



stepping motor		D1 -0.05		D2 -0.02		D3 -0.02		D4		D5	D6	L1	L2	L3	L4	L5	L6	L7	thread of cable entry	
series	type	M	J	M	J	M	J	M	J				+0.5	±0.5		±0.5				
56	SM 56.1.18											108		76	90	50			M20 x 1.5	
	SM 56.2.18		38.1		6.35		6.35		66.5	5.3	56.5	134	21	102	116	76	56.5	5		
	SM 56.3.18											162		130	144	104				
87	SM 87.1.18											137		85.5	137	60.5			M20 x 1.5	
	SM 87.2.18		73	10	9.52	10	9.52		99	6.5	86	169	31.5	117.5	169	92.5	86	5.5		
	SM 87.3.18			(12) ¹⁾		(12) ¹⁾						201		149.5	201	124.5				
	SM 87.4.18											233		181.5	233	156.5				
88	SM 88.1.18				9.52							145		93.5	145	68.5			M20 x 1.5	
	SM 88.2.18		73	12		12	9.52		99	6.5	86	177	31.5	125.5	177	100.5	86	7		
	SM 88.3.18			(10) ¹⁾		(10) ¹⁾						209		157.5	209	132.5				
	SM 88.4.18											241		189.5	241	164.5				
107	SM 107.1.18			12	12.7							170	32	111		89.5			M20 x 1.5	
	SM 107.2.18		60	55.54		10						238		161		139.5	108	9		
	SM 107.3.18				16	15.87		12.7	127.5	125.5	8.5	108	288	50	211		189.5			
	SM 107.4.18					12						338		261		239.5				
168	SM 168.1.18		180		24		19		215		15	168	268	50.5	179			192	17	M20 x 1.5
	SM 168.2.18											343		254						

all dimensions in mm

¹⁾ series SM87 also available as special version with 12 mm shaft and series SM88 also available with 10 mm shaft

M = metric

J = inch

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overview electrical and mechanical specifications

weight and rotor inertia are for standard versions with cast connection box without double ended shaft		electrical specifications				mechanical specifications						
		resistance per phase	inductance/phase	current/phase unipolar	current/phase bipolar	step angle (at full step)	holding torque	detent torque	rotor inertia	bearing thrust load	bearing overhang load	weight
series	motor type	Ohm	mH	A	A	°	Nm	Nm	kgcm ²	N	N	kg
56	SM 56.1.18 J1	4.75	9	1	1.4	1.8	0.45	0.04	0.125	80	150	0.6
	SM 56.1.18 J3	0.72	1	3	4.2							
	SM 56.1.18 J3.9	0.42	0.64	3.9	5.5							
	SM 56.2.18 J1.5	3.9	9	1.5	2.1	1.8	0.85	0.08	0.25	80	150	1
	SM 56.2.18 J2	2.6	5	2	2.8							
	SM 56.2.18 J3	1.2	2.6	3	4.2							
	SM 56.3.18 J1.5	4.3	9	1.5	2.1	1.8	1.25	0.12	0.375	80	150	1.35
	SM 56.3.18 J3	1.46	3	3	4.2							
SM 56.3.18 J4.6	0.72	1.2	4.6	6.5								
87	SM 87.1.18 M1.6	2.9	6	1.6	2.3	1.8	1.8	0.08	0.65	180	280	1.7
	SM 87.1.18 M3	0.72	1.6	3	4.2							
	SM 87.1.18 M5	0.28	0.7	5	7							
	SM 87.2.18 M3.5	0.74	3	3.5	5	1.8	3.6	0.16	1.3	180	280	2.65
	SM 87.2.18 M4.6	0.48	1.5	4.6	6.5							
	SM 87.2.18 M6	0.38	1	6	8.4							
	SM 87.3.18 M3.5	1.1	5	3.5	5	1.8	5.4	0.24	1.95	180	280	3.65
	SM 87.3.18 M6	0.43	1.7	6	8.4							
	SM 87.3.18 M7	0.33	1	7	10							
	SM 87.4.18 M6	0.55	2.3	6	8.4	1.8	7.2	0.32	2.6	180	280	4.6
SM 87.4.18 M7	0.42	1.8	7	10								
88 ¹⁾	SM 88.1.18 M2	1.88	11.1	–	2	1.8	3	0.12	1.35	180	280	1.9
	SM 88.1.18 M4	0.5	2.5	–	4							
	SM 88.1.18 M8	0.13	0.75	–	8							
	SM 88.2.18 M2	3.61	26	–	2	1.8	6	0.24	2.7	180	280	2.85
	SM 88.2.18 M4	0.74	5.5	–	4							
	SM 88.2.18 M8	0.21	1.5	–	8							
	SM 88.3.18 M4	1.14	10.9	–	4	1.8	9	0.36	4.05	180	280	3.85
	SM 88.3.18 M8	0.29	2.6	–	8							
	SM 88.3.18 M12	0.14	1	–	12							
	SM 88.4.18 M4	1.54	22	–	4	1.8	12	0.48	5.4	180	280	4.8
	SM 88.4.18 M8	0.37	3.55	–	8							
SM 88.4.18 M12	0.12	1.75	–	12								
107	SM 107.1.18 M4 ¹⁾	0.45	4.8	–	4	1.8	5	0.2	4	400	650	4.3
	SM 107.1.18 M6	0.3	1.6	5	7							
	SM 107.1.18 M8	0.225	1.2	5.7	8							
	SM 107.1.18 M12	0.1	0.55	8.8	12.5							
	SM 107.2.18 M4 ¹⁾	0.76	9.6	–	4	1.8	9	0.4	8	400	650	7.2
	SM 107.2.18 M8	0.38	2.4	5.7	8							
	SM 107.2.18 M10	0.25	1.6	7.1	10							
	SM 107.2.18 M12	0.175	1.15	8.8	12.5							
	SM 107.3.18 M6 ¹⁾	0.56	7.6	–	6	1.8	13	0.6	12	400	650	9.8
	SM 107.3.18 M10	0.38	2.7	7.1	10							
	SM 107.3.18 M12	0.28	1.9	8.8	12.5							
	SM 107.4.18 M6 ¹⁾	0.68	10.8	–	6	1.8	17	0.8	16	400	650	12.5
SM 107.4.18 M12	0.34	2.7	8.8	12.5								
168	SM 168.1.18 M12	0.18	2.5	8.8	12.5	1.8	19	0.3	31.2	660	1000	18
	SM 168.2.18 M12	0.28	5	8.8	12.5	1.8	38	0.6	64.4	660	1000	23

¹⁾ only with bipolar winding in standard version