



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

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### BM3 Series Technical Information

### BM3系列马达 技术参数



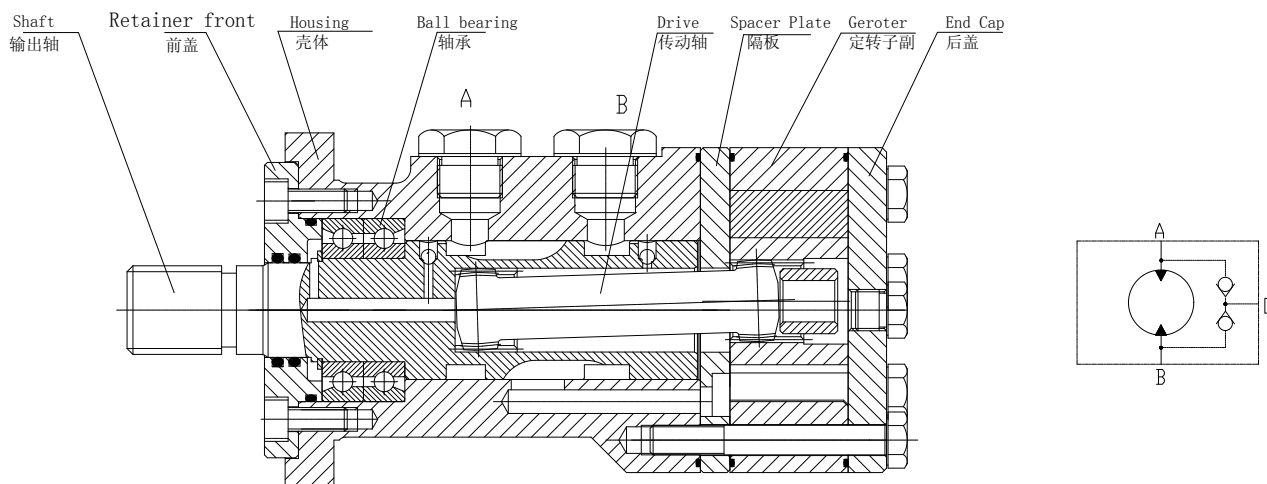
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# BM3 Series

## BM3系列



### • Design Features

#### • 结构特点

#### • Geroler design, including ring, star, needle

#### • 镶齿式定转子副设计

#### • Use high pressure capacity shaft seal

#### • 采用耐高压轴密封

#### • 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

#### • Big diameter dimension Geroler than SMR

#### • 定转子副直径尺寸比SMR大

#### • Able to work under high pressure

#### • 能承受更高的压力

#### • Extended motor life

#### • 超长整机使用寿命

#### • Extended leak-free performance

#### • 超长的密封部件使用寿命

#### • 主要应用于石油，煤炭机械，小型吊车等工程机械

## • Specification Data

## BM3轴配流液压马达

## •性能参数

Displacement(排量) cc/r		100	125	160	200	245	305	395	
Max.Speed 最高转速	RPM	Continuous (连续)	400	370	250	200	175	160	120
		Intermittent (不连续)	500	420	315	250	225	200	140
Flow 流量	LPM	Continuous (连续)	50	50	50	50	50	50	50
		Intermittent (不连续)	60	60	60	60	60	60	60
Torque N.m 扭矩		Continuous (连续)	175	230	271	328	384	480	500
		Intermittent (不连续)	197	340	379	355	410	509	628
Pressure drop 压力(两油口压差)	△ Bar	Continuous (连续)	124	124	115	110	100	90	90
		Intermittent (不连续)	138	130	124	124	120	120	110

**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.

•不连续压力是指马达进油口允许承受的压力, 连续压力指两油口连续工作时的压力差

A simultaneous maximum RPM and maximum pressure NOT recommended  
Maximum pressure or maximum RPM operation: 10% of every minute

•马达不允许同时在最大转速和最大压力的工况下使用

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

•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

Special high pressure capacity shaft seal ensures back pressure up to 10 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.

•轴密封可承受10Mpa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

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.

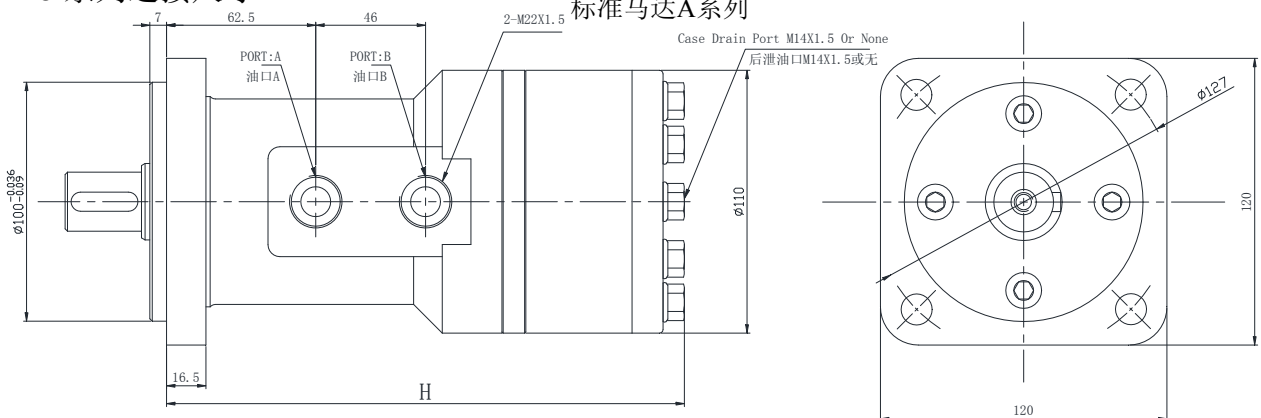
•强烈推荐马达在满负荷运行前先以30%的负荷运行约1小时, 以使马达得到充分的磨合

## •BM3 Series Dimensions

## BM3 系列连接尺寸

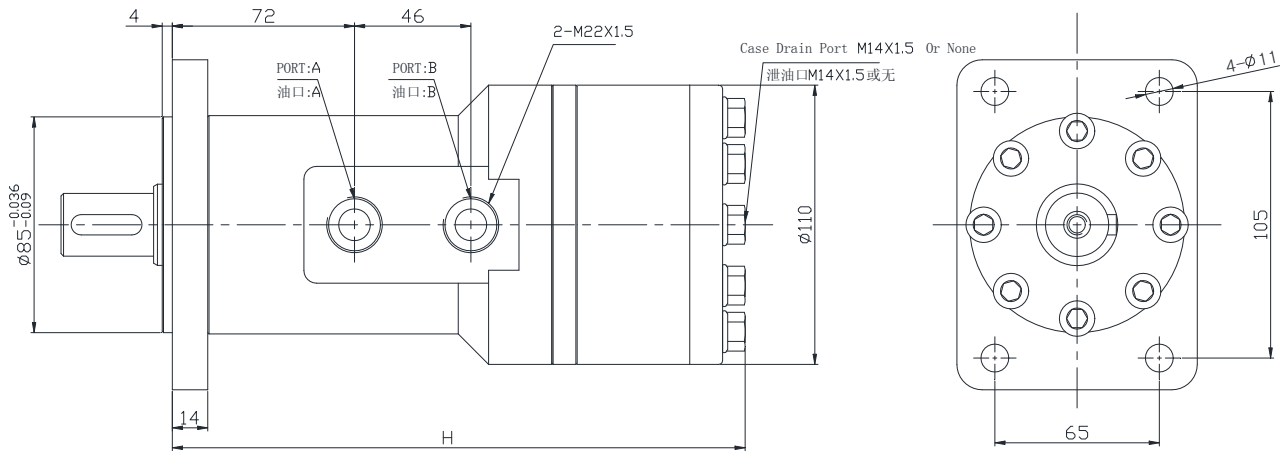
## Standard Motor A Series

## 标准马达A系列



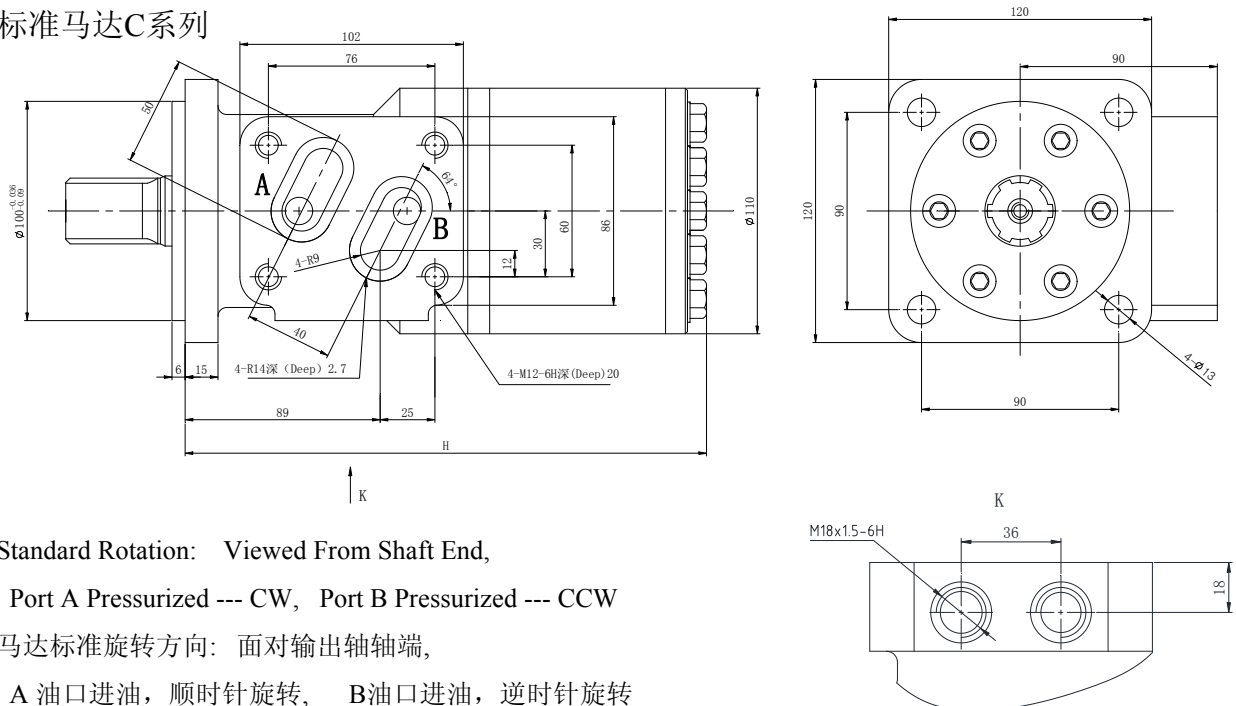
Standard Rotation: Viewed From Shaft End, Port A Pressurized --- CW, Port B Pressurized --- CCW

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

**Standard Motor B Series**
**标准马达B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

**Standard Motor C Series**
**标准马达C系列**


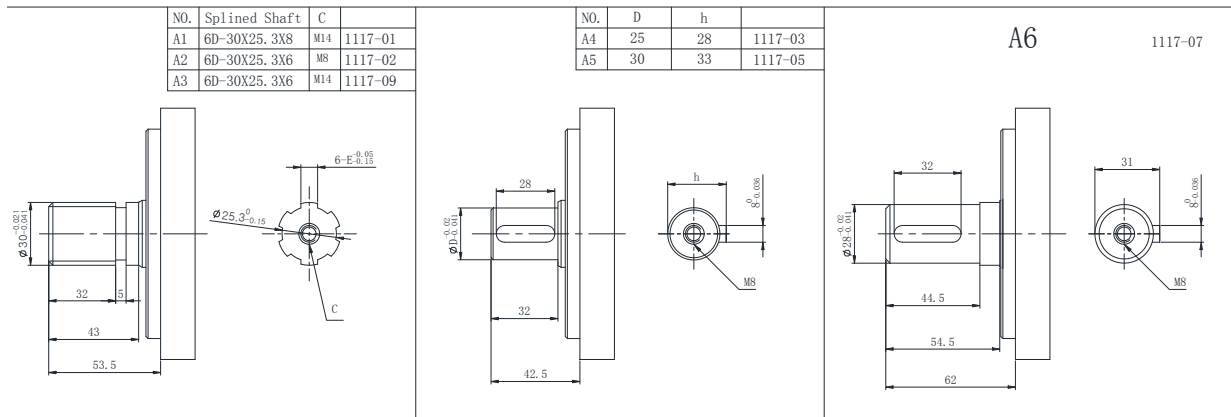
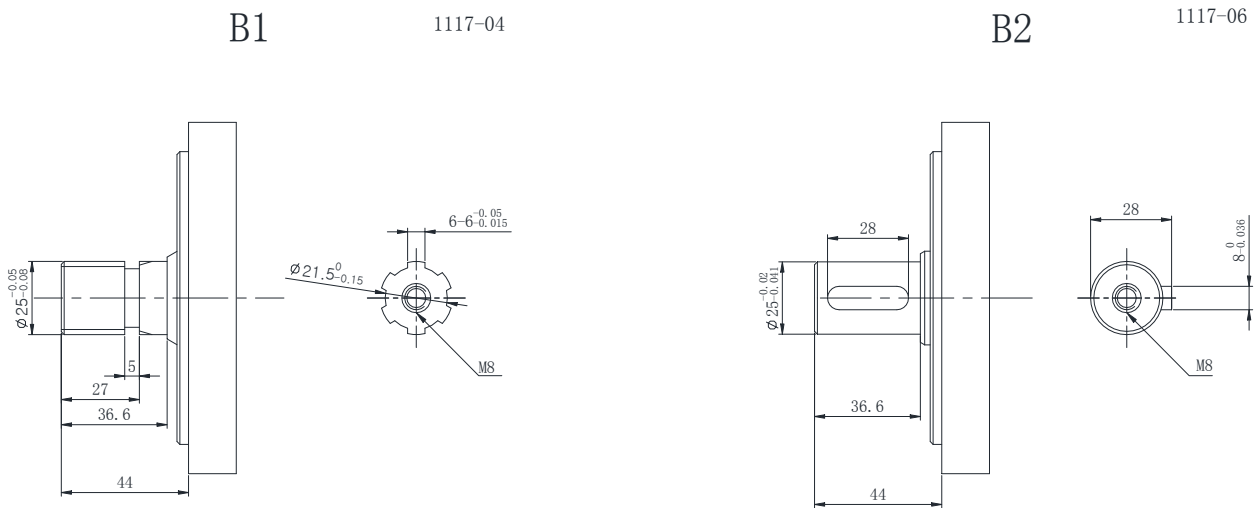
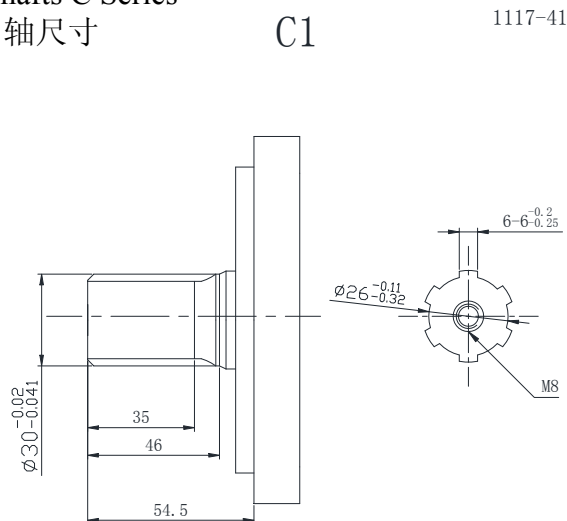
Standard Rotation: Viewed From Shaft End,

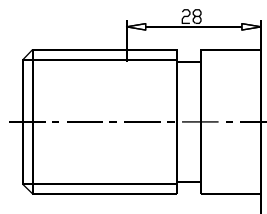
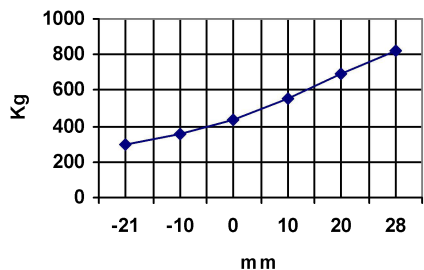
Port A Pressurized --- CW, Port B Pressurized --- CCW

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		100	125	160	200	250	320	400
A Series	A系列	191	198	203	209	219	229	245
B Series	B系列	201	208	213	219	229	239	255
C Series	C系列	180	187	192	198	208	218	234

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

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

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


**Shaft Side Load Capacity SMR Series**  
**BM3系列马达输出轴侧向载荷能力**
**BM3轴配流液压马达**

**Order Information**

Flange And Pilot	Shaft	Port	Displacement cc/r						
			100	125	160	200	250	320	400
4 Bolt Flange 4-φ13 Hole Pilot φ100 (A Series)	Straightφ25 Flat8(A4)	2-M22X1.5 No Case Drain	171m1113	1112	1114	1115	1116	1117	1119
	Straightφ30 Flat8(A5)		171m1123	1124	1125	1126	1127	1129	
	6D-30X26X8(A1)		171m1133	1132	1134	1135	1136	1137	1139
	6D-30X26X6(A2)		171m1143	1144	1145	1146	1147	1149	
	Straightφ25 Flat8(A4)	2-M22X1.5 Case Drain M14X1.5	171m1153	1152	1154	1155	1156	1157	1159
	Straightφ30 Flat8(A5)		171m1163	1164	1165	1166	1167	1169	
	6D-30X26X8(A1)		171m1173	1172	1174	1175	1176	1177	1179
	6D-30X26X6(A2)		171m1183	1184	1185	1186	1187	1189	
6D-30X26X6(A1)	Higt Port 2-M22X1.5 No Case Drain	171m1203	1204	1205	1206	1207	1209		
4 Bolt Flange 4-φ13 Hole Pilot φ100 (C Series)	6D-30X26X6(C1)	Manifold Mount 4-M12 Side Port M18X1.5	175m1143	1144	1145	1146	1147	1149	
4-φ11 Long Flange φ85 (B Series)	6D-25X22X6(B1)	2-M22X1.5 No Case Drain	171m1193	1194	1195	1196	1197	1199	
	Straightφ25 Flat8(B2)		171m1213	1212	1214	1215	1216	1217	1219

**订货信息**
**BM3轴配流液压马达**

安装法兰	输出轴	油口形式	排量cc/r						
			100	125	160	200	250	320	400
四方法兰, 4-φ13通孔连接, φ127分布φ100止口 (A型)	φ25直轴平键8 (A4)	2-M22X1.5直油口面内泄	171m1113	1112	1114	1115	1116	1117	1119
	φ30直轴平键8 (A5)		171m1123		1124	1125	1126	1127	1129
	6D-30X26X8 (A1)		171m1133	1132	1134	1135	1136	1137	1139
	6D-30X26X6 (A2)		171m1143		1144	1145	1146	1147	1149
	φ25直轴平键8 (A4)	2-M22X1.5直油口面M14X1.5外泄	171m1153	1152	1154	1155	1156	1157	1159
	φ30直轴平键8 (A5)		171m1163		1164	1165	1166	1167	1169
	6D-30X26X8 (A1)		171m1173	1172	1174	1175	1176	1177	1179
	6D-30X26X6 (A2)		171m1183		1184	1185	1186	1187	1189
	6D-30X26X6 (A1)	2-M22X1.5高油口面中心距45内泄	171m1203		1204	1205	1206	1207	1209
	四方法兰, 4-φ13通孔连接, φ127分布φ100止口 (C型)	6D-30X26X6 (C1)	4-M12板式油口面, 测油口M18X1.5	175m1143		1144	1145	1146	1147
4孔长方法兰4-φ11止口φ85 (B型)	6D-25X22X6 (B1)	2-M22X1.5直油口面内泄	171m1193		1194	1195	1196	1197	1199
	25直轴平键8 (B2)		171m1213	1212	1214	1215	1216	1217	1219

**Model Code for BM3 Series Motors**
**BM3系列马达型号编码**

1	2	3	4	5	6	7	8	9	10	11	12
B	M	3									

Position 1,2,3 ---BM3 Series Motor

第1, 2, 3位数字, 表示BM3系列马达

Position 4,5 ----Displacement, cc/r

第5, 6位数字, 表示马达排量

01 ---- 100

02 ---- 125

03 ---- 160

04 ---- 200

05 ---- 245

06 ---- 305

07 ---- 395

- Position 6 ----Motor Type  
 第4位数字, 表示马达类型
- A ---- 4-Bolt Flange, pilot  $\Phi$  100 , High7; Port: 2-M22X1.5  
 4孔方法兰,止口 $\Phi$ 100高7;油口2-M22X1.5
  - B ---- 4-Bolt Flange, pilot  $\Phi$  85 , High4; Port: 2-M22X1.5  
 4孔长方法兰,止口 $\Phi$ 85高4;油口2-M22X1.5
  - C ---- 4-Bolt Flange, pilot  $\Phi$  100 , High6; Port: 4 - M12Manifold Mount  
 4孔方法兰,止口 $\Phi$ 100高6;4-M12板式连接
- Position 7,8 ---- Output Shaft  
 第7, 8位数字, 表示输出轴尺寸
- A1 ---- Square Spline矩形花键6D-30X25.3X8, M14.
  - A2 ---- Square Spline矩形花键6D-30X25.3X6, M8.
  - A3 ---- Square Spline矩形花键6D-30X25.3X6, M14.
  - A4 ----  $\Phi$  25Cylindrical shaft, parallelkey8X28;  $\Phi$  25直轴平键8X28, M8.
  - A5 ----  $\Phi$  28Cylindrical shaft, parallelkey8X28;  $\Phi$  28直轴平键8X28, M8.
  - A6 ----  $\Phi$  28Cylindrical shaft, parallelkey8X32;  $\Phi$  28直轴平键8X32, M8.
  - B1 ---- Square Spline矩形花键6D-25X21.5X6,M8.
  - B2 ----  $\Phi$  25Cylindrical shaft, parallelkey8X28;  $\Phi$  25直轴平键8X28, M8.
  - C1 ---- Square Spline 矩形花键6D-30X26X6, M8.
- Position 9 ---- Case drain Port , 第9位数字, 表示泄油口尺寸
- A – None 无泄
  - B – M14X1.5 M14X1.5 油口
  - C – Others, Please Note on PO 其它要求, 请下单时注明
- Position 10 ---- Paint, 第10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, 请下单时注明
- Position 11 ----Specical Feature,第11位数字, 表示一些特殊要求
- 0 – None 无特殊要求
  - 1 –Others, Please Note on PO 其它要求, 请下单时注明
- Position 12 ----Motor Rotation 第12位数字, 表示马达旋转方向
- 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