



TG drives

Torque motors *(frameless)*



TGQ

Torque (direct) motors



TG drives

Production and delivery of servodrives and control systems.

The Czech company TG Drives offers servodrives since 1995 for machines and equipments in industrial automation. The range of service of our technicians and programmers includes design, optimization including custom solutions, programming, configuring and start up. Servodrives and control systems from TG Drives are used in the cutting tables, CNC machines and machining centers, automotive, rubber, food, glass and construction industries.

Easy solution of every motion

1. Servomotors

- ◆ TGN, TGH, TGS and TGT synchronous servomotors with permanent magnets
- ◆ TGQ torque (direct) motors

2. Digital servoamplifiers

- ◆ AKD digital servoamplifiers
- ◆ TGA300 digital servoamplifiers
- ◆ S400, S600 and S700 digital servoamplifiers
- ◆ TGP three-axis digital servoamplifiers
- ◆ TGA-24 and TGA-48 digital servoamplifiers
- ◆ TGZ digital servoamplifiers

3. Precision mechanical systems

- ◆ EXLAR linear actuators
- ◆ DRIVESPIN precision rotary actuators
- ◆ TWINSPIN cycloidal reducers
- ◆ high precision planetary reducers

4. TG Motion control system

- ◆ Universal PC based control system

5. Industrial PCs and operator terminals

- ◆ ASEM panel and standard industrial PCs
- ◆ ASEM and ESA operator terminals

Our services

- ◆ Design and optimization of servodrives.
- ◆ Design of control system.
- ◆ Programming.
- ◆ Start up.
- ◆ Customer service.



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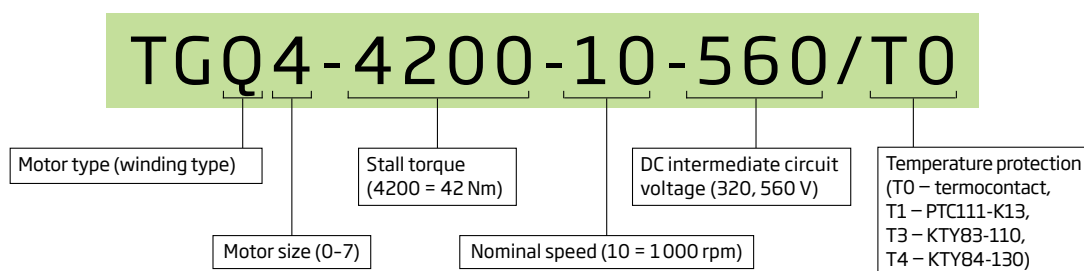
TGQ torque (direct) servomotors

Torque motors (also „direct“ or „ring motors“) of TGQ series are characterized by high torque, big diameter and small width. TGQ torque motors are designed for direct installation into the machines with high requirements of precision, dynamics and rigidity.

Application of TGQ torque motors reduce the need of using or even completely replace other mechanical gears in machines.



Coding example



Technical data

TGQ servomotors are produced for different DC-bus voltages and for different nominal speed. The catalogue includes motors with nominal speed and DC-bus voltage 320V and 560V, on demand we can send you technical parameters of motors designed for other DC-bus or speed.

TGQ servomotors are available in seven sizes: TGQ1–TGQ7, they are offered as kit version as standard (stator and rotor separately). Kit version of TGQ servomotors can be also equipped with Hall effect commutation sensors as an option.

On demand we can offer you complete version including flanges, shaft, feedback sensor, holding brake, electrical connection, etc.



Torque/speed curves

Torque/speed curves show the dependence of torque on speed of servomotor. Below is shown an overview of the basic variables, which is the dependence given by:

M_0 – Stall torque (Nm) is the maximum torque the motor is able to generate continuously with all phases equally sharing the load (contrary to the blocked torque M_L). The speed of the motor is higher than zero. The stall torque is temperature and cooling conditions dependent. The value is given for a coil temperature of 130 °C, an ambient temperature of 20 °C.

M_L – Blocked torque (Nm) is the torque corresponding to the blocked current I_L given at zero speed indefinitely. This results in unequal phase load sharing. The speed of the motor is zero. The value is given for a coil temperature of 130 °C and an ambient temperature of 20 °C.

n_N – Nominal speed (min⁻¹) is the speed in the selected operating point, the motor produces rated torque M_N .

M_N – Nominal torque (Nm) is the torque (derived from the moment M_0) acting on the shaft of the motor indefinitely at rated speed n_N . Its value depends on the temperature and the total amount of dissipated power losses. The value is given for a coil temperature of 130 °C, an ambient temperature of 20 °C and defined cooling conditions. It is necessary to ensure sufficient heat dissipation – dimensions of flange for

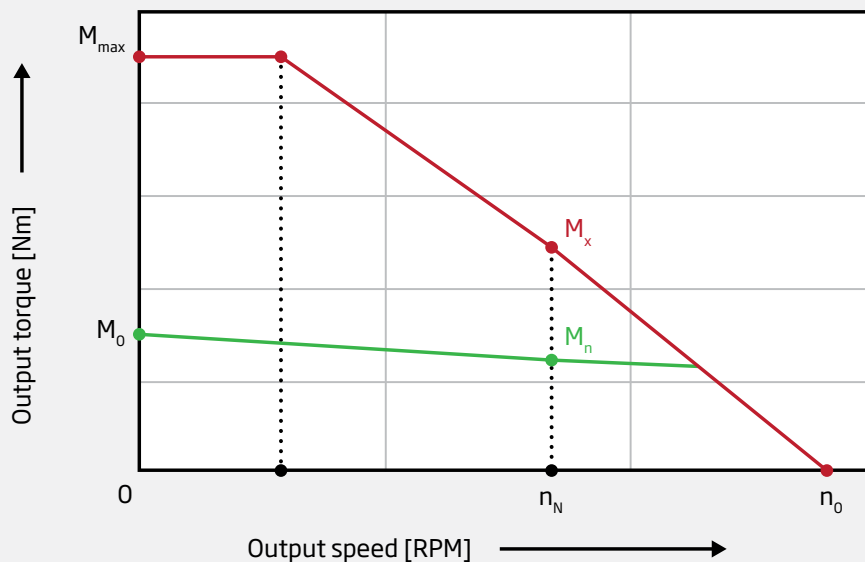
motor mounting must be at least 2,5-times the motor frame dimensions (3,5-times for motors size 2) or the surface temperature of this flange must be less than 65 °C.

n_0 – Max. speed (min⁻¹) is the maximum allowed speed of the rotor with no load.

M_{max} – Peak torque (Nm) is the maximum torque the motor is able to generate. This torque is reached when the peak current I_{max} is applied to the motor. The value for I_{max} is provided at a temperature that ensures the magnets of the rotor will not become demagnetized. The maximum allowable time for application of the peak current will be dependent on the initial winding temperature. Typically this time does not exceed few seconds. The peak torque is given for a maximum magnet temperature of 80 °C (risk of demagnetization).

M_x – Peak torque (Nm) is the maximum torque the motor is able to generate at rated speed n_N .

All the above values of voltages and currents, unless stated otherwise, their sizes correspond to effective values (RMS).

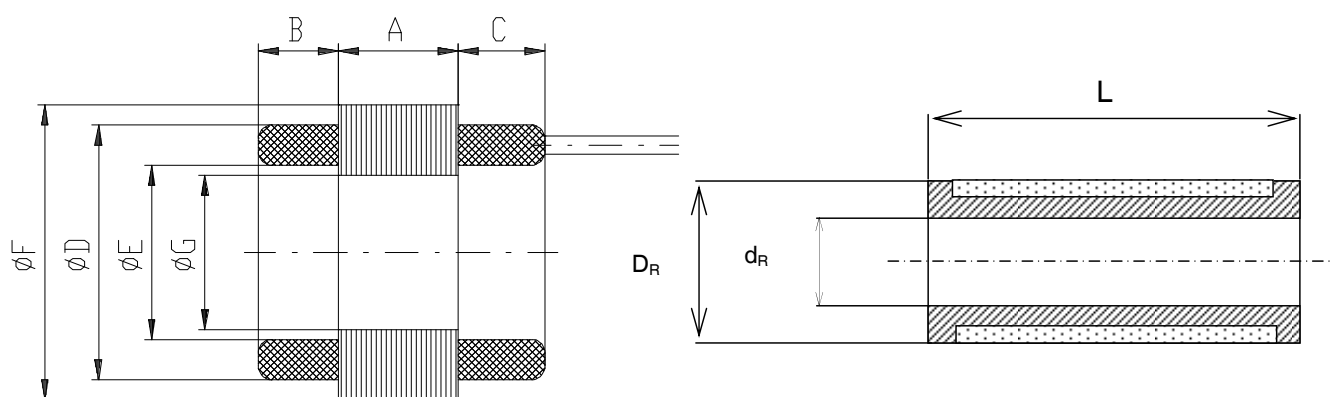


Torque/speed curves of standard servomotors are available on www.tgdrives.com.

TGQ1 servomotors 2.25–8.5 Nm

Magnets Nd-Fe-B			320 VDC					560 VDC				
			TGQ1-0225	TGQ1-0375	TGQ1-0515	TGQ1-0700	TGQ1-0850	TGQ1-0225	TGQ1-0375	TGQ1-0515	TGQ1-0700	TGQ1-0850
Stall torque	M_0	Nm	2.25	3.75	5.15	7.0	8.5	2.25	3.75	5.15	7	8.5
Stall current	I_0	A	2.6	2.1	3.9	5.3	6.3	1.58	2.6	2.4	3.2	3.1
Nominal torque	M_N	Nm	2.1	3.4	4.6	6.1	7.4	1.9	3.0	4.6	6.1	7.4
Nominal speed	n_N	rpm	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Nominal power	P_N	W	440	712	963	1277	1549	397	628	963	1278	1550
Nominal current	I_N	A	2.56	2.07	3.6	4.7	5.6	1.37	2.2	2.2	2.98	2.89
Maximum torque	M_{max}	Nm	9	15	20.6	28	34	9.0	15	21	28	34
Maximum current	I_{max}	A	14	10	19.4	26	32	7.9	13.2	12.1	15	15
Maximum speed mech.	n_{max}	rpm	9000	9000	9000	9000	9000	9000	9000	9000	9000	9000
Torque constant	K_M	Nm/A	0.88	1.76	1.32	1.32	1.34	1.42	1.42	2.1	2.20	2.75
Voltage constant	K_E	V/1000 rpm	53.2	106.4	80.0	80.0	81.0	86.0	86.0	128	133	166
Motor poles	Z_p	–	16	16	16	16	16	16	16	16	16	16
Resistance 2 ph.	R_{2Ph}	Ω	6.2	10.15	3.5	2.5	1.99	15.9	6.5	9.0	7.05	8.6
Inductance 2 ph.	L_{2Ph}	mH	10.3	20.6	7.7	5.8	4.8	26.6	13.3	20.0	16.1	20.1
Inertia	J	kg·cm ²	0.85	1.7	2.55	3.4	4.25	0.85	1.7	2.55	3.4	4.25
Mass	m	kg	0.75	1.4	2.05	2.7	3.35	0.75	1.4	2.05	2.7	3.35

Dimensions

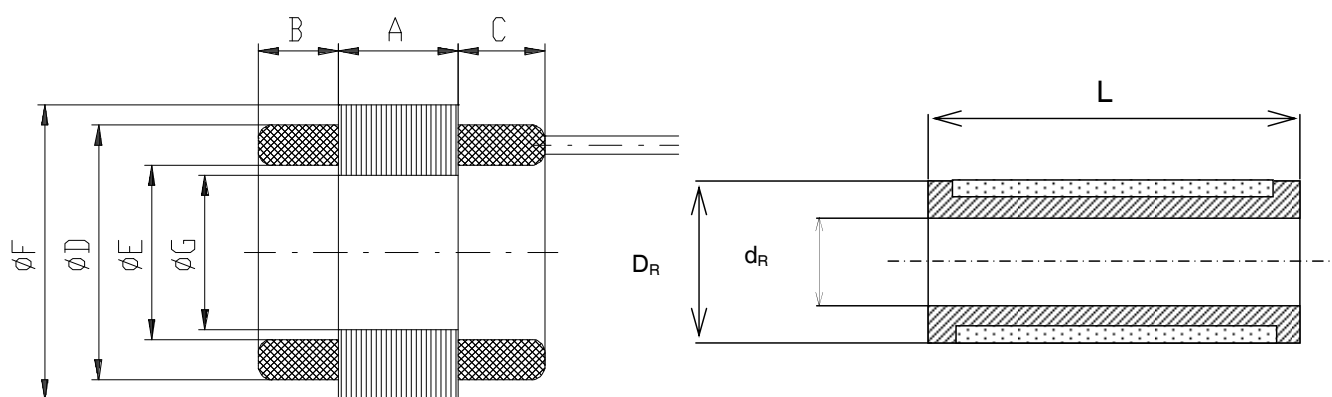


Type	Stator							Rotor		
	A	B _{max.}	C _{max.}	D _{max.}	E _{min.}	F	G	D _{R, max.}	d _{R, max.}	L _{max.}
TGQ1-0225	30 mm	10 mm	12 mm	76 mm	55 mm	79 mm	53.6 mm	51.8 mm	42 mm	50 mm
TGQ1-0375	60 mm	10 mm	12 mm	76 mm	55 mm	79 mm	53.6 mm	51.8 mm	42 mm	80 mm
TGQ1-0515	90 mm	10 mm	12 mm	76 mm	55 mm	79 mm	53.6 mm	51.8 mm	42 mm	110 mm
TGQ1-0700	120 mm	10 mm	12 mm	76 mm	55 mm	79 mm	53.6 mm	51.8 mm	42 mm	140 mm
TGQ1-0850	150 mm	10 mm	12 mm	76 mm	55 mm	79 mm	53.6 mm	51.8 mm	42 mm	170 mm

TGQ2 servomotors 6.5–25.5 Nm

Magnets Nd-Fe-B			320 VDC					560 VDC				
			TGQ2-0650	TGQ2-1200	TGQ2-1700	TGQ2-2000	TGQ2-2550	TGQ2-0650	TGQ2-1200	TGQ2-1700	TGQ2-2000	TGQ2-2550
Stall torque	M_0	Nm	6.5	12	17	20	25.5	6.5	12	17	20	25.5
Stall current	I_0	A	4.5	8.3	11.7	11.4	17.5	3.2	5.2	5.6	8.3	11.6
Nominal torque	M_N	Nm	5.8	8	10.2	13.5	10.3	5.2	8	12.5	10.5	16
Nominal speed	n_N	rpm	1500	2000	2000	1500	2000	2000	2000	1500	2000	2000
Nominal power	P_N	W	911	1675	2136	2121	2157	1089	1676	1963	2198	3351
Nominal current	I_N	A	4.7	5.8	7.4	8.8	10.3	2.7	4.3	4.3	4.7	8.7
Maximum torque	M_{max}	Nm	26	48	68	80	102	26	48	68	80	102
Maximum current	I_{max}	A	23	41	54	49	72	16.5	26	26	36	50
Maximum speed mech.	n_{max}	rpm	6000	6000	6000	6000	6000	6000	6000	6000	6000	6000
Torque constant	K_M	Nm/A	1.44	1.44	1.46	1.75	1.46	2.0	2.3	3.01	2.4	2.2
Voltage constant	K_E	V/1000 rpm	87	87	88	106	88	122	136	182	145	135
Motor poles	Z_p	–	22	22	22	22	22	22	22	22	22	22
Resistance 2 ph.	R_{2Ph}	Ω	2.5	0.96	0.59	0.64	0.32	4.8	2.4	2.6	1.15	0.78
Inductance 2 ph.	L_{2Ph}	mH	5.5	2.8	1.9	2.1	1.14	11	6.8	8.2	3.9	2.7
Inertia	J	kg·cm ²	6.1	12.2	18.3	24.4	30.5	6.1	12.2	18.3	24.4	30.5
Mass	m	kg	1.95	3.65	5.35	7.05	8.75	1.95	3.65	5.35	7.05	8.75

Dimensions

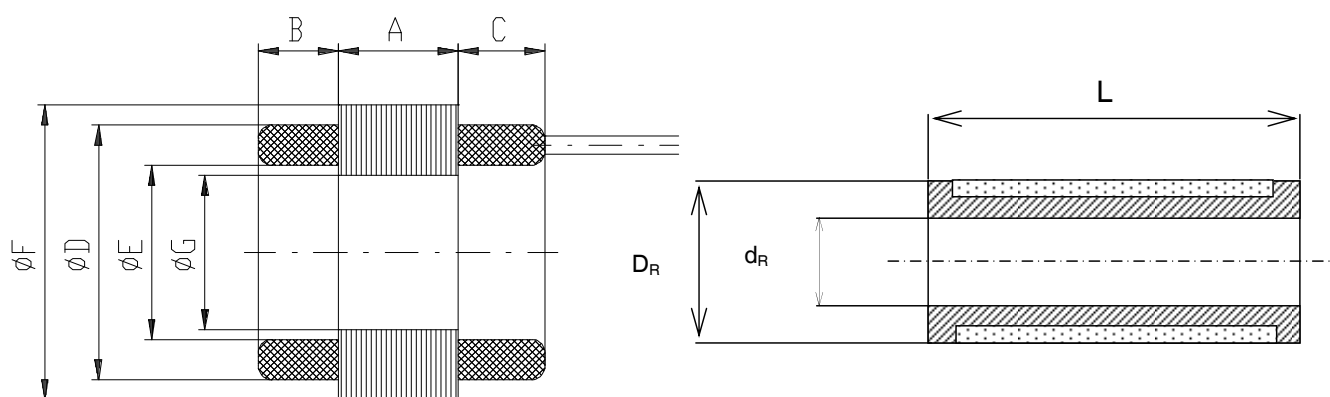


Type	Stator							Rotor		
	A	B _{max.}	C _{max.}	D _{max.}	E _{min.}	F	G	D _{R, max.}	d _{R, max.}	L _{max.}
TGQ2-0650	30 mm	9 mm	15 mm	116 mm	90 mm	120 mm	88 mm	86.5 mm	72 mm	50 mm
TGQ2-1200	60 mm	9 mm	15 mm	116 mm	90 mm	120 mm	88 mm	86.5 mm	72 mm	80 mm
TGQ2-1700	90 mm	9 mm	15 mm	116 mm	90 mm	120 mm	88 mm	86.5 mm	72 mm	110 mm
TGQ2-2000	120 mm	9 mm	15 mm	116 mm	90 mm	120 mm	88 mm	86.5 mm	72 mm	140 mm
TGQ2-2550	150 mm	9 mm	15 mm	116 mm	90 mm	120 mm	88 mm	86.5 mm	72 mm	170 mm

TGQ3 servomotors 9.5–42 Nm

Magnets Nd-Fe-B			320 VDC					560 VDC				
			TGQ3-0950	TGQ3-1800	TGQ3-2600	TGQ3-3450	TGQ3-4200	TGQ3-0950	TGQ3-1800	TGQ3-2600	TGQ3-3450	TGQ3-4200
Stall torque	M_0	Nm	9.5	18	26	34.5	42	9.5	18	26	34.5	42
Stall current	I_0	A	6.4	6.1	9.5	11.7	16.3	2.6	4.3	5.9	7.8	11.4
Nominal torque	M_N	Nm	8.6	15	21	27	33	8.3	15	21	27	33
Nominal speed	n_N	rpm	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
Nominal power	P_N	W	901	1571	2198	2828	3455	869	1571	2198	2828	3456
Nominal current	I_N	A	6.3	5.6	8	10.2	13.4	2.3	3.7	5	6.4	9.9
Maximum torque	M_{max}	Nm	38	72	104	138	168	38	72	104	138	168
Maximum current	I_{max}	A	32	29	46	54	79	12.4	21	29	38	52
Maximum speed mech.	n_{max}	rpm	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000
Torque constant	K_M	Nm/A	1.48	2.96	2.73	2.96	2.6	3.7	4.2	4.4	4.4	3.7
Voltage constant	K_E	V/1000rpm	89.5	179	165	179	156	225	256	268	268	223.7
Motor poles	Z_p	–	22	22	22	22	22	22	22	22	22	22
Resistance 2 ph.	R_{2Ph}	Ω	1.39	2.09	1.07	0.88	0.52	8.7	4.3	2.8	1.94	1.05
Inductance 2 ph.	L_{2Ph}	mH	4.25	8.5	4.8	4.25	2.6	26.9	17.4	12.7	9.6	5.31
Inertia	J	kg·cm ²	12	24	36	48	60	12	24	36	48	60
Mass	m	kg	2.73	5.1	7.45	9.8	12.2	2.73	5.1	7.45	9.8	12.2

Dimensions

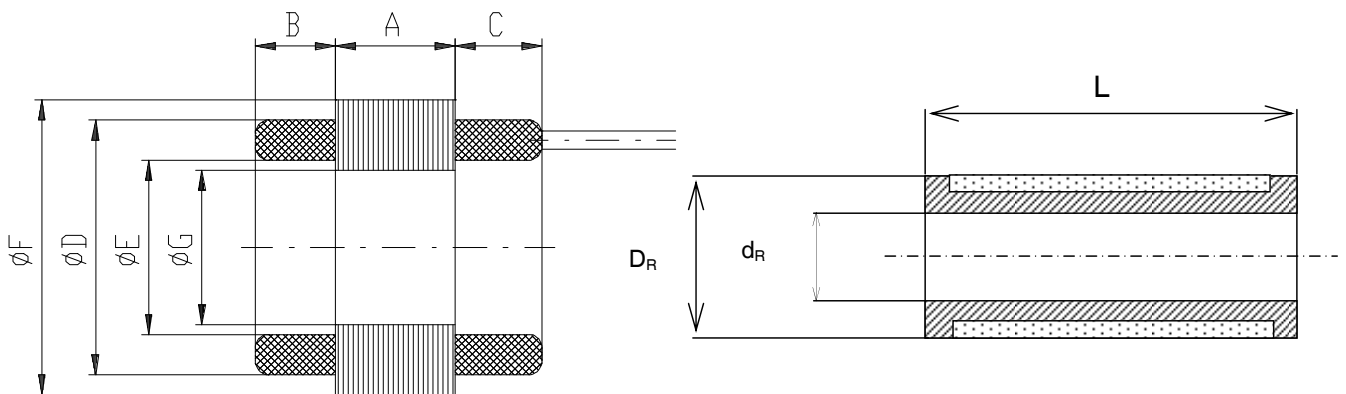


Type	Stator							Rotor		
	A	B _{max.}	C _{max.}	D _{max.}	E _{min.}	F	G	D _{R, max.}	d _{R, max.}	L _{max.}
TGQ3-0950	30 mm	9 mm	16 mm	136 mm	106 mm	150 mm	104 mm	102.6 mm	86 mm	50 mm
TGQ3-1800	60 mm	9 mm	16 mm	136 mm	106 mm	150 mm	104 mm	102.6 mm	86 mm	80 mm
TGQ3-2600	90 mm	9 mm	16 mm	136 mm	106 mm	150 mm	104 mm	102.6 mm	86 mm	110 mm
TGQ3-3450	120 mm	9 mm	16 mm	136 mm	106 mm	150 mm	104 mm	102.6 mm	86 mm	140 mm
TGQ3-4200	150 mm	9 mm	16 mm	136 mm	106 mm	150 mm	104 mm	102.6 mm	86 mm	170 mm

TGQ4 servomotors 14.5–68 Nm

Magnets Nd-Fe-B			320 VDC					560 VDC				
			TGQ4-1450	TGQ4-2900	TGQ4-4200	TGQ4-5500	TGQ4-6800	TGQ4-1450	TGQ4-2900	TGQ4-4200	TGQ4-5500	TGQ4-6800
Stall torque	M_0	Nm	14.5	29	42	55	68	14.5	29	42	55	68
Stall current	I_0	A	5.9	9.8	16	18.6	24.9	6.8	7.6	10.2	12.6	18.4
Nominal torque	M_N	Nm	12.8	22.6	31.6	39.8	47.3	11.2	22.6	31.6	39.8	47.3
Nominal speed	n_N	rpm	1000	1000	1000	1000	1000	1500	1000	1000	1000	1000
Nominal power	P_N	W	1340	2366	3308	4167	4952	1759	2366	3308	4167	4952
Nominal current	I_N	A	5.4	8.8	12.6	15.4	18.3	6.1	6.2	8.1	9.6	14.6
Maximum torque	M_{max}	Nm	44	87	126	165	204	43.5	87	126	165	204
Maximum current	I_{max}	A	24	39	65	73	102	28	31	42	51	70
Maximum speed mech.	n_{max}	rpm	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000
Torque constant	K_M	Nm/A	2.5	2.96	2.6	2.96	2.7	2.13	3.8	4.10	4.4	3.70
Voltage constant	K_E	V/1000 rpm	149	179	159	179	165	129	232	248	265	223.7
Motor poles	Z_p	–	22	22	22	22	22	22	22	22	22	22
Resistance 2 ph.	R_{2Ph}	Ω	1.87	2.09	0.46	0.88	0.26	1.43	1.64	1.11	0.88	1.05
Inductance 2 ph.	L_{2Ph}	mH	11.6	8.35	4.4	4.17	2.9	8.68	14	10.7	9.1	5.22
Inertia	J	kg·cm ²	24.9	49.8	74.7	99.6	124.5	24.9	49.8	74.7	99.6	124.5
Mass	m	kg	3.73	7	10.3	13.5	16.8	3.73	7	10.3	13.5	16.8

Dimensions

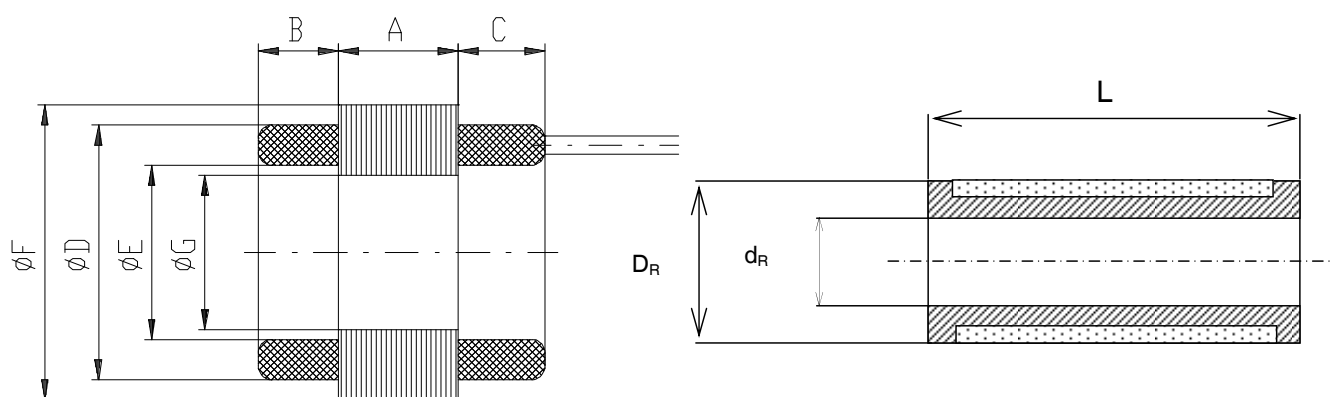


Type	Stator							Rotor		
	A	B _{max.}	C _{max.}	D _{max.}	E _{min.}	F	G	D _{R, max.}	d _{R, max.}	L _{max.}
TGQ4-1450	30 mm	15 mm	17 mm	170 mm	128 mm	180 mm	126 mm	124.8 mm	106 mm	50 mm
TGQ4-2900	60 mm	15 mm	17 mm	170 mm	128 mm	180 mm	126 mm	124.8 mm	106 mm	80 mm
TGQ4-4200	90 mm	15 mm	17 mm	170 mm	128 mm	180 mm	126 mm	124.8 mm	106 mm	110 mm
TGQ4-5500	120 mm	15 mm	17 mm	170 mm	128 mm	180 mm	126 mm	124.8 mm	106 mm	140 mm
TGQ4-6800	150 mm	15 mm	17 mm	170 mm	128 mm	180 mm	126 mm	124.8 mm	106 mm	170 mm

TGQ5 servomotors 28–134 Nm

Magnets Nd-Fe-B			320 VDC					560 VDC				
			TGQ5-0280	TGQ5-0545	TGQ5-0810	TGQ5-1070	TGQ5-1340	TGQ5-0280	TGQ5-0545	TGQ5-0810	TGQ5-1070	TGQ5-1340
Stall torque	M_0	Nm	28	54.5	81	107	134	28	54.5	81	107	134
Stall current	I_0	A	9.6	15.5	19.8	25.8	31.8	6.0	9.3	12.2	15.9	19.7
Nominal torque	M_N	Nm	17.3	34.4	52.2	65.4	78.1	17.3	34.1	52.2	65.4	78.1
Nominal speed	n_N	rpm	1000	800	700	700	700	1000	800	700	700	700
Nominal power	P_N	W	1811	2856	3826	4793	5724	1811	2856	3826	4793	5724
Nominal current	I_N	A	6.4	10.4	13.6	16.8	19.8	4.0	6.2	8.4	10.3	12.3
Maximum torque	M_{max}	Nm	84	164	243	321	402	84	164	243	321	402
Maximum current	I_{max}	A	35	56	71	92	114	22	34	44	57	71
Maximum speed mech.	n_{max}	rpm	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000
Torque constant	K_M	Nm/A	2.9	3.5	4.1	4.2	4.2	4.66	5.84	6.62	6.75	6.81
Voltage constant	K_E	V/1000 rpm	176	212	247	251	255	282	353	400	408	412
Motor poles	Z_p	–	38	38	38	38	38	38	38	38	38	38
Resistance 2 ph.	R_{2Ph}	Ω	1.06	0.56	0.46	0.32	0.25	2.7	1.55	1.18	0.84	0.67
Inductance 2 ph.	L_{2Ph}	mH	2.5	1.82	1.65	1.28	1.05	6.5	5.1	4.3	3.4	2.8
Inertia	J	kg·cm ²	91.2	161	230	300	369	91.2	161	230	300	369
Mass	m	kg	5	8.6	12.2	15.8	19.4	5	8.6	12.2	15.8	19.4

Dimensions

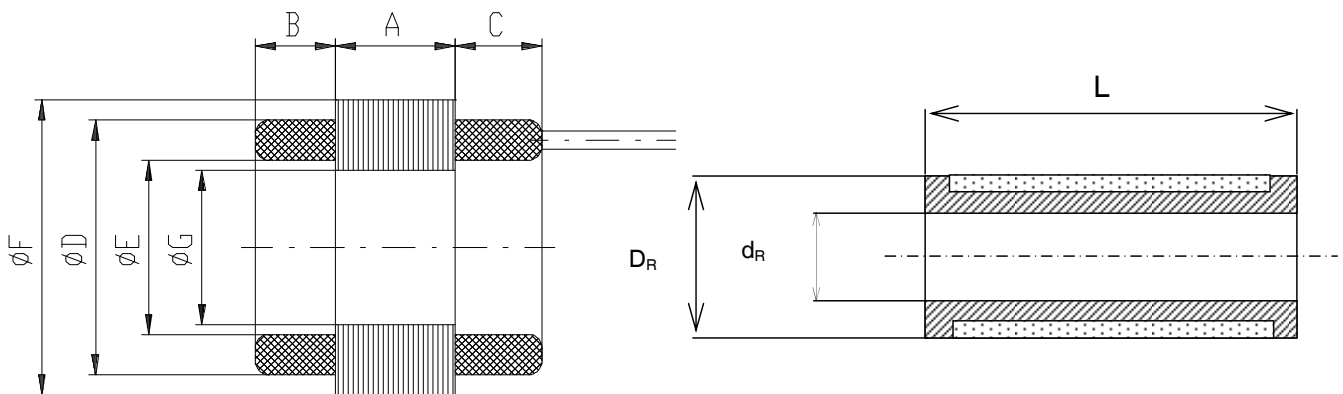


Type	Stator							Rotor		
	A	B _{max.}	C _{max.}	D _{max.}	E _{min.}	F	G	D _{R, max.}	d _{R, max.}	L _{max.}
TGQ5-0280	30 mm	16 mm	22 mm	206 mm	172 mm	210 mm	170 mm	168.6 mm	148 mm	50 mm
TGQ5-0545	60 mm	16 mm	22 mm	206 mm	172 mm	210 mm	170 mm	168.6 mm	148 mm	80 mm
TGQ5-0810	90 mm	16 mm	22 mm	206 mm	172 mm	210 mm	170 mm	168.6 mm	148 mm	110 mm
TGQ5-1070	120 mm	16 mm	22 mm	206 mm	172 mm	210 mm	170 mm	168.6 mm	148 mm	140 mm
TGQ5-1340	150 mm	16 mm	22 mm	206 mm	172 mm	210 mm	170 mm	168.6 mm	148 mm	170 mm

TGQ6 servomotors 60–258 Nm

Magnets Nd-Fe-B			320 VDC					560 VDC				
			TGQ6-0600	TGQ6-1150	TGQ6-1650	TGQ6-2120	TGQ6-2580	TGQ6-0600	TGQ6-1150	TGQ6-1650	TGQ6-2120	TGQ6-2580
Stall torque	M_0	Nm	60	115	165	212	258	60	115	165	212	258
Stall current	I_0	A	14	38.3	55	70.7	86	8.5	13.2	17.9	19.1	21.2
Nominal torque	M_N	Nm	49.5	86	117	185	224	42	76	99	143	170
Nominal speed	n_N	rpm	400	400	400	200	200	600	500	500	400	400
Nominal power	P_N	W	2 073	3 602	4 900	3 874	4 691	2 638	3 979	5 183	5 989	7 120
Nominal current	I_N	A	13.5	34.2	47.5	74.2	91.8	6.3	9.3	11.5	13.7	14.9
Maximum torque	M_{max}	Nm	240	460	660	848	1 032	240	460	660	848	1 032
Maximum current	I_{max}	A	73	181	259	332	397	41	64	86	92	102
Maximum speed mech.	n_{max}	rpm	2 500	2 500	2 500	2 500	2 500	2 500	2 500	2 500	2 500	2 500
Torque constant	K_M	Nm/A	4.29	3	3	3	3	7	8.7	9.2	11.1	12.2
Voltage constant	K_E	V/1000 rpm	259.5	181.4	181.4	181.4	181.4	425	525	557	672	737
Motor poles	Z_p	–	40	40	40	40	40	40	40	40	40	40
Resistance 2 ph.	R_{2Ph}	Ω	0.555	0.103	0.06	0.042	0.032	1.52	0.85	0.57	0.58	0.54
Inductance 2 ph.	L_{2Ph}	mH	3.48	0.85	0.57	0.43	0.34	9.3	7.1	5.4	5.8	5.6
Inertia	J	kg·cm ²	243	486	729	972	1 215	243	486	729	972	1 215
Mass	m	kg	7.83	13.9	20	26	32.1	7.83	13.9	20	26	32.1

Dimensions

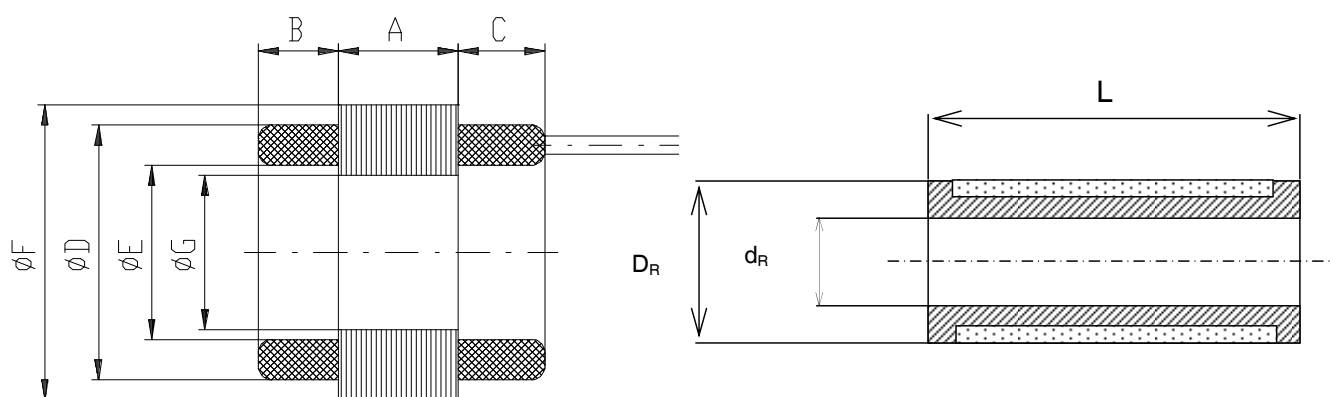


Type	Stator							Rotor		
	A	B _{max.}	C _{max.}	D _{max.}	E _{min.}	F	G	D _{R, max.}	d _{R, max.}	L _{max.}
TGQ6-0600	30 mm	17 mm	26 mm	285 mm	242 mm	290 mm	238 mm	237 mm	210 mm	50 mm
TGQ6-1150	60 mm	17 mm	26 mm	285 mm	242 mm	290 mm	238 mm	237 mm	210 mm	80 mm
TGQ6-1650	90 mm	17 mm	26 mm	285 mm	242 mm	290 mm	238 mm	237 mm	210 mm	110 mm
TGQ6-2120	120 mm	17 mm	26 mm	285 mm	242 mm	290 mm	238 mm	237 mm	210 mm	140 mm
TGQ6-2580	150 mm	17 mm	26 mm	285 mm	242 mm	290 mm	238 mm	237 mm	210 mm	170 mm

TGQ7 servomotors 105–469 Nm

Magnets Nd-Fe-B			320 VDC					560 VDC				
			TGQ7-1050	TGQ7-2000	TGQ7-2900	TGQ7-3800	TGQ7-4690	TGQ7-1050	TGQ7-2000	TGQ7-2900	TGQ7-3800	TGQ7-4690
Stall torque	M_0	Nm	105	200	290	380	469	105	200	290	380	469
Stall current	I_0	A	13.4	24.6	30.6	30.1	36.7	12	14.1	20.7	14.5	17.8
Nominal torque	M_N	Nm	92	157	213	313	378	85.5	139	180	313	378
Nominal speed	n_N	rpm	300	300	300	200	200	400	400	400	200	200
Nominal power	P_N	W	2890	4931	6691	6554	7916	3581	5821	7539	6554	7916
Nominal current	I_N	A	12.2	20.2	23.5	25.8	30.9	11.3	11.3	14.9	13.6	16.3
Maximum torque	M_{max}	Nm	315	600	870	1140	1407	315	600	870	1140	1407
Maximum current	I_{max}	A	57	105	130	128	156	51	60	83	56	68
Maximum speed mech.	n_{max}	rpm	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Torque constant	K_M	Nm/A	7.8	8.1	9.5	12.6	12.8	8.72	14.14	14	26.18	26.33
Voltage constant	K_E	V/1000 rpm	473	491	573	764	773	527.5	855	846	1583	1592
Motor poles	Z_p	–	52	52	52	52	52	52	52	52	52	52
Resistance 2 ph.	R_{2Ph}	Ω	0.73	0.29	0.23	0.29	0.22	0.91	0.876	0.502	1.225	0.946
Inductance 2 ph.	L_{2Ph}	mH	7.1	3.8	3.5	4.6	3.8	8.8	11.57	7.55	19.8	16.03
Inertia	J	kg·cm ²	545	1090	1635	2180	2725	545	1090	1635	2180	2725
Mass	m	kg	12.4	21.3	30.1	39	47.8	12.4	21.3	30.1	39	47.8

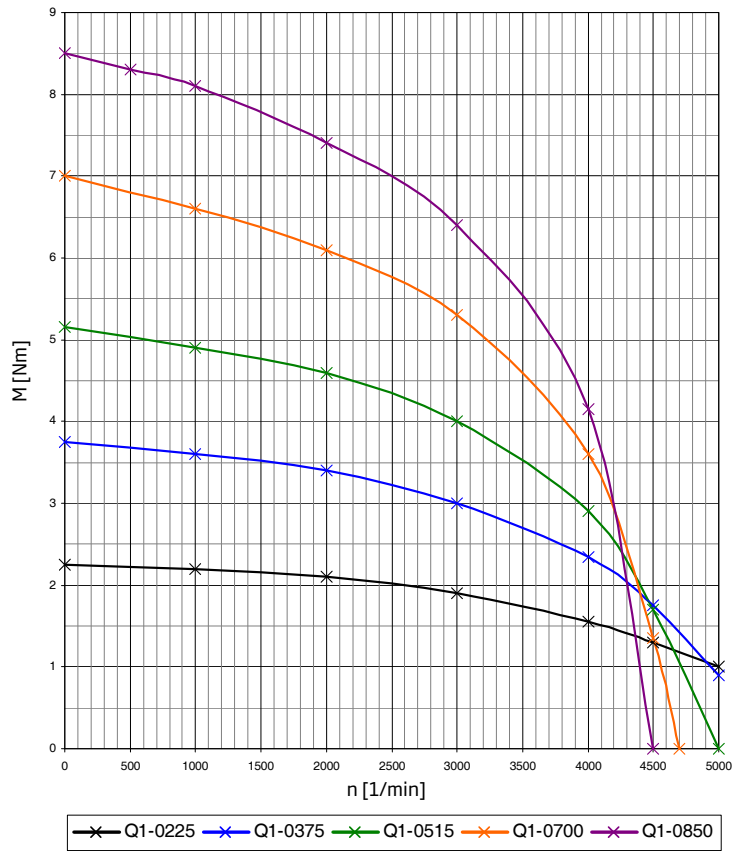
Dimensions



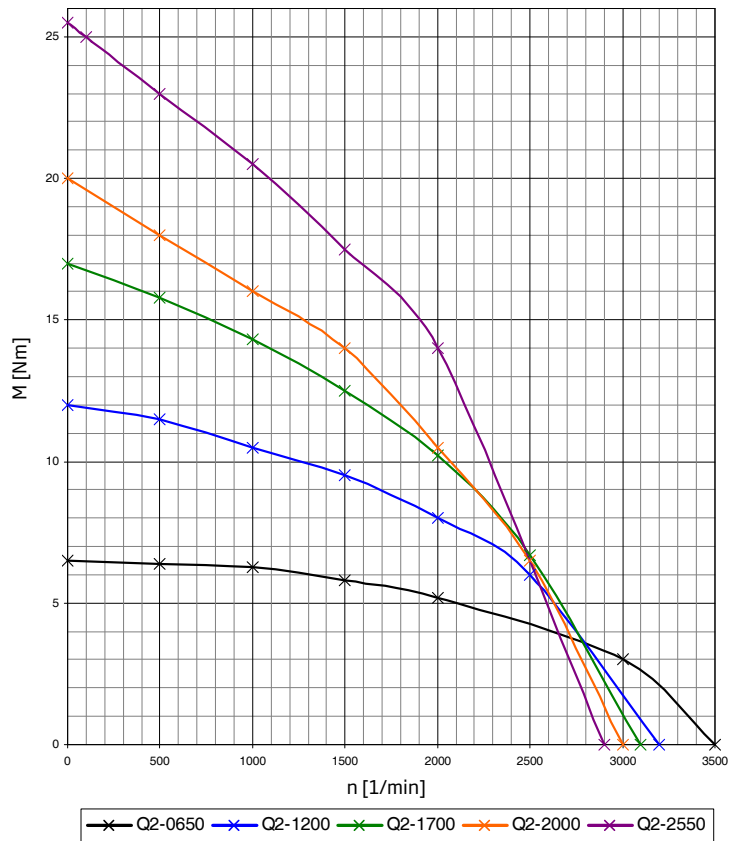
Type	Stator							Rotor		
	A	B _{max.}	C _{max.}	D _{max.}	E _{min.}	F	G	D _{R, max.}	d _{R, max.}	L _{max.}
TGQ7-1050	30 mm	20 mm	32 mm	355 mm	300 mm	360 mm	296 mm	295 mm	265 mm	50 mm
TGQ7-2000	60 mm	20 mm	32 mm	355 mm	300 mm	360 mm	296 mm	295 mm	265 mm	80 mm
TGQ7-2900	90 mm	20 mm	32 mm	355 mm	300 mm	360 mm	296 mm	295 mm	265 mm	110 mm
TGQ7-3800	120 mm	20 mm	32 mm	355 mm	300 mm	360 mm	296 mm	295 mm	265 mm	140 mm
TGQ7-4690	150 mm	20 mm	32 mm	355 mm	300 mm	360 mm	296 mm	295 mm	265 mm	170 mm

Torque characteristics

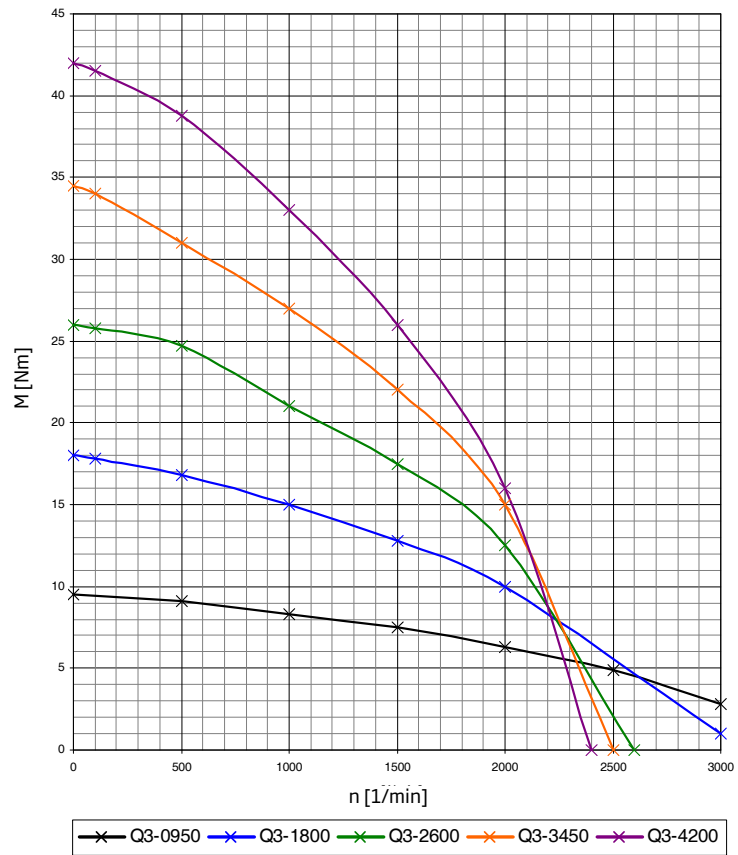
TGQ1



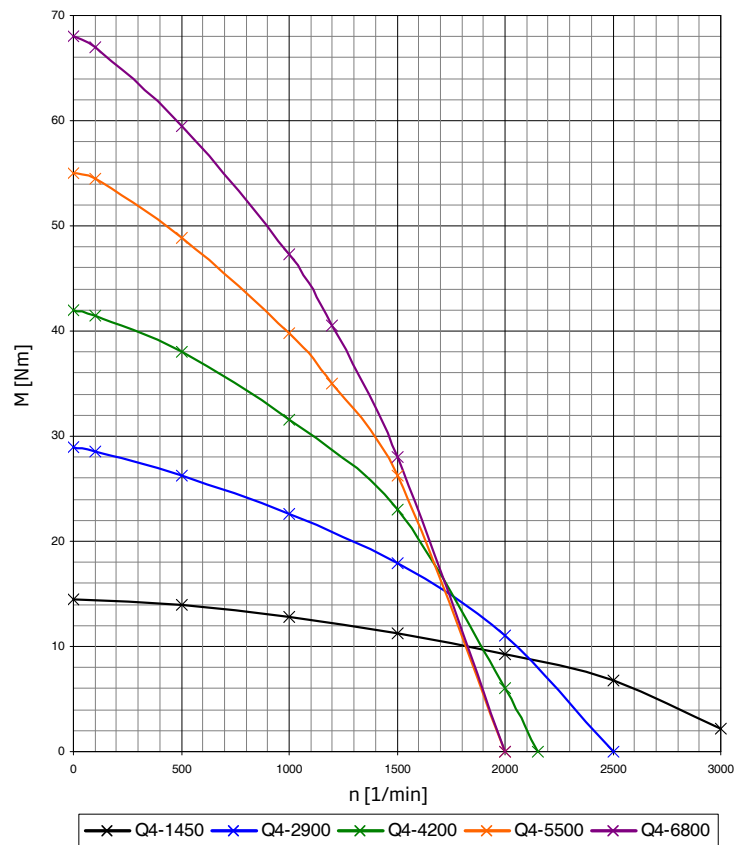
TGQ2



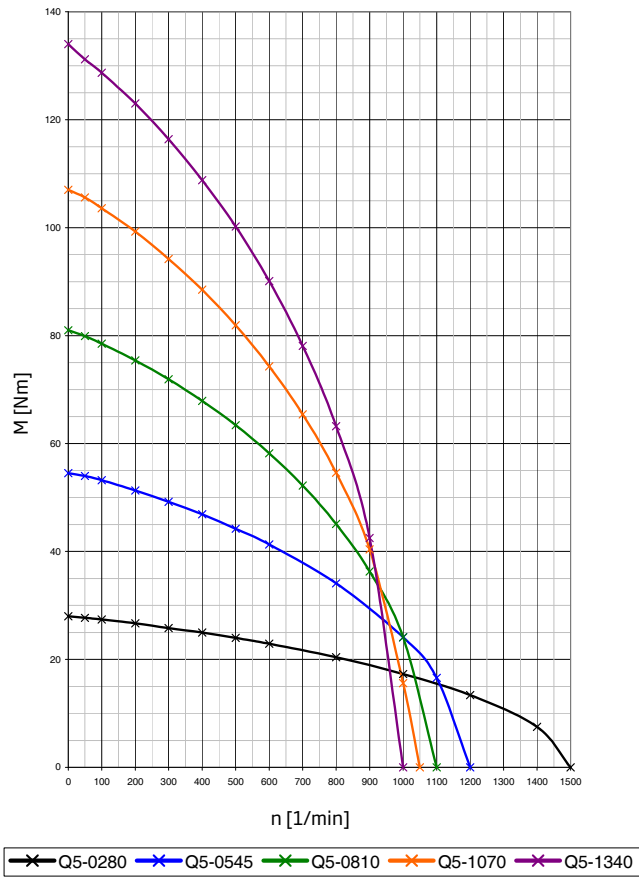
TGQ3



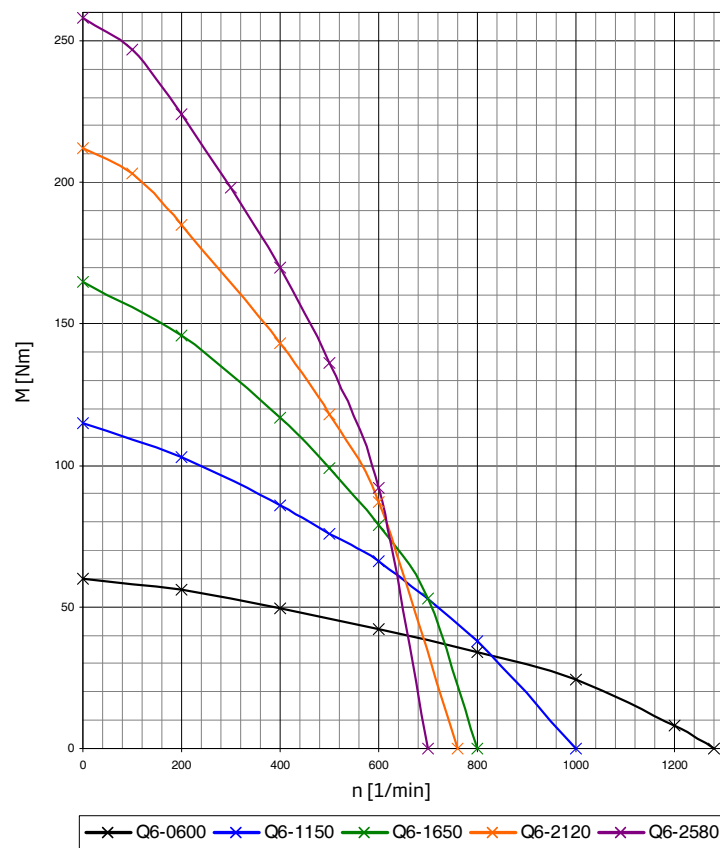
TGQ4



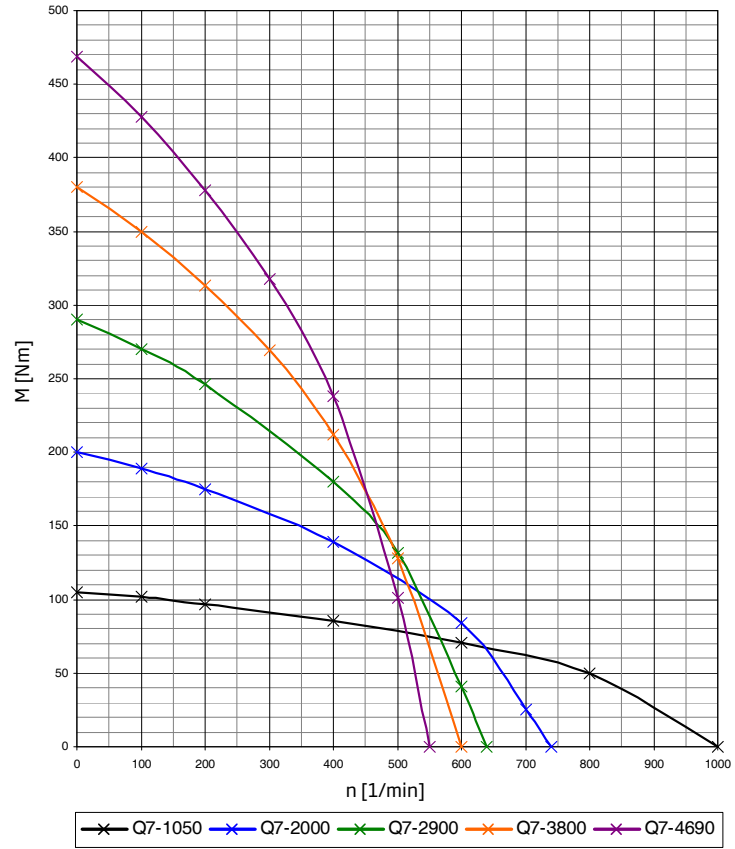
TGQ5



TGQ6



TGQ7



Notes:

Servomotors ♦ Servoamplifiers ♦ Gearboxes ♦ Control systems

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