

# KAIMING MACHINERY

## 关于我们 About Us

Henan Kaiming Machinery Co., Ltd., the main products are: hydraulic motors, hydraulic winch, reducer, hydraulic steering gear, Rexroth solenoid valve.

The hydraulic motors include: BM series orbit hydraulic motor, JMDG series radial piston hydraulic motor, QJM sphere piston hydraulic motor, BGM series swivelling cylinder hydraulic motor, hydraulic transmission and hydraulic slewer.

The company's products can be widely used in mining construction machinery, lifting transport equipment, heavy metallurgy machinery, oil and coal machinery, marine deck machinery, machine tools, light industry, plastic machinery, geological drilling equipment, agricultural and forestry machinery, mineral machinery, construction Equipment and work platforms, lawn mowers, special vehicles, fishing winches, machine tools, woodworking and sawing machines, rubber machinery and other mechanical hydraulic transmission system ect.

Our products exported to Germany, Australia, Canada, Britain, Russia, Ukraine, Belarus ect .

Providing the highest quality products and first-class service to customers is our pursuit and objective.

河南凯铭机械设备有限公司，主要销售经营的产品有：液压马达、液压绞车、减速机、液压转向器、力士乐电磁阀。

其中液压马达有：BM系列摆线液压马达、JMDG系列曲轴连杆径向柱塞液压马达、QJM径向钢球液压马达、NGM系列摆缸液压马达、液压回转传动装置。

公司目前产品可广泛应用于矿山建筑工程机械、起重运输设备、重型冶金机械、石油煤矿机械、船舶甲板机械、机床、轻工、塑料机械、地质钻探设备、农业和林业机械、矿物机械、建筑设备和工作平台、割草机、特殊车辆、渔业卷扬机、工具机、木工和锯木机、橡胶机械等各种机械的液压传动系统中。

产品出口至德国、澳大利亚、加拿大、英国、俄罗斯、乌克兰、白俄罗斯等国家。

为客户提供最优质的产品和一流的服务是我们的追求和目标

# 核心产品 Core Benefit

第一册  
Chapter 1 液压马达  
Hydraulic Motor

第二册  
Chapter 2 减速机  
Reducer

第三册  
Chapter 3 液压绞车  
Hydraulic winch

第四册  
Chapter 4 液压转向器  
Hydraulic steering gear

第五册  
Chapter 5 力士乐电磁阀  
Rexroth solenoid valve



## HYDRAULIC MOTOR 液压马达

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QJM 钢球液压马达	QJM Sphere Piston Hydraulic Motor
BGM 系列摆缸液压马达	BGM SWIVELLING CYLINDER HYDRAULIC MOTOR

河南凯铭机械设备有限公司  
HENAN KAIMING MACHINERY CO., LTD



## JBMR 带制动器液压马达 JBMR Hydraulic Motor with Braker



### ● 产品概述 INTRODUCTION

JBMR 带制动器液压马达是由 BMR 摆线马达和多片式摩擦制动器组合而成, 本马达自带梭阀, 内置控制油路, 结构紧凑, 径向尺寸小, 具有体积小, 重量轻, 使用安装方便等特点。适用于建筑、船舶、起重运输、港口、矿山、冶金和其他工程机械等行业设备中。

JBMR are BMR orbit hydraulic motor with multi-disc brake. There are shuttle valve and inner hydraulic control system. It has small volume, short radial dimension, low weight and easy to install. It's widely applied in construction machinery, shipping machinery, cranes, mining, port, metallurgical industry, etc.

### ● 型号意义 ORDERING CODE

	1	2	3	4	5
JBMR	-				/

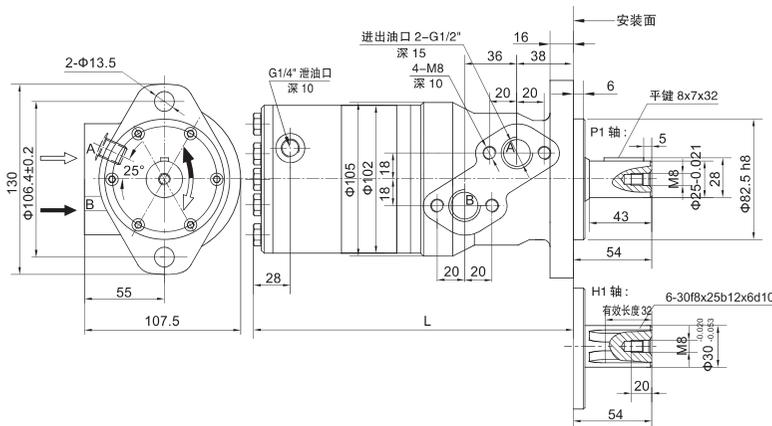
- |   |                         |
|---|-------------------------|
| 1、马达排量 Displacement                                     | 3、安装法兰 Mounting Flange  |
| 2、输出轴型式 Output shaft                                    | 4、油口 Ports              |
| P1- 标准平键 Standard flat key H1- 标准花键 Standard spline key | 5、特殊要求 Special Features |

### ● 技术参数 TECHNICAL DATA

型号 Type	排量 Displacement ml/r	最大工作压力 Max.pressure Mpa	最大扭矩 Max.torque N.m	转速范围 Speed range r/min	开启压力 Releasing pressure Mpa	静态制动扭矩 Static brake torque N.m	配用马达 Associated motor	重量 Weight kg	长度 L Length mm
JBMR-80	80.5	14	152	20-500	1.3-1.7	250-300	BMR-80	12.3	240
JBMR-100	100.5	14	194	20-450	1.3-1.7	250-300	BMR-100	12.5	244
JBMR-125	126.3	14	237	20-400	1.3-1.7	250-300	BMR-125	12.8	248
JBMR-160	160.8	14	310	20-300	2.6-3.2	450-500	BMR-160	13	254
JBMR-200	200.9	14	369	20-250	2.6-3.2	450-500	BMR-200	13.5	261
JBMR-250	252.6	11	380	15-200	2.6-3.2	450-500	BMR-250	14	270
JBMR-315	321.5	9	380	15-160	2.6-3.2	450-500	BMR-315	14.5	282

注: 1、JBMR马达只适用于静态制动 / 2、当马达制动时, 对于内控型马达, 进油口不可有压力, 否则会减小制动扭矩。  
对于外控型马达, 控制油口不可有压力, 否则会减小制动扭矩。

### ● JBMR-80(80-315)P1(H1) A II Y 外形安装图 Installation



## JDM 液压制动器 JDM Hydraulic braker



### ● 产品概述 INTRODUCTION

JDM 系列常闭式液压制动器主要由摩擦片和高强度弹簧等组成。通过外接控制油路压力释放制动, 动力输入优先配合摆线液压马达使用, 具有无噪音、可靠性高、结构紧凑、安装方便等特点。适用于工程机械、搬运机械、农用机械等。

**特别注意: 该制动器只能用于静态制动, 不建议在动态制动上使用。**

JDM series hydraulic braking device is mainly composed of friction plate and high strength spring, through the external working pressure released brake, input power priority with orbit hydraulic motor. Having characteristics of low noise, high reliability, compact structure, convenient installation, etc. It is suitable for engineering machinery, handling machinery, agricultural machinery, etc.

### ● 型号意义 ORDERING CODE

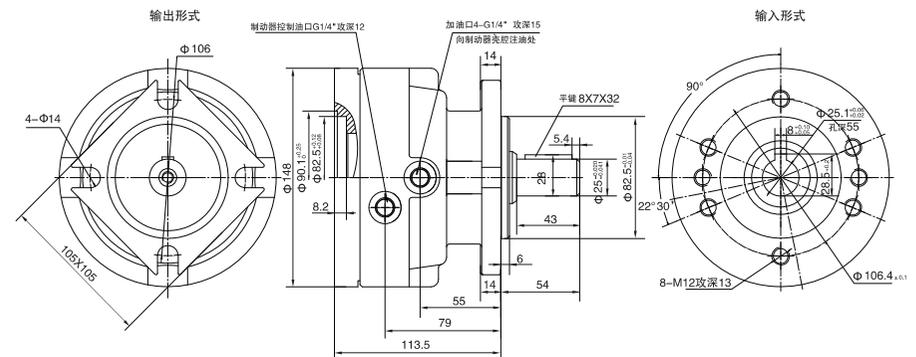
	1	2	3	4	5	6
JDM2	/	430	-	F	-	B - B / T

- 1、产品系列 Product Series
- 2、制动扭矩 Brake Torque
- 3、安装法兰 Mounting Flange
- 4、输出轴 Output Shaft Type
- 5、输入形式 Input Type
- 6、特殊要求 Special Features

### ● 技术参数 TECHNICAL DATA

型号 Type	静态制动扭矩 Static brake torque N.m	开启压力 Releasing pressure Mpa	最大控制油压 MAX control pressure Mpa	泄油口最大压力 MAX oil drain pressure Mpa	重量 weight kg	腔体润滑油容积 Lubricating oil volume ml	转速范围 Speed range r/min
JDM2-430	410-450	2.2-2.7	20	0.05	9	50-100	0-800
JDM2-230	210-230	2.2-2.7	20	0.05	9	50-100	0-800

### ● JDM2-430-F-B-B 外形安装图 Installation



## JSM 型带减速器的液压马达 JSM Hydraulic Motor with Decelerator



### 产品介绍 Introduction

JSM 型带减速器液压马达是由液压马达和行星齿轮减速器组合而成,具有体积小、低速稳定性好、价格性能比高的特色。特别适合于需要径向尺寸小、转速低、扭矩大的场合。  
JSM decelerator associated hydraulic motor is made up of planet gear decelerator and hydraulic motor. Small, stable at low speed, high performance and low price. Especially fit for small radial space, low speed and large torque needed working place.

### 技术参数 Technical Data

型号 Type	排量 Displacement ml/r	最高工作压力 Max.pressure Mpa	最大工作扭矩 Max.torque N·m	转速范围 Speed range r/min	减速器传动比 Ratio of gearbox	液压马达 Associated motor	重量 Weight kg	长度 L Length mm
JSM1.03-730/B	728.6	11.5	1000	9-60	4.58	BM4-160	40	425
JSM1.03-920/B	921.3	13.6	1500	9-60	4.58	BM4-200	40	429.5
JSM1.03-1450/B	1456.8	11.5	2000	9-50	4.58	BM4-320	40	442
JSM1.03-1840/B	1842.6	13.7	3000	9-40	4.58	BM4-400	40	451
JSM1.06-2730/B	2731.3	12.3	4000	7-40	4.42	BM5-630	100	465.5
JSM1.06-3480/B	3481.1	12	5000	6-35	4.42	BM5-800	100	479.5
JSM1.06-4285/B	4284.4	11.7	6000	6-30	4.42	BM5-985	100	494.5
JSM600/C	580	20	1500	3-65	6	JMDG2-100	45	350
JSM900/C	940	20	2260	3-65	6	JMDG2-150	45	350
JSM1000/C	1050	20	2630	3-65	6	JMDG2-175	45	350
JSM1200/C	1200	20	3000	3-65	6	JMDG2-200	45	350
JSM1500/C	1520	25	4780	2-58	6	JMDG3-250	85	345
JSM1800/C	1730	20	4500	2-58	6	JMDG3-300	85	345
JSM2100/C	2100	20	5260	2-58	6	JMDG3-350	85	345
JSM4200/C	4258	14.8	8000	7-35	5.6	JMDG6-750	-	497.5
JSM6300/C	6307	15	12000	6-35	5.6	JMDG8Y-1100	-	502.5
JSM7000/C	6900	20	17500	3-65	5	JMDG16-1400	-	478
JSM10000/C	10000	20	25400	3-45	5	JMDG16-2000	-	478
JSM12000/C	12000	16	24000	3-40	5	JMDG16-2400	-	478

### 型号意义 Ordering Code

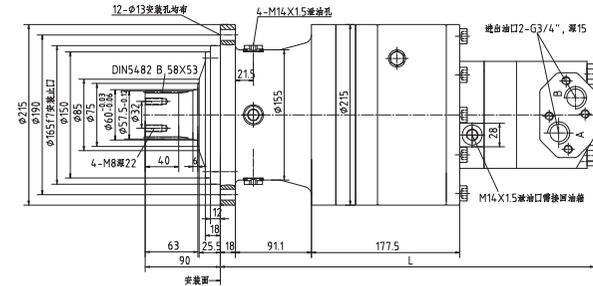
JSM □-□/□-□-□-□-□  
1 2 3 4 5 6 7 8

- 带减速器的液压马达 JSM Hydraulic Motor with Decelerator
- 减速级数:1为一级减速, 2为二级减速, 3为三级减速, 4为四级减速, 后跟03, 06, 09, 12等为底座号 Decelerating Grade: 1—one grade, 2—two grade, 3—three grade 4—four grade, Followed by 03, 06, 09, 12 as the base.
- 总排量 Total Displacement
- 马达类型 Associated motor: B—摆线马达 Orbit motor C—五星马达 Radial piston motor D—高速柱塞马达 High speed piston motor E—摆缸马达 Swivelling cylinder motor
- 安装法兰代号 Installation dimension: F—立式前法兰 Vertical front flange M—立式中法兰 Vertical middle flange R—立式后法兰 Vertical retral flange
- 输出轴型式 Shaft type: B—平键 Flat key H—矩形花键 Rectangle spline K—渐开线花键 Involute spline Z—齿轮 Gear
- 内置液压控制系统 Inner hydraulic control syste
- 进、出油口尺寸 Ports

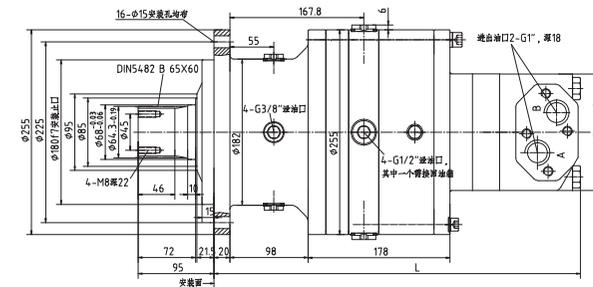
例: JSM1.03-1160/B-F-Z-Y表示带减速器的液压马达, 一级行星齿轮减速, 总排量为1160ml/r, 配摆线液压马达, 立式前法兰, 输出形式为齿轮输出, 不带阀, 进、出油口为Y(油口G1/2"、泄油口M14X1.5)。  
Example: JSM1.03-1160/B-F-Z-Y says JSM hydraulic Motor with Decelerator, one grade planetary gear reducer, Total displacement of 1160 ml/r, matched Orbit motor, Vertical front flange, gear output, without valve, oil inlet and outlet Y (oil port G1/2", drain port M14X1.5).

## JSM 型带减速器的液压马达 JSM Hydraulic Motor with Decelerator

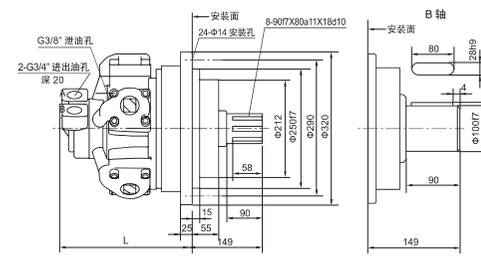
### JSM1.03-730~1840/B-F1-K1-Y 外形安装图 Installation



### JSM1.06-2730~4285/B-F6-K-Y 外形安装图 Installation

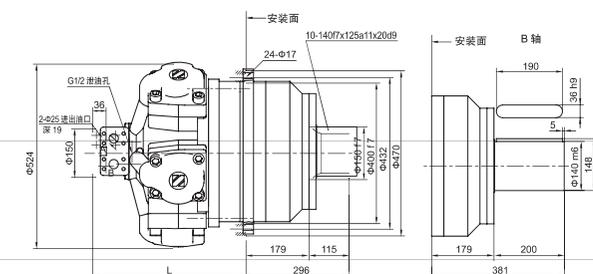


### JSM1500~2100/C-M20-H20-D31 外形安装图 Installation



注: 1、本公司有多种法兰输出端型式。 1. All kinds of flanges and shaft types are available.  
2、特殊要求可与本公司联系。 2. Special types can be supplied.

### JSM7000~12000/C-M-H-D47 外形安装图 Installation



## BMR 型轴向配油摆线液压马达 BMR Orbit Hydraulic Motor With Spool Valve

## BMR 型轴向配油摆线液压马达 BMR Orbit Hydraulic Motor With Spool Valve

### 产品概述 INTRODUCTION



本系列马达壳体采用足够强度的球墨铸铁铸造而成，适用于负载较小且间隙工作的场合，广泛应用于农业、林业、塑料、机床、矿业机械，如注塑机的调模，清扫机，锯木机、工作平台等。

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 saw the worktable etc.

### 性能特点 CHARACTERISTICS

- 1 主轴上装有深沟球轴承，可承受一定的轴向力和径向力。
- 2 采用了轴向配油结构，体积小、重量轻。
- 3 内置2个单向阀，不需要外接泄油管。
- 4 采用了有滚柱的摆线轮组，摩擦力小，机械效率高。
- 1 The output shaft, with the deep groove ball bearing, can bear certain axial force and radial force.
- 2 With the axial oil distribution structur, 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.

### BMR 技术参数 TECHNICAL DATA

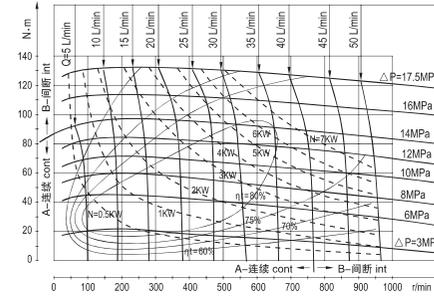
型号 TYPE	BMR-50 BMRW-50 BMRS-50	BMR-80 BMRW-80 BMRS-80	BMR-100 BMRW-100 BMRS-100	BMR-125 BMRW-125 BMRS-125	BMR-160 BMRW-160 BMRS-160	BMR-200 BMRW-200 BMRS-200	BMR-250 BMRW-250 BMRS-250	BMR-315 BMRW-315 BMRS-315	BMR-400 BMRW-400 BMRS-400
排量 Displacement(ml/r)	51.7	80.5	100.5	126.3	160.8	200.9	252.6	321.5	401.9
最大压降 Max. Pressure Drop (Mpa)	连续 cont.	14	14	14	14	14	11	9	7
	间断 int.	17.5	17.5	17.5	17.5	17.5	14	11	9
	尖峰 peak.	20	20	20	20	20	16	13	11
最大扭矩 Max. torque (N.m)	连续 cont.	93	152	194	237	310	369	380	380
	间断 int.	118	189	236	296	378	450	470	470
	尖峰 peak.	135	216	270	338	433	509	540	540
转速范围 (连续) Speed. Range(cont.)(r/min)	10-775	10-750	10-600	10-475	10-375	10-300	10-240	10-190	10-160
最大流量 (连续) Max. Flow(cont.)(L/min)	40	60	60	60	60	60	60	60	60
最大输出功率 (连续) Max. Output Power(cont.)(Kw)	7	10	10	10	10	8	6	5	4
重量 Weight (kg)	6.5	6.9	7.0	7.3	7.5	8.0	8.5	9.0	11

间断工作时间每分钟不得超过6秒，尖峰工作时间每分钟不得超过0.6秒  
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

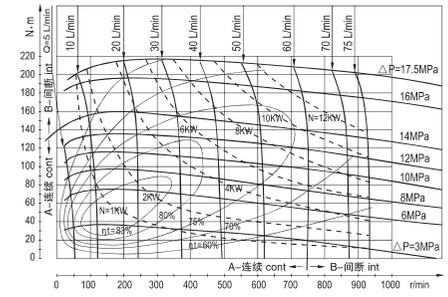
轴承受最大扭矩(N.m):  $\Phi 25$ ,  $\Phi 25.4$ 花键轴为360,  $\Phi 25$ ,  $\Phi 25.4$ 平键轴为300

### BMR性能曲线图 FUNCTION DIAGRAMS

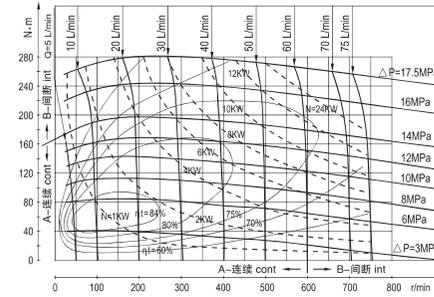
BMR-50



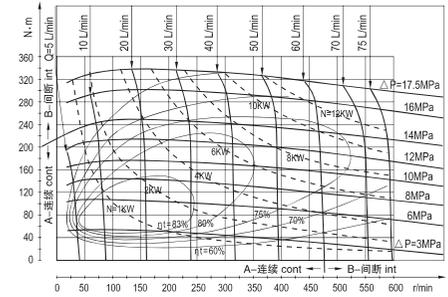
BMR-80



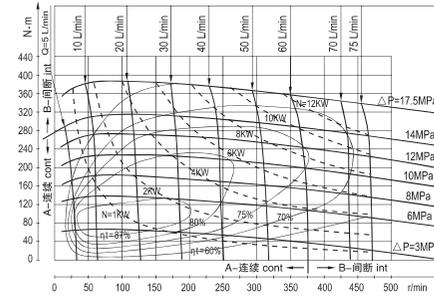
BMR-100



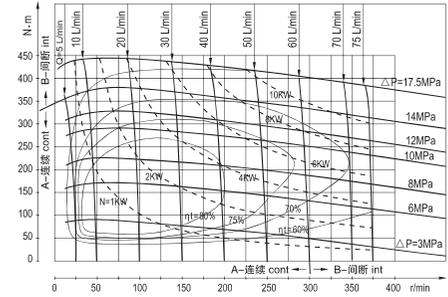
BMR-125



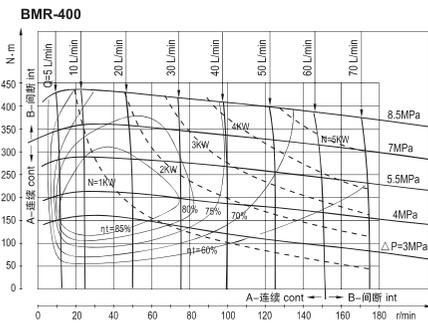
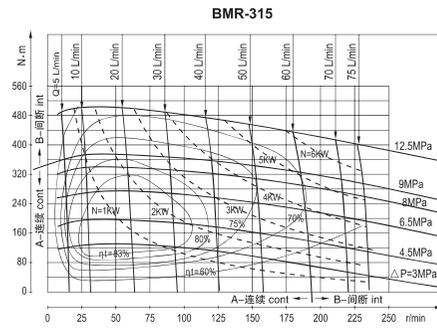
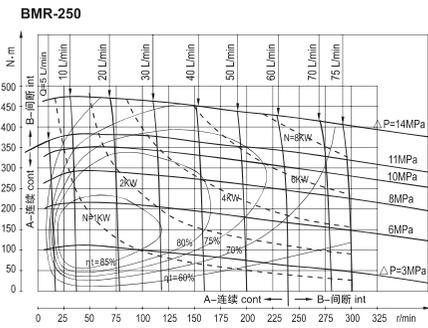
BMR-160



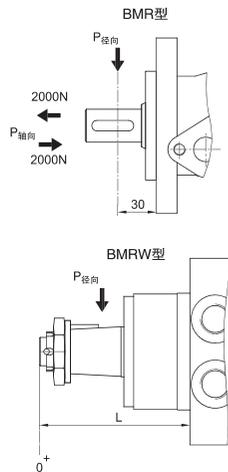
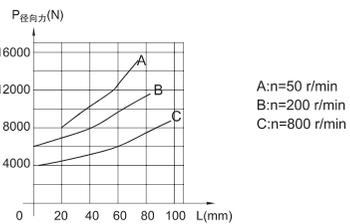
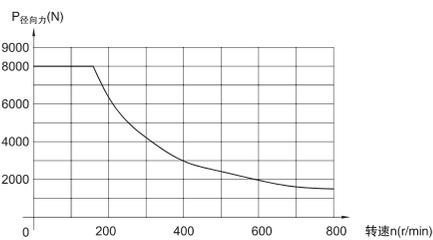
BMR-200



■ BMR性能曲线图 FUNCTION DIAGRAMS

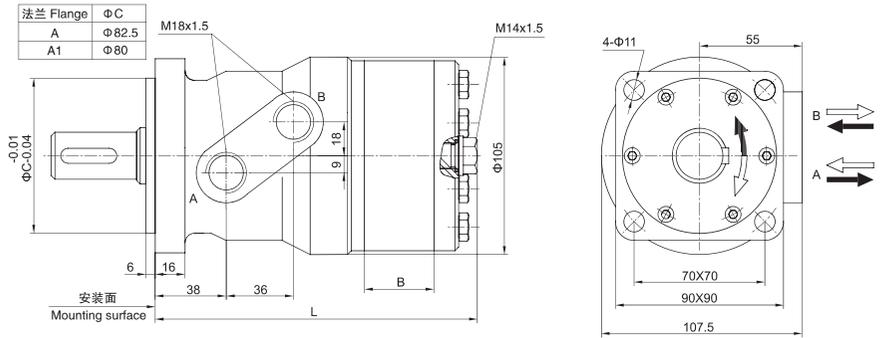


■ 输出轴允许负载 PERMISSIBLE SHAFT LOADS

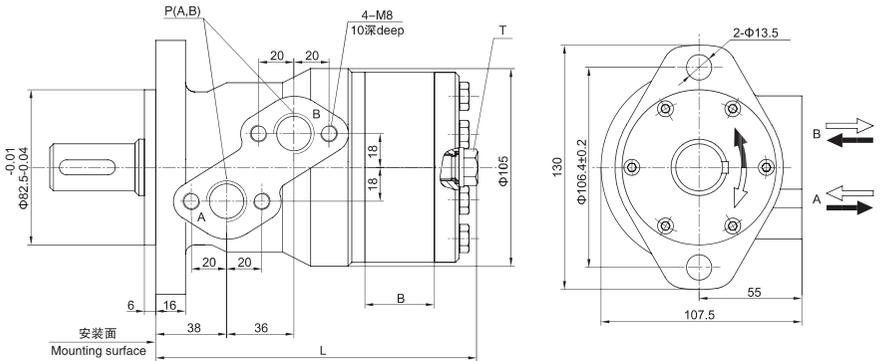


■ BMR外形安装图 Installation

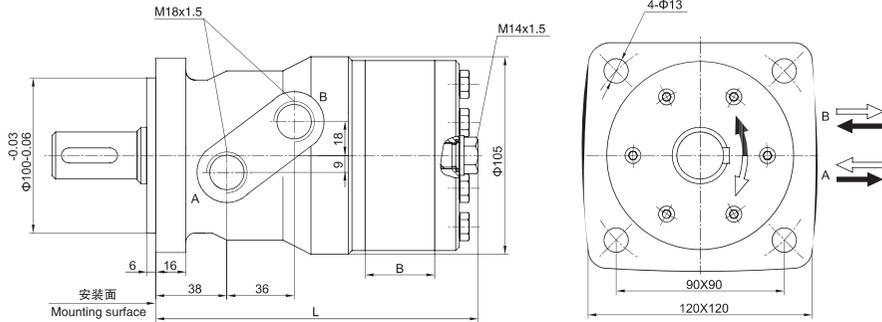
A, A1型 方法兰 A, A1 Version Square flange  
仅配Y1油口, Only match with Y1 ports



A II, 2孔菱形法兰 A II, Version 2-hole oval flange



A2 III型 大方法兰 A2 III Version Square flange  
仅配Y1油口, Only match with Y1 ports



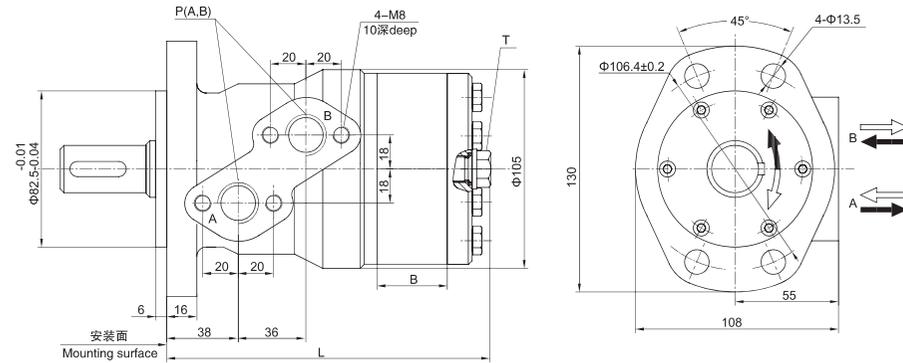
P(A,B)—进出口, 详见第18页型号说明; T—泄油口, 详见第18页型号说明。  
P(A,B)—Ports, can be found on page 18; T—Drain connection, can be found on page 18.

## BMR 型轴向配油摆线液压马达 BMR Orbit Hydraulic Motor With Spool Valve

## BMR 型轴向配油摆线液压马达 BMR Orbit Hydraulic Motor With Spool Valve

### ■ BMR 外形安装图 Installation

AIV 4孔菱形法兰 AIV Version 4-hole oval flange

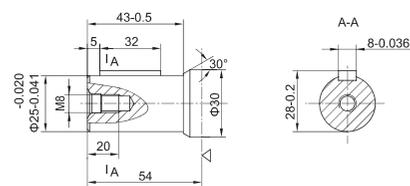


型号 TYPE	BMR-50	BMR-80	BMR-100	BMR-125	BMR-160	BMR-200	BMR-250	BMR-315	BMR-400
L	142	147	150.5	155	161	168	177	189	203
B	9	14	17.5	22	28	35	44	56	70

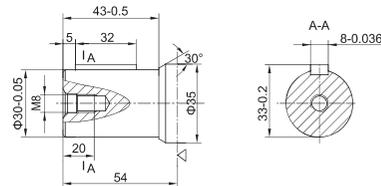
P(A,B)—进出口, 详见第6页型号说明; T—泄油口, 详见第6页型号说明。  
P(A,B)—Ports, can be found on page 6; T—Drain connetition, can be found on page 6.

### ■ BMR 外形连接尺寸-输出轴 SHAFT VERSION

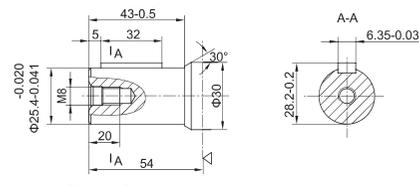
P1: Φ25平键轴, 平键8X7X32  
Φ25 Cylindrical shaft, parallel key 8X7X32



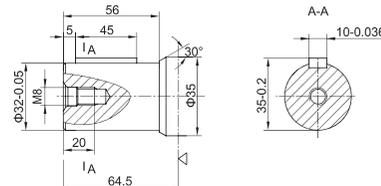
P2: Φ30平键轴, 平键8X7X32  
Φ30 Cylindrical shaft, parallel key 8X7X32



P3: Φ25.4平键轴, 平键6.35X6.35X32  
Φ25.4 Cylindrical shaft, parallel key 6.35X6.35X32



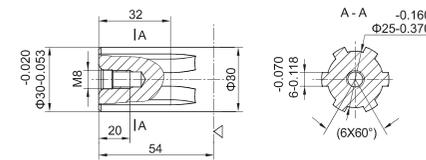
P5: Φ32平键轴, 平键10X8X45  
Φ32 Cylindrical shaft, parallel key 10X8X45



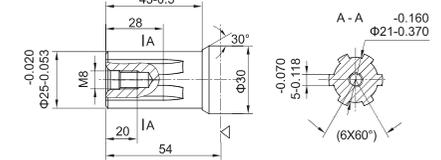
◁-- 马达安装面

### ■ BMR 外形连接尺寸-输出轴 SHAFT VERSION

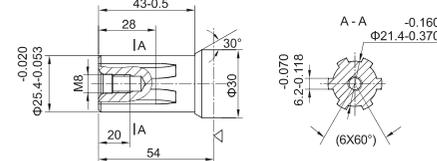
H1: Φ30矩形花键轴, 6-30X25X6  
Φ30 Splined shaft, 6-30X25X6



H2: Φ25矩形花键轴, 6-25X21X5  
Φ25 Splined shaft, 6-25X21X5



H3: Φ25.4矩形花键轴, 6-25.4X21.4X6.2  
Φ25.4 Splined shaft, 6-25.4X21.4X6.2



◁-- 马达安装面  
Motor mounting surface

### ■ BMR 型号意义 ORDERING CODE

	1	2	3	4	5
BMR	-				/

1 排量 Displacement
50、80、100、125、160、200、250、315、400
2 输出轴 Shaft
P1 Φ25平键轴, 平键8X7X32 Φ25 Cylindrical shaft, parallel key 8X7X32
P2 Φ30平键轴, 平键8X7X32 Φ30 Cylindrical shaft, parallel key 8X7X32
P3 Φ25.4平键轴, 平键6.35X6.35X32 Φ25.4 Cylindrical shaft, parallel key 6.35X6.35X32
P5 Φ32平键轴, 平键10X8X45 Φ32 Cylindrical shaft, parallel key 10X8X45
H1 Φ30矩形花键轴, 6-30X25X6 Φ30 Splined shaft, 6-30X25X6
H2 Φ25矩形花键轴, 6-25X21X5 Φ25 Splined shaft, 6-25X21X5
H3 Φ25.4矩形花键轴, 6-25.4X21.4X6.2 Φ25.4 Splined shaft, 6-25.4X21.4X6.2

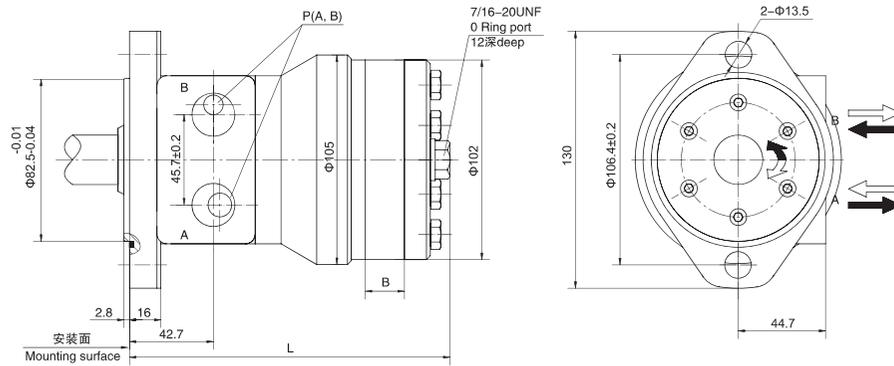
3 安装法兰 Mounting Flange
A 4-Φ11法兰, 止口Φ82.5 4-Φ11 Square flange, pilot Φ82.5
A1 4-Φ11法兰, 止口Φ80 4-Φ11 Square flange, pilot Φ80
A II 2-Φ13.5菱形法兰, 止口Φ82.5 2-Φ13.5 Oval flange, pilot Φ82.5
A2 III 4-Φ13大法兰, 止口Φ100 4-Φ13 Square flange, pilot Φ100
A IV 4-Φ13.5菱形法兰, 止口Φ82.5 4-Φ13.5 Oval flange, pilot Φ82.5
4 油口 Ports
P(A,B)(深deep) T(深deep)
Y G1/2(15) M14X1.5(12)
Y1 M18X1.5(15) M14X1.5(12)
Y2 M22X1.5(15) M14X1.5(12)
Y5 7/8-14UNF(15) M14X1.5(12)
Y8 NPT 1/2(15) M14X1.5(12)
注: Y5油口没有4-M8安装螺纹孔 Note: Y5.port have no 4-M8 threaded hole
5 特殊要求 Special Features
省略 Omit 没有 none

## BMR 型轴向配油摆线液压马达 BMR Orbit Hydraulic Motor With Spool Valve

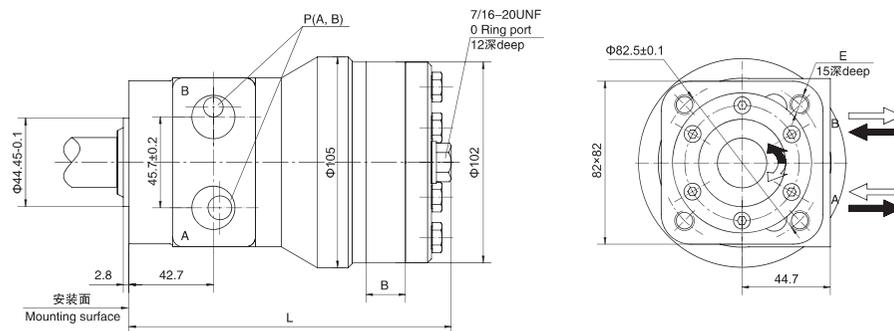
## BMR 型轴向配油摆线液压马达 BMR Orbit Hydraulic Motor With Spool Valve

### ■ BMRS 外形安装图 Installation

A II 型 2孔菱形法兰 A II Version 2-hole oval flange



C, C1型 法兰 C,C1 Version Square flange



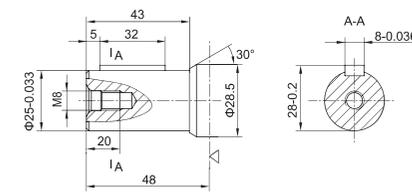
法兰 Flange	E
C	4-M10
C1	4- $\frac{3}{8}$ -16UNC

型号 TYPE	BMRS-50	BMRS-80	BMRS-100	BMRS-125	BMRS-160	BMRS-200	BMRS-250	BMRS-315	BMRS-400
L	150	155	158.5	163	169	176	185	197	211
B	9	14	17.5	22	28	35	44	56	70

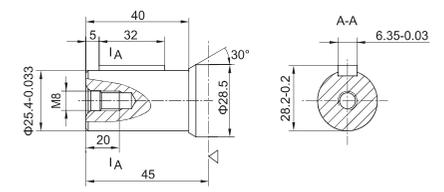
P(A,B)—进油口, 详见第20页型号说明; T—泄油口, 详见第20页型号说明。  
P(A,B)—Ports, can be found on page 20; T—Drain connection, can be found on page 20.

### ■ BMRS 外形连接尺寸-输出轴 SHAFT VERSION

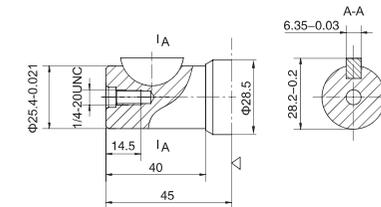
P1: Φ25平键轴, 平键8X7X32  
Φ25 Cylindrical shaft, parallel key 8X7X32



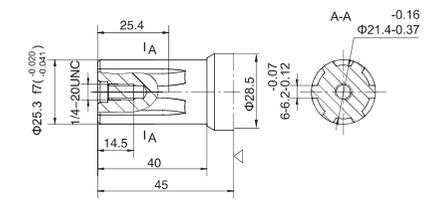
P3: Φ25.4平键轴, 平键6.35X6.35X32  
Φ25.4 Cylindrical shaft, parallel key 6.35X6.35X32



P4: Φ25.4平键轴, 半圆键Φ25.4X6.35  
Φ25.4 Cylindrical shaft, Woodruff key Φ25.4X6.35



H4: Φ25.4花键轴, 6-25.4X21.4X6.2  
Φ25.4 Splined shaft, 6-25.4X21.4X6.2



←← 马达安装面  
Motor mounting surface

### ■ BMRS 型号意义 ORDERING CODE

BMRS	-	1	2	3	4	5
------	---	---	---	---	---	---

#### 1 排量 Displacement

50、80、100、125、160、200、250、315、400

#### 2 输出轴 Shaft

P1 Φ25平键轴, 平键8X7X32  
Φ25 Cylindrical shaft, parallel key 8X7X32

P3 Φ25.4平键轴, 平键6.35X6.35X32  
Φ25.4 Cylindrical shaft, parallel key 6.35X6.35X32

P4 Φ25.4平键轴, 平键Φ25.4X6.35  
Φ25.4 Cylindrical shaft, parallel key Φ25.4X6.35

H4 Φ25.4花键轴, 6-25.3X21.4X6.2  
Φ25.4 Splined shaft, 6-25.3X21.4X6.2

#### 3 安装法兰 Mounting Flange

A II 2-Φ13.5菱形法兰, 定位止口Φ82.5

2-Φ13.5 Oval flange, pilot Φ82.5

C 4-M10法兰, 定位止口Φ44.45

4-M10 Flange, pilot Φ44.45

C1 4-3/8-16UNC法兰, 定位止口Φ44.45

4-3/8-16UNC Flange, pilot Φ44.45

#### 4 油口 Ports

P(A,B)(深deep)

Y5 7/8-14UNF 0-ring(15)

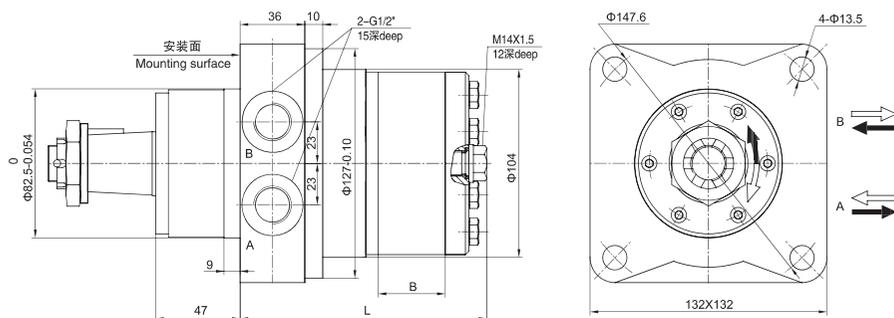
Y9 1/2-14NPTF(15)

#### 5 特殊要求 Special Features

省略 Omit 没有 none

## BMRW 型轴向配油摆线液压马达 BMRW Orbit Hydraulic Motor With Spool Valve

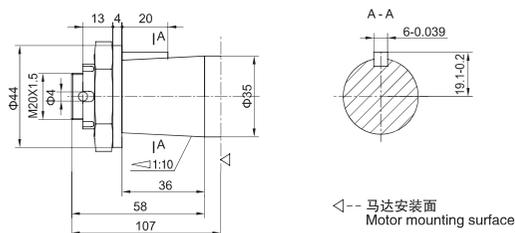
### ■ BMRW轮用马达 外形安装图 Installation



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

### ■ BMRW轮用马达 外形连接尺寸-输出轴 SHAFT VERSION

Z: Φ35锥轴, 锥度1:10, 平键B6X6X20  
Φ35 Tapered shaft, taper1: 10, parallel key B6X6X20



### ■ BMRW 型号意义 ORDERING CODE

1	2	3
BMRW	-	A Y /

1	排量 Displacement
	50、80、100、125、160、200、250、315、400

2	输出轴 Shaft
Z	Φ35锥轴, 锥度1:10, 平键B6X6X20 Φ35 Tapered shaft, taper1:10, parallel key B6X6X20

## BMH型轴向配油摆线马达 BMH Orbit Hydraulic Motor With Spool Valve

### ■ 产品概述 INTRODUCTION



本系列马达壳体采用足够强度的球墨铸铁铸造而成, 适用于负载较小且间隙工作的场合, 广泛应用于农业、林业、塑料、机床、矿业机械, 如注塑机的调模, 清扫机, 锯木机、工作平台等。  
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 saw the worktable etc.

### ■ 性能特点 CHARACTERISTICS

- 1 主轴上装有深沟球轴承, 可承受一定的轴向力和径向力。
  - 2 采用了轴向配油结构, 体积小、重量轻。
  - 3 内置2个单向阀, 不需要外接泄油管。
  - 4 采用了有滚柱的摆线轮组, 摩擦力小, 机械效率高。
- 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.

### ■ BMH 技术参数 TECHNICAL DATA

型号 TYPE		BMH-200	BMH-250	BMH-315	BMH-400	BMH-500
排量 Displacement(ml/r)		203	253.7	318.9	405.9	471.1
最大压降 Max. Pressure Drop (Mpa)	连续 cont.	15.5	15.5	13.5	10.5	8.5
	间断 int.	17.5	17.5	15.5	12.5	10
	尖峰 peak.	20	20	19	15.5	13
最大扭矩 Max. torque (N.m)	连续 cont.	419	493	541	535	508
	间断 int.	473	557	621	636	598
	尖峰 peak.	541	636	762	789	778
最高转速 Max. Cont. Speed (r/min)		370	295	235	185	155
最大流量 Max. Flow(cont.)(L/min)		75	75	75	75	75
最大输出功率 Max. Output. Power(cont.)(Kw)		14	14	12.5	10	8.5
重量 Weight(kg)		10.5	11	11.5	12.5	13

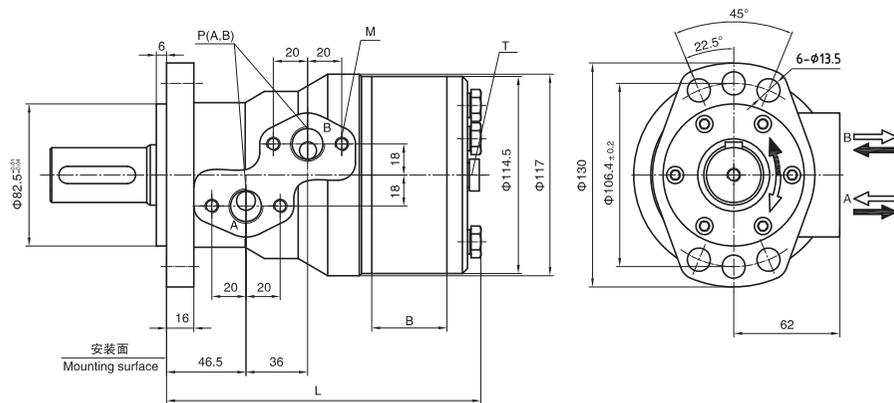
间断工作时间每分钟不得超过6秒, 尖峰工作时间每分钟不得超过0.6秒  
Intermittent operation the permissible values may occur for max. 10% of every minute  
Peak load: the permissible values may occur for max. 1% of every minute

## BMH型轴向配油摆线马达 BMH Orbit Hydraulic Motor With Spool Valve

## BMH型轴向配油摆线马达 BMH Orbit Hydraulic Motor With Spool Valve

### ■ BMH 外形安装图 Installation

AIV 型 6 孔菱形法兰 AIV Version 6-hole oval flange

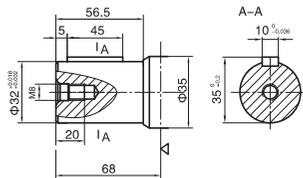


型号 TYPE	BMH-200	BMH-250	BMH-315	BMH-400	BMH-500
L	168	175	184	196	205
B	28	35	44	56	65

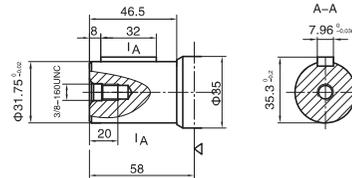
P(A,B)—进油口, 详见第24页型号说明; T—泄油口, 详见第24页型号说明。  
P(A,B)—Ports, can be found on page 24; T—Drain connection, can be found on page 24.

### ■ BMH 外形连接尺寸-输出轴 SHAFT VERSION

P1:  $\phi 32$  平键轴, 平键 10X8X45  
 $\phi 32$  Cylindrical shaft, parallel key 10X8X45

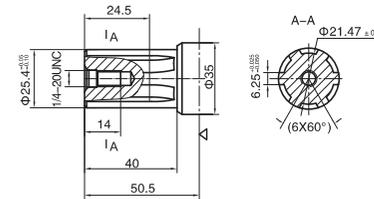


P5:  $\phi 31.75$  平键轴, 平键 7.96X7.96X32  
 $\phi 31.75$  Cylindrical shaft, parallel key 7.96X7.96X32

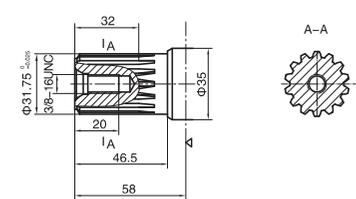


### ■ BMH 外形连接尺寸-输出轴 SHAFT VERSION

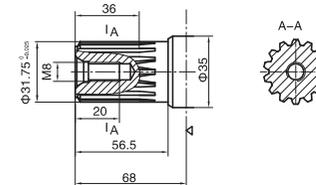
H3:  $\phi 25.4$  矩形花键轴, 6-25.4X21.47X6.25  
 $\phi 25.4$  Splined shaft, 6-25.4X21.47X6.25



K1:  $\phi 31.75$  渐开线花键轴, DP12/24 Z14 a30°  
 $\phi 31.75$  Involute splined shaft, Pitch 12/24 Teeth 14



K2:  $\phi 31.75$  渐开线花键轴, DP12/24 Z14 a30°  
 $\phi 31.75$  Involute splined shaft, Pitch 12/24 Teeth 14



◁-- 马达安装面  
Motor mounting surface

### ■ BMH 型号意义 ORDERING CODE

	1	2	3	4	5
BMH	-				/

1	排量 Displacement
	200、250、315、400、500
2	输出轴 Shaft
P1	$\phi 32$ 平键轴, 平键 10X8X45 $\phi 32$ Cylindrical shaft, parallel key 10X8X45
P5	$\phi 31.75$ 平键轴, 平键 7.96X7.96X32 $\phi 31.75$ Cylindrical shaft, parallel key 7.96X7.96X32
H3	$\phi 25.4$ 矩形花键轴, 6-25.4X21.47X6.25 $\phi 25.4$ Splined shaft, 6-25.4X21.47X6.25
K1	$\phi 31.75$ 渐开线花键轴, DP12/24 Z14 $\phi 31.75$ Involute splined shaft, Pitch 12/24 Teeth 17
K2	$\phi 31.75$ 渐开线花键轴, DP12/24 Z14 $\phi 31.75$ Involute splined shaft, Pitch 12/24 Teeth 17

3	安装法兰 Mounting Flange
A IV	6- $\phi 13.5$ 菱形法兰, 止口 $\phi 82.5$ 6- $\phi 13.5$ Oval flange, pilot $\phi 82.5$
4	油口 Ports
P(A,B)	(深 deep) M(深 deep) T(深 deep)
Y	G1/2(15) M8(12) G1/4(12)
Y5	7/8-14UNF(15) 3/8-16UNC(12) 7/16-20 UNF(12)
5	特殊要求 Special Features
	省略 Omit 没有 none

## BMP 轴向配油摆线液压马达 BMP Orbit Hydraulic Motor With Spool Valve

### 产品概述 INTRODUCTION

本系列马达是一种小体积、经济型轴配流液压马达。采用整体式转定子付，结构紧凑、重量轻、功率密度大。  
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.

### 性能特点 CHARACTERISTICS

- 1 整体式转定子付采用先进加工手段，确保整机体积小、效率高、功率大、寿命长。
- 2 轴密封承压高，可串、并联使用。
- 3 结构设计先进，功率密度大。
- 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.

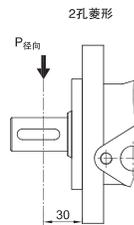
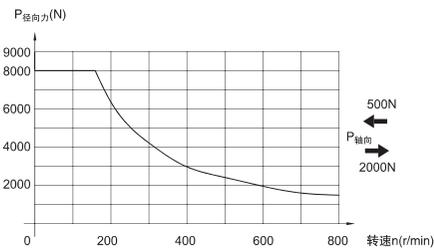
### BMP 技术参数 TECHNICAL DATA

型号 TYPE	BMP-50	BMP-80	BMP-100	BMP-125	BMP-160	BMP-200	BMP-250	BMP-315	BMP-400
排量 Displacement(ml/r)	52.9	79.3	98.2	120.9	158.7	196.4	241.8	317.3	392.9
最大压降 Max. Pressure Drop (Mpa)	连续 cont.	12.5	12.5	12.5	11.5	11	10	9	7
	间断 int.	16.5	16.5	16.5	16.5	16	15	14	9
	尖峰 peak.	20	20	20	20	20	20	16	11
最大扭矩 Max. torque (N.m)	连续 cont.	78	120	149	180	219	262	300	334
	间断 int.	104	157	197	238	305	358	413	429
	尖峰 peak.	130	215	268	336	430	506	537	537
转速范围 (连续) Speed Range(cont.)(r/min)	10-800	10-770	10-615	10-480	10-385	10-310	10-250	10-195	10-155
最大流量 (连续) Max. Flow(cont.)(L/min)	40	60	60	60	60	60	60	60	60
最大输出功率 (连续) Max. Output Power(cont.)(Kw)	7	10	10	10	10	8	6	5	4
重量 Weight (kg)	5.6	5.7	5.9	6.0	6.2	6.4	6.6	6.9	7.4

间断工作时间每分钟不得超过6秒，尖峰工作时间每分钟不得超过0.6秒。  
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

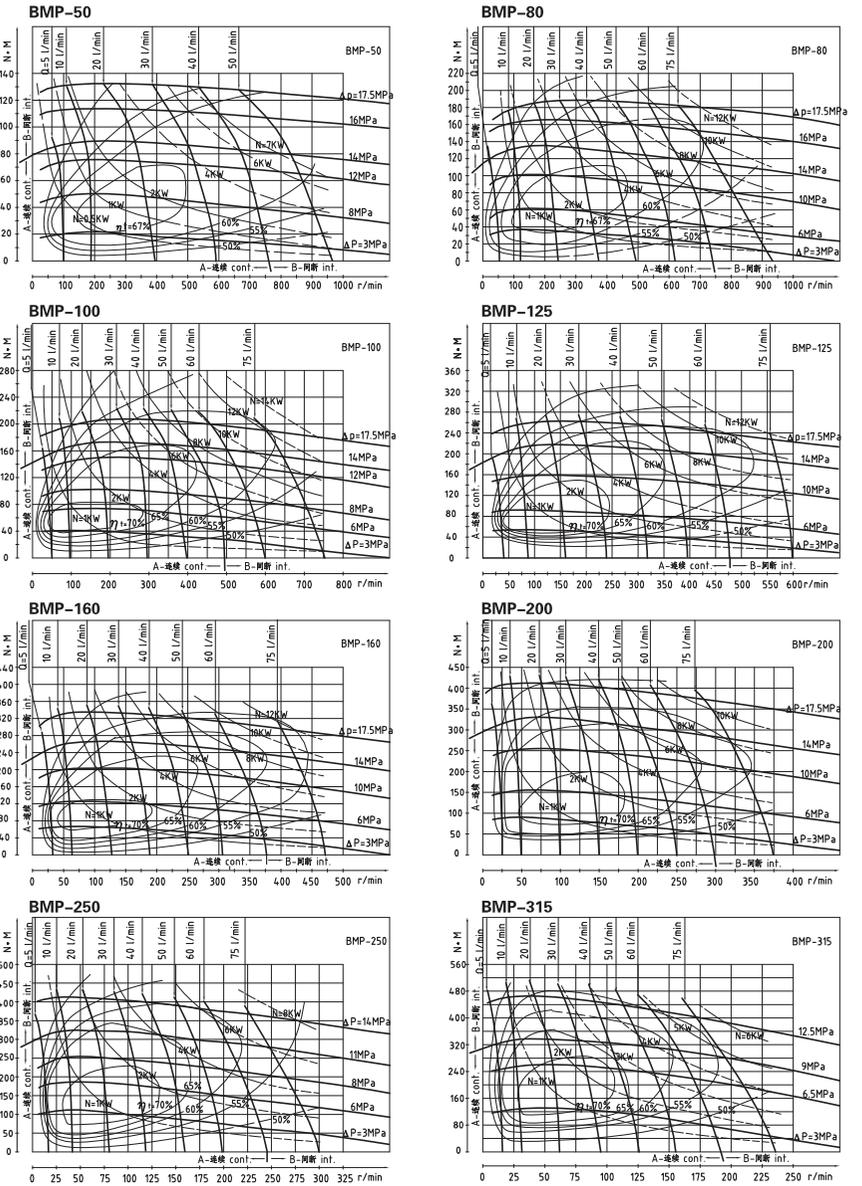
### 轴承受最大扭矩(N.m): $\Phi 25$ , $\Phi 25.4$ 平键轴为300

### 输出轴允许负载 PERMISSIBLE SHAFT LOADS



## BMP 轴向配油摆线液压马达 BMP Orbit Hydraulic Motor With Spool Valve

### BMP性能曲线图 FUNCTION DIAGRAMS



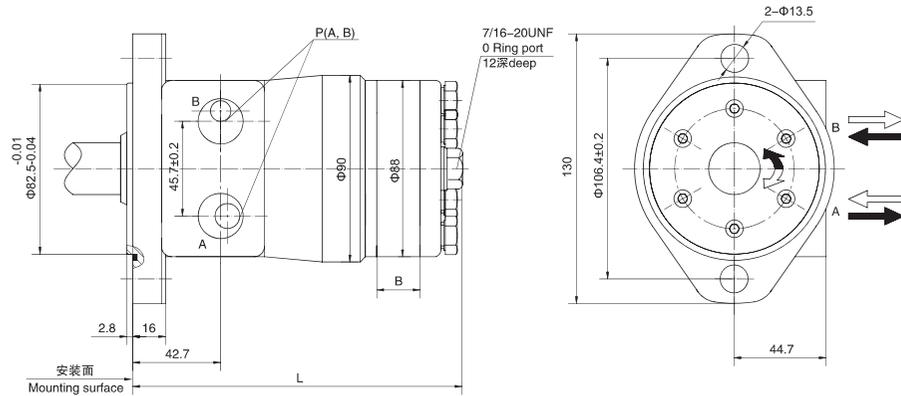


## BMPH 型轴向配油摆线马达 BMPH Orbit Hydraulic Motor With Spool Valve

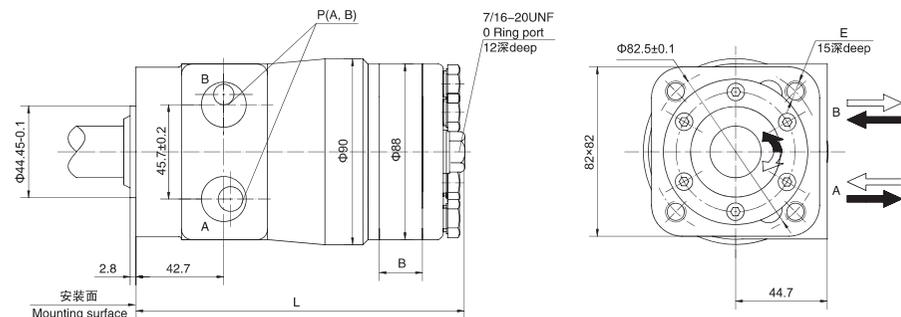
## BMPH 轴向配油摆线液压马达 BMPH Orbit Hydraulic Motor With Spool Valve

### ■ BMPH 外形安装图 Installation

A II 型 2孔菱形法兰 A II Version 2-hole oval flange



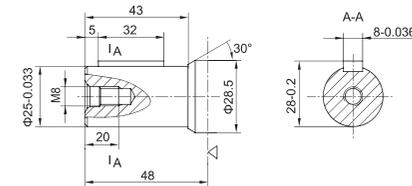
C, C1 型 法兰 C, C1 Version Square flange



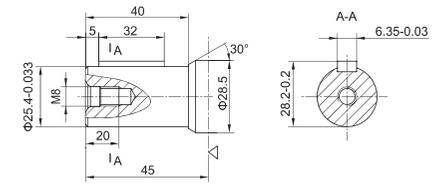
法兰 Flange	E
C	4-M10
C1	4- $\frac{3}{8}$ -16UNC

### ■ BMPH 外形连接尺寸-输出轴 SHAFT VERSION

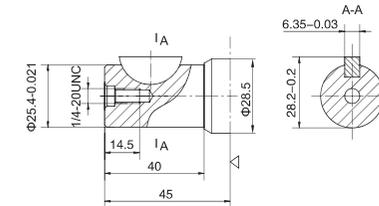
P1:  $\Phi 25$ 平键轴, 平键8X7X32  
 $\Phi 25$  Cylindrical shaft, parallel key 8X7X32



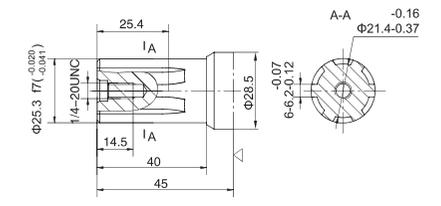
P3:  $\Phi 25.4$ 平键轴, 平键6.35X6.35X32  
 $\Phi 25.4$  Cylindrical shaft, parallel key 6.35X6.35X32



P4:  $\Phi 25.4$ 平键轴, 半圆键  $\Phi 25.4 \times 6.35$   
 $\Phi 25.4$  Cylindrical shaft, Woodruff key  $\Phi 25.4 \times 6.35$



H4:  $\Phi 25.4$ 花键轴, 6-25.4X21.4X6.2  
 $\Phi 25.4$  Splined shaft, 6-25.4X21.4X6.2



← 马达安装面  
 Motor mounting surface

### ■ BMPH 型号意义 ORDERING CODE

BMPH	-	1	2	3	4	5
------	---	---	---	---	---	---

1	排量 Displacement
50, 80, 100, 125, 160, 200, 250, 315, 400	

2	输出轴 Shaft
P1	$\Phi 25$ 平键轴, 平键8X7X32 $\Phi 25$ Cylindrical shaft, parallel key 8X7X32
P3	$\Phi 25.4$ 平键轴, 平键6.35X6.35X32 $\Phi 25.4$ Cylindrical shaft, parallel key 6.35X6.35X32
P4	$\Phi 25.4$ 平键轴, 半圆键 $\Phi 25.4 \times 6.35$ $\Phi 25.4$ Cylindrical shaft, woodruff key $\Phi 25.4 \times 6.35$
H4	$\Phi 25.4$ 花键轴, 6-25.4X21.4X6.2 $\Phi 25.4$ Splined shaft, 6-25.4X21.4X6.2

3	安装法兰 Mounting Flange
A II	2- $\Phi 13.5$ 菱形法兰, 定位止口 $\Phi 82.5$ 2- $\Phi 13.5$ Oval flange, pilot $\Phi 82.5$
C	4-M 10 法兰, 定位止口 $\Phi 44.45$ 4-M 10 Flange, pilot $\Phi 44.45$
C1	4-3/8-16UNC法兰, 定位止口 $\Phi 44.45$ 4-3/8-16UNC Flange, pilot $\Phi 44.45$

4	油口 Ports
	P(A,B)(深deep)
Y5	7/8-14UNF 0-ring(15)
Y9	1/2-14NPTF(15)

5	特殊要求 Special Features
	省略 Omit 没有 none

型号 TYPE	BMPH-50	BMPH-80	BMPH-100	BMPH-125	BMPH-160	BMPH-200	BMPH-250	BMPH-315	BMPH-400
L	148	151	154	157	162	167	173	183	193
B	7	11	13	16	21	26	32	42	52

P(A,B)--进出口, 详见第30页型号说明; T--泄油口, 详见第30页型号说明。  
 P(A,B)--Ports, can be found on page 30; T--Drain connetion, can be found on page 30.

## BM3-6 型端面配油摆线液压马达 BM3-6 Orbit Hydraulic Motor With Disk Valve

### 产品概述 INTRODUCTION

#### 一、特点及适用范围 FEATURES AND APPLICATIONS



BM系列端面配油摆线液压马达，是一种低速大转矩液压马达。它的端面配油提高了容积效率及使用寿命。

该系列马达具有输出扭矩大，转速范围宽、高速平稳、低速稳定、效率高、寿命长、体积小、重量轻、可以直接与工作机构相连接等优点。因而适用于各种低速重载的传动装置，广泛应用于农业、渔业、船舶、机床、注塑、起重装卸、采矿和建筑等部门。如：液压挖掘机的行走和回转驱动；机床主轴和进给机构的驱动；注塑机的预紧螺杆驱动；船舶的锚链升降及渔轮收网；绞车驱动及各种输送机的驱动；采煤机的液压牵引传动等。

BM hydraulic motor is one type of high torque low speed hydraulic motors, with high efficiency and long life. BM motor has a wide 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.

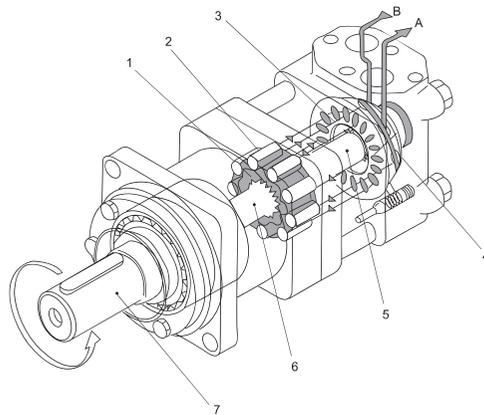
BM hydraulic motors are widely applied in agriculture machinery, fishing machinery, plastic industry, mining, and construction machinery.

#### 二、工作原理 WORKING PRINCIPLE

- 1、摆线轮 orbit cam
- 2、针柱体 roll
- 3、配流盘 distributor
- 4、辅助盘 auxiliary plate
- 5、配流轴 distributor shaft
- 6、传动轴 transmission shaft
- 7、输出轴 output shaft

如右图所示：

压力油经过油孔进入后壳体，通过辅助盘4、配流盘3和后侧板，进入摆线轮1与针柱体2间的工作腔。在油压的作用下，摆线轮被压向低压腔一侧旋转，摆线轮相对针柱体中心做自转和公转，并通过传动轴6将其自转传给输出轴7，同时通过配流轴5，使配流盘与摆线轮同步运转。以达到连续不断地配油，输出轴连续不断地旋转。改变输出的流量，就能输出不同的转速。改变进油方向，即能改变马达的旋转方向。



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.

## BM3 型端面配油摆线液压马达 BM3 Orbit Hydraulic Motor With Disk Valve

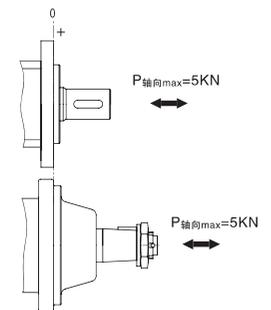
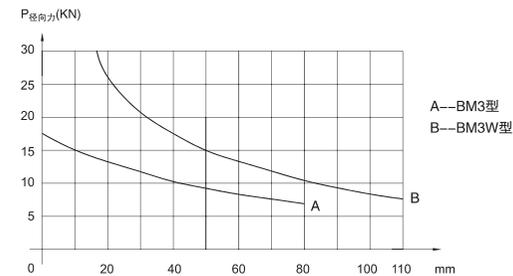
### BM3 技术参数 TECHNICAL DATA

型号 TYPE	BM3-80 BM3S-80 BM3W-80	BM3-100 BM3S-100 BM3W-100	BM3-125 BM3S-125 BM3W-125	BM3-160 BM3S-160 BM3W-160	BM3-200 BM3S-200 BM3W-200	BM3-250 BM3S-250 BM3W-250	BM3-315 BM3S-315 BM3W-315	BM3-400 BM3S-400 BM3W-400	BM3-500
排量 Displacement(ml/r)	80.5	100.5	126.3	160.8	200.9	252.6	321.5	401.9	471.1
最大压降 Max. Pressure. Drop (Mpa)	连续 cont.	17.5	17.5	17.5	16	16	12.5	12.5	10
	间断 int.	20	20	20	20	20	16	16	14
	尖峰 peak.	22.5	22.5	22.5	22.5	22.5	20	20	17.5
最大扭矩 Max. torque (N.m)	连续 cont.	194	242	303	358	438	440	551	560
	间断 int.	218	283	345	429	540	580	625	687
	尖峰 peak.	271	318	373	459	576	700	831	865
转速范围 (连续) Speed. Range(cont.)(r/min)	10-810	10-750	9-600	7-470	6-375	6-300	5-240	5-180	5-155
最大流量 (连续) Max. Flow(cont.)(L/min)	65	75	75	75	75	75	75	75	75
最大输出功率 (连续) Max. Output Power(cont.)(Kw)	14	16	16	14	14	11	10	8	8
重量 Weight (kg)	9.8	10.0	10.3	10.7	11.1	11.6	12.3	13.1	14

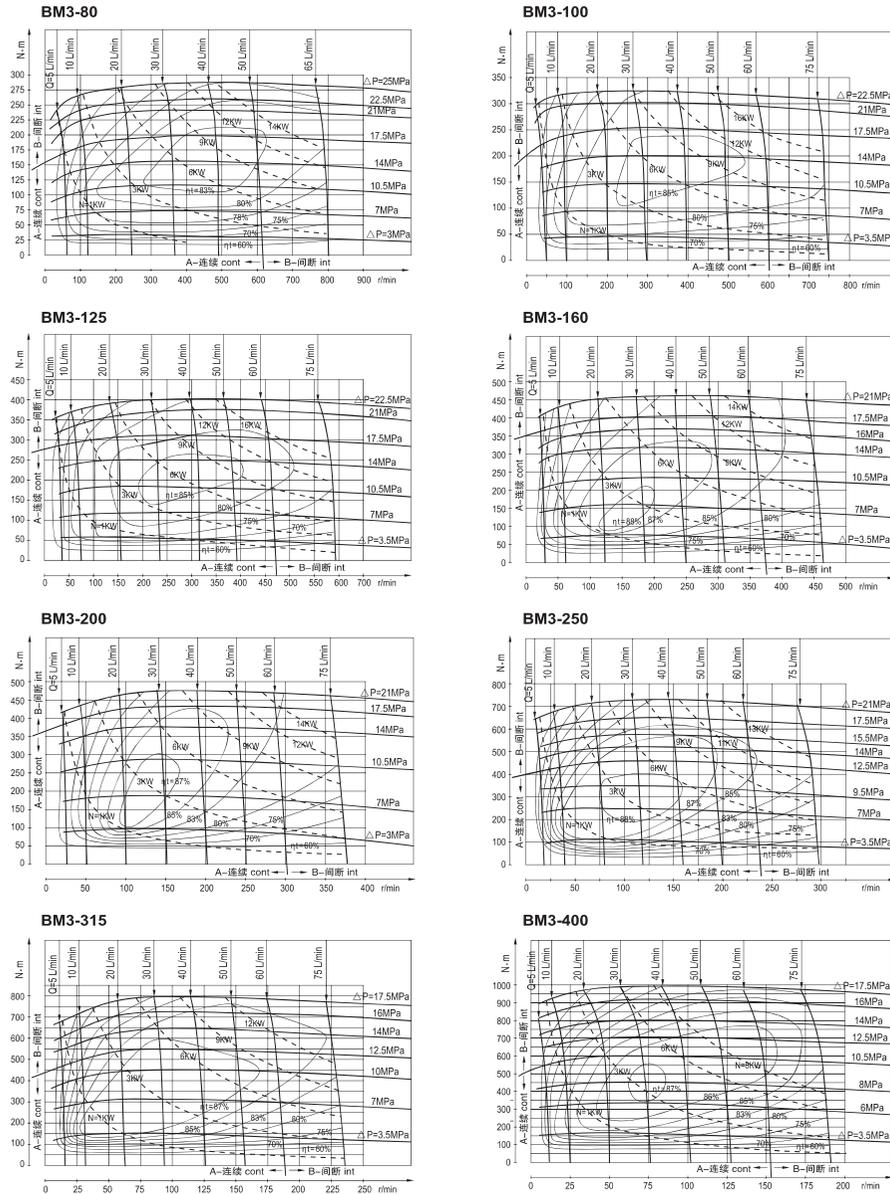
间断工作时间每分钟不得超过6秒，尖峰工作时间每分钟不得超过0.6秒  
Intermittent operation the permissible values may occur for max. 10% of every minute  
Peak load: the permissible values may occur for max. 1% of every minute

■ 轴承受最大扭矩(N.m):  $\Phi 25$ ,  $\Phi 25.4$ 花键轴为360,  $\Phi 25$ ,  $\Phi 25.4$ 平键轴为300

#### ■ 输出轴允许负载 PERMISSIBLE SHAFT LOADS

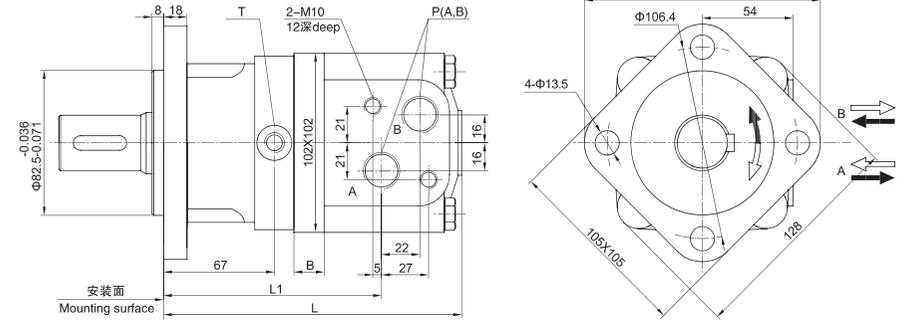


■ BM3 性能曲线图 FUNCTION DIAGRAMS

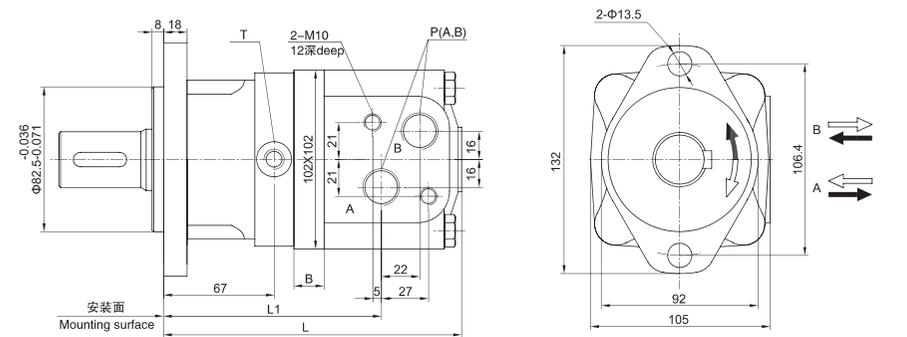


■ BM3 外形安装图 Installation

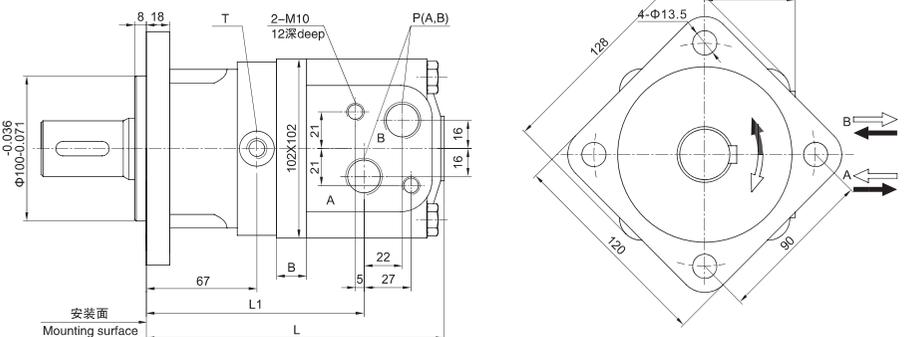
A 方法兰 A Version Square flange



A II 2孔菱形法兰 A II . Version 2-hole oval flange



A2 III型 大方法兰 A2 III Version Square flange

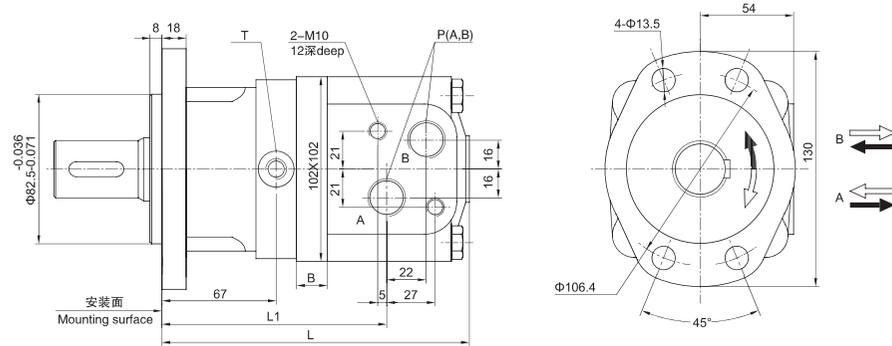


P(A,B)—进出口, 详见第36页型号说明; T—泄油口, 详见第36页型号说明。  
P(A,B)—Ports, can be found on page 36; T—Drain connetion, can be found on page 36.

## BM3 型端面配油摆线液压马达 BM3 Orbit Hydraulic Motor With Disk Valve

### BM3 外形安装图 Installation

AIV 型 4孔菱形法兰 AIV Version 4-hole oval flange

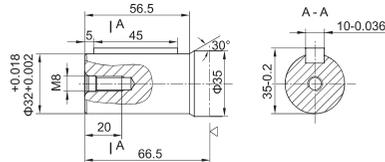


型号 TYPE	BM3-80	BM3-100	BM3-125	BM3-160	BM3-200	BM3-250	BM3-315	BM3-400	BM3-500
L	167	170.5	175	181	188	197	209	223	236
L1	124	127.5	132	138	145	154	166	180	193
B	11	14.5	19	25	32	41	53	67	80

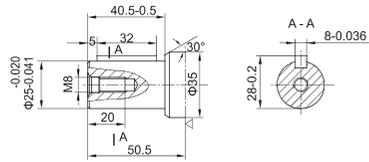
P(A,B)--进出口, 详见第36页型号说明; T--泄油口, 详见第36页型号说明。  
P(A,B)--Ports, can be found on page 36; T--Drain connettion, can be found on page 36.

### BM3 外形连接尺寸-输出轴 SHAFT VERSION

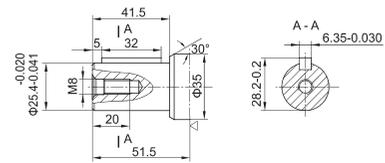
P10:  $\Phi 32$  平键轴, 平键 10X8X45  
 $\Phi 32$  Cylindrical shaft, parallel key 10X8X45



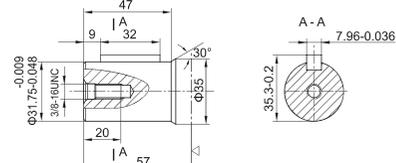
P1:  $\Phi 25$  平键轴, 平键 8X7X32  
 $\Phi 25$  Cylindrical shaft, parallel key 8X7X32



P3:  $\Phi 25.4$  平键轴, 平键 6.35X6.35X32  
 $\Phi 25.4$  Cylindrical shaft, parallel key 6.35X6.35X32



P5:  $\Phi 31.75$  平键轴, 平键 7.96X7.96X32  
 $\Phi 31.75$  Cylindrical shaft, parallel key 7.96X7.96X32

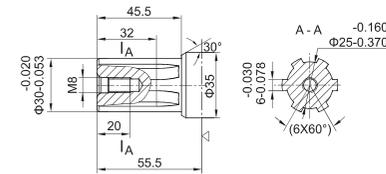


◁-- 马达安装面  
Motor mounting surface

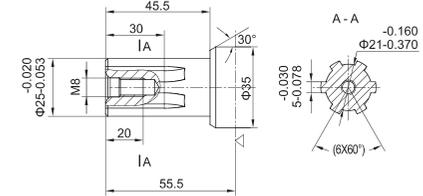
## BM3 型端面配油摆线液压马达 BM3 Orbit Hydraulic Motor With Disk Valve

### BM3 外形连接尺寸-输出轴 SHAFT VERSION

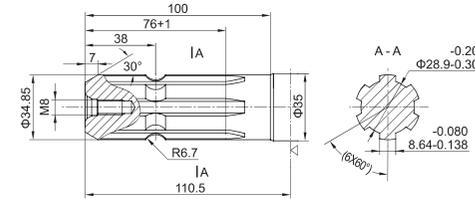
H1:  $\Phi 30$  矩形花键轴, 6-30X25X6  
 $\Phi 30$  Splined shaft, 6-30X25X6



H2:  $\Phi 25$  矩形花键轴, 6-25X21X5  
 $\Phi 25$  Splined shaft, 6-25X21X5



H3:  $\Phi 34.85$  矩形花键轴, 6-34.85X28.9X8.64  
 $\Phi 34.85$  Splined shaft, 6-34.85X28.9X8.64



◁-- 马达安装面  
Motor mounting surface

### BM3 型号意义 ORDERING CODE

	1	2	3	4	5
BM3	-			/	

#### 1 排量 Displacement

80、100、125、160、200、250、315、400、500

#### 2 输出轴 Shaft

P10	$\Phi 32$ 平键轴, 平键 10X8X45 $\Phi 32$ Cylindrical shaft, parallel key 10X8X45
P1	$\Phi 25$ 平键轴, 平键 8X7X32 $\Phi 25$ Cylindrical shaft, parallel key 8X7X32
P3	$\Phi 25.4$ 平键轴, 平键 6.35X6.35X32 $\Phi 25.4$ Cylindrical shaft, parallel key 6.35X6.35X32
P5	$\Phi 31.75$ 平键轴, 平键 7.96X7.96X32 $\Phi 31.75$ Cylindrical shaft, parallel key 7.96X7.96X32
H1	$\Phi 30$ 矩形花键轴, 6-30X25X6 $\Phi 30$ Splined shaft, 6-30X25X6
H2	$\Phi 25$ 矩形花键轴, 6-25X21X5 $\Phi 25$ Splined shaft, 6-25X21X5
H3	$\Phi 34.85$ 矩形花键轴, 6-34.85X28.9X8.64 $\Phi 34.85$ Splined shaft, 6-34.85X28.9X8.64

#### 3 安装法兰 Mounting Flange

A	4- $\Phi 13.5$ 方法兰, 止口 $\Phi 82.5$ 4- $\Phi 13.5$ Square flange, pilot $\Phi 82.5$
A II	2- $\Phi 13.5$ 菱形法兰, 止口 $\Phi 82.5$ 2- $\Phi 13.5$ Oval flange, pilot $\Phi 82.5$
A2 III	4- $\Phi 13.5$ 大方法兰, 止口 $\Phi 100$ 4- $\Phi 13.5$ Square flange, pilot $\Phi 100$
AIV	4- $\Phi 13.5$ 菱形法兰, 止口 $\Phi 82.5$ 4- $\Phi 13.5$ Oval flange, pilot $\Phi 82.5$

#### 4 油口 Ports

	P(A,B)(深deep)	T(深deep)
Y	G1/2(15)	G1/4(12)
Y2	M22X1.5(15)	M14X1.5(12)
Y5	7/8-14UNF(15)	7/16-20UNF(12)
Y8	NPT 1/2(15)	M1/4(12)

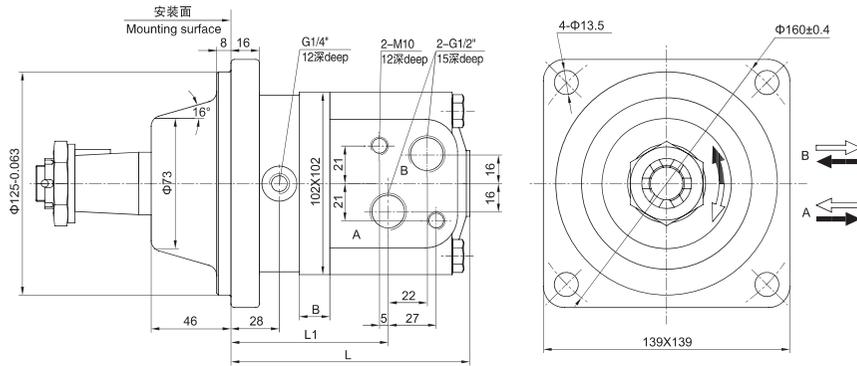
注: Y5油口没有2-M10安装螺纹孔  
Note: Y5 port have no 2-M10 threaded hole

#### 5 特殊要求 Special Features

省略 Omit 没有 none

### BM3W 型端面配油摆线液压马达 BM3W Orbit Hydraulic Motor With Disk Valve

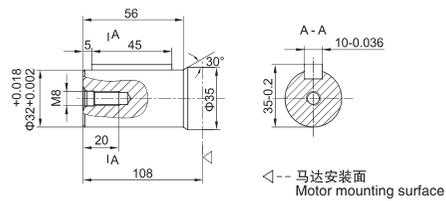
#### ■ BM3W轮用马达 外形安装图 Installation



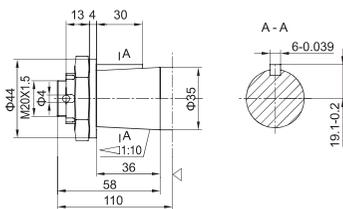
型号 TYPE	BM3W-80	BM3W-100	BM3W-125	BM3W-160	BM3W-200	BM3W-250	BM3W-315	BM3W-400
L	126	129.5	134	140	147	156	168	182
L1	83	86.5	91	97	104	113	125	139
B	11	14.5	19	25	32	41	53	67

#### ■ BM3W轮用马达 外形连接尺寸-输出轴 SHAFT VERSION

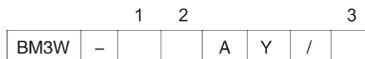
P10: Φ32平键轴, 平键10X8X45  
Φ32 Cylindrical shaft, parallel key 10X8X45



Z: Φ35锥轴, 锥度1:10, 平键C6X6X30  
Φ35 Tapered shaft, taper1: 10, parallel key C6X6X30



#### ■ BM3W 型号意义 ORDERING CODE



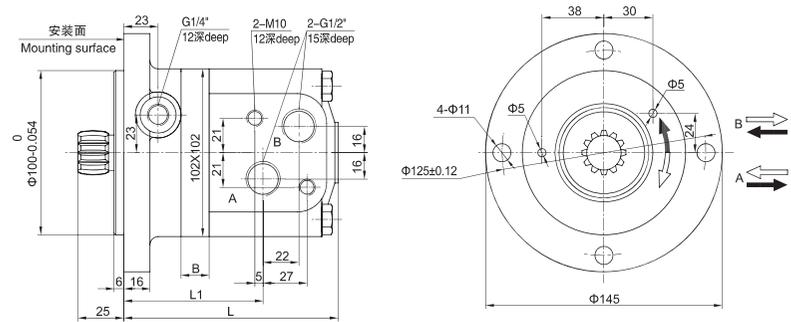
1	排量 Displacement
80、100、125、160、200、250、315、400	

2	输出轴 Shaft
P10	Φ32平键轴, 平键10X8X45 Φ32 Cylindrical shaft, parallel key 10X8X45
Z	Φ35锥轴, 锥度1:10, 平键C6X6X30 Φ35 Tapered shaft, taper1:10, parallel key C6X6X30

3	特殊要求 Special Features
省略 Omit	没有 none

### BM3S 型端面配油摆线液压马达 BM3S Orbit Hydraulic Motor With Disk Valve

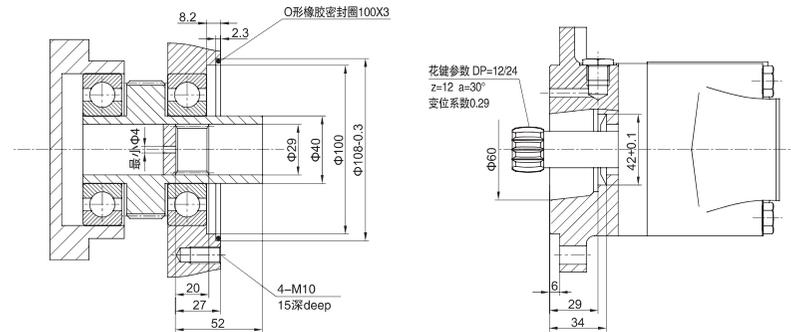
#### ■ BM3S 外形安装图 Installation



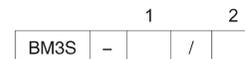
型号 TYPE	BM3S-80	BM3S-100	BM3S-125	BM3S-160	BM3S-200	BM3S-250	BM3S-315	BM3S-400
L	122.5	126	130.5	136.5	143.5	152.5	164.5	178.5
L1	79.5	83	87.5	93.5	100.5	109.5	121.5	135.5
B	11	14.5	19	25	32	41	53	67

#### ■ BM3S 外形连接尺寸 DIMENSIONS OF THE ATTACHED COMPONENT

(连接尺寸供参考)



#### ■ BM3S型号意义 ORDERING CODE



1	排量 Displacement
80、100、125、160、200、250、315、400	

2	特殊要求 Special Features
省略 Omit	没有 none

### BM4 型端面配油摆线液压马达 BM4 Orbit Hydraulic Motor With Disk Valve

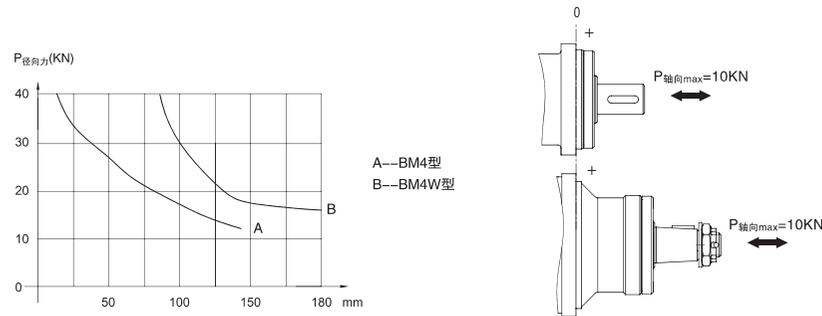
### BM4 型端面配油摆线液压马达 BM4 Orbit Hydraulic Motor With Disk Valve

#### BM4 技术参数 TECHNICAL DATA

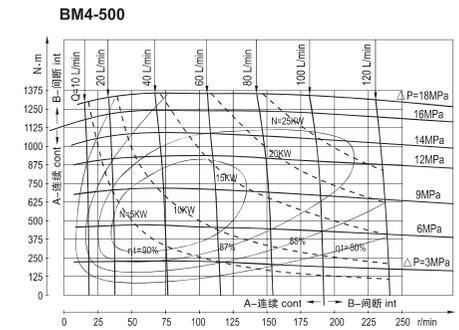
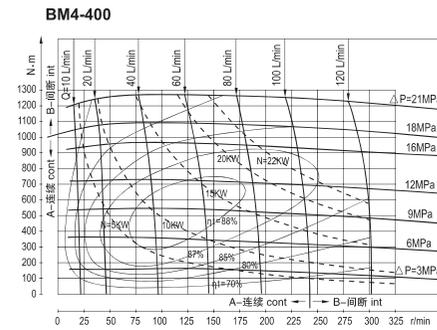
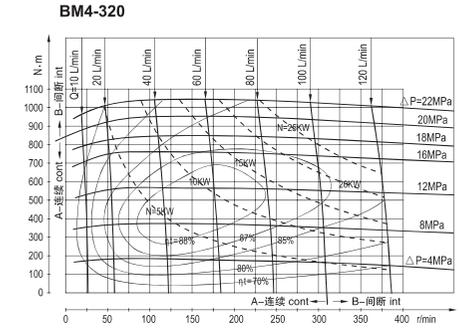
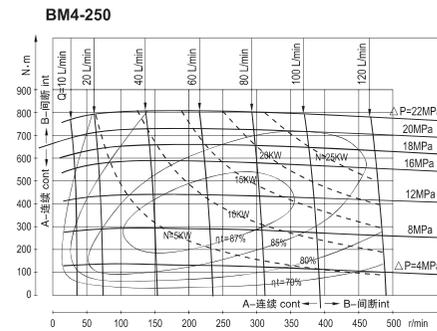
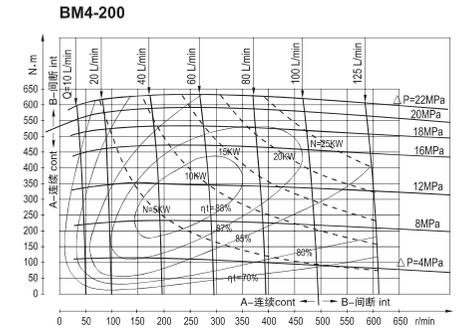
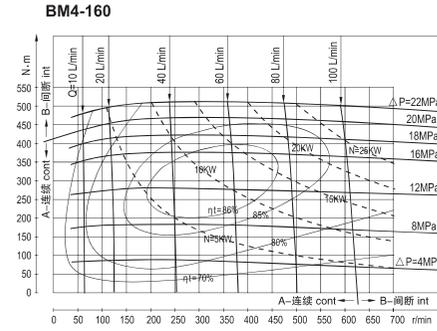
型号 TYPE	BM4-160 BM4S-160 BM4W-160	BM4-200 BM4S-200 BM4W-200	BM4-250 BM4S-250 BM4W-250	BM4-320 BM4S-320 BM4W-320	BM4-400 BM4S-400 BM4W-400	BM4-500 BM4S-500 BM4W-500
排量 Displacement(ml/r)	158.8	200.8	252.2	317.5	401.6	535.3
最大压降 Max.Pressure.Drop (Mpa)	连续 cont.	20	20	20	18	16
	间断 int.	24	24	24	24	18
	尖峰 peak.	28	28	28	28	24
最大扭矩 Max.torque (N.m)	连续 cont.	450	561	710	902	1121
	间断 int.	559	714	883	1143	1377
	尖峰 peak.	663	818	1021	1322	1598
转速范围 (连续) Speed.Range(cont.)(r/min)	10-625	9-500	8-400	7-312	6-250	5-175
最大流量 (连续) Max.Flow(cont.)(L/min)	100	100	100	100	100	100
最大输出功率 (连续) Max.Output.Power(cont.)(Kw)	20.1	25.2	25.2	25.2	22	21
重量 Weight (kg)	20.3	20.8	21.4	22.4	23	24

间断工作时间每分钟不得超过6秒，尖峰工作时间每分钟不得超过0.6秒  
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

#### 输出轴允许负载 PERMISSIBLE SHAFT LOADS



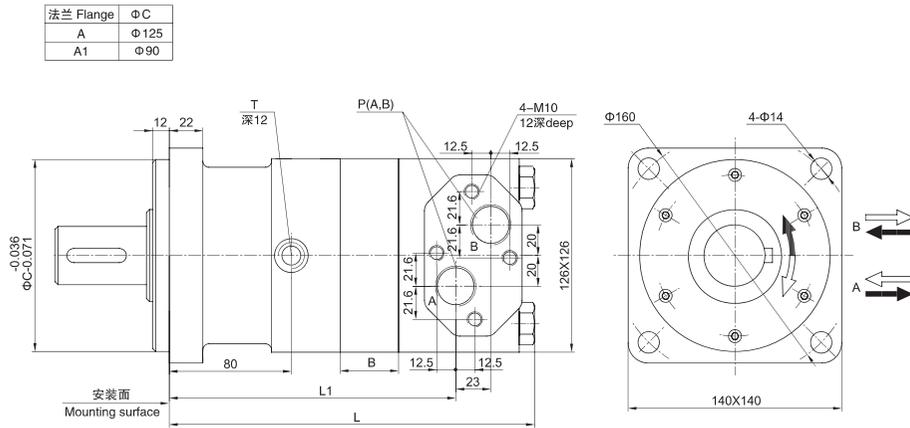
#### BM4 性能曲线图 FUNCTION DIAGRAMS



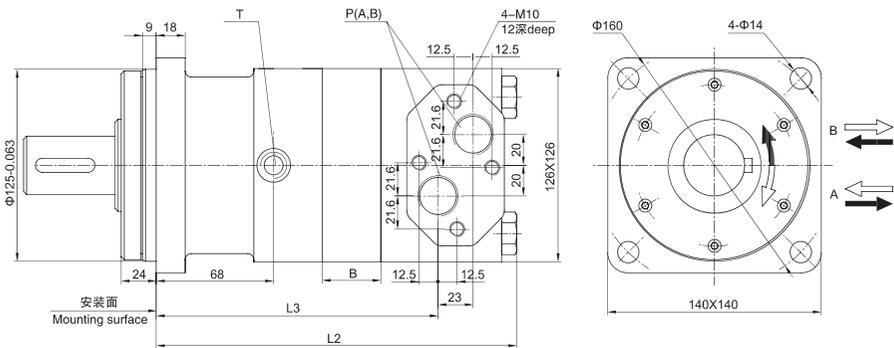
## BM4 型端面配油摆线液压马达 BM4 Orbit Hydraulic Motor With Disk Valve

### ■ BM4 外形安装图 Installation

A, A1型 方法兰 A,A1 Version Square flange



A4型 方法兰 A4 Version Square flange



型号 TYPE	BM4-160	BM4-200	BM4-250	BM4-320	BM4-400	BM4-500
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

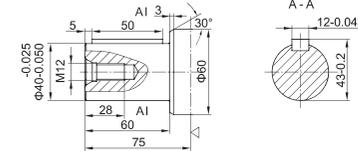
P(A,B)---进/出油口, 详见第42页型号说明; T---泄油口, 详见第42页型号说明。  
P(A,B)---Ports, can be found on page 42; T---Drain connection, can be found on page 42.

## BM4 型端面配油摆线液压马达 BM4 Orbit Hydraulic Motor With Disk Valve

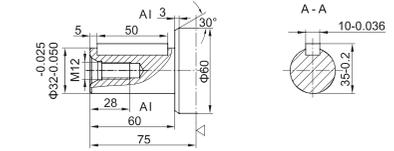
### ■ BM4 外形连接尺寸-输出轴 SHAFT VERSION

仅配A,A1型法兰 Only match with A,A1 flange

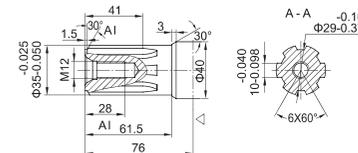
P: Φ40平键轴, 平键12X8X50  
Φ40 Cylindrical shaft, parallel key 12X8X50



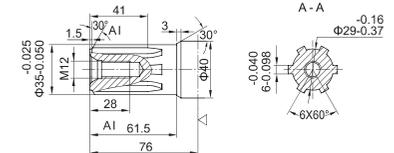
P1: Φ32平键轴, 平键10X8X50  
Φ32 Cylindrical shaft, parallel key 10X8X50



H4: Φ35矩形花键轴, 6-35X29X10  
Φ35 Spline shaft, 6-35X29X10

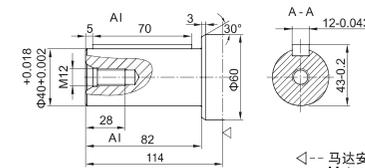


H5: Φ35矩形花键轴, 6-35X29X6  
Φ35 Spline shaft, 6-35X29X6

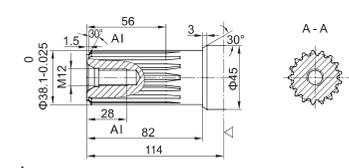


仅配A4型法兰 Only match with A4 flange

P33 - Φ40平键轴, 平键12X8X70  
Φ40 Cylindrical shaft, parallel key 12X8X70



K3 - Φ38.1渐开线花键轴, DP12/24 z17 a30°  
Φ38.1 Involute splined shaft, Pitch 12/24 Teeth 17 Pressure angle 30°



←-- 马达安装面  
Motor mounting surface

### ■ BM4 型号意义 ORDERING CODE

	1	2	3	4	5
BM4	-			/	

#### 1 排量 Displacement

160、200、250、320、400、500

#### 2 输出轴 Shaft

P Φ40平键轴, 平键12X8X50  
Φ40 Cylindrical shaft, parallel key 12X8X50

P1 Φ32平键轴, 平键10X8X50  
Φ32 Cylindrical shaft, parallel key 10X8X50

P33 Φ40平键轴, 平键12X8X70  
Φ40 Cylindrical shaft, parallel key 12X8X70

H4 Φ35矩形花键轴, 6-35X29X10  
Φ35 Spline shaft, 6-35X29X10

H5 Φ35矩形花键轴, 6-35X29X6  
Φ35 Spline shaft, 6-35X29X6

K3 Φ38.1渐开线花键轴, DP12/24 z17 a30°  
Φ38.1 Involute splined shaft, pitch 12/24 teeth 17 pressure angle 30

#### 3 安装法兰 Mounting Flange

A 4-Φ14方法兰, 止口Φ125  
4-Φ14 Square flange, pilot Φ125

A1 4-Φ14方法兰, 止口Φ90  
4-Φ14 Square flange, pilot Φ90

A4 4-Φ14方法兰, 止口Φ125  
4-Φ14 Square flange, pilot Φ125

#### 4 油口 Ports

P(A,B)(深deep) T(深deep)

Y G3/4(15) G1/4(12)

Y3 M27X2 (15) M14X1.5(12)

Y4 M22X1.5(15) M14X1.5(12)

#### 5 特殊要求 Special Features

省略 Omit 没有 none



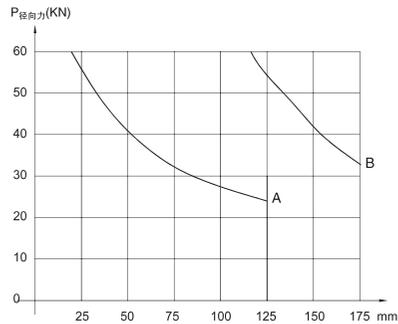
### BM5 型端面配油摆线液压马达 BM5 Orbit Hydraulic Motor With Disk Valve

#### BM5 技术参数 TECHNICAL DATA

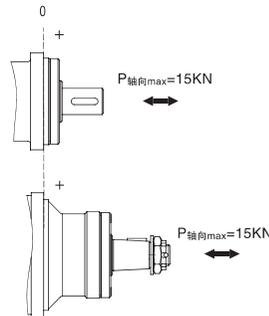
型号 TYPE	BM5-315 BM5S-315 BM5W-315	BM5-400 BM5S-400 BM5W-400	BM5-500 BM5S-500 BM5W-500	BM5-630 BM5S-630 BM5W-630	BM5-800 BM5S-800 BM5W-800	BM5-985 BM5S-985 BM5W-985
排量 Displacement(ml/r)	314.9	399.7	496.6	617.8	787.4	969.1
最大压降 Max.Pressure.Drop (Mpa)	连续 cont.	20	20	20	18	14
	间断 int.	24	24	24	21	18
	尖峰 peak.	28	28	28	24	21
最大扭矩 Max.torque (N.m)	连续 cont.	873	1108	1385	1570	1773
	间断 int.	1119	1440	1783	1951	2122
	尖峰 peak.	1293	1650	2060	2249	2481
转速范围 (连续) Speed.Range(cont.)(r/min)	10-475	9-375	8-300	6-238	5-187	5-154
最大流量 (连续) Max.Flow(cont.)(L/min)	150	150	150	150	150	150
最大输出功率 (连续) Max.Output.Power(cont.)(Kw)	32	32	32	32	32	24
重量 Weight (kg)	30.7	31.5	32.4	33.6	35.2	37.2

间断工作时间每分钟不得超过6秒, 尖峰工作时间每分钟不得超过0.6秒  
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

#### 输出轴允许负载 PERMISSIBLE SHAFT LOADS



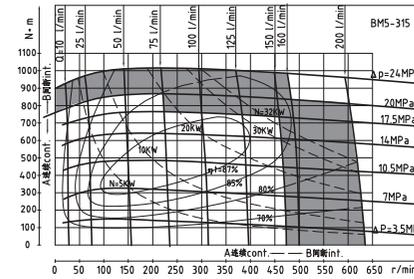
A--BM5型  
B--BM5W型



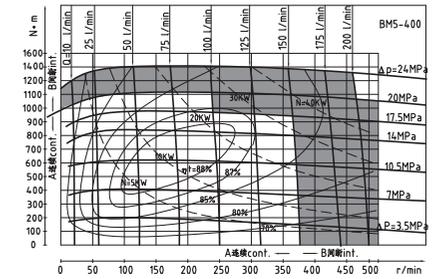
### BM5 型端面配油摆线液压马达 BM5 Orbit Hydraulic Motor With Disk Valve

#### BM5性能曲线图 FUNCTION DIAGRAMS

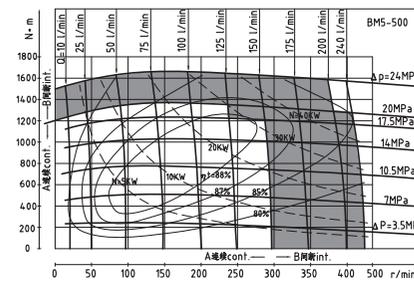
BM5-315



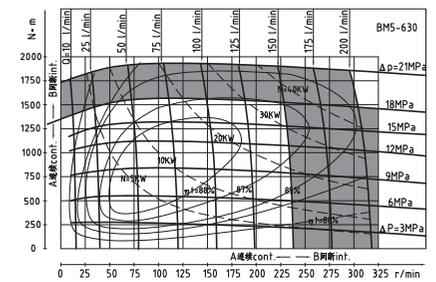
BM5-400



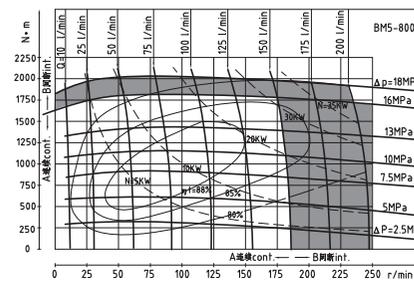
BM5-500



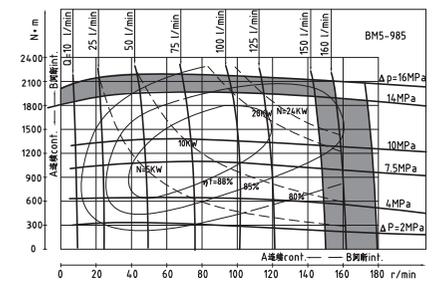
BM5-630



BM5-800



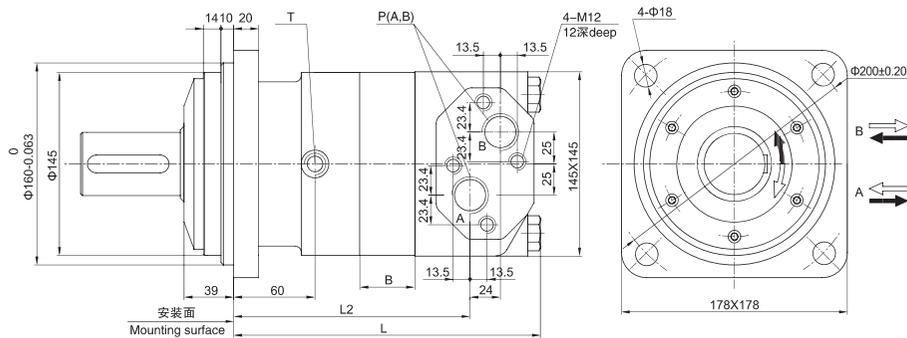
BM5-985



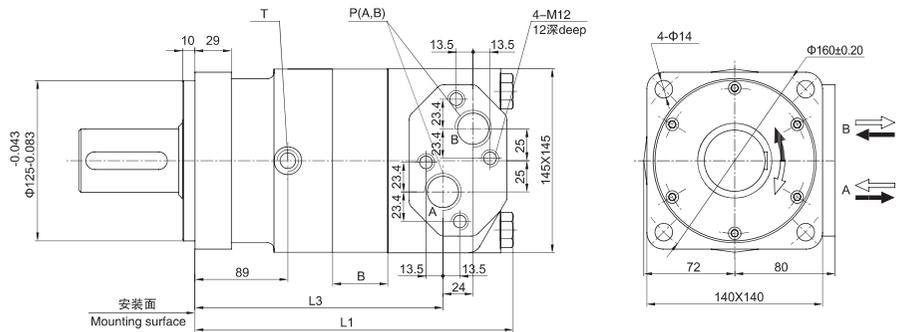
BM5 型端面配油摆线液压马达 BM5 Orbit Hydraulic Motor With Disk Valve

■ BM5 外形安装图 Installation

A型 大方法兰 A Version Square flange



A1型 小方法兰 A1 Version Square flange



型号 TYPE	BM5-315	BM5-400	BM5-500	BM5-630	BM5-800	BM5-985
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

P(A,B)--进油出口, 详见第48页型号说明; T--泄油口, 详见第48页型号说明。  
P(A,B)--Ports, can be found on page 48; T--Drain connection, can be found on page 48.

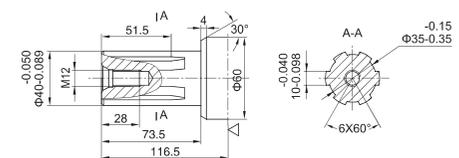
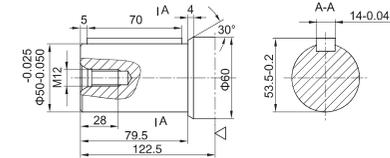
BM5 型端面配油摆线液压马达 BM5 Orbit Hydraulic Motor With Disk Valve

■ BM5 外形连接尺寸--输出轴 SHAFT VERSION

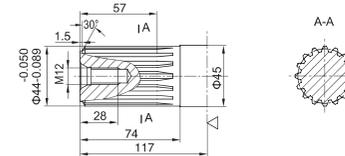
仅配A型法兰 Only match with A flange

P:  $\Phi 50$  平键轴, 平键 14X9X70  
 $\Phi 50$  Cylindrical shaft, parallel key 14X9X70

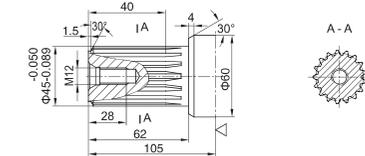
H5:  $\Phi 40$  矩形花键轴, 6-40X35X10  
 $\Phi 40$  Splined shaft, 6-40X35X10



K2:  $\Phi 44$  渐开线花键轴, m2.5 z16 a30°, 变位系数0.35  
 $\Phi 44$  Involute splined shaft, Modulus 2.5 Teeth 16 Pressure angle 30°



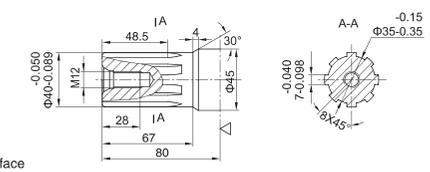
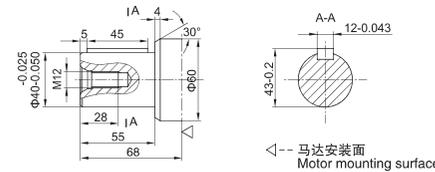
K3:  $\Phi 45$  渐开线花键轴, m2.5 z17 a30°  
 $\Phi 45$  Involute splined shaft, Modulus 2.5 Teeth 17 Pressure angle 30°



仅配A1型法兰 Only match with A1 flange

P1:  $\Phi 40$  平键轴, 平键 12X8X45  
 $\Phi 40$  Cylindrical shaft, parallel key 12X8X45

H4:  $\Phi 40$  矩形花键轴, 8-40X35X7  
 $\Phi 40$  Splined shaft, 8-40X35X7



■ BM5 型号意义 ORDERING CODE



1	排量 Displacement
315、400、500、630、800、985	
2	输出轴 Shaft
P	$\Phi 50$ 平键轴, 平键 14X9X70 $\Phi 50$ Cylindrical shaft, parallel key 14X9X70
P1	$\Phi 40$ 平键轴, 平键 12X8X45 $\Phi 40$ Cylindrical shaft, parallel key 12X8X45
H4	$\Phi 40$ 矩形花键轴, 8-40X35X7 $\Phi 40$ Splined shaft, 8-40X35X7
H5	$\Phi 40$ 矩形花键轴, 6-40X35X10 $\Phi 40$ Splined shaft, 6-40X35X10
K2	$\Phi 44$ 渐开线花键轴, m2.5 z16 a30° $\Phi 44$ Involute splined shaft, modulus 2.5 teeth 16 pressure angle 30°
K3	$\Phi 45$ 渐开线花键轴, m2.5 z17 a30° $\Phi 45$ Involute splined shaft, modulus 2.5 teeth 17 pressure angle 30°

3	安装法兰 Mounting Flange
A	4- $\Phi 18$ 大方法兰, 止口 $\Phi 160$ 4- $\Phi 18$ Square flange, pilot $\Phi 160$
A1	4- $\Phi 14$ 小方法兰, 止口 $\Phi 125$ 4- $\Phi 14$ Square flange, pilot $\Phi 125$
4	油口 Ports
	P(A,B)(深deep) T(深deep)
Y	G1"(18) G1/4"(12)
Y1	G3/4"(15) G1/4"(12)
Y2	M33X2(18) M14X1.5(12)
Y3	M27X2(15) M14X1.5(12)
Y4	M22X1.5(15) M14X1.5(12)
5	特殊要求 Special Features

省略 Omit 没有 none



## BM6 型端面配油摆线液压马达 BM6 Orbit Hydraulic Motor With Disk Valve

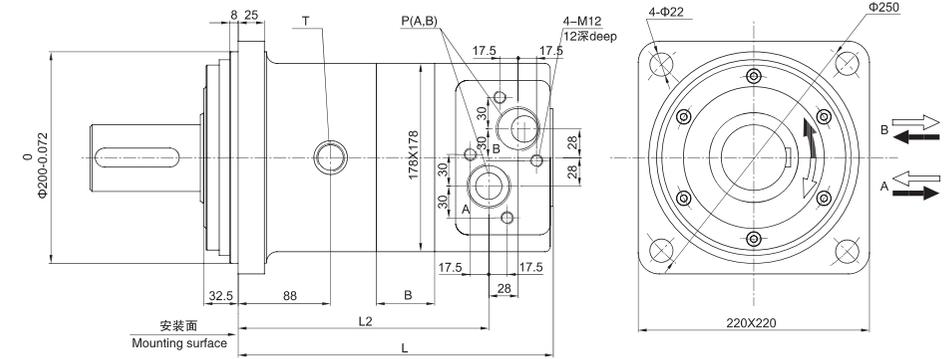
## BM6 型端面配油摆线液压马达 BM6 Orbit Hydraulic Motor With Disk Valve

### BM6 技术参数 TECHNICAL DATA

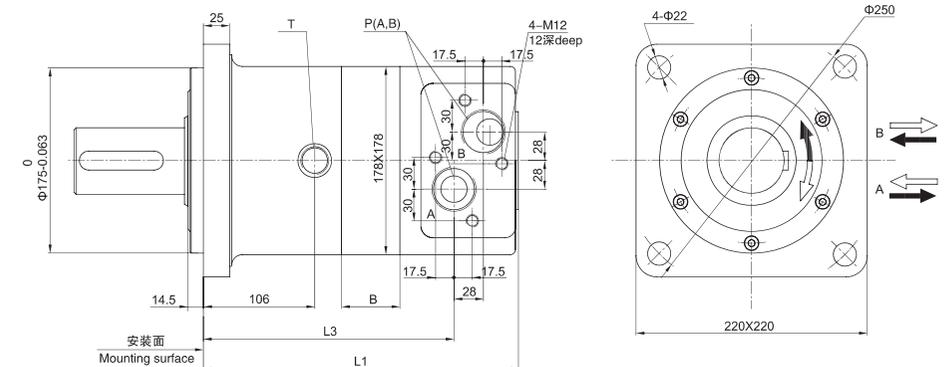
型号 TYPE	BM6-800	BM6-1000	BM6-1250
排量 Displacement(ml/r)	759.6	949.5	1186.8
最大压降 Max.Pressure.Drop (Mpa)	连续 cont.	16	16
	间断 int.	18	18
最大扭矩 Max.torque (N.m)	连续 cont.	1690	2160
	间断 int.	1903	2379
转速范围 (连续) Speed.Range(cont.)(r/min)	连续 cont.	1690	2160
	间断 int.	1903	2379
最大流量 (连续) Max.Flow(cont.)(L/min)	160	160	160
最大输出功率 (连续) Max.Output.Power(cont.)(Kw)	35	35	35
重量 Weight (kg)	54	56	58

### BM6 外形安装图 Installation

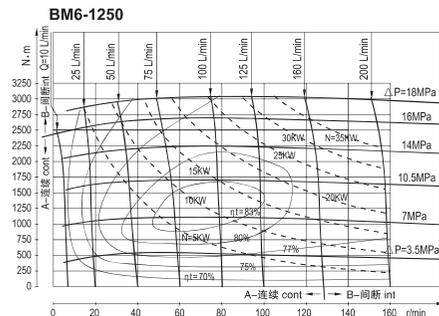
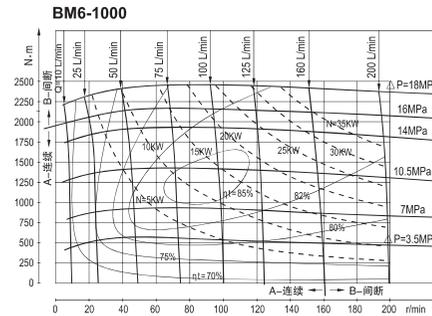
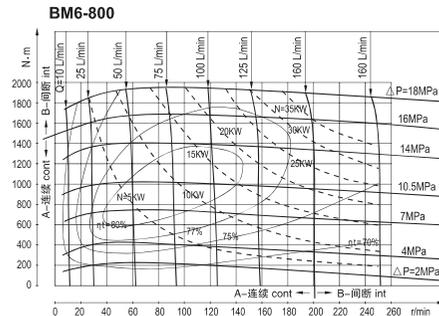
A型 安装法兰 A Version Square flange



A1型 安装法兰 A1 Version Square flange



### BM6 性能曲线图 FUNCTION DIAGRAMS



型号 TYPE	BM6-800	BM6-1000	BM6-1250
L	278	288	300
L1	296	306	318
L2	217	227	239
L3	235	245	257
B	33	43	55.5

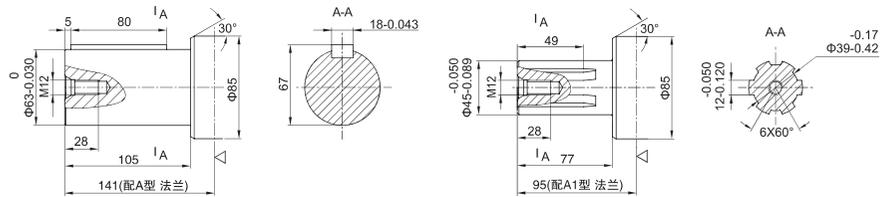
P(A,B)--进出口, 详见第53页型号说明; T--泄油口, 详见第53页型号说明。  
P(A,B)--Ports, can be found on page 53; T--Drain connetion, can be found on page 53.

## BM6 型端面配油摆线液压马达 BM6 Orbit Hydraulic Motor With Disk Valve

### ■ BM6 外形连接尺寸—输出轴 SHAFT VERSION

P: Φ63平键轴, 平键18X11X80  
Φ63 Cylindrical shaft, parallel key 18X11X80

H2: Φ45矩形花键轴, 6-45X39X12  
Φ45 Splined shaft, 6-45X39X12



◁-- 马达安装面  
Motor mounting surface

### ■ BM6 型号意义 ORDERING CODE

	1	2	3	4	5
BM6	-				/

<b>1</b>	<b>排量 Displacement</b>
800、1000、1250	
<b>2</b>	<b>输出轴 Shaft</b>
P	Φ63平键轴, 平键18X11X80 Φ63 Cylindrical shaft, parallel key 18X11X80
H2	Φ45矩形花键轴, 6-45X39X12 Φ45 Square shaft, 6-45X39X12
<b>3</b>	<b>安装法兰 Mounting Flange</b>
A	4-Φ22法兰, 止口Φ200 4-Φ22 Square flange, pilot Φ200
A1	4-Φ22法兰, 止口Φ175 4-Φ22 Square flange, pilot Φ175

<b>4</b>	<b>油口 Ports</b>
P(A,B)(深deep)	T(深deep)
Y	G1½"(20) G3/8"(12)
Y1	Φ36(20) G3/8"(12)
<b>5</b>	<b>特殊要求 Special Features</b>
省略 Omit	没有 none

## 附录 APPENDIX

### ■ 对照表 COMPARISON

	BMP	BMR	BM3	BM3S	BM4	BM4S	BM5	BM5S	BM6
Danfoss	OMP	OMR	OMS	OMSS	OMT	OMTS	OMV	OMVS	-
M+S	EPM	EPRM	EPMS	-	EPMT	-	EPMV	-	-

### ■ 使用及注意事项 USAGE AND NOTICE

- 1、应按规定的技术参数选用液压马达。
  - 2、安装马达时, 其轴心线应与被驱动的轴心线保持同轴, 马达安装支架应具有足够的刚度。
  - 3、推荐使用运动粘度为 (25-70)mm<sup>2</sup>/s(50°C) 的液压油, 马达工作温度以 25°C-55°C 为最佳, 最高油温不大于 65°C。油液必须清洁, 过滤精度不低于 20μm。
  - 4、BM4-6型外泄油口应配置接头排出外泄油, 外泄油应接回油箱; BMR、BMP、BM3型背压应小于 0.7Mpa, 当背压大于 1.0Mpa 时, 应接泄油管。
  - 5、选用马达时, 如必须采用非标准连接型式的马达, 或对马达有特殊要求时, 请与本公司协商。
- 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 25-70mm<sup>2</sup>/s (50 °C) is recommended. The filter is about 20μm. The oil must be clear, polluted oil will damage the motor badly.
  - 4、For BM4-6 there should be a pipe connected the drain port and the oil tank; for BMR、BMP、BM3 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.

### ■ 常用计量单位及其换算 COMMON UNIT AND CONVERSION

物理量	单位	符号	单位换算
力	牛	N	1 N = 10 <sup>-3</sup> KN
	公斤力	kgf	1 kgf = 9.81 N
	磅力	lbf	1 lbf = 4.45 N
压力	巴	bar	1 bar = 10 <sup>5</sup> Pa = 14.5 Psi
	帕	Pa	1 Pa = 1 N/m <sup>2</sup> = 10 <sup>-6</sup> MPa
转矩	牛米	N·m	
	公斤力米	kgf·m	1kgf·m=9.81 N·m

### ■ 相关计算公式 FORMULA

(一) 实际转速 n	(二) 实际扭矩 Ts	(三) 马达的实际输出功率 Ps
$n = \frac{q_s}{V} \eta_v \quad (r/min)$ <p>式中 <math>q_s</math> -- 实际流量 (L/min) <math>V</math> -- 马达排量 (L/r) <math>\eta_v</math> -- 容积效率</p>	$T_s = \frac{\Delta p V}{2\pi} \eta_m \quad (N \cdot m)$ <p>式中 <math>\Delta p</math> -- 工作压差 (MPa) <math>\eta_m</math> -- 机械效率</p>	$P_s = n \cdot T_s / 9550$

## JMDG 曲轴连杆式径向柱塞液压马达 JMDG Radial piston hydraulic motor

### ● 产品概述



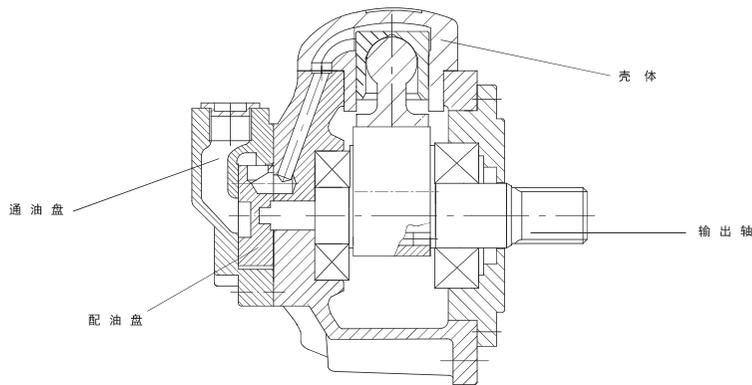
JMDG 径向曲轴连杆式液压马达是一种可补偿端面配油结构的低速大扭矩液压马达，广泛应用于石油，化工，矿山船舶，建筑等机械的液压传动系统中，特别适用于注塑机的螺杆驱动以及绞盘，卷筒，各种回转机构的驱动，履带和轮子行走机构的驱动等传动机构中。

### ● 性能特点

- ※ 采用了曲轴及较低激振频率的五缸五活塞机构，保持了原有的低噪音特点；
- ※ 启动扭矩大（启动机械效率提高到 0.9 以上）具有良好的低速稳定性，能在很低的速度下平稳运转；
- ※ 采用了可靠的可补偿端面配油结构，泄漏减少，维修方便，活塞和缸体间用新型活塞环密封，具有较高的容积效率；
- ※ 曲轴和连杆间由滚柱支撑具有很高机械效率；
- ※ 旋转方向可逆，输出轴允许承受径向和轴向外力；
- ※ 具有较高的功率质量比。

### ● 工作原理

通压力油的柱塞缸受液压力的作用，在柱塞体上产生推力 P。此力通过连杆作用在曲轴中心，使输出轴旋转，同时配油盘随着一起转动，当柱塞所处位置超过下死点时，柱塞缸由配油盘接通总回油口，曲轴向上推动柱塞，此时，做功后的液压油通过配油盘返回油箱。各柱塞依次接通高低压力油，各柱塞对输出轴中心所产生的驱动力矩同向相加，就使马达输出轴获得连续而平稳的回转扭矩。当改变油流方向时，便可改变马达的旋转方向。如将配油盘旋转 180° 装配，也可以实现马达的反转。



### ● INTRODUCTION

JMDG is one kind of low speed high torque radial piston hydraulic motor. It can be widely applied in petroleum industry, chemical industry, mining, shipping, constructing machinery, especially for plastic injection molding machinery, hydraulic winch, transmission etc.

### ● CHARACTERISTICS

- ※ Low noise
- ※ High starting torque (mechanical efficiency improved to over 0.9), good stability when low speed
- ※ High volumetric efficiency
- ※ Higher mechanical efficiency
- ※ Opposite rotating available
- ※ Radial and axial load available
- ※ Higher kw/kg ratio

### ● WORKING PRINCIPLE

High pressure oil comes into the cylinder, working on the piston, pushing the piston down, the piston is connected to the crankshaft, then the crankshaft will turn. Together with oil distributor. When piston walks to its lowest position, the cylinder will get through with the oil tank, then the piston goes back. Total 5 pistons work one by one, the crankshaft will turn continually. When the working oil flows oppositely, the shaft will turn in another direction.

## JMDG 曲轴连杆式径向柱塞液压马达 JMDG Radial piston hydraulic motor

### ● 型号意义 ORDERING CODE

JMDG  -   -  

1      2      3      4      5      6

1. 径向柱塞曲轴连杆式低速大扭矩液压马达  
Low speed high torque radial piston hydraulic motor.
2. 系列号（同一系列不同排量的液压马达其安装联接尺寸相同）  
Series number (Motors in one series have same dimensions.)
3. 理论排量  
Theoretical displacement
4. 输出轴类型  
Output shaft :  
1). A 表示标准外花键  
A means standard spline shaft  
2). B 表示标准平键轴  
B means standard key shaft  
3). I 代表标准内花键  
I means standard female spline shaft  
4). S 安装联接尺寸与意大利 SAI 公司相同  
Same dimensions as Italy SAI motors.  
5). T 安装联接尺寸与 intermot 液压马达相同  
Same dimensions as Italy intermot motors.
5. 通油盘种类  
Distributor  
1). 通油盘代号，标准通油盘见各系列马达安装联接图  
Distributor code, standard distributors can be found in different series.  
2). 如有特殊需要请参见 P 79 页，并在定货中注明  
Special distributor can be found in page 79.
6. 输出转向  
Output turning  
  
R 为顺时针旋转，L 为逆时针旋转（从轴端看）  
R means clockwise, L means anticlockwise (see from the shaft end)

备注：定单上必须注明完整的采购代码。  
Note: Full ordering code is a must when placing an order.

\* 如有其他特殊要求请与本公司联系

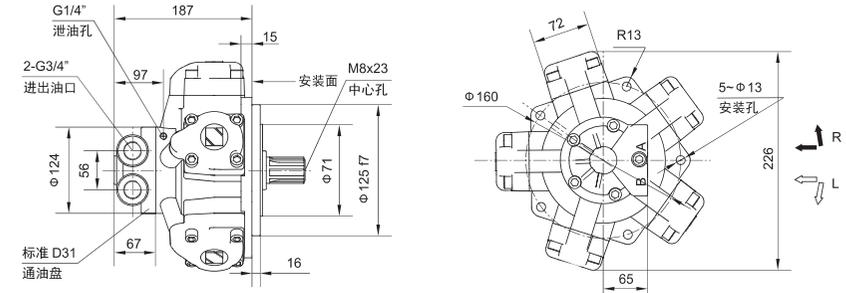
JMDG 曲轴连杆式径向柱塞液压马达 JMDG Radial piston hydraulic motor

● 技术参数 TECHNICAL DATA

型号 TYPE	排量 Displacement (ml/r)	压力 Pressure (Mpa)		扭矩 Torque (N.m)		转速范围 Speed Range (r/min)	最大 输出功率 Max. cont. Power (kw)	重量 Weight (kg)
		尖峰压力 peak pressure	连续压力 cont. pressure	额定扭矩 Rate torque (N.m)	单位理论扭矩 Theoric Torque (N.m/Mpa)			
JMDG1-50	56	22	16	128	8	35-500	6	23
JMDG1-63	64	22	16	150	9	35-500	7	23
JMDG1-80	78	20	16	183	11	35-500	9	23
JMDG1-100	96	20	16	225	14	35-500	11	23
JMDG1-125	126	20	16	295	18	35-500	15	23
JMDG1-160	159	20	14	326	23	35-500	16	23
JMDG2-100	113	22	16	264	17	30-400	11	28
JMDG2-150	157	22	16	370	23	30-400	15	28
JMDG2-175	176	20	16	412	26	30-400	17	28
JMDG2-200	201	20	16	471	29	30-400	19	28
JMDG2-250	254	18	14	520	37	30-400	21	28
JMDG2-280	271	16	14	556	39	30-400	23	28
JMDG3-200	199	22	16	466	29	30-350	25	36
JMDG3-250	254	22	16	595	37	30-350	32	36
JMDG3-300	289	18	14	592	42	30-350	32	36
JMDG3-350	351	16	14	720	51	30-350	32	36
JMDG3-400	397	16	14	814	58	30-350	32	36
JMDG3-450	462	16	14	948	68	30-350	42	36
JMDG6-400	397	22	16	930	58	25-320	46	65
JMDG6-450	452	22	16	1059	66	25-320	53	65
JMDG6-500	491	20	16	1150	72	25-320	53	65
JMDG6-600	594	20	16	1392	87	25-320	63	65
JMDG6-700	683	20	16	1600	100	25-320	63	65
JMDG6-750	754	18	14	1546	110	25-320	63	65
JMDG6-800	799	16	14	1638	117	25-320	63	65
JMDG8-600	617	20	16	1446	90	20-280	80	71
JMDG8-700	710	20	16	1664	104	20-280	80	71
JMDG8-800	810	18	14	1661	118	20-280	85	71
JMDG8-900	889	18	14	1823	130	20-280	85	71
JMDG8-1000	1000	16	14	2051	146	20-280	85	71
JMDG11-700	714	22	16	1673	104	18-280	80	90
JMDG11-800	782	22	16	1832	114	18-280	80	90
JMDG11-900	903	22	16	2116	114	18-280	80	90
JMDG11-1000	995	20	16	2332	146	18-280	85	90
JMDG11-1100	1116	20	16	2615	163	18-280	85	90
JMDG11-1200	1175	18	14	2409	172	18-280	85	90
JMDG11-1300	1296	18	14	2658	190	18-280	80	90
JMDG16-1400	1375	22	16	3222	201	15-250	100	160
JMDG16-1600	1648	22	16	3862	241	15-250	110	160
JMDG16-1800	1814	20	16	4252	265	15-250	110	160
JMDG16-2000	2034	18	14	4171	298	15-250	110	160
JMDG16-2400	2412	18	14	4946	353	15-250	97	160
JMDG16Y-2500	2665	25	20	7808	390	10-200	110	260
JMDG16Y-3000	3029	25	20	8874	444	10-200	110	260
JMDG31-2500	2550	22	16	5977	373	10-200	150	325
JMDG31-2800	2826	22	16	6624	414	10-200	150	325
JMDG31-3000	3050	20	16	7149	447	10-200	140	325
JMDG31-3150	3142	20	16	7364	460	10-200	140	325
JMDG31-3500	3419	20	16	8013	501	10-200	140	325
JMDG31-4000	4170	20	16	9774	611	10-200	130	325
JMDG31-4500	4522	20	16	10599	663	10-160	130	325
JMDG31-5000	5190	18	14	10644	760	10-160	130	325
JMDG71-4600	4617	22	16	10822	676	5-125	145	415
JMDG71-5400	5459	20	16	12795	799	5-125	145	415
JMDG71-6300	6361	18	14	13046	932	5-125	145	415
JMDG100-6300	6133	22	16	14375	898	5-100	168	700
JMDG100-8000	7693	20	16	18032	1127	5-100	168	700
JMDG100-10000	10688	18	14	21921	1565	5-100	200	700
JMDG160-12500	13335	20	16	30577	1911	3-80	220	1000
JMDG160-16000	16040	18	14	32182	2298	3-63	220	1000

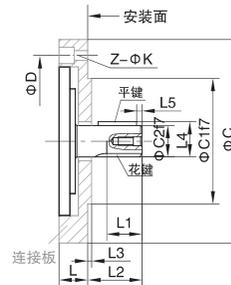
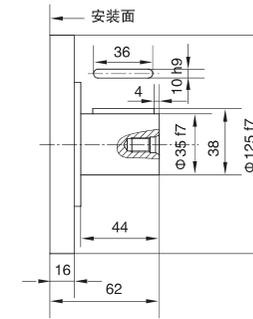
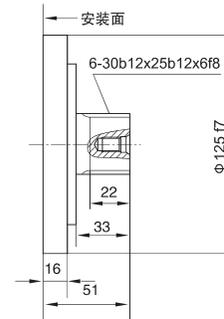
JMDG1 曲轴连杆式径向柱塞液压马达 JMDG1 Radial piston hydraulic motor

● JMDG1 外型安装图 Installation



标准外花键 JMDG1-\*\*A

标准平键 JMDG1-\*\*B



外型安装 型号	法兰连接板	接板直径	止口	轴径	接板厚	花键有效长度	安装面与轴距离	止口高	轴径与平键直径	轴径与平键直径	安装孔分度圆	安装孔	键参数
JMDG1-**S058	-	-	125	30	-	-	65	16	33	3	160	5- $\phi 13$	8x40
JMDG1-**B1	B1连接板	186	82.5	25.4	32	-	51	10	28	4	106.4	2- $\phi 11$	6.35x32
JMDG1-**B2	-	-	125	35	-	-	78	16	38	4	160	5- $\phi 13$	10x45
JMDG1-**B11	B11连接板	186	125	25	22	-	51	10	28	4	105	4- $\phi 11$	8x32

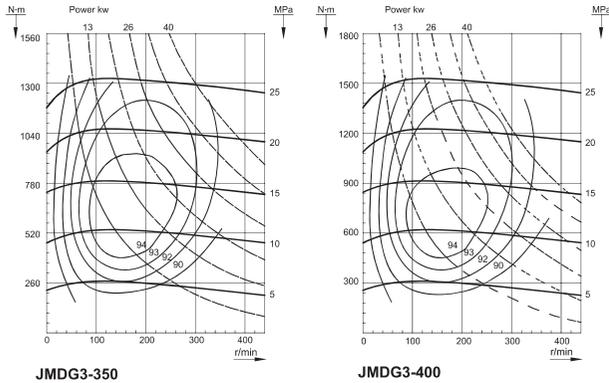
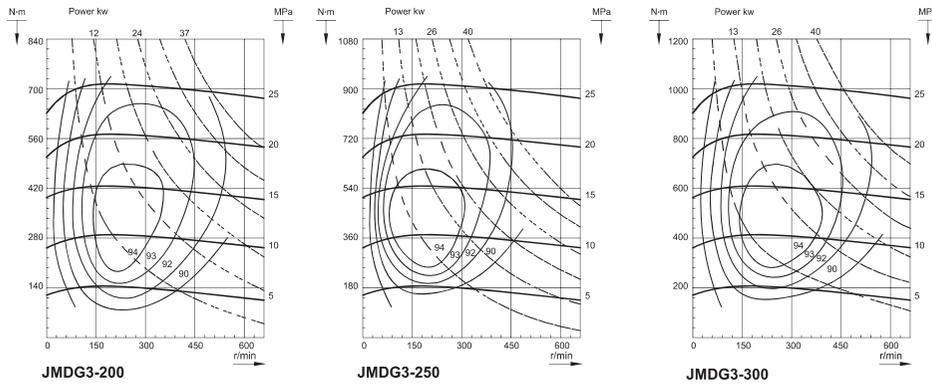




### JMDG3 曲轴连杆式径向柱塞液压马达 JMDG3 Radial piston hydraulic motor

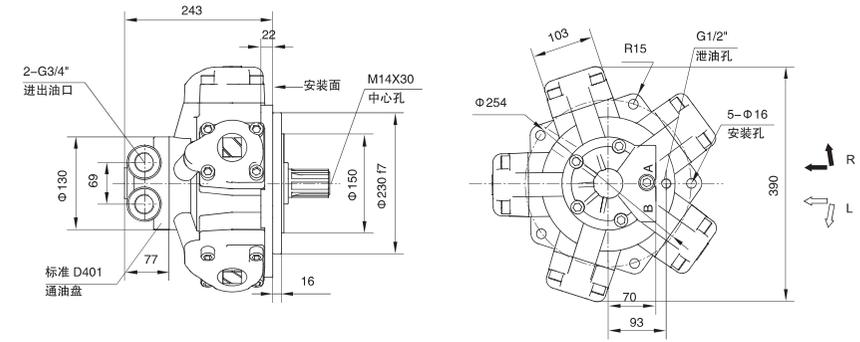
型号 TYPE	排量 Displacement (ml/r)	压力Pressure (MPa)		扭矩Torque(N.m)		转速范围 Speed range (r/min)	最大输出功率 Max cont Power (Kw)	重量 Weight (Kg)
		尖峰压力 Peak pressure	连续压力 Cont pressure	额定扭矩 (N.m) Rate torque	单位理论扭矩 (N.m/MPa) Theoric torque			
JMDG3-200	199	22	16	466	29	30-350	25	36
JMDG3-250	254	22	16	595	37	30-350	32	36
JMDG3-300	289	18	14	592	42	30-350	32	36
JMDG3-350	351	16	14	720	51	30-350	32	36
JMDG3-400	397	16	14	814	58	30-350	32	36
JMDG3-450	462	16	14	948	58	30-350	42	36

### ● JMDG3-200~400 性能曲线图 PERFORMANCE DIAGRAMS

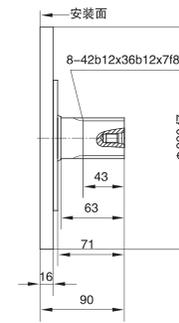


### JMDG6 曲轴连杆式径向柱塞液压马达 JMDG6 Radial piston hydraulic motor

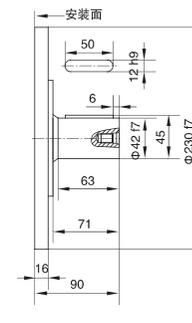
#### ● JMDG6 外型安装图 Installation



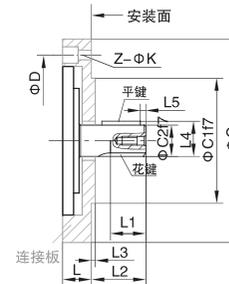
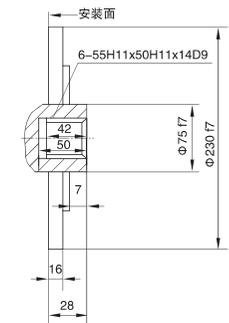
标准外花键 JMDG6-\*\*A



标准平键 JMDG6-\*\*B



标准内花键 JMDG6-\*\*I

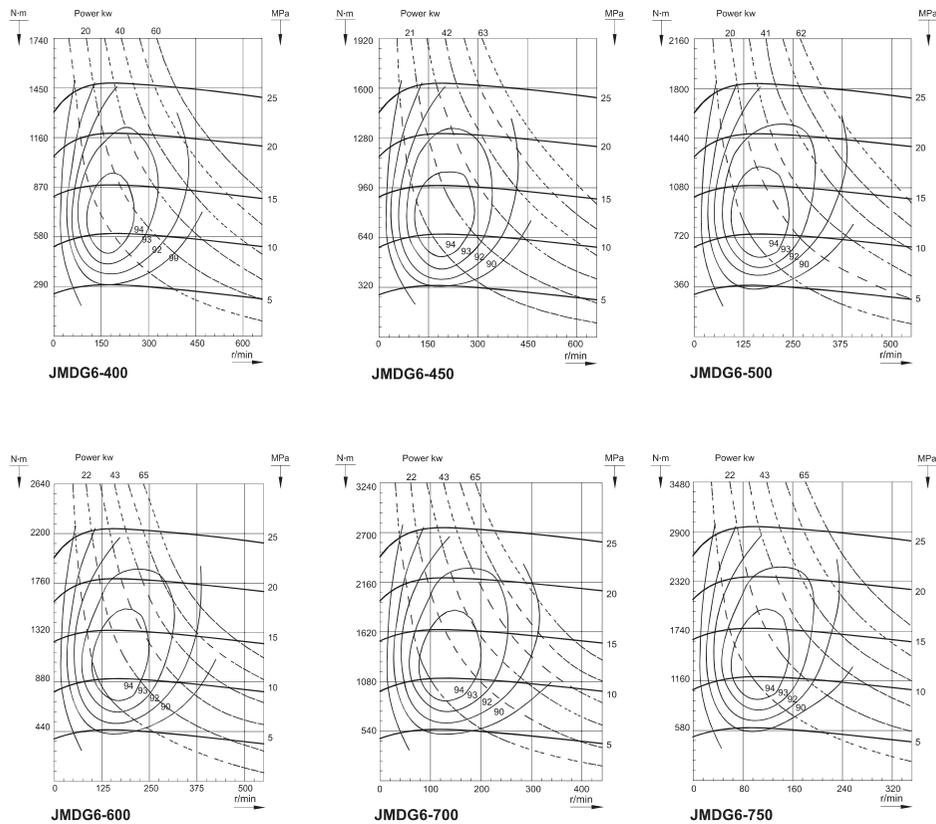


型号	外型安装		法兰连接板	接板直径	止口	轴径	接板厚	花键到轴端距离	安装面到轴端距离	止口高	轴径与键槽总宽	键宽与键槽总宽	安装孔分度圆	安装孔	键参数
	C	C1													
JMDG6-**T20	-	-	230	42	-	43	86	16	-	-	254	5-φ16	8-42b12x36b12x7f8		
JMDG6-**SL2	S21-1连接板	284	150	40	37	48	72	5	-	-	195	5-φ13	8-40b11x36b11x7f8		
JMDG6-**S21	S21连接板	-	150	40	-	48	72	5.3	-	-	250	5-φ16	8-40d11x36d11x7f8		
JMDG6-**S38	S38连接板	350	265	50	30	-	86	10	53.5	6	310	5-φ20	16x70		
JMDG6-**B1	B1连接板	284	125	40	37	-	70	5	43	6	160	4-φ17	12x50		
JMDG6-**B2	B2连接板	284	160	50	37	-	103	5	53.5	4	200	4-φ17	14x50		

### JMDG6 曲轴连杆式径向柱塞液压马达 JMDG6 Radial piston hydraulic motor

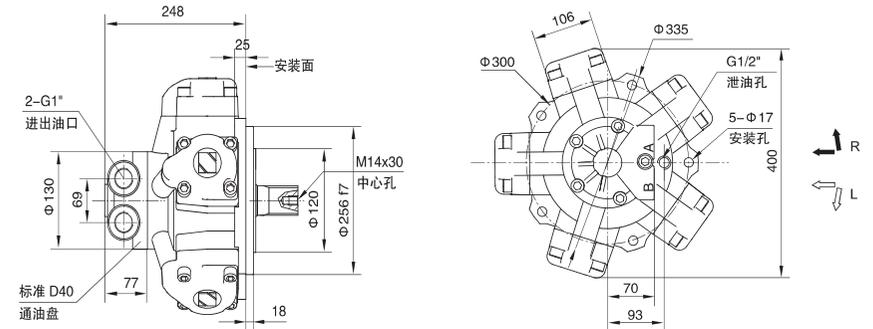
型号 TYPE	排量 Displacement (ml/r)	压力Pressure (MPa)		扭矩Torque(N.m)		转速范围 Speed range (r/min)	最大输出功率 Max cont Power (Kw)	重量 Weight (Kg)
		尖峰压力 Peak pressure	连续压力 Cont pressure	额定扭矩 Rate torque (N.m)	单位理论扭矩 (N.m/MPa) Theoric torque			
JMDG6-400	397	22	16	930	58	25-320	46	65
JMDG6-450	452	22	16	1059	66	25-320	53	65
JMDG6-500	491	20	16	1150	72	25-320	53	65
JMDG6-600	594	20	16	1392	87	25-320	63	65
JMDG6-700	683	20	16	1600	100	25-320	63	65
JMDG6-750	754	18	14	1546	110	25-320	63	65
JMDG6-800	799	16	14	1638	117	25-320	63	65

#### ● JMDG6-400~750 性能曲线图 PERFORMANCE DIAGRAMS

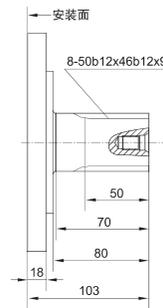


### JMDG8 曲轴连杆式径向柱塞液压马达 JMDG8 Radial piston hydraulic motor

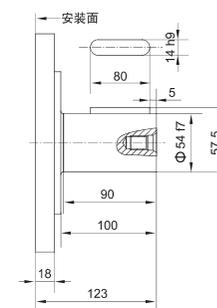
#### ● JMDG8 外型安装图 Installation



#### 标准外花键 JMDG8-\*\*A



#### 标准平键 JMDG8-\*\*B



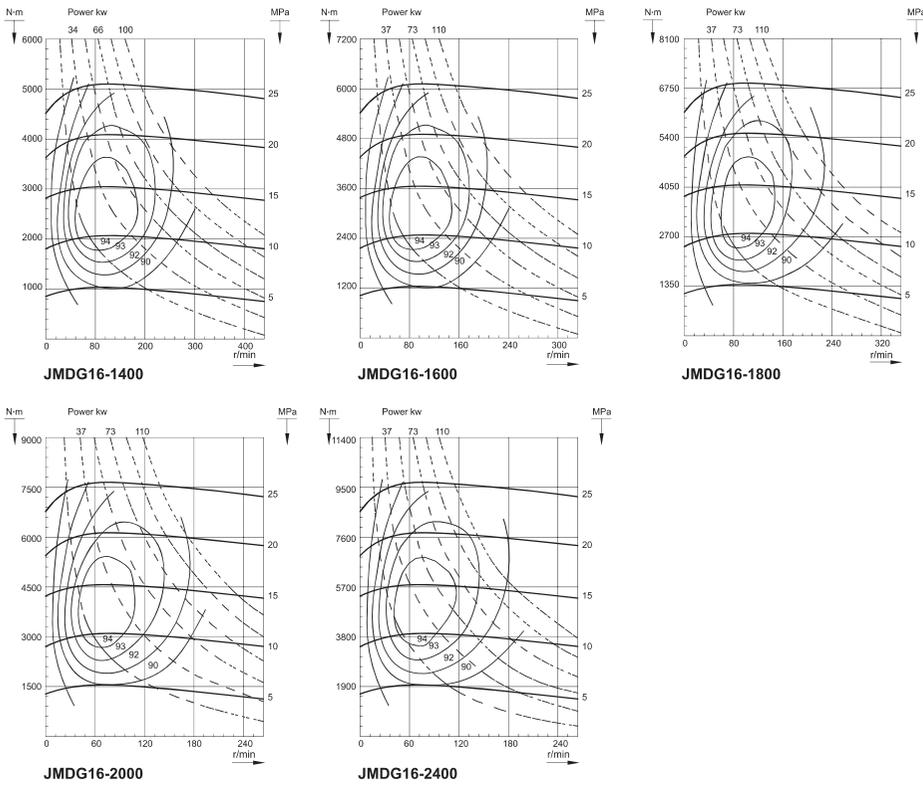
型号 TYPE	排量 Displacement (ml/r)	压力Pressure (MPa)		扭矩Torque(N.m)		转速范围 Speed range (r/min)	最大输出功率 Max cont Power (Kw)	重量 Weight (Kg)
		尖峰压力 Peak pressure	连续压力 Cont pressure	额定扭矩 Rate torque (N.m)	单位理论扭矩 (N.m/MPa) Theoric torque			
JMDG8-600	617	20	16	1446	90	20-280	80	71
JMDG8-700	710	20	16	1664	104	20-280	80	71
JMDG8-800	810	18	14	1661	118	20-280	85	71
JMDG8-900	889	18	14	1823	130	20-280	85	71
JMDG8-1000	1000	16	14	2051	146	20-280	85	71





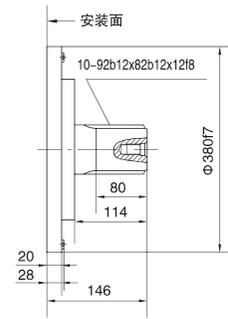
### JMDG16 曲轴连杆式径向柱塞液压马达 JMDG16 Radial piston hydraulic motor

#### ● JMDG16-1400-2400 性能曲线图 PERFORMANCE DIAGRAMS

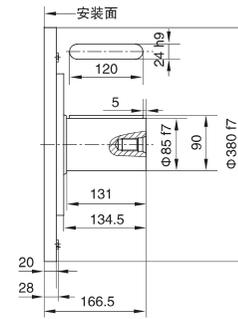


### JMDG31 曲轴连杆式径向柱塞液压马达 JMDG31 Radial piston hydraulic motor

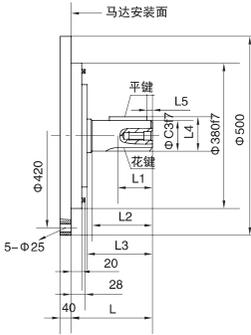
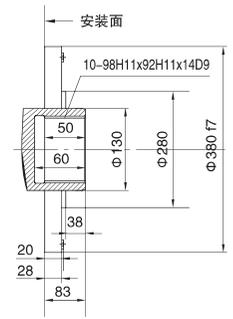
标准外花键 JMDG31-\*\*A



标准平键 JMDG31-\*\*B



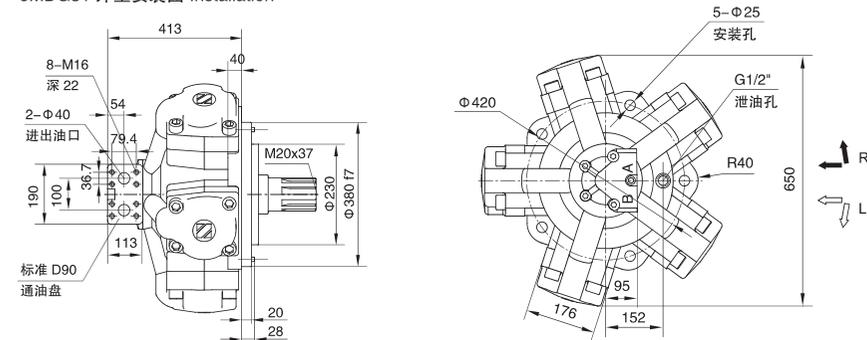
标准内花键 JMDG31-\*\*I



型号	安装尺寸							键参数
	安装面到轴端距离 L	花键有效长度 L1	键背到轴端距离 L2	轴端到轴端距离 L3	轴径与平键总长 L4	轴径与平键距离 L5	轴径 C3	
JMDG31-**A1	202	130	167	172	-	-	92	10-92b12x82b12x12f8
JMDG31-**B2	161.5	-	131	132	92	5	90	25x120
JMDG31-**B3	190	-	158	160	106.4	5	101.4	25.4x142

### JMDG31 曲轴连杆式径向柱塞液压马达 JMDG31 Radial piston hydraulic motor

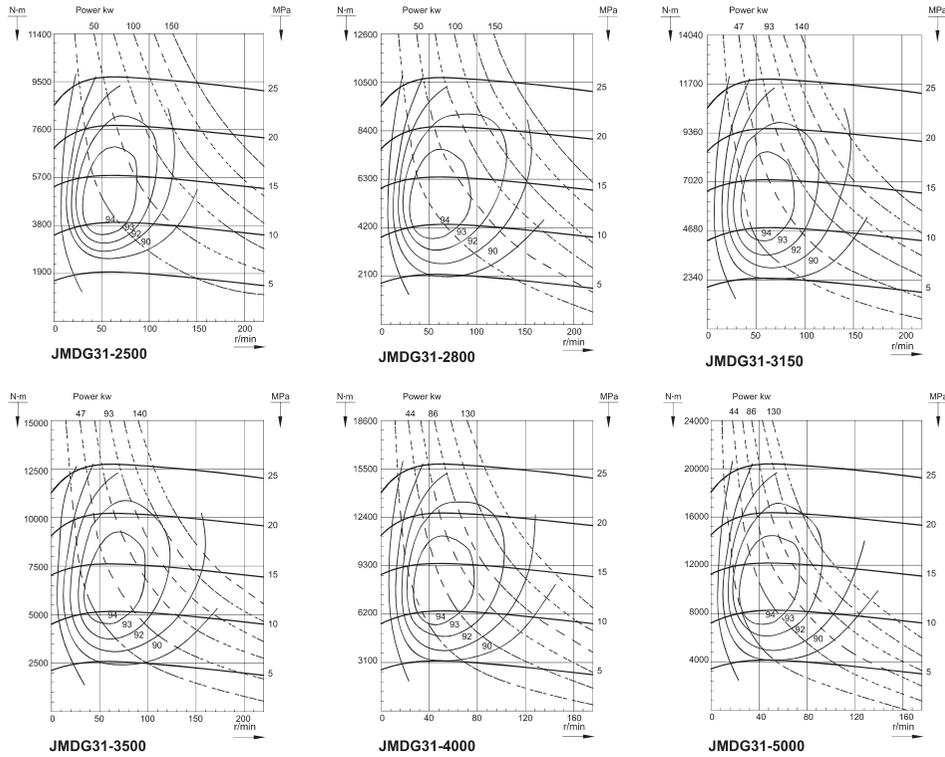
#### ● JMDG31 外型安装图 Installation



型号 Type	排量 Displacement (ml/r)	压力 Pressure (MPa)		扭矩 Torque (N.m)		转速范围 Speed range (r/min)	最大输出功率 Max cont Power (Kw)	重量 Weight (Kg)
		尖峰压力 Peak pressure	连续压力 Cont pressure	额定扭矩 Rate torque	单位理论扭矩 Theoric torque			
JMDG31-2500	2550	22	16	5977	373	10-200	150	325
JMDG31-2800	2826	22	16	6624	414	10-200	150	325
JMDG31-3000	3050	20	16	7149	447	10-200	140	325
JMDG31-3150	3142	20	16	7364	460	10-200	140	325
JMDG31-3500	3419	20	16	8013	501	10-200	140	325
JMDG31-4000	4170	20	16	9774	611	10-200	130	325
JMDG31-4500	4522	20	16	10599	663	10-160	130	325
JMDG31-5000	5190	18	14	10644	760	10-160	130	325

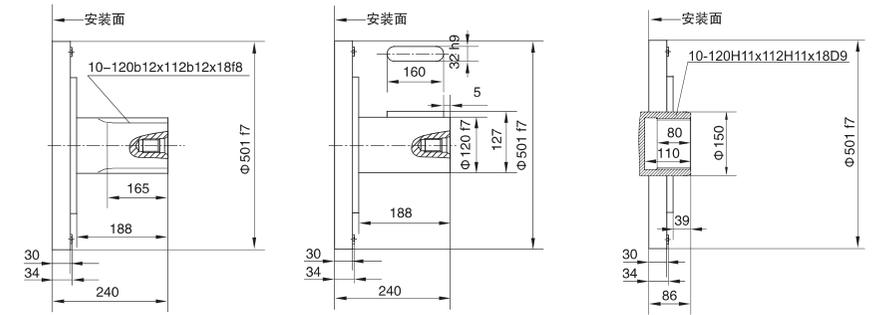
### JMDG31 曲轴连杆式径向柱塞液压马达 JMDG31 Radial piston hydraulic motor

#### ● JMDG31-2500~5000 性能曲线图 PERFORMANCE DIAGRAMS



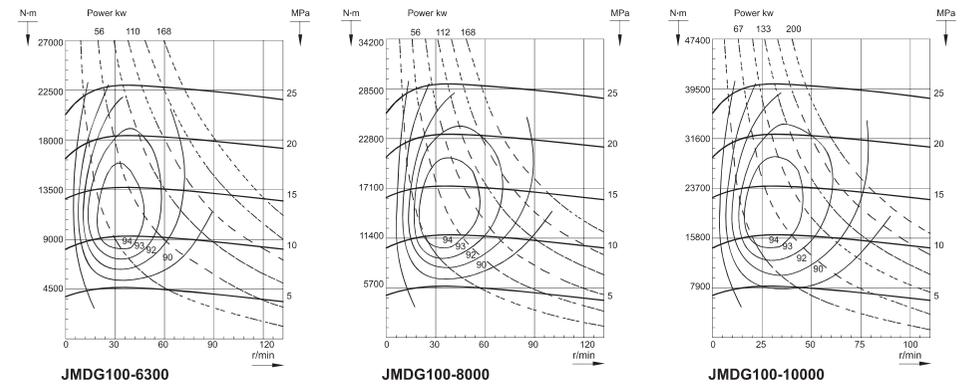
### JMDG100 曲轴连杆式径向柱塞液压马达 JMDG100 Radial piston hydraulic motor

#### 标准外花键 JMDG100-\*\*A 标准平键 JMDG100-\*\*B 标准内花键 JMDG100-\*\*I



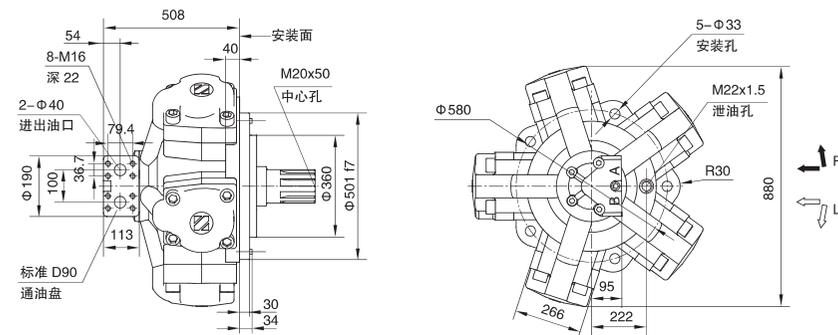
型号 TYPE	排量 Displacement (ml/r)	压力 Pressure (MPa)		扭矩 Torque (N.m)		转速范围 Speed range (r/min)	最大输出功率 Max cont Power (Kw)	重量 Weight (Kg)
		尖峰压力 Peak pressure	连续压力 Cont pressure	额定扭矩 Rate torque (N.m)	单位理论扭矩 Theoric torque (N.m/MPa)			
JMDG100-6300	6133	22	16	14375	898	5-100	168	700
JMDG100-8000	7693	20	16	18032	1127	5-100	168	700
JMDG100-10000	10688	18	14	21921	1565	5-100	200	700

#### ● JMDG100-6300~10000 性能曲线图 PERFORMANCE DIAGRAMS



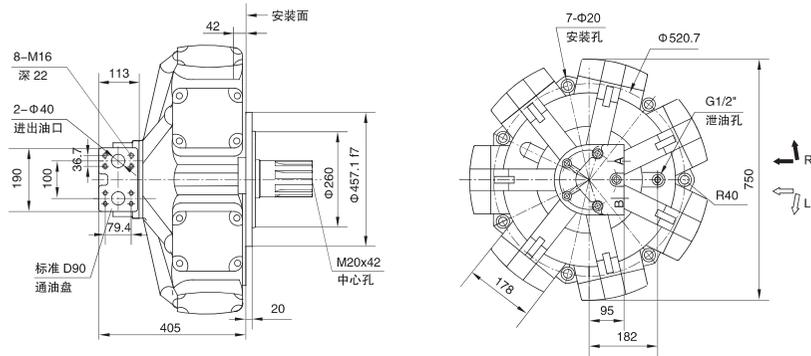
### JMDG100 曲轴连杆式径向柱塞液压马达 JMDG100 Radial piston hydraulic motor

#### ● JMDG100 外型安装图 Installation



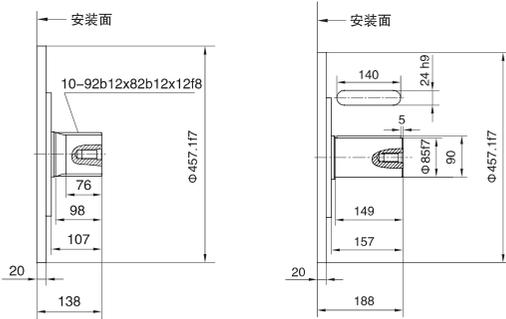
JMDG71 曲轴连杆式径向柱塞液压马达 JMDG71 Radial piston hydraulic motor

● JMDG71 外型安装图 Installation



标准外花键 JMDG71-\*\*A

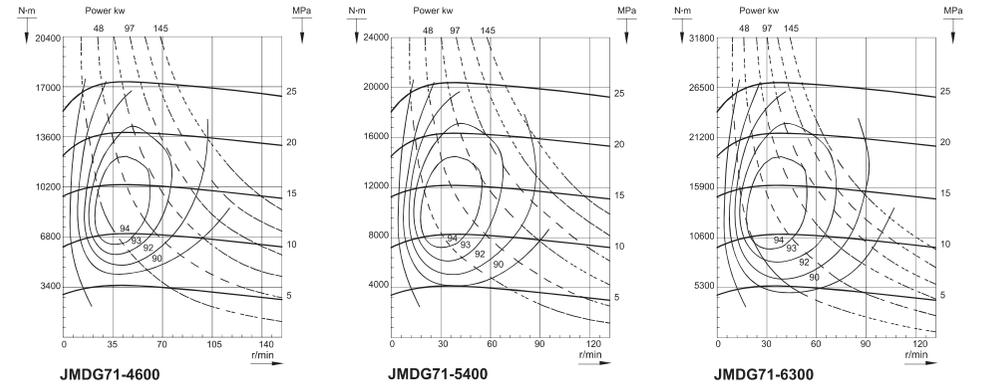
标准平键 JMDG71-\*\*B



型号 TYPE	排量 Displacement (ml/r)	压力Pressure (MPa)		扭矩Torque(N.m)		转速范围 Speed range (r/min)	最大输出功率 Max cont Power (Kw)	重量 Weight (Kg)
		尖峰压力 Peak pressure	连续压力 Cont. pressure	额定扭矩 Rate torque (N.m)	单位理论扭矩 单位理论扭矩 (N.m/MPa)			
JMDG71-4600	4617	22	16	10822	676	5-125	145	415
JMDG71-5400	5459	20	16	12795	799	5-125	145	415
JMDG71-6300	6361	18	14	13046	932	5-125	145	415

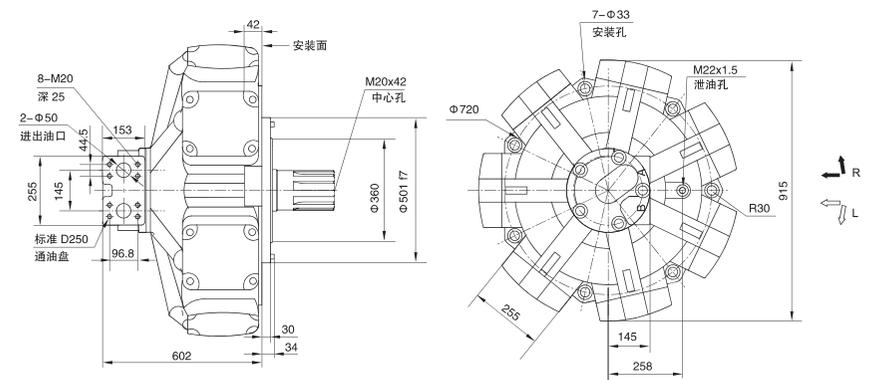
JMDG71 曲轴连杆式径向柱塞液压马达 JMDG71 Radial piston hydraulic motor

● JMDG71-4600-6300 性能曲线图 PERFORMANCE DIAGRAMS



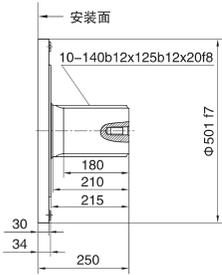
JMDG160 曲轴连杆式径向柱塞液压马达 JMDG160 Radial piston hydraulic motor

● JMDG160 外型安装图 Installation

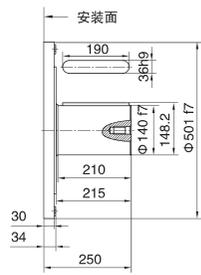


JMDG160 曲轴连杆式径向柱塞液压马达 JMDG160 Radial piston hydraulic motor

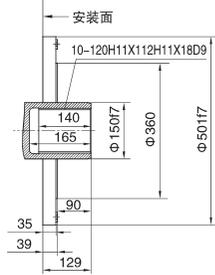
标准外花键 JMDG160-\*\*\*A



标准平键 JMDG160-\*\*\*B

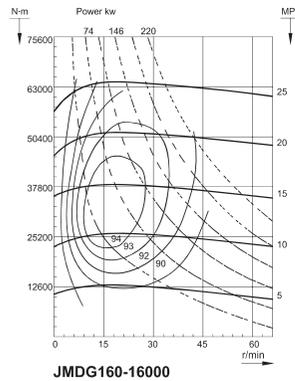
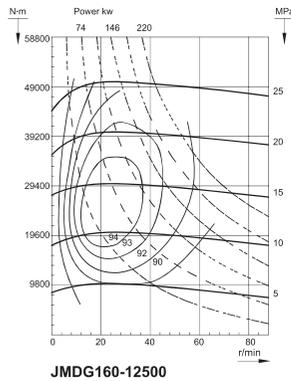


标准内花键 JMDG160-\*\*\*I



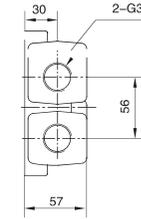
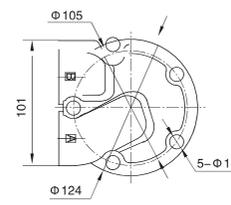
型号 TYPE	排量 Displacement (ml/r)	压力Pressure (MPa)		扭矩Torque(N.m)		转速范围 Speed range (r/min)	最大输出功率 Max cont Power (Kw)	重量 Weight (Kg)
		尖峰压力 Peak pressure	连续压力 Cont pressure	额定扭矩 (N.m) Rate torque	单位理论扭矩 (N.m/MPa) Theoric torque			
JMDG160-12500	13335	20	16	30577	1911	3-80	220	1000
JMDG160-16000	16040	18	14	32182	2298	3-63	220	1000

● JMDG160-12500~16000 性能曲线图 PERFORMANCE DIAGRAMS



JMDG 曲轴连杆式径向柱塞液压马达 JMDG Radial piston hydraulic motor

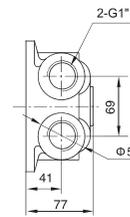
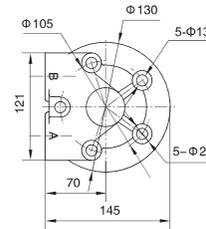
● 通油盘的种类 Oil distributor



D31

D31: 油孔为 G3/4", 适用于 JMDG1、JMDG2、JMDG3 系列马达。

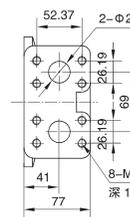
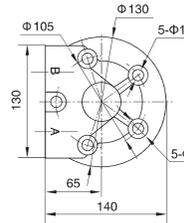
D31 with 3/4" ports for JMDG1、JMDG2、JMDG3 series motors.



D40

D40: 油孔为 G1", 适用于 JMDG6、JMDG11、JMDG16 系列马达。

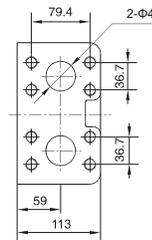
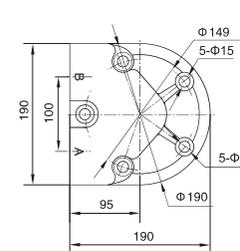
D40 with 1" ports for JMDG6、JMDG11、JMDG16 series motors.



D47

D47: 油孔为 φ25 通孔, 带 F1 联接板, 适用于 JMDG6、JMDG11、JMDG16 系列马达。

D47 with φ25 flanges for JMDG6、JMDG11、JMDG16 series motors.

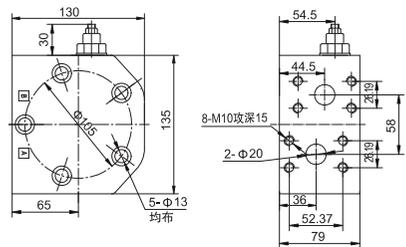


D90

D90: 油孔为 φ40 通孔, 带 F1 联接板, 适用于 JMDG71、JMDG16、JMDG31、JMDG100 系列马达。

D90 with φ40 flanges for JMDG71、JMDG16、JMDG31、JMDG100 series motors.

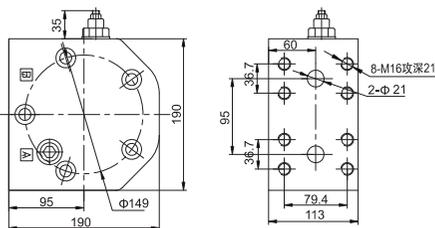
### JMDG 曲轴连杆式径向柱塞液压马达 JMDG Radial piston hydraulic motor



#### D1201

D1201:油孔为Φ20,带一个平衡阀,适用于JMDG6、JMDG11、JMDG16系列马达。

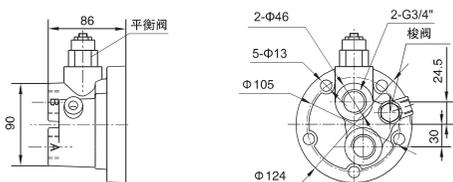
D1201 with Φ20 ports, a balance valve ports for JMDG6、JMDG11、JMDG16 series motors.



#### D2401

D2401:油孔为Φ21,带一个平衡阀,适用于JMDG16、JMDG31、JMDG71、JMDG100系列马达。

D2401 with Φ21 ports, a balance valve ports for JMDG16、JMDG31、JMDG71、JMDG100 series motors.



#### D501

D501:油孔为G3/4",带一个梭阀,一个平衡阀,适用于JMDG1、JMDG2、JMDG3系列马达。

D501 with G3/4" ports, a shuffler valve and a balance valve for JMDG1、JMDG2、JMDG3 series motors.

阀块代号	所用阀代号	油口尺寸	阀块代号	所用阀代号	油口尺寸
D47PF8	CBEG-LJN平衡阀	2-M33*2	D47A2F4	YF06-02安全阀2个	2-G1"
D47PAF8(240)	CBGG-LJN平衡阀	2-M33*2	D47P2A2BF4	CBEG-LJN平衡阀2个	2-G1"
	YF06-02-00安全阀			YF06-02安全阀2个	
D47PAF8	CBEG-LJN平衡阀	2-M33*2	D47P2SF	补油阀组件	2-G3/4"
D47P2F8	YF06-02安全阀	2-M33*2		CBEG-LJN平衡阀2个	
D47P2F2	CBEG-LJN平衡阀2个	2-NPT3/4		SF06-01-00梭阀	

阀块代号	所用阀代号	油口尺寸
D90PF2	CBGG-LJN平衡阀	Φ48
D90PF5	CBGG-LJN平衡阀	2-M33*2
D90PAF5	CBGG-LJN平衡阀	2-M33*2
	YF10-01-00安全阀	
D90P2F5	CBGG-LJN平衡阀2个	2-M33*2
D90PHF5	CBGG-LJN平衡阀	2-M33*2
	34S-25BOD换向阀	
D90PF12(480)	GBIG-LJN平衡阀	2-M42*2
D90P2A2F5	CBGG-LJN平衡阀2个	2-M33*2
	YF10-01-00安全阀2个	

注意:平衡阀按流量大小分为不同规格,所以选型时应与客户实际流量相匹配,否则会引较大压力损失或出现工作不稳定现象。

### JMDG 曲轴连杆式径向柱塞液压马达 JMDG Radial piston hydraulic motor

#### 使用及注意事项 USAGE AND NOTICE

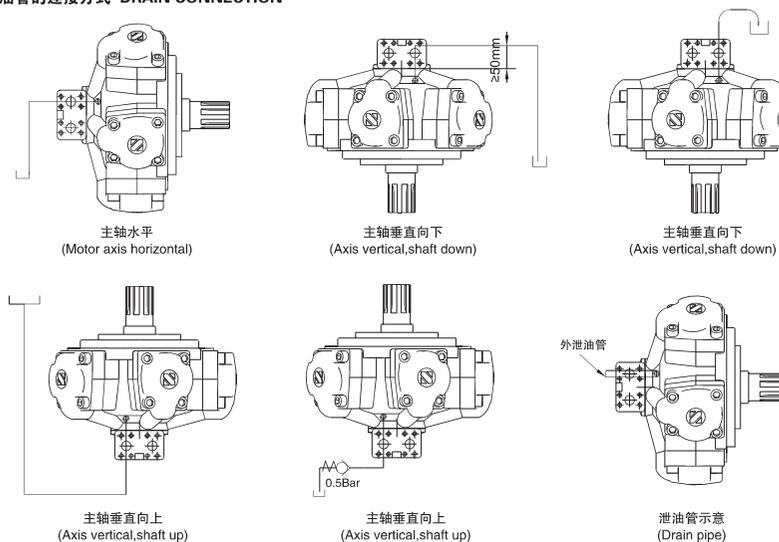
##### 基本要求:

1. 液压油应按环境温度和使用情况的不同,所用的油液应具有有良好的粘温性能,消泡性好、防氧化、防腐蚀、闪点高等。马达在运转过程中,其粘度在 $(25-70) \times 10^{-6} \text{m}^2/\text{s}$ 之间,油中的水、酸、碱和机械杂质等,不得超过允许值。
2. 过滤精度在额定工作下优于 $25 \mu\text{m}$ 。
3. 正常工作油温 $25-55^\circ\text{C}$ ,短期工作温度不得高于 $65^\circ\text{C}$ 。
4. 在正常情况下,壳体腔内腔压力控制在 $0.1\text{Mpa}$ 内,若压力过高,易使油封损坏,引起外泄。
5. 马达只要在大于 $0.2\text{Mpa}$ 的回油压力下即可以正常工作。如果背压不足,低速运转时易产生爬行现象。
6. 马达与负载一般采用同轴联接,花键轴于工作机械的花键孔应对中,并保证两者滑动配合。
7. 该型马达应避免在泵工况下运转。

##### BASE REQUIREMENT

1. According to air temperature and working condition, the oil you choose should have high performances of viscosity, defoaming property, anti-oxidation, anti-rust, and high flash point etc. During the motor-running period, its viscosity is between $(25-70) \times 10^{-6} \text{m}^2/\text{s}$ , and water acid, alkali and mechanical impurity should not exceed allowable value.
2. Filtering Precision, Superior to  $25 \mu\text{m}$  under rated operation condition.
3. Oil temperature keeps  $25^\circ\text{C} - 55^\circ\text{C}$  in normal continuous operation, not more than  $65^\circ\text{C}$  in intermittent operation.
4. Under normal condition, Max. pressure for the motor body is  $0.1\text{Mpa}$ . If pressure too high, oil seal is prone to be damaged and oil will be leaked out.
5. The motor can normal work as long as the backpressure exceeds  $0.2\text{Mpa}$ . In case of insufficient backpressure, motor will creep in low-speed operation.
6. Motor and load shall be coaxially linked. Spline shaft and the splined hole of working mechanism shall be aligned. Besides, sliding fit of both should be ensured.
7. The motor cannot work as a pump.

#### 泄油管的连接方式 DRAIN CONNECTION



#### 注意 NOTE

1. 所有 JMDG 系列在开启之前须从泄油管加满液压油。  
Motors should be fulfilled with oil through the drain port before using.
2. 不管什么位置安装,泄油管最高水平位置应高于马达最高水平位置,泄油管一般应单独与回油箱接通,不允许与回油管连通,泄油阻力不应过大。  
The highest position of drain pipe should be higher than the highest position of the motor the drain port should not be connected with outlet port, pressure in drain pipe should not be high.

## QJM 钢球液压马达 QJM Sphere Piston Hydraulic Motor

### ● 产品概述 INTRODUCTION



QJM 型液压马达与各种油泵、阀及液压件组成液压传动装置，由于它在设计上采取了一定措施，故可适应各种机器工况。该型马达具有重量轻、体积小、调速范围大，可有级变量、工作可靠、寿命长等优点，目前已应用于矿山工程、起重运输、冶金、船舶、机床、塑料加工、地质勘探等领域。主要用在履带行走、轨道轮子驱动、各种回转机构、勘探钻孔、绞车提升、皮带运输传动、物料搅拌、路面切割、船舶推进、塑料注射等部位。

QJM hydraulic motor that can constitute a hydraulic actuator with different oil pumps, valves and hydraulic parts is able to adapt itself to all kinds of mechanical conditions by reason of some measures taken to its design. The motor has many advantages, e.g. light weight, small size, wide speed regulating range, capable of stepping variation, reliable performance and long useful life, etc. It has been widely applied for mine engineering, hoisting transport, metallurgy, ships, machine tools, plastics processing and geological prospecting, etc. It is mainly used for pedrail walking, driving railway wheels, different slewing gears, drilling, winch hoisting, belt transmission, material agitation, cutting road surfaces, ship propulsion, plastics injection, etc.

### ● 性能特点 CHARACTERISTICS

- 1、该型马达的滚动体用一只钢球代替了一般内曲线液压马达所用的两只以上滚轮和横梁，因而结构简单、工作可靠、体积、重量显著减少。
  - 2、运动副惯量小，钢球结实可靠，故该型马达可以在较高转速和冲击负载下连续工作。
  - 3、摩擦副小，配油轴与转子内力平衡，活塞副具有静压平衡和良好润滑条件，并采用软性塑料球垫密封高压油，因而具有较高的机械和容积效率。
  - 4、因配油轴与定子刚性联结，故该型马达进出油管允许用钢管连接。
  - 5、该型马达具有二级和三级变排量，因而具有较大的调速范围。
  - 6、结构简单，拆修方便。
  - 7、该系列标准型液压马达的出轴一般只允许承受扭矩，不能承受径向和轴向外力、\*QJM\*-\*\*Z 型液压马达的出轴可承受径向和轴向外力。
  - 8、\*\*QJM\*\*-\*\*T\*\* 型马达，中心具有通孔，转动轴可以穿过液压马达。
1. Because the rolling body of this motor is replaced by a steel ball rather than two or more rollers and beams commonly used in inner curve hydraulic motors, it is simple in structure, reliable in performance and greatly reduced in volume or weight.
  2. A small kinematic pair inertia and a hard steel ball make this motor continuously work during the rotation at higher speed and under stronger impact load.
  3. It has higher mechanical and volumetric efficiency for its small friction pair, oil feed shaft balanced with roller, piston pair capable of static pressure balance & good lubrication and coated high pressure sealing oil on soft plastic mat.
  4. As the oil feed shaft and stator are in rigid connection, the oil pipeline of this model can be connected with steel pipe.
  5. As this model has variable displacements dual and trinal speeds, it is wider in speed regulating range.
  6. Simple structure and easy maintenance.
  7. The output shaft of the standard model can only endure the torque rather than outside radial and axial forces, while that one of Z series hydraulic motor can endure outside radial and axial forces.
  8. As T series hydraulic motor has a central through hole, the rotating shaft can pass through the motor.

## QJM 钢球液压马达 QJM Sphere Piston Hydraulic Motor

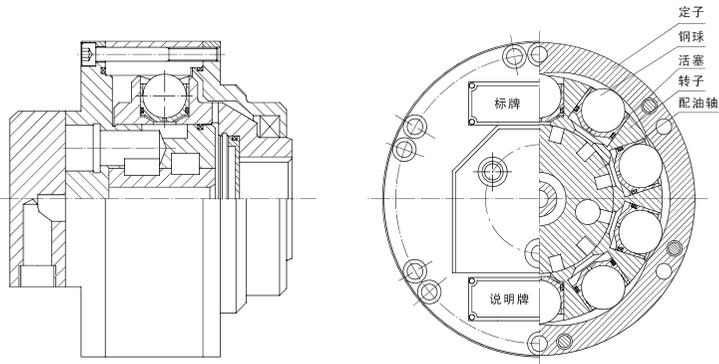
### 型号意义

#### ORDERING CODE



- 1- 表示定量，  
1-fixed displacement
- 2- 表示二级变量  
2-Variable displacement dual speeds
- 3- 表示三级变量  
3-Variable displacement trinal speeds
- 2 变量控制方式：  
F- 滑阀手动  
F-manual control with spool Valve,  
L- 螺杆手动  
L-manual Control with screw  
无符号为液控  
no code:hydraulic control
- 3 径向球塞式液压马达  
Radial sphere piston hydraulic motor
- 4 机座号 (同一机座号联接尺寸相同)  
Base number (all the coupling dimensions with the same base number are the same)  
11- 其中 1 表示第 1 种基型, 1 表示活塞为 1 排  
11-1 Stands for the first base, 1 stands for a row of pistons
- 5 排量 (升 / 转)  
Displacement(L/r)
- 6 省略 - 标准形  
no code-standard model  
Z\*- 带支承, \* 表示种类  
Z\*-motor with bearing,\*-mode  
T\*- 通孔, \* 为孔径  
T\*-motor with central through hole, \*-diameter
- 7 B- 带通油接板  
B-Motor with oil passing flange  
S- 带自控式制动器  
S-motor with brake  
Se- 带外控式制动器 (内花键)  
Se-out control brake (female spline)  
SeZ- 带外控式制动器 (平键)  
SeZ-out control brake(key shaft)  
SeZH- 带外控式制动器 (花键)  
SeZH-out control brake(Spline shaft)  
F- 带阀组  
F-with Valve block  
A- 花键尺寸不同于本系列  
A-the spline size is different from this series.

## QJM 钢球液压马达 QJM Sphere Piston Hydraulic Motor



由图可见, QJM型液压马达(标准型)的配油轴是与后盖刚性联结的,而转子体以配油轴作径向支承,以定子滚道和钢球作轴向支承(不另设轴承),它的输出轴是内花键(要求与工作机构输入轴松动配合),所以转子体是浮动的,而配油轴是刚性(它允许用钢管来联结)。压力油经配油轴中通道(或变速阀)分配到通高压腔的配油窗口,进入各活塞缸孔,活塞在压力作用下,通过钢球以N作用到定子上。

$$N = \frac{0.785d^2p}{\cos\alpha}$$

式中d-活塞直径 p-工作油压力 a-压力角

同时定子以与N值相同的反作用力N'作用到钢球上,钢球以切向力F通过活塞作用于转子体。

$$F = 0.785d2ptga$$

因此,转子体在F力的作用下绕配油轴旋转,由于同一瞬时有几只活塞都在压力油的作用下,所以产生很大扭矩。

当活塞随转子体旋转至定子曲线顶点后,活塞向轴心回程,活塞缸中工作油经配油轴窗口排回低压腔。如此往复即可完成将液压能转换成机械能之任务。

通过改变两个通油口的油流方向,即可实现正反转。

液压马达的有级变量是由变速阀控制的(变速阀已装置在马达中),变速阀可以用手动或先导阀来控制,也可以把变速阀固定在某一个位置,使之变为定量马达(当要求改为定量马达或手动控制时,订货合同中应该注明)当用先导阀来控制时,控制油路的压力应在0.3—10Mpa范围内。

As shown in figure, the oil feed shaft and rear cover of QJM hydraulic motor (standard) are in rigid connection, the roller is supported in radial direction by the oil feed shaft, and in axial direction by the stator groove and steel ball (without bearings), and its output shaft is the inner spline (in loose coordination with the input shaft of its operation mechanism), so the roller is fluctuating while the oil feed shaft is rigid (allowed to be connected with the steel pipe). The hydraulic oil is fed to the oil feed opening to high-pressure cavity through the oil feed shaft channel (or the speed change valve), then the oil enters into every piston cylinder bore to make the piston actuate the ball steel to act on the stator in N for pressure.

$$N = \frac{0.785d^2p}{\cos\alpha}$$

d-piston diameter p-pressure of working oil a-pressure angle

Meanwhile, the stator acts on the steel ball in a counterforce N' the same as N, then the steel ball actuates the piston to act on the roller in a tangential force F.

$$F = 0.785d2ptga$$

Therefore, the roller rotates around the oil feed shaft in F, then a large torque is caused by the rotation of several pistons at the same time, influenced by the pressure oil.

When the piston rotates to the top of the stator displacement curve around the roller, the piston begins to return to the shaft center, and working oil in the piston cylinder is pushed back into the low pressure cavity through the oil feed shaft opening. Thus, the hydraulic energy is transformed into mechanical energy again and again for repeated operations.

By changing the oil flow direction of two oil feed openings, positive and negative rotations can be realized.

The stepping variable displacement of the hydraulic motor is controlled by the speed change valve (installed in the motor) that can be controlled by hand or the pilot-actuated valve, and also fixed in a position, which makes the motor into a fixed displacement motor (the requirements changed to the fixed displacement motor or manual control should be indicated in the contract). When the motor is controlled by the pilot-actuated valve, the pressure for controlling the oil pipeline should be within the range from 0.3 to 10Mpa.

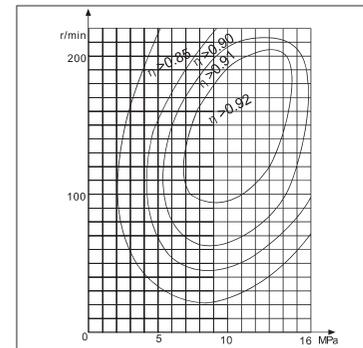
## QJM 钢球液压马达 QJM Sphere Piston Hydraulic Motor

QJM型各基型的额定流量(=额定转速x排量)  
Flow rate of QJM motors=rated speed x displacement

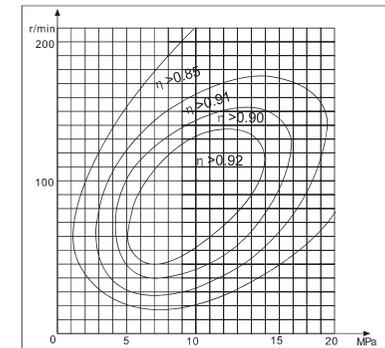
基型 Series	QJM001	QJM01	QJM11	QJM12	QJM21	QJM32	QJM42	QJM52	QJM62
额定流量 Flow rate L/min	50	63	80	80	100	160	250	320	400
外径 Outer diameter (mm)	Φ140	Φ180	Φ240	Φ240	Φ300	Φ320	Φ350	Φ420	Φ485

### 效率特性曲线

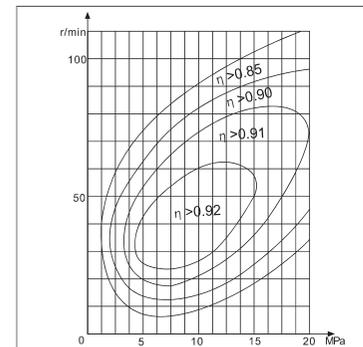
Performance Curve of Efficiency



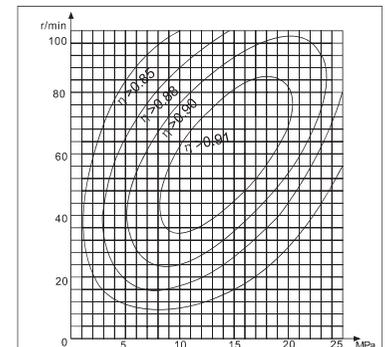
1QJM11-0.5型效率特性曲线  
Model 1QJM11-0.5performance curve of efficiency



1QJM21-0.63型效率特性曲线  
Model 1QJM21-0.63performance curve of efficiency



1QJM32-1.25型效率特性曲线  
Model 1QJM32-1.25performance curve of efficiency



1QJM42-2.5型效率特性曲线  
Model 1QJM42-2.5performance curve of efficiency

**QJM 钢球液压马达 QJM Sphere Piston Hydraulic Motor**

●1QJM\*\*---\*\*型液压马达的技术参数

1QJM\*\*---\*\*series Technical Data

型号 Type	排量 Displacement (L/r)	压力 Pressure(Mpa)		转速范围 Rotational Speed Range(r/min)	额定输出扭矩 Rated output Torque (N · m)	最大功率 Max.power (Kw)
		额定 Rated	尖峰 Peak			
1QJM001-0.08	0.083	10	16	15 ~ 400	123	5
1QJM001-0.10	0.104	10	16	15 ~ 350	154	5
1QJM002-0.2	0.2	10	16	15 ~ 300	295	8
1QJM01-0.1	0.10	10	16	15 ~ 500	148	10
1QJM01-0.16	0.163	10	16	15 ~ 500	241	12.5
1QJM01-0.2	0.203	10	16	15 ~ 450	300	12.5
1QJM02-0.32	0.326	10	16	15 ~ 350	483	13
1QJM02-0.4	0.406	10	16	15 ~ 300	600	13
1QJM11-0.32	0.339	10	16	15 ~ 350	468	20
1QJM11-0.4 A1	0.404	10	16	15 ~ 350	598	20
1QJM11-0.5	0.496	10	16	15 ~ 300	734	20
1QJM11-0.63	0.664	10	16	15 ~ 200	983	20
1QJM11-0.63 A1	0.664	10	16	15 ~ 200	983	20
1QJM12-0.8	0.8	10	16	15 ~ 200	1170	25
1QJM12-1.0	1.0	10	16	15 ~ 180	1480	25
1QJM12-1.25	1.33	10	16	15 ~ 140	1968	25
1QJM21-0.4	0.404	14	20	10 ~ 350	810	32
1QJM21-0.5	0.496	14	20	10 ~ 280	995	32
1QJM21-0.63	0.664	14	20	10 ~ 200	1332	32
1QJM21-0.8	0.808	14	20	10 ~ 160	1621	32
1QJM21-1.0	1.01	10	16	10 ~ 160	1447	25
1QJM21-1.25	1.354	10	16	10 ~ 125	1940	25
1QJM21-1.6	1.65	10	16	10 ~ 100	2364	25
1QJM32-0.63	0.635	16	20	10 ~ 400	1450	80
1QJM32-0.8	0.808	16	20	10 ~ 400	1853	80
1QJM32-1.0	1.06	16	20	10 ~ 350	2431	80
1QJM32-1.25	1.295	16	20	10 ~ 300	2969	80
1QJM32-1.6	1.649	16	20	10 ~ 230	3782	80
1QJM32-2.0	2.03	14	20	10 ~ 180	4072	80
1QJM32-2.5	2.71	10	16	10 ~ 140	3884	62
1QJM32-3.2	3.2	10	16	10 ~ 100	4586	62
1QJM32-4.0	4.0	10	16	10 ~ 80	5733	62
1QJM42-2.0	2.11	16	20	10 ~ 300	4839	105
1QJM42-2.5	2.56	16	20	10 ~ 230	5871	105
1QJM42-3.2	3.24	10	16	10 ~ 180	4644	90
1QJM42-4.0	4.0	10	16	10 ~ 150	5732	90
1QJM42-4.5	4.6	10	16	10 ~ 100	6593	90
1QJM52-2.5	2.67	16	20	8 ~ 300	6123	130
1QJM52-3.2	3.24	16	20	8 ~ 200	7430	130
1QJM52-4.0	4.0	14	20	8 ~ 180	8026	130
1QJM52-5.0	5.23	10	16	8 ~ 150	7496	120
1QJM52-6.3	6.36	10	16	8 ~ 120	9114	120
1QJM62-4.0	4.0	16	20	5 ~ 140	9172	150
1QJM62-5.0	5.18	16	20	5 ~ 120	11878	150
1QJM62-6.3	6.27	14	20	5 ~ 120	12580	150
1QJM62-8.0	7.85	10	16	5 ~ 100	11250	121
1QJM62-10	10.15	10	16	5 ~ 80	14547	121

注:各型带支承和带阀组液压马达其技术参数与上表中对应的标准型液压马达技术参数相同。

Note:The technical data of various sorts of types hydraulic motors with beating have the same data as standard type hydraulic motors.

**QJM 钢球液压马达 QJM Sphere Piston Hydraulic Motor**

●2QJM\*\*---\*\*型液压马达的技术参数

2QJM\*\*---\*\*series Technical Data

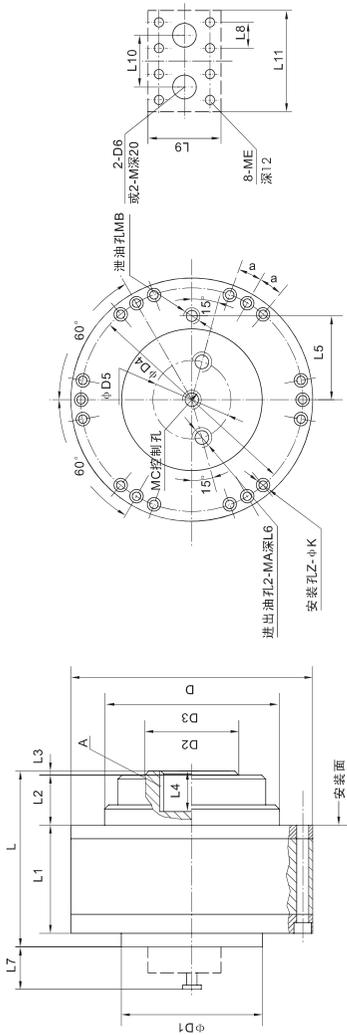
型号 Type	排量 Displacement (L/r)	压力 Pressure(Mpa)		转速范围 Rotational Speed Range(r/min)	额定输出扭矩 Rated output Torque (N · m)	最大功率 Max.power (Kw)
		额定 Rated	尖峰 Peak			
2QJM02-0.32	0.322 0.16	10	16	5~400	484 242	13
2QJM02-0.4	0.406 0.203	10	16	5~320	600 300	13
2QJM11-0.4	0.404 0.202	10	16	5~400	598 299	20
2QJM11-0.5	0.496 0.248	10	16	5~320	734 367	20
2QJM11-0.63	0.664 0.332	10	16	4~250	938 492	20
2QJM12-0.8	0.80 0.40	10	16	4~250	1170 585	25
2QJM12-1.0	1.0 0.5	10	16	4~200	1478 739	25
2QJM12-1.25	1.25 0.63	10	16	4~160	1870 935	25
2QJM21-0.32	0.317 0.1585	16	25	2~500	751 376	32
2QJM21-0.5	0.496 0.248	16	25	2~320	1175 588	32
2QJM21-0.63	0.664 0.332	16	25	2~250	1572 786	32
2QJM21-1.0	1.01 0.505	10	16	2~160	1495 748	25
2QJM21-1.25	1.354 0.677	10	16	2~125	2004 1002	25
2QJM21-1.6	1.65 0.825	10	16	2~100	2442 1221	25
2QJM32-0.63	0.635 0.318	20	31.5	3~500	1880 940	80
2QJM32-1.0	1.06 0.53	20	31.5	2~400	3138 1519	80
2QJM32-1.25	1.295 0.648	20	31.5	2~320	3833 1917	80
2QJM32-1.6	1.649 0.825	20	31.5	2~250	4881 2441	80
2QJM32-1.6/0.4	1.6 0.4	20	31.5	2~250	4736 1184	80
2QJM32-2.0	2.03 1.015	16	25	2~200	4807 2404	80
2QJM32-2.5	2.71 1.355	10	16	1~160	4011 2006	62
2QJM32-3.2	3.3 1.65	10	16	1~125	4884 2442	62
2QJM32-4.0	4.0 2.0	10	16	1~100	5920 2960	62
2QJM42-2.0	2.11 1.055	20	31.5	1~320	6246 3123	105
2QJM42-2.5	2.56 1.28	20	31.5	1~250	7578 3789	105
2QJM42-3.2	3.24 1.62	10	16	1~200	4850 2425	90
2QJM42-4.0	4.0 2.0	10	16	1~160	5920 2960	90
2QJM42-4.5	4.6 2.3	10	16	1~125	6808 3404	90
2QJM52-2.5	2.67 1.335	20	31.5	1~320	7903 3952	130
2QJM52-3.2	3.24 1.62	20	31.5	1~250	9590 4795	130
2QJM52-4.0	4.0 2.0	16	25	1~200	9472 4736	130
2QJM52-5.0	5.23 2.615	10	16	1~160	7740 3870	120
2QJM52-6.3	6.36 3.18	10	16	1~125	9413 4707	120
2QJM62-4.0	4.0 2.0	20	31.5	0.5~200	11840 5920	150
2QJM62-5.0	5.18 2.59	20	31.5	0.5~160	15333 7667	150
2QJM62-6.3	6.27 3.135	16	25	0.5~125	14847 7424	121
2QJM62-8.0	7.85 3.925	10	16	0.5~100	11618 5809	121
2QJM62-10	10.15 5.075	10	16	0.5~80	15022 7511	121
3QJM32-1.25	1.295 0.648 0.324	20	31.5	2~320	3833 1917 959	80
3QJM32-1.6	1.649 0.825 0.413	20	31.5	2~250	4881 2441 1221	80

注:各型带支承和带阀组变量液压马达的其技术参数与上表中对应的液压马达技术参数相同。

Note:The technical data of various sorts of variable hydraulic motors with bearing and oil passing valve have the same data as variable hydraulic motors.

QJM 钢球液压马达 QJM Sphere Piston Hydraulic Motor

QJM 钢球液压马达 QJM Sphere Piston Hydraulic Motor



外形安装图 Installation

型号 Type	L	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	D	D1	D2	D3	D4	Z-ΦK	D5	D6	MA	MB	MC	ME	a	A	重量 (kg)
1QJM01-***	101	58	38	5	20	43	20	37	37	35	63	φ140	-	φ60	φ110	φ66	φ128	12-φ6.5	-	-	M16x1.5	M12x1.5	-	-	10°	6-48H1x28H1x12D9	7
1QJM01-***	130	80	37	3	30	62	20	-	-	-	180	φ105	φ70	φ130	φ7	φ165	12-φ9	φ58	-	-	M27x2	M12x1.5	-	-	10°	6-48H1x28H1x12D9	15
1QJM02-***	162	99	38	3	34	62	20	-	-	-	180	φ105	φ70	φ130	φ7	φ165	12-φ9	φ58	-	-	M27x2	M12x1.5	-	-	10°	6-48H1x28H1x12D9	24
1/2QJM11-***	194	82	33	3	32	87	18	-	-	-	240	φ150	φ110	φ160	φ7	φ220	12-φ11	φ69	-	-	M33x2	M16x1.5	-	-	10°	6-70H1x28H1x16D9	28
1QJM11-***A1	134	82	25	11	38	87	18	-	-	-	240	φ150	φ60	φ200	φ7	φ220	12-φ11	φ69	-	-	M33x2	M16x1.5	-	-	10°	8-42H1x28H1x16D9	28
1/2QJM12-***	165	123	33	2	39	87	20	-	-	-	240	φ150	φ110	φ160	φ7	φ220	12-φ11	φ69	-	-	M33x2	M16x1.5	-	-	10°	6-90H1x28H1x20D9	39
2/2QJM21-***	168	99	29	14	38	100	20	-	-	-	304	φ150	φ110	φ160	φ7	φ283	12-φ11	φ69	-	-	M33x2	M22x1.5	-	-	10°	6-90H1x28H1x20D9	50
1QJM32-***	215	140	42	10	55	115	22	-	-	-	320	φ165	φ120	φ170	φ7	φ299	12-φ13	φ79	-	-	M33x2	M22x1.5	-	-	10°	10-98H1x28H1x14D9	70
2LSQJM32-***	209	160	16	12	35	124	22	-	-	-	350	φ190	φ140	φ200	φ7	φ320	12-φ13	φ100	φ40	-	M42x2	M22x1.5	-	-	10°	10-118H1x28H1x16D9	90
1QJM42-***A1	207	158	23	5	35	124	22	-	-	-	340	φ190	φ120	φ170	φ7	φ320	12-φ13	φ100	φ40	-	M42x2	M22x1.5	-	-	10°	10-98H1x28H1x14D9	90
1/2QJM52-***	238	175	30	6	45	135	24	-	-	-	420	φ220	φ160	φ315	φ7	φ360	6-φ22	φ110	φ40	-	M48x2	M22x1.5	-	-	6°	10-120H1x12H1x18D9	150
2LSQJM52-***	284	182	29	11	45	165	24	-	-	-	485	φ255	φ170	φ385	φ7	φ435	6-φ22	φ128	φ48	-	M48x2	M22x1.5	-	-	6°	10-120H1x12H1x18D9	200
2LSQJM62-***	284	182	29	11	45	165	24	-	-	-	485	φ255	φ170	φ385	φ7	φ435	6-φ22	φ128	φ48	-	M48x2	M22x1.5	-	-	6°	10-120H1x12H1x18D9	212

1/2QJM\*\*\*---\*\*Z(Z2、Z3、Ze3)型液压马达技术参数  
1/2QJM\*\*\*---\*\*Z(Z2、Z3、Ze3) Type of Hydraulic Motor Technical Data

型号 Type	排量 Displacement (L/r)	压力 Pressure(Mpa)		转速范围 Rotational Speed Range(r/min)	额定输出扭矩 Rated output Torque (N · m)	最大功率 Max.power (Kw)
		额定 Rated	尖峰 Peak			
1QJM001-0.063Z	0.064	10	16	8-600	95	5
1QJM001-0.08Z	0.083	10	16	8-500	123	5
1QJM001-0.10Z(ZC)	0.104	10	16	8-400	154	5
1QJM002-0.2Z	0.2	10	16	5-320	295	8
1QJM02-0.315Z	0.326	10	16	5-320	483	13
1QJM02-0.4Z	0.406	10	16	5-320	600	13
1QJM02-0.38Z2	0.38	10	16	5-320	560	13
1QJM02-0.47Z2	0.47	10	16	5-320	692	13
1QJM11-0.315Z	0.339	10	16	5-500	468	20
1QJM11-0.4Z	0.404	10	16	5-400	598	20
1QJM11-0.5Z	0.496	10	16	5-320	734	20
1QJM11-0.63Z	0.664	10	16	4-250	983	20
1QJM12-0.8Z(ZC)	0.8	10	16	4-250	1170	25
1QJM12-1.0Z(ZC)	1.0	10	16	4-200	1480	25
1QJM12-1.25Z(ZC)	1.33	10	16	4-160	1968	25
1/2QJM21-0.32Z3	0.32 0.16	16	25	2-600	770 384	32
1/2QJM21-0.4Z3(Ze3)	0.4 0.2	16	25	2-400	957 479	32
1/2QJM21-0.5Z3(Ze3)	0.496 0.258	16	25	2-320	1175 588	32
1/2QJM21-0.63Z3(Ze3)	0.664 0.332	16	25	2-250	1572 786	32
1/2QJM21-0.8Z3(Ze3)	0.808 0.404	16	25	2-200	1913 957	32
1/2QJM21-1.0Z3(Ze3)	1.01 0.505	16	25	2-160	2495 748	25
1/2QJM21-1.25Z3(Ze3)	1.354 0.667	16	25	2-125	3204 1002	25
1/2QJM21-1.6Z3(Ze3)	1.65 0.825	16	25	2-100	4242 1221	25
1/2QJM32-0.63Z(Z3,Ze3)	0.635 0.318	20	31.5	3-500	1880 940	80
1/2QJM32-1.0Z(Z3,Ze3)	1.06 0.503	20	31.5	2-400	3138 1519	80
1/2QJM32-1.25Z(Z3,Ze3)	1.295 0.648	20	31.5	2-320	3833 1917	80
1/2QJM32-1.6Z(Z3,Ze3)	1.649 0.825	20	31.5	2-250	4881 2441	80
1/2QJM32-2.0Z(Z3,Ze3)	2.03 1.015	16	25	2-200	4807 2404	80
1/2QJM32-2.5Z(Z3,Ze3)	2.71 1.355	10	16	1-160	4011 2006	62
1/2QJM32-3.2Z(Z3,Ze3)	3.3 1.65	10	16	1-125	4884 2442	62
1/2QJM52-2.5Z	2.67 1.335	20	31.5	1-200	7903 3952	130
1/2QJM52-3.2Z	3.24 1.62	20	31.5	1-200	9590 4795	130
1/2QJM52-4.0Z	4.0 2.0	16	25	1-200	9472 4736	130
1/2QJM52-5.0Z	5.23 2.165	10	16	1-160	7740 3870	120
1/2QJM52-6.3Z	6.36 3.18	10	16	1-125	9413 4707	120
1/2QJM62-4.0Z	4.0 2.0	20	31.5	0.5-150	11840 5920	150
1/2QJM62-5.0Z	5.18 2.59	20	31.5	0.5-125	15333 7667	150
1/2QJM62-6.3Z	6.27 3.135	16	25	0.5-125	14847 7424	150
1/2QJM62-8.0Z	7.85 3.925	10	16	0.5-100	11618 5809	121
2/2QJM62-10Z	10.15 5.075	10	16	0.5-80	15022 7511	121



**QJM 钢球液压马达 QJM Sphere Piston Hydraulic Motor**

**● 1/2 QJM\*\*---\*\*S型自控式带制动器液压马达的技术参数**  
 Technical data of 1/2 QJM\*\*---\*\*S series hydraulic motor with brake

型号 Type	排量 Displacement (L/r)	压力 Pressure(Mpa)		转速范围 Rotational Speed range (r/min)	额定输出扭矩 Rated output Torque (N·m)	制动器开启压力 Open brake Pressure(MPa)	制动器制动扭矩 Brake torque (N·m)
		额定 Rated	尖峰 Peak				
1QJM11-0.32S	0.317	10	16	5-400	468	4-6	400-600
1QJM11-0.40S	0.404	10	16	5-400	598	3-5	400-600
1QJM11-0.50S	0.496	10	16	5-320	734	3-5	400-600
1QJM11-0.63S	0.664	10	16	4-250	983	3-5	400-600
2QJM11-0.40S	0.404 0.202	10	16	5-400	598 299	3-5	400-600
2QJM11-0.50S	0.496 0.248	10	16	5-320	734 367	3-5	400-600
2QJM11-0.63S	0.664 0.332	10	16	4-250	983 492	3-5	400-600
1QJM21-0.32S	0.317	16	25	2-500	751	4-6	1000-1400
1QJM21-0.40S	0.404	16	25	2-400	957	4-6	1000-1400
1QJM21-0.50S	0.496	16	25	2-320	1175	4-6	1000-1400
1QJM21-0.63S	0.664	16	25	2-250	1572	4-6	1000-1400
1QJM21-0.8S	0.808	16	25	2-200	1913	4-6	1000-1400
1QJM21-1.0S	1.01	10	16	2-160	1495	3-5	1000-1400
1QJM21-1.25S	1.354	10	16	2-125	2004	3-5	1000-1400
1QJM21-1.6S	1.65	10	16	2-100	2442	3-5	1000-1400
2QJM21-0.32S	0.317 0.1585	16	25	2-500	751 376	4-7	1000-1400
2QJM21-0.40S	0.404 0.202	16	25	2-320	957 479	4-7	1000-1400
2QJM21-0.50S	0.496 0.248	16	25	2-320	1175 588	4-7	1000-1400
2QJM21-0.63S	0.664 0.332	16	25	2-250	1572 786	4-7	1000-1400
2QJM21-0.8S	0.808 0.404	16	25	2-200	1913 957	4-7	1000-1400
2QJM21-1.0S	1.01 0.505	10	16	2-160	1495 748	3-5	1000-1400
2QJM21-1.25S	1.354 0.667	10	16	2-125	2004 1002	3-5	1000-1400
2QJM21-1.6S	1.65 0.825	10	16	2-100	2442 1221	3-5	1000-1400

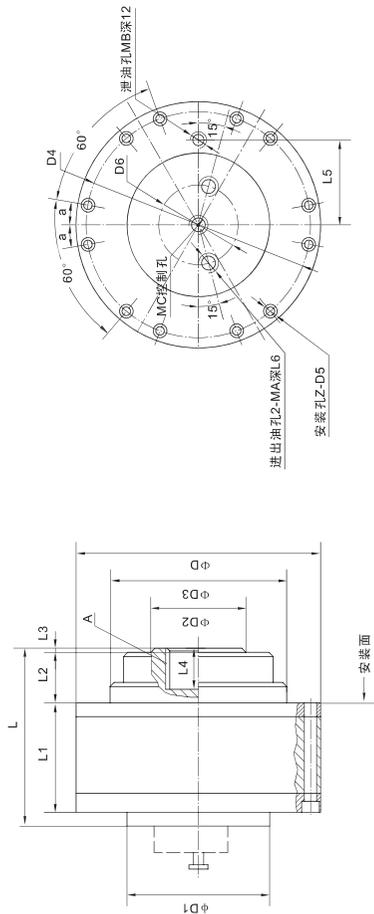
**QJM 钢球液压马达 QJM Sphere Piston Hydraulic Motor**

**● 1/2 QJM\*\*---\*\*S型自控式带制动器液压马达技术参数**  
 Technical data of 1/2 QJM\*\*---\*\*S series hydraulic motor with brake

型号 Type	排量 Displacement (L/r)	压力 Pressure(Mpa)		转速范围 Rotational Speed range (r/min)	额定输出扭矩 Rated output Torque (N·m)	制动器开启压力 Open brake Pressure(MPa)	制动器制动扭矩 Brake torque (N·m)
		额定 Rated	尖峰 Peak				
1/2 QJM32-0.63S	0.635 0.318	20	31.5	3-500	1880 940	4-7	≥2500
1/2 QJM32-0.8S	0.808 0.404	20	31.5	2-450	2368 1184	4-7	≥2500
1/2 QJM32-1.0S	1.06 0.53	20	31.5	2-400	3138 1569	4-7	≥2500
1/2 QJM32-1.25S	1.295 0.648	20	31.5	2-320	3833 1916	3-5	≥2500
1/2 QJM32-1.6S	1.649 0.825	20	31.5	2-250	4881 2440	3-5	≥2500
1/2 QJM32-2.0S	2.03 1.015	16	25	2-200	4807 2403	3-5	≥2500
1/2 QJM32-2.5S	2.71 1.355	10	16	1-160	4011 2005	3-5	≥2500
1/2 QJM32-3.2S	3.3 1.65	10	16	1-125	4884 2442	3-5	≥2500
1/2 QJM32-4.0S	4.0 2.00	10	16	1-100	5920 2960	3-5	≥2500
1/2 QJM32-0.63S2	0.635 0.318	20	31.5	3-500	1880 940	4-7	≥4000
1/2 QJM32-0.8S2	0.808 0.404	20	31.5	1-450	2368 1184	4-7	≥4000
1/2 QJM32-1.0S2	0.993 0.497	20	31.5	2-400	3138 1069	4-7	≥4000
1/2 QJM32-1.25S2	1.295 0.648	20	31.5	2-320	3833 1916	3-5	≥4000
1/2 QJM32-1.6S2	1.649 0.825	20	31.5	2-250	4881 2440	3-5	≥4000
1/2 QJM32-2.0S2	2.03 1.015	16	25	2-200	4807 2403	3-5	≥4000
1/2 QJM32-2.5S2	2.71 1.355	10	16	1-160	4011 2005	3-5	≥4000
1/2 QJM32-3.2S2	3.3 1.65	10	16	1-125	4884 2442	3-5	≥4000
1/2 QJM32-4.0S2	4.0 2.00	10	16	1-100	5920 2960	3-5	≥4000
1/2 QJM42-2.0S	2.11 1.055	20	31.5	1-320	6246 3123	4-7	≥5000
1/2 QJM42-2.5S	2.56 1.28	20	31.5	1-250	7578 3769	4-7	≥5000
1/2 QJM42-3.2S	3.28 1.64	10	16	1-200	4850 2425	4-6	≥5000
1/2 QJM42-4.0S	4.0 2.00	10	16	1-160	5920 2960	3-5	≥5000
1/2 QJM42-4.5S	4.56 2.28	10	16	1-125	6808 3404	3-5	≥5000
1/2 QJM52-2.5S	2.67 1.335	20	31.5	1-320	7903 3951	4-7	≥6000
1/2 QJM52-3.2S	3.24 1.62	20	31.5	1-250	9590 4795	4-7	≥6000
1/2 QJM52-4.0S	4.0 2.00	16	25	1-200	9472 4736	4-6	≥6000
1/2 QJM52-5.0S	5.23 2.615	16	25	1-160	7740 3870	3-5	≥6000
1/2 QJM52-6.3S	6.36 3.18	16	25	1-125	9413 4706	3-5	≥6000

QJM 钢球液压马达 QJM Sphere Piston Hydraulic Motor

QJM 钢球液压马达 QJM Sphere Piston Hydraulic Motor



外形安装图 Installation

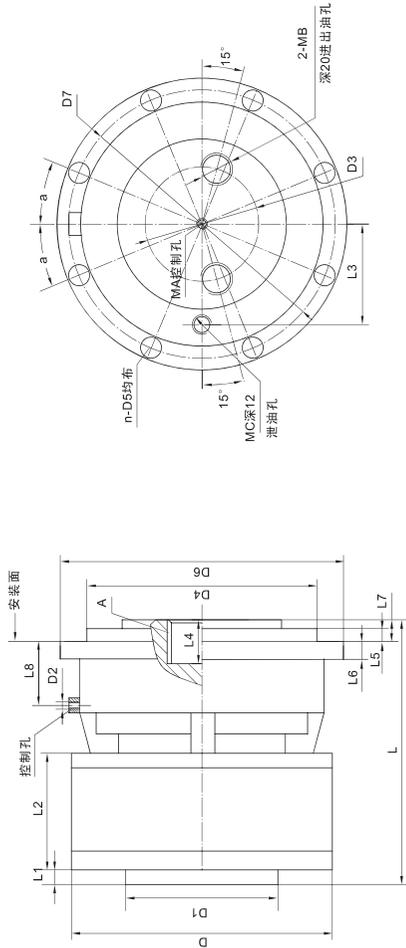
型号 Type	L	L1	L2	L3	L4	L5	L6	D	D1	D2	D3	D4	Z-D5	D6	MA	MB	MC	a	A	重量 (kg)
$\frac{1}{2}$ QJM1--S	146.5	97	20	11.5	28	87	20	φ240	φ150	φ100	φ160	φ220	12-φ11	φ69	M33x2	M16x1.5	M12x1.5	10°	6-70H1x82H1x16D9	35
$\frac{1}{2}$ QJM2--S	170	117	17	7	31	100	20	φ304	φ150	φ100	φ190	φ283	12-φ11	φ69	M33x2	M22x1.5	M12x1.5	10°	6-90H1x80H1x20D9	53
$\frac{1}{2}$ QJM3--S	231	140	58	7	55	115	20	φ320	φ165	φ120	φ280	φ298	12-φ13	φ79	M33x2	M22x1.5	M12x1.5	10°	10-98H1x82H1x14D9	86
$\frac{1}{2}$ QJM32--S2	252	167.5	58	3	55	115	20	φ320	φ165	φ120	φ280	φ298	12-φ13	φ79	M33x2	M22x1.5	M12x1.5	10°	10-98H1x82H1x14D9	86
$\frac{1}{2}$ QJM42--S	229	187	16	3	35	124	22	φ350	φ190	φ140	φ200	φ320	12-φ13	φ100	M42x2	M22x1.5	M12x1.5	10°	10-112H1x102H1x16D9	108
$\frac{1}{2}$ QJM52--S	266	187	56	3	55	135	24	φ420	φ220	φ160	φ315	φ360	10-φ22	φ110	M46x2	M22x1.5	M12x1.5	6°	10-120H1x112H1x18D9	167

●  $\frac{1}{2}$ QJM\*\*--\*\*Se型外控式带制动器液压马达技术参数

Technical data of out control  $\frac{1}{2}$ QJM\*\*--\*\*Se series hydraulic motor with brake

型号 Type	排量 Displacement (L/r)	压力 Pressure(Mpa)		转速范围 Rotational Speed range (r/min)	额定输出扭矩 Rated output Torque (N · m)	制动器开启压力 Open brake Pressure(MPa)	制动器制动扭矩 Brake torque (N · m)
		额定 Rated	尖峰 Peak				
1QJM12-0.8Se	0.808	10	16	4~250	1076	1.3 ≤ P ≤ 6.3	≥ 1800
1QJM12-1.0Se	0.993	10	16	4~200	1332	1.3 ≤ P ≤ 6.3	≥ 1800
1QJM12-1.25Se	1.328	10	16	4~160	1771	1.3 ≤ P ≤ 6.3	≥ 1800
$\frac{1}{2}$ QJM21-0.32Se	0.317 0.158	16	25	2~500	751 376	2.5 ≤ P ≤ 6.3	≥ 2500
$\frac{1}{2}$ QJM21-0.40Se	0.404 0.202	16	25	2~400	957 479	2.5 ≤ P ≤ 6.3	≥ 2500
$\frac{1}{2}$ QJM21-0.50Se	0.496 0.248	16	25	2~320	1175 588	2.5 ≤ P ≤ 6.3	≥ 2500
$\frac{1}{2}$ QJM21-0.63Se	0.664 0.332	16	25	2~250	1572 786	2.5 ≤ P ≤ 6.3	≥ 2500
$\frac{1}{2}$ QJM21-0.80Se	0.808 0.404	16	25	2~200	1913 957	2.5 ≤ P ≤ 6.3	≥ 2500
$\frac{1}{2}$ QJM21-1.0Se	1.01 0.505	10	16	2~160	1495 748	2.5 ≤ P ≤ 6.3	≥ 2500
$\frac{1}{2}$ QJM21-1.25Se	1.354 0.677	10	16	2~125	2004 1002	2.5 ≤ P ≤ 6.3	≥ 2500
$\frac{1}{2}$ QJM21-1.6Se	1.65 0.825	10	16	2~100	2442 1221	2.5 ≤ P ≤ 6.3	≥ 2500
$\frac{1}{2}$ QJM32-0.63Se	0.635 0.318	20	31.5	1~500	1880 940	2.5 ≤ P ≤ 6.3	≥ 6000
$\frac{1}{2}$ QJM32-0.8Se	0.808 0.404	20	31.5	1~500	2368 1184	2.5 ≤ P ≤ 6.3	≥ 6000
$\frac{1}{2}$ QJM32-1.0Se	0.993 0.497	20	31.5	2~400	3138 1569	2.5 ≤ P ≤ 6.3	≥ 6000
$\frac{1}{2}$ QJM32-1.25Se	1.328 0.664	20	31.5	2~320	3833 1942	2.5 ≤ P ≤ 6.3	≥ 6000
$\frac{1}{2}$ QJM32-1.6Se	1.616 0.808	20	31.5	2~250	4881 2441	2.5 ≤ P ≤ 6.3	≥ 6000
$\frac{1}{2}$ QJM32-2.0Se	2.03 1.015	16	25	2~200	4807 2404	2.5 ≤ P ≤ 6.3	≥ 6000
$\frac{1}{2}$ QJM32-2.5Se	2.71 1.355	10	16	1~160	4011 2006	2.5 ≤ P ≤ 6.3	≥ 6000
$\frac{1}{2}$ QJM32-3.2Se	3.3 1.65	10	16	1~125	4884 2442	2.5 ≤ P ≤ 6.3	≥ 6000
$\frac{1}{2}$ QJM32-4.0Se	4.0 2.0	10	16	1~100	5920 2960	2.5 ≤ P ≤ 6.3	≥ 6000
$\frac{1}{2}$ QJM42-2.0Se	2.11 1.055	20	31.5	1~250	6246 3123	2.1 ≤ P ≤ 6.3	≥ 9000
$\frac{1}{2}$ QJM42-2.5Se	2.56 1.28	20	31.5	1~250	7578 3789	2.1 ≤ P ≤ 6.3	≥ 9000
$\frac{1}{2}$ QJM42-3.2Se	3.3 1.65	10	16	1~200	4884 2442	2.1 ≤ P ≤ 6.3	≥ 9000
$\frac{1}{2}$ QJM42-4.0Se	4.0 2.0	10	16	1~160	5920 2960	2.1 ≤ P ≤ 6.3	≥ 9000
$\frac{1}{2}$ QJM42-4.5Se	4.56 2.28	10	16	1~125	6808 3404	2.1 ≤ P ≤ 6.3	≥ 9000
$\frac{1}{2}$ QJM52-2.5Se	2.67 1.355	20	31.5	1~200	7903 3952	2.2 ≤ P ≤ 6.3	≥ 10000
$\frac{1}{2}$ QJM52-3.2Se	3.24 1.62	20	31.5	1~200	9590 4795	2.2 ≤ P ≤ 6.3	≥ 10000
$\frac{1}{2}$ QJM52-4.0Se	4.0 2.0	16	25	1~200	9472 4736	2.2 ≤ P ≤ 6.3	≥ 10000
$\frac{1}{2}$ QJM52-5.0Se	5.23 2.615	10	16	1~160	7740 3870	2.2 ≤ P ≤ 6.3	≥ 10000
$\frac{1}{2}$ QJM52-6.3Se	6.36 3.18	10	16	1~125	9413 4707	2.2 ≤ P ≤ 6.3	≥ 10000

QJM 钢球液压马达 QJM Sphere Piston Hydraulic Motor



外形安装图 Installation

型号 Type	L	L1	L2	L3	L4	L5	L6	L7	L8	D	D1	D2	D3	D4	Z-D5	D6	D7	MA	MB	MC	a	A	重量 (kg)	
$\frac{1}{2}$ QJM12--Se	288	17	121	87	60	12	13	25	33	$\phi 240$	$\phi 150$	M16x1.5	$\phi 69$	$\phi 290g7$	8- $\phi 11$	$\phi 327$	$\phi 307$	-	2-M33x2	M16x1.5	M22x1.5	22.5°	6-90H11x80H11x20D9	50
$\frac{1}{2}$ QJM21--Se	245	27	102	100	60	18.5	16	24	36	$\phi 304$	$\phi 150$	M16x1.5	$\phi 69$	$\phi 310g7$	8- $\phi 13$	$\phi 360$	$\phi 330$	M12x1.5	2-M33x2	M22x1.5	M22x1.5	22.5°	6-90H11x80H11x20D9	95
$\frac{1}{2}$ QJM32--Se	271	24	140	115	55	13	16	19	35	$\phi 320$	$\phi 165$	M16x1.5	$\phi 79$	$\phi 335g7$	8- $\phi 13$	$\phi 380$	$\phi 354$	M12x1.5	2-M33x2	M22x1.5	15°	10-98H11x92H11x14D9	120	
$\frac{1}{2}$ QJM42--Se	278	21	160	124	35	15	18	22	45	$\phi 350$	$\phi 190$	M16x1.5	$\phi 100$	$\phi 395f6$	12- $\phi 17$	$\phi 445$	$\phi 418$	M16x1.5	2-M42x2	M22x1.5	15°	10-112H11x102H11x16D9	150	
$\frac{1}{2}$ QJM52--Se	318	27	175	135	45	17	18	22	45	$\phi 420$	$\phi 220$	M16x1.5	$\phi 110$	$\phi 395f6$	12- $\phi 17$	$\phi 445$	$\phi 418$	M16x1.5	2-M48x2	M22x1.5	15°	10-120H11x121H11x18D9	200	

QJM 钢球液压马达 QJM Sphere Piston Hydraulic Motor

●  $\frac{1}{2}$ QJM\*\*---SeZ(SeZH)型外控式带制动器液压马达技术参数

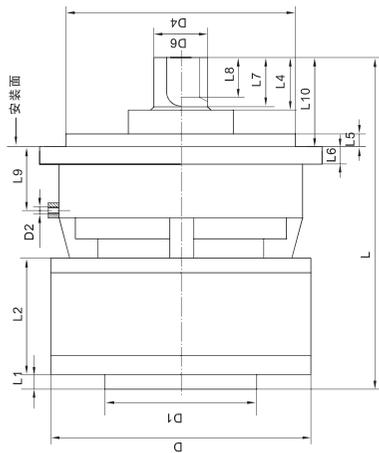
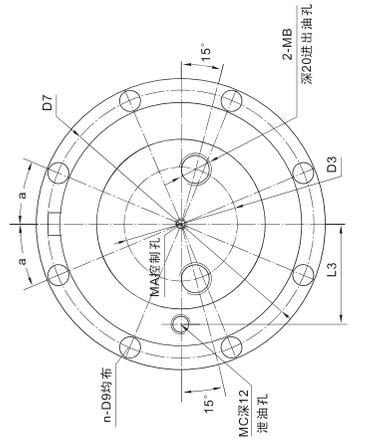
Technical data of out control  $\frac{1}{2}$ QJM\*\*---SeZ(SeZH) hydraulic motor with bearing and outside brake

型号 Type	排量 Displacement (L/r)	压力 Pressure(Mpa)		转速范围 Rotational Speed range (r/min)	额定输出扭矩 Rated output Torque (N · m)	制动器开启压力 Open brake Pressure(MPa)	制动器制动扭矩 Brake torque (N · m)
		额定 Rated	尖峰 Peak				
1QJM12-0.8SeZ	0.808	10	16	4~250	1076	$1.3 \leq P \leq 6.3$	$\geq 1800$
1QJM12-1.0SeZ	0.993	10	16	4~200	1332	$1.3 \leq P \leq 6.3$	$\geq 1800$
1QJM12-1.25SeZ	1.328	10	16	4~160	1771	$1.3 \leq P \leq 6.3$	$\geq 1800$
$\frac{1}{2}$ QJM21-0.32SeZ	0.317 0.158	16	25	2~500	751 376	$2.5 \leq P \leq 6.3$	$\geq 2500$
$\frac{1}{2}$ QJM21-0.4SeZ	0.404 0.202	16	25	2~400	957 478	$2.5 \leq P \leq 6.3$	$\geq 2500$
$\frac{1}{2}$ QJM21-0.5SeZ	0.496 0.248	16	25	2~320	1175 588	$2.5 \leq P \leq 6.3$	$\geq 2500$
$\frac{1}{2}$ QJM21-0.63SeZ	0.664 0.332	16	25	2~250	1572 786	$2.5 \leq P \leq 6.3$	$\geq 2500$
$\frac{1}{2}$ QJM21-0.8SeZ	0.808 0.404	16	25	2~200	1913 956	$2.5 \leq P \leq 6.3$	$\geq 2500$
$\frac{1}{2}$ QJM21-1.0SeZ	1.01 0.505	10	16	2~160	1495 748	$2.5 \leq P \leq 6.3$	$\geq 2500$
$\frac{1}{2}$ QJM21-1.25SeZ	1.354 0.677	10	16	2~125	2004 1002	$2.5 \leq P \leq 6.3$	$\geq 2500$
$\frac{1}{2}$ QJM21-1.6SeZ	1.65 0.825	10	16	2~100	2442 1221	$2.5 \leq P \leq 6.3$	$\geq 2500$
$\frac{1}{2}$ QJM32-0.63SeZ	0.635 0.318	20	31.5	3~500	1880 940	$2.5 \leq P \leq 6.3$	$\geq 6000$
$\frac{1}{2}$ QJM32-0.8SeZ	0.808 0.404	20	31.5	3~500	2368 1184	$2.5 \leq P \leq 6.3$	$\geq 6000$
$\frac{1}{2}$ QJM32-1.0SeZ	0.993 0.497	20	31.5	2~400	3138 1519	$2.5 \leq P \leq 6.3$	$\geq 6000$
$\frac{1}{2}$ QJM32-1.25SeZ	1.328 0.664	20	31.5	2~320	3833 1917	$2.5 \leq P \leq 6.3$	$\geq 6000$
$\frac{1}{2}$ QJM32-1.6SeZ	1.616 0.808	20	31.5	2~250	4881 2441	$2.5 \leq P \leq 6.3$	$\geq 6000$
$\frac{1}{2}$ QJM32-2.0SeZ	2.03 1.015	16	25	2~200	4807 2404	$2.5 \leq P \leq 6.3$	$\geq 6000$
$\frac{1}{2}$ QJM32-2.5SeZ	2.71 1.335	10	16	4~160	4011 2006	$2.5 \leq P \leq 6.3$	$\geq 6000$
$\frac{1}{2}$ QJM32-3.2SeZ	3.3 1.65	10	16	1~125	4884 2442	$2.5 \leq P \leq 6.3$	$\geq 6000$
$\frac{1}{2}$ QJM32-4.0SeZ	4.0 2.0	10	16	1~100	5920 2960	$2.5 \leq P \leq 6.3$	$\geq 6000$
$\frac{1}{2}$ QJM42-2.0SeZ	2.11 1.055	20	31.5	1~320	6246 3123	$2.1 \leq P \leq 6.3$	$\geq 9000$
$\frac{1}{2}$ QJM42-2.5SeZ	2.56 1.28	20	31.5	1~250	7578 3789	$2.1 \leq P \leq 6.3$	$\geq 9000$
$\frac{1}{2}$ QJM42-3.2SeZ	3.3 1.65	10	16	1~200	4884 2442	$2.1 \leq P \leq 6.3$	$\geq 9000$
$\frac{1}{2}$ QJM42-4.0SeZ	4.0 2.0	10	16	1~160	5920 2960	$2.1 \leq P \leq 6.3$	$\geq 9000$
$\frac{1}{2}$ QJM42-4.5SeZ	4.56 2.28	10	16	1~125	6808 3404	$2.1 \leq P \leq 6.3$	$\geq 9000$
$\frac{1}{2}$ QJM52-2.5SeZ	2.67 1.335	20	31.5	1~320	7903 3952	-	-
$\frac{1}{2}$ QJM52-3.2SeZ	3.24 1.62	20	31.5	1~250	9590 4795	-	-
$\frac{1}{2}$ QJM52-4.0SeZ	4.0 2.0	16	25	1~200	9472 4736	-	-
$\frac{1}{2}$ QJM52-5.0SeZ	5.23 2.615	10	16	1~160	7740 3870	-	-
$\frac{1}{2}$ QJM52-6.3SeZ	6.36 3.18	10	16	1~125	9413 4707	-	-

注:  $\frac{1}{2}$ QJM\*\*---SeZ的技术参数与上表中相应排量的液压马达技术参数相同

Note: Technical data of  $\frac{1}{2}$ QJM\*\*---SeZ hydraulic motor have the same data as  $\frac{1}{2}$ QJM\*\*---SeZ hydraulic motors.

### QJM 钢球液压马达 QJM Sphere Piston Hydraulic Motor



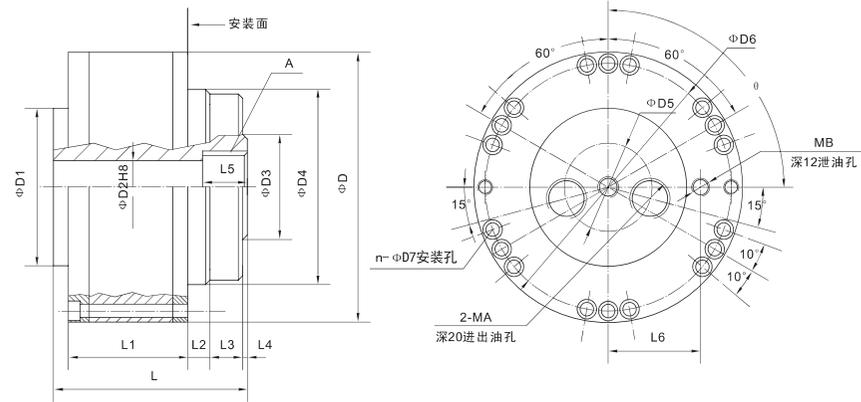
外形安装图 Installation

型号 Type	L	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	D	D1	D2	D3	D4	D6	D7	D8	n-D9	MA	MB	MC	a	花键	重量 (kg)	
1QJM12--S <sub>2</sub> ZH	350	17	121	87	66	10	13	62	-	24	96	φ240	φ150	M16x1.5	φ69	φ250g7	φ80h7	φ265	φ285	8-φ11	-	2-M33x2	M16x1.5	22.5°	C16x60	-	60
1QJM12--S <sub>3</sub> ZH	370	17	121	87	62	12	13	58	39	24	100	φ240	φ150	M16x1.5	φ69	φ290g7	-	φ307	φ327	8-φ11	-	2-M33x2	M16x1.5	22.5°	-	6-φ012/0.012/0.019	60
1QJM21--S <sub>2</sub> ZH	410	27	102	100	69.5	14	16	65	-	36	113	φ304	φ165	M18x1.5	φ69	φ310g7	φ70h7	φ330	φ360	8-φ13	M12x1.5	2-M33x2	M22x1.5	22.5°	C20x60	-	80
1QJM32--S <sub>2</sub> ZH	416	24	140	115	81	13	16	78	-	36	136	φ320	φ165	M16x1.5	φ79	φ335g7	φ70h7	φ354	φ380	12-φ13	M12x1.5	2-M33x2	M22x1.5	15°	C20x70	-	95
1QJM32--S <sub>3</sub> ZH	410	24	140	115	75	13	16	72	55	35	114	φ320	φ165	M16x1.5	φ79	φ335g7	-	φ354	φ380	12-φ13	M12x1.5	2-M33x2	M22x1.5	15°	-	10-φ012/0.012/0.019	95
1QJM42--S <sub>2</sub> ZH	466	21	160	124	75	12	18	71	50	44	135	φ350	φ190	M16x1.5	φ100	φ365g7	-	φ398	φ430	12-φ17	M16x1.5	2-M42x2	M22x1.5	15°	-	10-11/20/12/0.012/0.019	120
1QJM42--S <sub>3</sub> ZH	456	21	160	124	75	15	18	71	50	37	120	φ350	φ190	M16x1.5	φ100	φ365g7	-	φ398	φ430	12-φ17	M16x1.5	2-M42x2	M22x1.5	15°	-	10-11/20/12/0.012/0.019	120
1QJM52--S <sub>2</sub> ZH	532	27	175	135	141	17	18	136	-	45	184	φ420	φ220	M16x1.5	φ110	φ385g6	φ78h7	φ418	φ445	12-φ17	M16x1.5	2-M48x2	M22x1.5	15°	C22x132	-	150
1QJM52--S <sub>3</sub> ZH	471	27	175	135	71	17	18	-	45	45	114	φ420	φ220	M16x1.5	φ110	φ385g6	-	φ418	φ445	12-φ17	M16x1.5	2-M48x2	M22x1.5	15°	-	12-12/012/0.012/0.019	150

### QJM 钢球液压马达 QJM Sphere Piston Hydraulic Motor

- 1QJM\*\*--\*\*T\*\*型通孔液压马达技术参数
- 2QJM\*\*--\*\*T\*\*series Technical Data

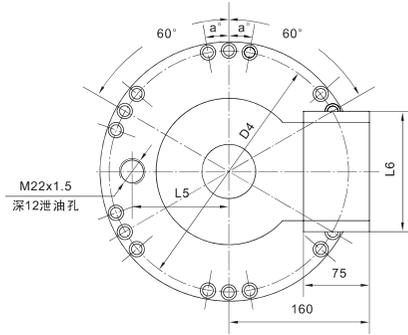
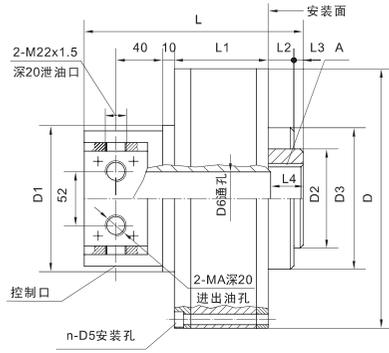
型号 Type	排量 Displacement (L/r)	压力 Pressure (Mpa)		转速范围 Rotational Speed range (r/min)	额定输出扭矩 Rated output Torque (N · m)	通孔直径 Through hole dia mm
		额定 Rated	尖峰 Peak			
1QJM01-0.1T40	0.1	10	16	8-800	148	40
1QJM01-0.16T40	0.163	10	16	8-630	241	40
1QJM01-0.2T40	0.203	10	16	8-500	300	40
1QJM11-0.32T50	0.317	10	16	5-400	468	50
1QJM11-0.4T50	0.404	10	16	5-400	598	50
1QJM11-0.5T50	0.5	10	16	5-320	734	50
1QJM21-0.32T65	0.317	16	25	2-500	751 376	65
1QJM21-0.5T65	0.496 0.248	16	25	2-320	1175 588	65
1QJM21-0.63T65	0.664 0.332	16	25	2-250	1572 786	65
1QJM21-1.0T65	1.01 0.505	10	16	2-160	1495 748	65
1QJM21-1.25T65	1.354 0.677	10	16	2-125	2004 1002	65
1QJM32-0.63T75	0.635 0.318	20	25	1-500	1880 940	75
1QJM32-1.0T75	1.06 0.53	20	25	1-400	3138 1519	75
1QJM32-1.25T75	1.30 0.65	20	25	2-320	3833 1917	75
1QJM32-2.0T75	2.03 1.02	16	25	2-200	4807 2404	75
1QJM32-2.5T75	2.71 1.36	10	16	1-160	4011 2006	75
1QJM42-2.5T80	2.56 1.26	20	31.5	1-250	7578 3789	80
1QJM52-3.2T80	3.24 1.62	20	31.5	1-250	9590 4795	80
1QJM52-4.0T80	4.0 2.0	16	25	1-200	9472 4736	80
1QJM52-5.0T80	5.23 2.615	10	16	1-160	7740 3870	80
1QJM52-6.3T80	6.36 3.18	10	16	1-125	9413 4707	80
1QJM62-4.0T125	4.0 2.0	20	31.5	0.5-150	11840 5920	125
1QJM62-5.0T125	5.18 2.59	20	31.5	0.5-125	15333 7667	125
1QJM62-6.3T125	6.27 3.135	16	25	0.5-125	14847 7424	125
1QJM62-8.0T125	7.85 3.925	10	16	0.5-100	11618 5809	125
1QJM62-10T125	10.15 5.075	10	16	0.5-80	15022 7501	125



外形安装图 Installation

型号 Type	L	L1	L2	L3	L4	L5	L6	φ	D	D1	D2	D3	D4	D5	D6	n-D7	MA	MB	A	重量 (kg)
1QJM01--**T40	130	79	15	23	3	30	62	180°	φ180	φ105	φ40	φ110	φ130g6	φ68	φ165	11-φ9	M22x1.5	M12x1.5	6-48H11x42H11x12D9	15
1QJM11--**T50	139	87	16	17	3	28	87	90°	φ240	φ150	φ50	φ100	φ160g6	φ80	φ220	12-φ11	M22x1.5	M16x1.5	6-70H11x62H11x16D9	26

## QJM 钢球液压马达 QJM Sphere Piston Hydraulic Motor



## QJM 钢球液压马达 QJM Sphere Piston Hydraulic Motor

### 使用及注意事项

#### 一、基本要求

马达的使用是否正确，将直接影响工作寿命，因此，必须满足以下基本要求。

- 1、QJM液压马达的工作介质必须用抗磨液压油，建议使用YB-N46或YB-N68液压油。
- 2、正常工作油温控制在-40℃-80℃。短期工作最高油温不超过90℃。
- 3、工作介质必须清洁，滤油精度可按所配油泵要求选定。

#### 二、安装

安装液压马达必须注意：

- 1、液压马达花键孔与工作机构的花键轴必须对中，并保证二者松配合。对花键处和安装定位机座的技术要求见下图所示，液压马达在机器中安装并联接好管路后，应用手或扳手盘动液压马达，此时转子应灵活，不得有卡住或重现象。
- 2、因QJM液压马达转子呈浮动状态，故安装时花键联接必须留轴向间隙2-3毫米，以保证转子可以在轴向自由窜动（见图所示）。
- 3、所有安装螺钉必须拧得很紧。
- 4、安装过程中各通油孔必须堵塞，以防脏物进入液压马达。

#### 三、使用和维护

- 1、新装液压马达的系统，工作油在运转2-3月后应调换一次，以后每隔1-2年换一次油，具体视使用条件和工作环境而定。
- 2、马达在二速或三速档或在工作中存在工况时，主回路应有0.3—0.8Mpa的背压。转速高时取大值，具体视工况而定，以不出现冲击声为准。
- 3、液压系统中不得吸入空气，否则会使马达运转不平稳，出现冲击声。
- 4、泄漏油管路及接头的孔径一般在φ12以下，并直接与油箱接通，若要过滤单独用过滤器，壳体压力一般不允许大于0.2Mpa。

### USAGE AND NOTICE

#### I. Principal requirements

How to use the motor has direct influences on its useful life, therefore the following principal requirements must be satisfied.

1. QJM hydraulic motor must be lubricated with anti-wear hydraulic oil, recommended for YB-N46 or YB-N68 hydraulic oil.
2. The normal temperature range of working oil is from -40°C to 80°C. The maximum temperature for its short-term usage mustn't exceed 90°C.
3. The working media must be clean. The oil-filtrating precision is decided by the provided oil pump.

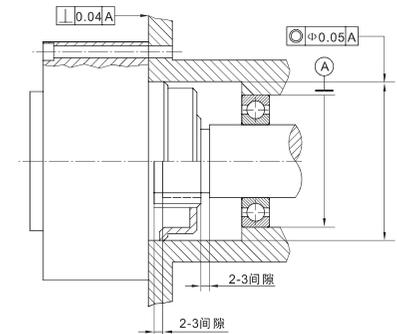
#### II. Mounting

The motor must be mounted according to the following steps:

1. The splined hole of motor and the splined shaft of operating mechanism should be aligned and kept in loose coordination. For technical requirements on the spline and locating seat, see the following drawing. After mounting the hydraulic motor in the machine and connecting the pipeline, turn the motor by hand or a spanner. The rotor should be flexible and free from block or unbalance.
2. As the rotor of QJM motor is in floating status, 2 ~ 3 mm distance should be left before connecting the spline to ensure the unrestricted movement of rotor in the shaft direction (as shown in drawing).
3. All the mounting screws must be tightened.
4. During the installation, all the oil feed openings must be blocked for avoiding the entrance of dirt into the motor.

#### III. Usage and maintenance

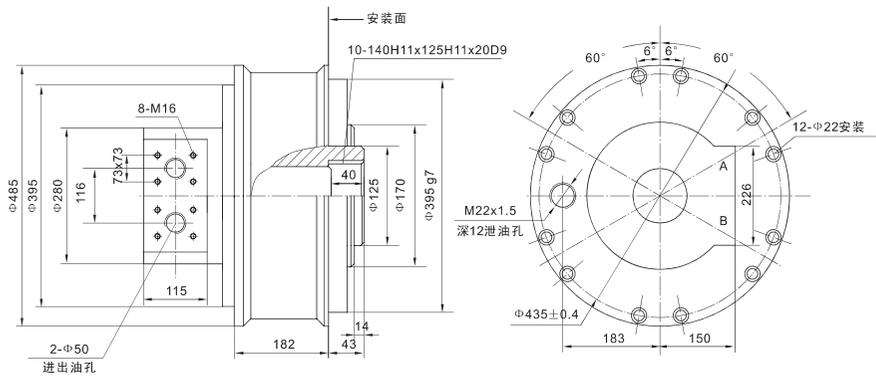
1. For the system newly equipped with hydraulic motors, its working oil must be renewed once after running for 2 to 3 months, and afterwards once every 1 to 2 years. For details, see its operating conditions and working environment.
2. If pump operating conditions exist when the motor is running in dual or trinal speeds or working, the back pressure from 0.3 to 0.8Mpa must act on the major loop. Apply the maximum pressure during the rotation at high speed. Please select the pressure according to actual conditions, but it shouldn't cause any impact sound.
3. No air exists in the hydraulic system, otherwise the motor can't run smoothly or will make some impact sound.
4. The bore diameter of the leakage oil pipe and the joint should be generally less than φ12. The pipe can be directly connected to the oil tank. If filtrated, please use separate strained oil filter. The pressure of inner shell should not exceed 0.2Mpa.



### 外形安装图 INSTALLATION

型号 Type	L	L1	L2	L3	L4	L5	L6	D	D1	D2	D3	D4	n-D5	D6	MA	a	A	重量 (kg)
1/2 QJM21--T50	229	99	29	14	36	100	156	φ300	φ148	φ110	φ160g6	φ283	10-φ11	φ50	M27x2	10°	10-98H11x92H11x14D9	60
1/2 QJM21--T65	230	98	29	14	37	110	146	φ304	φ186	φ110	φ160g6	φ283	10-φ11	φ65	M33x2	10°	10-98H11x92H11x14D9	64
1/2 QJM32--T75	273	138	43	10	41	115	146	φ320	φ186	φ120	φ170g6	φ299	10-φ13	φ75	M33x2	10°	10-98H11x92H11x14D9	88
1/2 QJM42--2.5T80	292	160	16	30	40	124	146	φ350	φ190	φ140	φ200h8	φ320	10-φ13	φ80	M33x2	10°	10-112H11x102H11x16D9	120
1/2 QJM52--2.5T80	367	175	30	24	45	135	190	φ420	φ220	φ160	φ315g7	φ360	6-φ22	φ80	M48x2	6°	10-120H11x112H11x18D9	162

注:2QJM52-2.5T80 达控制口和泄油口 上图所示对调



1QJM62--T125型 达外形安装尺寸图

## BGM 系列摆缸液压马达 BGM SWIVELLING CYLINDER HYDRAULIC MOTOR



### ● 产品概述 INTRODUCTION

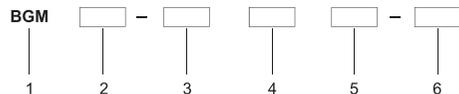
BGM 型摆缸马达是一种端面配油无连杆式曲轴低速大扭矩液压马达。广泛应用于塑料机械、轻工机械、冶金机械、矿山机械、起重运输设备、重型机械、石油煤矿机械、船舶机械等各种机械的液压传动系统中。

BGM series of swivelling cylinder hydraulic motors are low speed high torque hydraulic motors without connecting staff. It has been widely applied in many kinds of hydraulic transmission system, such as plastic injection machine, light industry equipment, heavy metallurgical machinery, petroleum and mine machine, hoist and transport vehicle, ship and deck machinery and equipment etc. In particular, it can be well available in slew driving, hoisting capstan and winches、wheel slew drives etc.

### ● 性能特点 CHARACTERISTICS

- \* 活塞和缸体间用新型活环密封, 无泄漏, 所以具有较高的容积效率。
- \* 由于活塞和摆缸不存在侧向力, 活塞底部为静压平衡, 活塞和曲轴之间通过滚动轴承传递扭矩, 因而具有很高的机械效率和起动扭矩。
- \* 由于结构上减少了摩擦损失, 提高了密封性能, 因而低速稳定性好, 能在很低的转速下 (小于1r/min) 平稳运转, 而且调速范围大, 速度调节比可达1000。
- \* 由于这种马达结构简单、设计合理 (无连杆, 减少了马达径向尺寸和自重, 采用了负荷能力大的滚动轴承), 因而具有体积小、重量轻、工作可靠、寿命长和噪音低等优点。
- \* To avoid leakage and get high volumetric efficiency ,a new-style piston ring will be airproofed between the piston and the block.
- \* The side loading between the piston and swiveling cylinder has been eliminated;the hydrostatic balabce is built between the piston feet;the pistons transmit load to the shaft via a rolling bearing .So this hydraulic motor features high mechanical efficiency and high starting torque.
- \* Due to the reduced friction loss in structure and improved sealing capability,so the motor can operate at low speeds with a high degree of speed stability,even if at 1r/min of speed.Hereby the speed control range is wide (the speed control ratio is up to 1000).
- \* Because of simple structure, reasonable design (no connecting rod, minish the motor radial size and weight.and using large load capacity bearing.)The series motors has many excellent features as follow light weight ,small size ,good reliability,long lifetime and low noise.

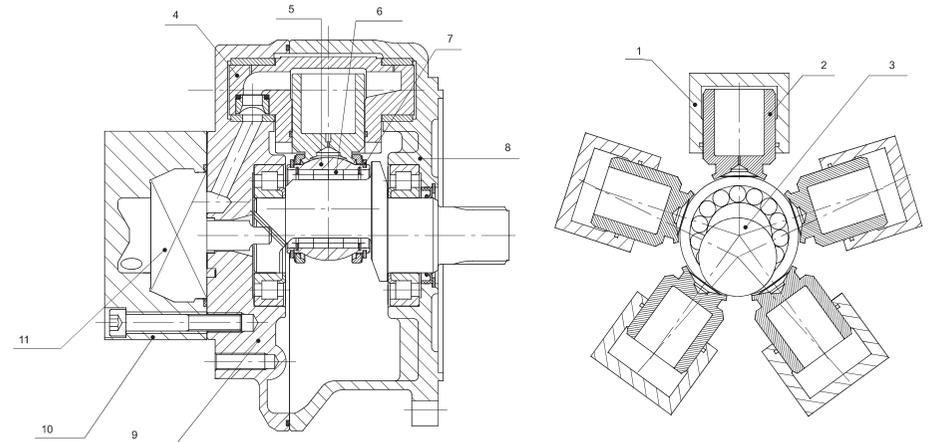
### ● 型号意义 ORDERING CODE



1. 径向柱塞摆缸式低速大扭矩液压马达。
2. 系列号 (同一系列不同排量的液压马达其安装连接尺寸相同)。
3. 理论排量 (mL/r)
4. 输出轴类型 (无字母——矩形花键轴; A——渐开线花键轴; B——圆柱平键轴; I——矩形内花键轴)。
5. 通油盘种类。D30, D31, D310, D40, D90等等。
6. 输出转向 (从输出轴端看, R为顺时针旋转, L为逆时针旋转)。
1. Low speed high torque radial piston swivelling cylinder hydraulic motor.
2. Series number ( Motor in one series have same dimensions ) .
3. Theoretical displacement ( mL / r ) .
4. Output shaft ( unletter——rectangle spline shaft ; A——involute spline shaft ; B——column paralelkey shaft ; I——rectangle inner spline shaft ) .
5. Distributor, D30, D31, D310, D40, D90 and so on.
6. Output turning ( see from the shaft end , R means clockwise, L means anticlockwise).

## BGM 系列摆缸液压马达 BGM SWIVELLING CYLINDER HYDRAULIC MOTOR

### ● 工作原理 WORKING PRINCIPLE



BGM 液压马达的内部构造

序号	名称	序号	名称	序号	名称
1	缸体	5	球面轴承套	9	后壳体
2	柱塞	6	滚柱	10	通油盘
3	曲轴	7	卡环	11	配油盘
4	耳轴套	8	前壳体		

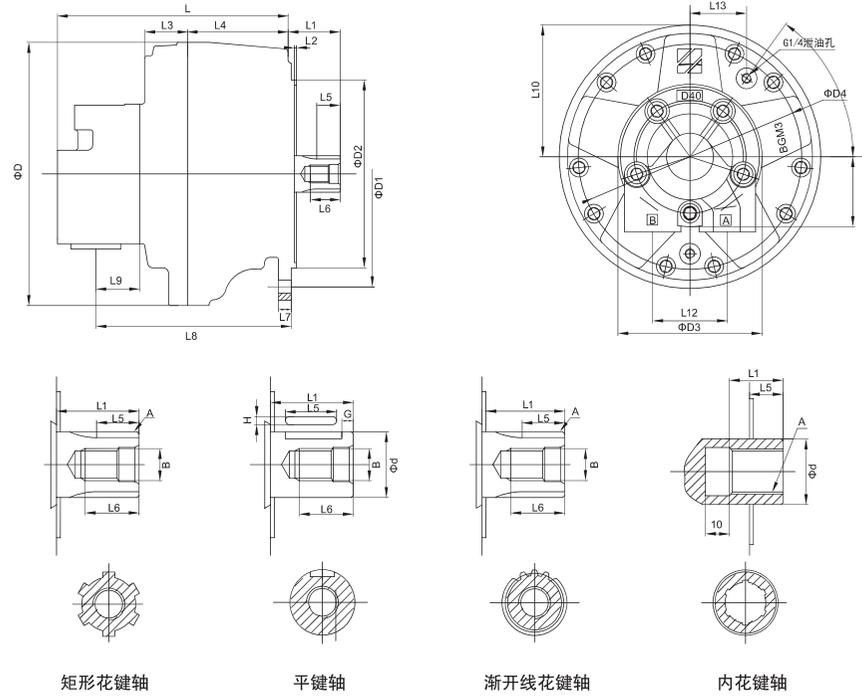
BGM 型液压马达见上图, 由缸体 1、柱塞 2、曲轴 3、前壳体 8、后壳体 9、等零件组成。马达运行中, 由于缸体 1 带动柱塞 2 自动以耳轴套 4 为中心进行摆动, 从而保证缸体 1 和柱塞 2 的轴线始终通过曲轴球面轴承套 5 的中心, 因此, 柱塞 2 在往复运动中对缸体 1 不产生侧向力, 高压油从通油盘 10 的进油口进入与曲轴一起旋转的配流盘 11, 并经后壳体 9 中的流道和耳轴套 4 上的油道进入柱塞 2 上部, 再经节流小孔进入柱塞下部平衡腔 a, 此时, 通高压油的空心柱塞在油压作用下, 通过球面轴承套 5 和滚柱 6 把液压作用力传递曲轴 3 上。曲轴在偏心力矩作用下转动。随着高压油的进入, 柱塞径向向马达旋转轴心处移动直至下死点时, 由于同步旋转配油盘 11 的切换作用。柱塞 2 的上部油室通过配流盘 11 开始与马达回油口接通, 柱塞 2 在旋转曲轴 3 的推动下, 油室容积减小, 油室所存油液经耳轴套 4 通道、后壳体 9 中通道、配流盘 11、通油盘 10 排往回油口。各缸柱塞依次接通高压油和低压回油通道, 各通高压的柱塞对曲轴 3 产生的驱动力矩同向叠加, 使液压马达输出轴获得连续而稳定的回转扭矩。改变通油盘进、出油道方向, 便可以改变液压马达的转向; 如果将配流盘 11 进行转过 180° 装配, 也可实现马达的反向旋转。

BGM 系列摆缸液压马达 BGM SWIVELLING CYLINDER HYDRAULIC MOTOR

● BGM 技术参数 BGM TECHNICAL DATA

型号 Model	排量 Displacement ml/r	压力 (Mpa)		扭矩		连续转速 Speed range r/min	最高转速 Max. cont. Power r/min	重量 Weight kg
		尖峰压力 Peak pressure	额定压力 Cont pressure	额定扭矩 Rate torque N.m	单位理论扭矩 Theoric torque N.m/Mpa			
BGM1-100	113	35	25	441	17.6	1-550	1000	30
BGM1-150	154	35	25	600	24	1-550	1000	30
BGM1-175	172	32.5	25	671	26.8	1-550	900	30
BGM1-200	201	30	25	784	31.4	1-550	800	30
BGM1-250	243	30	25	967	38.7	1-450	700	30
BGM1-300	290	28	25	1131	45.2	1-350	650	30
BGM1-320	314	28	25	1224	49	1-350	600	30
BGM1-350	340	28	25	1326	53	1-300	550	30
BGM2-200	204	37	25	785	31.4	0.8-550	800	53
BGM2-250	251	37	25	966	38.6	0.8-550	800	53
BGM2-300	304	35	25	1170	46.8	0.8-500	750	53
BGM2-350	362	32.5	25	1392	55.7	0.8-500	750	53
BGM2-420	425	30	25	1635	65.4	0.8-450	750	53
BGM2-500	493	30	25	1897	75.9	0.8-450	700	53
BGM2-600	565	28	25	2174	87	0.8-450	700	53
BGM2-630	623	28	25	2397	95.9	0.8-400	650	53
BGM3-425	426	35	25	1654	66	0.6-500	650	85
BGM3-500	507	35	25	1969	78.8	0.6-450	600	85
BGM3-600	595	32.5	25	2311	92.4	0.6-450	575	85
BGM3-700	690	30	25	2680	107.2	0.6-400	525	85
BGM3-800	792	30	25	3076	123	0.6-400	500	85
BGM3-900	873	30	25	3390	135.6	0.6-350	450	85
BGM3-1000	987	28	25	3833	153.3	0.6-300	400	85
BGM4-400	402	37	25	1552	62	0.5-450	600	120
BGM4-500	503	37	25	1941	77.7	0.5-425	600	120
BGM4-600	616	37	25	2377	95	0.5-400	550	120
BGM4-800	793	35	25	3061	122.4	0.5-350	550	120
BGM4-900	904	32.5	25	3489	140	0.5-325	450	120
BGM4-1000	1022	32.5	25	3944	157.8	0.5-300	400	120
BGM4-1100	1116	30	25	4307	172	0.5-275	400	120
BGM4-1250	1247	30	25	4813	192.5	0.5-250	400	120
BGM4-1300	1316	27.5	25	5079	203	0.5-225	350	120
BGM5-525	526	37.5	25	2009	80.4	0.4-350	500	168
BGM5-650	659	37.5	25	2517	100.7	0.4-350	500	168
BGM5-800	807	35	25	3082.5	123.3	0.4-320	500	168
BGM5-1000	1039	35	25	3969	158.7	0.4-320	450	168
BGM5-1200	1185	32.5	25	4526	181	0.4-300	400	168
BGM5-1300	1340	32.5	25	5118	204.7	0.4-300	400	168
BGM5-1450	1462	30	25	5584	223.4	0.4-300	350	168
BGM5-1600	1634	30	25	6241	250	0.4-270	350	168
BGM5-1800	1816	28	25	6937	277.5	0.4-250	300	168
BGM5-2000	2007	28	25	7666	306.6	0.4-200	250	168
BGM6-1700	1690	35	25	6388	255.5	0.4-250	400	280
BGM6-2100	2127	32	25	8040	321.6	0.4-220	350	280
BGM6-2500	2513	30	25	9500	380	0.4-200	300	280
BGM6-3000	3041	27.5	25	11495	460	0.4-170	250	280

BGM 系列摆缸液压马达 BGM SWIVELLING CYLINDER HYDRAULIC MOTOR



型号 Model	d	B	D	D1	D2	D3	D4	L	L1	L2	L3	L4
BGM1-**	34h11	12.5	245	210	175	125	210	200	48	2	40	94
BGM1-**A	34h11	12.5	245	210	175	125	210	200	48	2	40	94
BGM1-**B	40k6	12.5	245	210	175	125	210	200	64	2	40	94
BGM1-**I	45	-	245	210	175	125	210	200	46	2	40	94
BGM 2-**	42b11	16	302	250	150	160	266	224	72	*	45	109
BGM 2-**A	39.4h11	16	302	250	150	160	266	224	72	*	45	109
BGM 2-**B	50k6	20	302	250	150	160	266	224	72	*	45	109
BGM 2-**I	55	-	302	250	150	160	266	224	54	*	45	109
BGM 3-**	54b11	16	360	300	265	175	320	256	76	8	56	126
BGM 3-**A	39.4h11	16	360	300	265	175	320	256	76	8	56	126
BGM 3-**B	50k6	16	360	300	265	175	320	256	76	8	56	126
BGM 3-**I	65	-	360	300	265	175	320	256	49	8	56	126
BGM 4-**	65b11	-	410	175	265	310	285	288	90	13	62	211
BGM 4-**A	55h11	-	410	175	265	310	285	288	90	13	62	211
BGM 4-**B	71k6	-	410	175	265	310	285	288	90	13	62	211
BGM 4-**I	72	-	410	175	265	310	285	288	14	13	62	211