

Hydraulic Orbit Motors



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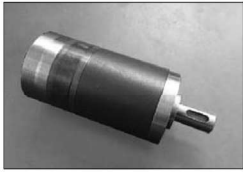
HYDRAULIC ORBIT MOTORS WITH SPOOL VALVE

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AHMM series INTRODUCTION



This series of motor, with its shell made of ductile cast iron of adequate intensity, can be applied to situations with less load and interval operation, widely to agriculture, forestry, plastics, machine tools and minmachines etc.

AHMM series CHARACTERISTICS

1. With the axial oil distribution structure, it is of smaller, high efficiency and long life.
2. Shaft seal can bear high pressure of motor of which can be used in parallel or in series.

AHMM series TECHNICAL DATA

Type	AHMM-8	AHMM-12.5	AHMM-20	AHMM-32	AHMM-40	AHMM-50
Displacement (ml/r)	8.2	12.9	19.9	31.6	39.8	50.3
Max. Pressure Drop (Mpa)	cont.	10	10	10	9	7
	int.	14	14	14	14	14
	peak.	20	20	20	16	16
Max. torque (Nm)	cont.	11	16	25	40	46
	int.	15	23	35	57	88
	peak.	21	33	51	64	82
Speed Range (cont.) (r/min)	1950	1550	1000	630	500	400
Max. Flow (cont.) (L/min)	16	20	20	20	20	20
Max. Output Power (cont.)	1.8	2.4	2.4	2.4	2.4	1.8
Weight (Kg)	1.9	2	2.1	2.2	2.3	2.4

Intermittent operation the permissible values may occur for max. 10% of every minute, Peak load: the permissible values may occur for max. 1% of every minute.

AHMM series PERFORMANCE DATA

AHMM 8[8.2ml/r]

	Pressure (Mpa)					
	3.5	5	7	10	12	14
2	3	5	8	10	12	14
	228	218	206	156	111	58
4	3	5	7	11	13	15
	474	471	463	426	391	331
8	3	5	7	11	13	15
	953	946	926	884	855	816
12	2	5	7	10	13	15
	1444	1426	1402	1360	1324	1288
Max.cont.		4	7	10	12	14
Max.int.		1912	1900	1861	1833	1780
20			6	10	11	14
			2395	2350	2328	2281

AHMM 12.5[12.9ml/r]

	Pressure (Mpa)					
	3.5	5	7	10	12	14
2	6	8	11	16	19	
	140	136	119	68	111	
4	6	8	12	17	19	23
	296	289	274	229	391	145
8	5	8	12	17	20	24
	605	596	583	543	855	469
12	5	8	11	16	20	24
	912	905	895	859	1324	784
Max.cont.	5	7	11	16	19	23
Max.int.	1152	1144	1136	1102	1833	1036
20	3	7	10	15	19	22
	1542	1532	1521	1500	2328	1437
25	2	6	9	14	18	22
	1910	1891	1878	1848	1828	1788

AHMM 20[19.9ml/r]

	Pressure (Mpa)						
	1.7	3.5	5	7	10	12	14
2	3	9	14	19	26	30	
	99	96	89	74	42	21	
4	4	9	14	19	26	31	36
	197	191	182	178	134	112	74
8	4	9	13	19	27	31	36
	398	395	391	377	340	319	288
12	3	8	13	18	26	31	37
	596	594	588	579	545	523	493
15	3	8	12	17	25	30	36
	745	741	738	728	695	684	660
Max.cont.	1	6	11	19	24	29	35
Max.int.	998	995	991	985	962	916	885
25	4	9	14	23	28	33	
		1247	1245	1242	1189	1180	1176

AHMM 32[31.6ml/r]

	Pressure (Mpa)						
	2	3.5	5	7	10	12	14
2	7	15	21	28	40		
	61	57	52	47	16		
4	7	15	21	29	41	48	57
	126	121	114	106	82	67	49
8	7	15	21	29	41	49	58
	250	244	239	231	207	194	167
12	6	13	20	28	40	48	58
	378	374	369	362	338	322	297
15	4	12	18	27	39	47	57
	476	472	468	462	441	429	406
Max.cont.	3	10	17	25	37	46	55
Max.int.	633	630	627	619	601	585	566
25	1	8	15	23	35	43	52
		791	789	787	783	766	753

AHMM 40[39.8ml/r]

	Pressure (Mpa)					
	3	5	7	8.5	10	12
2	16	27	36	44	51	
	45	40	34	28	17	
4	16	27	37	44	52	62
	96	93	85	79	65	52
8	15	26	36	44	52	63
	197	195	182	176	166	154
12	14	25	35	43	51	62
	293	287	282	277	268	257
15	13	24	34	42	50	62
	371	365	360	355	347	338
Max.cont.	10	21	31	39	48	59
Max.int.	497	492	487	480	472	463
25	7	19	29	37	44	56
	622	617	612	607	600	591

AHMM 50[50.3ml/r]

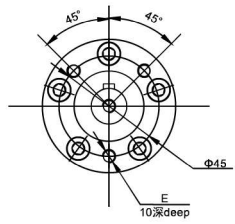
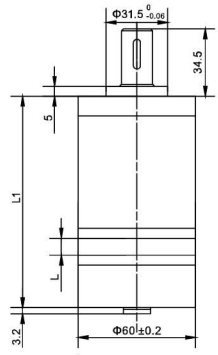
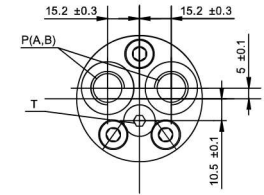
	Pressure (Mpa)				
	1.5	3	5	7	10
2	11	23	36	50	
	37	33	27	22	
4	11	22	36	50	70
	76	73	68	63	55
8	11	21	35	50	71
	157	154	149	145	137
12	11	20	33	49	71
	237	234	231	226	218
15	10	18	32	47	69
	296	295	294	288	282
Max.cont.	8	14	29	44	64
Max.int.	395	395	393	390	381
25	4	10	25	40	59
	498	496	494	490	484

(Torque) : 44Nm
(Speed) : 600r/min

Cont.
Int.

■ AHMM series Installation

C, CH: Flange

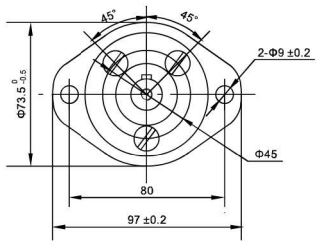
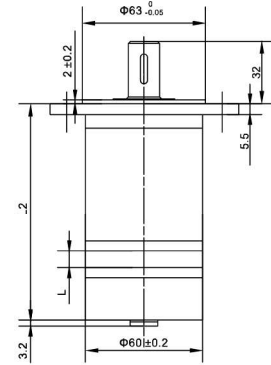
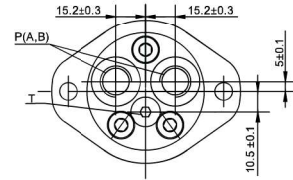


Flange	E
C	3-M6
CH	3-1/4-28UNF

Type	AHMM-8	AHMM-12.5	AHMM-20	AHMM-32	AHMM-40	AHMM-50
L	3.5	5.5	8.5	13.5	17	21.5
L1	104	106	109	114	117.5	122
L2	107.5	109.5	112.5	117.5	121	125.5

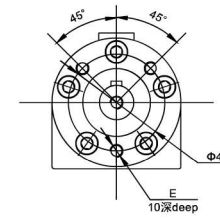
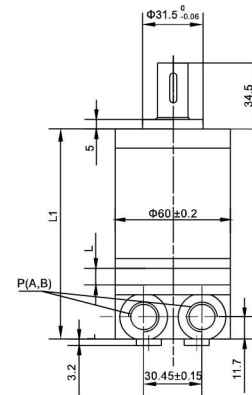
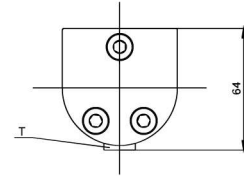
(End port Y)

AH: 2-hole oval flange



■ AHMM series Installation

C, CH: Flange

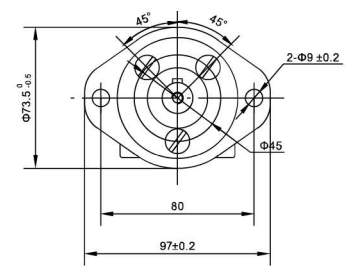
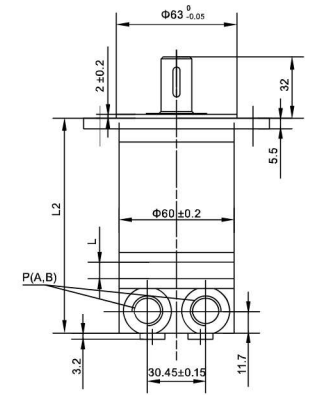
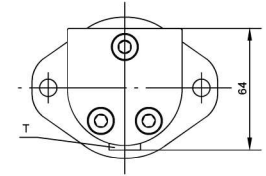


Flange	E
C	3-M6
CH	3-1/4-28UNF

Type	AHMM-8	AHMM-12.5	AHMM-20	AHMM-32	AHMM-40	AHMM-50
L	3.5	5.5	8.5	13.5	17	21.5
L1	105	107	110	115	118.5	123
L2	108.5	110.5	113.5	118.5	122	126.5

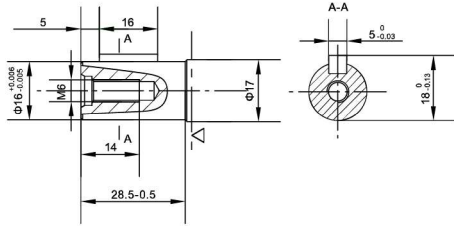
S* (Side port S*)

AH: 2-hole oval flange

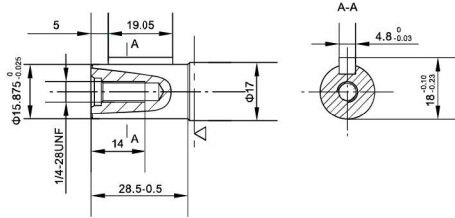


■ AHMM series SHAFT VERSION

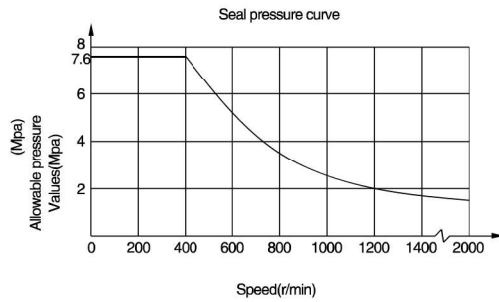
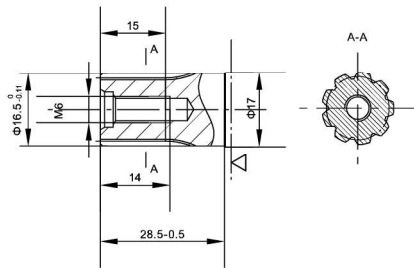
R1: $\Phi 16$ Cylindrical shaft, parallel key $5 \times 5 \times 16$



R2: $\Phi 15.875$ Cylindrical shaft, parallel key $4.8 \times 4.8 \times 19.05$



K1: $\Phi 16.5$ involute splined shaft B17 $\times 14$ DIN5482

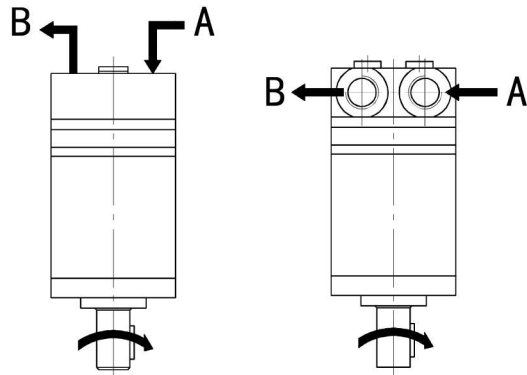


Motor mounting surface

■ AHMM series DIRECTION OF SHAFT ROTATION: STANDARD

Direction of shaft rotation: Standard

When facing shaft end of motor, shaft to rotate:
Clockwise when port "A" is pressurized.
Counter-clockwise when port "B" is pressurized.



■ AHMM series ORDERING CODE

1	2	3	4	5	6	7
AHMM	-	-	-	-	-	-

Pos.1	Series	Disp	3	4	5	6	7
	R1	8	C	Flange	P(A,B) Drain port T (deep)		
	R2	20	CH	3-M6 Flange, pilot $\Phi 31.5$	Ports(A,B)(deep) * (End port Y*)	Standard	Omit/Standard
	40		AH	3-1/4-28UNF Flange, pilot $\Phi 31.5$	G3/8(12),G1/8(6)	Omit	
	50			2- $\Phi 9$ Oval flange, pilot $\Phi 6.63$	9/16-18UNF(12),3/8-24UNF(6)		L Opposite
	K1			$\Phi 16.5$ involute splined shaft, B17 $\times 14$ DIN5482	S*(Side port S*)		

AHMR series INTRODUCTION



This series of motor, with its shell made of ductile cast iron of adequate intensity, can be applied to situations with less load and interval operation, widely to agriculture, forestry, plastics, machine tools and min machines, such as the mould height adjustment of the injection molding machine, the cleaner, the sawmill the worktable etc.

AHMR series CHARACTERISTICS

1. The output shaft, with the deep groove ball bearing, can bear certain axial force and radial force.
2. With the axial oil distribution structure, it is of smaller size and less weight.
3. With two inner check valves, no drain connection.
4. With cycloid group with the roller, it has a small friction and high mechanical efficiency.

AHMR series TECHNICAL DATA

Type	AHMR AHMRW AHMRS 50	AHMR AHMRW AHMRS 50	AHMR AHMRW AHMRS 80	AHMR AHMRW AHMRS 100	AHMR AHMRW AHMRS 125	AHMR AHMRW AHMRS 160	AHMR AHMRW AHMRS 200	AHMR AHMRW AHMRS 250	AHMR AHMRW AHMRS 315	AHMR AHMRW AHMRS 400
Displacement.(ml/r)	51.7		80.5	100.5	126.3	160.8	200.9	252.6	321.5	401.9
	cont.	14	14	14	14	14	14	11	9	7
Max.Pressure. Drop (Mpa)	int.	17.5	17.5	17.5	17.5	17.5	17.5	14	11	9
	peak.	20	20	20	20	20	20	16	13	11
	cont.	93	152	194	237	310	369	380	380	380
Max.torque (Nm)	int.	118	189	236	296	378	450	470	470	470
	peak.	135	216	270	338	433	509	540	540	540
Speed.Range(cont.)(r/min)	10-775		10-750	10-600	10-475	10-375	10-300	10-240	10-190	10-160
Max.Flow(cont.)(L/min)	40	60	60	60	60	60	60	60	60	60
Max.Output.Power(cont.)	7	10	10	10	10	8	6	5	4	4
Weight(Kg)	6.5	6.9	7.0	7.3	7.5	8.0	8.5	9.0	11	

Intermittent operation the permissible values may occur for max.10% of every minute, Peak load:the permissible values may occur for max.1% of every minute.

AHMR series PERFORMANCE DATA

AHMR 50[51.7ml/r]
Pressure (Mpa)

Flow(L/min)	Pressure (Mpa)							Max.cont.	Max.int.
	5	7	9	10	12	14	16	17.5	
5	34	44	58	65	75	88			
	94	85	77	77	72	50			
10	188	179	167	163	154	137	107	119	
15	34	48	62	72	87	100	108	122	
	285	279	271	263	252	232	213	187	
20	34	46	60	68	82	95	109	125	
	379	377	367	363	348	332	304	272	
30	32	43	59	66	79	94	107	121	
	578	571	563	556	544	533	502	467	
40	30	40	57	65	78	91	105	120	
Max.cont.	762	760	755	752	740	726	702	672	
45	29	39	56	64	77	89	104	120	
	858	855	851	847	837	817	798	772	
50	25	36	52	59	72	84	98	113	
Max.int.	952	942	927	908	882	854	834	803	

AHMR 100[100.5ml/r]
Pressure (Mpa)

Flow(L/min)	Pressure (Mpa)							Max.cont.	Max.int.
	5	7	9	10	12	14	16	17.5	
5	64	90	118	134	154				
	49	48	46	42	38				
10	65	93	122	134	155	183	210		
	96	94	93	91	80	60	48		
20	62	93	121	135	153	184	208	236	
	192	188	184	178	171	168	158	146	
30	61	90	118	130	150	180	200	232	
	296	294	290	290	288	282	270	258	
40	55	86	115	126	146	181	206	228	
	387	380	369	361	356	348	338	320	
50	46	77	108	121	146	181	200	221	
	484	479	472	463	452	445	428	410	
60	34	62	98	110	136	170	186	199	
Max.cont.	583	567	569	555	540	536	528	516	
70	30	63	97	110	138	170	190	210	
	680	672	662	650	640	635	620	606	
75	20	54	90	106	130	165	188	200	
Max.int.	728	720	710	695	681	667	650	634	

AHMR 160[160.8ml/r]
Pressure (Mpa)

Flow(L/min)	Pressure (Mpa)							Max.cont.	Max.int.
	5	7	9	10	12	14	16	17.5	
5	100	142	188	207					
	29	26	21	19					
10	104	146	191	211	245	282	330		
	62	60	58	49	45	32	25		
20	102	148	194	218	251	290	338	368	
	124	120	118	114	109	104	99	94	
30	96	141	186	215	248	288	335	364	
	183	181	179	176	166	158	144	132	
40	87	136	180	206	248	286	330	358	
	246	242	240	235	231	219	200	155	
50	70	126	172	198	238	278	320	350	
	309	307	300	295	287	278	262	247	
60	58	111	168	191	232	271	312	342	
Max.cont.	371	367	359	354	346	338	323	306	
70	47	104	160	190	228	267	301	338	
	435	430	421	415	403	393	381	365	
75	34	91	150	180	221	261	291	328	
Max.int.	470	463	450	441	431	420	405	389	

(Torque) : 150Nm
(Speed) : 450r/min

Cont.
Int.

AHMR 80[80.5ml/r]
Pressure (Mpa)

Flow(L/min)	Pressure (Mpa)							Max.cont.	Max.int.
	5	7	9	10	12	14	16	17.5	
5	48	58	84	106	129				
	61	58	52	46	40				
10	50	74	96	106	126	145	170		
	122	116	112	108	106	99	60		
20	54	76	100	109	131	152	174	193	
	243	239	231	219	206	192	176	152	
30	50	72	96	104	128	148	172	191	
	362	358	356	350	349	335	325	300	
40	45	70	95	104	125	146	171	188	
	484	480	478	476	470	468	440	438	
50	41	68	91	101	122	145	168	186	
Max.cont.	610	608	606	603	600	598	550	520	
60	35	65	88	96	120	142	164	182	
	726	723	720	718	710	700	698	680	
70	32	58	81	93	114	136	158	175	
	845	834	820	802	789	767	754	730	
75	19	48	76	88	108	132	151	168	
Max.int.	910	895	881	867	852	830	806	787	

AHMR 125[126.3ml/r]
Pressure (Mpa)

Flow(L/min)	Pressure (Mpa)							Max.cont.	Max.int.
	5	7	9	10	12	14	16	17.5	
5	74	106	140	163					
	37	32	27	21					
10	81	114	152	172	200	220	250		
	78	77	74	59	45	29	20		
20	80	114	150	170	200	221	254	292	
	157	156	154	151	146	142	120	114	
30	78	112	149	169	198	220	252	290	
	232	230	228	222	220	218	199	170	
40	77	111	147	168	196	218	250	288	
	312	311	307	300	298	284	270	252	
50	62	105	143	165	195	223	254	287	
	391	388	384	380	372	362	346	330	
60	52	98	136	160	191	220	250	282	
Max.cont.	470	468	464	459	448	434	412	405	
70	41	90	130	156	187	215	242	278	
	548	544	540	541	538	535	530	496	
75	32	79	126	148	180	208	234	262	
Max.int.	586	583	578	570	560	546	532	520	

AHMR 200[200.9ml/r]
Pressure (Mpa)

Flow(L/min)	Pressure (Mpa)							Max.cont.	Max.int.
	5	7	9	10	12	14	16	17.5	
5	129	176	230	256					
	24	22	18	13					
10	133	182	236	261	310	352	400		
	49	47	45	43	38	33	24		
20	131	181	232	256	308	354	400	431	
	99	97	94	92	88	83	74	64	
30	126	176	229	252	308	353	400	430	
	149	147	144	141	135	126	113	105	
40	112	168	224	248	304	350	393	423	
	200	197	194	191	185	174	160	151	
50	94	154	220	243	294	343	384	414	
	252	249	246	243	238	228	212	194	
60	78	144	213	236	287	339	382	410	
Max.cont.	304	301	298	294	286	276	262	243	
70	67	135	206	228	277	336	375	408	
	355	353	349	340	329	316	300	288	
75	58	125	197	220	270	321	360	398	
Max.int.	382	379	373	362	350	337	322	312	

■ AHMR series PERFORMANCE DATA

AHMR 250[252.6ml/r]

Flow(L/min)	Pressure (Mpa)							Max.cont.	Max.int.
	5	7	9	10	11	12	14		
5	172	240	300	338	352				
	20	19	18	16	15				
10	173	242	308	340	351	405	462		
	42	38	36	33	33	28	22		
20	170	238	301	339	350	402	460		
	79	77	75	72	71	69	61		
30	160	231	298	330	347	398	455		
	117	114	111	109	108	103	95		
40	141	221	298	327	342	394	445		
	157	155	153	150	148	146	135		
50	122	206	287	321	332	382	438		
	196	193	190	177	175	170	163		
60	101	190	278	312	328	369	424		
Max.cont.	236	233	230	227	225	221	208		
70	86	176	262	298	302	353	416		
	276	273	270	266	264	255	245		
Max.int.	60	163	254	286	291	345	410		
	297	294	290	286	282	277	266		

AHMR 315[321.5ml/r]

Flow(L/min)	Pressure (Mpa)						Max.cont.	Max.int.
	3	5	7	9	10	11		
5	110	199						
	14	12						
10	108	190	272	360	400	451		
	31	30	29	28	26	25		
20	110	196	279	356	398	448		
	61	60	59	57	55	53		
30	106	186	270	355	390	442		
	91	90	89	86	84	82		
40	100	179	262	350	382	436		
	123	122	120	117	112	110		
50	92	169	252	342	373	432		
	154	153	151	147	140	136		
60	86	159	241	339	369	428		
Max.cont.	185	184	182	177	172	170		
70	77	146	235	324	342	412		
	217	216	213	208	201	200		
Max.int.	66	132	212	303	332	402		
	232	231	228	222	216	214		

AHMR 400[401.9ml/r]

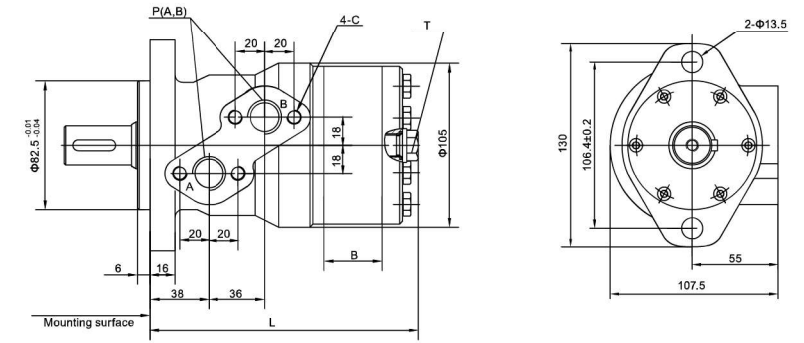
Flow(L/min)	Pressure (Mpa)						Max.cont.	Max.int.
	3	4	6	7	8	9		
5	152							
	12							
10	154	205	308	349				
	24	21	18	17				
20	150	201	302	340	392	441		
	49	48	47	46	44	41		
30	146	198	296	331	387	438		
	73	74	73	72	70	67		
40	140	191	290	321	381	421		
	98	97	96	95	94	92		
50	132	182	281	315	376	402		
	122	121	118	115	112	110		
60	128	176	272	312	362	389		
Max.cont.	146	145	143	140	138	132		
70	110	171	259	301	341	379		
	170	168	166	162	160	154		
Max.int.	98	162	232	292	320	356		
	182	180	178	176	174	170		

(Torque) : 232Nm
(Speed) : 178r/min

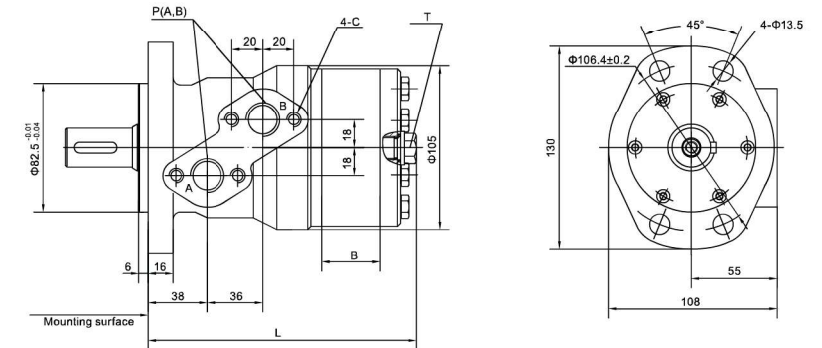
□ Cont.
■ Int.

■ AHMR series Installation

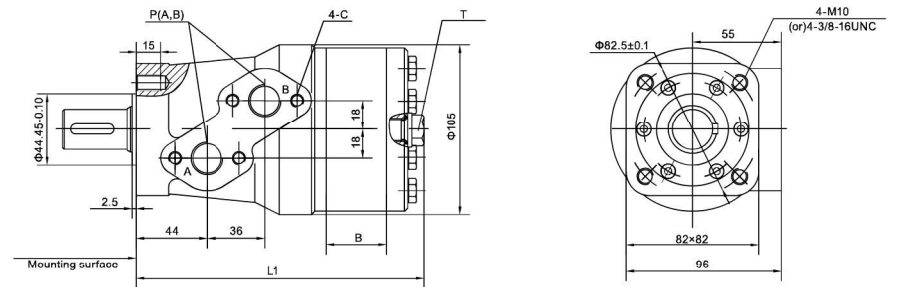
AH: 2-hole oval flange A II



A4: 4-hole oval flange A IV



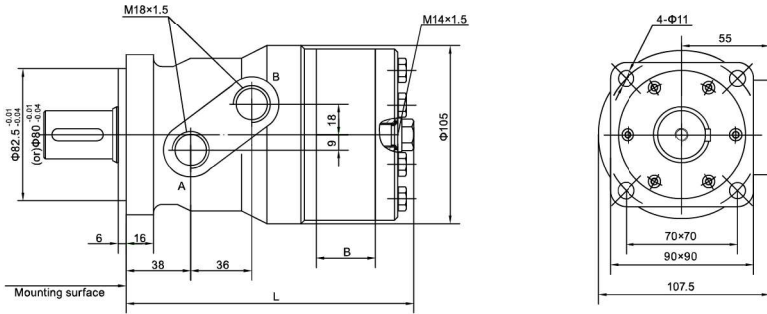
C, CH: Square flange



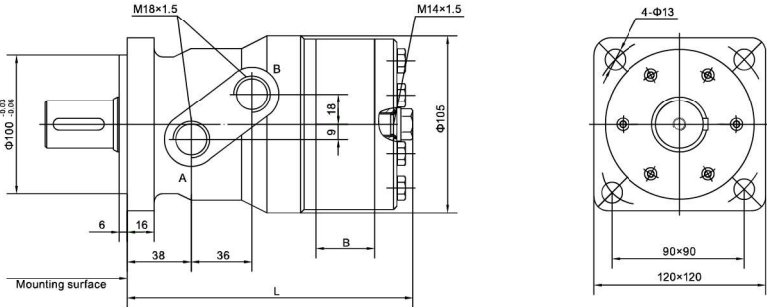
Note: C, CH mounting are assembling to AHMRS shaft.

■ AHMR series Installation

A, AH: Square flange



A23: Square flange



Type	AHMR-50	AHMR-80	AHMR-100	AHMR-125	AHMR-160	AHMR-200	AHMR-250	AHMR-315	AHMR-400
L	142	147	150.5	155	161	168	177	189	203
L1	150	155	158.5	163	169	176	185	197	211
B	9	14	17.5	22	28	35	44	56	70

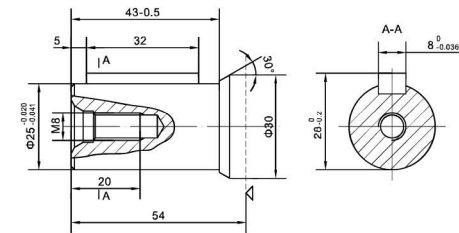
■ AHMR series PORTS CODE

Code	Ports	P(A, B) deep	C (deep)	T (deep)
Y		G1/2 (15)	M8 (13)	M14 × 1.5 (12)
Y1		M18 × 1.5 (15)	M8 (13)	M14 × 1.5 (12)
Y2		M22 × 1.5 (15)	M8 (13)	M14 × 1.5 (12)
Y4		ZG3/8 (15)	M8 (13)	M14 × 1.5 (12)
Y5		7/8-14UNF (15)	—	M14 × 1.5 (12)
Y7		ZG1/2 (15)	M8 (13)	M14 × 1.5 (12)
Y8		NPT1/2 (15)	M8 (13)	M14 × 1.5 (12)
Y9		NPTF1/2 (15)	5/16-18UNC (13)	7/16-20UNF (12)
Y10		G1/2 (15)	M8 (13)	G1/4 (12)
Y15		7/8-14UNF (15)	5/16-18UNC (13)	7/16-20UNF (12)

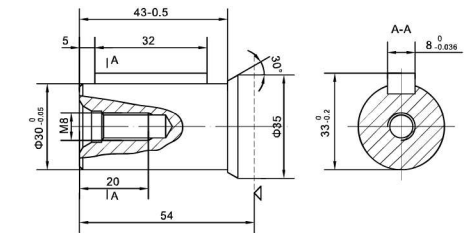
Note:P(A, B)—Ports, C—Mounting Thread (—Indicates no this thread) , T—Drain connetion

■ AHMR series SHAFT VERSION

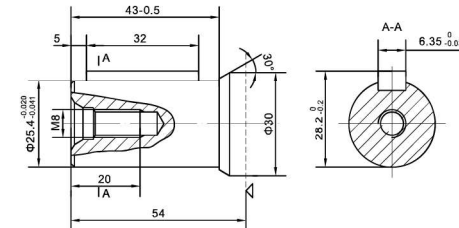
R1: Φ25 Cylindrical shaft, parallel key8 × 7 × 32



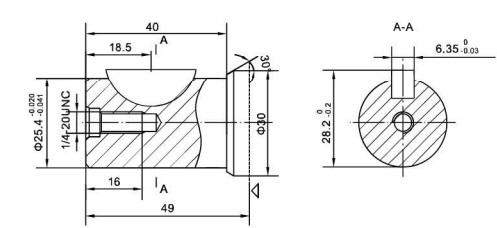
R2: Φ30 Cylindrical shaft, parallel key8 × 7 × 32



R3: Φ25.4 Cylindrical shaft, parallel key6.35 × 6.35 × 32



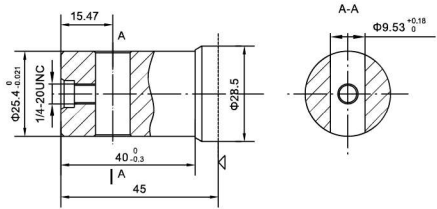
R4: Φ25.4 Cylindrical shaft, Woodruff key Φ25.4 × 6.35



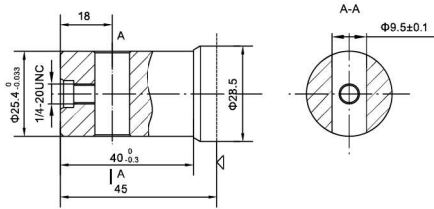
■ AHMRS series

SHAFT VERSION

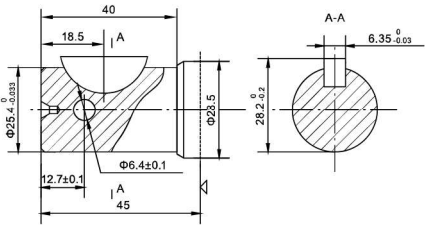
R89: $\Phi 25.4$ Cylindrical shaft pin hole $\Phi 9.53$



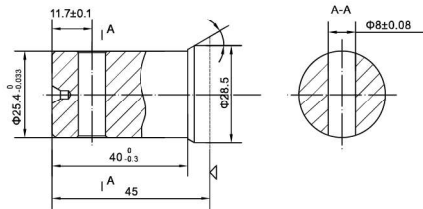
R93: $\Phi 25.4$ Cylindrical shaft pin hole $\Phi 9.5$



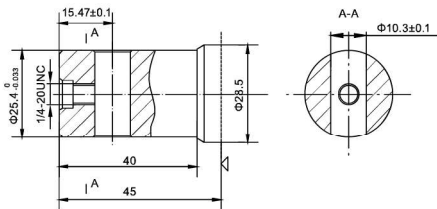
R95: $\Phi 25.4$ Cylindrical shaft pin hole $\Phi 6.4$, Woodruff key $\Phi 25.4 \times 6.35$



R96: $\Phi 25.4$ Cylindrical shaft pin hole $\Phi 8$

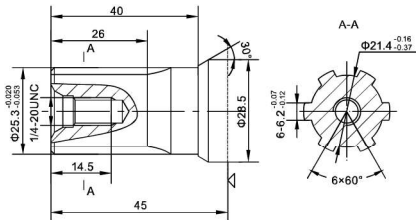


R97: $\Phi 25.4$ Cylindrical shaft pin hole $\Phi 10.3$



Motor mounting surface

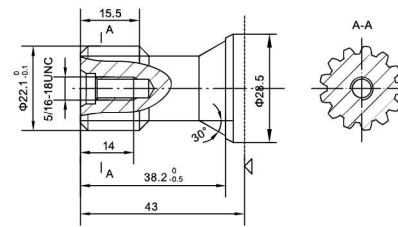
H4: $\Phi 25.3$ Splined shaft, 6-25.3 \times 21.4 \times 6.2



■ AHMRS series

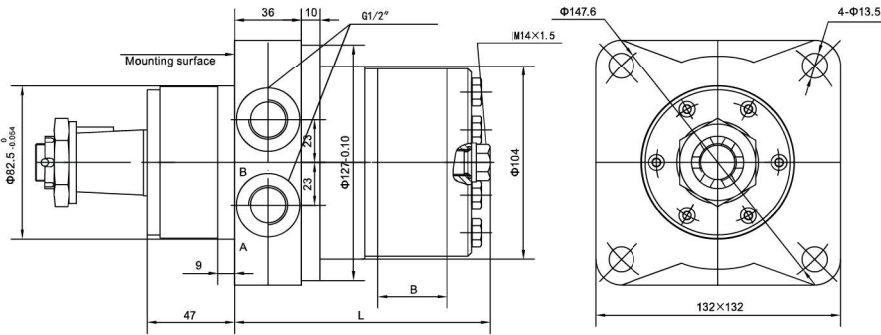
SHAFT VERSION

K8: $\Phi 22.1$ involute splined shaft, 13-DP16/32



Motor mounting surface

■ AHMRW series Installation



Type	AHMRW-50	AHMRW-80	AHMRW-100	AHMRW-125	AHMRW-160	AHMRW-200	AHMRW-250	AHMRW-315	AHMRW-400
L	108	113	117	121	127	134	143	155	169
B	9	14	17.5	22	28	35	44	56	70

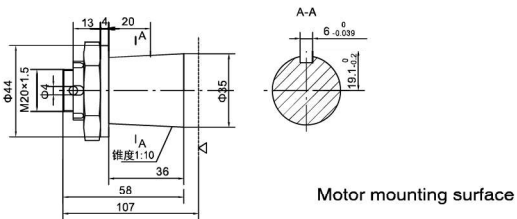
■ AHMRW series PORTS CODE

Ports Code	P(A, B) deep	C (deep)	T (deep)
Y	G1/2 (15)	—	M14 x 1.5(12)

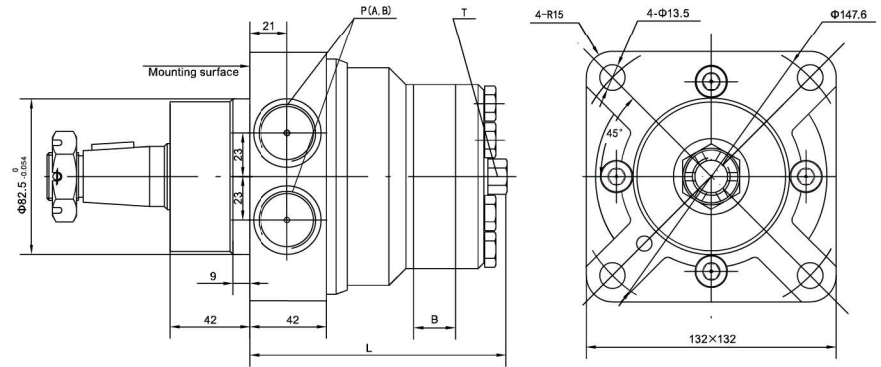
P(A, B)--Ports, C--Mounting Thread (—Indicates no this thread), T--Drain connetion

■ AHMRW series

Z: Φ35 Tapered shaft, taper1:10, parallel key B6 x 6 x 20



■ AHMRW1 series Installation



Type	AHMRW1-50	AHMRW1-80	AHMRW1-100	AHMRW1-125	AHMRW1-160	AHMRW1-200	AHMRW1-250	AHMRW1-315	AHMRW1-400
L	125	130	134	138	144	151	160	172	186
B	9	14	17.5	22	28	35	44	56	70

■ AHMRW1 series PORTS CODE

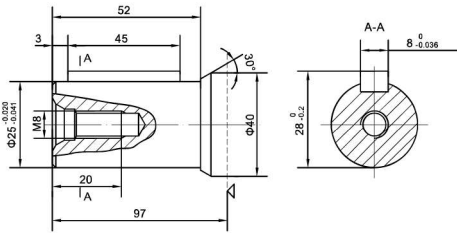
Ports Code	P(A, B) deep	C (deep)	T (deep)
Y	G1/2 (15)	—	M14 x 1.5(12)
Y5	7/8-14UNF(15)	—	M14 x 1.5(12)
Y10	G1/2 (15)	—	G1/4 (12)

P(A, D)--Ports, C--Mounting Thread (—Indicates no this thread), T--Drain connetion

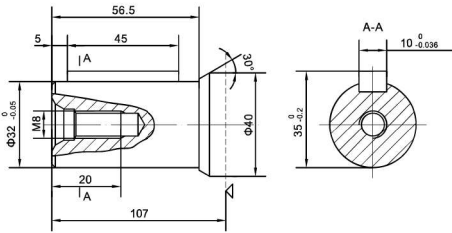
■ AHMRW1 series

SHAFT VERSION

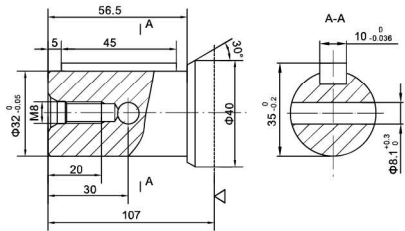
R1: $\Phi 25$ Cylindrical shaft, Parallel key $8 \times 7 \times 45$



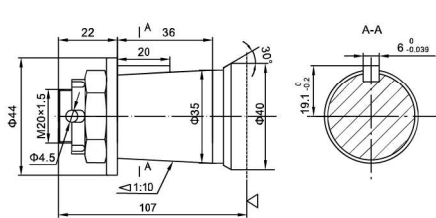
R5: $\Phi 32$ Cylindrical shaft, parallel key $10 \times 8 \times 45$



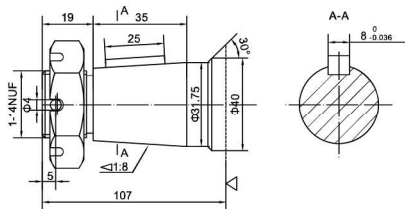
R6: $\Phi 32$ Cylindrical shaft, Cylindrical shaft pin hole $\Phi 8.1$, parallel key $10 \times 8 \times 45$



Z: $\Phi 35$ Tapered shaft, taper1:10, parallel key $B6 \times 6 \times 20$



Z1: $\Phi 31.75$ Tapered shaft, taper1:8, parallel key $8 \times 7 \times 25$



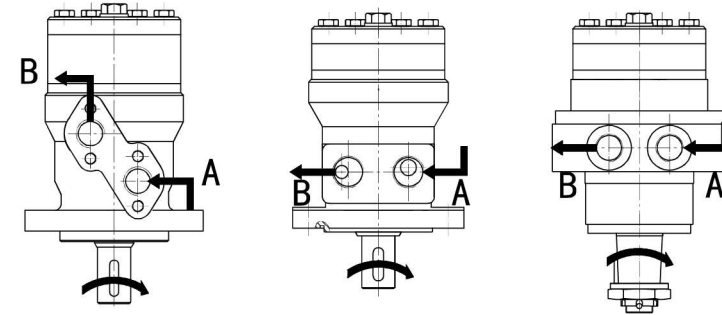
Motor mounting surface

■ AHMR, AHMRS, AHMRW

Series Motor

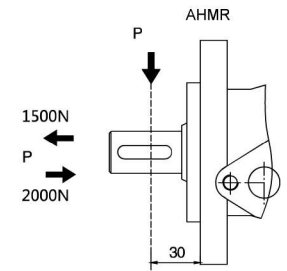
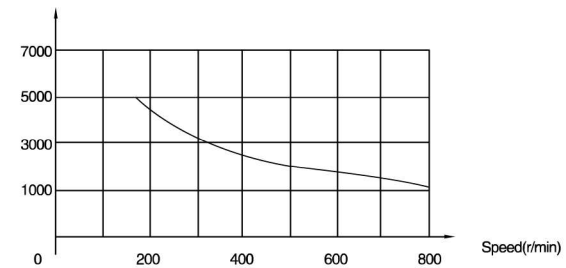
Direction of shaft rotation: Standard

When facing shaft end of motor, shaft to rotate:
Clockwise when port "A" is pressurized.
Counter-clockwise port "B" is pressurized.

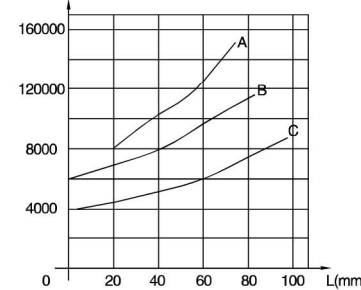


PERMISSIBLE SHAFT LOADS

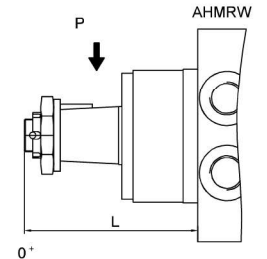
P (N) Radial force



P (N) Radial force



A:n=50 r/min
B:n=200 r/min
C:n=800 r/min



■ AHMR, AHMRS, AHMRW ORDERING CODE

1	2	3	4	5	6	7
AHMR	—			/		—

Pos.1	Series	Disp	3			4			5		6	7
			Output			Flange			Code	Ports		
									Ports(A,B)(deep)	Drain port T(deep)		
AHMR	50	R1	φ25 Cylindrical shaft, parallel keyφ8 x 7 x 32	AH	2-φ13.5 Oval flange, pilotφ82.5 x 6	Y	G1/2(15)	M14 x 1.5(12)				
		R2	φ30 Cylindrical shaft, parallel keyφ8 x 7 x 32									
	80	R3	φ25.4 Cylindrical shaft, parallel key6.35 x 6.35 x 32	A4	4-φ13.5 Oval flange, pilotφ82.5 x 6	Y1	M18 x 1.5(15)	M14 x 1.5(12)				
		R4	φ25.4 Cylindrical shaft, Woodruff keyφ25.4 x 6.35									
	100	R5	φ32 Cylindrical shaft, parallel key10 x 8 x 45	C	4-M10 Square flange, pilotφ44.45 x 2.5	Y2	M22 x 1.5(15)	M14 x 1.5(12)				
		R52	φ32 Cylindrical shaft, parallel key10 x 8 x 45									
	125	R6	φ31.75 Cylindrical shaft, parallel key7.96 x 7.96 x 32	CH	4-3/8-16UNC Square flange, pilotφ44.45 x 2.5	Y4	ZG3/8(15)	M14 x 1.5(12)			Omit	Standard
		H1	φ30 Splined shaft, 6-30 x 25 x 6									
	160	H2	φ25 Splined shaft, 6-25 x 21 x 5	A	4-φ11 Square flange, pilotφ82.5 x 6	Y5	ZG1/2(15)	M14 x 1.5(12)			TD	With dustproof ring L Opposite
		H3	φ25.3 Splined shaft, 6-25.3 x 21.4 x 6.2									
200	K4	φ24.5 involute splined shaft, B25 x 22 DIN6482	A1	4-φ11 Square flange, pilotφ80 x 6	Y7	NPT1/2(15)	M14 x 1.5(12)			TH	With high pressure seals	
	K10	φ31.75 involute splined shaft, 14-DP12/24 a=30°										
250	K13	φ31.75 involute splined shaft, 14-DP12/24 a=30°	A23	4-φ13 Square flange, pilotφ100 x 6	Y9	NPT1/2(15)	7/16-20UNF(12)					
	K14	φ31.75 involute splined shaft, 14-DP12/24 a=30°										
315	Z1	φ28.56 Tapered shaft, taper:1:10, parallel key 5 x 5 x 14			Y10	G1/2(15)	G1/4(12)					
	400											

■ AHMR, AHMRS, AHMRW ORDERING CODE

1	2	3	4	5	6	7
AHMRS	—			/		—

Pos.1	Series	Disp	3			4			5		6	7
			Output			Flange			Code	Ports		
									Ports(A,B)(deep)	Drain port T(deep)		
AHMRS	50	R1	φ25 Cylindrical shaft, parallel keyφ8 x 7 x 32	AH	2-φ13.5 Oval flange, pilotφ82.5 x 2.8	Y	G1/2(15)	M14 x 1.5(12)				
		R3	φ25.4 Cylindrical shaft, parallel key6.35 x 6.35 x 32									
	80	R4	φ25.4 Cylindrical shaft, Woodruff key φ25.4 x 6.35	C	4-M10 Square flange, pilotφ44.45 x 2.8	Y5	7/8-14UNF(15)	7/16-20UNF(12)			Omit	Standard
		R33	φ25.4 Cylindrical shaft, parallel key6.35 x 6.35 x 32									
	100	R89	φ25.4 Cylindrical shaft, pin holeφ 9.53	H4	φ25.3 Splined shaft, 6-25.3 x 21.4 x 6.2	Y7	ZG1/2(15)	G1/4(12)				
		R93	φ25.4 Cylindrical shaft, pin holeφ 9.5									
	125	R95	φ25.4 Cylindrical shaft, pin holeφ6.4, Woodruff key φ25.4 x 6.35	H8	φ22.1 involute splined shaft, 13-DP16/32	Y9	NPT1/2(15)	7/16-20UNF(12)			TT	No case drain
		R86	φ25.4 Cylindrical shaft, pin holeφ8									
	160	R97	φ25.4 Cylindrical shaft, pin holeφ10.3	K8		Y10	G1/2(15)	G1/4(12)				
		R99	φ25.4 Cylindrical shaft, pin holeφ10.3									
200	H4	φ25.3 Splined shaft, 6-25.3 x 21.4 x 6.2	K8		Y17	3/4-16UNF(15)	7/16-20UNF(12)					
	K8	φ22.1 involute splined shaft, 13-DP16/32										
250					Y19	φ11(15)	7/16-20UNF(12)					
315					Y20	M18 x 1.5(15)	G1/4(12)					
400												

■ AHMR, AHMRS, AHMRW ORDERING CODE

1	AHMRW	—	2		3	4	5	6	7
							/		—

Pos.1	2	3			4		5		6	7		
Series	Disp	Output			Flange		Ports		Special features	Rotation direction		
AHMRW	50 80 100 125 160 200 250 315 400	Z	A			4-φ13.5 Square flange, pilot φ82.5 x 9		Code Ports(A,B)(deep) Drain port T (deep)	Y	G1/2(15) M14 x 1.5(12)	Standard Omit Standard	Omit Standard L Opposite

1	AHMRW1	—	2		3	4	5	6	7
							/		—

Pos.1	2	3			4		5		6	7	
Series	Disp	Output			Flange		Ports		Special features	Rotation direction	
AHMRW1	50 80 100 125 160 200 250 315 400	R1 R5 R6 Z Z1	A			4-φ13.5 Square flange, pilot φ82.5 x 9		Code Ports(A,B)(deep) Drain port T (deep)	Y Y5 Y10	G1/2(15) 7/8-14UNF(15) G1/2(15)	Omit Standard TD With dustproof ring L Opposite

■ AHMH series INTRODUCTION



This series of motor, with its shell made of ductile cast iron of adequate intensity, can be applied to situations with less load and interval operation, widely to agriculture, forestry, plastics, machine tools and min machines, such as the mould height adjustment of the injection molding machine, the cleaner, the sawmill the worktable etc.

■ AHMH series CHARACTERISTICS

1. The output shaft, with the deep groove ball bearing, can bear certain axial force and radial force.
2. With the axial oil distribution structure, it is of smaller size and less weight.
3. With two inner check valves, no drain connection.
4. With cycloid group with the roller, it has a small friction and high mechanical efficiency.

■ AHMH series TECHNICAL DATA

TYPE	AHMH-200	AHMH-250	AHMH-315	AHMH-400	AHMH-500
Displacement(ml/r)	203	253.7	318.9	405.9	471.1
Max.Pressure.Drop (Mpa)	cont.	15.5	15.5	13.5	10.5
	int.	17.5	17.5	15.5	12.5
	peak.	20	20	19	15.5
Max.torque (N.m)	cont.	419	493	541	535
	int.	473	557	621	636
	peak.	541	636	762	789
Max. Cont. Speed (r/min)	370	295	235	185	155
Max.Flow(cont.)(L/min)	75	75	75	75	75
Max.Output.Power(cont.)(Kw)	14	14	12.5	10	8.5
Weight(kg)	10.5	11	11.5	12.5	13

Intermittent operation the permissible values may occur for max. 10% of every minute
Peak load: the permissible values may occur for max. 1% of every minute

■ AHMH series PERFORMANCE DATA

AHMH 200[203ml/r]		Pressure (Mpa)					Max.cont. Max.int.	
		3.5	7	10.5	14	15.5	17.5	
5		91	192	284				
		25	24	23				
10		92	191	282	344	427	480	
		48	47	46	44	42	38	
20		90	188	280	342	425	476	
		96	95	94	92	90	88	
30		88	181	278	388	422	470	
		144	143	139	130	114	101	
40		86	172	270	384	419	461	
		193	192	191	188	186	171	
50		83	168	264	380	411	452	
		241	240	238	234	230	228	
60		80	156	258	375	401	448	
		290	289	287	284	271	264	
70		75	149	249	362	389	441	
		334	333	331	329	324	320	
Max.cont.	75	69	132	240	351	386	432	
		362	360	359	358	351	342	
80		53	124	231	338	381	421	
		382	381	380	374	365	360	
Max.int.	90	41	119	228	324	378	410	
		434	433	431	429	418	411	

AHMH 250[253.7ml/r]		Pressure (Mpa)					Max.cont. Max.int.	
		3.5	7	10.5	14	15.5	17.5	
5		118	242	311				
		19	19	18				
10		126	251	326	421	510		
		38	37	36	34	31		
20		124	250	325	414	501	581	
		85	84	83	81	79	71	
30		118	243	321	410	496	572	
		115	113	111	105	96	84	
40		111	238	315	402	493	568	
		153	152	150	143	140	132	
50		106	231	310	395	475	552	
		190	188	187	186	184	172	
60		101	223	302	390	471	541	
		230	229	227	224	218	209	
70		96	218	294	381	462	532	
		268	267	266	262	258	241	
Max.cont.	75	84	210	284	375	453	526	
		287	285	284	280	276	270	
80		76	201	271	368	445	513	
		306	305	303	301	298	286	
Max.int.	90	56	182	268	351	423	501	
		347	345	341	337	334	328	

AHMH 315[318.9ml/r]		Pressure (Mpa)				Max.cont. Max.int.	
		3.5	7.5	10	13.5	15.5	
10		148	312	416	568		
		31	30	28	25		
20		142	308	411	560	626	
		61	60	58	52	50	
30		140	301	402	552	624	
		91	90	89	87	82	
40		131	294	398	541	621	
		122	121	120	118	111	
50		128	289	391	538	612	
		152	151	149	146	139	
60		121	281	382	530	603	
		183	181	179	176	170	
70		110	273	372	521	600	
		215	214	211	208	204	
Max.cont.	75	98	261	357	513	586	
		228	226	224	222	218	
80		72	258	346	510	581	
		243	240	237	234	228	
Max.int.	90	62	243	332	498	571	
		274	272	270	264	256	

AHMH 400[405.9ml/r]		Pressure (Mpa)				Max.cont. Max.int.	
		3.5	5.5	7	10.5	12.5	
10		186	284	370			
		24	22	20			
20		184	282	365	541	660	
		48	47	45	41	32	
30		182	280	361	538	655	
		72	71	70	64	58	
40		178	274	356	532	649	
		96	95	93	91	86	
50		175	270	351	530	645	
		119	118	116	111	107	
60		171	261	342	522	640	
		143	141	138	135	124	
70		164	248	338	513	638	
		167	165	161	158	146	
Max.cont.	75	152	240	332	510	631	
		179	177	175	171	168	
80		141	223	330	497	624	
		193	192	190	187	182	
Max.int.	90	120	218	320	480	602	
		217	215	211	208	201	

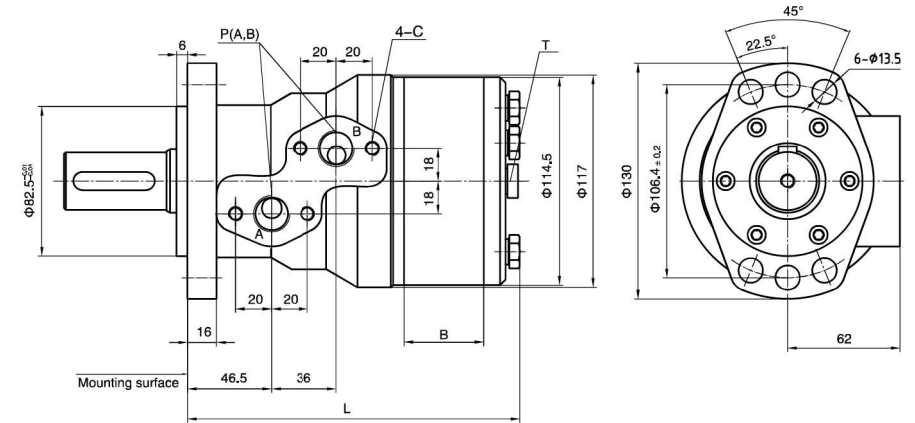
AHMH 500[471.1ml/r]		Pressure (Mpa)					Max.cont. Max.int.	
		2.5	4	6	7	8.5	10	
10		153	249	372				
		21	20	18				
20		152	242	370	439	548	650	
		42	41	40	38	34	31	
30		150	236	361	436	546	645	
		62	61	60	58	55	51	
40		147	230	352	433	543	640	
		82	81	80	78	74	71	
50		145	224	340	430	541	637	
		104	102	100	98	96	92	
60		142	212	331	425	534	632	
		124	122	120	118	114	110	
70		140	202	328	412	512	621	
		146	143	140	138	136	131	
Max.cont.	75	130	197	324	403	501	612	
		154	152	150	147	142	138	
80		121	183	310	389	497	601	
		165	163	161	159	150	146	
Max.int.	90	110	172	294	376	480	583	
		185	184	182	180	172	165	

(Torque) : 332Nm
(Speed) : 2700/min

□ Cont.
■ Int.

■ AHMH series Installation

A4: 6-hole oval flange



TYPE	AHMH-200	AHMH-250	AHMH-315	AHMH-400	AHMH-500
L	168	175	184	196	205
B	28	35	44	56	65

■ AHMH series PORTS CODE

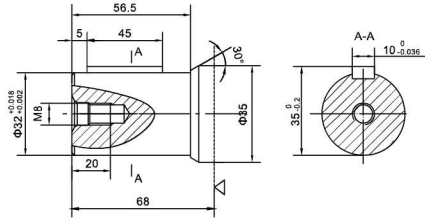
Code	Ports		
	P(A, B) (deep)	C (deep)	T (deep)
Y	G1/2 (15)	M8 (13)	G1/4 (12)
Y5	7/8-14UNF (15)	3/8-16UNC (13)	7/16-20UNF (12)
Y8	NPT1/2 (15)	5/16-18UNC (13)	7/16-20UNF (12)
Y25	7/8-14UNF (15)	M8 (13)	7/16-20UNF (12)

Note:P(A, B)—Ports, C—Mounting Thread (—Indicates no this thread), T—Drain connection

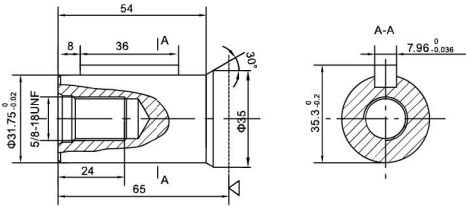
■ AHMH series

SHAFT VERSION

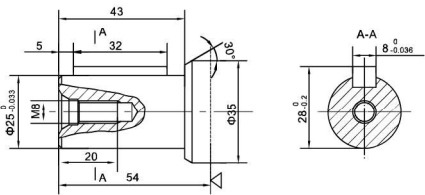
R1: $\Phi 32$ Cylindrical shaft, parallel key $10 \times 8 \times 45$



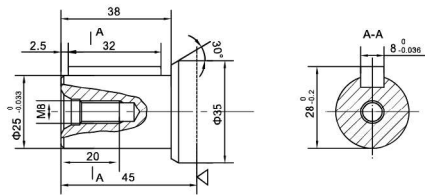
R2: $\Phi 31.75$ Cylindrical shaft, parallel key $7.96 \times 7.96 \times 36$



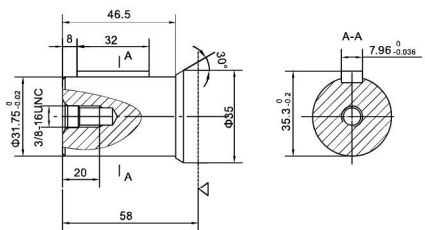
R3: $\Phi 25$ Cylindrical shaft, parallel key $8 \times 7 \times 32$



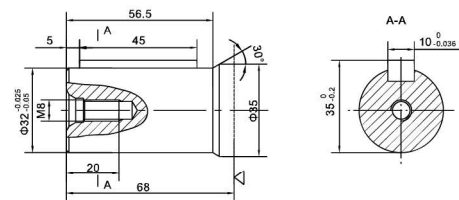
R4: $\Phi 25$ Cylindrical shaft, parallel key $8 \times 7 \times 32$



R5: $\Phi 31.75$ Cylindrical shaft, parallel key $7.96 \times 7.96 \times 32$



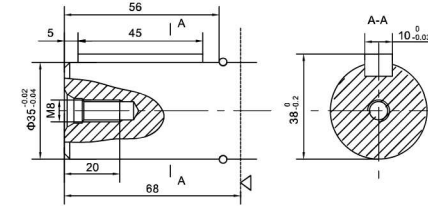
R6: $\Phi 32$ Cylindrical shaft, parallel key $10 \times 8 \times 45$



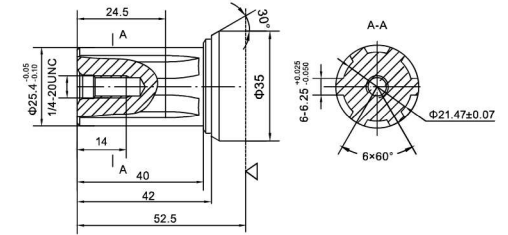
■ AHMH series

SHAFT VERSION

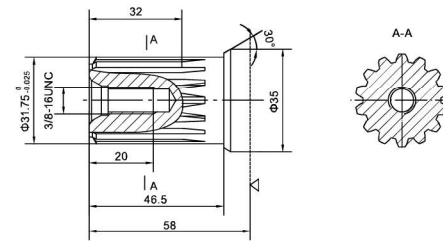
R7: $\Phi 35$ Cylindrical shaft, parallel key $10 \times 8 \times 45$



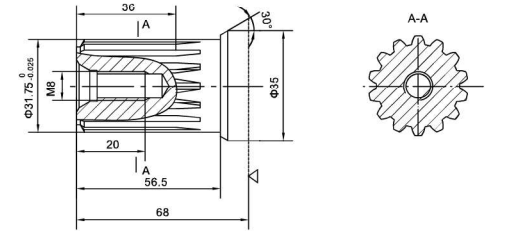
H3: $\Phi 25.4$ Splined shaft, $6-25.4 \times 21.47 \times 6.25$



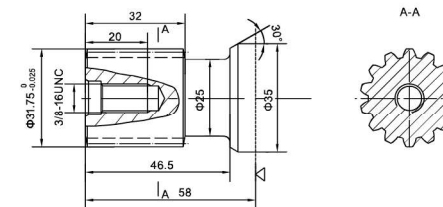
K1: $\Phi 31.75$ involute splined shaft 14-DP12/24 $a=30^\circ$



K2: $\Phi 31.75$ involute splined shaft 14-DP12/24 $a=30^\circ$



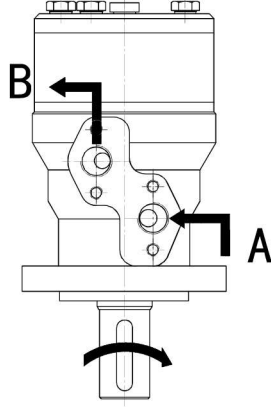
K11: $\Phi 31.75$ involute splined shaft 14-DP12/24 $a=30^\circ$



■ AHMH series motor

Direction of shaft rotation: Standard

When facing shaft end of motor, shaft to rotate:
 Clockwise when port "A" is pressurized.
 Counter-clockwise port "B" is pressurized.



■ AHMH series ORDERING CODE

1	2	3	4	5	6	7
AHMH	-	/				

Pos.1	2	3	4	5		6	7										
				Ports	Ports (A,B)(deep) Drain port: T (deep)												
Series	Disp	200	Output	Flange	Code	Special features	Rotation direction										
								R1	φ32 Cylindrical shaft, parallel key10 x 8 x 45	Y	G1/2(15)	G1/4(12)	Standard				
								R2	φ31.75 Cylindrical shaft, parallel key7.96 x 7.96 x 36	Y5	7/8-14UNF(15)	7/16-20UNF(12)		Omit			
								R3	φ25 Cylindrical shaft, parallel key6 x 7 x 32								
								R4	φ25 Cylindrical shaft, parallel key6 x 7 x 32								
		R5	φ31.75 Cylindrical shaft, parallel key7.96 x 7.96 x 32														
		315	R6					φ32 Cylindrical shaft, parallel key10 x 8 x 45	A4	6-φ13.5 Oval flange, pilot φ32.5 x 6	Y8	NPTF1/2(15)	7/16-20UNF(12)				
			R7					φ35 Cylindrical shaft, parallel key10 x 8 x 45									
			H3					φ25.4 Splined shaft, 6-25.4 x 21.47 x 6.25									
		400	500					K1						φ31.75 involute splined shaft, 14-DP12/24 a=30°	Y25	7/8-14UNF(15)	7/16-20UNF(12)
								K2						φ31.75 involute splined shaft, 14-DP12/24 a=30°			
K11	φ31.75 involute splined shaft, 14-DP12/24 a=30°																
	φ31.75 involute splined shaft, 14-DP12/24 a=30°																

■ AHMP INTRODUCTION

This series of motor are small volume,economical type,which is designed with Spool Valve,which adapt the gerotor gear set design and provide compact volume,high power and low weight.

■ AHMP CHARACTERISTICS

- 1 Advanced manufacturing devices for the Gerotor gear set, which provide small volume, high efficiency and long life.
- 2 Shaft seal can bear high pressure of motor of which can be used in parallel or in series.
- 3 Advanced construction design,high power and low weight.

■ AHMP series TECHNICAL DATA

TYPE	AHMP-50	AHMP-80	AHMP-100	AHMP-125	AHMP-160	AHMP-200	AHMP-250	AHMP-315	AHMP-400
	AHMPH-50	AHMPH-80	AHMPH-100	AHMPH-125	AHMPH-160	AHMPH-200	AHMPH-250	AHMPH-315	AHMPH-400
Displacement(ml/r)	52.9	79.3	98.2	120.9	158.7	196.4	241.8	317.3	392.9
Max.Pressure.Drop (Mpa)	cont.	12.5	12.5	12.5	12.5	11.5	11	10	9
	int.	16.5	16.5	16.5	16.5	16	15	14	9
	peak.	20	20	20	20	20	20	16	11
Max.torque (N.m)	cont.	78	120	149	180	219	262	300	334
	int.	104	157	197	238	305	358	417	429
	peak.	130	215	268	336	430	506	537	537
Speed.Range(cont.)(r/min)	10-800	10-770	10-615	10-480	10-385	10-310	10-250	10-195	10-155
Max.Flow(cont.)(L/min)	40	60	60	60	60	60	60	60	60
Max.Output.Power(cont.)(Kw)	7	10	10	10	10	8	6	5	4
Weight (kg)	5.6	5.7	5.9	6.0	6.2	6.4	6.6	6.9	7.4

Intermittent operation the permissible values may occur for max. 10% of every minute

Peak load: the permissible values may occur for max. 1% of every minute

■ AHMP series PERFORMANCE DATA

AHMP 50[52.9ml/r]
Pressure (Mpa)

Flow(L/min)	Max.cont.						Max.int.
	3	6	8	10	12.5	14	
8	20	41	56	69	84		
	151	134	115	90	56		
15	19	40	56	71	82	100	112
	286	274	261	243	204	182	139
20	18	39	55	70	79	99	117
	382	373	361	348	318	309	287
30	17	38	55	69	78	96	116
	573	568	558	535	503	488	462
35	17	38	54	67	76	94	117
	670	661	652	640	606	589	562
40	15	36	53	63	71	91	114
Max.cont.	800	795	791	786	783	780	756
50	13	34	52	60	68	87	113
	926	922	919	915	910	902	900
60	10	32	47	58	61	81	108
Max.int.	1150	1143	1126	1111	1079	1065	1043

AHMP 100[98.2ml/r]
Pressure (Mpa)

Flow(L/min)	Max.cont.						Max.int.
	3	6	8	10	12.5	14	
8	39	74	103	128	157		
	82	76	70	58	37		
15	38	75	104	128	156	181	203
	153	150	146	141	123	104	82
20	34	71	101	125	153	179	200
	205	202	197	192	179	169	150
30	31	69	100	122	151	177	198
	310	306	300	292	282	270	257
35	28	67	95	119	149	176	197
	362	354	345	333	323	308	296
40	27	64	92	115	146	174	192
	464	460	453	446	436	421	404
50	23	61	90	113	141	170	190
	568	560	551	542	532	517	500
60	20	57	88	111	134	167	184
Max.cont.	615	613	603	592	583	574	563
75	13	51	80	103	130	160	180
Max.int.	772	765	757	747	738	726	710

AHMP 160[158.7ml/r]
Pressure (Mpa)

Flow(L/min)	Max.cont.						Max.int.
	3	6	8	10	11.5	14	
8	58	116	166	208			
	49	48	46	44			
15	56	116	168	210	225	288	297
	93	91	88	85	80	68	48
20	53	112	166	210	223	284	295
	125	123	120	117	113	105	92
30	49	110	158	200	221	280	300
	187	184	181	178	176	168	155
35	45	106	156	196	219	274	305
	220	216	213	209	207	202	192
45	40	98	150	192	217	270	302
	283	280	276	272	269	260	250
55	36	95	144	187	215	264	300
	345	342	340	336	333	328	320
60	29	90	140	184	213	260	298
Max.cont.	377	374	371	367	365	359	353
70	15	76	120	168	210	246	290
Max.int.	473	469	465	459	456	447	440

(Torque) : 168Nm
(Speed) : 459r/min

Cont.
Int.

AHMP 80[79.3ml/r]
Pressure (Mpa)

Flow(L/min)	Max.cont.						Max.int.
	3	6	8	10	12.5	14	
8	31	60	81	101	126		
	98	89	76	57	35		
15	30	57	81	101	125	143	162
	186	181	170	154	132	118	86
20	30	56	80	100	123	141	160
	251	243	236	225	207	196	178
30	29	55	78	99	121	139	159
	381	379	368	355	332	316	285
35	28	54	76	94	120	138	157
	443	435	426	415	397	383	361
40	27	51	72	90	112	134	155
	570	564	554	543	526	509	483
50	25	50	70	89	108	128	153
	696	685	672	656	643	630	602
60	23	46	68	87	104	124	146
Max.cont.	761	753	744	736	720	706	681
75	18	38	62	82	100	121	141
Max.int.	948	940	931	920	906	890	871

AHMP 125[120.9ml/r]
Pressure (Mpa)

Flow(L/min)	Max.cont.						Max.int.
	3	6	8	10	12.5	14	
8	47	94	132	162			
	65	62	57	49			
15	47	96	132	161	188	229	266
	123	118	112	104	92	76	51
20	45	93	130	161	185	226	268
	164	160	155	150	140	131	112
30	43	92	128	159	182	221	264
	246	242	237	230	219	205	192
35	39	88	125	155	180	219	238
	287	282	277	272	262	250	234
40	34	85	120	152	176	212	233
	373	365	358	351	343	330	313
50	30	80	118	148	171	202	229
	455	449	441	434	423	415	405
60	26	74	112	141	164	198	225
Max.cont.	493	485	478	471	461	450	442
75	15	62	102	128	160	196	220
Max.int.	617	608	600	588	577	565	552

AHMP 200[196.4ml/r]
Pressure (Mpa)

Flow(L/min)	Max.cont.						Max.int.
	3	6	8	10	11	13	
8	76	161	204	247			
	39	38	37	34			
15	75	158	200	245	268	330	364
	75	74	73	72	70	69	67
20	73	154	199	243	266	328	362
	100	98	97	96	94	92	90
30	67	150	197	241	264	324	360
	150	148	146	145	143	139	135
35	63	146	190	228	260	318	358
	176	175	173	172	171	169	168
40	60	143	187	226	258	315	352
	226	224	222	221	219	216	211
50	51	136	177	220	256	312	342
	278	276	274	273	271	269	266
60	64	123	160	208	251	308	332
Max.cont.	302	300	298	295	292	291	289
75	18	92	141	188	248	290	325
Max.int.	380	376	372	369	366	362	358

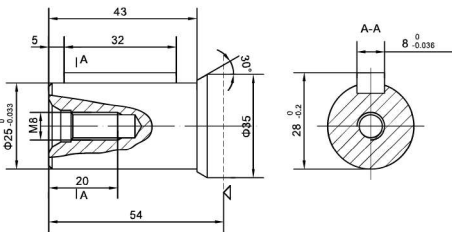
■ AHMP series PORTS CODE

Code	Ports	P(A, B)(deep)	C (deep)	T (深deep)
Y		G1/2 (15)	M8 (13)	M14 × 1.5 (12)
Y1		M18 × 1.5 (15)	M8 (13)	M14 × 1.5 (12)
Y2		M22 × 1.5 (15)	M8 (13)	M14 × 1.5 (12)
Y4		ZG3/8 (15)	M8 (13)	M14 × 1.5 (12)
Y5		7/8-14UNF (15)	—	M14 × 1.5 (12)
Y7		ZG1/2 (15)	M8 (13)	M14 × 1.5 (12)
Y8		NPT1/2 (15)	M8 (13)	M14 × 1.5 (12)
Y9		NPTF1/2 (15)	M8 (13)	M14 × 1.5 (12)
Y10		G1/2 (15)	M8 (13)	G1/4 (12)
Y15		7/8-14UNF (15)	5/16-18UNC (13)	7/16-20UNF (12)

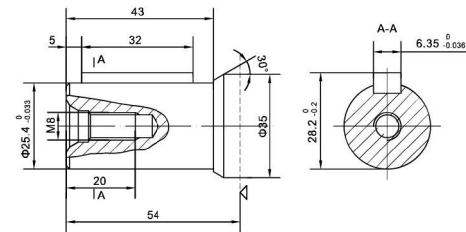
Note:P(A, B)—Ports, C—Mounting Thread (—Indicates no this thread), T—Drain connettion

■ AHMP series SHAFT VERSION

R1: $\Phi 25$ Cylindrical shaft, parallel key $8 \times 7 \times 32$



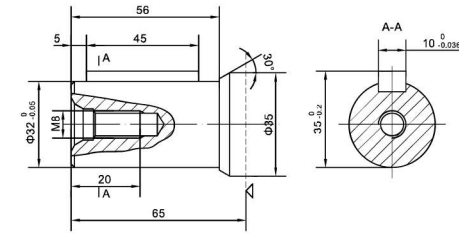
R3: $\Phi 25.4$ Cylindrical shaft, parallel key $6.35 \times 6.35 \times 32$



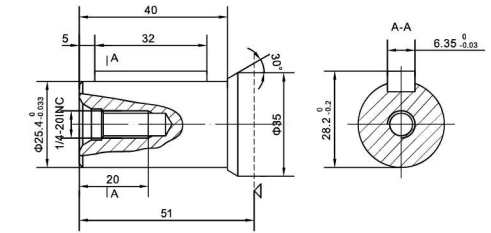
Motor mounting surface

■ AHMP series SHAFT VERSION

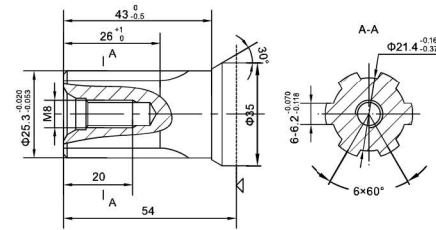
R5: $\Phi 32$ Cylindrical shaft, parallel key $10 \times 8 \times 45$



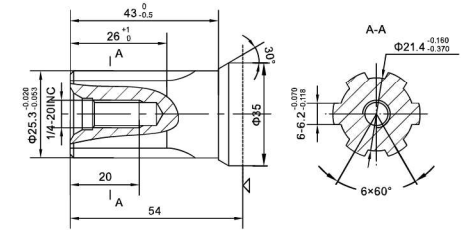
R33: $\Phi 25.4$ Cylindrical shaft, parallel key $6.35 \times 6.35 \times 32$



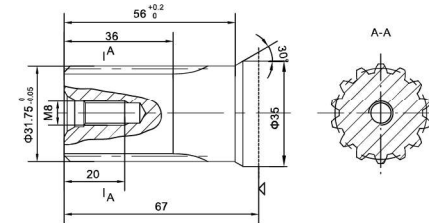
H3: $\Phi 25.3$ Splined shaft, $6-25.3 \times 21.4 \times 6.2$



H33: $\Phi 25.3$ Splined shaft, $6-25.3 \times 21.4 \times 6.2$



K13: $\Phi 31.75$ involute splined shaft 14-DP12/24 a=30°

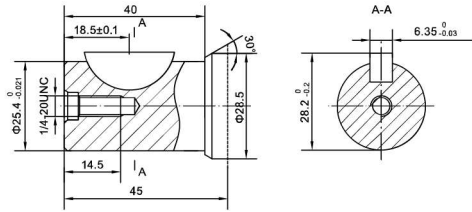


Motor mounting surface

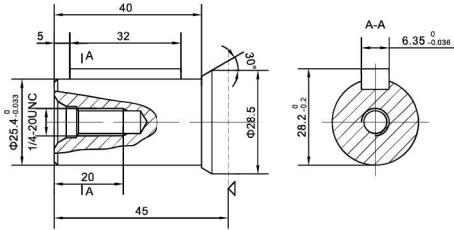
■ AHMPH seires

SHAFT VERSION

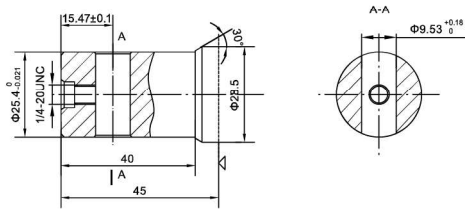
R4: $\Phi 25.4$ Cylindrical shaft, parallel key $\Phi 25.4 \times 6.35$



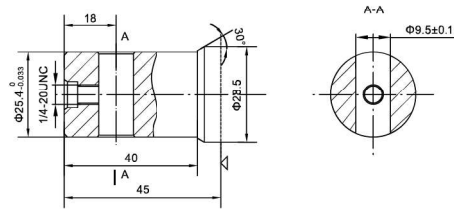
R33: $\Phi 25.4$ Cylindrical shaft, parallel key $6.35 \times 6.35 \times 32$



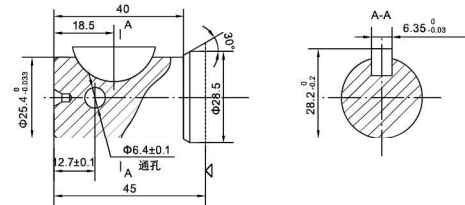
R89: $\Phi 25.4$ Cylindrical shaft pin hole $\Phi 9.53$



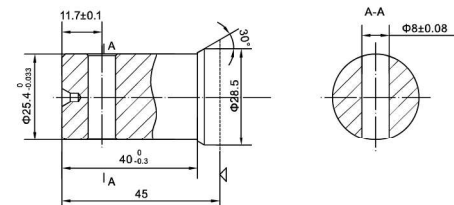
R93: $\Phi 25.4$ Cylindrical shaft pin hole $\Phi 9.53$



R95: $\Phi 25.4$ Cylindrical shaft pin hole $\Phi 6.4$,
Woodruff key $\Phi 25.4 \times 6.35$



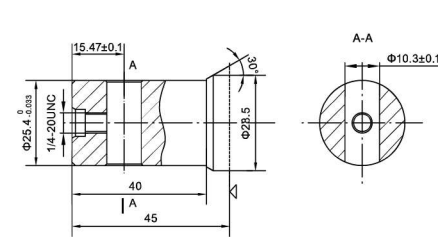
R96: $\Phi 25.4$ Cylindrical shaft pin hole $\Phi 8$



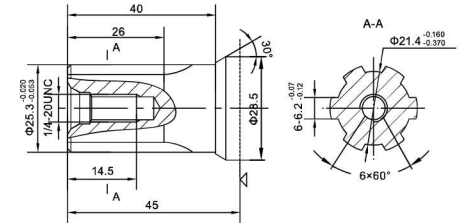
■ AHMPH seires

SHAFT VERSION

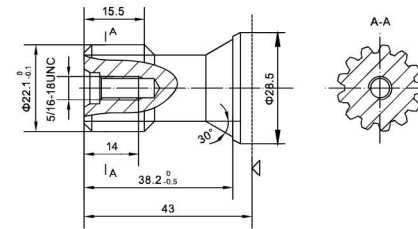
R97: $\Phi 25.4$ Cylindrical shaft pin hole $\Phi 10.3$



H4: $\Phi 25.3$ Splined shaft, 6-25.3 x 21.4 x 6.2



K8: $\Phi 22.1$ involute splined shaft 13-DP16/32

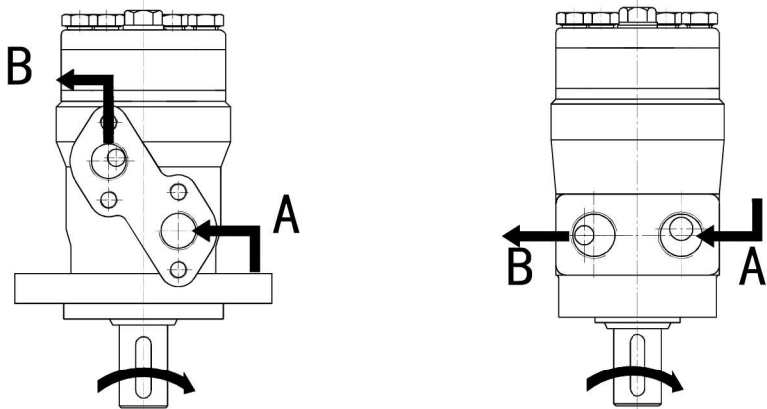


■ AHMP, AHMPH series

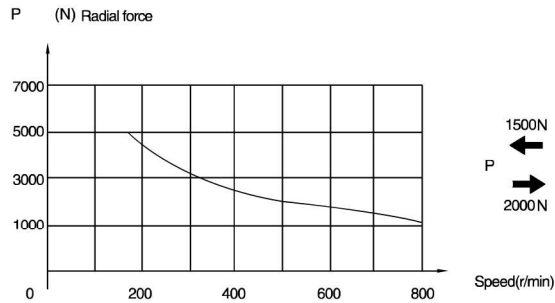
Series Motor

Direction of shaft rotation: Standard

When facing shaft end of motor, shaft to rotate:
 Clockwise when port "A" is pressurized.
 Counter-clockwise port "B" is pressurized.



PERMISSIBLE SHAFT LOADS



■ AHMP, AHMPH series ORDERING CODE

1	2	3	4	5	6	7
AHMP	-	-	-	-	-	-

Pos.1	Series	Disp	Output	Flange	Ports		Special features	Rotation direction		
					Code	Ports(A,B)(deep)			Drain port T (deep)	
AHMP	R1	50	Ø25 Cylindrical shaft, parallel key 8 x 7 x 32	AH	Y	G1/2(15)	M14 x 1.5(12)	Standard	Omit Standard	
	R3	80	Ø25.4 Cylindrical shaft, parallel key 6.35 x 6.35 x 32		Y1	M16 x 1.5(15)	M14 x 1.5(12)			
	R5	125	Ø32 Cylindrical shaft, parallel key 10 x 8 x 45		Y2	M22 x 1.5(15)	M14 x 1.5(12)			
	R33	160	Ø25.4 Cylindrical shaft, parallel key 6.35 x 6.35 x 32	C	Y4	ZG3/8(15)	M14 x 1.5(12)	TD	With dustproof ring	
	H3	200	Ø25.3 Spined shaft, 6-25.3 x 21.4 x 6.2		Y5	7/8-14UNF(15)	M14 x 1.5(12)			
	H33	250	Ø25.3 Spined shaft, 6-25.3 x 21.4 x 6.2	CH	Y7	ZG1/2(15)	M14 x 1.5(12)	TH	With high pressure seals	
	315	315	Ø25.3 Spined shaft, 6-25.3 x 21.4 x 6.2		Y8	NPT1/2(15)	M14 x 1.5(12)			
	400	400	Ø31.75 involute spined shaft, 14-DP12/24 a=30°		Y9	NPT1/2(15)	7/16-20UNF(12)			
						Y10	G1/2(15)	G1/4(12)		
						Y15	7/8-14UNF(15)	7/16-20UNF(12)		

Note: C, CH mounting are assembling to AHMPH shaft.

■ AHMP, AHMPH series ORDERING CODE

1	2	3	4	5	6	7
AHMPH	—	—	—	—	—	—

Pos.1	Series	Disp	3	4	5		6	7	
					Ports	Special features			
			Output	Flange	Code	Ports(A,B)(deep)	Drain port, T(deep)		
		50	R1	AH 2-φ13.5 Oval flange, pilotφ82.5×2.8	Y	G1/2(15)	M14×1.5(12)		
		80	R3		φ25.4 Cylindrical shaft, parallel keyφ6.35×6.35×32	Y5	7/8-14UNF(15)	7/16-20UNF(12)	
		100	R4		φ25.4 Cylindrical shaft, Woodruff keyφ25.4×6.35	Y7	ZG1/2(15)	G1/4(12)	
		125	R33		φ25.4 Cylindrical shaft, parallel keyφ6.35×6.35×32	Y9	NPTF1/2(15)	7/16-20UNF(12)	Omit Standard
		160	R89		φ25.4 Cylindrical shaft pin hole φ9.5	Y10	G1/2(15)	G1/4(12)	No case drain
AHMPH		200	R93	φ25.4 Cylindrical shaft pin hole φ9.5	Y17	3/4-16UNF(15)	7/16-20UNF(12)		
		250	R95	φ25.4 Cylindrical shaft pin hole φ6.4, Woodruff key φ25.4×6.35	Y19	φ11(15)	7/16-20UNF(12)		
		315	R96	φ25.4 Cylindrical shaft pin hole φ8	Y20	M18×1.5(15)	G1/4(12)		
		400	R97	φ25.4 Cylindrical shaft pin hole φ10.3					
			H4	φ25.3 Splined shaft, 6-25.3×21.4×6.2					
			K8	φ22.1 involute splined shaft, 13-DP16/32					
				C 4-M10 Square flange, pilotφ44.45×2.8					
				CH 4-3/8-16UNC Square flange, pilotφ44.45×2.8					

INTRODUCTION

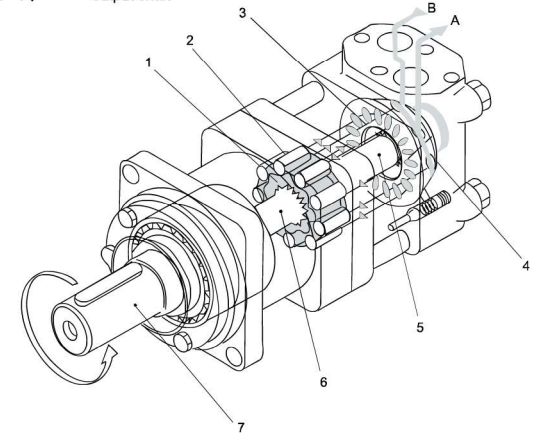
FEATURES AND APPLICATIONS



AH3MS hydraulic motor is one type of high torque low speed hydraulic motors, with high efficiency and long life. Speed range, high starting torque and rotating stable at high speed Compact and light, it can be connected to working machine directly, adapted to all kinds of low speed heavy load facilities. AH3MS hydraulic motors are widely applied in agriculture machinery, fishing machinery, plastic industry, mining, and construction machinery.

WORKING PRINCIPLE

- 1、 orbit cam 2、 roll 3、 distributor 4、 auxiliary plate
- 5、 distributor shaft 6、 transmission shaft 7、 output shaft



Shown as the drawing, high pressure oil goes into the motor's housing through the inlet, passing the auxiliary plate, distributor, then the working space between the orbit cam and rolls. Pressed by the high pressure oil, orbit cam rotates from the high pressure side to the low pressure side. The orbit cam makes rotation and revolution against the rolls, at the same time, high pressure oil is distributed continuously, thus, the output shaft can also rotate continuously.

The output speed can be controlled by adjusting the inlet flow capability of the motor, and the rotating direction can be changed by exchanging the flow direction.

■ AH3MS seires TECHNICAL DATA

TYPE	AH3MS-80	AH3MS-100	AH3MS-125	AH3MS-160	AH3MS-200	AH3MS-250	AH3MS-315	AH3MS-400
	AH3MSS-80 AH3MSW-80	AH3MSS-100 AH3MSW-100	AH3MSS-125 AH3MSW-125	AH3MSS-160 AH3MSW-160	AH3MSS-200 AH3MSW-200	AH3MSS-250 AH3MSW-250	AH3MSS-315 AH3MSW-315	AH3MSS-400 AH3MSW-400
Displacement(ml/r)	80.5	100.5	126.3	160.8	200.9	252.6	321.5	401.9
Max.Pressure. Drop (Mpa)	cont.	17.5	17.5	17.5	16	16	12.5	10
	int.	20	20	20	20	20	16	14
	peak.	22.5	22.5	22.5	22.5	22.5	20	17.5
Max.torque (N.m)	cont.	194	242	303	358	438	440	551
	int.	218	283	345	429	540	625	687
Speed.Range(cont.)(r/min)	cont.	194	242	303	358	438	440	551
	int.	218	283	345	429	540	625	687
Max.Flow(cont.)(L/min)	cont.	194	242	303	358	438	440	551
	int.	218	283	345	429	540	625	687
Max.Output.Power(cont.)(Kw)	cont.	194	242	303	358	438	440	551
	int.	218	283	345	429	540	625	687
Weight (kg)	9.8	10.0	10.3	10.7	11.1	11.6	12.3	13.1

Intermittent operation the permissible values may occur for max. 10% of every minute

Peak load: the permissible values may occur for max. 1% of every minute

■ AH3MS seires PERFORMANCE DATA

AH3MS 80[80.5cm³/rev]

Flow(L/min)	Pressure (Mpa)						
	3.5	7	10.5	14	17.5	21	22.5
15	35	80	120	158	195	235	249
	180	174	168	164	158	151	143
30	35	80	120	158	195	240	260
	362	352	346	338	330	322	310
40	35	79	119	155	193	234	250
	482	473	464	453	444	434	415
50	30	77	117	153	192	232	248
	602	594	587	569	560	551	522
60	28	77	117	153	192	232	247
	724	713	707	683	673	664	629
65	25	75	114	152	190	230	245
	790	785	770	760	742	720	704
80	22	70	110	140	170	200	220
	980	965	950	920	891	860	830

AH3MS 100[100.5cm³/rev]

Flow(L/min)	Pressure (Mpa)						
	3.5	7	10.5	14	17.5	21	22.5
15	48	95	150	200	250	289	310
	146	144	139	135	130	120	105
30	45	94	146	198	250	295	317
	291	289	278	274	269	258	242
40	43	89	142	196	248	293	316
	387	384	374	359	350	335	320
50	40	88	135	194	247	292	315
	486	483	473	462	450	430	420
60	37	88	132	185	244	289	312
	588	584	574	562	550	538	520
75	35	80	130	180	240	286	310
	740	735	720	705	696	676	653
90	30	75	124	170	236	277	303
	850	840	810	787	770	750	747

AH3MS 125[126.3cm³/rev]

Flow(L/min)	Pressure (Mpa)						
	3.5	7	10.5	14	17.5	21	22.5
15	55	120	176	245	309	349	375
	112	110	103	96	93	90	84
30	55	120	175	250	324	375	408
	222	220	217	208	200	199	190
40	55	120	175	250	324	370	408
	302	298	292	284	276	268	260
50	50	115	176	248	320	370	406
	379	373	368	363	350	339	328
60	45	113	171	245	324	368	406
	456	448	443	439	425	406	393
75	45	110	167	240	314	370	401
	570	563	555	546	533	515	503
90	40	105	162	237	309	365	390
	685	676	670	659	644	625	610

(Torque) : 309Nm
(Speed) : 644/min

AH3MS 160[160.8cm³/rev]

Flow(L/min)	Pressure (Mpa)						
	3.5	7	10.5	14	17.5	21	22.5
15	70	140	205	305	371	430	473
	91	88	84	78	76	74	58
30	75	150	214	321	380	427	490
	185	182	176	168	164	162	152
40	70	150	215	320	378	425	488
	248	244	239	229	224	217	204
50	65	145	215	316	378	425	482
	312	308	304	294	288	280	270
60	65	145	214	315	375	424	482
	375	371	365	357	346	336	323
75	60	138	208	311	375	420	
	470	465	458	447	436	426	
90	56	130	200	308	370	414	
	564	559	551	541	526	517	

Cont.
Int.

■ AH3MS seires PERFORMANCE DATA

AH3MS 200[200.9cm³/rev]

Flow(L/min)	Pressure (Mpa)					
	3.5	7	10.5	14	17.5	22.5
15	89	190	295	400	484	608
	73	71	68	64	60	52
30	87	190	294	399	485	600
	148	146	143	140	135	127
40	86	188	292	397	483	594
	193	191	189	186	181	172
50	80	184	290	395	480	590
	247	245	243	240	235	226
60	74	178	286	390	475	582
	298	295	293	290	284	273
Max.cont.	58	160	275	375	460	570
	372	369	365	362	358	346
Max.int.	49	148	260	355	445	555
	440	435	430	422	411	401

AH3MS 250[252.6cm³/rev]

Flow(L/min)	Pressure (Mpa)					
	3.5	7	10.5	14	17.5	22.5
15	117	230	355	450	554	652
	58	55	52	51	47	46
30	117	225	350	446	560	657
	118	117	112	109	107	106
40	115	225	348	442	552	650
	160	156	152	150	146	142
50	110	220	345	438	546	645
	202	200	198	196	195	192
60	105	220	340	435	542	642
	242	239	237	234	231	229
Max.cont.	95	215	338	430	537	638
	300	296	293	286	282	278
Max.int.	90	205	332	420	530	632
	360	354	348	340	332	326

AH3MS 315[321.5cm³/rev]

Flow(L/min)	Pressure (Mpa)					
	3.5	7	10.5	12	14	18.5
15	160	320	465	555	650	748
	48	47	45	43	40	38
30	165	322	468	560	658	752
	94	92	90	89	86	85
40	160	310	457	546	642	741
	125	123	120	118	116	115
50	155	305	450	538	637	736
	158	156	153	150	147	145
60	152	302	442	532	632	732
	175	174	170	164	162	159
Max.cont.	145	295	436	525	628	726
	236	234	230	227	225	222
Max.int.	132	280	430	520	622	723
	285	282	280	276	273	270

(Torque) : 520Nm
(Speed) : 276r/min

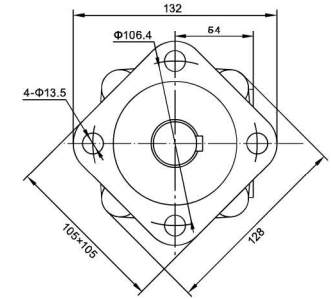
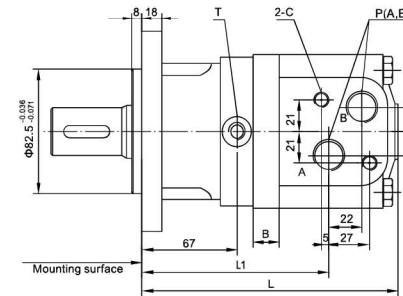
AH3MS 400[401.9cm³/rev]

Flow(L/min)	Pressure (Mpa)					
	3.5	7	9	10	12	14
15	192	376	492	532	611	686
	38	37	36	35	33	31
30	191	378	494	534	613	686
	77	75	74	73	71	69
40	187	376	491	533	611	685
	102	100	99	98	96	93
50	166	374	490	531	609	684
	128	126	125	124	123	120
60	156	373	489	530	608	683
	151	150	149	148	146	144
Max.cont.	135	367	483	544	607	677
	192	190	188	187	186	185
Max.int.	109	364	480	520	603	672
	228	225	224	222	220	218

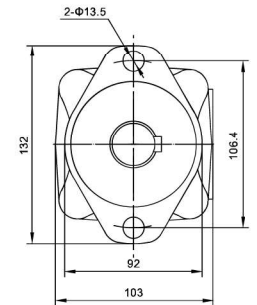
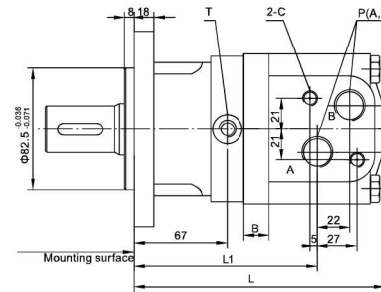
Cont.
int.

■ AH3MS seires Installation

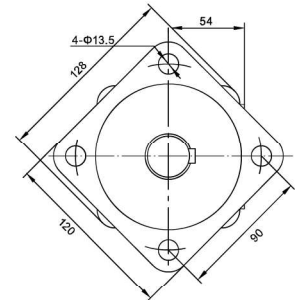
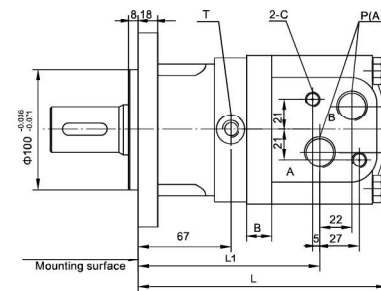
A: Square flange



AH: 2-hole oval flange

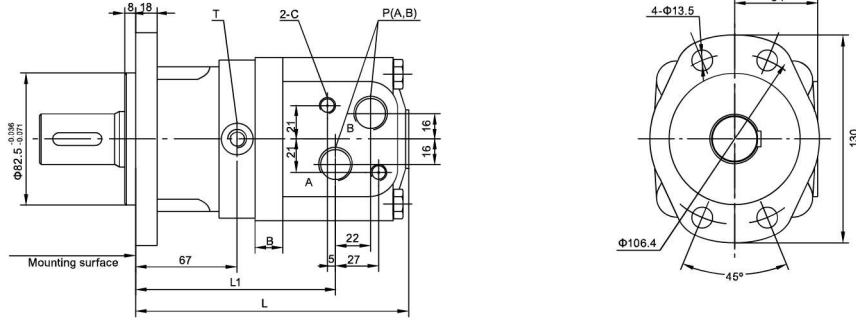


A23: Square flange

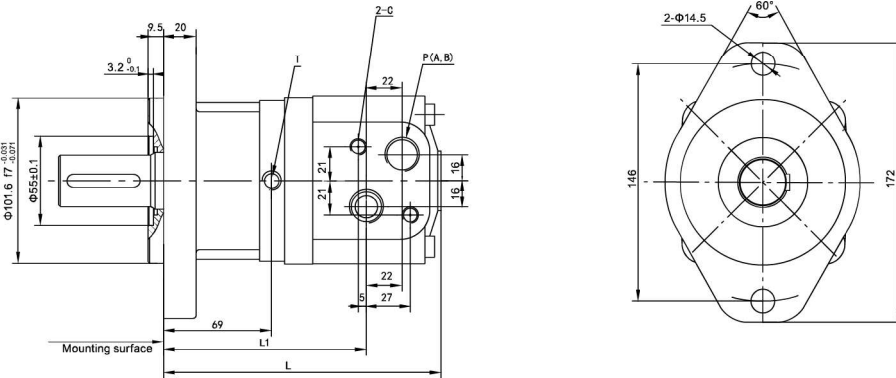


■ AH3MS seires Installation

A4: 4-hole oval flange



A46: 2-hole oval flange



Type	AH3MS-80	AH3MS-100	AH3MS-125	AH3MS-160	AH3MS-200	AH3MS-250	AH3MS-315	AH3MS-400
L	167	170.5	175	181	188	197	209	223
L1	124	127.5	132	138	145	154	166	180
B	11	14.5	19	25	32	41	53	67

■ AH3MS seires PORTS CODE

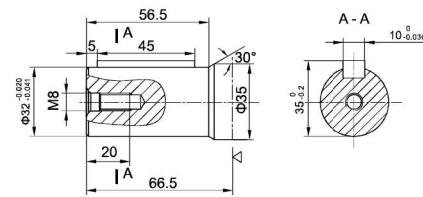
Code	Ports	P(A, B)(deep)	C (deep)	T (deep)
Y		G1/2 (15)	M10 (12)	G1/4 (12)
Y1		M18 x 1.5 (15)	M10 (12)	M14 x 1.5 (12)
Y2		M22 x 1.5 (15)	M10 (12)	M14 x 1.5 (12)
Y3		M20 x 1.5 (15)	M10 (12)	M14 x 1.5 (12)
Y5		7/8-14UNF (15)	—	7/16-20 UNF(12)
Y8		NPT1/2 (15)	M10 (12)	G1/4 (12)
Y10		G1/2 (15)	—	G1/4 (12)

Note:P(A, B)--Ports, C--Mounting Thread (—Indicates no this thread) , T--Drain connetion

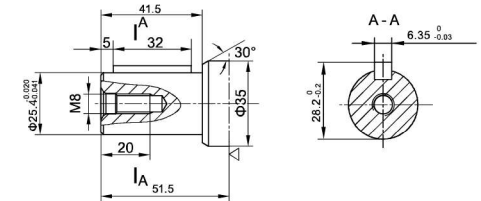
■ AH3MS seires

SHAFT VERSION

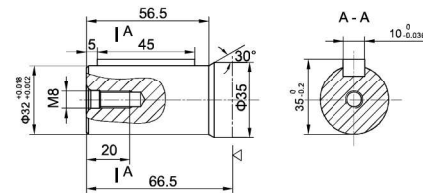
R: $\Phi 32$ Cylindrical shaft, parallel key $10 \times 8 \times 45$



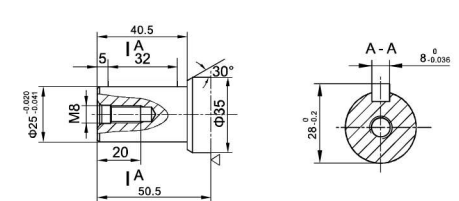
R3: $\Phi 25.4$ Cylindrical shaft, parallel key $6.35 \times 6.35 \times 32$



R10: $\Phi 32$ Cylindrical shaft, parallel key $10 \times 8 \times 45$



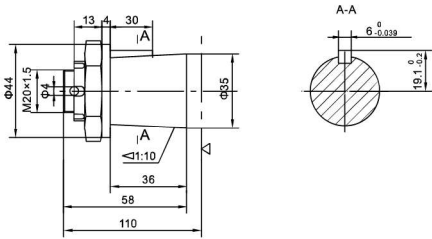
R1: $\Phi 25$ Cylindrical shaft, parallel key $8 \times 7 \times 32$



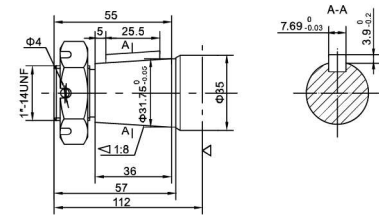
■ AH3MSW seires

SHAFT VERSION

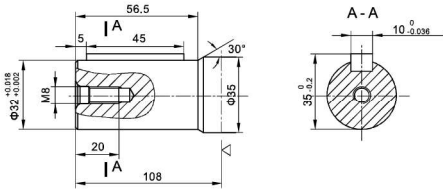
Z: $\Phi 35$ Tapered shaft, taper1:10, parallel key $6 \times 6 \times 30$



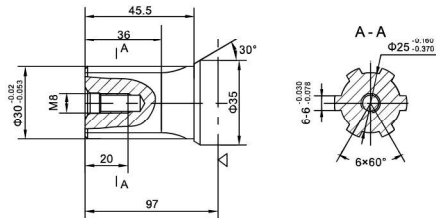
Z2: $\Phi 31.75$ Tapered shaft, taper1:8, parallel key $7.96 \times 7.96 \times 25$



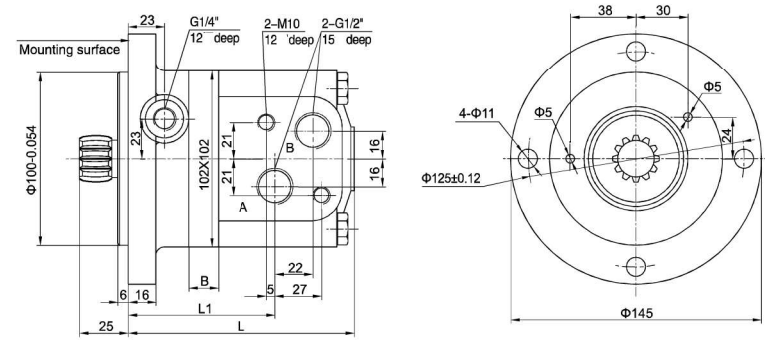
R10: $\Phi 32$ Cylindrical shaft, parallel key $10 \times 8 \times 45$



H1: $\Phi 30$ Spined shaft, $6-30 \times 25 \times 6$



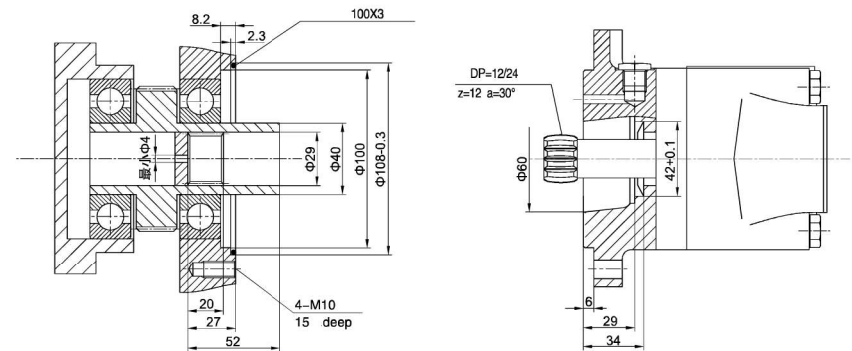
■ AH3MSS seires Installation



Type	AH3MSS-80	AH3MSS-100	AH3MSS-125	AH3MSS-160	AH3MSS-200	AH3MSS-250	AH3MSS-315	AH3MSS-400
L	122.5	126	130.5	136.5	143.5	152.5	164.5	178.5
L1	79.5	83	87.5	93.5	100.5	109.5	121.5	135.5
B	11	14.5	19	25	32	41	53	67

■ AH3MSS seires

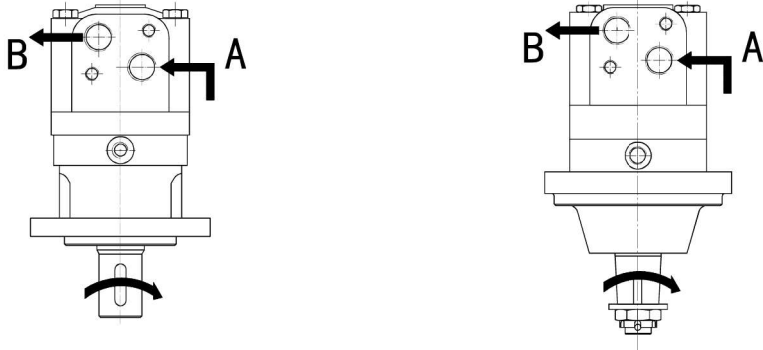
DIMENSIONS OF THE ATTACHED COMPONENT



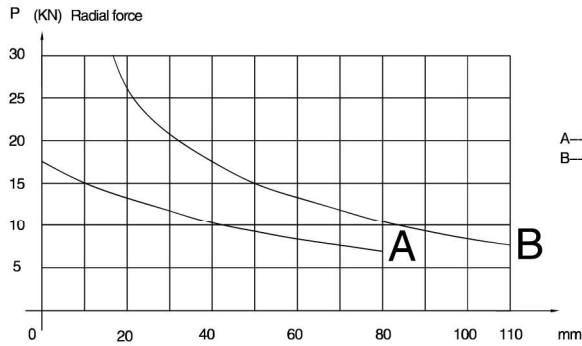
■ AH3MS, AH3MSW, AH3MSS Series Motor

Direction of shaft rotation: Standard

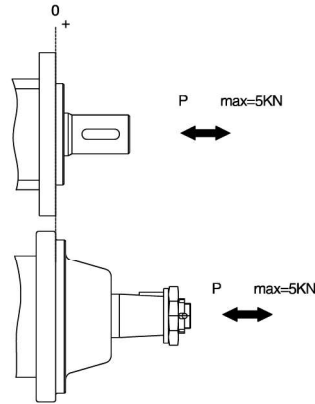
When facing shaft end of motor, shaft to rotate:
Clockwise when port "A" is pressurized.
Counter-clockwise port "B" is pressurized.



PERMISSIBLE SHAFT LOADS



A—BM3
B—BM3W



■ AH3MS, AH3MSW, AH3MSS ORDERING CODE

1	2	3	4	5	6	7
AH3MS	-			/		-

Pos.1	2	Series	Disp	3	4	5		6	7
						Code	Ports		
AH3MS	80	R10	φ32 Cylindrical shaft, parallel key10 x 8 x 45	A	4-φ13.5 Oval flange, pilotφ 82.5	G1/2(15)	G1/4(12)	Standard	Omit
	100	R	φ32 Cylindrical shaft, parallel key10 x 8 x 45	Y1		M18 x 1.5(15)	M14 x 1.5(12)		
	125	R1	φ25 Cylindrical shaft, parallel key6 x 7 x 32	AH1	2-φ13.5 Oval flange, pilotφ 82.5	M22 x 1.5(15)	M14 x 1.5(12)	Standard	Omit
	160	R3	φ25.4 Cylindrical shaft, parallel key6.35 x 6.35 x 32	A23	4-φ13.5 Square flange, pilotφ 100	M20 x 1.5(15)	M14 x 1.5(12)		
	200	R5	φ31.75 Cylindrical shaft, parallel key7.96 x 7.96 x 32	A4	4-φ13.5 Oval flange, pilotφ 82.5	7/16-14UNF(15)	7/16-20UNF(12)	Standard	Omit
	250	H1	φ30 Splined shaft, 6-30 x 25 x 6			Y8	NPT1/2(15)		
	315	H3	φ34.65 Splined shaft, 6-34.65 x 28.9 x 8.64	Y10	G1/2(15)			G1/4(12)	Standard
	400	H5	φ25.3 Splined shaft, 6-25.3 x 21.4 x 6.2			Y10	G1/2(15)		

■ AH3MS, AH3MSW, AH3MSS ORDERING CODE

1	2	3	4	5	6	7
AH3MSW	-			/		-

Pos.1	2	3	4	5		6	7
Series	Disp	Output	Flange	Ports	Special features	Rotation direction	
AH3MSW	80 100 125 160 200 250 315 400	R10 ϕ 32 Cylindrical shaft, parallel key10 x 8 x 45 H1 ϕ 30 Spline shaft, 6-30 x 25 x 6 Z ϕ 35 Tapered shaft, taper1:10, parallel key6 x 6 x 30 Z2 ϕ 31.75 Tapered shaft, taper1:8, parallel key7.96 x 7.96 x 25	A 4- ϕ 13.5 Oval flange, pilot ϕ 25	Ports(A,B)(deep) G1/2(15)	Omit Standard	Omit Standard L Opposite	
				Drain port T(deep) M14 x 1.5(12) 7/16-20UNF(12)			
				Code Y Y5			

1	2	3
AH3MSS	-	/

Pos.1	2	3
Series	Disp	Special features
AH3MSS	80 100 125 160 200 250 315 400	Omit Standard

■ AH4MT series TECHNICAL DATA

TYPE	AH4MT-160 AH4MTS-160 AH4MTW-160	AH4MT-200 AH4MTS-200 AH4MTW-200	AH4MT-250 AH4MTS-250 AH4MTW-250	AH4MT-320 AH4MTS-320 AH4MTW-320	AH4MT-400 AH4MTS-400 AH4MTW-400	AH4MT-500 AH4MTS-500 AH4MTW-500
Displacement(ml/r)	158.8	200.8	252.2	317.5	401.6	535.3
Max.Pressure.Drop (Mpa)	cont.	20	20	20	18	16
	int.	24	24	24	21	18
	peak.	28	28	28	24	21
Max.torque (N.m)	cont.	450	561	710	902	1121
	int.	559	714	883	1143	1377
	peak.	663	818	1021	1322	1598
Speed.Range(cont.)(r/min)	10-625	9-500	8-400	7-312	6-250	5-175
Max.Flow(cont.)(L/min)	100	100	100	100	100	100
Max.Output.Power(cont.)(Kw)	20.1	25.2	25.2	25.2	22	21
Weight (kg)	20.3	20.8	21.4	22.4	23	24

Intermittent operation the permissible values may occur for max. 10% of every minute

Peak load: the permissible values may occur for max. 1% of every minute

■ AH4MT series PERFORMANCE DATA

AH4MT 160[158.8cm³/rev]

Flow(L/min)	Pressure (Mpa)								Max.cont.	Max.int.
	4	8	10	12	16	20	24			
10	85	169	219	264	347	429	514			
	61	60	59	57	55	53	45			
20	86	174	225	266	357	441	535			
	123	122	119	116	111	105	97			
40	87	173	226	266	366	452	550			
	254	251	248	241	235	228	216			
60	79	171	226	266	366	450	549			
	378	374	369	363	356	347	337			
80	75	166	220	265	364	447	544			
	502	499	495	488	480	472	457			
100	67	154	209	258	355	437	536			
	626	623	618	610	602	594	581			
125	56	142	211	251	345	430	530			
	785	779	773	765	756	746	729			

AH4MT 160[200.8cm³/rev]

Flow(L/min)	Pressure (Mpa)								Max.cont.	Max.int.
	4	8	10	12	16	20	24			
10	119	221	275	323	431	532	636			
	48	47	46	43	40	38	34			
20	120	227	283	330	445	547	661			
	97	96	94	92	89	86	77			
40	115	229	281	334	451	560	680			
	199	197	195	191	187	182	171			
60	111	225	280	334	454	560	682			
	306	301	298	296	288	282	269			
80	103	220	275	333	450	557	680			
	403	401	397	392	385	378	367			
100	94	216	272	327	447	551	676			
	503	500	496	492	485	477	470			
125	80	198	262	316	436	538	662			
	627	623	619	614	607	600	584			
150	67	184	247	308	425	526	648			
	758	754	749	741	731	720	696			

AH4MT 250[252.2cm³/rev]

Flow(L/min)	Pressure (Mpa)								Max.cont.	Max.int.
	4	8	10	12	16	20	24			
10	134	277	344	406	542	689	800			
	39	39	38	37	35	33	32			
20	139	287	353	419	563	708	828			
	78	77	76	74	72	69	64			
40	135	292	361	427	575	723	858			
	159	157	155	152	149	145	137			
60	128	285	361	428	574	705	861			
	242	241	238	234	228	223	211			
80	125	275	353	420	569	699	860			
	323	322	320	314	309	305	290			
100	123	274	344	414	565	695	853			
	404	402	399	395	389	380	366			
125	113	252	330	402	551	682	838			
	505	502	498	492	485	478	463			
150	85	235	310	385	535	666	822			
	603	600	596	591	583	576	558			

AH4MT 320[317.5cm³/rev]

Flow(L/min)	Pressure (Mpa)								Max.cont.	Max.int.
	4	8	10	12	16	20	24			
10	175	345	430	518	697	847	1011			
	31	30	29	28	27	26	24			
20	180	361	449	534	719	871	1054			
	62	61	60	58	56	54	52			
40	182	362	460	542	735	906	1092			
	126	125	123	120	117	114	109			
60	180	361	473	544	733	914	1096			
	189	187	185	181	178	176	166			
80	170	354	459	540	730	906	1095			
	251	249	248	243	238	234	224			
100	161	342	447	537	720	895	1086			
	314	313	310	307	303	297	284			
125	140	321	427	519	708	874	1071			
	391	389	386	382	378	373	360			
150	113	303	412	501	677	849	1042			
	471	469	466	462	457	444	438			

AH4MT 400[401.6cm³/rev]

Flow(L/min)	Pressure (Mpa)							Max.cont.	Max.int.
	3	6	9	12	15	18	21		
10	165	343	524	669	827	982	1130		
	25	24	23	22	21	20	19		
20	167	346	528	679	841	1001	1156		
	51	50	49	46	44	42	40		
40	165	346	530	685	859	1020	1181		
	99	98	96	93	90	86	82		
60	163	338	526	682	860	1024	1187		
	149	147	143	139	135	131	125		
80	155	330	517	672	853	1014	1181		
	199	197	194	190	186	182	176		
100	140	317	503	662	838	998	1171		
	249	247	245	241	235	231	225		
125	126	289	490	643	816	977	1142		
	311	309	307	303	298	294	287		
150	118	273	475	623	797	954	1119		
	375	373	369	365	361	357	350		

(Torque) : 797Nm
(Speed) : 361r/min

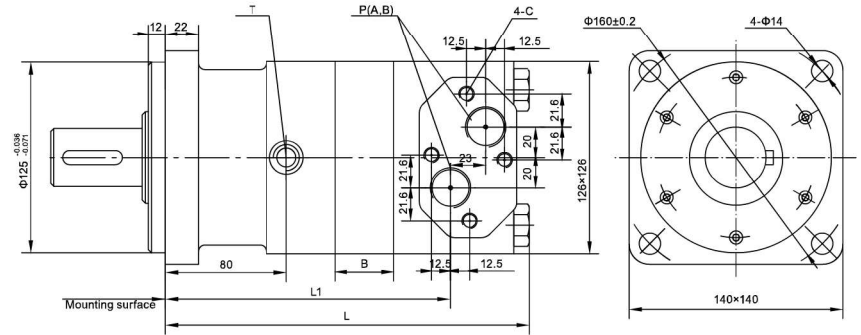
AH4MT 500[535.3cm³/rev]

Flow(L/min)	Pressure (Mpa)								Max.cont.	Max.int.
	3	6	9	12	14	16	18			
10	204	415	637	821	966	1098	1233			
	18	18	18	17	16	15	13			
20	213	427	656	845	984	1122	1267			
	37	36	35	34	33	32	30			
40	212	429	669	866	1007	1145	1308			
	75	74	73	72	70	68	64			
60	207	421	657	866	1001	1146	1296			
	113	112	111	109	107	105	101			
80	196	397	640	853	990	1145	1289			
	151	150	149	147	145	143	138			
100	179	387	626	829	978	1126	1272			
	189	188	187	185	183	181	177			
125	168	366	590	807	942	1103	1244			
	237	236	235	233	231	229	225			
150	135	339	569	785	924	1074	1219			
	284	283	282	280	278	276	272			

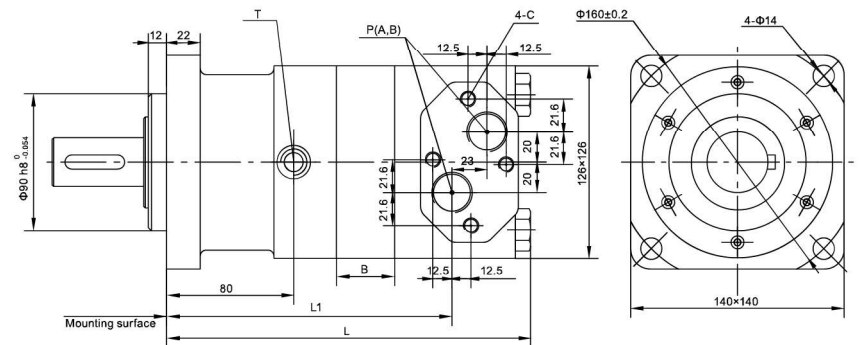
□ Cont.
■ Int.

■ AH4MT series Installation

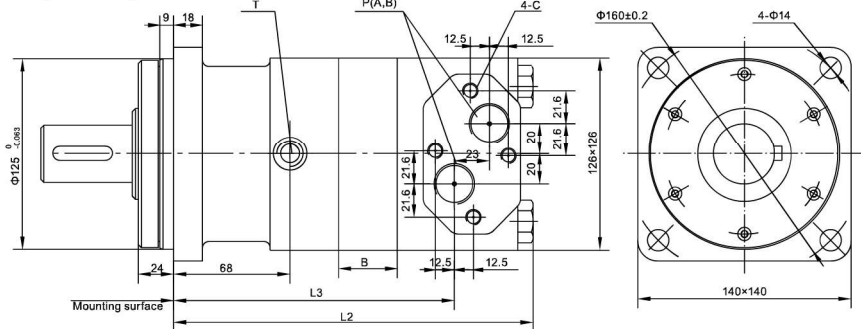
A: Square flange



AH: Square flange

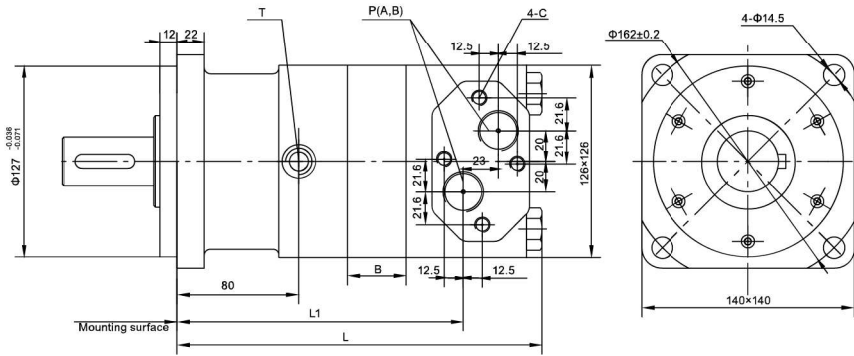


A4: Square flange



■ AH4MT series Installation

A7: Square flange



TYPE	AH4MT-160	AH4MT-200	AH4MT-250	AH4MT-320	AH4MT-400	AH4MT-500
L	213	217.5	223	230	239	257.5
L1	163	167	173	180	189	207
B	12	16.5	22	29	38	56.5
L2	201	205.5	211	218	227	245.5
L3	150	155	160	167	176	195

■ AH4MT series PORTS CODE

Code	Ports	P(A, B)(deep)	C (deep)	T (deep)
Y		G3/4 (15)	M10 (12)	G1/4(12)
Y3		M27 × 2(15)	M10 (12)	M14 × 1.5(12)
Y4		M22 × 1.5(15)	M10 (12)	M14 × 1.5(12)
Y8		7/8–14UNF(15)	—	7/16–20UNF(12)
Y10		1 1/16–12UN(15)	—	9/16–18UNF(15)

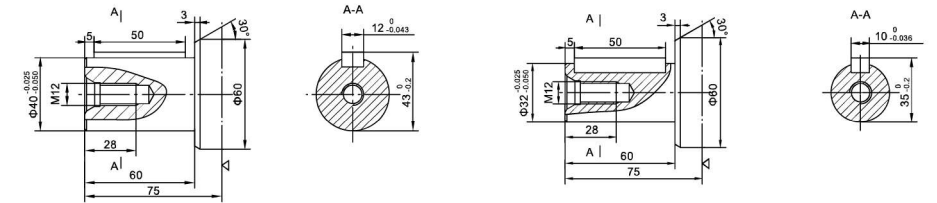
P(A, B)—Ports, C—Mounting Thread (—Indicates no this thread), T—Drain connettion

■ AH4MT series SHAFT VERSION

Only match A, AH, A7 flange

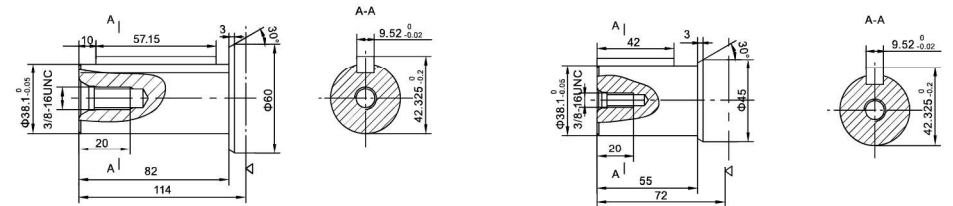
R: Φ40 Cylindrical shaft, parallel key12 × 8 × 50

R1: Φ32 Cylindrical shaft, parallel key10 × 8 × 50



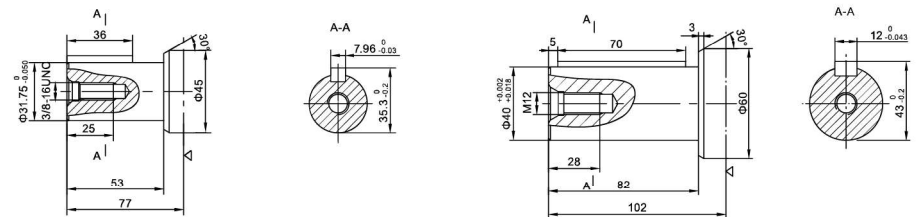
R11: Φ38.1 Cylindrical shaft, parallel key9.525 × 9.525 × 57.15

R12: Φ38.1 Cylindrical shaft, parallel key9.525 × 9.525 × 42



R13: Φ31.75 Cylindrical shaft, parallel key7.96 × 7.96 × 36

R33: Φ40 Cylindrical shaft, parallel key12 × 8 × 70



■ AH4MT, AH4MTW, AH4MTS ORDERING CODE

1	2	3	4	5	6	7
AH4MT	—			/		—

Pos.1	2	3		4	5		6	7										
		Series	Disp		Output	Flange			Code	Ports	Special features	Rotation direction						
AH4MT	160	R33	φ40 Cylindrical shaft, parallel key12×8×70	A	4-φ14 Oval flange, pilotφ125	Y	G3/4(15)	Standard	L									
										R	φ40 Cylindrical shaft, parallel key12×8×50	M14×1.5(12)						
										R1	φ32 Cylindrical shaft, parallel key10×8×50							
										R11	φ38.1 Cylindrical shaft, parallel key9.525×9.525×57.15							
										R12	φ38.1 Cylindrical shaft, parallel key9.525×9.525×42							
AH4MTW	320	R13	φ31.75 Cylindrical shaft, parallel key7.96×7.96×36	A4	4-φ14 Oval flange, pilotφ125	Y4	M22×1.5(15)	Standard	L									
										H4	φ35 Splined shaft, 6-35×29×10	M14×1.5(12)						
										H5	φ35 Splined shaft, 6-35×29×6							
										K3	φ38.1 involute splined shaft, 17-DP12/24 8-30°							
										AH4MTS	500		Y8	7/8-14UNF(15)	A7	4-φ14.5 Oval flange, pilotφ127	Y10	1 1/16-12UN(15)
TD	With dustproof ring	Opposite																
			Omit	Standard	L													
						Omit	Standard	L										
									Omit			Standard						

■ AH4MT, AH4MTW, AH4MTS ORDERING CODE

1	2	3	4	5	6	7
AH4MTW	—			/		—

Pos.1	2	3		4	5		6	7									
		Series	Disp		Output	Flange			Code	Ports	Special features	Rotation direction					
AH4MTW	160	R31	φ40 Cylindrical shaft, parallel key12×8×70	A	4-φ18 Oval flange, pilotφ160	Y	G3/4(15)	Standard	L								
										Z2	φ45 Tapered shaft, taper:1:10, parallel key B12×8×28	Omit	Standard	L			
															Omit	Standard	L

1	2	3
AH4MTS	—	/

Pos.1	2	3	
AH4MTS	160	Standard	
			200
			250
			320
			400
500			

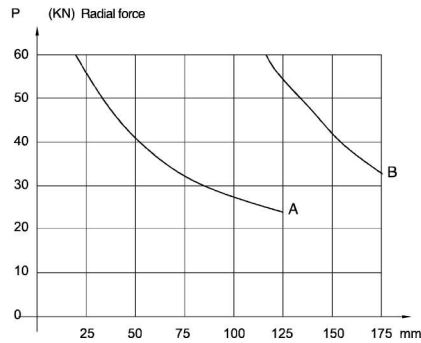
■ AH5MV series TECHNICAL DATA

TYPE	AH5MV-315	AH5MV-400	AH5MV-500	AH5MV-630	AH5MV-800	AH5MV-985
	AH5MVS-315 AH5MVW-315	AH5MVS-400 AH5MVW-400	AH5MVS-500 AH5MVW-500	AH5MVS-630 AH5MVW-630	AH5MVS-800 AH5MVW-800	AH5MVS-985 AH5MVW-985
Displacement(ml/r)	314.9	399.7	496.6	617.8	787.4	969.1
Max.Pressure.Drop (Mpa)	cont.	20	20	20	18	14
	int.	24	24	24	21	16
	peak.	28	28	28	24	21
Max.torque (N.m)	cont.	873	1108	1385	1570	1900
	int.	1119	1440	1783	1951	2122
	peak.	1293	1650	2060	2249	2399
	Speed.Range(cont.)(r/min)	10-475	9-375	8-300	6-238	5-187
Max.Flow(cont.)(L/min)	150	150	150	150	150	150
Max.Output.Power(cont.)(Kw)	32	32	32	32	32	24
Weight (kg)	30.7	31.5	32.4	33.6	35.2	37.2

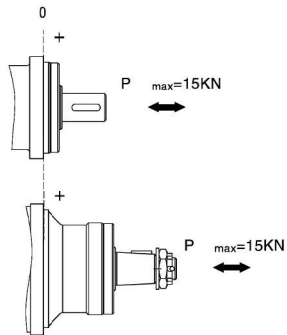
Intermittent operation the permissible values may occur for max. 10% of every minute

Peak load: the permissible values may occur for max. 1% of every minute

■ AH5MV series PERMISSIBLE SHAFT LOADS



A—BM5
B—BM5W



■ AH5MV series PERFORMANCE DATA

AH5MV 315[314.9ml/r]

Flow(L/min)	Pressure (Mpa)						
	3.5	7	10	14	18	20	24
10	132	278	416	576	701	799	945
	28	25	24	23	21	18	15
20	145	297	440	601	744	846	1011
	58	57	56	55	54	51	47
50	141	295	439	618	770	884	1051
	153	152	150	148	145	141	134
75	135	287	433	607	771	888	1057
	233	231	228	223	219	214	206
100	129	281	427	601	765	885	1047
	311	309	307	304	299	294	286
125	116	270	418	592	755	870	1033
	389	387	385	382	378	372	365
150	108	260	411	581	745	856	1019
	471	469	467	462	455	447	434
160	101	253	406	575	737	846	1011
	503	501	497	493	487	478	465
200	77	235	389	560	716	823	989
	631	629	624	618	610	598	576

AH5MV 500[496.6ml/r]

Flow(L/min)	Pressure (Mpa)						
	3.5	7	10	14	18	20	24
10	232	448	667	919	1140	1296	1540
	18	18	17	17	16	14	11
20	235	480	707	961	1180	1335	1588
	38	37	37	35	34	33	30
50	230	479	726	982	1217	1388	1670
	97	96	95	94	92	89	84
75	223	477	720	987	1234	1413	1692
	146	145	143	141	138	133	125
100	218	470	717	983	1235	1410	1686
	197	195	193	190	186	181	173
125	211	463	711	971	1226	1399	1672
	247	246	244	241	237	233	225
150	193	445	693	966	1198	1369	1663
	300	299	296	293	288	282	271
175	174	427	681	955	1186	1347	1643
	350	349	347	343	339	334	324
200	154	405	648	933	1167	1327	1626
	401	400	398	395	390	382	370

AH5MV 800[787.4ml/r]

Flow(L/min)	Pressure (Mpa)						
	2.5	5	8	10	13	16	18
10	273	555	816	1076	1381	1683	1882
	11	10	10	9	8	8	7
20	277	561	831	1130	1431	1753	1960
	23	22	22	21	20	18	16
50	283	572	841	1142	1438	1760	1967
	61	60	58	57	55	53	49
75	264	570	840	1145	1440	1756	1962
	93	92	91	89	85	82	78
100	247	556	826	1121	1423	1737	1951
	124	123	122	120	117	113	107
125	238	526	810	1099	1403	1709	1942
	156	155	153	150	145	141	135
150	232	517	794	1083	1377	1685	1926
	188	186	184	181	177	172	166
175	211	495	780	1061	1354	1669	1903
	251	249	247	244	241	236	229
200	194	460	752	1045	1339	1652	1807
	302	301	300	298	293	288	282

(Torque) : 1045Nm
(Speed) : 299r/min

Cont.
Int.

AH5MV 400[399.7ml/r]

Flow(L/min)	Pressure (Mpa)						
	3.5	7	10	14	18	20	24
10	175	367	542	740	923	1050	1233
	21	21	20	19	18	17	15
20	187	380	563	778	964	1099	1284
	46	46	45	44	42	41	39
50	191	384	575	803	992	1131	1364
	119	118	118	117	115	113	108
75	186	376	569	799	995	1133	1366
	183	181	178	174	171	165	159
100	164	367	566	789	988	1130	1359
	247	246	244	242	238	234	225
125	159	357	556	778	974	1123	1348
	310	308	305	302	296	288	281
150	151	344	533	764	962	1111	1326
	372	371	369	366	361	351	340
175	136	330	528	748	944	1092	1314
	436	434	431	427	422	415	407
200	113	316	511	735	924	1076	1294
	498	496	492	485	477	470	460

AH5MV 630[617.8ml/r]

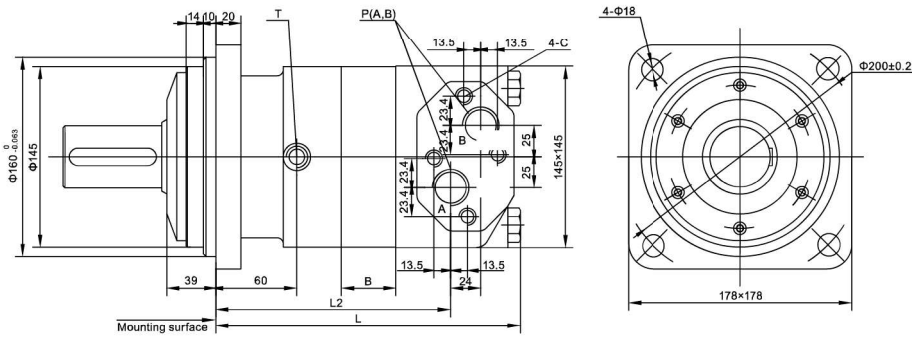
Flow(L/min)	Pressure (Mpa)						
	3.5	6	9	12	15	18	21
10	260	484	753	1020	1175	1436	1654
	15	14	14	13	13	12	11
20	267	512	778	1021	1219	1490	1728
	30	30	29	29	28	26	24
50	268	514	805	1054	1264	1559	1813
	78	78	77	74	73	71	67
75	250	508	800	1038	1253	1557	1821
	118	117	114	112	110	107	101
100	245	499	794	1013	1251	1552	1822
	157	156	154	152	149	146	140
125	233	478	776	993	1238	1538	1808
	198	197	195	193	191	187	181
150	222	459	757	985	1233	1530	1787
	238	237	236	234	232	229	221
175	195	450	738	975	1205	1517	1769
	279	278	277	274	270	265	260
200	169	435	696	944	1187	1493	1746
	320	320	318	316	313	306	294

AH5MV 985[969.1ml/r]

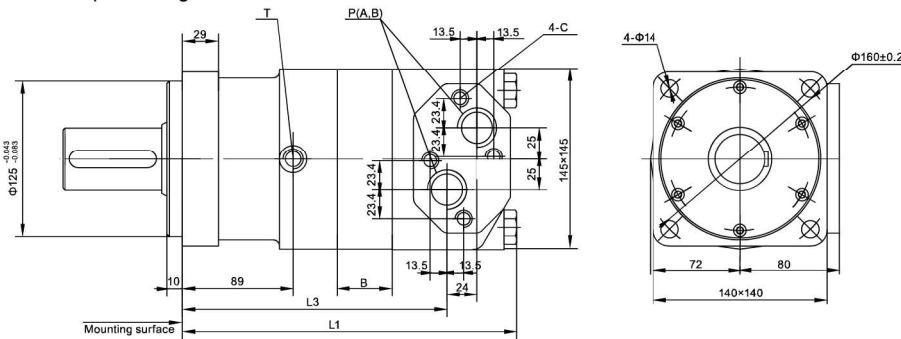
Flow(L/min)	Pressure (Mpa)					
	2.5	5	7	10	14	16
10	305	627	951	1371	1936	2212
	9	9	9	8	7	6
20	313	634	957	1380	1938	2221
	29	28	27	26	23	21
50	319	641	971	1392	1973	2232
	48	47	46	44	42	39
75	311	629	966	1395	1961	2228
	74	73	72	69	67	64
100	303	621	962	1388	1952	2196
	100	99	97	95	92	88
125	297	611	955	1379	1946	2177
	126	125	123	120	116	112
150	272	589	941	1339	1922	2162
	152	151	149	147	143	136
175	258	568	926	1310	1885	2114
	178	176	174	170	165	158
200	163	502	849	1240	1787	1991
	245	242	238	234	230	223

■ AH5MV series Installation

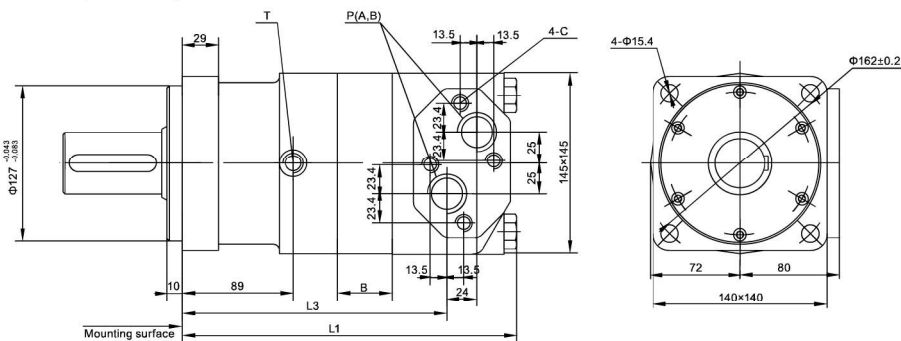
A: Square flange



A1: Square flange



A7: Square flange



Type	AH5MV-315	AH5MV-400	AH5MV-500	AH5MV-630	AH5MV-800	AH5MV-985
L	214	221	229	239	253	268
L1	244	251	259	269	283	298
L2	156	163	171	181	195	210
L3	186	193	201	211	225	240
B	19	26	34	44	58	73

■ AH5MV series PORTS CODE

Code	Ports	P(A, B)(deep)	C (deep)	T (deep)
Y		G1 (18)	M12(12)	G1/4(12)
Y1		G3/4(18)	M12(12)	G1/4(12)
Y2		M33 × 2(18)	M12(12)	M14 × 1.5(12)
Y3		M27 × 2(18)	M12(12)	M14 × 1.5(12)
Y8		1 5/16-12UN(18)	—	9/16-18UNF(12)

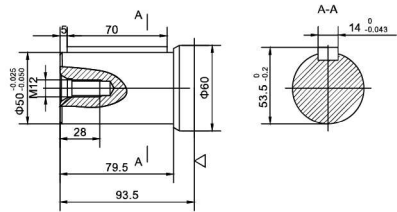
P(A, B)—Ports, C—Mounting Thread (—Indicates no this thread), T—Drain connetion

■ AH5MV series

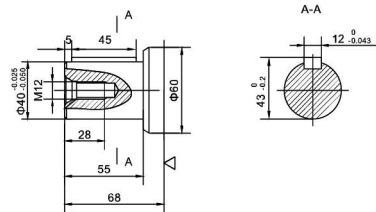
SHAFT VERSION

Only mach AH, A7 flange

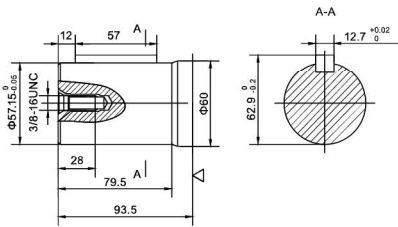
R: $\Phi 50$ Cylindrical shaft, parallel key $14 \times 9 \times 70$



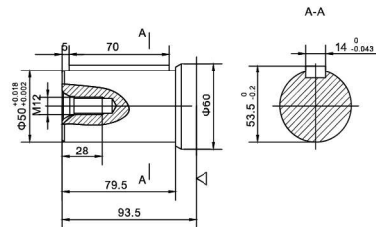
R1: $\Phi 40$ Cylindrical shaft, parallel key $12 \times 8 \times 45$



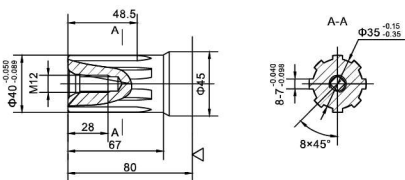
R12: $\Phi 57.15$ Cylindrical shaft, parallel key $12.7 \times 12.7 \times 57$



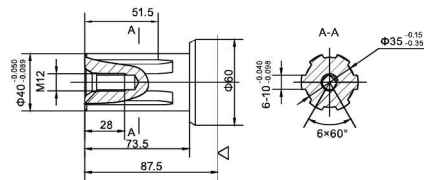
R99: $\Phi 50$ Cylindrical shaft, parallel key $14 \times 9 \times 70$



H4: $\Phi 40$ Splined shaft, $8-40 \times 35 \times 7$



H5: $\Phi 40$ Splined shaft, $6-40 \times 35 \times 10$

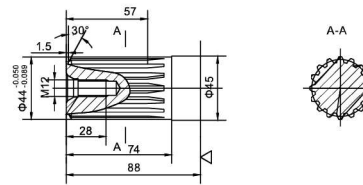


■ AH5MV series

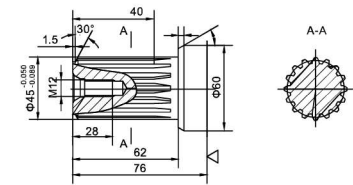
SHAFT VERSION

Only mach AH, A7 flange

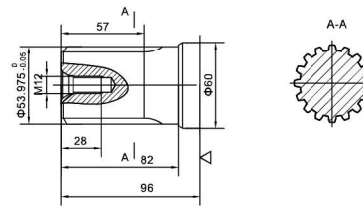
K2: $\Phi 44$ involute splined shaft $m2.5 z16 a=30^\circ$



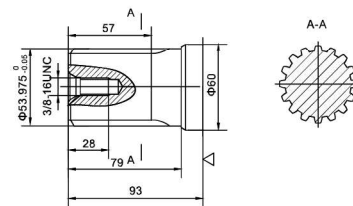
K3: $\Phi 45$ involute splined shaft $m2.5 z17 a=30^\circ$



K5: $\Phi 53.975$ involute splined shaft $16-DP8/16 a=30^\circ$

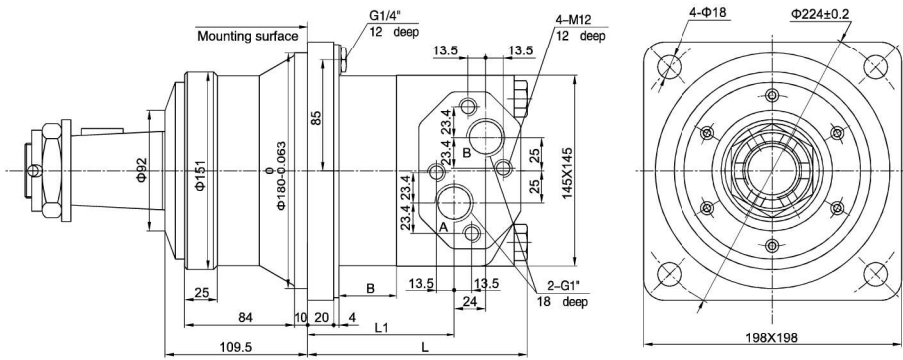


K12: $\Phi 53.975$ involute splined shaft $16-DP8/16 a=30^\circ$



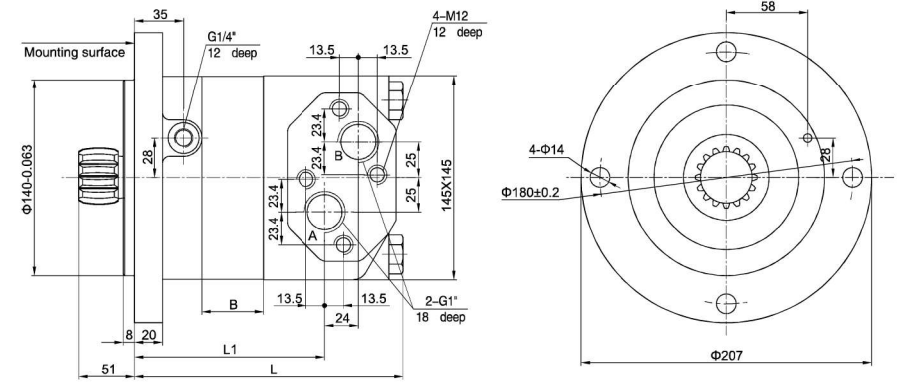
Note: Flange with A type, hydraulic motor shaft from the mounting surface to increase 29mm.

AH5MVW INSTALLATION



TYPE	AH5MVW-315	AH5MVW-400	AH5MVW-500	AH5MVW-630	AH5MVW-800	AH5MVW-985
L	146	153	161	172	185	200.5
L1	86	93	101	111	125	140
B	19	26	34	44	58	73

AH5MVS series INSTALLATION



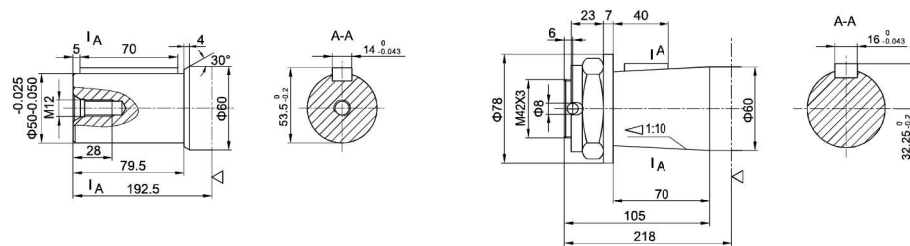
TYPE	AH5MVS-315	AH5MVS-400	AH5MVS-500	AH5MVS-630	AH5MVS-800	AH5MVS-985
L	168	175	183	193	207	222
L1	110	117	125	135	149	164
B	19	26	34	44	58	73

AH5MVW series

SHAFT VERSION

R: Φ50 Cylindrical shaft, parallel key 14X9X70

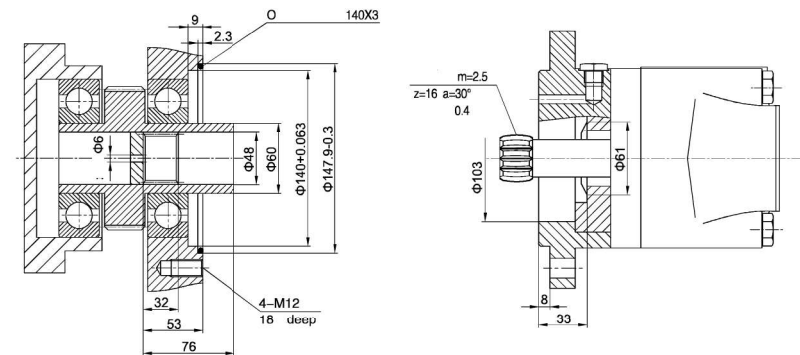
Z: Φ60 Tapered shaft, taper1: 10, parallel key B16X10X32



Motor mounting surface

AH5MVS series

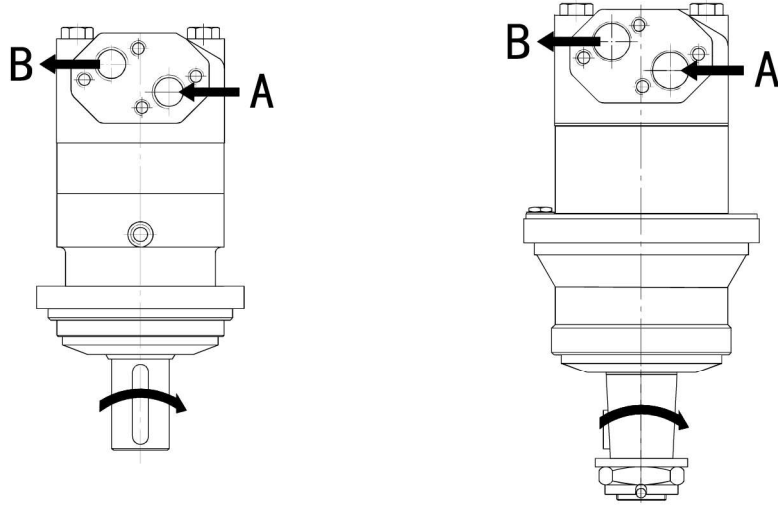
SHAFT VERSION



■ AH5MV, AH5MVW, AH5MVS Series Motor

Direction of shaft rotation: Standard

When facing shaft end of motor, shaft to rotate:
 Clockwise when port "A" is pressurized.
 Counter-clockwise port "B" is pressurized.



■ AH5MV, AH5MVW, AH5MVS ORDERING CODE

1	2	3	4	5	6	7
AH5MV	—			/		—

Pos.1	Series	Disp	Output	Flange	Ports		Special features	Rotation direction	
					Ports(A,B)(deep)	Drain port, T(deep)			
AH5MV	R	315	φ50 Cylindrical shaft, parallel key14 x 9 x 70	A 4-φ18 Square flange, pilotφ160	Y	G1(18)	G1/4(12)	Standard	Omit Standard
	R1	400	φ40 Cylindrical shaft, parallel key12 x 8 x 45		Y1	G3/4(18)	G1/4(12)		
	R12		φ57.15 Cylindrical shaft, parallel key12.7 x 12.7 x 57		Y2	M33 x 2(18)	M14 x 1.5(12)		
	R99	500	φ50 Cylindrical shaft, parallel key14 x 9 x 70	AH 4-φ14 Square flange, pilotφ125	Y3	M27 x 2(16)	M14 x 1.5(12)	Standard	Omit L Opposite
	H4	630	φ40 Splined shaft, 8-40 x 35 x 7		Y8	1 5/16-12UN(18)	9/16-18UNF(12)		
	H5		φ40 Splined shaft, 6-40 x 35 x 10						
	K2	800	φ44 Involute splined shaft, m2.5,z16,a=30°	A7 4-φ15.4 Square flange, pilotφ127	Y8	1 5/16-12UN(18)	9/16-18UNF(12)		
	K3		φ45 Involute splined shaft, m2.5,z17,a=30°						
	K5		φ53.975 Involute splined shaft, 16-DP8/16 a=30°						
	K12	995	φ53.975 Involute splined shaft, 16-DP8/16 a=30°						

■ AH5MV, AH5MVW, AH5MVS ORDERING CODE

1	2	3	4	5	6	7
AH5MVW	-	-	-	-	-	-
Pos.1	2	3	4	5	6	7
Series	Disp	Output	Flange	Ports	Special features	Rotation direction
AH5MVW	315 400 500 630 800 985	R φ50 Cylindrical shaft, parallel key14 x 9 x 70 Z φ60 Tapered shaft, taper1:10, parallel key16 x 10 x 32	A 4-φ18 Square flange, pilotφ 80	Ports(A,B)(deep) G1(18) Drain port T(deep) G1/4(12)	Standard Omit	Omit Standard L Opposite

1	2	3
AH5MVS	-	-

Pos.1	2	3
Series	Disp	Special features
AH5MVS	315 400 500 630 800 985	Omit Standard

■ AH6MZ series TECHNICAL DATA

TYPE	AH6MVZ-800	AH6MVZ-1000	AH6MVZ-1250
Displacement(ml/r)	759.6	949.5	1186.8
	cont.	16	16
Max.Pressure.Drop (Mpa)	18	18	18
	int.	21	21
	peak.	1690	2160
	cont.	2160	2650
Max.torque (N.m)	1903	2379	2973
	int.	2220	3469
	peak.	2774	3469
Speed.Range(cont.)(r/min)	5-200	5-160	5-130
Max.Flow(cont.)(L/min)	160	160	160
Max.Output.Power(cont.)(Kw)	35	35	35
Weight (kg)	54	56	58

Intermittent operation the permissible values may occur for max. 10% of every minute
Peak load: the permissible values may occur for max. 1% of every minute

■ AH6MZ series PERFORMANCE DATA

AH6MZ 800[759.6ml/r]

	Pressure (Mpa)							Max.cont. Max.int.	
	3	5	7	10.5	12	14	16	18	
10	233 13	490 13	683 12						
15	230 20	485 20	680 19	1005 17	1145 16	1340 15			
30	297 39	481 38	678 38	1003 37	1142 37	1336 36	1685 35	1921 32	
45	295 58	479 58	675 57	1000 57	1140 56	1332 55	1680 54		
60	292 77	476 77	671 76	998 75	1138 75	1329 74	1699 74		
75	288 115	473 114	668 113	995 113	1135 112	1325 111	1695 110		
90	283 115	471 114	660 113	990 113	1132 112	1320 111	1690 110		
105	280 135	463 134	650 133	982 132	1120 130	1312 129			
120		451 153	635 152	968 151	1111 149	1300 147			
140		440 178	620 176	952 175	1101 173				
160			612 198	932 197	1092 196				
190				913 241	1071 240				

AH6MZ 1000[949.5ml/r]

	Pressure (Mpa)							Max.cont. Max.int.	
	3	5	7	10.5	12	14	16	18	
15	366 14	602 13	836 13	1250 12	1438 11				
30	364 31	600 31	834 30	1248 30	1432 29	1669 28			
45	362 46	598 45	832 45	1245 44	1428 43	1667 43			
60	360 62	595 61	830 60	1242 60	1420 59	1662 58	2012 57	2316 54	
75	358 77	593 76	828 75	1240 74	1418 73	1658 72	2006 72		
90	354 93	590 92	826 91	1238 91	1415 90	1651 89	2003 88		
105	350 108	581 107	801 106	1221 105	1402 104	1648 103			
120		571 123	791 122	1210 121	1394 120	1432 119			
140		552 143	772 142	1196 140	1385 139	1425 138			
160			761 163	1186 162	1368 161				
190			742 193	1165 192	1352 191				

(Torque) : 1165Nm
(Speed) : 192r/min

Cont.
Int.

■ AH6MZ series PERFORMANCE DATA

AH6MZ 1250l/1186.8ml/r
Pressure (Mpa)

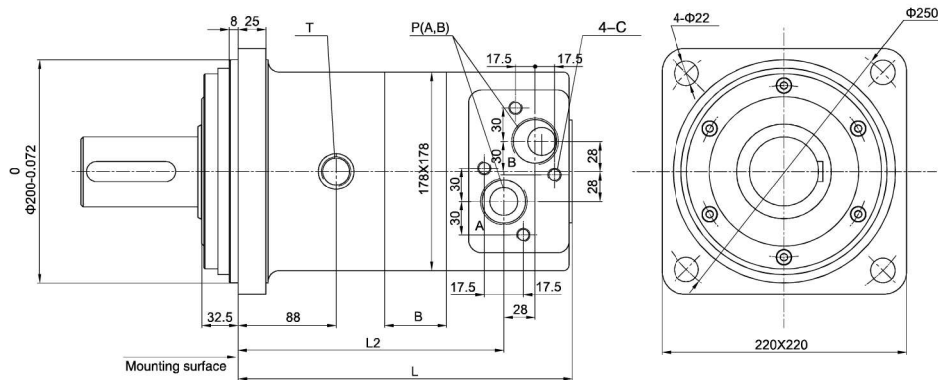
Flow(L/min)	Max.cont. Max.int.							
	3	5	7	10.5	12	14	16	18
30	468	770	1070	1602				
45	465	767	1068	1599	1826			
60	462	763	1065	1596	1822			
75	460	760	1062	1592	1818	2123	2654	2978
90	456	758	1060	1590	1816	2118	2652	2975
105	453	756	1058	1587	1814	2116	2650	2973
120		751	1050	1582	1802	2110	2641	2963
140		742	1041	1561	1792	2008		
160		729	1029	1550	1782	1986		
190		702	1002	1532	1770			

(Torque) : 1532Nm
(Speed) : 152r/min

□ Cont.
■ Int.

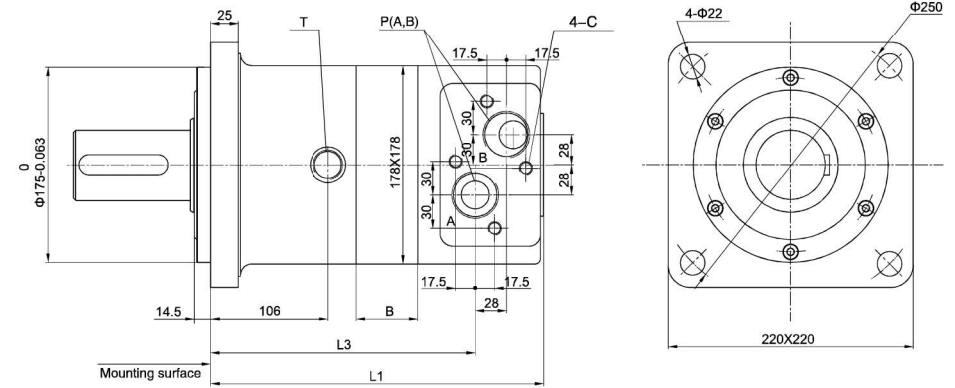
■ AH6MZ series INSTALLATION

A: 4-Φ22 square flange



■ AH6MZ series INSTALLATION

AH: 4-Φ22 square flange



TYPE	AH6MVZ-800	AH6MVZ-1000	AH6MVZ-1250
L	278	288	300
L1	296	306	318
L2	217	227	239
L3	235	245	257
B	33	43	55.5

■ AH6MZ series PORTS CODE

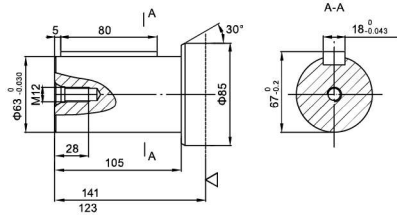
Code	Ports	P(A, B)(deep)	C (deep)	T (deep)
Y		G1-1/4(20)	M12(12)	G3/8" (12)
Y1		Φ36(20)	M12(12)	G3/8" (12)

P(A, B)--Ports, C--Mounting Thread (—Indicates no this thread) , T--Drain connettion

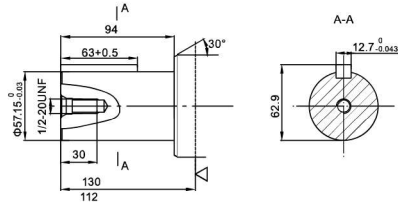
■ AH6MZ series

SHAFT VERSION

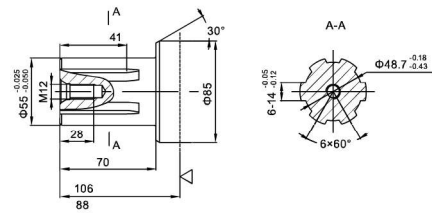
R: $\Phi 63$ Cylindrical shaft, parallel key $18 \times 11 \times 80$



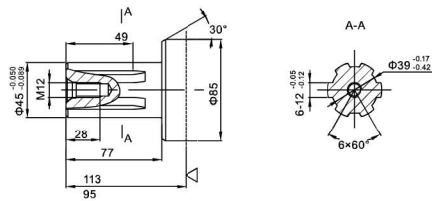
R1: $\Phi 57.15$ Cylindrical shaft, parallel key $12.7 \times 12.7 \times 63$



H1: $\Phi 55$ Splined shaft, $6-55 \times 48.7 \times 14$



H2: $\Phi 45$ Splined shaft, $6-45 \times 39 \times 12$

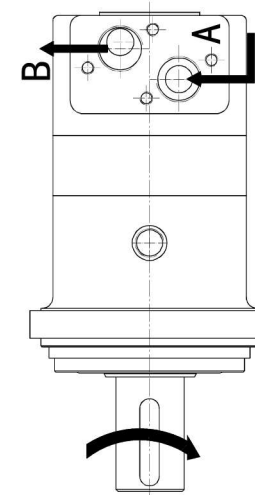


■ AH6MZ

Series Motor

Direction of shaft rotation: Standard

When facing shaft end of motor, shaft to rotate:
 Clockwise when port "A" is pressurized.
 Counter-clockwise port "B" is pressurized.



■ AH6MZ series ORDERING CODE

1	2	3	4	5	6	7
AH6MZ	—				/	—

Pos.1	2	3	4	5	6	7	
Series	Disp	Output	Flange	Code	Ports	Special features	
	AH6MZ	R	A	4-φ22 Square flange, pilotφ200	Y	G1 1/4(20)	G3/8" (12)
		800					
		1000	H1	φ55 Splined shaft, 6-55 x 48.7 x 14			
		1250			H2	φ45 Splined shaft, 6-45 x 39 x 12	
							Omit/Standard L Opposite

■ COMPARISON

TYPE	AHMP	AHMR	AH3MS	AH3MSS	AH4MT	AH4MTS	AH5MV	AH5MVS	AH6MZ
Danfoss	OMP	OMR	OMS	OMSS	OMT	OMTS	OMV	OMVS	-
M+S	EPM	EPRM	EPMS	-	EPMT	-	EPMV	-	-

■ USAGE AND NOTICE

1. Selecting motor by standard technical data.
2. The motor must be coaxial with the driven part and the bracket should be stiff enough.
3. Working temperature is 25-55 °C, maximum temperature is 65 °C. Hydraulic oil with kinematic viscosity 25-70mm²/s (50 °C) is recommended. The filter is about 20μm. The oil must be clear, polluted oil will damage the motor badly.
4. For AH4-6 there should be a pipe connected the drain port and the oil tank; for AHMR, AHMP, AH3MS the back pressure should be lower than 0.7Mpa, if the back pressure is higher than 1.0Mpa, a drain line should be connected to the oil tank.
5. If nonstandard motor is needed, please contact our technical department.

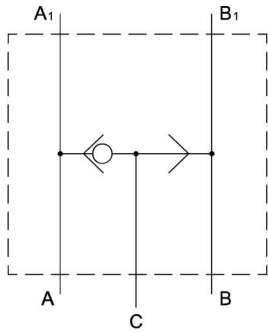
■ COMMON UNIT AND CONVERSION

Physical quantity	Unit	Unit conversion
Force	N	1 N = 10 ⁻³ KN
	kgf	1 kgf = 9.81 N
	lbf	1 lbf = 4.45 N
Pressure	bar	1 bar = 10 ⁵ Pa = 14.5 Psi
	Pa	1 Pa = 1 N/m ² = 10 ⁻⁶ MPa
Torque	N · m	
	kgf · m	1 kgf·m=9.81 N·m

■ FORMULA

(一) Speed n	(二) Torque Ts	(三) Power Ps
$n = \frac{Q_s}{V} \eta_v \quad (r/min)$ <p>Q_s --- Flow (L/min) V --- Displacement (L/r) η_v --- Volumetric efficiency</p>	$T_s = \frac{\Delta p V}{2\pi} \eta_m \quad (N \cdot m)$ <p>Δp --- Working pressure(MPa) η_m --- Mechanical efficiency</p>	$P_s = n \cdot T_s / 9550$

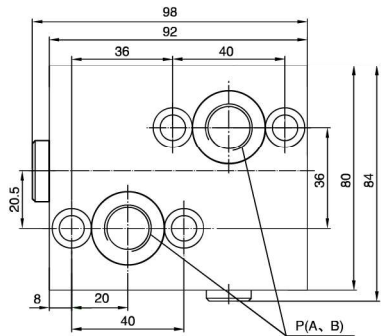
SWITCH VALVE



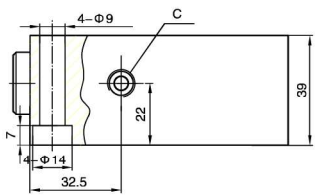
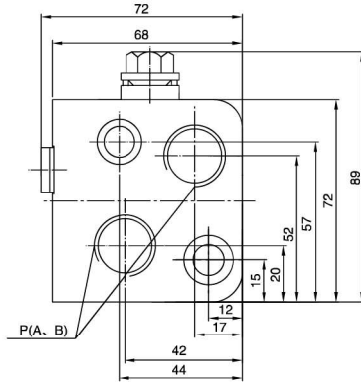
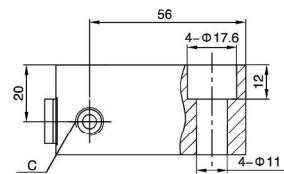
Specifications

Specifications	Type	AHMR	AH3MS
Flow Rate(L/min)		60	
Rated pressure(Mpa)		25	

K1-AHMR



K3-AH3MS

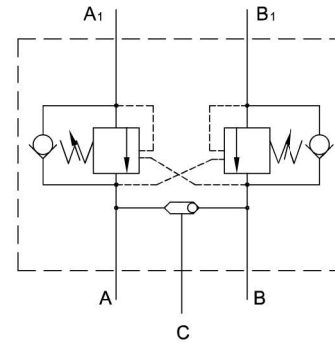


Code	P(A, B) (depth)	C (depth)
Y14	G3/8(15)	M10 × 1 (10)

Code	P(A, B) (depth)	C (depth)
Y	G1/2(15)	M10 × 1 (10)
Y2	M22 × 1.5 (15)	M10 × 1 (10)

Note: The valve used for BMP series motor.

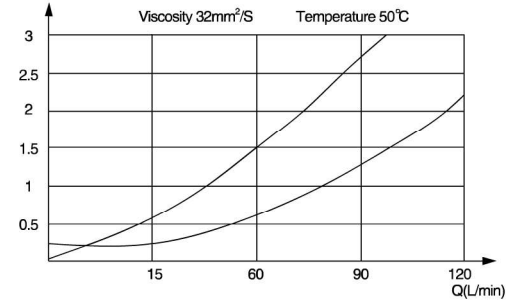
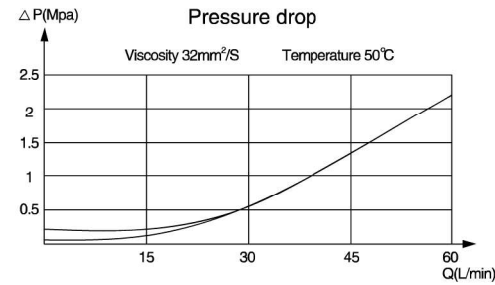
OVERCENTER VALVE



Specifications

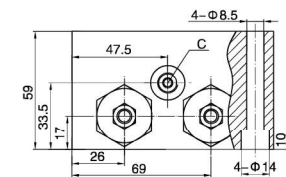
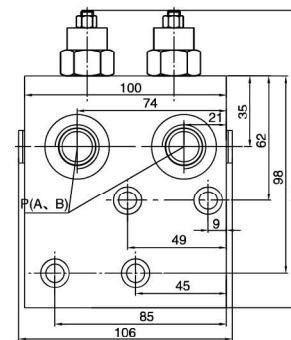
Specifications	Type	AHMR	AH3MS	AH4MT	AH5MV
Flow Rate(L/min)		60	60	60	120
Rated pressure(Mpa)		35	35	35	35
Range Pilof ratio		4.5	4.5	4.5	4.5

Pressure drop



AHMR OVERCENTER VALVE USED TO AHMR SERIES MOTORS

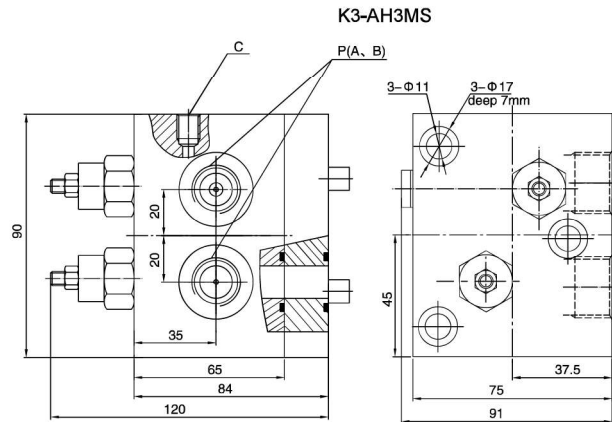
K3- AHMR



Code	P(A, B) (depth)	C (depth)
Y	G1/2(17)	M10 × 1 (10)

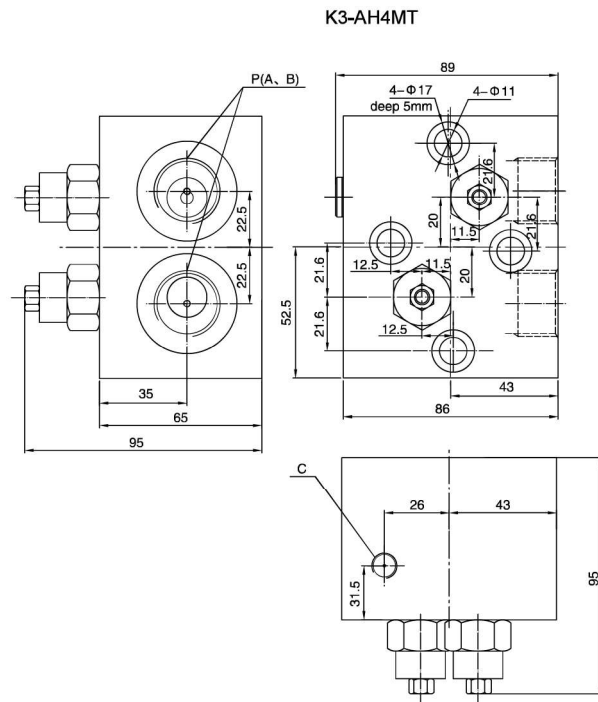
Note: The valve used for BMP series motor.

■ AH3MS OVERCENTER VALVE USED TO AH3MS SERIES MOTORS



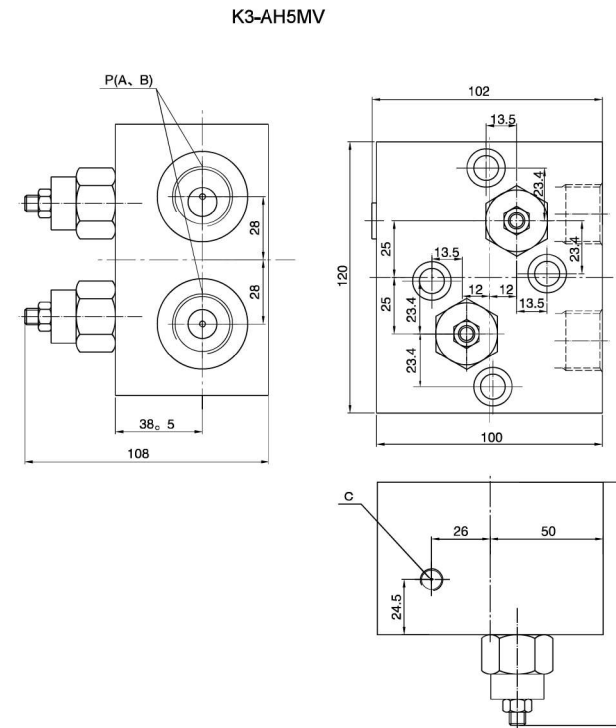
Code	P(A, B) (depth)	C (depth)
Y	G1/2(15)	M10 × 1 (10)
Y2	M22 × 1.5 (15)	M10 × 1 (10)

■ AH4MT OVERCENTER VALVE USED TO AH4MT SERIES MOTORS



Code	P(A, B) (depth)	C (depth)
Y	G3/4(16)	M10 × 1 (10)
Y4	M22 × 1.5 (16)	M10 × 1 (10)

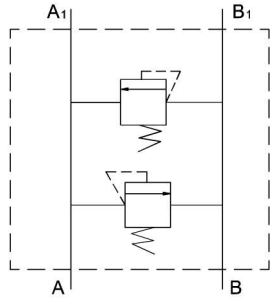
■ AH5MV OVERCENTER VALVE USED TO AH5MV SERIES MOTORS



Code	P(A, B) (depth)	C (depth)
Y	G1"(18)	M10 × 1 (10)
Y4	G3/4"(18)	M10 × 1 (10)

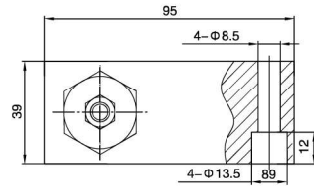
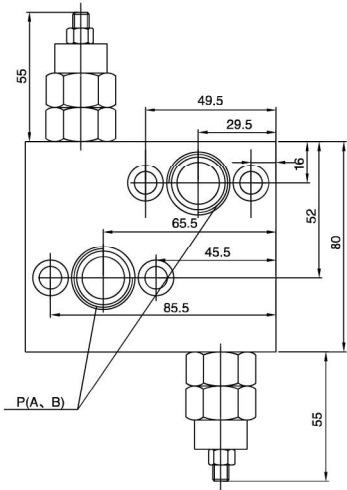
■ AHMR RELIEF VALVE USED TO AHMR SERIES MOTORS

K6-AHMR Dual Crossover Relief Valve Type K6-AHMR



Specifications

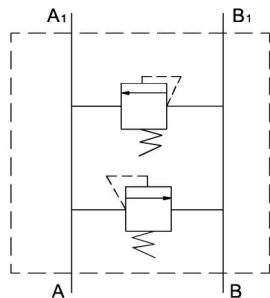
Specifications	Type	K6-AHMR
Flow Rate(L/min)		95
Rated pressure(Mpa)		7-21



Code	P(A, B) (depth)
Y	G1/2(18)
Y5	7/8-14UNF(18)

■ AH3MS RELIEF VALVE USED TO AH3MS SERIES MOTORS

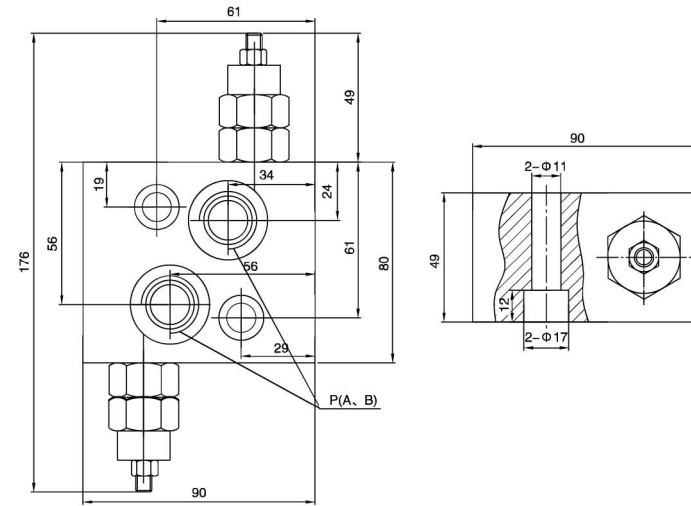
K6-AH3MS Dual Crossover Relief Valve Type AH3MS



Specifications

Specifications	Type	K6-AH3MS
Flow Rate(L/min)		95
Rated pressure(Mpa)		7-25

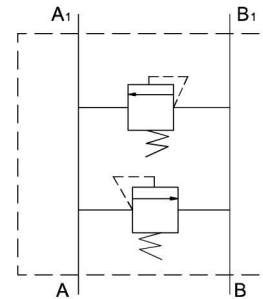
■ AH3MS RELIEF VALVE USED TO AH3MS SERIES MOTORS



Code	P(A, B) (depth)
Y	G1/2(18)
Y2	M22 x 1.5(18)

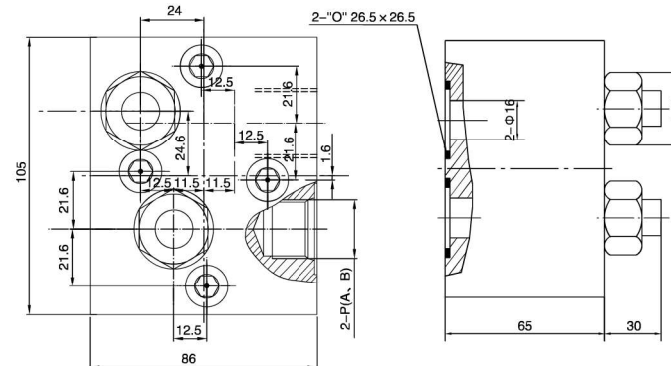
■ AH4MT RELIEF VALVE USED TO AH4MT SERIES MOTORS

K6-AH4MT Dual Crossover Relief Valve Type AH4MT



Specifications

Specifications	Type	K6-AH4MT
Flow Rate(L/min)		18
Rated pressure(Mpa)		7-21



Code	P(A, B) (depth)
Y	G3/4(24)
Y4	M22 x 1.5(16)

ORDERING CODE

1	2	3	4	5
		—		/

Pos.1	2	3	4			5
Hydraulic control system code	With motor code	Switch Valve	Ports			Special features
			Code	Ports(A,B)(deep)	Port C(deep)	
K1	AHMR AHMP	Sx 1 - 9 (Different digital means switch valve)	Y14	G3/8(15)	M10 × 1(10)	T (nothing: Omit)
	AH3MS		Y	G1/2(15)	M10 × 1(10)	
		Y2	M22 × 1.5(15)			

1	2	3	4	5	6
		—			/

Pos.1	2	3	4	5			6
Hydraulic control system code	With motor code	Overcenter Valve	Switch Valve	Ports			Special features
				Code	Ports(A,B)(deep)	Port C(deep)	
K3	AHMR AHMP	Px 1 - 9 (Different digital means overcenter valve)	Sx 1 - 9 (Different digital means switch valve)	Y14	G5/8(15)	M10 × 1(10)	T (nothing: Omit)
	AH3MS			Y	G1/2(15)	M10 × 1(10)	
				Y2	M22 × 1.5(15)		
	AH4MT			Y	G3/4(15)	M10 × 1(10)	
				Y4	M22 × 1.5(15)		
	AH5MV			Y	G1" (18)	M10 × 1(10)	
Y4		G3/4" (18)					

1	2	3	4	5	6
		—			/

Pos.1	2	3	4	5			6
Hydraulic control system code	With motor code	Relief Valve	Switch Valve	Ports			Special features
				Code	Ports(A,B)(deep)	Port C(deep)	
K6	AHMR AHMP	Ax 1 - 9 (Different digital means relief valve)	Sx 1 - 9 (Different digital means switch valve)	Y14	G5/8(15)	M10 × 1(10)	T (nothing: Omit)
	AH3MS			Y	G1/2(15)	M10 × 1(10)	
				Y2	M22 × 1.5(15)		
	AH4MT			Y	G3/4(15)	M10 × 1(10)	
				Y4	M22 × 1.5(15)		