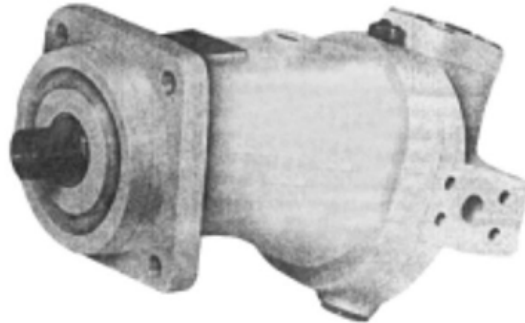


A6V Variable Displacement Motor



说明:

- 该变量马达是专为带次级控制的静液驱动设计的。
- 配有大调节范围 $V_{max}/V_{min}=3.47$ 的整套控制总成。

特点:

- 用静液传动时有较大的调节范围
- 次级控制和带有各种控制装置的调节
- 在较小的倾角下提高最高输出转速
- 由于可用较小的泵而节省费用
- 省掉多速比齿轮驱动
- 高功率密度
- 允许高的外界轴载荷
- 任选安装位置
- 高效率
- 优秀的起动特性
- 小惯量

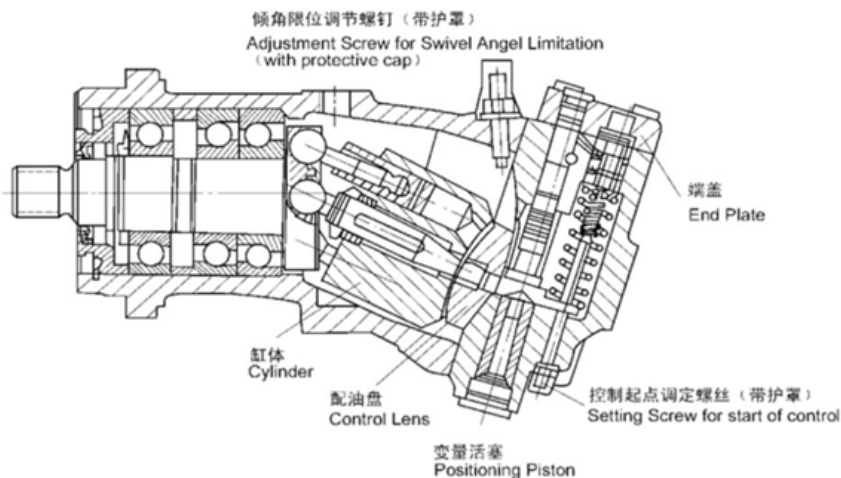
Description

The variable displacement motor was designed especially for hydrostatic drives with secondary controls. A complete control assembly for a maximum swivel range of $V_{max}/V_{min}=3.47$ is fitted.

Special Characteristics

Large control range with hydrostatic transmissions.
 Secondary control regulation with various control devices.
 Increased maximum output speeds at reducing swivel angle.
 Cost-saving due to the possibility of using smaller pumps.
 Obviates the multispeed ratio gear drives.
 High power density.
 Optional mounting position.
 High efficient.
 Excellent starting characteristics.
 Low inertia..

剖视图:



规格计算 Calculation of size

流量 Swept Volume $Q = \frac{V_g \cdot n}{1000 \cdot \eta_v}$ [L/min]

输出转速 Output Speed $n = \frac{Q \cdot 1000 \cdot \eta_v}{V_g}$ [r/min]

输出扭矩 Output Torque $M = \frac{V_g \cdot \Delta p \cdot \eta_{mh}}{2 \pi}$
 $M = \frac{1.59 V_g \cdot \Delta p \cdot \eta_{mh}}{10}$ [Nm]

或 or $M = \frac{K_M \cdot \Delta p \cdot \eta_{mh}}{10}$ [Nm]

输出功率 Output Power $P = \frac{M \cdot n}{9549}$ [KW]
 $P = \frac{Q \cdot \Delta p \cdot \eta_1}{60}$

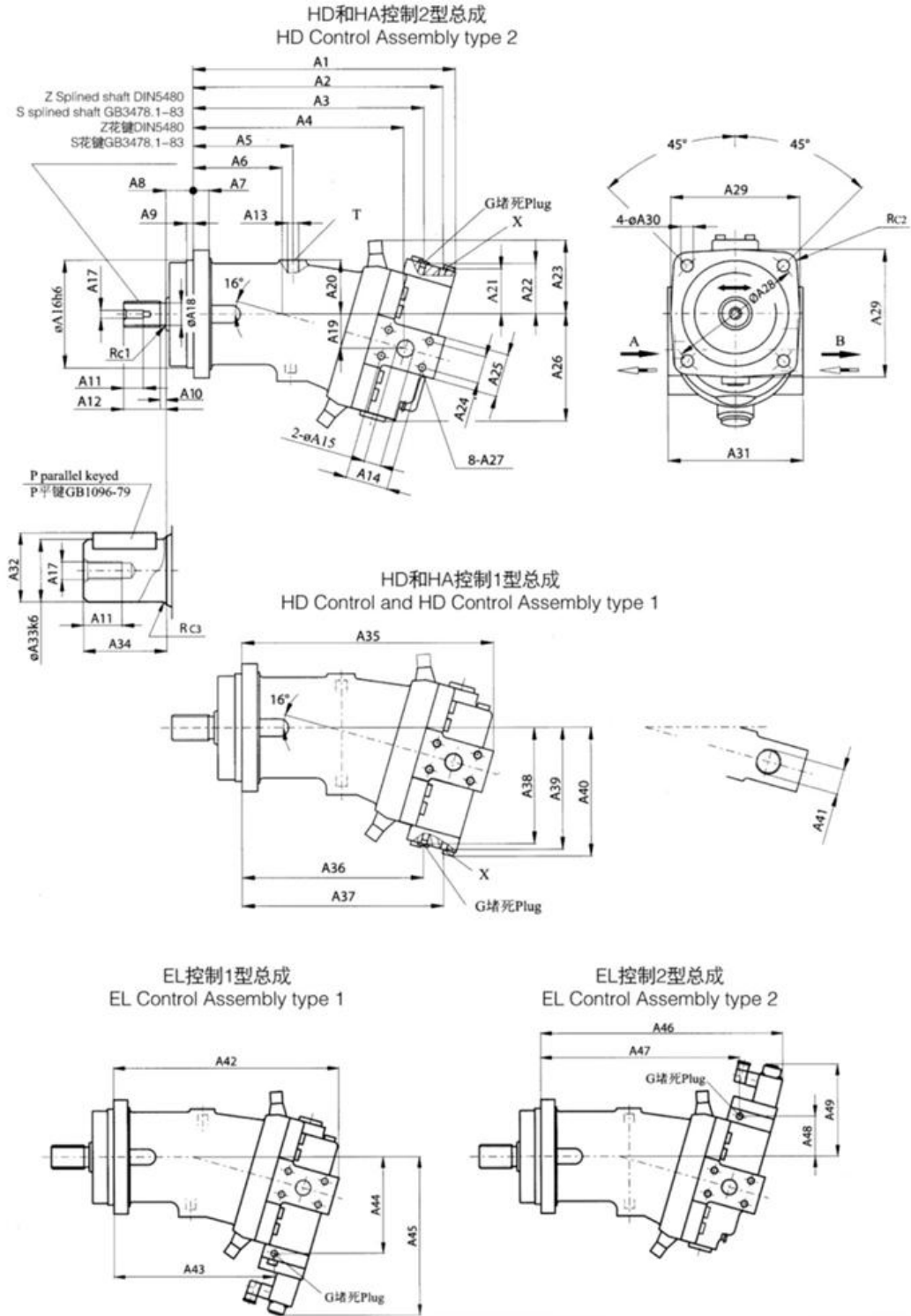
V_g = 最大排量 (ml/r) max geometry displacment[ml/r]
 M = 扭矩 (Nm) torque[Nm]
 Δp = 压差 (MPa) differential pressure[MPa]
 n = 转速 (r/min) speed[r/min]
 η_v = 容积效率 volumetric efficiency
 η_{mh} = 机械效率 mechanical-hydraulic efficiency
 η_1 = 总效率 overall efficiency

技术参数表:

规格 Size		28	55	80	107	160	225	250	468	
变量方式 Control Device										
HD 液控变量 Hydraulic control pilot pressure related		*	*	*	*	*	*	*	*	
HS 液控 (双速) 变量 Hydraulic control(two speed),pilot pressure related		*	*	*	*	*	*	*	*	
HA 高压自动变量 Automatic control,high pressure related		*	*	*	*	*	*	*	*	
DA 转速液控变量 Hydraulic control.speed related		*	*	*	*	*	*	*	*	
ES 电控 (双速) 变量 Electric control(two speed)		*	*	*	*	*	*	*	*	
EP 电控 (比例) 变量 Electric control(proportion)		*	*	*	*	*	*	*	*	
MO 扭矩变量 Mooring control		*	*	*	*	*	*	*	*	
MA 手动变量 Manual control		*	*	*	*	*	*	*	*	
排量 Displacement	V_{gmax}	ml/r	28.1	54.8	80	107	160	225	250	468
	V_{gmin}	ml/r	8.1	15.8	23	30.8	46	64.8	0	135
最大允许流量 Max.Permissible.Swept volume	Q_{gmax}	L/min	133	206	268	321	424	530	590	889
最高转速 Max.speeds (在 at Q_{max} 下)	n_{max} 在 at V_{gmax}	r/min	4750	3750	3350	3000	2650	2360	2360	1900
	n_{max} 在 at $V_g < V_{gmax}$	r/min	6250	5000	4500	4000	3500	3100	3100	2500
扭矩常数 Torque constants	M_s 在 at V_{gmax}	Nm/MPa	4.463	8.701	12.75	16.97	25.41	35.71	39.79	74.41
	M_s 在 at V_{gmin}	Nm/MPa	1.285	2.511	3.73	4.9	7.35	10.30	11.46	21.47
最大扭矩 Max.torque (在 at $\Delta p=35MPa$)	M_{max} 在 at V_{gmax}	Nm	156	304	446	594	889	1250	1391	2604
	M_{max} 在 at V_{gmin}	Nm	45	88	130	171	257	360	401	751
最大输出功率 (在 35MPa 和 Q_{max} 下) Max.output power(at 35MPa and Q_{max})		KW	78	120	156	187	247	309	335	519
惯性矩 Moment		kgm ²	0.0017	0.0052	0.0109	0.0167	0.0322	0.0532	0.0532	0.025
重量 Weight		kg	18	27	39	52	74	103	103	223

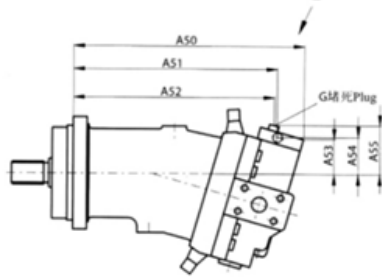
A6V Variable displacement motor

元件外形尺寸系列2规格28~250 Unit Dimensions Series 2 size 28~250



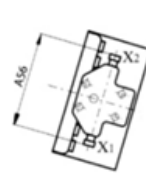
元件外形尺寸系列2规格28~250 Unit Dimensions Series 2 size 28~250

DA控制2型总成
DA Control Assembly type 2



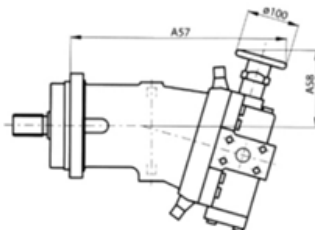
- A,B 压力口 A,B Pressure Port
- G 多元件同步控制和遥控压力油口 G port for synchronous control of multiple units and for remote control pressure
- X 先导油11 X Pilot Pressure Port
- T 回油11 T Drain Port

Z向 Z Direction

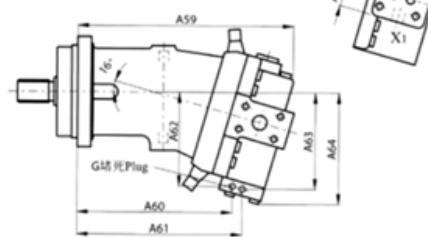


用于DA控制
X1,X2先导压力H
for DA control
X1,X2 Pilot Pressure Port
用于MO控制
X1 压力溢流阀口
For MO control
X1 Pressure relief valve Port

MA控制型总成
MA Control Assembly type I



DO控制型总成
MO Control Assembly type I



规格 Size	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	A15	A16	A17	A18	A19	A20	A21
28	249	230	206	189	107	75	16	25	8	15	19	43	M16 x 1.5	50.8	20	100	M8	21.5	33	50	57
55	312	291	264	249	123	108	20	32	10	7	28	35	M18 x 1.5	50.8	20	125	M12	25	40	63	52
80	368	345	316	297	152	137	23	32	10	7	28	40	M18 x 1.5	57.2	25	140	M12	30	46	71	59
107	378	356	326	301	145	130	25	40	10	7.5	28	45	M18 x 1.5	57.2	25	160	M12	35	49	80	63
160	440	412	377	354	213	156	28	40	11.5	7.5	36	50	M22 x 1.5	66.7	32	180	M16	40	57	88	66
225	468	441	405	375	222	162	32	50	12	11.5	36	55	M22 x 1.5	66.7	32	200	M16	45.2	61	96	74
250	505	411	472	354	120	134	25	50	12	-	36	82	M22 x 1.5	66.7	32	224	M16	50	51.8	100	150

规格 Size	A22	A23	A24	A25	A26	A27	深Deep	A28	A29	A30	A31	A32	A33	A34	A35	A36	A37	A38	A39	A40	A41
28	64	81	23.8	45	110	M10	17	125	118	11	116	27.9	25	50	230	152	176	124	131	139	M27 x 2
55	60	84	23.8	53	132	M10	17	160	150	13.5	142	33	30	60	301	208	235	133	141	153	M33 x 2
80	68	99	27.8	64	150	M12	18	180	165	13.5	172	38	35	70	353	252	282	152	161	177	M42 x 2
107	71	107	27.8	64	162	M12	18	200	190	17.5	178	43	40	80	357	259	288	164	173	188	M42 x 2
160	77	108	31.8	70	182	M14	19	224	210	17.5	208	48.5	45	90	423	302.5	338	182.5	193	201	M48 x 2
225	85	121	31.8	70	199	M14	21	250	236	22	226	53.5	50	100	441	324	359	201	211	219	M48 x 2
250	179	211	31.8	95	296	M14	20	280	252	22	262	53.5	50	82	497	352	371	223	230	296	M48 x 2

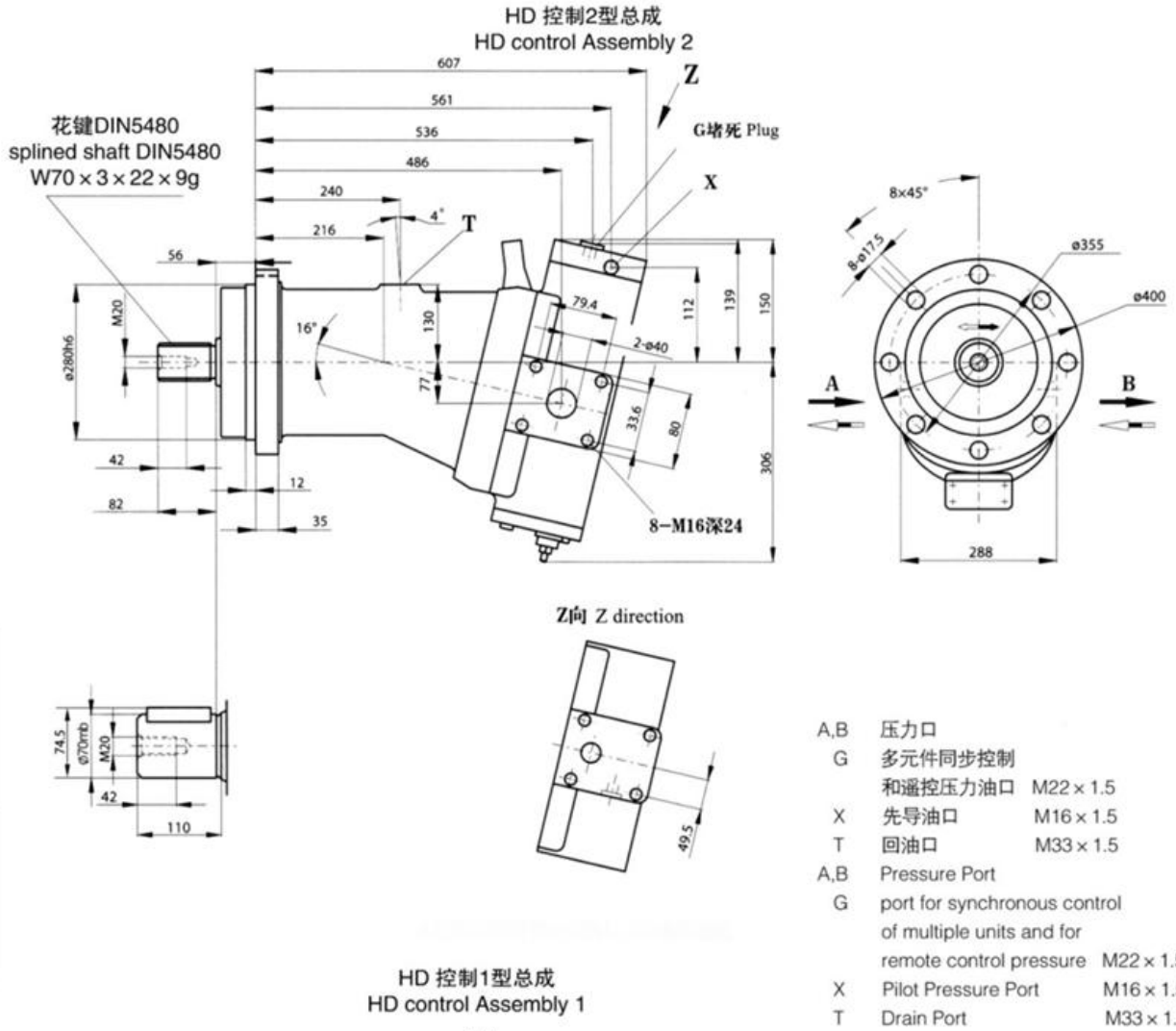
规格 Size	A42	A43	A44	A45	A46	A47	A48	A49	A50	A51	A52	A53	A54	A55	A56	A57	A58	A59	A60	A61	A62
28	230	164	119	204	266	212	53	131	253	212	209	53	73	-	144	269	102	-	-	-	-
55	301	223	129	213	334	274	48	124	317	272	268	49	70	77	146	329	111	301	208	224	138
80	353	267	148	240	282	326	56	137	371	326	322	56	77	83	152	381	115	353	252	268	157
107	357	269.5	160	254	394	333	61.5	144	380	336	332	59	81	88	152	390	115	357	257	273	169
160	423	313	177	265	452	386	70	139	442	387	383	65	86	94	158	441	130	423	300	312	187
225	441	334	196	284	481	414	74.5	147	471	416	411	73	95	-	158	470	135	441	322	334	206
250	497	314	253	391	514	389	158	260	481	332	380	158	167	172	-	510	250	497	352	371	223

规格 Size	A63	A64	A65	C1	C2	C3	平键 GB1096-79 parallel keyed	花键 DIN5480 splined shaft	花键 GB3478 1-83 splined shaft	α	G	X	C3
28	-	-	-	1.2	12	0.8	键8 x 40	W25 x 1.25 x 18 x 9g	EXT18Z x 1.25M x 30R x 5f	16°	M12 x 1.5	M14 x 1.5	18
55	130	155	30	1.5	16	1.5	键8 x 50	W30 x 2 x 14 x 9g	EXT14Z x 2M x 30R x 5f	16°	M14 x 1.5	M14 x 1.5	27
80	149	177	33	1.5	16	1.6	键10 x 56	W35 x 2 x 16 x 9g	EXT16Z x 2M x 30R x 5f	16°	M14 x 1.5	M14 x 1.5	39
107	161	188	33	2	20	1.6	键12 x 63	W40 x 2 x 18 x 9g	EXT18Z x 2M x 30R x 5f	16°	M14 x 1.5	M14 x 1.5	52
160	178	206	34	2.5	20	2.5	键14 x 70	W45 x 2 x 21 x 9g	EXT21Z x 2M x 30R x 5f	16°	M14 x 1.5	M14 x 1.5	74
225	197	225	34	4	25	2.5	键14 x 80	W50 x 2 x 24 x 9g	EXT24Z x 2M x 30R x 5f	16°	M12 x 1.5	M14 x 1.5	103
250	230	296	-	4	25	2.5	键14 x 80	W50 x 2 x 24 x 9g	EXT24Z x 2M x 30R x 5f	13.5°	M12 x 1.5	M14 x 1.5	103

A6V Variable displacement motor

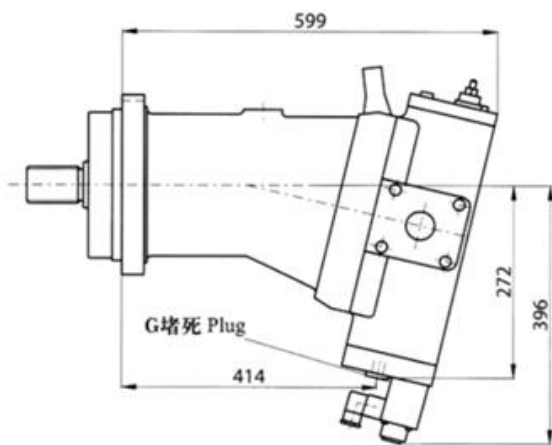
元件外形尺寸 系列1规格468 重量223Kg

Unit Dimensions Series 1 size 468 weight 223Kg

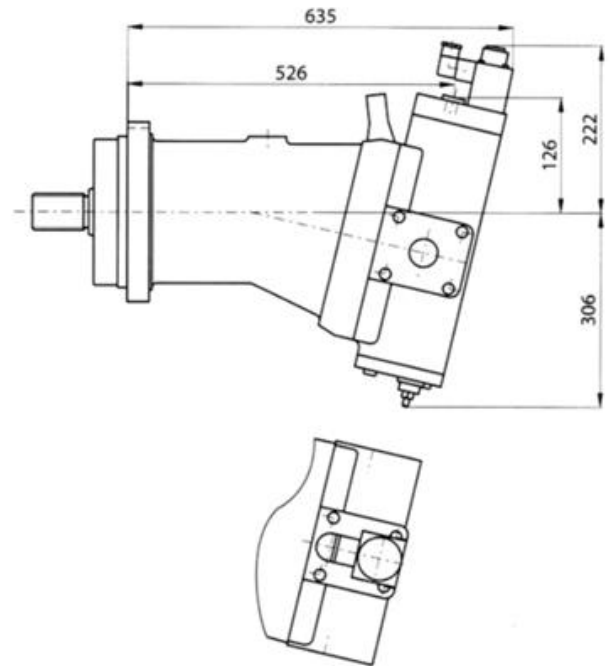


元件外形尺寸系列1规格468 重量223Kg
 Unit Dimensions Series 1 size 468 weight 223Kg

EL控制 1型总成
 EL Control Assembly 1



EL控制 2型总成
 EL Control Assembly 2



HA控制 1型总成
 HA Control Assembly 1

