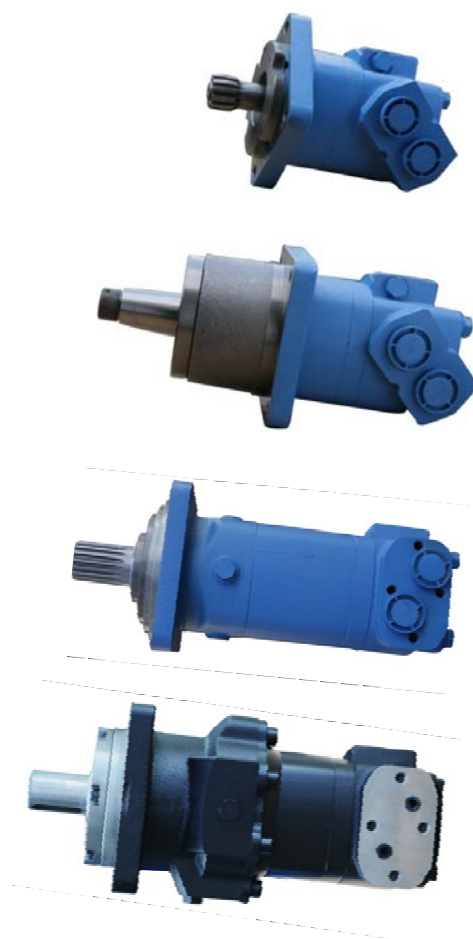




Low Speed High Torque Orbital Hydraulic Motors 低速大扭矩摆线液压马达

SMT Series Technical Information

SMT系列马达 技术参数



Jining Kersen Hydraulics Co., Ltd. Tel: (86) 537 2635138/2613777 Fax: (86) 537 2613277

济宁科尔森液压有限公司

Tel: (86) 537 2635138/2613777 Fax: (86) 537 2613277

2014-10

SMT Series

SMT系列



• Design Features

• 结构特点

- Roller bearings permit high radial loads
• 本系列马达采用重载锥滚轴承，输出轴可承受更大的径向力矩
- Use high pressure capacity shaft seal
• 采用耐高压轴密封
- Wide variety of mounting flanges, shafts, and displacement provides design flexibility
• 可灵活选择不同的安装法兰，输出轴，排量等，为客户提供更宽泛的选择空间
- Direction of shaft rotation and speed can be controlled easily and smoothly
• 可灵活平滑地控制马达的旋转方向和转速
- Best combination of efficiency and economy in heavy duty applications
• 对重载马达系列而言，该型马达具备极高的性价比

• Specification Data

• 性能参数

Displacement(排量) cc/r			195	245	310	390	490	625	800	985
Max.Speed	RPM	Continuous (连续)	775	615	485	387	307	241	184	153
		Intermittent (不连续)	866	834	698	570	454	355	276	230
Flow	LPM	Continuous (连续)	150	150	150	150	150	150	150	150
		Intermittent (不连续)	170	210	225	225	225	225	225	225
Torque	N.m	Continuous (连续)	475	615	775	965	1215	1125	1380	1570
		Intermittent (不连续)	770	980	1255	1455	1885	1330	1650	1875
Pressure (Δ)	Bar	Continuous (连续)	170	170	170	170	170	120	120	120
		Intermittent (不连续)	275	275	275	275	240	140	140	140

Maximum Case Pressure -- Without Case Drain (不接外泄油口时，壳体最大承受压力) ---90 Bar

Max. pressure is the allowed pressure at the inlet port. Rated pressure is the working pressure difference between inlet and outlet port.

A simultaneous maximum RPM and maximum pressure NOT recommended

Maximum pressure or maximum RPM operation: 10% of every minute

Recommended fluids: Anti-wear type of hydraulic oil. Viscosity recommended 37-73 cSt. Recommended filtration ISO18/13. Maximum operating temperature recommended 80°C

Special high pressure capacity shaft seal ensures back pressure up to 7 Mpa. Recommended preferable back pressure 5 Mpa. Case drain line is recommended when back pressure higher than 5 Mpa. When case drain line is used, make sure the motor is always filled with oil. The motor life is benefited from a case drain line.

It is highly recommended that the motor runs at 30% of rated pressure for at least one hour before application of full load. Be sure the motor is filled with fluid prior to any load applications.

•不连续压力是指马达进口允许承受的压力，连续压力指两油口连续工作时的压力差

•马达不允许同时在最大转速和最大压力的工况下使用

•不连续运行工况 --- 指马达在此工况下每分钟运行不超过10%

•推荐液压油：粘度为37-73cSt,过滤精度：ISO18/13,系统最高温度不超过80°C

•轴密封可承受7Mpa的背压，推荐马达背压不要超过5Mpa,超过5Mpa时，建议接外泄油管。马达在运行前和运行中，应保证腔体内始终充满液压油，以使马达得到良好的润滑和冷却

•强烈建议马达在满负荷运行前先以30%的负荷运行约1小时，以使马达得到充分的磨合

• SMT Series Motor Performance Data

SMT 系列马达性能参数

		195 cc/r ΔBar 压差							
		35	70	105	140	170	205	240	275
Flow LMP 流量	1.9	75 7	165 5	260 2					
	7.5	75 37	170 35	265 34	350 30	440 26	470 18		
	15	80 76	175 74	270 72	365 66	455 62	520 46	590 32	655 18
	30	85 153	180 148	275 144	370 131	465 119	545 116	625 99	705 83
	45	85 230	180 225	280 221	375 212	475 203	565 186	655 167	750 148
	61	80 307	180 303	280 300	375 291	475 283	575 258	665 236	760 214
	76	80 384	180 379	280 374	380 365	480 356	575 332	670 306	770 280
	91	80 462	175 456	275 450	375 440	475 429	575 413	670 388	770 363
	106	75 539	175 532	270 526	375 514	475 502	570 476	670 448	770 421
	121	70 617	170 609	270 602	370 589	470 576	570 542	670 511	765 480
	136	70 692	165 683	265 674	365 659	465 645	565 601	665 564	765 527
	151	70 770	165 759	260 746	365 733	465 718	560 666	660 624	
	170	65 866	160 854	260 843	360 825	460 808	555 749	655 702	

		245 cc/r ΔBar 压差							
		35	70	105	140	170	205	240	275
Flow LMP 流量	1.9	95 4	215 1						
	7.5	100 29	220 26	340 24	445 21	555 17	570 11	670 6	
	15	105 60	225 56	345 54	460 48	575 42	640 39	750 30	855 12
	30	110 120	235 116	355 113	475 104	595 95	700 81	800 67	905 53
	45	110 182	235 178	360 174	480 165	605 157	720 141	840 125	955 109
	61	110 244	235 240	360 236	485 228	610 221	730 202	845 184	960 165
	76	105 306	230 301	355 297	485 287	615 277	735 257	855 238	980 218
	91	105 365	230 361	355 358	480 348	610 338	735 316	860 294	980 271
	106	100 426	225 421	350 416	480 404	610 376	730 358	855 340	980 322
	121	90 489	215 481	345 475	470 461	600 448	725 423	850 398	975 373
	136	80 549	210 543	335 537	460 524	580 509	710 482	840 456	
	151	80 612	200 606	330 599	455 585	580 570	700 540	800 755	
	170	65 688	200 682	325 674	445 685	575 641	685 608	755 574	
	189		195 758	315 749	440 731	555 712	670 676		
	208		190 834	310 824	430 804	550 783	665 744		

Motors run with high efficiency in all areas designated with a number for torque and speed. however for best motor life select a motor to run with a torque and speed range shown in the yellow area.

为使马达获得更长的寿命，请选择在黄色区域标注的工况下使用。

Continuous 连续工况
 Intermittent 不连续工况

Performance data is typical at 120 SUS . Act data may vary slightly from unit to unit in 上表中的数据是标准马达在油液粘度120SUS工况下测得不同的马达实测数据会略有差异。

310 cc/r ΔBar 压差

	35	70	105	140	170	205	240	275
1.9	60 6	125 4	275 1					
7.5	130 23	280 22	410 20	540 17	645 14	755 10	880 4	
15	135 47	290 45	430 42	570 38	685 32	800 24	935 17	1025 10
30	140 95	300 91	450 87	595 81	730 73	870 64	985 55	1105 46
45	140 143	305 140	460 135	610 129	760 121	910 111	1045 99	1185 88
61	140 192	300 188	460 184	615 178	770 167	920 156	1060 141	1205 126
76	135 241	295 236	455 232	615 226	770 216	925 201	1075 184	1225 167
91	130 289	295 282	455 279	615 273	775 260	930 248	1080 232	1230 215
106	130 336	290 333	450 328	610 320	770 308	930 295	1075 276	1225 257
121	125 384	285 381	445 375	600 368	765 354	920 341	1065 320	
136	120 430	275 421	435 416	590 410	750 396	915 383	1055 360	
151	115 478	270 466	425 461	580 456	745 441	905 427	1040 403	
189	110 597	245 582	385 576	525 570	685 551	840 534		
227		220 698	365 691	515 684	650 661	800 641		

390 cc/r ΔBar 压差

	35	70	105	140	170	205	240	275
3.8	175 2	365 1						
7.5	180 18	370 17	555 16	730 14	875 12	1025 9	1195 4	
15	185 38	375 37	560 35	740 33	920 29	1080 22	1275 14	1370 5
30	185 76	380 74	575 72	760 68	950 65	1135 55	1315 45	1455 33
45	185 115	385 112	580 109	770 105	965 100	1150 91	1340 81	1540 79
61	180 154	380 151	580 147	770 143	965 132	1155 126	1345 116	
76	180 193	380 189	580 187	775 182	970 175	1160 162	1355 152	
91	170 230	370 229	570 225	765 220	965 212	1155 204		
106	165 268	365 266	565 261	760 256	960 248	1150 236		
121	160 306	355 304	555 299	750 292	945 282	1145 269		
136	155 346	340 340	545 336	730 329	930 317	1130 301		
151	150 386	325 380	535 375	730 368	915 359			
189	130 482	300 475	515 469	730 460	910 449			
227		280 570	500 562	720 552	890 538			

Torque扭矩: 840Nm
Speed转速: 534RPM

Performance data is typical at 120 SUS . Actual data may vary slightly from unit to unit in production
上表中的数据是标准马达在油液粘度120SUS工况下测得的数据，不同的马达实测数据会略有差异。

	Continuous 连续工况
	Intermittent 不连续工况

Motors run with high efficiency in all areas designated with a number for torque and speed. however for best motor life select a motor to run with a torque and speed range shown in the yellow area.
为使马达获得更长的寿命，请选择在黄色区域标注的工况下使用。

490 cc/r Δ Bar 压差

	35	70	105	140	170	205	240	
Flow LMP 流量	3.8	235 7	480 5	695 3				
	7.5	240 14	480 13	710 12	945 11	1175 8	1370 3	
	15	235 30	485 29	725 28	960 27	1195 25	1410 21	1645 17
	30	235 60	485 59	735 57	975 54	1215 51	1445 45	1685 38
	45	235 91	485 89	735 87	975 84	1220 79	1455 71	
	61	235 122	480 121	730 118	975 114	1220 109	1460 100	
	76	225 152	470 150	725 147	975 144	1220 139		
	91	220 184	470 181	720 180	970 176	1215 171		
	106	210 214	460 211	710 208	960 204	1210 198		
	121	195 244	450 241	700 237	950 232	1205 226		
	136	175 275	435 272	685 265	940 260	1175 255		
	151	160 306	425 303	675 295	920 290	1150 284		
	189	130 382	365 379	590 369	860 362			
	227		325 454	550 442	805 435			

Torque 扭矩: 860Nm
Speed 转速: 362RPM

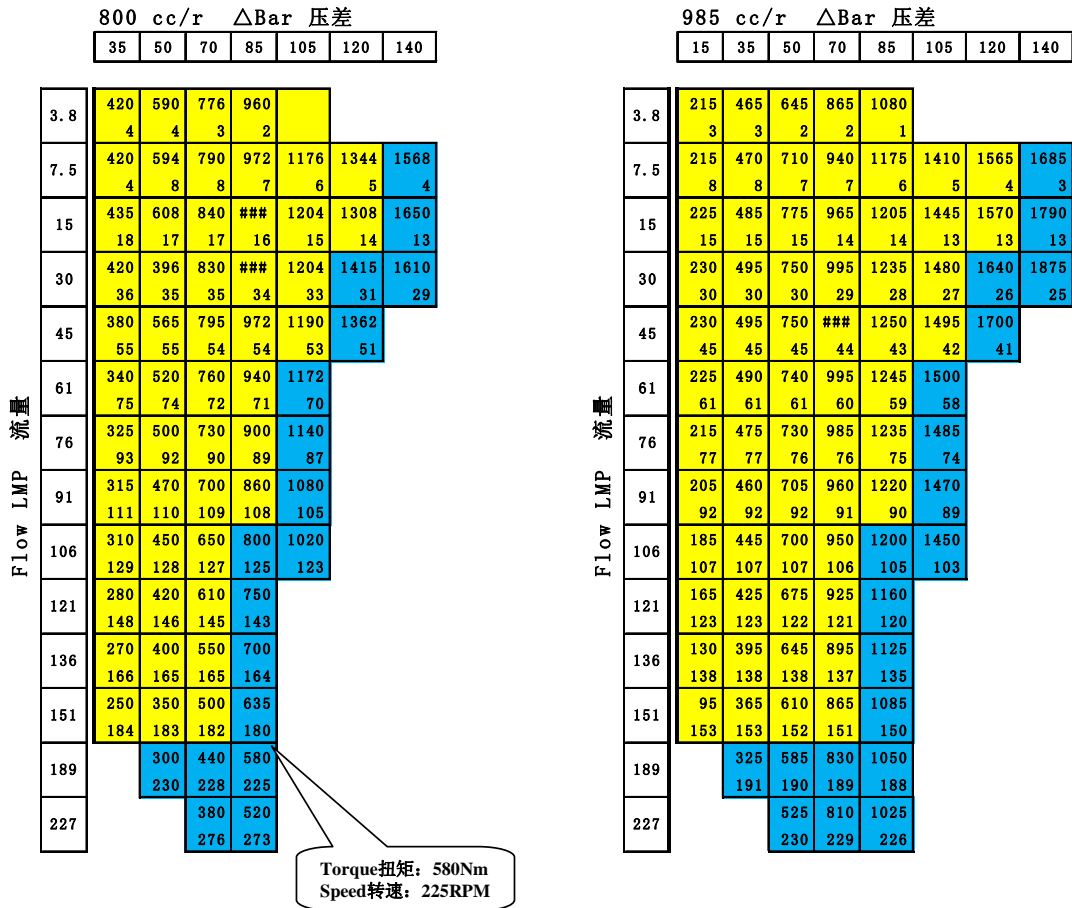
625 cc/r Δ Bar 压差

	35	50	70	85	105	120	140	
Flow LMP 流量	3.8	250 5	380 4	510 4	640 3	755 2		
	7.5	260 12	395 13	535 13	670 10	795 10	925 8	1060 6
	15	275 24	425 24	570 24	710 22	850 21	955 18	1065 16
	30	295 45	450 44	605 44	755 43	925 42	1095 39	1270 37
	45	295 72	450 71	610 71	765 70	920 68	1125 66	1330 64
	61	285 94	445 93	605 92	760 91	915 89	1120 87	1325 85
	76	280 119	440 118	595 117	755 116	915 115	1120 112	1325 110
	91	265 143	430 142	585 140	745 139	905 138	1110 135	1320 132
	106	255 168	415 166	575 165	735 164	895 162	1105 159	1315 156
	121	240 192	400 190	560 188	720 187	880 185	1090 182	1300 179
	136	220 216	380 214	540 213	700 212	855 210	1050 207	
	151	200 240	360 239	520 238	680 237	835 236	1015 233	
	189		310 298	470 296	630 294	790 290		
	227		255 355	430 353	590 350	745 345		

Motors run with high efficiency in all areas designated with a number for torque and speed. however for best motor life select a motor to run with a torque and speed range shown in the yellow area. 为使马达获得更长的寿命, 请选择在黄色区域标注的工况下使用。

Performance data is typical at 120 SUS . Actual data may vary slightly from unit to unit in production 上表中的数据是标准马达在油液粘度120SUS工况下测得的数据, 不同的马达实测数据会略有差异。

	Continuous 连续工况
	Intermittent 不连续工况

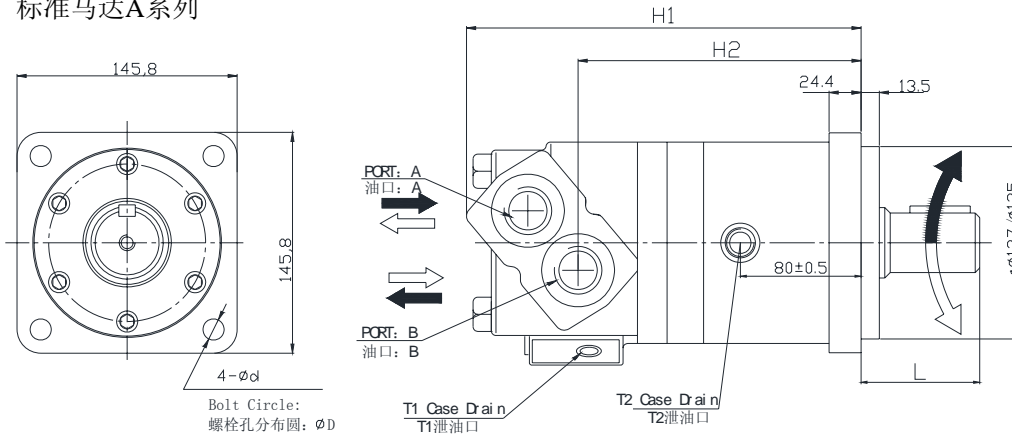


Performance data is typical at 120 SUS . Actual data may vary slightly from unit to unit in production
 上表中的数据是标准马达在油液粘度120SUS工况下测得的数据，不同的马达实测数据会略有差异。

	Continuous 连续工况
	Intermittent 不连续工况

•SMT Series Dimensions
SMT 系列连接尺寸

Standard Motor A Series
标准马达A系列



Standard Rotation

Viewed From Shaft End

Port A Pressurized --- CW

Port B Pressurized --- CCW

马达标准旋转方向

面对输出轴轴端

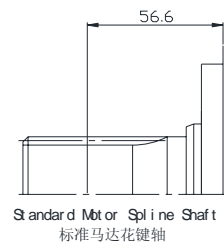
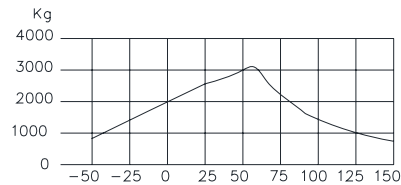
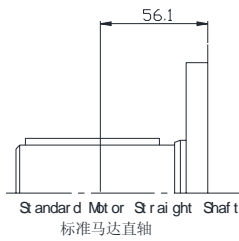
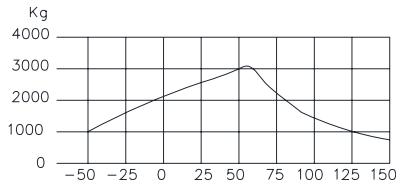
A 油口进油, 顺时针旋转

B油口进油, 逆时针旋转

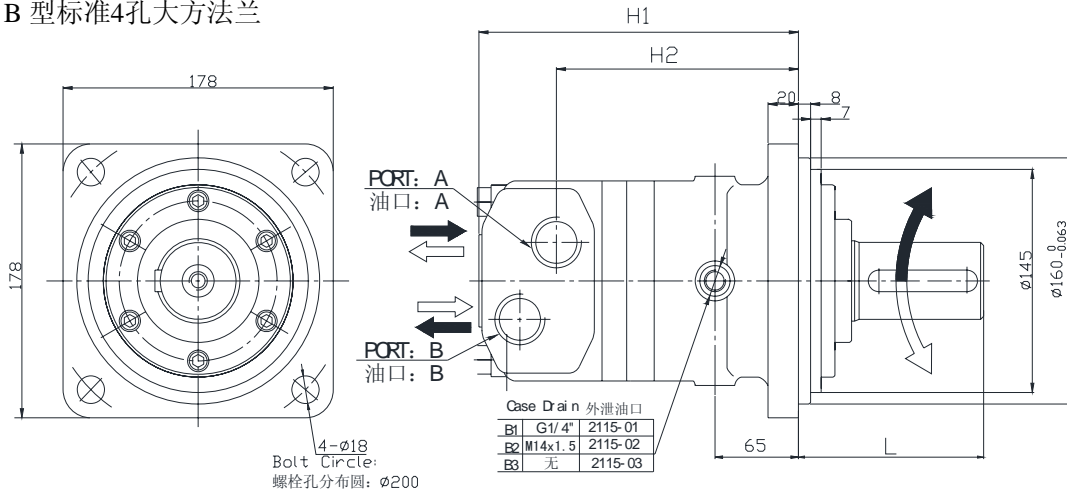
Displ. 排量 cc/r	H2 mm	H1 mm
195	187.4	270.1
245	193	275.6
310	200.4	283
390	209	291.6
490	220.2	302.8
625	234.8	317.5
800	254.7	337.5
985	274.6	357.4

NO.	T2 Case Drain 泄油口	Bolt and bolt circle 螺栓孔及分布圆 $\phi d / \phi D$	part code
A1	G1/4"	$\phi 14.5 / \phi 162$	2121-01
A2	M14X1.5	$\phi 14.5 / \phi 162$	2121-02
A3	NO无	$\phi 14.5 / \phi 162$	2121-03
A4	NO无	$\phi 14 / \phi 160$	2121-04
A5	NO无	$\phi 17 / \phi 162$	2121-05
A6	G1/4"	$\phi 14 / \phi 160$	2121-06
A7	M14X1.5	$\phi 14 / \phi 155.56$	2121-09
A8	9/16-18UNF	$\phi 14.5 / \phi 162$	2121-10
A9	M14X1.5	$\phi 14 / \phi 160$	2121-11

Shaft Side Load Capacity SMT Standard Motor A Series
SMT标准马达A系列马达输出轴侧向载荷能力



Standard Larger 4 Bolt Flange B Type
B型标准4孔大法兰



Displ. 排量 cc/r	H2 mm	H1 mm
195	166.8	229.7
245	172.4	235.3
310	179.7	245.5
390	188.5	251.3
490	199.5	262.5
625	214.2	277
800	234.1	292.9
985	254	317

Standard Rotation

Viewed From Shaft End

Port A Pressurized --- CW

Port B Pressurized --- CCW

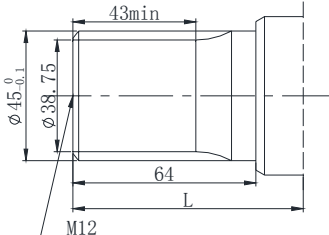
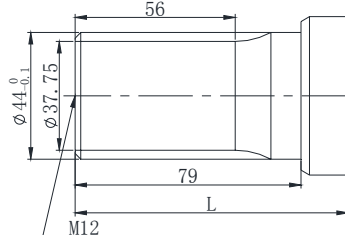
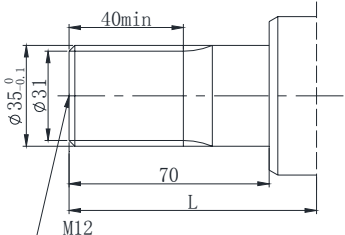
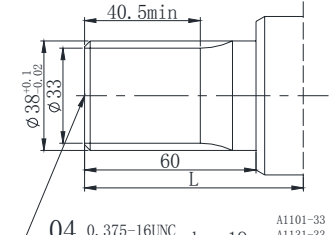
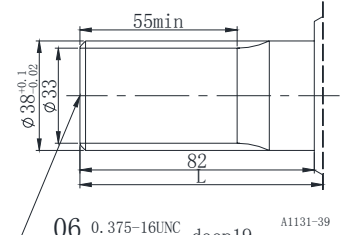
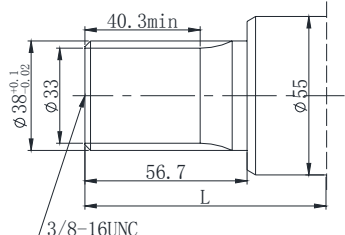
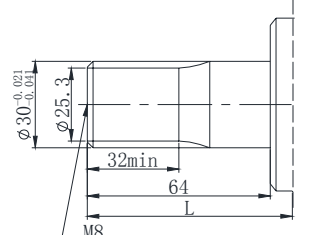
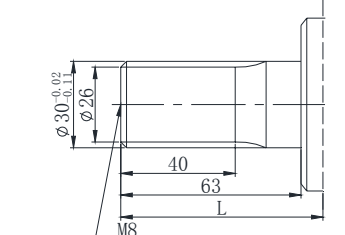
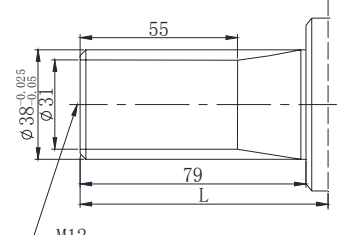
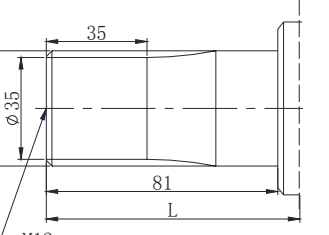
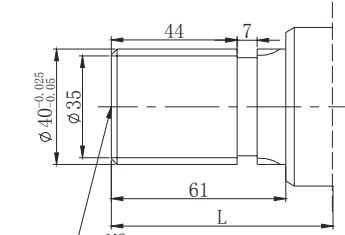
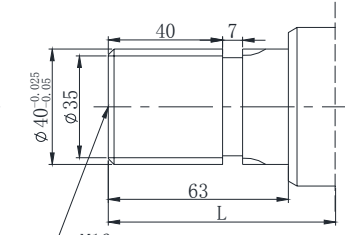
马达标准旋转方向

面对输出轴轴端

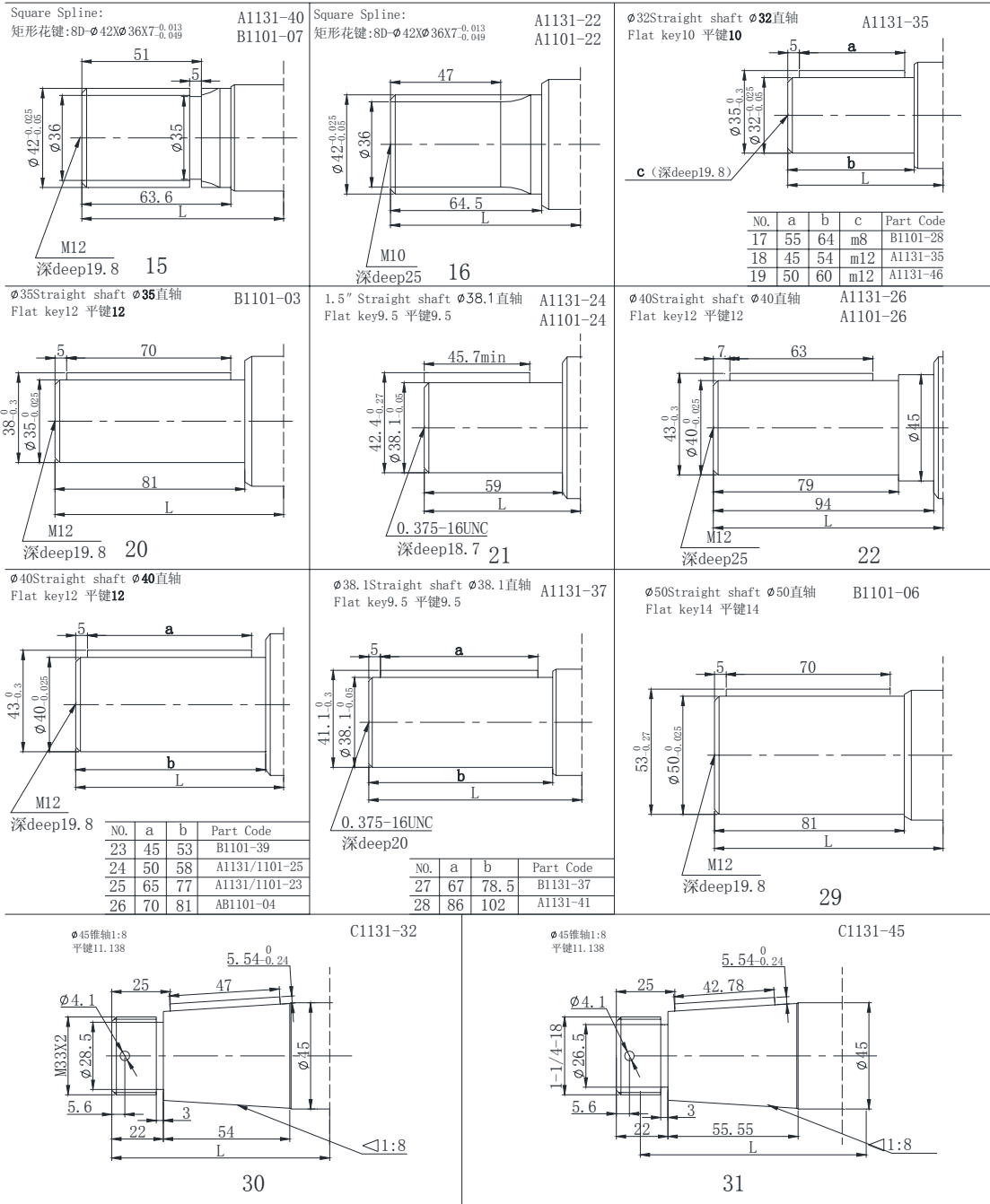
A 油口进油, 顺时针旋转

B 油口进油, 逆时针旋转

Dimensions ---Shafts SMT Series
SMT系列马达输出轴尺寸

<p>Involute Spline 渐开线花键 M2.5 Z17 α 30°</p> <p>B1101-01 A1101-34</p>  <p>深deep19.8 01</p>	<p>Involute Spline M2.5 Z16 α 30°</p> <p>B1101-38</p>  <p>深deep19.8 02</p>	<p>Involute Spline 渐开线花键 M2 Z16 α 30°</p> <p>A1101-08</p>  <p>深deep19.8 03</p>
<p>Involute Spline 渐开线花键 12/24 17齿 α 30°</p>  <p>04 0.375-16UNC deep19 M12-6H A1101-33 A1131-33 B1101-37</p>	<p>Involute Spline 渐开线花键 12/24 17齿 α 30°</p>  <p>06 0.375-16UNC deep19 M12-6H A1131-39 A1131-42</p>	<p>Involute Spline 渐开线花键12/24 17齿 α 30°</p> <p>B1131-44</p>  <p>08 3/8-16UNC 深deep19.8</p>
<p>Square Spline: 矩形花键: 6D-ϕ30Xϕ25.3X8^{-0.3}_{-0.4}</p> <p>B1101-02</p>  <p>05 M8 深deep20</p>	<p>Square Spline: 矩形花键: 6D-ϕ30Xϕ26X6^{-0.05}_{-0.15}</p> <p>A1101-29</p>  <p>07 M8 深deep20</p>	<p>Square Spline: 矩形花键: 6D-ϕ38Xϕ31X9^{-0.15}</p> <p>B1101-27</p>  <p>09 M12 深deep19.8</p>
<p>Square Spline: 矩形花键: 6D-ϕ40Xϕ35X10^{-0.04}_{-0.098}</p> <p>B1101-05</p>  <p>11 M12 深deep19.8</p>	<p>Square Spline: 矩形花键: 6D-ϕ40Xϕ35X10^{-0.04}_{-0.098}</p> <p>A1131-21 A1101-21</p>  <p>12 M8 深deep16</p>	<p>Square Spline: 矩形花键: 6D-ϕ40Xϕ35X10^{-0.04}_{-0.098}</p> <p>A1131-31 A1101-30</p>  <p>13 M16 深deep23</p>

Dimensions ---Shafts SMT Series SMT系列马达输出轴尺寸

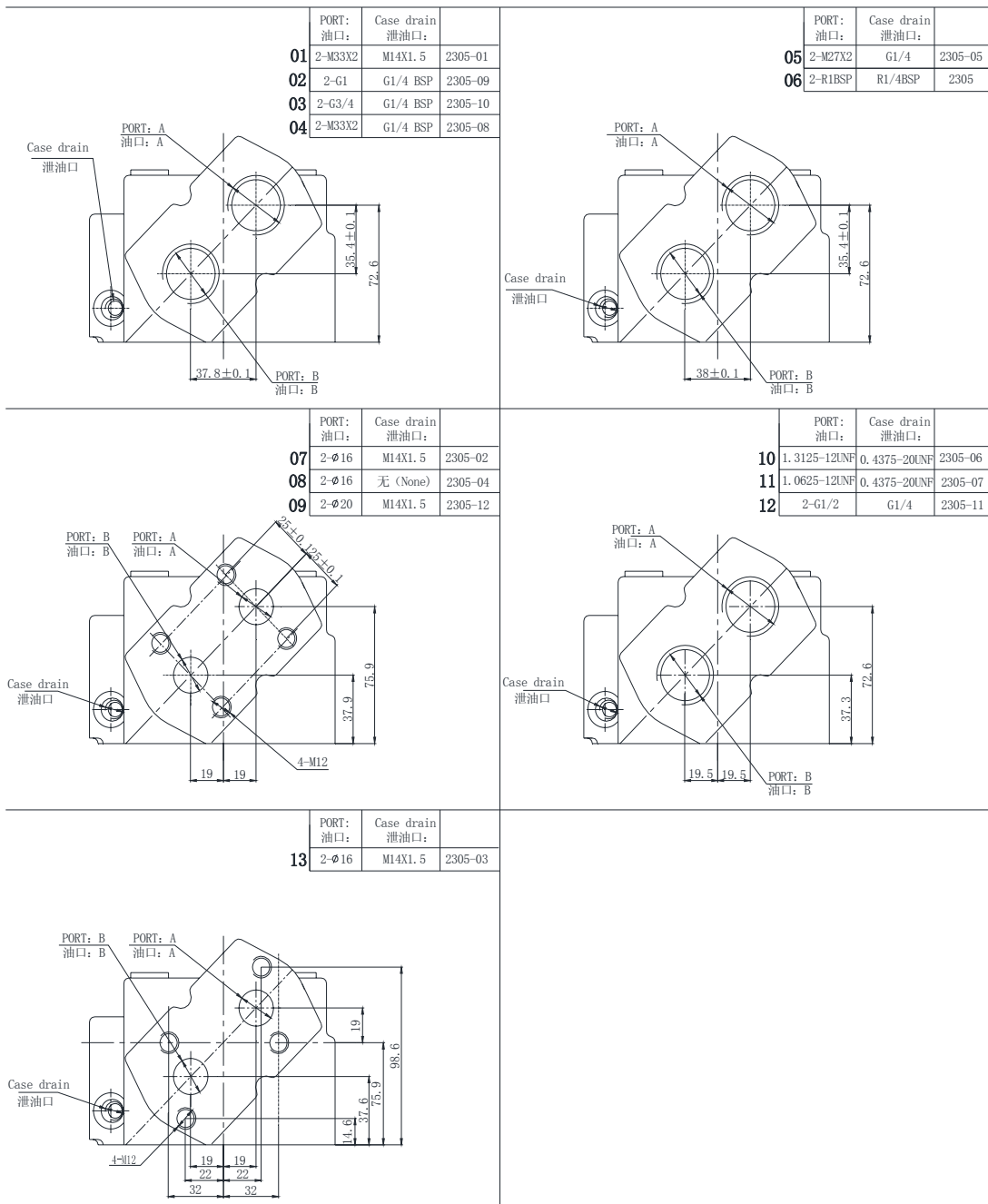


Dimensions ---Shafts End SMT Series
SMT系列马达输出轴头尺寸

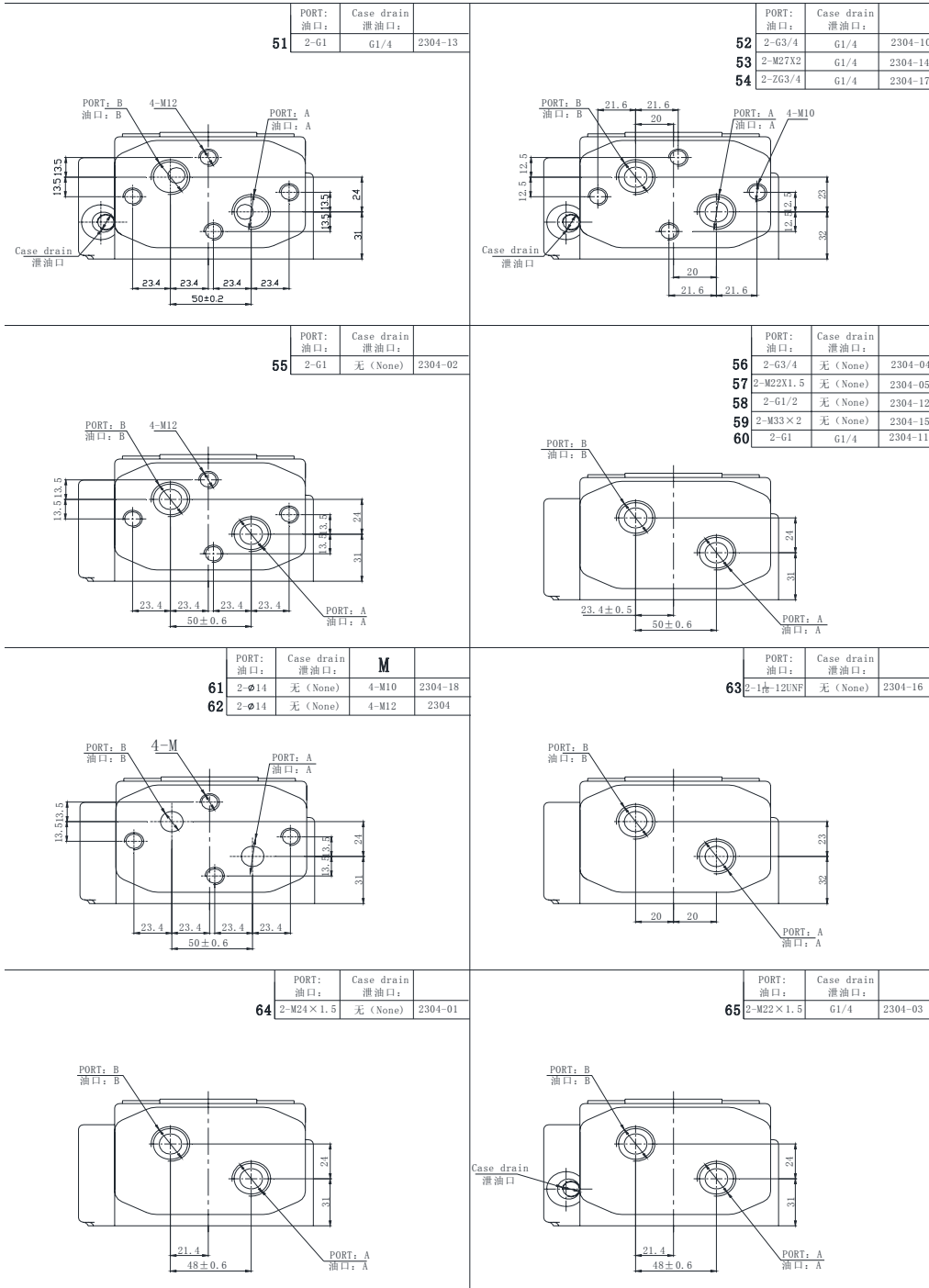
盘配流液压马达

Shaft NO. 轴编号	A type motor's shaft end "L" A型马达轴头 "L"	B type motor's shaft end "L" B型马达轴头 "L"	Part code
01	79.9~82.0	100.8~102	1101-01
02	100.4~102.8	/	1101-38
03	86.4~88.8	101.8~103	1101-08
04	75.5~77.7	/	1131-33/1101-33
05	81.6~83.6	/	1101-37
06	107.2~109.4	/	1131-39
07	97.5~99.7	/	1131-42
08	77.5~79.7	92.919~93.881	1131-44
09	85.4~87.8	100.8~103	1101-02
10	79.4~81.8	/	1101-29
11	100.4~102.8	115.8~117	1101-27
12	102.4~104.10	117.8~121	1101-05
13	77.4~79.8	/	1131-21/1101-21
14	79.4~81.8	/	1131-31/1101-30
15	79.4~81.8	103.8~105	1131-40/1101-07
16	79.4~81.8	/	1131-22/1101-22
17	85.4~87.8	100.8~102	1101-28
18	68.5~70.7	/	1131-35
19	74.2~76.4	/	1131-46
20	102.4~104.8	117.8~119	1101-03
21	75.4~77.8	/	1131-24/1101-24
22	110.4~112.8	/	1131-26/1101-26
23	69.4~71.8	/	1101-39
24	74.4~76.8	/	1131-25/1101-25
25	92.9~95.2	/	1131-23/1101-23
26	102.4~104.9	117.8~120	1101-04
27	132.4~134.8	/	1131-37
28	118.5~120.7	/	1131-41
29	102.4~104.11	117.8~122	1101-06
30	91.5~93.7	/	1131-32
31	93.0~95.2	/	1131-45

Dimensions ---Port SMT Standard A Series
SMT标准A系列马达油口尺寸

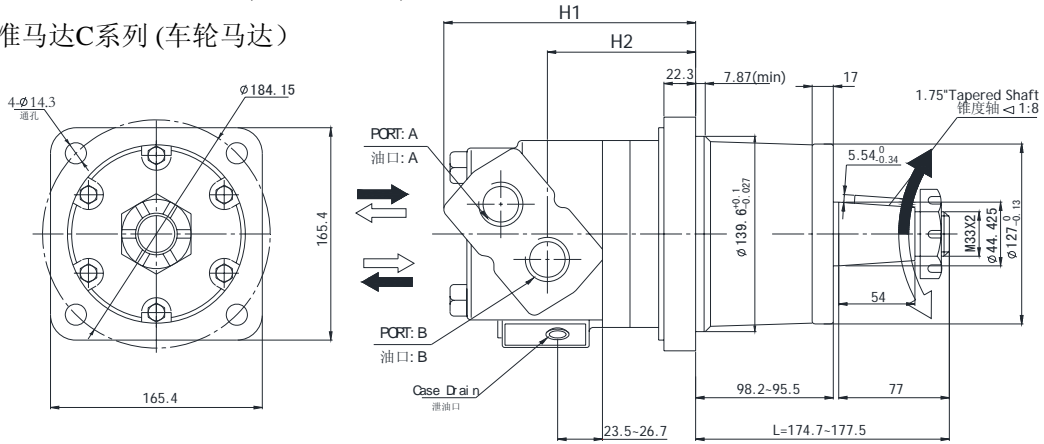


Dimensions ---Port SMT Large Flange B Series
SMT大方法兰B系列马达油口尺寸



Standard Motor C Series (Wheel Motor)

标准马达C系列(车轮马达)



Standard Rotation: Viewed From Shaft End

Port A Pressurized --- CW; Port B Pressurized --- CCW

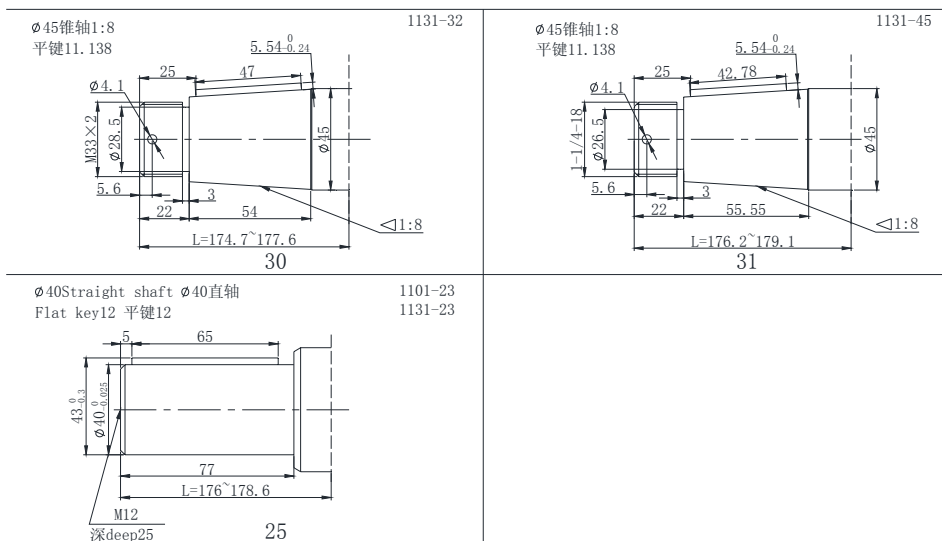
马达标准旋转方向: 面对输出轴轴端

A 油口进油, 顺时针旋转; B油口进油, 逆时针旋转

Displ. 排量 cc/r	195	245	310	390	490	625	800	985
H1	185	191	198	207	218	233	249	273
H2	103	108	116	124	136	150	164	190

Dimensions ---Shafts SMT (Wheel Motor) Series

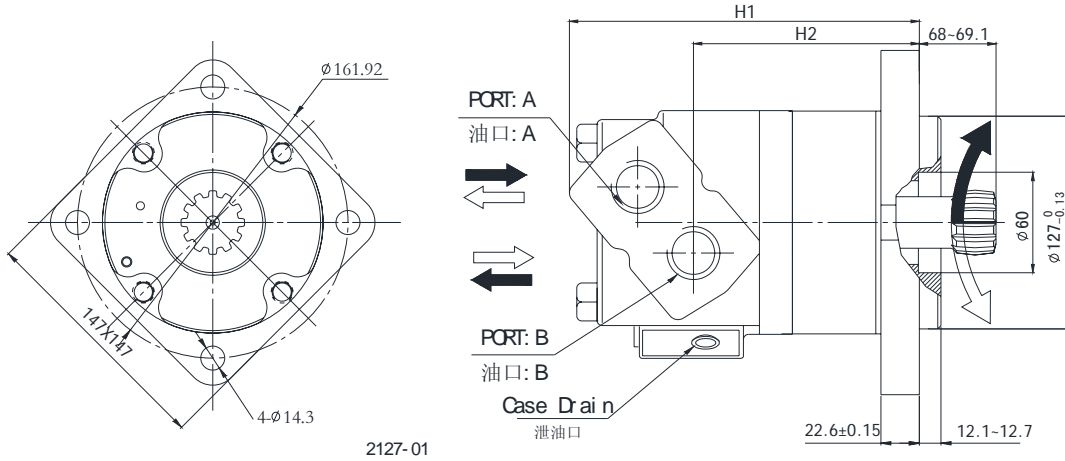
SMT系列(车轮马达)输出轴尺寸



Standard Motor D Series (Bearingless Motor)

盘配流液马达

标准马达D系列(无轴承马达)



Internal Spline Data

内花键参数

Fillet Root Side Fit 齿侧配合		mm
Diametral Pitch 径节	DP	8.5/17
Pressure Angle 压力角	α	30
Number of Teeth 齿数	Z	12
Pitch Dia. 节圆直径	D	$\phi 35.86$
Major Dia. 齿顶圆直径	Dei	$\phi 38.4^{+0.13}_{-0.08}$
Minor Dia. 齿根圆直径	Dii	$\phi 31.5^{+0.30}_{+0.02}$
Space width 分度圆齿厚	E	$\phi 38.4^{+0.015}_{-0.057}$

Standard Rotation:

Viewed From Shaft End

Port A Pressurized --- CW;

Port B Pressurized --- CCW

马达标准旋转方向:

面对输出轴轴端

A 油口进油, 顺时针旋转;

B 油口进油, 逆时针旋转

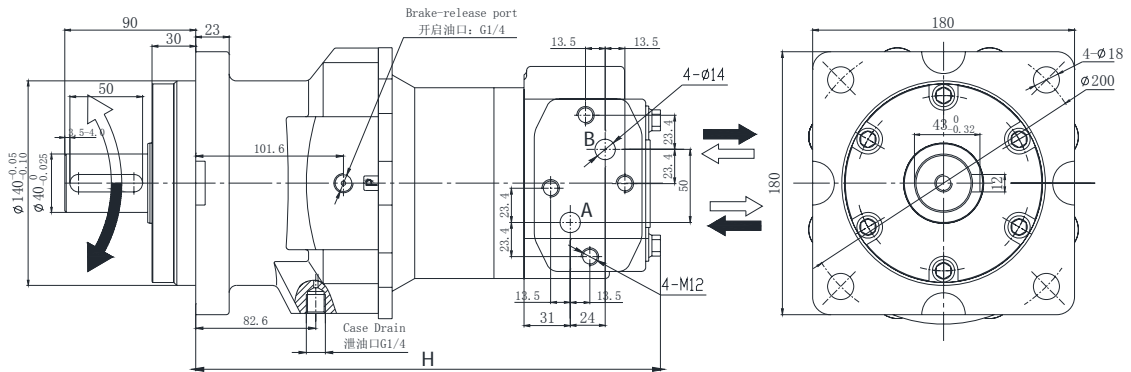
Hardening Specification 表面硬度: HRC62

Effective case depth 渗碳层厚度: 0.7mm

Displ. 排量 cc/r	195	245	310	390	490	625	800	985
H1	188	194	201	210	221	236	251	275
H2	105	111	118	127	138	153	169	193

Standard Motor E Series (ZDT— Brake Motor)

标准马达E系列 (ZDT—刹车马达)



Technical Data 技术参数:

- 1、Static brake torque 静态制动扭矩: 800Nm
- 2、Releasing pressure 开启压力: 30~150Bar
- 3、Must be the case drain with return pipe connection
必须使泄油口和回油管连接
- 4、The same performance parameters and standard motor
性能参数同标准马达
- 5、Port can choose standard motor A type and B type housing
油口可选用标准马达A型和B型壳体

Standard Rotation:

Viewed From Shaft End

Port A Pressurized --- CW;

Port B Pressurized --- CCW

马达标准旋转方向:

面对输出轴轴端

A 油口进油, 顺时针旋转;

B 油口进油, 逆时针旋转

Displ. 排量 cc/r	195	245	310	390	490	625	800	985
H1	287.3	292.9	303.1	308.9	320.1	334.6	350.5	374.6
H2	224.4	230	237.3	246.1	257.1	271.8	292	311.6

SMT Ordering Information

Port	Output Shaft	Flange &Pilot	Displacement cc/r							
			195	245	310	390	490	625	800	985
Port 1-5/16-12UNF Oring, Rear Case Drain 7/16-20 UNF Oring, (10)	Straight $\Phi 1.5$ " Flat Key 9.56 (21)	Standard 4 Bolt Flange, Pilot $\Phi 127$ (A3)	193m1064	1065	1066	1067	1068	1107	191m 0188	1069
Port G1" BSP, Rear Case Drain G1/4" BSP, (06)	Straight $\Phi 40$ Flat Key 12 (31)	Standard 4 Bolt Flange, Pilot $\Phi 127$ (A3)	193m1094	1095	1096	1097	1098	191m 0029	191m 0208	1099
	Straight $\Phi 1.5$ " Flat Key 9.52 (21)	Standard 4 Bolt Flange, Pilot $\Phi 127$ (A3)	191m0131	0132	0133	0134	0135	0136	0138	0137
Port G1/2" , Rear Case Drain G1/4" , (55)	Square Spline 6D-40X35X10-35.25 (12)	Large 4 Bolt Flange, Pilot $\Phi 160$ (B1)	192m1041	1042	1043	1044	1045	1046	1048	1047
	Square Spline 8D-42X36X7-50 (15)	Large 4 Bolt Flange, Pilot $\Phi 160$ (B1)	192m1091	1092	1093	1094	1095	1096	1098	1097
Port G3/4" BSP, Rear Case Drain G1/4" BSP, (56)	Straight $\Phi 40$ Flat Key 12 (24)	Standard 4 Bolt Flange, Pilot $\Phi 125$ (A6)	192m0031	0032	0033	0034	0035	0036	0038	0037
Port G3/4" BSP, Rear Case Drain G1/4" BSP, Standard Manifold Port Face (52)	Straight $\Phi 40$ Flat Key 12 (25)	Standard 4 Bolt Flange, Pilot $\Phi 125$ (A4)	191m0061	0062	0063	0064	0065	0066	0068	0067
Port M33X2, Rear Case Drain M14X1.5 , Standard Port Face (01)	Straight $\Phi 40$ Flat Key 12 (25)	Standard 4 Bolt Flange, Pilot $\Phi 127$ (A3)	191m0011	0012	0013	0014	0015	0016	0018	0017
	Square Spline 8D-42X36X7-47 (16)	Standard 4 Bolt Flange, Pilot $\Phi 127$ (A3)	191m1021	1022	1023	1024	1025	1026	1028	1027
	Square Spline 6D-40X35X10-51 (13)	Standard 4 Bolt Flange, Pilot $\Phi 127$ (A3)	191m1031	1032	1033	1034	1035	1036	1038	1037
Port G3/4" , Rear Case Drain G1/4" , Standard Manifold Port Face (54)	Straight $\Phi 1.5$ " Flat Key 9.52 (25)	Standard 4 Bolt Flange, Pilot $\Phi 127$ (A4)	191m0071	0072	0073	0074	0075	0076	0078	7700
Port M33X2, Rear Case Drain M14X1.5 , Standard Port Face (01)	Square Spline 8D-42X36X7(16)	Standard 4 Bolt Flange, Pilot $\Phi 127$	191m1021	1022	1023	1024	1025	1026	1028	1027
	Straight $\Phi 40$ Flat Key 12 (25)	Standard 4 $\Phi 14$ Bolt Flange Pilot $\Phi 125$ (A4)	191m0151	0152	0153	0154	0155	0156	0158	0157
Port M24X1.5, Rear Case Drain M14X1.5 , (64)	Straight $\Phi 40$ Flat Key 12 (25)	Standard 4 Bolt Flange, Pilot $\Phi 125$ (A2)	191m0011	0012	0013	0014	0015	0016	0018	0017
Port M22X1.5, Rear Case Drain M14X1.5 (65)	Square Spline 6D-40X35X10-35.25 (12)	Large 4 Bolt Flange, Pilot $\Phi 160$ (B2)	192m1081	1082	1083	1084	1085	1086	1088	1087
Port $\Phi 14$, Rear Case Drain G1/4" BSP, Standard Manifold Port Face (62)	Straight $\Phi 40$ Flat Key 12 (26)	Large 4 Bolt Flange, Pilot $\Phi 160$ (B1)	192m0121	0122	0123	0124	0125	0126	0128	0127
Port $\Phi 16$, No Case Drain, Standard Manifold Port Face (07)	Straight $\Phi 40$ Flat Key 12 (25)	Standard 4 Bolt Flange, Pilot $\Phi 127$ (A3)	191m0091	0092	0093	0094	0095	0096	0098	0097
	Square Spline 8D-42X36X7-47 (16)	Standard 4 Bolt Flange, Pilot $\Phi 127$ (A5)	191m1041	1042	1043	1044	1045	1046	1048	1047

SMT 订货信息

油口	输出轴	法兰和止口	排量 cc/r							
			195	245	310	390	490	625	800	985
油口: 1-5/16-12UNF Oring, 泄油口: 7/16-20 UNF Oring, (10)	直轴 Φ38.1, 方键 9.56 (21)	标准4孔法兰, 止口 Φ127 (A3)	193m1064	1065	1066	1067	1068	1107	191m 0188	1069
油口: G1" BSP, 后泄油口: G1/4" BSP, (06)	直轴 Φ40, 平键 12 (31)	标准4孔法兰, 止口 Φ127 (A3)	193m1094	1095	1096	1097	1098	191m 0029	191m 0208	1099
	直轴 Φ38.1, 方键 9.52 (21)	标准4孔法兰, 止口 Φ127 (A3)	191m0131	0132	0133	0134	0135	0136	0138	0137
油口: G1/2", 泄油口: G1/4", (55)	矩形花键 6D-40X35X10-35.25 (12)	4孔大法兰, 止口 F160 (B1)	192m1041	1042	1043	1044	1045	1046	1048	1047
	矩形花键 8D-42X36X7-50 (15)	4孔大法兰, 止口 Φ160 (B1)	192m1091	1092	1093	1094	1095	1096	1098	1097
油口: G3/4" BSP, 泄油口: G1/4" BSP, (56)	直轴 Φ40, 平键12 (24)	标准4孔法兰, 止口 Φ125 (A6)	192m0031	0032	0033	0034	0035	0036	0038	0037
油口: G3/4" BSP, 后泄油口: G1/4" BSP, 标准板式连接油口面 (52)	直轴 Φ40, 平键 12 (25)	标准4孔法兰, 止口 Φ125 (A4)	191m0061	0062	0063	0064	0065	0066	0068	0067
油口: M33X2, 后泄油口 M14X1.5, (01)	直轴 Φ40, 平键 12 (25)	标准4孔法兰, 止口 Φ127 (A3)	191m0011	0012	0013	0014	0015	0016	0018	0017
	矩形花键8D-42X36X7-47 (16)	标准4孔法兰, 止口 Φ127 (A3)	191m1021	1022	1023	1024	1025	1026	1028	1027
	矩形花键 6D-40X35X10-51 (13)	标准4孔法兰, 止口 Φ127 (A3)	191m1031	1032	1033	1034	1035	1036	1038	1037
油口: G3/4", 后泄油口: G1/4", 标准板式连接油口面 (54)	直轴 Φ38.1 方键 9.52 (25)	标准4孔法兰, 止口 Φ127 (A4)	191m0071	0072	0073	0074	0075	0076	0078	7700
油口: M33X2, 后泄油口: M14X1.5, 标准油口面 (01)	矩形花键 8D-42X36X7 (16)	标准4孔法兰, 止口 F127	191m1021	1022	1023	1024	1025	1026	1028	1027
	直轴 Φ40, 平键 12 (25)	标准4孔法兰, 止口 F125 (A4)	191m0151	0152	0153	0154	0155	0156	0158	0157
油口: M24X1.5, 后泄油口: M14X1.5, (64)	直轴 Φ40, 平键 12 (25)	标准4孔法兰, 止口 Φ125 (A2)	191m0011	0012	0013	0014	0015	0016	0018	0017
油口: M22X1.5, 后泄油口: M14X1.5 (65)	矩形 6D-40X35X10-35.25 (12)	标准4孔法兰, 止口 Φ160 (B2)	192m1081	1082	1083	1084	1085	1086	1088	1087
油口: Φ14通孔, 后泄油口: G1/4" BSP, 标准板式连接油口面 (62)	直轴 Φ40, 平键 12 (26)	标准4孔法兰, 止口 Φ160 (B1)	192m0121	0122	0123	0124	0125	0126	0128	0127
油口: Φ16通孔, 无泄油口, 标准板式连接油口面 (07)	直轴 Φ40, 平键 12 (25)	标准4孔法兰, 止口 Φ127 (A3)	191m0091	0092	0093	0094	0095	0096	0098	0097
	矩形花键 8D-42X36X7-47 (16)	标准4孔法兰, 止口 Φ127 (A5)	191m1041	1042	1043	1044	1045	1046	1048	1047

SMT-Wheel Motor Ordering Information

Port	Output Shaft	Flange & Pilot	Displacement cc/r							
			195	245	310	390	490	625	800	985
Port 15/16-12UNF Oring, Rear Case Drain 7/16-20 UNF Oring, (12)	Tapered $\Phi 1.75"$ Flat Key 11.138 (25)	Wheel Motor 4 Bolt Flange, Pilot $\Phi 139.7$	194m1070	1071	1072	1073	1074	1093	191m 4218	1075
Port G1" BSP, Rear Case Drain G1/4" BSP, (01)	Straight $\Phi 40$ Flat Key 12 (25)	Wheel Motor 4 Bolt Flange, Pilot $\Phi 139.7$	194m1082	1083	1084	1085	1086	1100	191m 0228	1087
Port M33X2, Rear Case Drain M14X1.5 (01)	Tapered $\Phi 1.75"$ Flat Key 11.138 (30)	Wheel Motor 4 Bolt Flange, Pilot $\Phi 139.7$	191m4121	4122	4123	4124	4125	4126	4128	4127

SMT-车轮马达订货信息

油口	输出轴	法兰和止口	排量 cc/r							
			195	245	310	390	490	625	800	985
油口15/16-12UNF Oring, 泄油口 7/16-20 UNF Oring, (12)	锥度轴 $\Phi 1.75"$ 方键11.138 (25)	车轮马达4孔法兰, 止口 $\Phi 139.7$	194m1070	1071	1072	1073	1074	1093	191m 4218	1075
油口 G1" BSP, 泄油口 G1/4" BSP, (01)	直轴 $\Phi 40$, 平键 12 (25)	车轮马达4孔法兰, 止口 $\Phi 139.7$	194m1082	1083	1084	1085	1086	1100	191m 0228	1087
油口 M33X2, 泄油口 M14X1.5 (01)	锥度轴 $\Phi 1.75"$ 方键11.138 (30)	车轮马达4孔法兰, 止口 $\Phi 139.7$	191m4121	4122	4123	4124	4125	4126	4128	4127

SMT-Bearingless Motor Ordering Information

Port	Output Shaft	Flange & Pilot	Displacement cc/r							
			195	245	310	390	490	625	800	985
Port R1" BSP O-ring, Drain R1/4" BSP O-ring (06)	8.5/17DP 12Teeth	Standard 4 Bolt Flange, Pilot $\Phi 127$	195m1043	1044	1045	1046	1047	1076	1049	1048
Port G3/4, Drain G1/4 (52)	8.5/17DP 12Teeth	Standard 4 Bolt Flange, Pilot $\Phi 127$	195m9141	9142	9143	9144	9145	9146	9148	9147

SMT-无轴承马达订货信息

油口	输出轴	法兰和止口	排量 cc/r							
			195	245	310	390	490	625	800	985
油口 R1" BSP O-ring, 泄油口R1/4" BSP O-ring (06)	8.5/17DP 12齿	无轴承马达标准4孔法兰, 止口 $\Phi 127$	195m1043	1044	1045	1046	1047	1076	1049	1048
油口 G3/4, 泄油口 G1/4 (52)	8.5/17DP 12齿	无轴承马达标准4孔法兰, 止口 $\Phi 127$	195m9141	9142	9143	9144	9145	9146	9148	9147

Model Code for SMT Series Motors
SMT系列马达编码

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
S	M	T												

Position 1,2,3 ---SMT Series Motor

第1,2,3位数字, 表示SMT系列马达

Position 4 ----Motor Type

第4位数字, 表示马达类型

- A -----Standard Motor A Series, 标准马达A系列
- B -----Standard Motor B (Large Flange) Series ,标准马达B (大法兰) 系列
- C ----- Wheel Motor Series ,车轮马达系列
- D -----Bearingless Motor Series ,无轴承马达系列
- E -----Brake Motor Series , 带制动马达系列

Position 5, 6 ---Displacement, cc/r

第5, 6 位数字, 表示马达排量

- 01 ----195
- 02 ----245
- 03 ----310
- 04 ----390
- 05 ----490
- 06 ----625
- 07 ----800
- 08 ----985

Position 7,8 ----Flanges and Front Drain

第7,8位数字, 表示法兰和前泄油口

NO.	Front Drain 前泄油口	Bolt and bolt circle 螺栓孔及分布圆 $\phi d / \phi D$	Part Code
A1	G1/4"	$\phi 14.5 / \phi 162$	2121-01
A2	M14X1.5	$\phi 14.5 / \phi 162$	2121-02
A3	NO无	$\phi 14.5 / \phi 162$	2121-03
A4	NO无	$\phi 14 / \phi 160$	2121-04
A5	NO无	$\phi 17 / \phi 162$	2121-05

NO.	Front Drain 前泄油口	Bolt and bolt circle 螺栓孔及分布圆 $\phi d/\phi D$	Part Code
A6	G1/4"	$\phi 14/\phi 160$	2121-06
A7	M14X1.5	$\phi 14/\phi 155.56$	2121-09
A8	9/16-18UNF	$\phi 14.5/\phi 162$	2121-10
A9	M14X1.5	$\phi 14/\phi 160$	2121-11
B1	G1/4"	$\phi 18/\phi 200$	2115-01
B2	M14X1.5	$\phi 18/\phi 200$	2115-02
B3	N0无	$\phi 18/\phi 200$	2115-03
C1	N0无	$\phi 14.3/\phi 184.15$	2120
D1	N0无	$\phi 14.3/\phi 162$	2127-01
E1	G1/4"	$\phi 18/\phi 200$	ZDT

Position 9 ----Pilot

第9位数字，表示马达止口尺寸

- A ----A Type Motor Pilot: $\Phi 125$, High: 13.5; A型马达止口 $\Phi 125$, 高: 13.5
- B ---- A Type Motor Pilot: $\Phi 127$, High: 13.5; A型马达止口 $\Phi 127$, 高: 13.5
- C ---- B Type Motor Pilot: $\Phi 160$, High: 8; B型马达止口 $\Phi 160$, 高: 8
- D ---- C Wheel Motor Pilot: $\Phi 139.6$, High: 8; C车轮马达止口 $\Phi 139.6$, 高: 8
- E ---- D Bearingless Motor Pilot: $\Phi 162$ High: 12.5; D无轴承马达 $\Phi 162$ 高: 12.5
- F ---- E Brake Motor Pilot: $\Phi 140$, High: 30; E制动马达止口 $\Phi 140$, 高: 30

Position 10, 11 ----Output Shaft

第10, 11位数字，表示输出轴尺寸

- 01 ---- $\Phi 45$ Involute Splined Shaft 渐开线花键轴, m2.5 Z17; M12
- 02 ---- $\Phi 44$ Involute Splined Shaft 渐开线花键轴, m2.5 Z16; M12
- 03 ---- $\Phi 35$ Involute Splined Shaft 渐开线花键轴, m2 Z16; M12
- 04 ---- $\Phi 38$ Involute Splined Shaft 渐开线花键轴, DP12/24 Z17; 3/8-16UNC
- 05 ---- $\Phi 38$ Involute Splined Shaft 渐开线花键轴, DP12/24 Z17; M12
- 06 ---- $\Phi 38$ Involute Splined Shaft 渐开线花键轴, DP12/24 Z17; 3/8-16UNC
- 07 ---- $\Phi 38$ Involute Splined Shaft 渐开线花键轴, DP12/24 Z17; M12
- 08 ---- $\Phi 38$ Involute Splined Shaft 渐开线花键轴, DP12/24 Z17; 3/8-16UNC



- 09 ---- Square Splined Shaft 矩形花键: 6D- Φ 30X Φ 25.3X8-32;M8
- 10 ---- Square Splined Shaft 矩形花键: 6D- Φ 30X Φ 26X6-40;M8
- 11 ---- Square Splined Shaft 矩形花键: 6D- Φ 38X Φ 31X9-55;M12
- 12 ---- Square Splined Shaft 矩形花键: 6D- Φ 40X Φ 35X10-35;M12
- 13 ---- Square Splined Shaft 矩形花键: 6D- Φ 40X Φ 35X10-51;M8
- 14 ---- Square Splined Shaft 矩形花键: 6D- Φ 40X Φ 35X10-35;M16
- 15----Square Splined Shaft 矩形花键: 8D- Φ 42X Φ 36X7-51;M12
- 16----Square Splined Shaft 矩形花键: 8D- Φ 42X Φ 36X7-47;M10
- 17 ---- Φ 32Cylindrical Shaft ,Flat Key10X55 ; Φ 32 直轴 平键10X55; M8
- 18 ---- Φ 32Cylindrical Shaft ,Flat Key10X45 ; Φ 32 直轴 平键10X45; M12
- 19 ---- Φ 32Cylindrical Shaft ,Flat Key10X50 ; Φ 32 直轴 平键10X50; M12
- 20 ---- Φ 35Cylindrical Shaft ,Flat Key12X70 ; Φ 35 直轴 平键12X70; M12
- 21 ---- Φ 38.1Cylindrical Shaft ,Flat Key9.5X45 ;
 Φ 38.1 直轴 方键9.5X45; 7/8-16UNC
- 22 ---- Φ 40Cylindrical Shaft ,Flat Key12X63 ; Φ 40 直轴 平键12X63; M12
- 23---- Φ 40Cylindrical Shaft ,Flat Key12X45 ; Φ 40 直轴 平键12X45; M12
- 24---- Φ 40Cylindrical Shaft ,Flat Key12X50 ; Φ 40 直轴 平键12X50; M12
- 25---- Φ 40Cylindrical Shaft ,Flat Key12X65 ; Φ 40 直轴 平键12X65; M12
- 26---- Φ 40Cylindrical Shaft ,Flat Key12X70 ; Φ 40 直轴 平键12X70; M12
- 27---- Φ 38.1Cylindrical Shaft ,Flat Key9.5X67 ;
 Φ 38.1 直轴 平键9.5X67; 7/8-16UNC
- 28---- Φ 38.1Cylindrical Shaft ,Flat Key9.5X86 ;
 Φ 38.1 直轴 平键9.5X86; 7/8-16UNC
- 29---- Φ 50Cylindrical Shaft ,Flat Key14X70 ; Φ 50 直轴 平键14X70; M12
- 30 ---- Φ 45Tapered Shaft ,Tapered1:8, Flat key11.138; M33X2
 Φ 45锥轴, 锥度1:8, 方键11.138; M33X2
- 31 ---- Φ 45Tapered Shaft ,Tapered1:8, Flat key11.138; 1-1/4-18
 Φ 45锥轴, 锥度1:8, 方键11.138; 1-1/4-18

Position 12、13 ----Port, Case Drain Port

第12、13位数字，表示油口和泄油口尺寸

NO.	PORT: 油口:	CASE DRAIN: 泄油口
01	M33X2	M14X1.5
02	G1	G1/4
03	G3/4	G1/4
04	M33X2	G1/4
05	M27X2	G1/4
06	R1	R1
07	2 - \varnothing 16 Manifold Mount	M14X1.5
08	2 - \varnothing 16 Manifold Mount	NONE(无)
09	2 - \varnothing 16 Manifold Mount	M14X1.5
10	1. 1325-12UNF	0. 4375-20UNF
11	1. 0625-12UNF	0. 4375-20UNF
12	2 - \varnothing 16 Manifold Mount	M14X1.5
51	G1 Manifold Mount	G1/4
52	G3/4	G1/4
53	M27X2	G1/4
54	ZG3/4	G1/4
55	G1	NONE(无)
56	G3/4	NONE(无)
57	M22X1.5	NONE(无)
58	G1/2	NONE(无)
59	M33X2	NONE(无)
60	G1	G1/4
61	2 - \varnothing 14 Manifold Mount	NONE(无)
62	2 - \varnothing 14 Manifold Mount	NONE(无)
63	1. 0625-12UNF	NONE(无)
64	M24X1.5	NONE(无)
65	M22X1.5	G1/4

Position 13 ----Paint

第13位数字，表示喷漆要求

- 0 ----No Paint 不喷漆
- 1 ----Blue 喷标准蓝漆
- 2 ----Black 喷标准磷化黑漆
- 3 ---- Others, Please Note on PO 其它要求,请下订单时注明

Position 14 ----Specical Features

第14位数字，表示一些特殊要求

0 ----None

无其它要求

1 ----Viton Shaft Seal

轴密封材质为氟橡胶

2 ----Vition Seals

密封圈材质为氟橡胶

3 ----Viton Shaft Seal and Viton Seals

轴密封和其它密封圈材质均为氟橡胶

Position 15 ----Motor Rotation 马达旋转方向

Viewed From Shaft End 面对输出轴轴端

A ----Port A Pressurized CW A 油口进压力油，顺时针旋转

B ----Port A Pressurized CCW A 油口进压力油，逆时针旋转