

# Hypoid Motor TA Series

Adapter type

HYPOID MOTOR TA

## ■ Adapter-type reducer

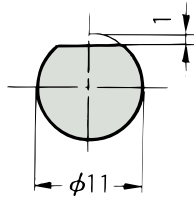
(1) This reducer has an adapter flange to which a motor can be attached.

Special motors other than our standard motors can be attached to it easily.

- Motors of other makers
- Explosion-proof motors
- Other special motors

(2) This reducer can be matched to motors conforming to the IEC standard and JEM standard.

- The flange dimensions and shaft dimensions are adjusted accordingly.
- This reducer is ready for keyless D-cut shafts for 0.2 kW or less.



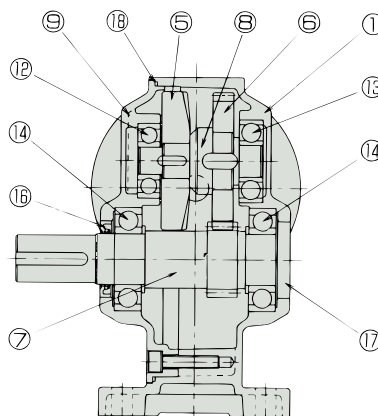
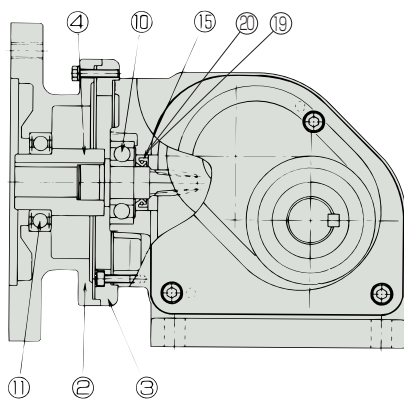
(3) For servomotors, DC motors, etc., that have special flange dimensions and shaft dimensions, we can manufacture reducers suitable for them as made-to-order products. Please contact us in such cases.

(4) We ask you to attach the motor to the reducer on your part. The motor mounting bolt and spring washer are included with the product.

(5) If you want us to attach the motor before shipment, please contact our company.

## ■ Structure

### ■ HRTA075-30L5RFI



- 1 . L Case
- 2 . Motor flange
- 3 . Flange
- 4 . Adapter input shaft with pinion
- 5 . 1st stage wheel
- 6 . 2nd stage pinion
- 7 . Output shaft with wheel
- 8 . 2nd shaft
- 9 . Cover
- 10 . Bearing (input shaft case side)
- 11 . Bearing (input shaft motor flange side)
- 12 . Bearing (2nd shaft cover side)
- 13 . Bearing (2nd shaft case side)
- 14 . Bearing (output shaft)
- 15 . Oil seal (input shaft)
- 16 . Oil seal (output shaft)
- 17 . Seal cap
- 18 . O-ring
- 19 . Filter
- 20 . Shim

## ■ Cautions in attaching the motor

(1) Wipe rust, dust, rust preventive oil, etc., off the motor shaft.

(2) When attaching the motor, do not hit the motor or reducer and do not force by the use of a bolt. If undue force is applied, the key may move, causing damage to the bearing, abnormal noise, etc.

(3) Since the adapter-type reducer does not come with a key for the input shaft, use the key supplied with the motor. However, the 0.1 kW and 0.2 kW Hypoid motor come with a key.

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## Specification Chart

Model number	4P motor capacity equivalence	Actual reduction ratio	Number of reduction steps		Output shaft revolution speed r/min		Allowable output shaft torque				Allowable O.H.L.		Outline dimension																																																																																																																													
			L	UH	50Hz	60Hz	N·m		{kgf·m}		N	{kgf}	Foot mount type	Face mount type	Hollow shaft type																																																																																																																											
							50Hz	60Hz	50Hz	60Hz																																																																																																																																
HRTA 010	5FI	0.1	2	2	300	360	2.7	{0.28}	2.4	{0.24}	588	{60}	Drawing 1	Drawing 3	Drawing 4																																																																																																																											
																10FI	1/10	150	180	5.6	{0.57}	4.6	{0.47}	980	{100}	Frame number 19	Frame number 24	Frame number 30																																																																																																														
																													15FI	1/15	100	120	8.3	{0.85}	7.0	{0.71}	1078	{110}																																																																																																				
																																							20FI	1/20	75	90	10.8	{1.1}	9.3	{0.95}	1176	{120}																																																																																										
																																																	25FI	1/25	60	72	13.7	{1.4}	11.8	{1.2}	1274	{130}																																																																																
																																																											30FI	1/30	50	60	16.7	{1.7}	13.7	{1.4}	1421	{145}																																																																						
																																																																					40FI	1/40	37.5	45	22.5	{2.3}	18.6	{1.9}	1617	{165}																																																												
																																																																															50FI	1/50	30	36	27.4	{2.8}	23.5	{2.4}	1862	{190}																																																		
																																																																																									60FI	1/60	25	30	31.4	{3.2}	26.5	{2.7}	2009	{205}																																								
																																																																																																			80FI	1/80	18.8	22.5	42.1	{4.3}	35.3	{3.6}	2254	{230}																														
																																																																																																													100FI	1/100	15	18	52.9	{5.4}	44.1	{4.5}	2548	{260}																				
																																																																																																																							120FI	1/120	12.5	15	63.7	{6.5}	52.9	{5.4}	2793	{285}										
																																																																																																																																	160FI	1/160	9.4	11.3	84.3	{8.6}	70.6	{7.2}	3332	{340}
5FI	0.2	2	2	300	360	5.6	{0.57}	4.6	{0.47}	588	{60}	Drawing 5	Drawing 7	Drawing 8																																																																																																																												
															10FI	1/10	150	180	10.8	{1.1}	9.3	{0.95}	980	{100}	Frame number 19	Frame number 28	Frame number 30																																																																																																															
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																																																																																								60FI	1/60	25	30	66.6	{6.8}	54.9	{5.6}	2009	{205}																																									
																																																																																																		80FI	1/80	18.8	22.5	84.3	{8.6}	70.6	{7.2}	2254	{230}																															
																																																																																																												100FI	1/100	15	18	106	{10.8}	88.2	{9.0}	2548	{260}																					
																																																																																																																						120FI	1/120	12.5	15	126	{12.9}	106	{10.8}	2793	{285}											
																																																																																																																																160FI	1/160	9.4	11.3	169	{17.2}	140	{14.3}	3332	{340}	
																																																																																																																																										200FI
5FI	0.4	2	2	300	360	10.8	{1.1}	9.3	{0.95}	931	{95}	Drawing 9	Drawing 11	Drawing 13																																																																																																																												
															10FI	1/10	150	180	22.5	{2.3}	18.6	{1.9}	1568	{160}	Frame number 24	Frame number 28	Frame number 30																																																																																																															
																												15FI	1/15	100	120	33.3	{3.4}	27.4	{2.8}	1715	{175}																																																																																																					
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																																																																				40FI	1/40	37.5	45	89.2	{9.1}	74.5	{7.6}	2450	{250}																																																													
																																																																														50FI	1/50	30	36	112	{11.4}	93.1	{9.5}	2793	{285}																																																			
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																																																																																																		80FI	1/80	18.8	22.5	169	{17.2}	141	{14.4}	3479	{355}																															
																																																																																																												100FI	1/100	15	18	212	{21.6}	176	{18.0}	3920	{400}																					
																																																																																																																						120FI	1/120	12.5	15	254	{25.9}	212	{21.6}	4410	{450}											
																																																																																																																																160FI	1/160	9.4	11.3	338	{34.5}	281	{28.7}	4410	{450}	
																																																																																																																																										200FI

(Note 1) The actual reduction ratio is shown as the reduction ratio. (They are all integer ratios.)  
 (Note 2) The output shaft revolution is calculated by dividing the synchronous motor revolution rate by the reduction ratio.  
 (Note 3) For "T" output shaft arrangements 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. of 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 below are applied.

0.4	1/40	2	3	37.5	45	84.3	{8.6}	70.6	{7.2}
	1/50			30	36	106	{10.8}	88.2	{9.0}

(Note 5) For "T" output shaft arrangements, the phases of the key ways of the right and left output shafts are not necessarily aligned precisely.  
 (Note 6) The models marked with \* are ones for which the torque is limited.

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## Specification Chart

Model number	4P motor capacity equivalence	Actual reduction ratio	Number of reduction steps		Output shaft revolution speed r/min		Allowable output shaft torque				Allowable O.H.L.		Outline dimension		
			L	UH	50Hz	60Hz	N·m		{kgf·m}		N	{kgf}	Foot mount type	Face mount type	Hollow shaft type
							50Hz	60Hz	50Hz	60Hz					
HRTA 075	0.75	1/5	2	2	300	360	20.6	{ 2.1}	17.6	{ 1.8}	1519	{155}	Drawing 15 Frame number 30	Drawing 17 Frame number 38	Drawing 19 Frame number 35
		1/10			150	180	42.1	{ 4.3}	34.3	{ 3.5}	2205	{225}			
		1/15			100	120	62.7	{ 6.4}	51.9	{ 5.3}	2401	{245}			
		1/20			75	90	83.3	{ 8.5}	69.6	{ 7.1}	2646	{270}			
		1/25			60	72	104	{10.6}	87.2	{ 8.9}	2891	{295}			
		1/30			50	60	125	{12.8}	104	{10.6}	3136	{320}			
		1/40			37.5	45	167	{17.0}	139	{14.2}	3626	{370}			
		1/50			30	36	209	{21.3}	173	{17.7}	4116	{420}			
		1/60			25	30	238	{24.3}	198	{20.2}	4508	{460}			
		1/80			18.8	22.5	317	{32.3}	264	{26.9}	5390	{550}			
		1/100			15	18	396	{40.4}	330	{33.7}	6272	{640}			
		1/120			12.5	15	475	{48.5}	396	{40.4}	6272	{640}			
		1/160			9.4	11.3	621	{63.4}	517	{52.8}	6272	{640}			
		1/200			7.5	9	* 621	* {63.4}	* 621	* {63.4}	6272	{640}			
HRTA 150	1.5	1/5	2	2	300	360	41.2	{ 4.2}	34.3	{ 3.5}	2058	{210}	Drawing 21 Frame number 42	Drawing 22 Frame number 42	Drawing 23 Frame number 45
		1/10			150	180	83.3	{ 8.5}	69.6	{ 7.1}	2842	{290}			
		1/15			100	120	124	{12.7}	104	{10.6}	3234	{330}			
		1/20			75	90	166	{16.9}	138	{14.1}	3626	{370}			
		1/25			60	72	208	{21.2}	173	{17.7}	4018	{410}			
		1/30			50	60	249	{25.4}	208	{21.2}	4508	{460}			
		1/40			37.5	45	317	{32.3}	264	{26.9}	5292	{540}			
		1/50			30	36	396	{40.4}	330	{33.7}	6076	{620}			

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

(Note 2) The output shaft revolution is calculated by dividing the synchronous motor revolution rate by the reduction ratio.

(Note 3) For "T" output shaft arrangements 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. of one shaft should be equal to or less than 1/2 of the value shown in the table above.

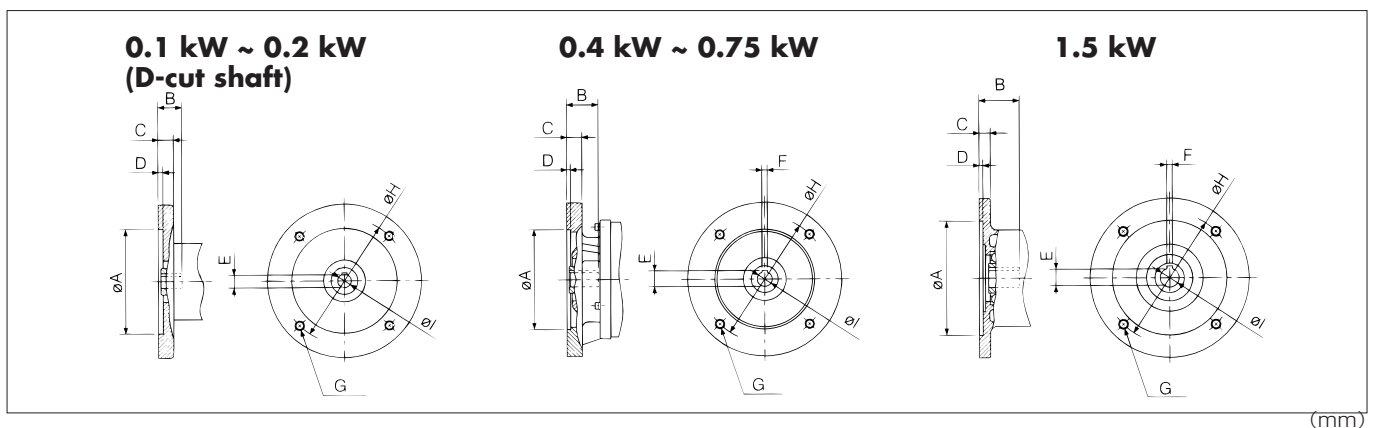
(Note 4) The values marked with "⊙" in the table above are for 2-step reduction. For the U type with 3-step reduction, the values shown below are applied.

0.75	1/40	2	3	37.5	45	159	{16.2}	132	{13.5}
	1/50			30	36	198	{20.2}	165	{16.8}

(Note 5) For "T" output shaft arrangements, the phases of the key ways of the output shafts are not necessarily aligned precisely.

(Note 6) The models marked with \* are ones for which the torque is limited.

## Dimensions of input section



Motor output	A	B	C	D	E	F	G	H	I
0.1 kW	110G7	25	14	5	10	—	4-M8	130	11F7
0.2 kW	110G7	25	14	5	10	—	4-M8	130	11F7
0.4 kW	110G7	32	14	5	16.3	5	4-M8	130	14F7
0.75 kW	130G7	42	20	5	21.8	6	4-M10	165	19F7
1.5 kW	130G7	52	16	5	27.3	8	4-M10	165	24F7

Specification Chart

0.75  
1.5