	0.61	1.93	6.2	1.2	5000-50000
MBS2418-12-01		18	8-26	12	6520	0.08	2.45	4660	0.24	1.2	8.4	0.65	
MBS2418-12-02		18	8-26	12	12420	0.127	2.94	9580	0.43	2.96	12.8	1.47	
MBS2418-24-01		18	8-26	24	12770	0.065	5.89	9280	0.41	5.72	21.5	1.32	
MBS2418-24-02		18	8-26	24	8660	0.055	2.94	6690	0.169	2.06	12.8	0.55	
MBS2430-6	24	30	5-12	6	5380	0.23	3.92	4720	0.61	1.94	13.2	1.5	3000-15000
MBS2430-9		30	5-12	9	5390	0.11	9.81	3750	0.71	3.85	23.2	1.5	
MBS2430-12		30	8-26	12	8010	0.17	9.32	6150	0.74	6.01	23.5	1.5	
MBS2430-24		30	8-26	24	4570	0.05	6.87	3510	0.18	2.53	29.59	0.64	

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	(mm)	(mm)	(VDC)	(VDC)	(rpm)	(A)	(mNm)	(rpm)	(A)	(W)	(mNm)	(A)	(Hr)
MBS2838-7.4	28	38	6-12	7.4	4400	0.15	7	4100	0.68	3.0	38.0	1.6	10000-30000
MBS2838-12		38	8-26	12	3900	0.09	12	3200	0.58	4.1	69.4	1.6	
MBS2838-24-01		38	8-26	24	7640	0.15	18	4700	0.9	9.0	48.0	2.5	
MBS2838-24-02		38	8-26	24	9400	0.18	24	5800	1.38	14.6	60.0	2.5	
MBS2838-24-03		38	8-26	24	16000	0.3	20	13000	1.75	27.4	40.0	2.5	
MBS3040-6	30	40	5-12	6	1992	0.14	15	1464	0.71	2.3	56.54	0.9	10000-50000
MBS3040-12-01		40	8-26	12	3698	0.1	10	3165	0.44	3.32	69.43	2.8	
MBS3040-12-02		40	8-26	12	3986	0.14	30	2830	1.24	8.89	103.4	2.8	
MBS3040-24-01		40	8-26	24	3615	0.06	10	3139	0.23	3.29	76.02	2.4	
MBS3040-24-02		40	8-26	24	5475	0.09	30	4384	0.84	13.77	150.6	2.4	
MBS3626-9	36	26	8-26	9	2720	0.12	13.73	985	0.57	1.42	21.51	2.5	10000-50000
MBS3626-12		26	8-26	12	4460	0.18	10.79	3750	0.57	4.23	66.74	2.5	
MBS3626-24-01		26	8-26	24	5998	0.12	15.0	4858	0.50	7.63	78.91	2.5	
MBS3626-24-02		26	8-26	24	11990	0.35	14.72	9420	0.996	14.52	63.79	2.5	
MBS3626-24-03		26	8-26	24	39845	0.26	9.81	33327	1.78	34.24	58.99	3.0	
MBS3630-6	36	30	5.8-12	6	2940	0.39	10.00	2270	0.91	2.38	44.05	2.5	10000-50000
MBS3630-12		30	8-26	12	5200	0.27	14.72	4260	0.90	6.56	81.30	2.5	
MBS3630-24-01		30	8-26	24	6970	0.20	19.62	5640	0.76	11.58	102.5	2.5	
MBS3630-24-02		30	8-26	24	15755	0.39	20.00	13213	1.59	27.67	123.9	3.5	
MBS3640-12-01	36	40	8-26	12	2360	0.14	25.5	1830	0.69	4.90	174.1	2.5	10000-50000
MBS3640-12-02		40	8-26	12	7930	0.56	19.62	6800	1.89	13.97	83.22	3.0	
MBS3640-24-01		40	8-26	24	6140	0.26	23.5	5190	0.85	12.8	229.1	2.5	
MBS3640-24-02		40	8-26	24	16020	0.36	9.81	14940	0.98	15.35	90.68	2.5	
MBS3640-24-03		40	8-26	24	27685	0.47	19.62	22191	2.88	45.59	98.89	5.0	
MBS3640-36		40	12-40	36	20686	0.29	18.0	16726	1.30	31.53	94.02	2.5	
MBS3640-24-04		40	8-26	24	7046	0.28	56.0	5156	1.80	30.23	208.8	2.5	
MBS3650-12	36	50	8-26	12	5300	0.46	23.5	4600	1.53	11.35	77.8	2.5	10000-50000
MBS3650-24-01		50	8-26	24	13800	0.32	30.0	11360	1.99	35.69	103.7	3.0	
MBS3650-24-02		50	8-26	24	4327	0.18	45.0	3714	1.01	17.49	316.8	2.5	
MBS3650-24-03		50	8-26	24	19400	0.44	18.0	18080	1.84	34.09	75.9	3.0	
MBS3650-24-04		50	8-26	24	28518	0.64	32.37	23172	4.73	78.56	171.4	6.0	

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	(mm)	(mm)	(VDC)	(VDC)	(rpm)	(A)	(mNm)	(rpm)	(A)	(W)	(mNm)	(A)	(Hr)
MBS3657-12-01	36	57	8-26	12	3170	0.26	29.4	2460	1.15	7.6	181.5	2.5	10000-50000
MBS3657-12-02		57	8-26	12	3100	0.24	40.22	2560	1.31	10.78	215.8	2.5	
MBS3657-24-01		57	8-26	24	6830	0.34	40.2	6134	1.48	25.8	195.0	2.5	
MBS3657-24-02		57	8-26	24	26707	0.68	29.43	21132	3.79	65.13	139.5	5.0	
MBS3657-24-03		57	8-26	24	4743	0.25	98.0	3486	2.24	35.78	369.9	5.0	

MBS4235-12	42	35	8-26	12	2860	0.21	40.2	2050	1.16	8.62	141.0	2.5	10000-50000
MBS4235-24-01		35	8-26	24	6370	0.3	35.0	5100	1.17	18.72	175.8	2.5	
MBS4235-24-02		35	8-26	24	9400	0.53	18.1	8530	1.16	16.12	194.9	2.5	
MBS4235-24-03		35	8-26	24	5539	0.25	55.0	4393	1.41	25.31	264.3	2.5	

MBS4260-12	42	60	8-26	12	4590	0.28	45.00	3500	1.88	16.54	190.2	3.0	10000-50000
MBS4260-24-01		60	8-26	24	4260	0.26	95.06	3270	1.85	32.58	409.2	3.0	
MBS4260-24-02		60	8-26	24	4046	0.24	60.04	3342	1.21	21.01	344.6	2.5	
MBS4260-120		60	85-265 vac	120 vac	9700	0.19	19.816	7930	0.368	16.45	96.5	1.0	
MBS4260-220		60	85-265 vac	220vac	10760	0.12	24.525	8500	0.247	21.85	116.8	1.0	

MBS4275-12-01	42	75	8-26	12	2511	0.43	107.9	1310	2.38	14.8	222	5.0	10000-50000
MBS4275-12-02		75	8-26	12	2813	0.34	85.00	2292	2.29	20.4	458	5.0	
MBS4275-18		75	8-26	18	3790	0.32	84.02	2930	2.00	25.8	368	5.0	
MBS4275-24		75	8-26	24	5050	0.42	108.6	3900	2.62	44.3	380	5.0	

MBS4546-18-01	45	46	8-26	18	18536	1.36	32	15321	4.58	51.5	184.9	12	10000-50000
MBS4546-18-02		46	8-26	18	27377	1.98	40	23141	7.67	96.9	258.7	20	
MBS4546-18-03		46	8-26	18	35494	2.61	65	29515	14.3	201	384.7	45	

MBS5665-12-01	56	65	8-14	12	3060	0.51	150	2500	4.51	39.3	286	8.0	10000-50000
MBS5665-12-02 (N35)		65	8-14	12	2090	0.35	250	1690	5.27	44.2	413	8.0	
MBS5665-24-01		65	8-26	24	3520	0.28	190	3000	3.55	60.0	490	8.0	
MBS5665-24-02 (N35)		65	8-26	24	2360	0.29	480	1580	5.42	79.5	737	8.0	
MBS5665-36-01		65	12-40	36	4350	0.38	180	3210	2.22	60.5	464	5.0	
MBS5665-36-02 (N35)		65	12-40	36	3490	0.25	500	2700	5.51	141.1	758	8.0	
MBS5665-24-03		65	8-26	24	8500	1.20	105	7000	4.10	90.0	315	8.0	

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	(mm)	(mm)	(VDC)	(VDC)	(rpm)	(A)	(mNm)	(rpm)	(A)	(W)	(mNm)	(A)	
MBS5685-12-01	56	85	8-14	12	3760	0.55	130	2966	3.98	40.3	615	8.0	10000-50000
MBS5685-12-02 (N35)		85	8-14	12	2607	0.75	250	2142	6.28	56.1	1400	12.0	
MBS5685-24-01		85	8-26	24	3651	0.49	250	3273	4.31	85.7	480	8.0	
MBS5685-24-02 (N35)		85	8-26	24	2333	0.30	600	1680	5.97	105.7	854	8.0	
MBS568524-03		85	8-26	24	6925	0.75	265	5036	7.29	140.5	450	12.0	
MBS5685-36-01		85	12-40	36	4880	0.53	300	3300	3.66	103.8	726	8.0	
MBS5685-36-02 (N35)		85	12-40	36	2123	0.21	700	1120	4.22	82.1	1665	8.0	
MBS8035-24-01	80	35	12-26	24	3202	0.46	132	2753	2.23	38.05	939.5	6.0	10000-50000
MBS8035-24-02		35	12-26	24	1429	0.13	132	1204	0.92	16.64	836.2	2.97	
MBS8035-310		35	100-340vdc	310vdc	3262	0.036	132	2742	0.17	37.91	694.5	1.0	
MBS8035-24-03		35	12-26	24	3154	0.199	132	2128	1.67	29.41	405.8	4.7	
MBS8035-24-04		35	12-26	24	5579	0.348	40	5170	1.13	21.66	546.2	3.3	
MBS9080-12	90	80	12-28	12	2050	0.91	250	1750	5.22	45.7	1670	15.5	10000-50000
MBS9080-24-01		80	12-28	24	3380	0.74	500	2820	7.75	147.5	3002	21.5	
MBS9080-36		80	30-40	36	4520	0.65	800	3500	10.6	292.9	3535	30.0	
MBS9080-48		80	30-52	48	4950	0.54	1000	3900	10.7	408	4731	30.6	
MBS9080-24-02		80	12-28	24	2901	0.73	1000	2261	11.38	236.8	4501	33.5	

Note: motors run both CW/CCW directions, Signal function available, Locked rotor protection, Low inertia, Low noise, Low EMI. The data in the table are our standard specifications. The specific BLDC motor performance can be changed by changing gear box ratio, adjusting winding, magnetic field, controller parameter to meet customer requirements. Please consult our sales office on (+44) 01202 599922 or email to enquiries@motioncontrolproducts.com for further details / drawings.

PART NUMBER REFERENCE

MBS	60	20	i	-	24V	-	SOF 141104-001 A
MBS series Brushless motor	motor size (mm)	motor length (mm)	Blank: motor only i: motor with built-in drive /controller S: outer rotor G: with gearbox H: Slotless design		Rated voltage		SOF number to differentiate the model (consist of date code & revision)