AH2 Type
Right Angle Shaft

Model and Type Codes
Standard Model Lineup

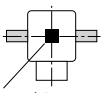
P.754

Model and Type Codes

For representative examples of servo motors of respective manufacturers that can be installed and applicable types by flange type, refer to the Motor Matching / Motor Power Design Lists on pages 712 to 718. For more details, please contact your nearest Sales Office or the CS Center.

AH2 Type

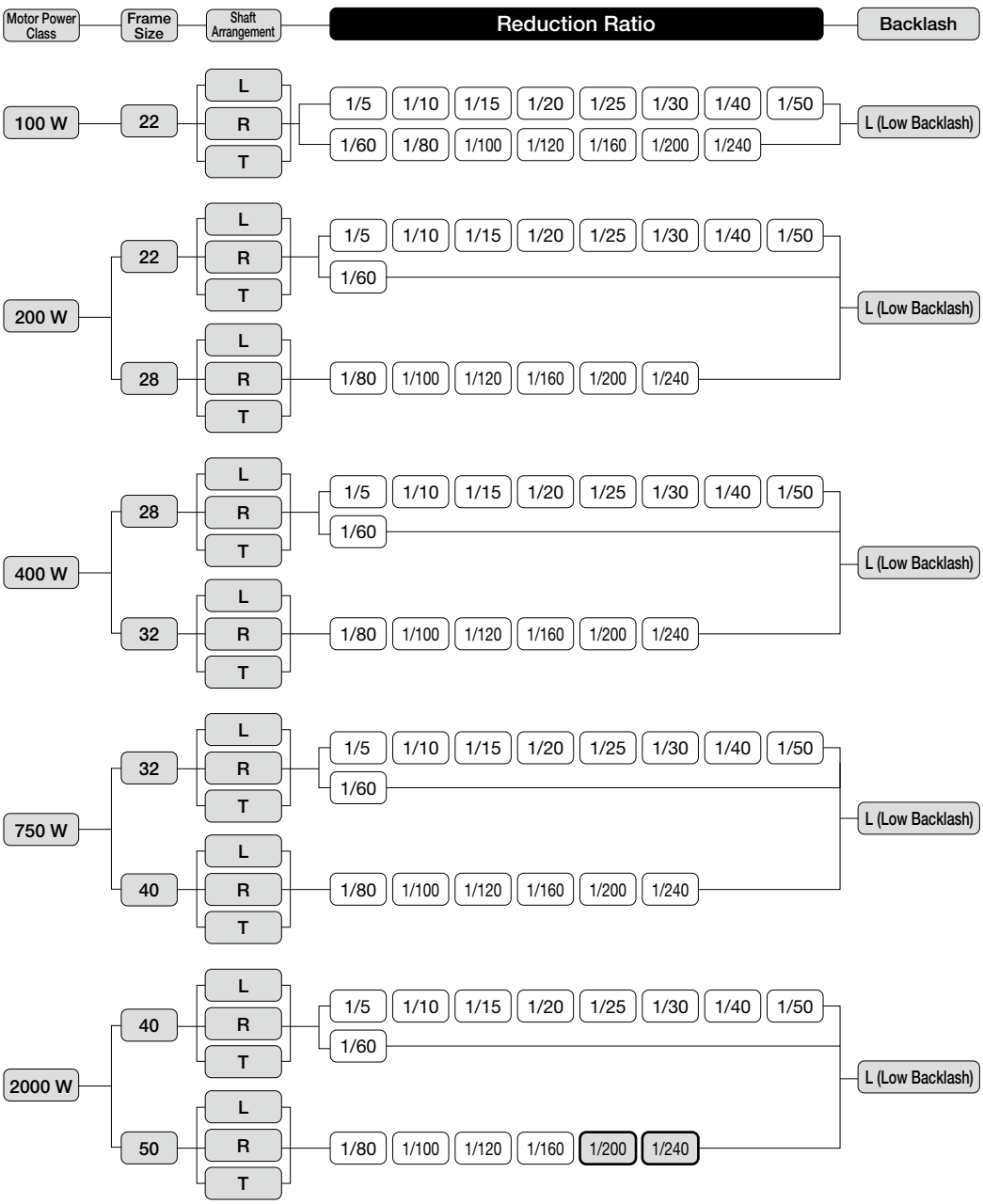
Mounting Type	Motor Type	Frame Size	Shaft Arrangement		Reduction Ratio	Backlash	Motor Power Class	Type	Option	Option Code
AH2L	Z	22	R	–	30	L	200	S1		
AH2L	Z	32	L	–	30	L	750	S4		
AH2L	Z	40	T	–	60	L	2000	K21	X	B3
①	②	③	④		⑤	⑥	⑦	⑧	⑨	⑩

①Mounting Type	AH2L : Right Angle Shaft (Foot Mount)		
②Motor Type	Z : High Precision Reducers for Servo Motor (Z Type Reducer)		
③Frame Size and Output Shaft Diameter	Output Shaft Diameter		
④Shaft Arrangement	Output shaft on the left side when viewed from the input shaft side	Output shaft on the right side when viewed from the input shaft side	Output shaft on both sides when viewed from the input shaft side
	 Nameplate	 Nameplate	 Nameplate
	L	R	T
⑤Reduction Ratio	5:1/5 240 :1/240		
⑥Backlash	L : Low Backlash		
⑦Motor Power Class	100 : 100 W Class		
	200 : 200 W Class		
	400 : 400 W Class		
	750 : 750 W Class		
	2000 : 2000 W Class		
⑧Flange Type for Servo Motor Mounting (Note 1)	F1/S1/K31, etc.		
⑨Option	Blank : Standard Specification		
	X : Special Specification Code		
⑩Option code (Note 2)	Position Code of Wrench Hole for Input Shaft Joint Tightening For details, please refer to the list of option codes on page 872.		

Note 1: Please refer to the Motor Matching / Motor Power Design Lists on pages 712 to 718.
Note 2: The option code will not be shown in the nomenclature on the nameplate. But it will be shown in the Option code row of the nameplate.

Standard Model Lineup

AH2 Type <Low Backlash Specification>



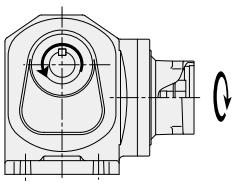
Note 1: ( ) indicates a limited torque type. Please make sure to check the allowable torque in the performance table.
Note 2: For the precision of low backlash types, refer to the performance table.
Note 3: AH2 is not available in 1 arc min and 3 arc min specifications.

1. Low Backlash High Precision Reducers for Servo Motors

1-1. Performance Tables

AH2 Type <Low Backlash> Performance Table by Reduction Ratio

[Notes]



- The input speed is 3000 r/min.
- The "*" mark indicates a limited torque type. Please make sure to check the allowable average torque in the performance table.
- Allowable output shaft O.H.L. is the value at the middle of the output shaft.
- For the continuous rated input torque, please refer to page 871. In addition, for the servo motor-based motor rated output torque, please refer to page 848.
- The key dimensions and tolerances for output shafts conform to JIS B 1301-1996 (plain form).
- The internal moment of inertia (input shaft equivalent) is the value for the reducer alone, and does not include the motor's moment of inertia.
- The allowable average torque is the continuous allowable torque value.
- Adjust the gain so that the inertial load on the output shaft side does not vibrate during acceleration and deceleration.
- ▭ in the performance table indicates that the input shaft and the output shaft rotate in the opposite directions. (It does not limit the rotational directions of the input shaft and the output shaft.)

■ At an input speed of 3000 r/min

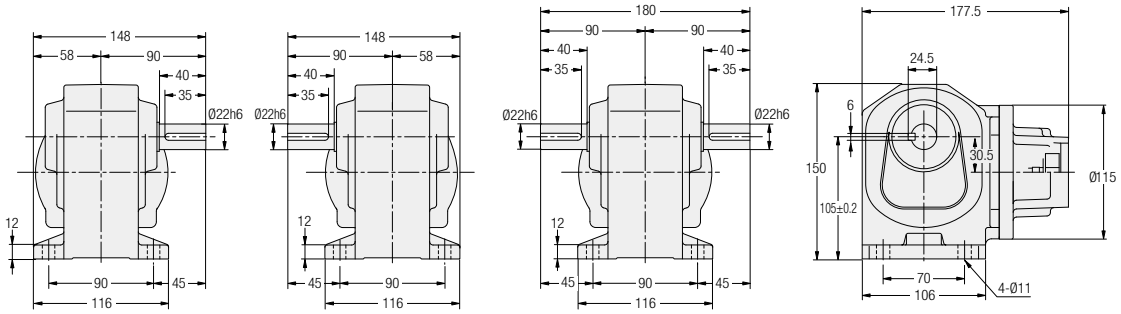
Mounting Type	Output Shaft Diameter	Shaft Arrangement	Nominal Reduction Ratio	Actual Reduction Ratio	Precision	Power Class	Allowable Average Torque (3000 r/min)	Allowable Peak Torque of Startup/ Stop	Allowable Output Shaft O.H.L.	Allowable Output Shaft Thrust Load	Internal Moment of Inertia (Input Shaft Equivalent)	Drawings
							N·m	N·m	N	N	$\times 10^{-4}$kg·m^2	
AH2LZ	22	L/R/T	1/5	1/5	L (60 arc min)	100	0.9	1.8	490	147	0.377	P.756
AH2LZ	22	L/R/T	1/5	1/5	L (60 arc min)	200	2.0	3.9	590	147	0.722	
AH2LZ	28	L/R/T	1/5	1/5	L (50 arc min)	400	3.9	7.8	930	235	0.789	P.757
AH2LZ	32	L/R/T	1/5	1/5	L (50 arc min)	750	7.8	16	1520	382	1.643	P.758
AH2LZ	40	L/R/T	1/5	1/5	L (30 arc min)	2000	24	47	2650	667	7.315	P.759
AH2LZ	22	L/R/T	1/10	1/10	L (40 arc min)	100	2.2	4.3	590	235	0.359	P.756
AH2LZ	22	L/R/T	1/10	1/10	L (40 arc min)	200	4.3	8.6	930	235	0.704	
AH2LZ	28	L/R/T	1/10	1/10	L (30 arc min)	400	8.4	17	1470	373	0.769	P.757
AH2LZ	32	L/R/T	1/10	1/10	L (30 arc min)	750	16	31	2010	500	1.513	P.758
AH2LZ	40	L/R/T	1/10	1/10	L (30 arc min)	2000	47	94	3530	883	6.838	P.759
AH2LZ	22	L/R/T	1/15	1/15	L (30 arc min)	100	3.4	6.9	930	235	0.353	P.756
AH2LZ	22	L/R/T	1/15	1/15	L (30 arc min)	200	7.1	14	1030	255	0.698	
AH2LZ	28	L/R/T	1/15	1/15	L (30 arc min)	400	14	27	1670	422	0.756	P.757
AH2LZ	32	L/R/T	1/15	1/15	L (30 arc min)	750	26	53	2210	549	1.481	P.758
AH2LZ	40	L/R/T	1/15	1/15	L (30 arc min)	2000	73	145	4410	1108	6.660	P.759
AH2LZ	22	L/R/T	1/20	1/20	L (30 arc min)	100	4.6	9.1	1030	294	0.359	P.756
AH2LZ	22	L/R/T	1/20	1/20	L (30 arc min)	200	9.4	19	1180	294	0.695	
AH2LZ	28	L/R/T	1/20	1/20	L (30 arc min)	400	19	37	1860	471	0.753	P.757
AH2LZ	32	L/R/T	1/20	1/20	L (30 arc min)	750	35	71	2450	618	1.467	P.758
AH2LZ	40	L/R/T	1/20	1/20	L (30 arc min)	2000	98	196	4710	1177	6.603	P.759
AH2LZ	22	L/R/T	1/25	1/25	L (30 arc min)	100	5.6	11	1180	324	0.349	P.756
AH2LZ	22	L/R/T	1/25	1/25	L (30 arc min)	200	12	24	1270	324	0.694	
AH2LZ	28	L/R/T	1/25	1/25	L (30 arc min)	400	25	49	2010	500	0.750	P.757
AH2LZ	32	L/R/T	1/25	1/25	L (30 arc min)	750	45	90	2740	686	1.462	P.758
AH2LZ	40	L/R/T	1/25	1/25	L (30 arc min)	2000	122	243	5100	1275	6.567	P.759
AH2LZ	22	L/R/T	1/30	1/30	L (30 arc min)	100	6.9	14	1270	343	0.349	P.756
AH2LZ	22	L/R/T	1/30	1/30	L (30 arc min)	200	15	29	1370	343	0.693	
AH2LZ	28	L/R/T	1/30	1/30	L (30 arc min)	400	29	59	2210	549	0.749	P.757
AH2LZ	32	L/R/T	1/30	1/30	L (30 arc min)	750	56	112	2940	735	1.454	P.758
AH2LZ	40	L/R/T	1/30	1/30	L (30 arc min)	2000	145	290	5300	1324	6.531	P.759
AH2LZ	22	L/R/T	1/40	1/40	L (30 arc min)	100	9.2	18	1370	392	0.347	P.756
AH2LZ	22	L/R/T	1/40	1/40	L (30 arc min)	200	20	39	1570	392	0.692	
AH2LZ	28	L/R/T	1/40	1/40	L (30 arc min)	400	39	78	2450	618	0.745	P.757
AH2LZ	32	L/R/T	1/40	1/40	L (30 arc min)	750	74	149	3430	863	1.447	P.758
AH2LZ	40	L/R/T	1/40	1/40	L (30 arc min)	2000	196	392	5590	1402	6.511	P.759
AH2LZ	22	L/R/T	1/50	1/50	L (30 arc min)	100	11	23	1570	431	0.347	P.756
AH2LZ	22	L/R/T	1/50	1/50	L (30 arc min)	200	25	49	1720	431	0.691	
AH2LZ	28	L/R/T	1/50	1/50	L (30 arc min)	400	49	98	2650	667	0.744	P.757
AH2LZ	32	L/R/T	1/50	1/50	L (30 arc min)	750	94	188	3820	961	1.443	P.758
AH2LZ	40	L/R/T	1/50	1/50	L (30 arc min)	2000	243	486	5880	1471	6.504	P.759

Mounting Type	Output Shaft Diameter	Shaft Arrangement	Nominal Reduction Ratio	Actual Reduction Ratio	Precision	Power Class	Allowable Average Torque (3000 r/min)	Allowable Peak Torque of Startup/ Stop	Allowable Output Shaft O.H.L.	Allowable Output Shaft Thrust Load	Internal Moment of Inertia (Input Shaft Equivalent)	Drawings
							N·m	N·m	N	N	$\times 10^{-4}$kg·m^2	
AH2LZ	22	L/R/T	1/60	1/59	L (30 arc min)	100	14	27	1570	441	0.346	P.756
AH2LZ	22	L/R/T	1/60	1/59	L (30 arc min)	200	27	55	1810	451	0.691	P.756
AH2LZ	28	L/R/T	1/60	1/59	L (30 arc min)	400	55	110	2740	686	0.744	P.757
AH2LZ	32	L/R/T	1/60	1/59	L (30 arc min)	750	110	220	4120	1030	1.441	P.758
AH2LZ	40	L/R/T	1/60	1/60	L (30 arc min)	2000	292	584	6080	1520	6.500	P.759
AH2LZ	22	L/R/T	1/80	1/80	L (30 arc min)	100	19	37	1570	441	0.343	P.756
AH2LZ	28	L/R/T	1/80	1/80	L (30 arc min)	200	34	69	2450	618	0.691	P.757
AH2LZ	32	L/R/T	1/80	1/80	L (30 arc min)	400	71	141	3430	863	0.746	P.758
AH2LZ	40	L/R/T	1/80	1/80	L (30 arc min)	750	141	282	5780	1422	1.447	P.759
AH2LZ	50	L/R/T	1/80	1/80	L (30 arc min)	2000	380	760	8530	2108	5.839	P.760
AH2LZ	22	L/R/T	1/100	1/100	L (30 arc min)	100	24	47	1570	441	0.343	P.756
AH2LZ	28	L/R/T	1/100	1/100	L (30 arc min)	200	43	86	2650	667	0.691	P.757
AH2LZ	32	L/R/T	1/100	1/100	L (30 arc min)	400	88	176	3820	961	0.746	P.758
AH2LZ	40	L/R/T	1/100	1/100	L (30 arc min)	750	172	345	6080	1520	1.446	P.759
AH2LZ	50	L/R/T	1/100	1/100	L (30 arc min)	2000	476	953	8820	2206	5.835	P.760
AH2LZ	22	L/R/T	1/120	1/120	L (30 arc min)	100	30	61	1570	441	0.343	P.756
AH2LZ	28	L/R/T	1/120	1/120	L (30 arc min)	200	57	114	2740	686	0.691	P.757
AH2LZ	32	L/R/T	1/120	1/120	L (30 arc min)	400	110	220	4120	1030	0.745	P.758
AH2LZ	40	L/R/T	1/120	1/120	L (30 arc min)	750	212	423	6270	1569	1.445	P.759
AH2LZ	50	L/R/T	1/120	1/120	L (30 arc min)	2000	584	1168	9020	2256	5.833	P.760
AH2LZ	22	L/R/T	1/160	1/160	L (30 arc min)	100	40	80	1570	441	0.343	P.756
AH2LZ	28	L/R/T	1/160	1/160	L (30 arc min)	200	75	151	2840	716	0.691	P.757
AH2LZ	32	L/R/T	1/160	1/160	L (30 arc min)	400	149	298	4120	1030	0.745	P.758
AH2LZ	40	L/R/T	1/160	1/160	L (30 arc min)	750	282	564	6470	1618	1.444	P.759
AH2LZ	50	L/R/T	1/160	3/470	L (30 arc min)	2000	775	1550	9310	2305	5.831	P.760
AH2LZ	22	L/R/T	1/200	1/200	L (30 arc min)	100	50	100	1570	441	0.343	P.756
AH2LZ	28	L/R/T	1/200	1/200	L (30 arc min)	200	94	188	2840	716	0.691	P.757
AH2LZ	32	L/R/T	1/200	1/200	L (30 arc min)	400	188	376	4120	1030	0.744	P.758
AH2LZ	40	L/R/T	1/200	1/200	L (30 arc min)	750	353	706	6660	1667	1.443	P.759
AH2LZ	50	L/R/T	1/200	1/196	L (30 arc min)	2000	* 862	1725	9510	2354	5.829	P.760
AH2LZ	22	L/R/T	1/240	1/236	L (30 arc min)	100	60	120	1570	441	0.343	P.756
AH2LZ	28	L/R/T	1/240	1/236	L (30 arc min)	200	110	220	2840	716	0.691	P.757
AH2LZ	32	L/R/T	1/240	1/236	L (30 arc min)	400	221	441	4120	1030	0.744	P.758
AH2LZ	40	L/R/T	1/240	1/240	L (30 arc min)	750	423	847	6660	1667	1.443	P.759
AH2LZ	50	L/R/T	1/240	1/240	L (30 arc min)	2000	* 862	1725	9510	2354	5.828	P.760

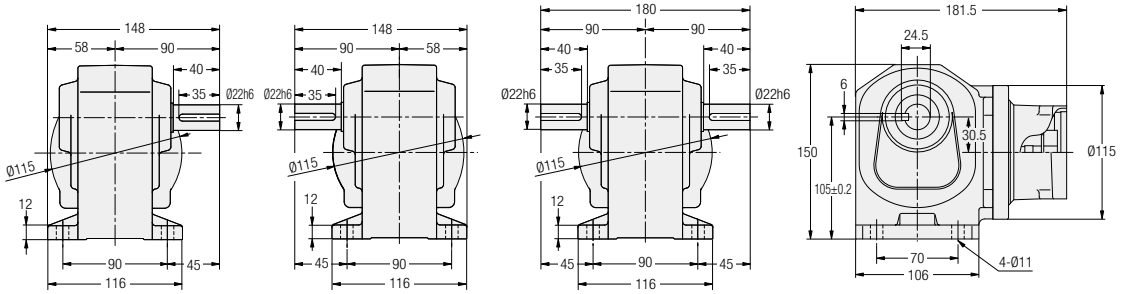
1-2. Drawings

AH2 Type Right Angle Shaft | Shaft Diameter **22** | **Foot** Mounting | Low Backlash

<Figure 1>



<Figure 2>



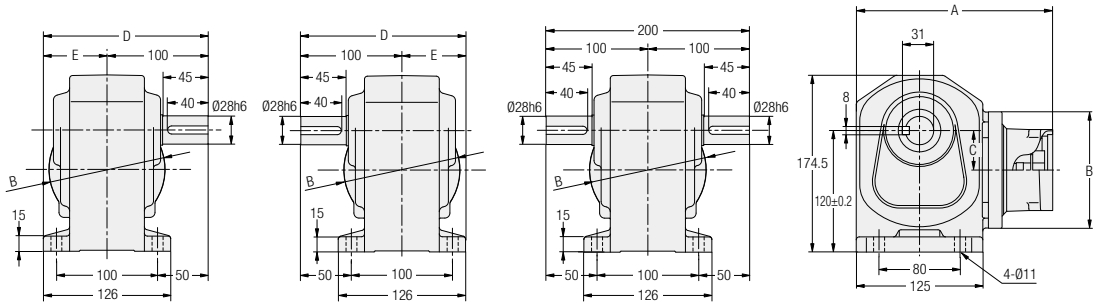
L Shaft R Shaft T Shaft

Motor Power Class	Part Number	Reduction Ratio	Figure Number	Flange Type	Approx. Weight (kg)
100 W	AH2LZ22#-***□100△	5, 10, 15, 20, 25, 30, 40, 50, 60, 80, 100, 120, 160, 200, 240	1	F1/F3/S1/S3	4.5
200 W	AH2LZ22#-***□200△	5, 10, 15, 20, 25, 30, 40, 50, 60	2	F1/F2/F3/S1/S2/S3	4.5

Note: A shaft arrangement (L, R, T) will be indicated as # in the nomenclature. In addition, a reduction ratio will be indicated as ***, backlash will be indicated as □, and a flange type will be indicated as △.
Note: For flange type codes, please refer to the Motor Matching / Motor Power Design Lists on pages 712 to 718.
Note: Please refer to pages 831 to 834 for the detailed dimensions of the input shaft area.
Note: Please refer to page 754 for the performance table.

AH2 Type Right Angle Shaft | Shaft Diameter **28** | **Foot** Mounting | Low Backlash

<Figure 1>



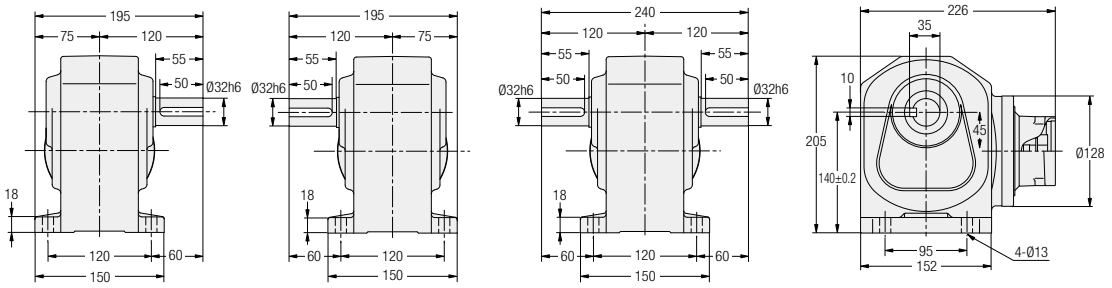
L Shaft R Shaft T Shaft

Motor Power Class	Part Number	Reduction Ratio	Figure Number	Flange Type	Approx. Weight (kg)	A	B	C	D	E
200 W	AH2LZ28#-***□200△	80, 100, 120, 160, 200, 240	1	F1/F2/F3/S1/S2/S3	6.5	194	Ø115	39	163	63
400 W	AH2LZ28#-***□400△	5, 10, 15, 20, 25, 30, 40, 50, 60	1	F1/F3/S1/S3	6.5	207	Ø128	36	164	64

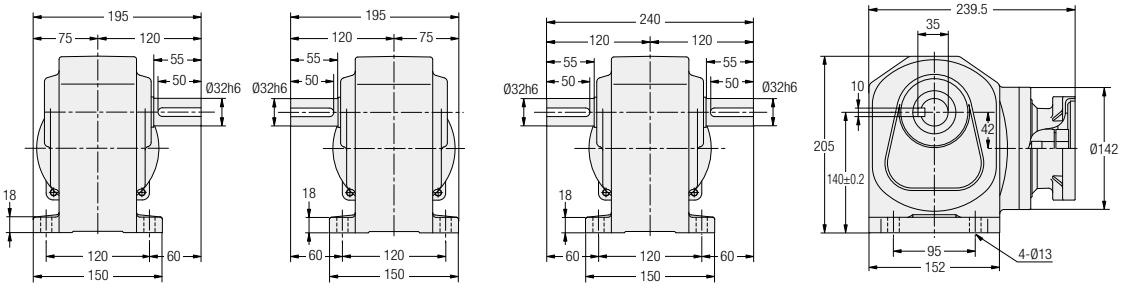
Note: A shaft arrangement (L, R, T) will be indicated as # in the nomenclature. In addition, a reduction ratio will be indicated as ***, backlash will be indicated as □, and a flange type will be indicated as △.
Note: For flange type codes, please refer to the Motor Matching / Motor Power Design Lists on pages 712 to 718.
Note: Please refer to pages 831 to 834 for the detailed dimensions of the input shaft area.
Note: Please refer to page 754 for the performance table.

AH2 Type Right Angle Shaft | Shaft Diameter 32 | Foot Mounting | Low Backlash

<Figure 1>



<Figure 2>



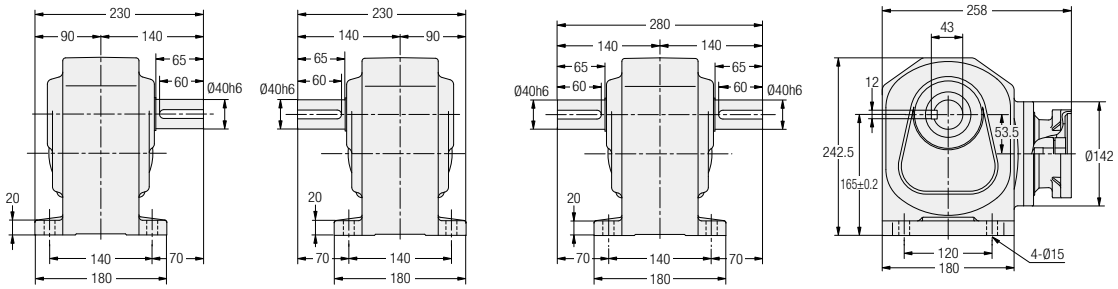
L Shaft R Shaft T Shaft

Motor Power Class	Part Number	Reduction Ratio	Figure Number	Flange Type	Approx. Weight (kg)
400 W	AH2LZ32#-***□400△	80, 100, 120, 160, 200, 240	1	F1/F3/S1/S3	9.5
750 W	AH2LZ32#-***□750△	5, 10, 15, 20, 25, 30, 40, 50, 60	2	F1/F2/S1/S2/S3/S4	9

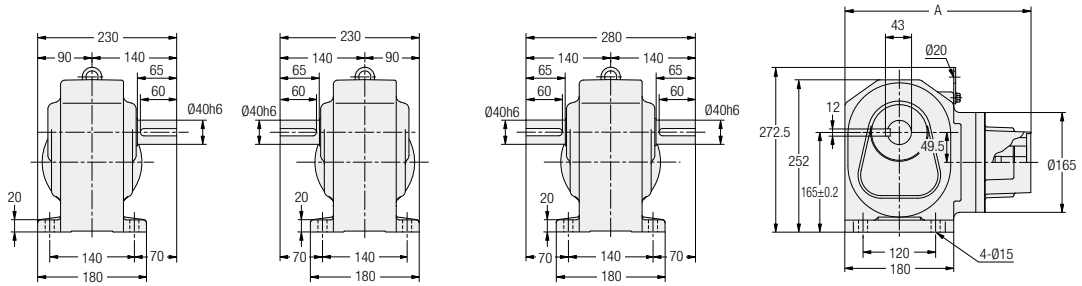
Note: A shaft arrangement (L, R, T) will be indicated as # in the nomenclature. In addition, a reduction ratio will be indicated as ***, backlash will be indicated as □, and a flange type will be indicated as △.
Note: For flange type codes, please refer to the Motor Matching / Motor Power Design Lists on pages 712 to 718.
Note: Please refer to pages 831 to 834 for the detailed dimensions of the input shaft area.
Note: Please refer to page 754 for the performance table.

AH2 Type Right Angle Shaft | Shaft Diameter **40** | **Foot** Mounting | Low Backlash

<Figure 1>



<Figure 2>



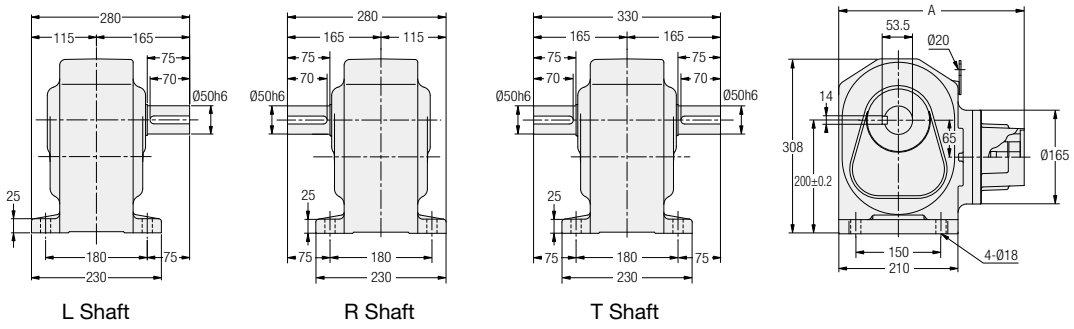
L Shaft R Shaft T Shaft

Motor Power Class	Part Number	Reduction Ratio	Figure Number	Flange Type	A	Approx. Weight (kg)
750 W	AH2LZ40#-✱✱✱□750△	80, 100, 120, 160, 200, 240	1	F1/F2/S1/S2/S3/S4	—	17.5
2000 W	AH2LZ40#-✱✱✱□2000△	5, 10, 15, 20, 25, 30, 40, 50, 60	2	K21/K22/K23	307.5	19.5
				K31/K32/K33	307.5	
				F31/F33	317.5	

Note: A shaft arrangement (L, R, T) will be indicated as # in the nomenclature. In addition, a reduction ratio will be indicated as ✱✱✱, backlash will be indicated as □, and a flange type will be indicated as △.
Note: For flange type codes, please refer to the Motor Matching / Motor Power Design Lists on pages 712 to 718.
Note: Please refer to pages 831 to 834 for the detailed dimensions of the input shaft area.
Note: Please refer to page 754 for the performance table.

AH2 Type Right Angle Shaft | Shaft Diameter 50 | Foot Mounting | Low Backlash

<Figure 1>



L Shaft R Shaft T Shaft

Motor Power Class	Part Number	Reduction Ratio	Figure Number	Flange Type	A	Approx. Weight (kg)
2000 W	AH2LZ50#-✱✱✱□2000△	80, 100, 120, 160, 200, 240	1	K21/K22/K23	326.5	49.5
				K31/K32/K33	326.5	
				F31/F33	336.5	

Note: A shaft arrangement (L, R, T) will be indicated as # in the nomenclature. In addition, a reduction ratio will be indicated as ✱✱✱, backlash will be indicated as □, and a flange type will be indicated as △.
Note: For flange type codes, please refer to the Motor Matching / Motor Power Design Lists on pages 712 to 718.
Note: Please refer to pages 831 to 834 for the detailed dimensions of the input shaft area.
Note: Please refer to page 755 for the performance table.