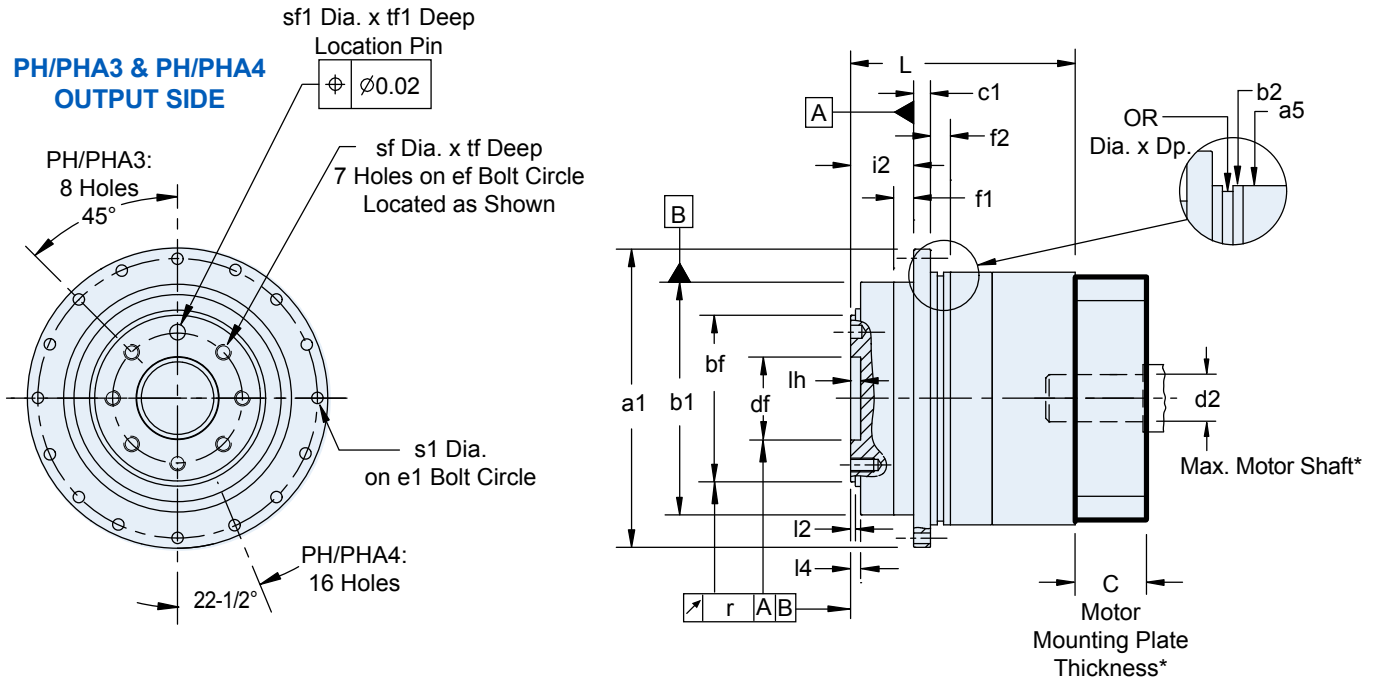
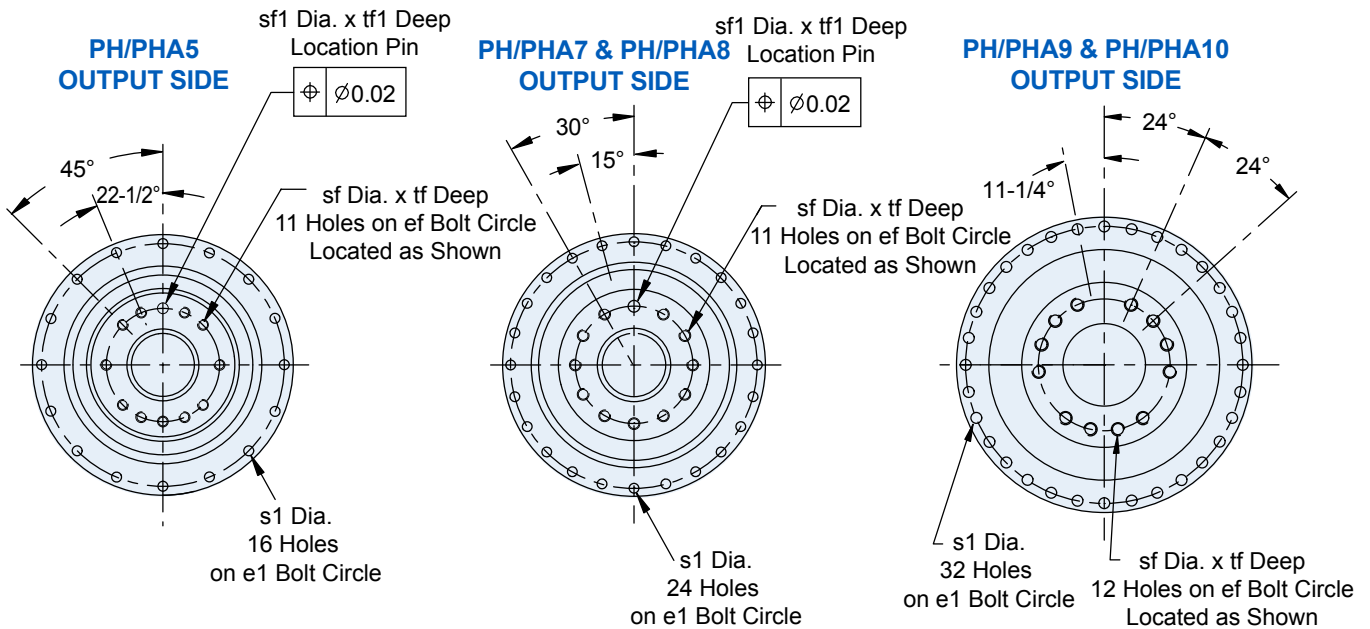


# PH Series (A, Q, QA): INLINE — Flange Output

## PH/PHA Standard Input PH/PHA ServoCool Input Option



\* See Motor Mounting Plate Option, page 52 for details.



# Dimensional Data



PH Series (A, Q, QA): INLINE — Flange Output

**Table 1 Dimensions (mm)**

Unit	a1	h7*	b1	h7*	b2	h7*	bf	h7*	c1	df	H6*	e1	ef
PH/PHA3	86	+0.000/-0.035	64	+0.000/-0.030	70 <sup>(1)</sup>	+0.000/-0.030	40	+0.000/-0.025	4	20	+0.013/-0.000	79	31.5
PH/PHA4	118	+0.000/-0.035	90	+0.000/-0.035	95	+0.000/-0.035	63	+0.000/-0.030	7	31.5	+0.016/-0.000	109	50
PH/PHA5	145	+0.000/-0.040	110	+0.000/-0.035	120 <sup>(1)</sup>	+0.000/-0.035	80	+0.000/-0.030	8	40	+0.016/-0.000	135	63
PH/PHA7	179	+0.000/-0.040	140	+0.000/-0.040	152	+0.000/-0.040	100	+0.000/-0.035	10	50	+0.016/-0.000	168	80
PH/PHA8	247	+0.000/-0.046	200	+0.000/-0.046	212	+0.000/-0.046	160	+0.000/-0.040	12	80	+0.019/-0.000	233	125
PH/PHA9	300	–	255	+0.000/-0.052	255	+0.000/-0.052	180	+0.000/-0.040	18	90	+0.022/-0.000	280	140
PH/PHA10 PHV/PHAV10	330	–	285	+0.000/-0.057	285	+0.000/-0.052	200	+0.000/-0.046	20	95	+0.022/-0.000	310	160

<sup>(1)</sup> Not applicable for PH322 and PH522.

**Table 2 Dimensions (mm)**

Unit	f1	f2	i2	l2	l4	lh	OR	r	s1	sf	sf1	H7*	tf	tf1
PH/PHA3	7	8	19.5	3	3.5	4	65x2	0.020	4.5	M5	5	+0.012/-0.000	7	3
PH/PHA4	10	10	30	6	6.5	6	90x3	0.020	5.5	M6	6	+0.012/-0.000	11	7
PH/PHA5	10	12	29	6	6.5	6	110x3	0.020	5.5	M6	6	+0.012/-0.000	11	7
PH/PHA7	12	12	38	6	6.5	6	145x3	0.025	6.6	M8	8	+0.015/-0.000	14	7
PH/PHA8	15	15	50	8	8.5	8	200x5	0.030	9	M10	10	+0.015/-0.000	18	10
PH/PHA9	20	33	66	11	12	12	238x5	0.030	13.5	M16	–		24	–
PH/PHA10 PHV/PHAV10	20	20	75	15	15	10	270x6	0.040	13.5	M20	–		30	–

\* h7 = existing values; H7 = permissible values

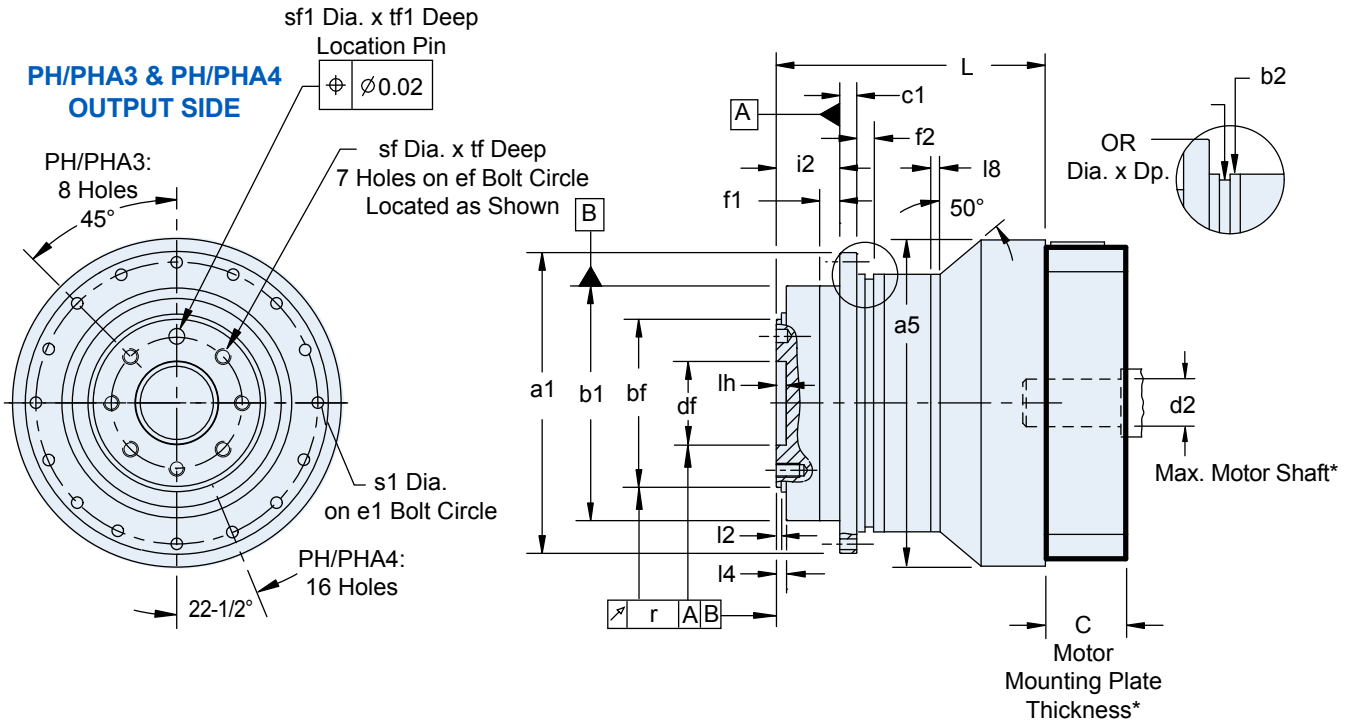
**Table 3 Dimensions (mm)**

Unit	Standard Input					ServoCool Input Option*					
	a5	L	Unit	a5	L	Unit	a5	L	Unit	a5	L
PH321	70	80.5	PHA321	70	80.5	–	–	–	–	–	–
PH322	55	104	PHA322	55	108	–	–	–	–	–	–
PH421	95	99	PHA421	95	99	PH421_C	95	122.5	PHA421_C	95	99
PH422	72	146.5	PHA422	72	146.5	–	–	–	–	–	–
PH521	120	110	PHA521	120	110	PH521_C	120	138	PHA21_C	120	110
PH522	98	159.5	PHA522	98	159.5	PH522_C	98	183	PHA22_C	98	183
PH721	152	138	PHA721	152	140	PH721_C	152	168	PHA721_C	152	138
PH722	115	190	PHA722	115	190	PH722_C	115	218	PHA722_C	115	218
PH821	212	183	PHA821	212	184.5	PH821_C	212	231	PHA821_C	212	183
PH822	145	251	PHA822	145	253	PH822_C	145	281	PHA822_C	145	251
PH932	190	349.5	PHA932	190	350.5	PH932_C	190	397.5	PHA932_C	190	349.5
PHV933	152	269.5	PHAV933	152	271.5	PHV933_C	152	299.5	PHAV933_C	152	269.5
PH1032	190	366	PHA1032	190	367	PH1032_C	190	414	PHA1032_C	190	366
PHV1033	212	307	PHAV1033	212	308.5	PHV1033_C	212	355	PHAV1033_C	212	307

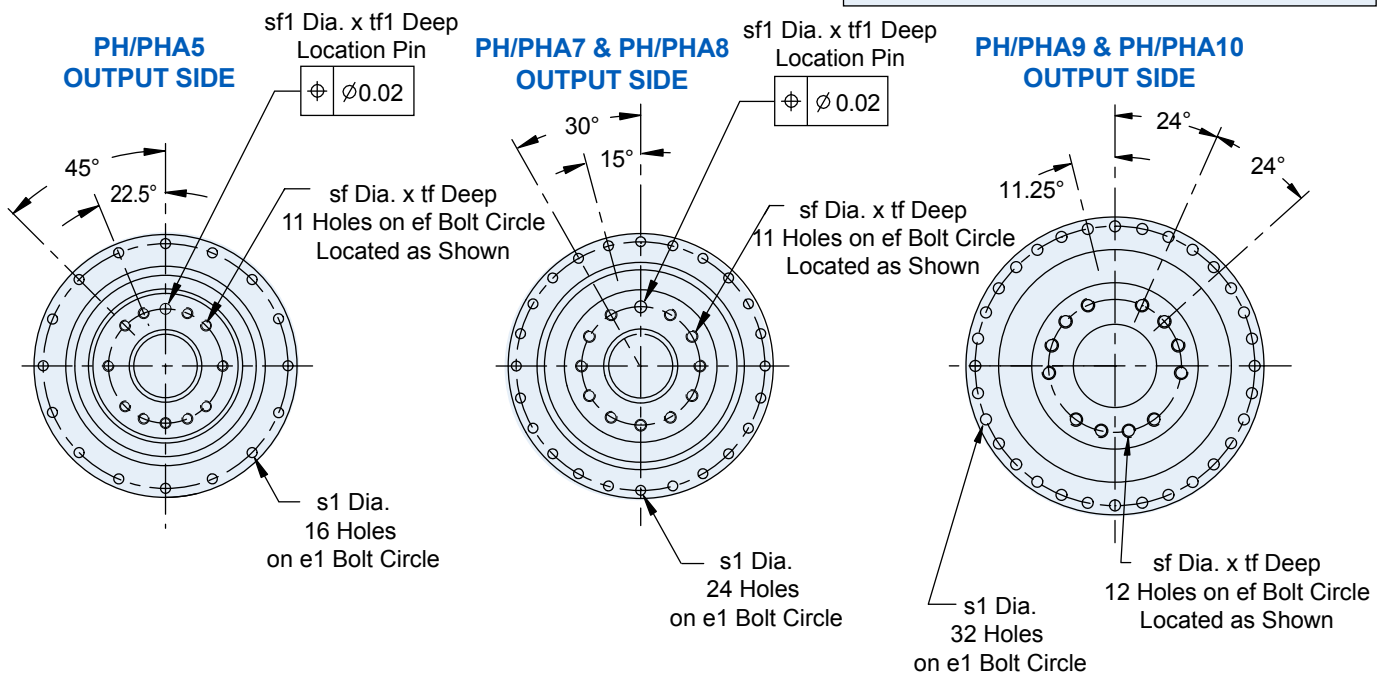
\* See "PH/PHA Large Input Option" on page 90 for ServoCool Input Option combined with Large Input Option

# PH Series (A, Q, QA): INLINE — Flange Output

## PH/PHA Large Input Option



\* See Motor Mounting Plate Option, page 52 for details.



# Dimensional Data



PH Series (A, Q, QA): INLINE — Flange Output

**Table 1 Dimensions (mm)**

Unit	a1	h7*	b1	h7*	b2	h7*	bf	h7*	c1	df	H7*	e1	ef
PH/PHA3	86	+0.000/-0.035	64	+0.000/-0.030	70 <sup>(1)</sup>	+0.000/-0.030	40	+0.000/-0.025	4	20	+0.021/-0.0	79	31.5
PH/PHA4	118	+0.000/-0.035	90	+0.000/-0.035	95	+0.000/-0.035	63	+0.000/-0.030	7	31.5	+0.025/-0.0	109	50
PH/PHA5	145	+0.000/-0.040	110	+0.000/-0.035	120 <sup>(1)</sup>	+0.000/-0.035	80	+0.000/-0.030	8	40	+0.025/-0.0	135	63
PH/PHA7	179	+0.000/-0.040	140	+0.000/-0.040	152	+0.000/-0.040	100	+0.000/-0.035	10	50	+0.025/-0.0	168	80
PH/PHA8	247	+0.000/-0.046	200	+0.000/-0.046	212	+0.000/-0.046	160	+0.000/-0.040	12	80	+0.030/-0.0	233	125
PH/PHA9	300	–	255	+0.000/-0.052	255	+0.000/-0.052	180	+0.000/-0.040	18	90	+0.035/-0.0	280	140
PH/PHA10	330	–	285	+0.000/-0.057	285	+0.000/-0.052	200	+0.000/-0.046	20	95	+0.035/-0.0	310	160

<sup>(1)</sup> Not applicable for PH322 and PH522.

**Table 2 Dimensions (mm)**

Unit	f1	f2	i2	i2	i4	i8	lh	OR	r	s1	sf	sf1	H7*	tf	tf1
PH/PHA3	7	8	19.5	3	3.5	5	4	65x2	0.020	4.5	M5	5	+0.012/-0.000	7	3
PH/PHA4	10	10	30	6	6.5	5	6	90x3	0.020	5.5	M6	6	+0.012/-0.000	11	7
PH/PHA5	10	12	29	6	6.5	5	6	110x3	0.020	5.5	M6	6	+0.012/-0.000	11	7
PH/PHA7	12	12	38	6	6.5	5	6	145x3	0.025	6.6	M8	8	+0.015/-0.000	14	7
PH/PHA8	15	15	50	8	8.5	5	8	200x5	0.030	9	M10	10	+0.015/-0.000	18	11
PH/PHA9	20	33	66	11	12	5	12	238x5	0.030	13.5	M16	–	–	24	–
PH/PHA10	20	20	75	15	15	3	10	270x6	0.040	13.5	M20	–	–	30	–

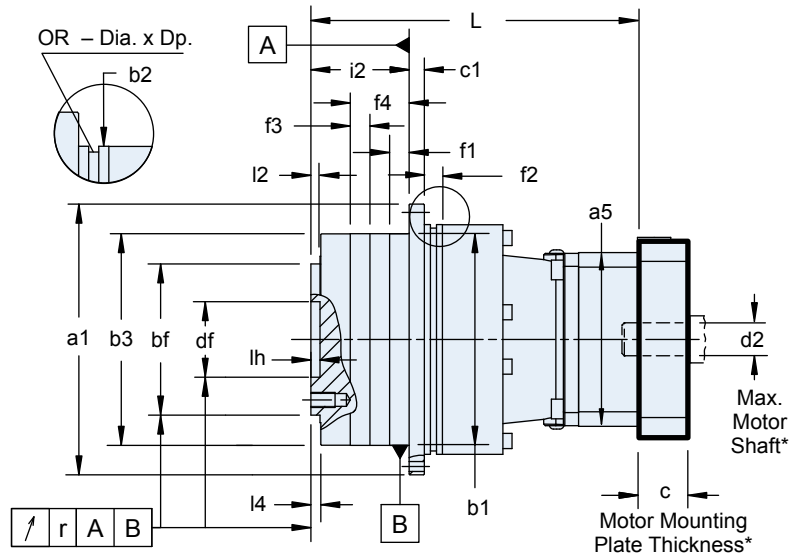
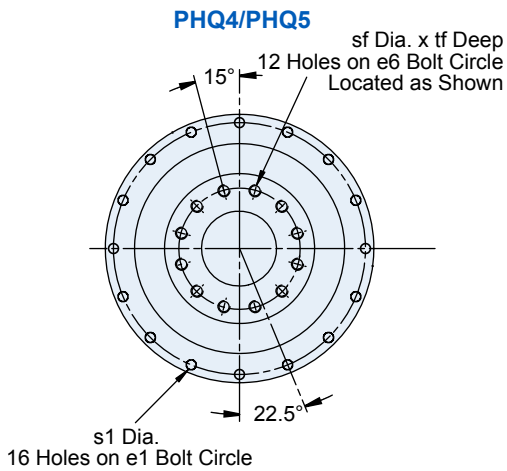
\* h7 = existing values; H7 = permissible values

**Table 3 Dimensions (mm)**

Large Input Option						Large Input with ServoCool Option					
Unit	a5	L	Unit	a5	L	Unit	a5	L	Unit	a5	L
PH321_L	88	87.8	PHA321_L	88	85.5	PH321_LC	88	111.3	PHA321_LC	88	87.8
PH322_L	75	120.5	–	–	–	–	–	–	–	–	–
PH421_L	114	107.5	PHA421_L	114	107.5	PH421_LC	114	135.5	PHA421_LC	114	107.5
PH422_L	100	149.8	PHA422_L	100	147.5	PH422_LC	100	173.3	PHA422_LC	100	149.8
PH521_L	124	124	PHA521_L	124	126	PH521_LC	124	154	PHA521_LC	124	124
PH522_L	168	168	PHA522_L	168	168	PH522_LC	168	196	PHA522_LC	168	168
PH721_L	208	154.5	PHA721_L	208	156	PH721_LC	208	202.5	PHA721_LC	208	154.5
PH722_L	204	204	PHA722_L	204	206	PH722_LC	204	234	PHA722_LC	204	204
PH821_L	225	191	–	–	–	–	–	–	–	–	–
PH822_L	268	268	PHA822_L	268	269	PH822_LC	268	316	PHA822_LC	268	268
PH932_L	358	357.5	–	–	–	PH932_LC	358	357.5	–	–	–
PHV933_L	208	286	PHAV933_L	208	287.5	PHV933_LC	208	334	PHAV933_LC	208	286
PH1032_L	374	374	–	–	–	PH1032_LC	374	374	–	–	–
PHV1033_L	225	315	–	–	–	–	–	–	–	–	–

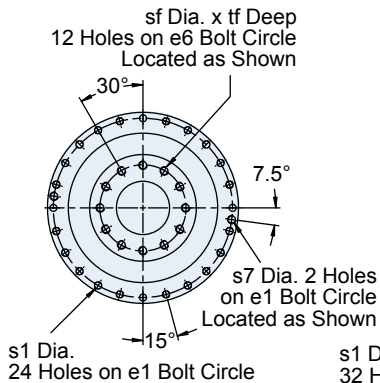
# PH Series (A, Q, QA): INLINE — Flange Output

## PHQ/PHQA Standard Input

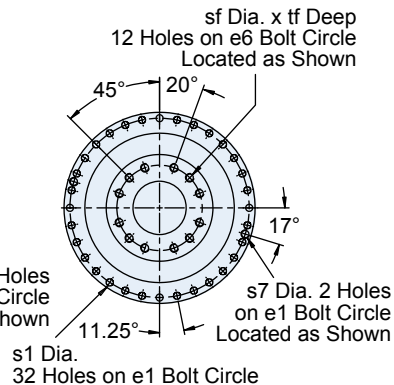


## OUTPUT SIDE

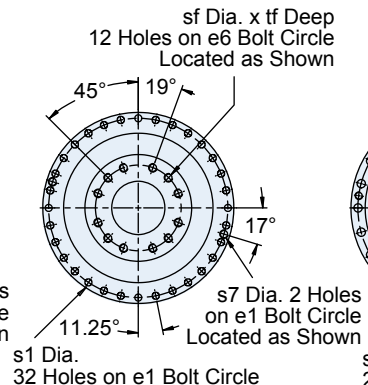
### PHQ7/PHQ8



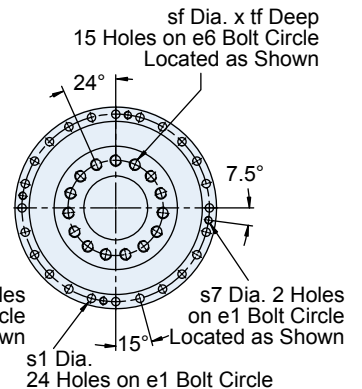
### PHQ9



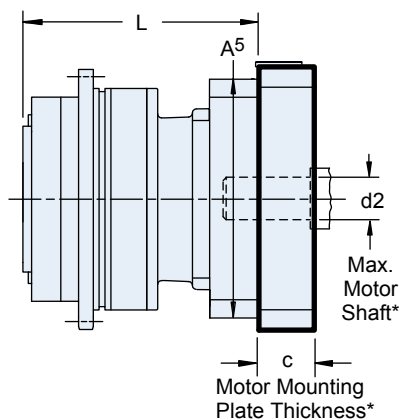
### PHQ10



### PHQ11



## PHQ/PHQA Large Input Option



\* See Motor Mounting Plate Option, see page 52 for details.



# Dimensional Data

**Table 1 Dimensions (mm)**

Unit	a1	b1	b2 <sub>h7</sub>	b3 <sub>g6</sub>	bf <sub>h7</sub>	c1	df	e1	e6	f1	f2	f3	f4
PHQ/PHQA4	118 <sub>h7</sub>	90 <sub>h7</sub>	95	–	63	7	31.5	109	50	10	10	–	–
PHQ/PHQA5	145 <sub>h7</sub>	110 <sub>h7</sub>	120	–	80	8	40	135	63	10	12	–	–
PHQ/PHQA7	179 <sub>h7</sub>	140 <sub>h7</sub>	152	–	100	10	50	168	80	12	12	–	–
PHQ/PHQA8	247 <sub>h7</sub>	200 <sub>h7</sub>	212	–	160	12	80	233	125	15	15	–	–
PHQ/PHQA9	300 <sub>h7</sub>	255 <sub>h7</sub>	255	–	180	18	90	280	145	20	33	–	–
PHQ/PHQA10	330 <sub>h7</sub>	285 <sub>h7</sub>	285	–	200	20	95	310	166	20	20	–	–
PHQ11	425	365 <sub>h6</sub>	–	365	260	32	120	395	200	30	30	30	120

**Table 2 Dimensions (mm)**

Unit	i2	l2	l4	lh	OR	r	s1	s7	sf	tf
PHQ/PHQA4	30	6	6.5	6	90x3	0.020	5.5	–	M6	11
PHQ/PHQA5	29	6	6.5	6	110x5	0.020	5.5	–	M8	12
PHQ/PHQA7	38	6	6.5	6	145x3	0.025	6.6	–	M10	16
PHQ/PHQA8	50	8	8.5	8	200x5	0.030	9.0	M10	M12	17
PHQ/PHQA9	66	11	12	12	238x5	0.030	13.5	M8	M20	28
PHQ/PHQA10	75	15	15	10	270x6	0.040	13.5	M10	M24	35
PHQ11	190	10	10	10	–	0.040	17.5	M16	M24	36

\* h6, h7, g6 = existing values

**Table 3 Dimensions (mm)**

Standard Input						Large Input Option					
Unit	a5	L	Unit	a5	L	Unit	a5	L	Unit	a5	L
PHQ421	95	99	PHQA421	95	99	PHQ421_L	95	107.5	PHQA421_L	95	107.5
PHQ422	100	146.5	PHQA422	100	146.5	PHQ422_L	100	149.8	PHQA422_L	100	147.5
PHQ521	145	110	PHQA521	145	110	PHQ521_L	145	124	PHQA521_L	145	126
PHQ522	115	159.5	PHQA522	115	159.5	PHQ522_L	115	168	PHQA522_L	115	168
PHQ721	152	138	PHQA721	152	140	PHQ721_L	152	154.5	PHQA721_L	152	156
PHQ722	115	190	PHQA722	115	190	PHQ722_L	115	204	PHQA722_L	115	206
PHQ723	100	239.5	PHQA723	100	239.5	PHQ723_L	100	248	PHQA723_L	100	248
PHQ822	145	251	PHQA822	145	253	PHQ822_L	145	268	PHQA822_L	145	269
PHQ823	115	303	PHQA823	115	303	PHQ823_L	115	317	PHQA823_L	115	319
PHQ932	190	349.5	PHQA932	190	350.5	PHQ932_L	190	357.5	–	–	–
PHQ933	145	417	PHQA933	145	419	PHQ933_L	145	434	PHQA933_L	145	435
PHQ1032	225	415	PHQA1032	225	415	–	–	–	–	–	–
PHQ1033	190	503	PHQA1033	190	503	PHQ1033_L	190	511	PHQA1033_L	190	511
PHQ1132	310	430	–	–	–	–	–	–	–	–	–
PHQ1133	190	553.5	–	–	–	PHQ1133_L	190	561.5	–	–	–

PH Series (A, Q, QA): INLINE – Flange Output