

DMASS servo motor with high power density from 7.5KW up to 250KW

Model DSM-95

Applications

- ▣ plastic machinery
- ▣ machine tools
- ▣ textile machinery
- ▣ logistics machinery
- ▣ press manufacture

Special Features

- ▣ high performance/price rate
- ▣ easily mounting
- ▣ high dynamics
- ▣ compact dimensions
- ▣ protection IP 65 as option

General Information

The DMASS DSM95 series motors was designed as an advanced and homogenous range of high performance servo actuators. The motors are permanent magnet three-phase synchronous motors for the applications with high demands to dynamics and positioning accuracy at small construction volume & low weight, and can reach the highest torque/size and power/size ratios for all the applications.

The various feedback devices: optical encoders,

inductive encoders and multium absolute encoders, all with serial EnDat interface and electronic nameplate, and can offer absolute resolution up to 8Mil. points/rev. So even the motor under lowest speed can reach best motion uniformity.

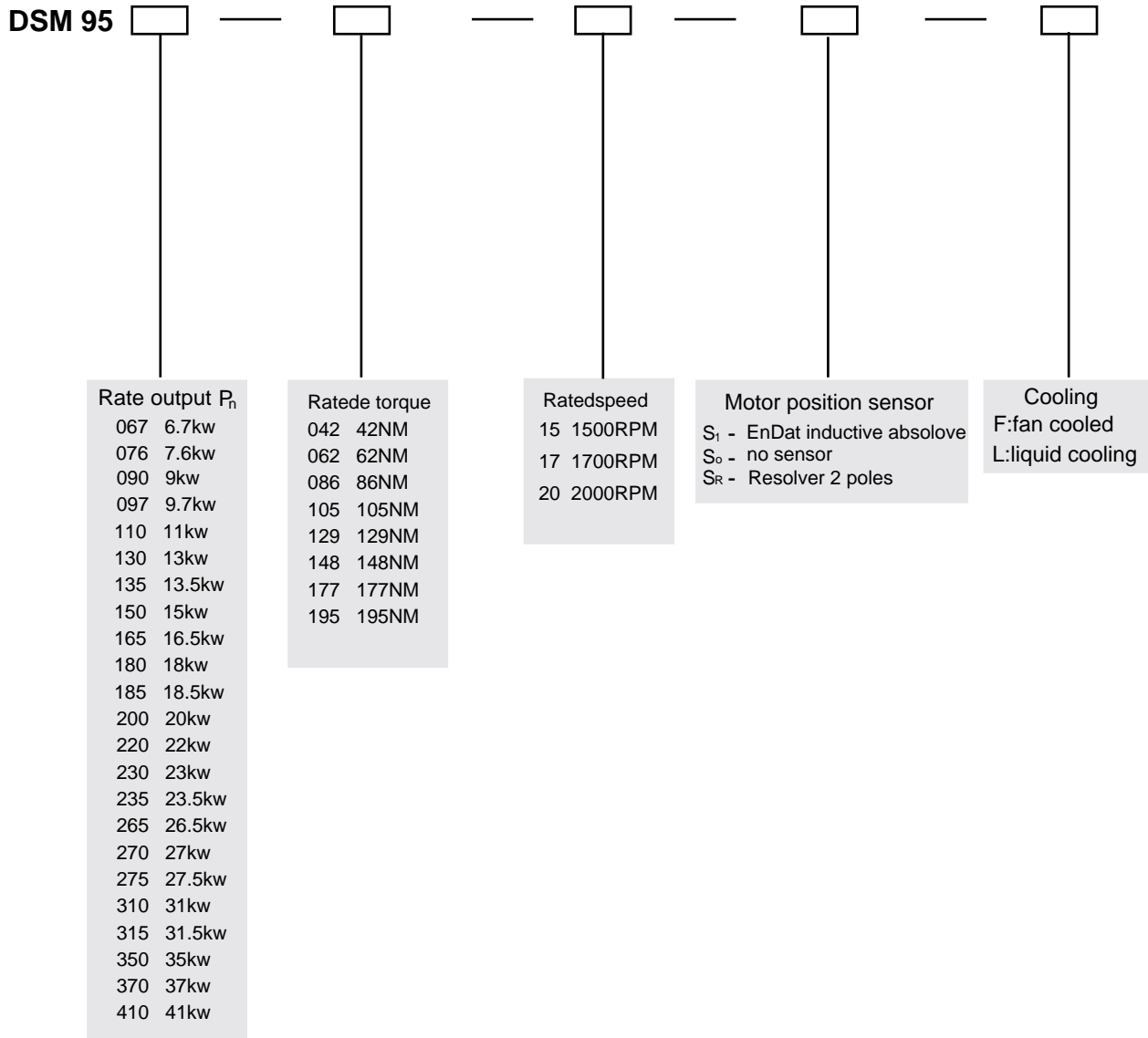
Standard windings are available for various named speeds, and suite for supply voltage of: 220/240VAC and 380/460VC.



Technical data

Mounting standard	Shaft
flange mounting according to IEC standard fit j6/h7	according to DIN 748, fit j6/h7, flat, without keyway, as standard flat, with keyway as option
Mounting position	
any	
construction type	Insulation
IMB 5 according to DIN 42 950	Motor: class F according to DIN 0530 Winding: class H according to DIN 0530
Flange accuracy	
according to DIN 42 955	
Cooling	Ingress protection
forced cooling/liquid cooling	IP 54, optional IP65
Service life	Bearing shield and enclosure
over 30,000 operation hours	light alloy with high quality
rotor	Balancing
with rare earth permanent magnets	Grade R (reduced tolerance) according to IEC 72/ DIN 0530
radial force	
see the operation manu	
Power supply	concentricity and squareness of mounting flange
220/240VAC and 380/460VAC	Grade R
vibration intensity	varnishing
vibration intensity stage N according to DIN ISO 2373	Matt black

Ordering Code



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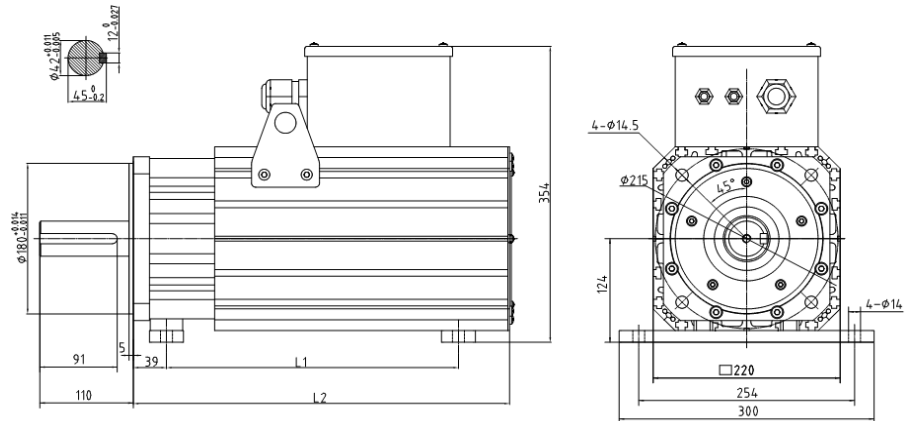
Technical Data

TYPE	Rated Torque (Nm) $\Delta T=65K$	Rated Torque (Nm) $\Delta T=100K$	Max. Torque at Rated Speed (Nm)	Max. Torque (Nm)	Rated Speed (rpm)	Max. Speed (rpm)	Rated Power (kW)	Rated Current (A)	Back E.M.F. (V/1000rpm)	Torque constant (Nm/A)	Line resistance of winding (Ω)	O-Axis inductance (mH)	D-Axis inductance (mH)	Moment of inertia (kg·cm ²)	Poles	Reaction time of 0-Nr (ms)
code	Tr	Tr	Tm	Tm	Nr	Nm	Pr	Ir	Ke	Kt	R _L	LQ	LD	Jm	PN	
DSM95-067-042-15-SR-F	42	51	110	155	1500	1800	6.7	15	198	2.8	1.1	6.6	6.6	140	8	14
DSM95-076-042-17-SR-F	42	51	110	155	1700	2100	7.6	16.8	172	2.5	0.8	4.9	4.9	140	8	16
DSM95-090-042-20-SR-F	42	51	110	155	2000	2500	9.0	19.9	146	2.1	0.58	3.64	3.64	140	8	19
DSM95-097-062-15-SR-F	62	64	145	200	1500	1800	9.7	19.5	197	3.2	0.74	5	5	180	8	14
DSM95-110-062-17-SR-F	62	64	145	200	1700	2100	11.0	21.5	177	2.9	0.68	4	4	180	8	16
DSM95-130-062-20-SR-F	62	64	145	200	2000	2500	13.0	25.4	150	2.4	0.62	3.20	3.20	180	8	19
DSM95-135-086-15-SR-F	86	91	208	295	1500	1800	13.5	28.5	194	3.0	0.45	3.4	3.4	260	8	14
DSM95-150-086-17-SR-F	86	91	208	295	1700	2100	15.0	31	176	2.8	0.4	2.8	2.8	260	8	16
DSM95-180-086-20-SR-F	86	91	208	295	2000	2500	18.0	37.2	150	2.3	0.4	2.3	2.3	260	8	18
DSM95-165-105-15-SR-F	105	118	276	390	1500	1800	16.5	35.5	197	3.0	0.36	2.6	2.6	340	8	14
DSM95-185-105-17-SR-F	105	118	276	390	1700	2100	18.5	40	173	2.6	0.27	2	2	340	8	16
DSM95-220-105-20-SR-F	105	118	276	390	2000	2500	22.0	47.5	147	2.2	0.20	1.54	1.54	340	8	18
DSM95-200-129-15-SR-F	129	140	318	436	1500	1800	20.0	42.5	197	3.0	0.26	2.4	2.4	380	8	14
DSM95-230-129-17-SR-F	129	140	318	436	1700	2100	23.0	47.2	175	2.7	0.2	1.9	1.9	380	8	16
DSM95-270-129-20-SR-F	129	140	318	436	2000	2500	27.0	55.5	149	2.3	0.15	1.50	1.50	380	8	19

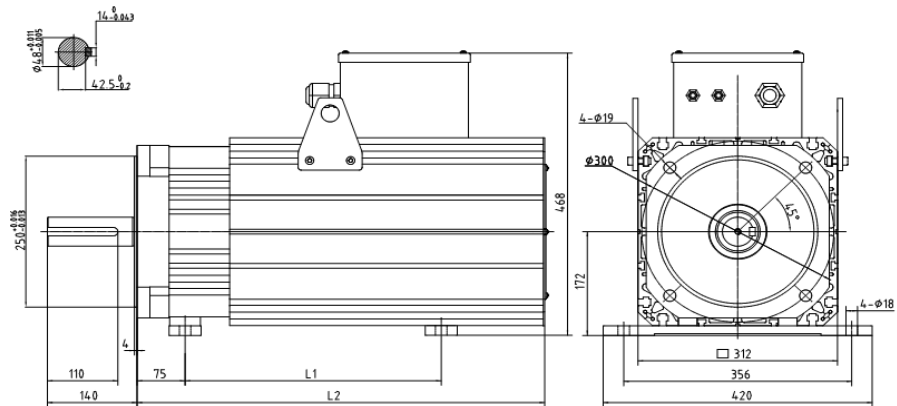
TYPE	Rated Torque (Nm) $\Delta T=65K$	Rated Torque (Nm) $\Delta T=100K$	Max. Torque at Rated Speed (Nm)	Max. Torque (Nm)	Rated Speed (rpm)	Max. Speed (rpm)	Rated Power (kW)	Rated Current (A)	Back E.M.F. (V/1000rpm)	Torque constant (Nm/A)	Line resistance of winding (Ω)	O-Axis inductance (mH)	D-Axis inductance (mH)	Moment of inertia (kg·cm ²)	Poles	Reaction time of 0-Nr (ms)
code	Tr	Tr	Tm	Tm	Nr	Nm	Pr	Ir	Ke	Kt	R _L	LQ	LD	Jm	PN	
DSM95-235-148-15-SR-F	148	168	378	516	1500	1800	23.5	50	198	3.0	0.21	2	2	780	8	26
DSM95-265-148-17-SR-F	148	168	378	516	1700	2100	26.5	57.2	171	2.6	0.14	1.4	1.4	780	8	29
DSM95-310-148-20-SR-F	148	168	378	516	2000	2500	31.0	66.9	145	2.2	0.09	0.98	0.98	780	8	34
DSM95-275-177-15-SR-F	177	196	396	536	1500	1800	27.5	56.5	199	3.1	0.14	2	2	920	8	27
DSM95-215-177-17-SR-F	177	196	396	536	1700	2100	31.5	64	176	2.8	0.11	1.6	1.6	920	8	31
DSM95-370-177-20-SR-F	177	196	396	536	2000	2500	37.0	75.2	150	2.4	0.09	1.28	1.28	920	8	36
DSM95-310-195-15-SR-F	195	250	497	690	1500	1800	31.0	71.5	199	2.7	0.1	1.6	1.6	1160	8	26
DSM95-350-195-17-SR-F	195	250	497	690	1700	2100	35.0	79.4	177	2.5	0.08	1.2	1.2	1160	8	30
DSM95-410-195-20-SR-F	195	250	497	690	2000	2500	41.0	93.0	150	2.1	0.06	0.90	0.90	1160	8	35
DSM95-415-265-15-SR-F	265	300	610	850	1500	1800	41.5	88.5	195	3.0	0.085	1.2	1.2	1400	8	26
DSM95-470-265-17-SR-F	265	300	610	850	1700	2100	47.0	97.3	177	2.7	0.06	1	1	1400	8	29
DSM95-555-265-20-SR-F	265	300	610	850	2000	2500	55.5	114.9	150	2.3	0.04	0.83	0.83	1400	8	34
DSM95-485-310-15-SR-F	310	350	713	994	1500	1800	48.5	103	197	3.0	0.07	1.1	1.1	1620	8	26
DSM95-550-310-17-SR-F	310	350	713	994	1700	2100	55.0	114.2	176	2.7	0.05	0.87	0.87	1620	8	29
DSM95-650-310-20-SR-F	310	350	713	994	2000	2500	65.0	135.0	150	2.3	0.04	0.69	0.69	1620	8	34

Rated speed	(N _r r.p.m)	Torque constant	(K _{To 200} Nm/A _{eff})
Rated output	(P _r W)	Voltage constant	(K _e V/1000rpm)
Torque at rated speed	(T _r N·m)	Resistance phase-phase	(R _{u-v})
Rated current	(I _r A _{eff})	Inductivity phase-phase	(L _{u-v} mH)
Standstill torque	(M _{o 200} N·m)	Electr.time constant	(T _{el} mS)
Standstill current	(I _{o 200} A _{eff})	Therm.time constant	(T _{therm} min)
Peak torque	(T _m Nm)	Rotor inertia	(J _R 10 ⁻³ kg·m ²)
Peak current	(I _m A _{eff})	Static friction tonque	(M _R N·m)
Number of pole pairs	(n _{pp})		

Dimension



TYPE	L1	L2
DSM-XXX-042	256	387
DSM-XXX-062	284	415
DSM-XXX-086	340	471
DSM-XXX-105	396	527
DSM-XXX-129	424	555



TYPE	L1	L2
DSM-XXX-148	247	488
DSM-XXX-177	284	525
DSM-XXX-195	321	562
DSM-XXX-265	359	600
DSM-XXX-310	396	637