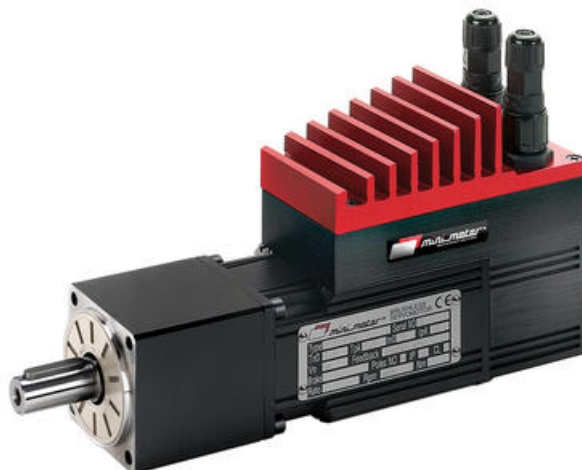


MINIMOTOR - DBSE BRUSHLESS SERVOMOTORS WITH PLANETARY GEARBOX

DBSE 55/50-5
24/48V dc 600rpm 1.9 Nm

- Efficient and compact
- Saves individual cable runs
- Up to 95Nm
- Open Bus protocols
- Reduce machine build components



PRODUCT DESCRIPTION

MOTOR: Brushless 4-pole three-phase sinusoidal motor, totally enclosed. Rotor with NdFeB magnets. Thermal cutoff. Winding Class F. Thermal cutoff. Protection IP65 in compliance with IEC/EN 60529 standards. Bearings with reduced backlash and special grease for high temperatures.

DRIVE: Power 24 and/or 48 Vdc • Magnetic absolute encoder SSI (12bit single-turn / 20bit multi-turn) with internal buffer battery • 5 PNP digital inputs and 1 analogue input -10 +10V ext. (0-5 o 4-20mA optional) • 1 relay output (NC-NO) • USB port for parametrisation • Torque, speed, position and homing control.

GEAR UNIT: planetary with hardened steel case with broached precision teeth Class 7. Heat-treated sun and planet gears.

Seal rings in special high-temperature rubber (FKM).

Lubrication with special long-lasting oil.

Rated torque up to 95 Nm.

All the models are implemented with the new "open" platform, which permits configuration with the following primary protocols: CanOpen, Ethercat, Modbus, Ethernet/IP, Profinet, Powerlink.

For full motor specifications please see motor only 'DBS' or download literature below.

[Please click here for 2D and 3D drawings](#)

TECHNICAL DATA

GENERAL DATA

Nominal speed	400 rpm
Nominal torque	1,9 Nm
Gear stages	1
Input voltage dc	24/48 Vdc
Digital inputs	2 pnp (24Vdc, 500kHz) , 3 pnp (24Vdc, 7kHz)
Outputs	1 NO 2A (42 Vdc)
Output power	125 W
Rated current	8A@24V/4.2A@48V A

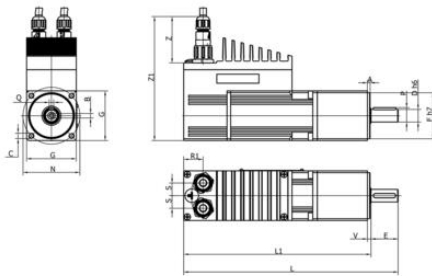
Nominal overload	200% x 60 sec
Motor control algorithm	Sinusoidal brushless with 12Bit single-turn / 20Bit multi-turn absolute encoder
Nominal output frequency carrier	4/8/12 kHz
Electronic brake output	24Vdc, max 0.5A
Ambient temperature	-10 ... +40°C

SAFETY FEATURES

IP class	IP65
CE approved	Yes
Over voltage protection	Yes
Under voltage protection	Yes
Overheat protection	Yes
Memory error protection	Yes
Polarity reverse protection	Yes
Overcurrent protection	Yes
Communication error protection	Yes
Overload protection	Yes

COMMUNICATION

Communication	USB
Ethercat	Yes
CanOpen	Yes
ProfiNET	Yes
Ethernet IP	Yes
Modbus RTU	Yes
PowerLink	Yes
Ratio	5:1



Model	Power (kW)	Speed (rpm)	Current (A)	Weight (kg)	Length (mm)	Height (mm)	Flange diameter (mm)	Flange width (mm)	Flange offset (mm)	Mounting bracket length (mm)	Mounting bracket offset (mm)	Mounting bracket height (mm)	Mounting bracket width (mm)	Mounting bracket weight (kg)
Model 1	1	1500	1.2	1.5	100	150	100	50	10	100	10	150	50	0.5
Model 2	2	1500	2.4	3.0	150	200	150	75	15	150	15	200	75	1.0
Model 3	3	1500	3.6	4.5	200	250	200	100	20	200	20	250	100	1.5
Model 4	4	1500	4.8	6.0	250	300	250	125	25	250	25	300	125	2.0
Model 5	5	1500	6.0	7.5	300	350	300	150	30	300	30	350	150	2.5
Model 6	6	1500	7.2	9.0	350	400	350	175	35	350	35	400	175	3.0
Model 7	7	1500	8.4	10.5	400	450	400	200	40	400	40	450	200	3.5
Model 8	8	1500	9.6	12.0	450	500	450	225	45	450	45	500	225	4.0
Model 9	9	1500	10.8	13.5	500	550	500	250	50	500	50	550	250	4.5
Model 10	10	1500	12.0	15.0	550	600	550	275	55	550	55	600	275	5.0
Model 11	11	1500	13.2	16.5	600	650	600	300	60	600	60	650	300	5.5
Model 12	12	1500	14.4	18.0	650	700	650	325	65	650	65	700	325	6.0
Model 13	13	1500	15.6	19.5	700	750	700	350	70	700	70	750	350	6.5
Model 14	14	1500	16.8	21.0	750	800	750	375	75	750	75	800	375	7.0
Model 15	15	1500	18.0	22.5	800	850	800	400	80	800	80	850	400	7.5
Model 16	16	1500	19.2	24.0	850	900	850	425	85	850	85	900	425	8.0
Model 17	17	1500	20.4	25.5	900	950	900	450	90	900	90	950	450	8.5
Model 18	18	1500	21.6	27.0	950	1000	950	475	95	950	95	1000	475	9.0
Model 19	19	1500	22.8	28.5	1000	1050	1000	500	100	1000	100	1050	500	9.5
Model 20	20	1500	24.0	30.0	1050	1100	1050	525	105	1050	105	1100	525	10.0
Model 21	21	1500	25.2	31.5	1100	1150	1100	550	110	1100	110	1150	550	10.5
Model 22	22	1500	26.4	33.0	1150	1200	1150	575	115	1150	115	1200	575	11.0
Model 23	23	1500	27.6	34.5	1200	1250	1200	600	120	1200	120	1250	600	11.5
Model 24	24	1500	28.8	36.0	1250	1300	1250	625	125	1250	125	1300	625	12.0
Model 25	25	1500	30.0	37.5	1300	1350	1300	650	130	1300	130	1350	650	12.5
Model 26	26	1500	31.2	39.0	1350	1400	1350	675	135	1350	135	1400	675	13.0
Model 27	27	1500	32.4	40.5	1400	1450	1400	700	140	1400	140	1450	700	13.5
Model 28	28	1500	33.6	42.0	1450	1500	1450	725	145	1450	145	1500	725	14.0
Model 29	29	1500	34.8	43.5	1500	1550	1500	750	150	1500	150	1550	750	14.5
Model 30	30	1500	36.0	45.0	1550	1600	1550	775	155	1550	155	1600	775	15.0
Model 31	31	1500	37.2	46.5	1600	1650	1600	800	160	1600	160	1650	800	15.5
Model 32	32	1500	38.4	48.0	1650	1700	1650	825	165	1650	165	1700	825	16.0
Model 33	33	1500	39.6	49.5	1700	1750	1700	850	170	1700	170	1750	850	16.5
Model 34	34	1500	40.8	51.0	1750	1800	1750	875	175	1750	175	1800	875	17.0
Model 35	35	1500	42.0	52.5	1800	1850	1800	900	180	1800	180	1850	900	17.5
Model 36	36	1500	43.2	54.0	1850	1900	1850	925	185	1850	185	1900	925	18.0
Model 37	37	1500	44.4	55.5	1900	1950	1900	950	190	1900	190	1950	950	18.5
Model 38	38	1500	45.6	57.0	1950	2000	1950	975	195	1950	195	2000	975	19.0
Model 39	39	1500	46.8	58.5	2000	2050	2000	1000	200	2000	200	2050	1000	19.5
Model 40	40	1500	48.0	60.0	2050	2100	2050	1025	205	2050	205	2100	1025	20.0
Model 41	41	1500	49.2	61.5	2100	2150	2100	1050	210	2100	210	2150	1050	20.5
Model 42	42	1500	50.4	63.0	2150	2200	2150	1075	215	2150	215	2200	1075	21.0
Model 43	43	1500	51.6	64.5	2200	2250	2200	1100	220	2200	220	2250	1100	21.5
Model 44	44	1500	52.8	66.0	2250	2300	2250	1125	225	2250	225	2300	1125	22.0
Model 45	45	1500	54.0	67.5	2300	2350	2300	1150	230	2300	230	2350	1150	22.5
Model 46	46	1500	55.2	69.0	2350	2400	2350	1175	235	2350	235	2400	1175	23.0
Model 47	47	1500	56.4	70.5	2400	2450	2400	1200	240	2400	240	2450	1200	23.5
Model 48	48	1500	57.6	72.0	2450	2500	2450	1225	245	2450	245	2500	1225	24.0
Model 49	49	1500	58.8	73.5	2500	2550	2500	1250	250	2500	250	2550	1250	24.5
Model 50	50	1500	60.0	75.0	2550	2600	2550	1275	255	2550	255	2600	1275	25.0

3D model selection

Electric motor

15.06.2017

Sensored motor

15.06.2017

Worm gearmotor

15.06.2017

Brushless servomotors

15.06.2017

Clean products

15.06.2017

Circuits

15.06.2017

Please see product description above for 2D and 3D drawings