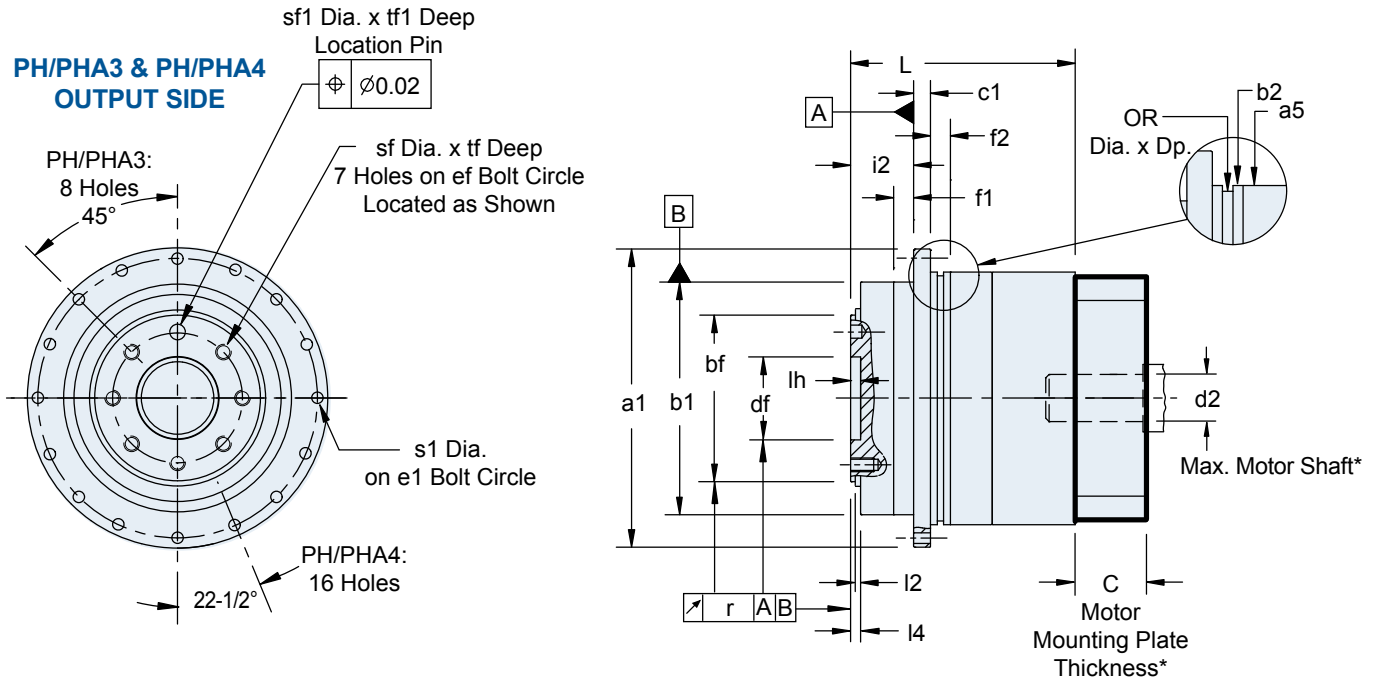


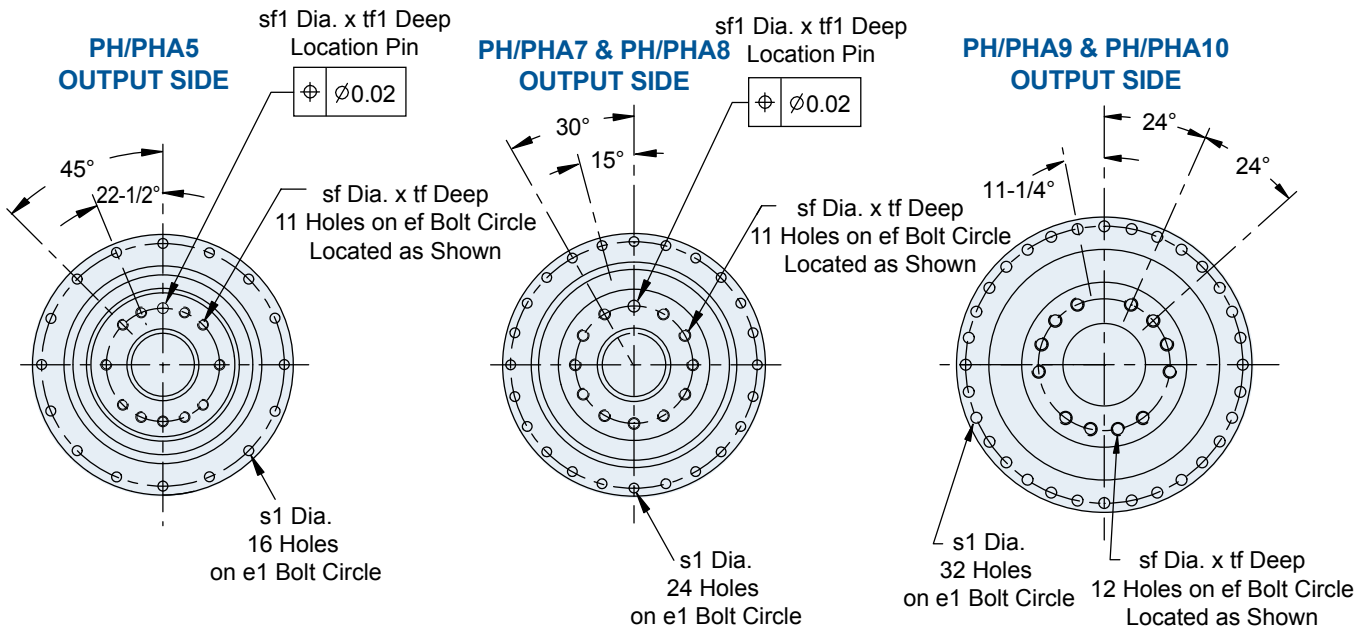
PH Series (A, Q, QA): INLINE – Flange Output

PH/PHA Standard Input

PH/PHA ServoCool Input Option



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





Dimensional Data

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 ⁽¹⁾	+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 ⁽¹⁾	+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

⁽¹⁾ Not applicable for PH322 and PH522.

Table 2 Dimensions (mm)

Unit	f1	f2	i2	I2	I4	Ih	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)

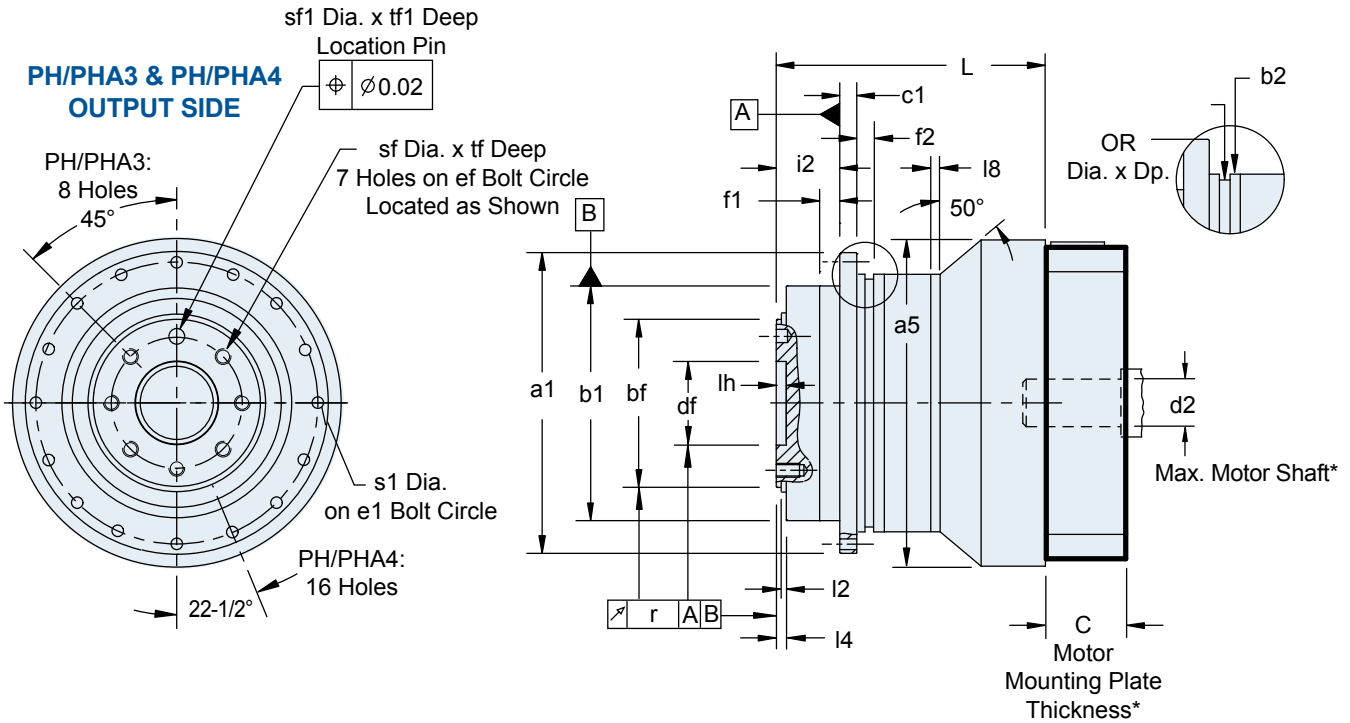
Standard Input			ServoCool Input Option		
Unit	a5	L	Unit	a5	L
PH/PHA321	70	80.5	–		
PH/PHA322	55	104	–		
PH/PHA421	95	99	PH/PHA421_C	95	122.5
PH/PHA422	72	146.5	–		
PH/PHA521	120	110	PH5/PHA21_C	120	138
PH/PHA522	98	159.5	PH5/PHA22_C	98	183
PH/PHA721	152	138	PH/PHA721_C	152	168
PH/PHA722	115	190	PH/PHA722_C	115	218
PH/PHA821	212	183	PH/PHA821_C	212	231
PH/PHA822	145	251	PH/PHA822_C	145	281
PH/PHA932	190	349.5	PH/PHA932_C	190	397.5
PHV/PHAV933	152	269.5	PHV/PHAV933_C	152	299.5
PH/PHA1032	190	366	PH/PHA1032_C	190	414
PHV/PHAV1033	212	307	PHV/PHAV1033_C	212	355

PH (A, Q, QA)

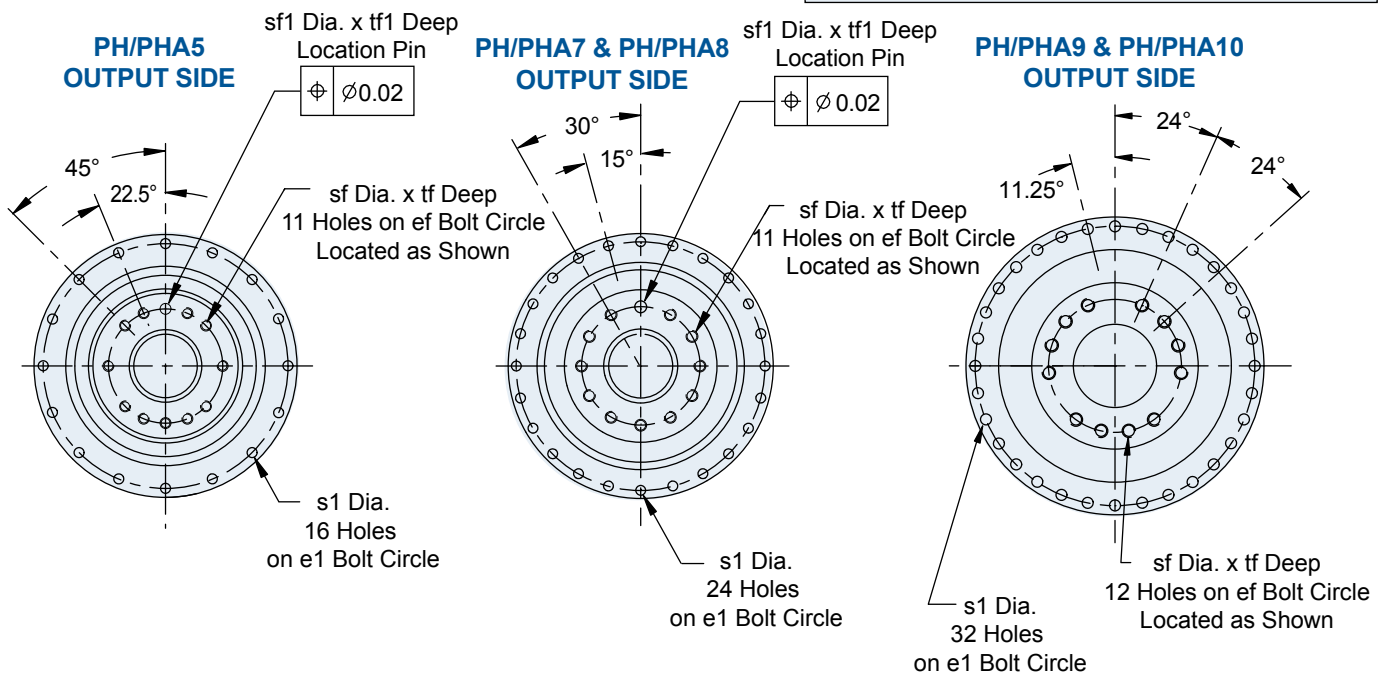
INLINE – Flange Output

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

PH/PHA Large Input Option



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





Dimensional Data

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 ⁽¹⁾	+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 ⁽¹⁾	+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

⁽¹⁾ Not applicable for PH322 and PH522.

Table 2 Dimensions (mm)

Unit	f1	f2	i2	l2	l4	l8	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)

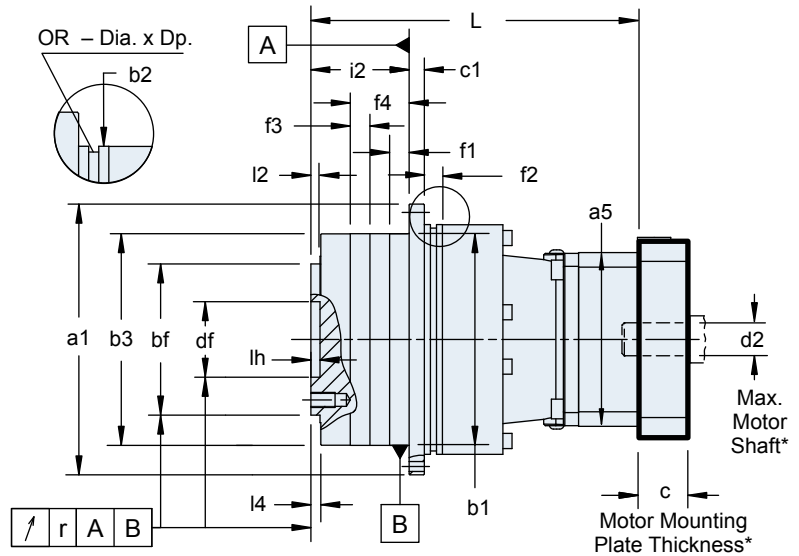
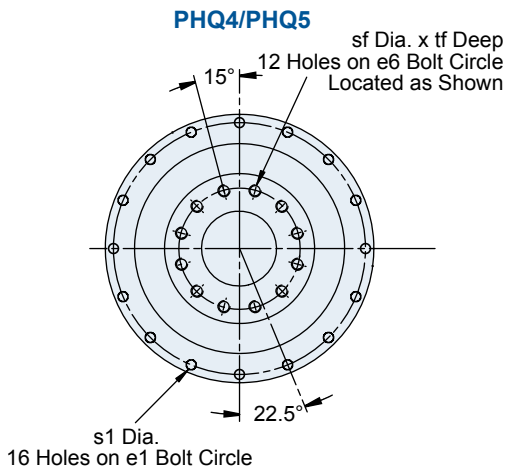
Unit	a5	L
PH/PHA321_L	88	88
PH/PHA322_L	75	121
PH/PHA421_L	114	108
PH/PHA422_L	100	150
PH/PHA521_L	124	124
PH/PHA522_L	168	168
PH/PHA721_L	208	155
PH/PHA722_L	204	204
PH/PHA821_L	225	191
PH/PHA822_L	268	268
PH/PHA932_L	358	358
PHV/PHAV933_L	208	286
PH/PHA1032_L	374	374
PHV/PHVA1033_L	225	315

PH (A, Q, QA)

INLINE – Flange Output

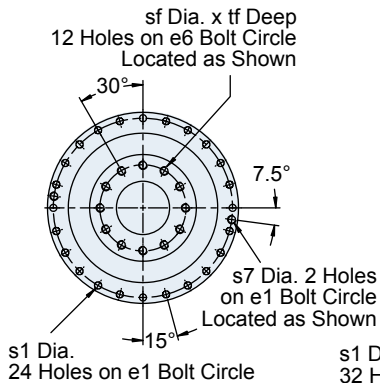
PH Series (A, Q, QA): INLINE – Flange Output

PHQ/PHQA Standard Input

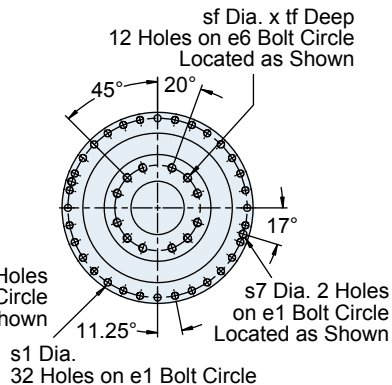


OUTPUT SIDE

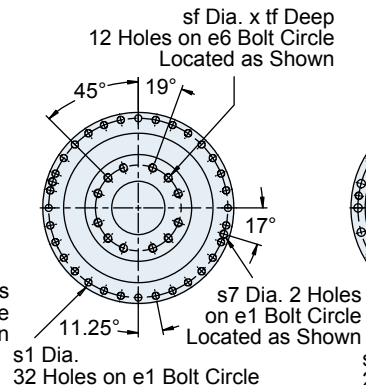
PHQ7/PHQ8



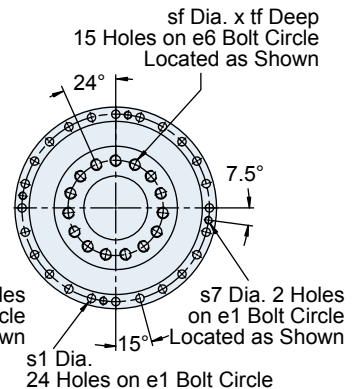
PHQ9



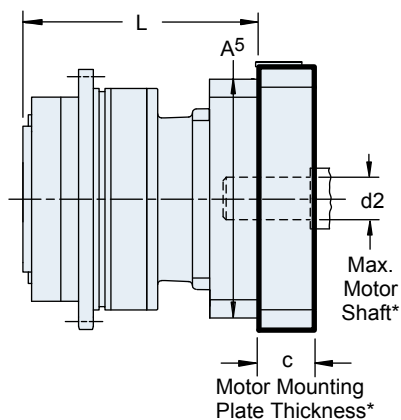
PHQ10



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

Table 2 Dimensions (mm)

Unit	i2	I2	I4	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			Large Input		
Unit	a5	L	Unit	a5	L
PHQ/PHQA421	95	99	PHQ/PHQA421_L	95	107.5
PHQ/PHQA422	100	126.5	PHQ4/PHQA22_L	100	149.8
PHQ/PHQA521	145	110	PHQ/PHQA521_L	145	124
PHQ/PHQA522	115	159.5	PHQ/PHQA522_L	115	168
PHQ/PHQA721	152	138	PHQ/PHQA721_L	152	154.5
PHQ/PHQA722	115	190	PHQ/PHQA722_L	115	204
PHQ/PHQA723	100	239.5	PHQ/PHQA723_L	100	248
PHQ/PHQA822	145	251	PHQ/PHQA822_L	145	268
PHQ/PHQA823	115	303	PHQ/PHQA823_L	115	317
PHQ/PHQA932	190	349.5	PHQ/PHQA932_L	190	357.5
PHQ/PHQA933	145	417	PHQ/PHQA933_L	145	434
PHQ/PHQA1032	225	413	–		
PHQ/PHQA1033	190	503	PHQ/PHQA1033_L	190	511
PHQ1132	310	473	–		
PHQ1133	190	553.5	PHQ1133_L	190	561.5

PH (A, Q, QA)

INLINE – Flange Output