

Permanent Magnet DC Servomotors E-Series without Tach



- High performance motors with exceptional efficiency
- Rated torque from 0,2 Nm up to 1,05 Nm rms
- Rated power from 100 W – up to 420 W
- High overload capability, peak torques from 1,6 Nm up to 6,4 Nm
- Compact size trough optimized torque to inertia ratio
- Developed for high dynamic applications
- Best price performance ratio by cost improved design
- Various options to meet your specific needs

Description

The E-series is a family of permanent magnet DC servomotors designed to satisfy the demands of a broad range of industrial and professional applications, where highly precise speed and/or positioning performance are required.

E-series permanent magnet DC servomotors can match most of the applications in terms of precision and speed. The high level of technological know-how and the extreme accuracy of quality control make these servomotors highly reliable.

Standard Specification

- Insulation class F
- Flange mounting IMB5 according to IEC 34-7
- Vibration class N (DIN 45665)
- Ambient temperature 0 – 40°C without derating
- Manufactured according to EN 60034-1: 1995-02
- Flying leads
- PG clamps (except 500 series)
- Protection class IP 44 (except 500 series: IP 23)
- Ball bearings with lifetime lubrication
- Black coating

Standard Options

- Fail safe brake
- Encoder
- Second shaft extension
- Connectors

Special Options

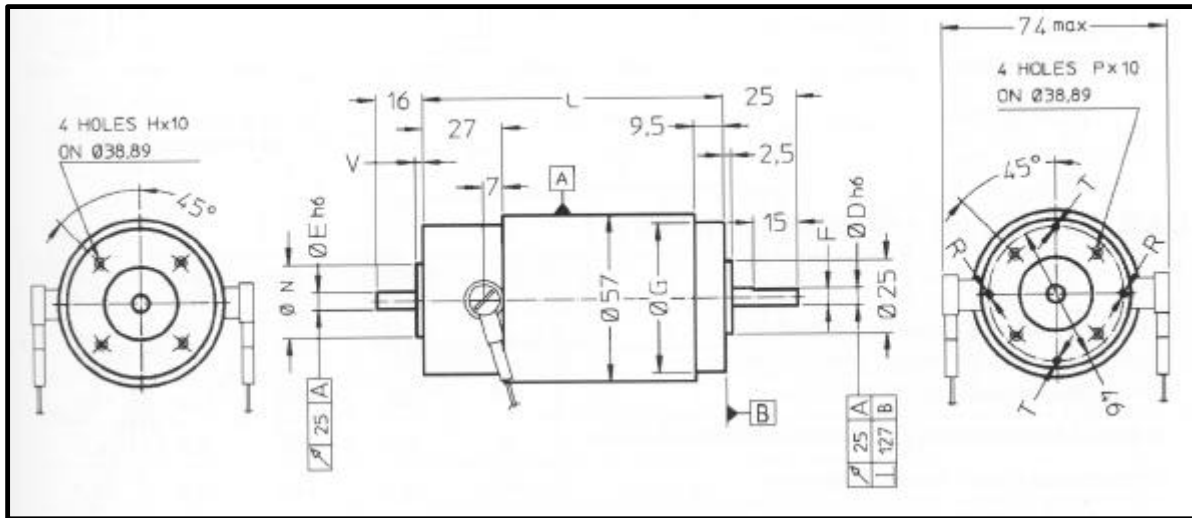
- Terminal box
- Various connectors
- Gearboxes
- Shaft extensions

Technical Data (at ambient temperatures of 25°C)

		E540M ₋	E542M ₋	E543A-M ₋	E543B-M ₋	E642A-M ₋ -K	E642BM ₋ -K	E644A-M ₋ -K	E644B-M ₋ -K	E660A-M ₋	E660B-M ₋
Rated power P_N	W	100	140	165	165	275	275	420	230	270	270
Stall torque M_b	Nm	0,22	0,36	0,42	0,42	0,72	0,72	1,25	1,25	0,85	0,85
Rated torque M_N	Nm	0,19	0,28	0,34	0,34	0,67	0,67	1,02	1,05	0,65	0,65
Stall current I_0	A	2,9	3,2	4,9	3,5	9,0	5,7	9,8	5,2	9,4	4,4
Rated current I_N	A	2,6	2,8	4,0	2,8	8,4	5,3	8,2	4,4	7,2	3,3
Peak current	A	22	21	15	12	39	25	50	24	43	20
Rated speed	rpm	5300	5000	4700	4700	4000	4000	4000	2100	4000	4000
Max. speed	rpm	6000	6000	5500	5500	5000	4500	4500	2300	4500	4500
Armature inertia J_M	kgm ² 10 ⁻³	0,028	0,038	0,048	0,048	0,11	0,11	0,23	0,23	0,21	0,21
Torque constant k_T	Nm/A	0,071	0,105	0,086	0,12	0,08	0,13	0,13	0,24	0,092	0,194
Voltage constant k_E	krpm	7,42	11,0	9,0	12,7	8,6	13,4	13,4	25,3	9,6	20,3
Winding resistance R_A	Ω	1,25	1,60	1,30	2,15	0,38	0,94	0,25	1,00	0,40	1,34
Terminal resistance R_K	Ω	1,60	2,00	1,50	2,40	0,50	1,10	0,40	1,10	0,75	1,70
Weight	kg	1,00	1,40	1,60	1,60	2,30	2,30	4,10	4,10	2,70	2,70
Mechanical time constant t_m	ms	8,3	8,6	8,0	8,0	7,5	8,7	5,3	5,3	10,0	10,0
Static friction loss M_R	Nm	0,021	0,021	0,021	0,021	0,057	0,057	0,057	0,057	0,049	0,049
Electrical time constant t_e	ms	2,1	2,6	1,6	2,0	0,8	0,08	1,6	1,7	1,6	3,2
Inductance L	mH	3,39	5,20	2,40	4,80	0,42	0,86	0,64	1,90	1,20	5,40

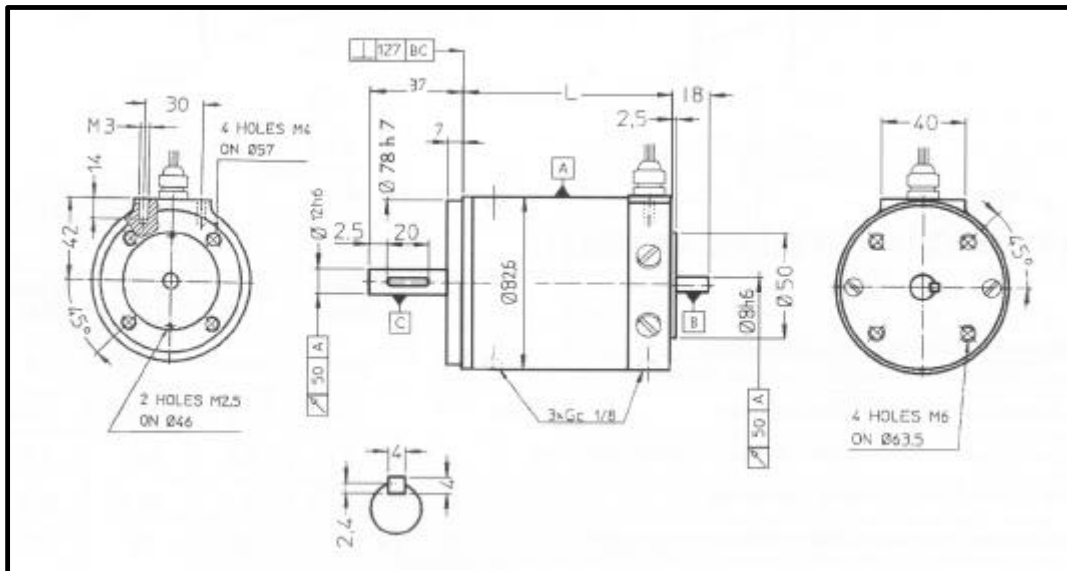
Dimensions

500 Series without Tach



Motor type	E540 M_	E542 M_	E543 A-M_	E543 B-M_
L	142	168	168	180

600 Series without Tach



Motor type	E642 A-M_-K	E642 B-M_-K	E644 A-M_-K	E644 B-M_-K
L	107	107	173	173

E-Series-Flyer-GB-32-99-L

subject to change without notice