

Hypoid Motor TA Series Specification Chart

HYPOID MOTOR TA

Specification Chart

() The values in parentheses are for the brake type.

Model number	Motor output kW	Actual reduction ratio	Number of reduction steps		Output shaft revolution r/min		Allowable output shaft torque				Allowable output shaft O.H.L.		Page and drawing number of outline dimensions		
			L	U	50Hz	60Hz	50Hz		60Hz		N	{kgf}	Hollow shaft type	Foot mount	Face mount
							N·m	{kgf·m}	N·m	{kgf·m}					
HMTA 010	5	1/5	2	2	300	360	2.7	{0.28}	2.4	{0.24}	588	{60}	P.135 Drawing M-1 (P.159) Drawing B-1 Frame number 30	P.143 Drawing M-26 (P.167) Drawing B-26 Frame number 19	P.151 Drawing M-55 (P.175) Drawing B-55 Frame number 24
	10	1/10			150	180	5.6	{0.57}	4.6	{0.47}	980	{100}			
	15	1/15			100	120	8.3	{0.85}	7.0	{0.71}	1078	{110}			
	20	1/20			75	90	10.8	{1.1}	9.3	{0.95}	1176	{120}			
	25	1/25			60	72	13.7	{1.4}	11.8	{1.2}	1274	{130}			
	30	1/30			50	60	16.7	{1.7}	13.7	{1.4}	1421	{145}			
	40	1/40			37.5	45	22.5	{2.3}	18.6	{1.9}	1617	{165}			
	50	1/50			30	36	27.4	{2.8}	23.5	{2.4}	1862	{190}			
	60	1/60			25	30	31.4	{3.2}	26.5	{2.7}	2009	{205}			
	80	1/80			18.8	22.5	42.1	{4.3}	35.3	{3.6}	2254	{230}			
	100	1/100			15	18	52.9	{5.4}	44.1	{4.5}	2548	{260}			
	120	1/120			12.5	15	63.7	{6.5}	52.9	{5.4}	2793	{285}			
	160	1/160			9.4	11.3	84.3	{8.6}	70.6	{7.2}	3332	{340}			
	200	1/200			7.5	9	106	{10.8}	88.2	{9.0}	3332	{340}			
	300	1/300			5	6	129	{13.2}	108	{11.0}	3332	{340}			
	360	1/360			4.2	5	156	{15.9}	129	{13.2}	3332	{340}			
480	1/480	3.1	3.8	*169	{*17.2}	*169	{*17.2}	3332	{340}						
600	1/600	2.5	3	260	{26.5}	217	{22.1}	4410	{450}						
720	1/720	2.1	2.5	312	{31.8}	260	{26.5}	4410	{450}						
960	1/960	1.6	1.9	*374	{*38.2}	346	{35.3}	4410	{450}						
1200	1/1200	1.3	1.5	*374	{*38.2}	*374	{*38.2}	4410	{450}						
HMTA 020	5	1/5	2	2	300	360	5.6	{0.57}	4.6	{0.47}	588	{60}	P.136 Drawing M-4 (P.160) Drawing B-4 Frame number 30	P.144 Drawing M-30 (P.168) Drawing B-30 Frame number 19	P.152 Drawing M-58 (P.176) Drawing B-58 Frame number 28
	10	1/10			150	180	10.8	{1.1}	9.3	{0.95}	980	{100}			
	15	1/15			100	120	16.7	{1.7}	13.7	{1.4}	1078	{110}			
	20	1/20			75	90	22.5	{2.3}	18.6	{1.9}	1176	{120}			
	25	1/25			60	72	27.4	{2.8}	23.5	{2.4}	1274	{130}			
	30	1/30			50	60	33.3	{3.4}	27.4	{2.8}	1421	{145}			
	40	1/40			37.5	45	44.1	{4.5}	37.2	{3.8}	1617	{165}			
	50	1/50			30	36	55.9	{5.7}	46.1	{4.7}	1862	{190}			
	60	1/60			25	30	66.6	{6.8}	54.9	{5.6}	2009	{205}			
	80	1/80			18.8	22.5	84.3	{8.6}	70.6	{7.2}	2254	{230}			
	100	1/100			15	18	106	{10.8}	88.2	{9.0}	2548	{260}			
	120	1/120			12.5	15	126	{12.9}	106	{10.8}	2793	{285}			
	160	1/160			9.4	11.3	169	{17.2}	140	{14.3}	3332	{340}			
	200	1/200			7.5	9	*169	{*17.2}	*169	{*17.2}	3332	{340}			
	300	1/300			5	6	260	{26.5}	217	{22.1}	4410	{450}			
	360	1/360			4.2	5	312	{31.8}	260	{26.5}	4410	{450}			
480	1/480	3.1	3.8	*374	{*38.2}	*312	{*31.8}	4410	{450}						
600	1/600	2.5	3	506	{51.6}	432	{44.1}	6272	{640}						
720	1/720	2.1	2.5	607	{61.9}	519	{53.0}	6272	{640}						
960	1/960	1.6	1.9	*621	{*63.4}	*621	{*63.4}	6272	{640}						
1200	1/1200	1.3	1.5	*621	{*63.4}	*621	{*63.4}	6272	{640}						

(Note 1) The actual reduction ratio is shown as the reduction ratio. (They are all integer ratios.)

(Note 2) The output shaft revolution rate is calculated by dividing the synchronous motor revolution rate by the reduction ratio. The actual revolution rate should be calculated from the rated revolution speed of the motor (page 129).

(Note 3) For output shaft arrangement "T" where torque is applied to both shafts, the sum of both torques should be equal to or less than the value shown in the table above. In addition, the O.H.L. on one shaft should be equal to or less than 1/2 of the value shown in the table above.

(Note 4) The models marked with * are ones for which the torque is limited.

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() The values in parentheses are for the brake type.

Model number	Motor output kW	Actual reduction ratio	Number of reduction steps		Output shaft revolution r/min		Allowable output shaft torque				Allowable output shaft O.H.L.		Page and drawing number of outline dimensions		
			L	U	50Hz	60Hz	50Hz		60Hz		N	{kgf}	Hollow shaft type	Foot mount	Face mount
							N·m	{kgf·m}	N·m	{kgf·m}					
HMTA 040	0.4	1/5	2	2	300	360	10.8	{1.1}	9.3	{0.95}	931	{95}	P.137 Drawing M-7 (P.161) Drawing B-7 Frame number 30	P.145 Drawing M-34 (P.169) Drawing B-34 Frame number 24	P.153 Drawing M-61 (P.177) Drawing B-61 Frame number 28
					150	180	22.5	{2.3}	18.6	{1.9}	1568	{160}			
					100	120	33.3	{3.4}	27.4	{2.8}	1715	{175}			
					75	90	44.1	{4.5}	37.2	{3.8}	1862	{190}			
					60	72	55.9	{5.7}	46.1	{4.7}	2009	{205}			
					50	60	66.6	{6.8}	55.9	{5.7}	2205	{225}			
		40	1/40	37.5	45	°89.2	°{9.1}	°74.5	°{7.6}	2450	{250}	P.137 Drawing M-8 (P.161) Drawing B-8 Frame number 35	P.145 Drawing M-35 (P.169) Drawing B-35 Frame number 38	P.153 Drawing M-62 (P.177) Drawing B-62 Frame number 38	
		50	1/50	30	36	°112	°{11.4}	°93.1	°{9.5}	2793	{285}				
		60	1/60	25	30	126	{12.9}	106	{10.8}	3038	{310}				
		80	1/80	18.8	22.5	169	{17.2}	141	{14.4}	3479	{355}				
		100	1/100	15	18	212	{21.6}	176	{18.0}	3920	{400}				
		120	1/120	12.5	15	254	{25.9}	212	{21.6}	4410	{450}				
		160	1/160	9.4	11.3	338	{34.5}	281	{28.7}	4410	{450}	P.137 Drawing M-9 (P.161) Drawing B-9 Frame number 45	P.145 Drawing M-36 (P.169) Drawing B-36 Frame number 42	P.153 Drawing M-63 (P.177) Drawing B-63 Frame number 42	
		200	1/200	7.5	9	*374	*{38.2}	*312	*{31.8}	4410	{450}				
		300	1/300	5	6	519	{53.0}	432	{44.1}	6272	{640}				
		360	1/360	4.2	5	621	{63.4}	519	{53.0}	6272	{640}				
		480	1/480	3.1	3.8	*621	*{63.4}	*621	*{63.4}	6272	{640}				
		600	1/600	2.5	3	1029	{105}	869	{88.7}	9800	{1000}				
720	1/720	2.1	2.5	*1176	*{120}	1029	{105}	9800	{1000}	P.137 Drawing M-10 (P.161) Drawing B-10 Frame number 55	P.145 Drawing M-37 (P.169) Drawing B-37 Frame number 50	P.153 Drawing M-64 (P.177) Drawing B-64 Frame number 50			
960	1/960	1.6	1.9	*1176	*{120}	*1176	*{120}	9800	{1000}						
1200	1/1200	1.3	1.5	*1176	*{120}	*1176	*{120}	9800	{1000}						

- (Note 1) The actual reduction ratio is shown as the reduction ratio. (They are all integer ratios.)
- (Note 2) The output shaft revolution rate is calculated by dividing the synchronous motor revolution rate by the reduction ratio. The actual revolution rate should be calculated from the rated revolution speed of the motor (page 129).
- (Note 3) For output shaft arrangement "T" where torque is applied to both shafts, the sum of both torques should be equal to or less than the value shown in the table above. In addition, the O.H.L. on one shaft should be equal to or less than 1/2 of the value shown in the table above.
- (Note 4) The values marked with "°" in the table above are for 2-step reduction. For the U type with 3-step reduction, the values shown to the right apply.
- (Note 5) The models marked with * are ones for which the torque is limited.

0.4	1/40	3	37.5	45	84.3	{ 8.6}	70.6	{ 7.2}
	1/50		30	36	106	{10.8}	88.2	{ 9.0}
0.75	1/40	3	37.5	45	159	{16.2}	132	{13.5}
	1/50		30	36	198	{20.2}	165	{16.8}

Specification Chart

0.4
0.75

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Model number	Motor output kW	Actual reduction ratio	Number of reduction steps		Output shaft revolution r/min		Allowable output shaft torque				Allowable output shaft O.H.L.		Page and drawing number of outline dimensions		
			L	U	50Hz	60Hz	50Hz		60Hz		N	{kgf}	Hollow shaft type	Foot mount	Face mount
							N·m	{kgf·m}	N·m	{kgf·m}					
HMTA 150	1.5	1/5	2	2	300	360	41.2	{4.2}	34.3	{3.5}	2058	{210}	P.139 Drawing M-14 (P.163) Drawing B-14	P.147 Drawing M-41 (P.171) Drawing B-41	P.155 Drawing M-68 (P.179) Drawing B-68
					150	180	83.3	{8.5}	69.6	{7.1}	2842	{290}			
					100	120	124	{12.7}	104	{10.6}	3234	{330}			
					75	90	166	{16.9}	138	{14.1}	3626	{370}			
					60	72	208	{21.2}	173	{17.7}	4018	{410}			
					50	60	249	{25.4}	208	{21.2}	4508	{460}			
		3	3	1/40	37.5	45	317	{32.3}	264	{26.9}	5292	{540}	Frame number 45	Frame number 42	Frame number 42
				1/50	30	36	396	{40.4}	330	{33.7}	6076	{620}			
				1/60	25	30	475	{48.5}	396	{40.4}	6272	{640}			
				1/80	18.8	22.5	634	{64.7}	528	{53.9}	6272	{640}			
				1/100	15	18	792	{80.8}	661	{67.4}	9800	{1000}			
				1/120	12.5	15	951	{97.0}	792	{80.8}	9800	{1000}			
				1/160	9.4	11.3	*1176	{120}	1058	{108}	9800	{1000}			
1/200	7.5	9	*1176	{120}	*1176	{120}	9800	{1000}							
HMTA 220	2.2	1/5	2	2	300	360	60.8	{6.2}	51.0	{5.2}	3038	{310}	P.139 Drawing M-16 (P.163) Drawing B-16	P.147 Drawing M-43 (P.171) Drawing B-43	P.155 Drawing M-70 (P.179) Drawing B-70
					150	180	122	{12.4}	102	{10.4}	3822	{390}			
					100	120	182	{18.6}	152	{15.5}	4214	{430}			
					75	90	244	{24.9}	203	{20.7}	4606	{470}			
					60	72	290	{29.6}	242	{24.7}	4998	{510}			
					50	60	349	{35.6}	290	{29.6}	5390	{550}			
		3	3	1/40	37.5	45	465	{47.4}	387	{39.5}	5782	{590}	Frame number 45	Frame number 42	Frame number 42
				★1/50	30	36	581	{59.3}	484	{49.4}	6076	{620}			
				1/60	25	30	697	{71.1}	581	{59.3}	6272	{640}			
				1/80	18.8	22.5	930	{94.9}	774	{79.0}	9800	{1000}			
				1/100	15	18	*1068	{109}	968	{98.8}	9800	{1000}			
				1/120	12.5	15	*1176	{120}	1166	{119}	9800	{1000}			
				1/140	10	12	1260	{126}	1260	{126}	9800	{1000}			
HMTA 370	3.7	1/5	2	2	300	360	103	{10.5}	85.3	{8.7}	4900	{500}	P.140 Drawing M-18 (P.164) Drawing B-18	P.148 Drawing M-45 (P.172) Drawing B-45	P.156 Drawing M-72 (P.180) Drawing B-72
					150	180	205	{20.9}	171	{17.4}	5880	{600}			
					100	120	308	{31.4}	256	{26.1}	6860	{700}			
		3	3	1/20	75	90	410	{41.8}	341	{34.8}	7742	{790}	Frame number 55	Frame number 50	Frame number 50
				1/25	60	72	489	{49.9}	407	{41.5}	8134	{830}			
				1/30	50	60	586	{59.8}	489	{49.9}	8428	{860}			
				1/40	37.5	45	782	{79.8}	652	{66.5}	8820	{900}			
				1/50	30	36	977	{99.7}	814	{83.1}	9114	{930}			
				1/60	25	30	1176	{120}	977	{99.7}	9408	{960}			
HMTA 550	5.5	1/5	2	2	300	360	152	{15.5}	126	{12.9}	4900	{500}	P.140 Drawing M-19 Frame number 55	P.148 Drawing M-46 Frame number 50	P.156 Drawing M-73 Frame number 50
					150	180	305	{31.1}	254	{25.9}	5880	{600}			
					100	120	457	{46.6}	380	{38.8}	6860	{700}			
		3	3	1/20	75	90	609	{62.1}	508	{51.8}	7742	{790}	Frame number 55	Frame number 50	Frame number 50
				1/25	60	72	726	{74.1}	606	{61.8}	8134	{830}			
				1/30	50	60	871	{88.9}	726	{74.1}	8428	{860}			
				1/40	37.5	45	1166	{119}	968	{98.8}	8820	{900}			

(Note 1) The actual reduction ratio is shown as the reduction ratio. In the case of 1/50 for 2.2 kW, marked with ★, however, the actual reduction ratio is 1/49.286.

(Note 2) The output shaft revolution rate is calculated by dividing the synchronous motor revolution rate by the reduction ratio. The actual revolution rate should be calculated from the rated revolution speed of the motor (page 129).

(Note 3) For output shaft arrangement "T" where torque is applied to both shafts, the sum of both torques should be equal to or less than the value shown in the table above. In addition, the O.H.L. on one shaft should be equal to or less than 1/2 of the value shown in the table above.

(Note 4) The models marked with * are ones for which the torque is limited.

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Model number	Motor output kW	Actual reduction ratio	Number of reduction steps		Output shaft revolution r/min		Allowable output shaft torque				Allowable output shaft O.H.L.		Page and drawing number of outline dimensions		
			L	U	50Hz	60Hz	50Hz		60Hz		N	{kgf}	Hollow shaft type	Foot mount	Face mount
							N·m	{kgf·m}	N·m	{kgf·m}					
HMTA 100	100	1/5	2	2	300	360	2.7	{0.28}	2.4	{0.24}	588	{60}	P.141 Drawing M-20 (P.165) Drawing B-20 Frame number 30	P.149 Drawing M-47 (P.173) Drawing B-47 Frame number 19	P.157 Drawing M-74 (P.181) Drawing B-74
		10			150	180	5.6	{0.57}	4.6	{0.47}	980	{100}			
		15			100	120	8.3	{0.85}	7.0	{0.71}	1078	{110}			
		20			75	90	10.8	{1.1}	9.3	{0.95}	1176	{120}			
		25			60	72	13.7	{1.4}	11.8	{1.2}	1274	{130}			
		30			50	60	16.7	{1.7}	13.7	{1.4}	1421	{145}			
		40			37.5	45	22.5	{2.3}	18.6	{1.9}	1617	{165}			
		50			30	36	27.4	{2.8}	23.5	{2.4}	1862	{190}			
		60			25	30	31.4	{3.2}	26.5	{2.7}	2009	{205}			
		80	18.8	22.5	42.1	{4.3}	35.3	{3.6}	2254	{230}					
		100	15	18	52.9	{5.4}	44.1	{4.5}	2548	{260}					
		120	12.5	15	63.7	{6.5}	52.9	{5.4}	2793	{285}					
		160	9.4	11.3	84.3	{8.6}	70.6	{7.2}	3332	{340}					
		200	7.5	9	106	{10.8}	88.2	{9.0}	3332	{340}					
		300	5	6	129	{13.2}	108	{11.0}	3332	{340}					
		360	4.2	5	156	{15.9}	129	{13.2}	3332	{340}					
		480	3.1	3.8	*169	{17.2}	*169	{17.2}	3332	{340}					
		600	2.5	3	260	{26.5}	217	{22.1}	4410	{450}					
720	2.1	2.5	312	{31.8}	260	{26.5}	4410	{450}							
960	1.6	1.9	*374	{38.2}	346	{35.3}	4410	{450}							
1200	1.3	1.5	*374	{38.2}	*374	{38.2}	4410	{450}							
HMTA 200	200	1/5	2	2	300	360	5.6	{0.57}	4.6	{0.47}	588	{60}	P.142 Drawing M-23 (P.166) Drawing B-23 Frame number 30	P.150 Drawing M-51 (P.174) Drawing B-51 Frame number 19	P.158 Drawing M-77 (P.182) Drawing B-77
		10			150	180	10.8	{1.1}	9.3	{0.95}	980	{100}			
		15			100	120	16.7	{1.7}	13.7	{1.4}	1078	{110}			
		20			75	90	22.5	{2.3}	18.6	{1.9}	1176	{120}			
		25			60	72	27.4	{2.8}	23.5	{2.4}	1274	{130}			
		30			50	60	33.3	{3.4}	27.4	{2.8}	1421	{145}			
		40			37.5	45	44.1	{4.5}	37.2	{3.8}	1617	{165}			
		50			30	36	55.9	{5.7}	46.1	{4.7}	1862	{190}			
		60			25	30	66.6	{6.8}	54.9	{5.6}	2009	{205}			
		80	18.8	22.5	84.3	{8.6}	70.6	{7.2}	2254	{230}					
		100	15	18	106	{10.8}	88.2	{9.0}	2548	{260}					
		120	12.5	15	126	{12.9}	106	{10.8}	2793	{285}					
		160	9.4	11.3	169	{17.2}	140	{14.3}	3332	{340}					
		200	7.5	9	*169	{17.2}	*169	{17.2}	3332	{340}					
		300	5	6	260	{26.5}	217	{22.1}	4410	{450}					
		360	4.2	5	312	{31.8}	260	{26.5}	4410	{450}					
		480	3.1	3.8	*374	{38.2}	*312	{31.8}	4410	{450}					
		600	2.5	3	506	{51.6}	432	{44.1}	6272	{640}					
720	2.1	2.5	607	{61.9}	519	{53.0}	6272	{640}							
960	1.6	1.9	*621	{63.4}	*621	{63.4}	6272	{640}							
1200	1.3	1.5	*621	{63.4}	*621	{63.4}	6272	{640}							

(Note 1) The actual reduction ratio is shown as the reduction ratio. (They are all integer ratios.)

(Note 2) The output shaft revolution rate is calculated by dividing the synchronous motor revolution rate by the reduction ratio. The actual revolution rate should be calculated from the rated revolution speed of the motor (page 129).

(Note 3) For output shaft arrangement "T" where torque is applied to both shafts, the sum of both torques should be equal to or less than the value shown in the table above. In addition, the O.H.L. on one shaft should be equal to or less than 1/2 of the value shown in the table above.

(Note 4) The models marked with * are ones for which the torque is limited.