



16 Main Technical Data of Servomotors

Key to the technical data

n_N	Rated speed
M_0	Standstill torque (thermal continuous torque at low speeds)
I_0	Standstill current
M_{pk}	Dynamic limit torque
I_{max}	Maximum permitted motor current
M_{0VR}	Standstill torque with forced cooling fan
I_{0VR}	Standstill current with forced cooling fan
J_{mot}	Mass moment of inertia of the motor
J_{bmot}	Mass moment of inertia of the brakemotor
M_{B1}	Standard braking torque
M_{B2}	Optional braking torque
W_{max1}	Maximum permitted braking work per braking operation
W_{max2}	Maximum permitted braking work per braking operation with optional braking torque
L_1	Inductance between connection phase and star point
R_1	Resistance between connection phase and star point
$U_{p0\ cold}$	Internal voltage at 1000 rpm
m_{mot}	Weight of the motor
m_{bmot}	Weight of the brakemotor



16.1 Technical data of CMP motors

Synchronous servomotors with 400 V system voltage

n_N min ⁻¹	Motor	M_0 Nm	I_0 A	M_{pk} Nm	I_{max} A	M_{0VR} Nm	I_{0VR} A	m kg	J_{mot} 10 ⁻⁴ kgm ²
2000	CMP71S	6.4	3.4	19.2	17	8.7	4.6	7	3.04
	CMP71M	9.4	5	30.8	26	13.7	7.3	8.4	4.08
	CMP71L	13.1	6.3	46.9	39	21	10.1	11.4	6.18
	CMP80S	13.4	6.9	42.1	33	18.7	9.5	12.8	8.78
	CMP80M	18.7	9.3	62.6	48	27	13.4	16.5	11.9
	CMP80L	27.5	12.5	107	72	44	20	21.4	18.1
	CMP100S	25.5	13.3	68.3	49	36	18.8	19.8	19.59
	CMP100M	31	14.7	108	69	47	22.3	24.8	26.49
	CMP100L	47	21.8	178.8	113	70	32.5	34.6	40.24
3000	CMP40S	0.5	1.2	1.9	6.1	-	-	1.3	0.1
	CMP40M	0.8	0.95	3.8	6.0	-	-	1.6	0.15
	CMP50S	1.3	0.96	5.2	5.1	1.7	1.25	2.3	0.42
	CMP50M	2.4	1.68	10.3	9.6	3.5	2.45	3.3	0.67
	CMP50L	3.3	2.2	15.4	13.6	4.8	3.2	4.1	0.92
	CMP63S	2.9	2.15	11.1	12.9	4	3	4.0	1.15
	CMP63M	5.3	3.6	21.4	21.6	7.5	5.1	5.7	1.92
	CMP63L	7.1	4.95	30.4	29.7	10.3	7.2	7.5	2.69
	CMP71S	6.4	4.9	19.2	25	8.7	6.7	7	3.04
	CMP71M	9.4	7.5	30.8	39	13.7	10.9	8.4	4.08
	CMP71L	13.1	9.4	46.9	58	21	15.1	11.4	6.18
	CMP80S	13.4	10	42.1	47	18.5	13.8	12.8	8.78
	CMP80M	18.7	13.4	62.6	69	27	19.3	16.5	11.9
	CMP80L	27.5	18.7	107	107	44	30	21.4	18.1
	CMP100S	25.5	19.6	68.3	73	36	27.5	19.8	19.34
	CMP100M	31	21.8	108	102	47	33	24.8	26.25
CMP100L	47	32.3	178.8	167	70	48	34.6	40	
4500	CMP40S	0.5	1.2	1.9	6.1	-	-	1.3	0.1
	CMP40M	0.8	0.95	3.8	6.0	-	-	1.6	0.15
	CMP50S	1.3	1.32	5.2	7.0	1.7	1.7	2.3	0.42
	CMP50M	2.4	2.3	10.3	13.1	3.5	3.35	3.3	0.67
	CMP50L	3.3	3.15	15.4	19.5	4.8	4.6	4.1	0.92
	CMP63S	2.9	3.05	11.1	18.3	4	4.2	4.0	1.15
	CMP63M	5.3	5.4	21.4	32.4	7.5	7.6	5.7	1.92
	CMP63L	7.1	6.9	30.4	41.4	10.3	10	7.5	2.69
	CMP71S	6.4	7.3	19.2	38	8.7	9.9	7	3.04
	CMP71M	9.4	10.9	30.8	57	13.7	15.9	8.4	4.08
	CMP71L	13.1	14.1	46.9	87	21	22.5	11.4	6.18
	CMP80S	13.4	15.3	42.1	73	18.5	21	12.8	8.78
	CMP80M	18.7	20.1	62.6	103	27	29	16.5	11.9
	CMP80L	27.5	27.8	107	159	44	44.5	21.4	18.1
	CMP100S	25.5	30	68.3	111	36	42.5	19.8	19.34
	CMP100M	31	33.1	108	154	-	-	24.8	26.25
CMP100L	47	48.4	178.8	251	-	-	34.6	40	



n_N min ⁻¹	Motor	M_0 Nm	I_0 A	M_{pk} Nm	I_{max} A	M_{OVR} Nm	I_{OVR} A	m kg	J_{mot} 10 ⁻⁴ kgm ²
6000	CMP40S	0.5	1.2	1.9	6.1	-	-	1.3	0.1
	CMP40M	0.8	1.1	3.8	6.9	-	-	1.6	0.15
	CMP50S	1.3	1.7	5.2	9.0	1.7	2.2	2.3	0.42
	CMP50M	2.4	3	10.3	17.1	3.5	4.4	3.3	0.67
	CMP50L	3.3	4.2	15.4	26	4.8	6.1	4.1	0.92
	CMP63S	2.9	3.9	11.1	23.4	4	5.4	4.0	1.15
	CMP63M	5.3	6.9	21.4	41.4	7.5	9.8	5.7	1.92
	CMP63L	7.1	9.3	30.4	55.8	10.3	13.5	7.5	2.69
	CMP71S	6.4	9.6	19.2	50	8.7	13.1	7	3.04
	CMP71M	9.4	14.7	30.8	76	13.7	21.5	8.4	4.08
	CMP71L	13.1	18.8	46.9	115	21	30	11.4	6.18
	CMP80S	13.4	20	42.1	95	18.5	27.5	12.8	8.78
	CMP80M	18.7	26.4	62.6	135	27	38	16.5	11.9
	CMP80L	27.5	37.6	107	215	-	-	21.4	18.1



Main Technical Data of Servomotors

Technical data of CMP motors

n_N min ⁻¹	Motor	L_1 mH	R_1 Ω	U_{p0} cold V	m_{bmot} kg	J_{bmot} 10 ⁻⁴ kgm ²	M_{B1} Nm	M_{B2}
2000	CMP71S	33.5	3.48	128	9	3.44	7	14
	CMP71M	21.5	1.87	127	10.4	4.5	14	7
	CMP71L	16.2	1.2	142	13.4	6.6	14	7
	CMP80S	15.3	1.1	133	16.8	10.04	16	31
	CMP80M	10.5	0.69	136	20.5	13.16	31	16
	CMP80L	7.6	0.44	149	24.4	19.36	31	16
	CMP100S	8.5	0.44	130	22.8	21.34	24	47
	CMP100M	6.6	0.3	141	27.8	28.25	47	24
	CMP100L	4.15	0.169	145	37.6	42.82	47	24
3000	CMP40S	23	11.94	27.5	1.7	0.13	0.95	-
	CMP40M	46	19.93	56	2.0	0.18	0.95	-
	CMP50S	71	22.49	86	2.9	0.48	3.1	4.3
	CMP50M	38.5	9.96	90	3.9	0.73	4.3	3.1
	CMP50L	30.5	7.42	98	4.7	0.98	4.3	3.1
	CMP63S	36.5	6.79	90	5.0	1.49	7	9.3
	CMP63M	22	3.56	100	6.7	2.26	9.3	7
	CMP63L	14.2	2.07	100	8.5	3.03	9.3	7
	CMP71S	15.7	1.48	87.5	9	3.44	7	14
	CMP71M	9.7	0.81	85	10.4	4.5	14	7
	CMP71L	7.3	0.56	96	13.4	6.6	14	7
	CMP80S	7.2	0.54	91	16.8	10.04	16	31
	CMP80M	5	0.345	94	20.5	13.16	31	16
	CMP80L	3.35	0.21	99	24.4	19.36	31	16
	CMP100S	3.9	0.215	88	22.8	21.34	24	47
	CMP100M	3.05	0.142	95.5	27.8	28.25	47	24
CMP100L	1.9	0.081	98	37.6	42	47	24	
4500	CMP40S	23	11.94	27.5	1.7	0.13	0.95	-
	CMP40M	46	19.93	56	2.0	0.18	0.95	-
	CMP50S	37	11.61	62	2.9	0.48	3.1	4.3
	CMP50M	20.5	5.28	66	3.9	0.73	4.3	3.1
	CMP50L	14.6	3.57	68	4.7	0.98	4.3	3.1
	CMP63S	18.3	3.34	64	5.0	1.49	7	9.3
	CMP63M	9.8	1.48	67	6.7	2.26	9.3	7
	CMP63L	7.2	1.07	71	8.5	3.03	9.3	7
	CMP71S	7.1	0.72	59	9	3.44	7	14
	CMP71M	4.55	0.385	58	10.4	4.5	14	7
	CMP71L	3.25	0.24	64	13.4	6.6	14	7
	CMP80S	3.05	0.22	59	16.8	10.04	16	31
	CMP80M	2.25	0.148	63	20.5	13.16	31	16
	CMP80L	1.54	0.085	67	24.4	19.36	31	16
	CMP100S	1.68	0.086	58	22.8	21.34	24	47
	CMP100M	1.32	0.058	63	27.8	28.25	47	24
CMP100L	0.84	0.038	65	37.6	42.82	47	24	



n_N min ⁻¹	Motor	L ₁ mH	R ₁ Ω	U _{p0} cold V	m _{bmot} kg	J _{bmot} 10 ⁻⁴ kgm ²	M _{B1} Nm	M _{B2}
6000	CMP40S	23	11.94	27.5	1.7	0.13	0.95	-
	CMP40M	34	14.95	48.5	2.0	0.18	0.95	-
	CMP50S	22.5	7.11	48.5	2.9	0.48	3.1	4.3
	CMP50M	12	3.21	50.5	3.9	0.73	4.3	3.1
	CMP50L	8.2	1.91	51	4.7	0.98	4.3	3.1
	CMP63S	11.2	2.1	50	5.0	1.49	7	9.3
	CMP63M	5.9	0.92	52	6.7	2.26	9.3	7
	CMP63L	4	0.62	53	8.5	3.03	9.3	7
	CMP71S	4.15	0.395	45	9	3.44	7	14
	CMP71M	2.55	0.205	43.5	10.4	4.5	14	7
	CMP71L	1.84	0.145	48	13.4	6.6	14	7
	CMP80S	1.8	0.136	46	-	-	-	-
	CMP80M	1.3	0.087	48	-	-	-	-
	CMP80L	0.84	0.051	50	-	-	-	-



16.2 Technical data of CMPZ motors

Synchronous servomotors with 400 V system voltage

n_N min ⁻¹	Motor	M_0	I_0	M_{pk}	I_{max}	M_{OVR}	I_{OVR}	m	J_{mot}
		Nm	A	Nm	A	Nm	A	kg	10 ⁻⁴ kgm ²
2000	CMPZ71S	6.4	3.4	19.2	17	8.7	4.6	8.6	9.32
	CMPZ71M	9.4	5	30.8	26	13.7	7.3	10	10.37
	CMPZ71L	13.1	6.3	46.9	39	21	10.1	13	12.47
	CMPZ80S	13.4	6.9	42.1	33	18.7	9.5	15.8	27.18
	CMPZ80M	18.7	9.3	62.6	48	27	13.4	19.5	30.3
	CMPZ80L	27.5	12.5	107	72	44	20	24.4	36.51
	CMPZ100S	25.5	13.3	68.3	49	36	18.8	24.2	79.76
	CMPZ100M	31	14.7	108	69	47	22.3	29.2	86.66
3000	CMPZ71S	6.4	4.9	19.2	25	8.7	6.7	8.6	9.32
	CMPZ71M	9.4	7.5	30.8	39	13.7	10.9	10	10.37
	CMPZ71L	13.1	9.4	46.9	58	21	15.1	13	12.47
	CMPZ80S	13.4	10	42.1	47	18.5	13.8	15.8	27.18
	CMPZ80M	18.7	13.4	62.6	69	27	19.3	19.5	30.3
	CMPZ80L	27.5	18.7	107	107	44	30	24.4	36.51
	CMPZ100S	25.5	19.6	68.3	73	36	27.5	24.2	79.76
	CMPZ100M	31	21.8	108	102	47	33	29.2	86.66
4500	CMPZ71S	6.4	7.3	19.2	38	8.7	9.9	8.6	9.32
	CMPZ71M	9.4	10.9	30.8	57	13.7	15.9	10	10.37
	CMPZ71L	13.1	14.1	46.9	87	21	22.5	13	12.47
	CMPZ80S	13.4	15.3	42.1	73	18.5	21	15.8	27.18
	CMPZ80M	18.7	20.1	62.6	103	27	29	19.5	30.3
	CMPZ80L	27.5	27.8	107	159	44	44.5	24.4	36.51
	CMPZ100S	25.5	30	68.3	111	36	42.5	24.2	79.76
	CMPZ100M	31	33.1	108	154	-	-	29.2	86.66
6000	CMPZ71S	6.4	9.6	19.2	50	8.7	13.1	8.6	9.32
	CMPZ71M	9.4	14.7	30.8	76	13.7	21.5	10	10.37
	CMPZ71L	13.1	18.8	46.9	115	21	30	13	12.47
	CMPZ80S	13.4	20	42.1	95	18.5	27.5	15.8	27.18
	CMPZ80M	18.7	26.4	62.6	135	27	38	19.5	30.3
	CMPZ80L	27.5	37.6	107	215	-	-	24.4	36.51



n _N rpm	Motor	L ₁	R ₁	U _{p0} cold	ΔLB ¹⁾	m _{bmot}	J _{bmot}	M _{B1}	M _{B2}	ΔLBS ²⁾
		mH	Ω	V	mm	kg	10 ⁻⁴ kgm ²	Nm		mm
2000	CMPZ71S	33.5	3.48	128	64.8	11.2	11.04	14	10	56.2
	CMPZ71M	21.5	1.87	127	64.8	12.6	12.09	20	14	56.2
	CMPZ71L	16.2	1.2	142	64.8	15.6	14.19	20	14	56.2
	CMPZ80S	15.3	1.1	133	77.5	20.8	30.95	28	20	60.5
	CMPZ80M	10.5	0.69	136	77.5	24.5	34.07	40	28	60.5
	CMPZ80L	7.6	0.44	149	77.5	29.4	40.28	40	28	60.5
	CMPZ100S	8.5	0.44	130	96.2	34.7	84.19	55	40	60.8
	CMPZ100M	6.6	0.3	141	96.2	39.7	91.1	80	55	60.8
	CMPZ100L	4.15	0.169	145	96.2	49.5	104.85	80	55	60.8
3000	CMPZ71S	15.7	1.48	87.5	64.8	11.2	11.04	14	10	56.2
	CMPZ71M	9.7	0.81	85	64.8	12.6	12.09	20	14	56.2
	CMPZ71L	7.3	0.56	96	64.8	15.6	14.19	20	14	56.2
	CMPZ80S	7.2	0.54	91	77.5	20.8	30.95	28	20	60.5
	CMPZ80M	5	0.345	94	77.5	24.5	34.07	40	28	60.5
	CMPZ80L	3.35	0.21	99	77.5	29.4	40.28	40	28	60.5
	CMPZ100S	3.9	0.215	88	96.2	34.7	84.19	55	40	60.8
	CMPZ100M	3.05	0.142	95.5	96.2	39.7	91.1	80	55	60.8
	CMPZ100L	1.9	0.081	98	96.2	49.5	104.85	80	55	60.8
4500	CMPZ71S	7.1	0.72	59	64.8	11.2	11.04	14	10	56.2
	CMPZ71M	4.55	0.385	58	64.8	12.6	12.09	20	14	56.2
	CMPZ71L	3.25	0.24	64	64.8	15.6	14.19	20	14	56.2
	CMPZ80S	3.05	0.22	59	77.5	20.8	30.95	28	20	60.5
	CMPZ80M	2.25	0.148	63	77.5	24.5	34.07	40	28	60.5
	CMPZ80L	1.54	0.085	67	77.5	29.4	40.28	40	28	60.5
	CMPZ100S	1.68	0.086	58	96.2	34.7	84.19	55	40	60.8
	CMPZ100M	1.32	0.058	63	96.2	39.7	91.1	80	55	60.8
	CMPZ100L	0.84	0.038	65	96.2	49.5	104.85	80	55	60.8
6000	CMPZ71S	4.15	0.395	45	64.8	11.2	11.04	14	10	56.2
	CMPZ71M	2.55	0.205	43.5	64.8	12.6	12.09	20	14	56.2
	CMPZ71L	1.84	0.145	48	64.8	15.6	14.19	20	14	56.2
	CMPZ80S	1.8	0.136	46	77.5	-	-	-	-	60.5
	CMPZ80M	1.3	0.087	48	77.5	-	-	-	-	60.5
	CMPZ80L	0.84	0.051	50	77.5	-	-	-	-	60.5

- 1) Length difference between CMPZ.. motor and the respective CMP.. motor
- 2) Length difference between CMPZ../BY brakemotor and the respective CMP../BP brakemotor