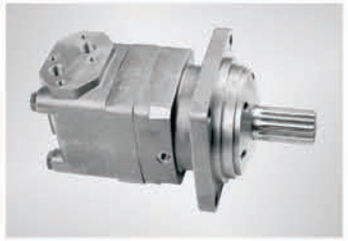
■ 产品概述 INTRODUCTION

一、特点及适用范围 FEATURES AND APPLICATIONS



BM系列端面配流摆线液压马达，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；注塑机的预塑螺杆驱动；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.

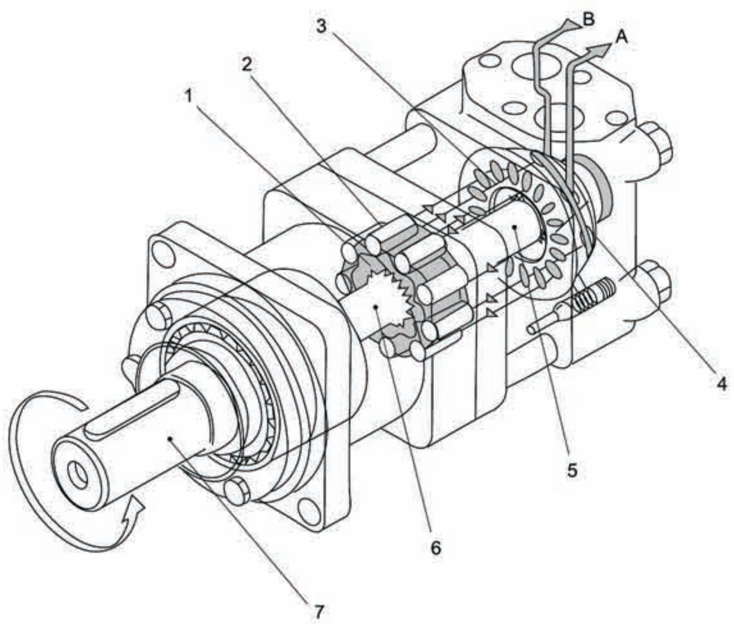
BM hydraulic motors are widely applied in agriculture machinery, fishing machinery, plastic industry, mining, and construction machinery.

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.

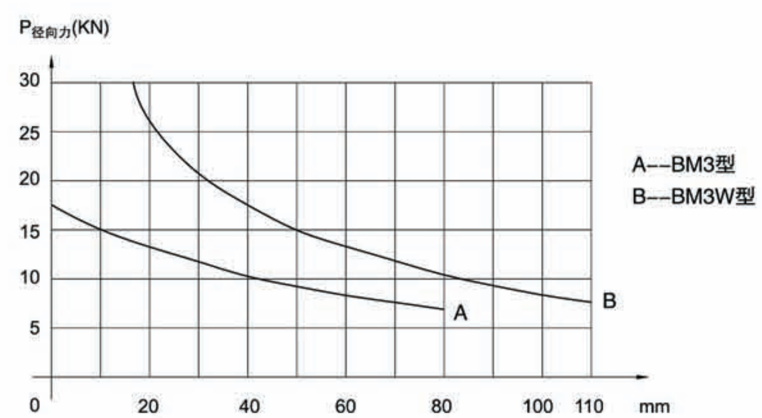
■ BM3 技术参数 TECHNICAL DATA

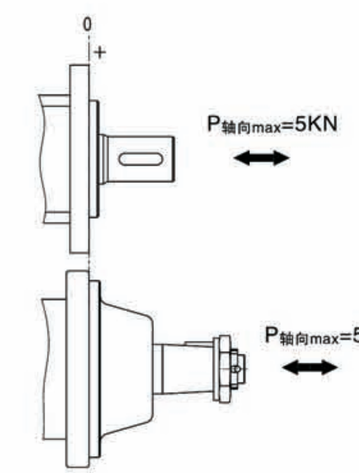
型 号 TYPE		BM3-80 BM3S-80 BM3W-80	BM3-100 BM3S-100 BM3W-100	BM3-125 BM3S-125 BM3W-125	BM3-160 BM3S-160 BM3W-160	BM3-200 BM3S-200 BM3W-200	BM3-250 BM3S-250 BM3W-250	BM3-315 BM3S-315 BM3W-315	BM3-400 BM3S-400 BM3W-400	BM3-500
排 量 Displacement(ml/r)		80.5	100.5	126.3	160.8	200.9	252.6	321.5	401.9	471.1
最大压降 Max.Pressure. Drop (Mpa)	连续 cont.	17.5	17.5	17.5	16	16	12.5	12.5	10	10
	间断 int.	20	20	20	20	20	16	16	14	14
	尖峰 peak.	22.5	22.5	22.5	22.5	22.5	20	20	17.5	17.5
最大扭矩 Max.torque (N.m)	连续 cont.	194	242	303	358	438	440	551	560	636
	间断 int.	218	283	345	429	540	580	625	687	890
	尖峰 peak.	271	318	373	459	576	700	831	865	1113
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	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)：Φ25, Φ25.4花键轴为360，Φ25, Φ25.4平键轴为300

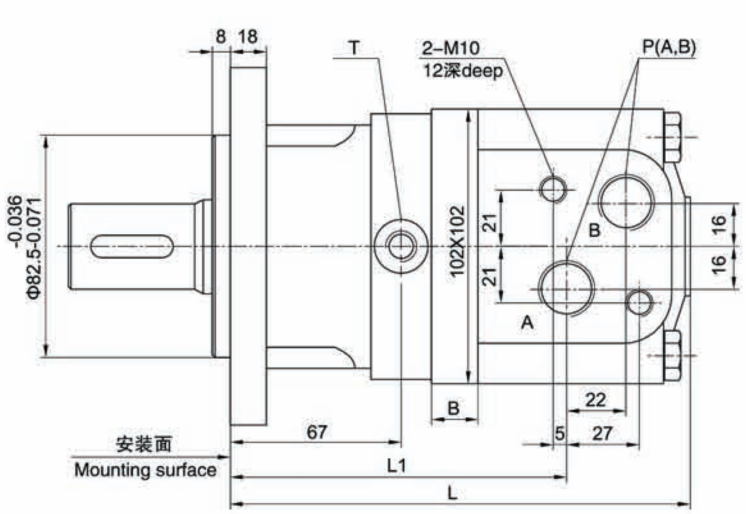
■ 输出轴允许负载 PERMISSIBLE SHAFT LOADS

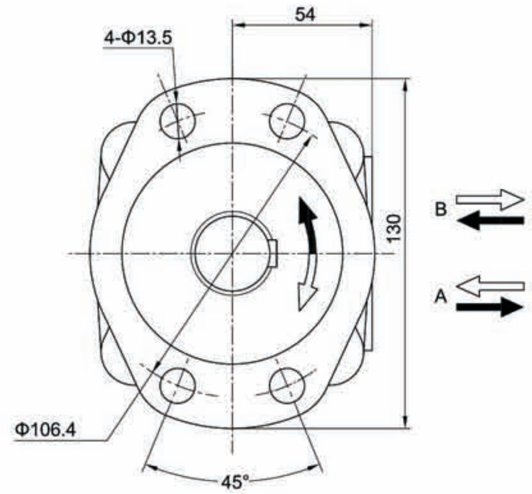




■ BM3 外形安装图 Installation

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



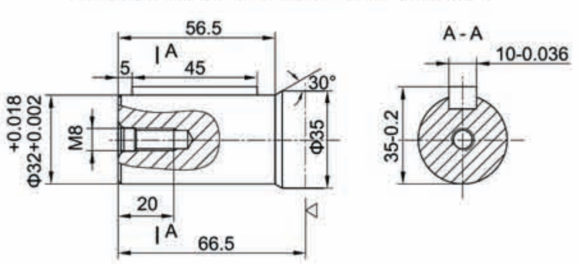


型 号 TYPE	BM3-80	BM3-100	BM3-125	BM3-160	BM3-200	BM3-250	BM3-315	BM3-400	BM3-500
L	167	170.5	175	181	188	197	209	223	236
L1	124	127.5	132	138	145	154	166	180	193
B	11	14.5	19	25	32	41	53	67	80

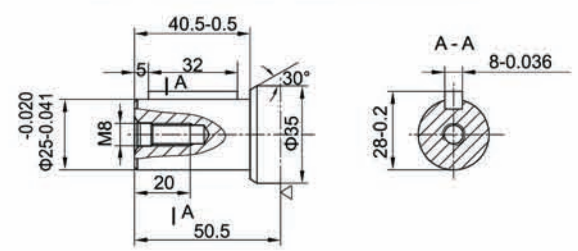
P(A,B)––进出油口，详见第24页型号说明；T––泄油口，详见第24页型号说明。
P(A,B)––Ports,can be found on page 24; T––Drain connettion, can be found on page 24.

■ BM3 外形连接尺寸–输出轴 SHAFT VERSION

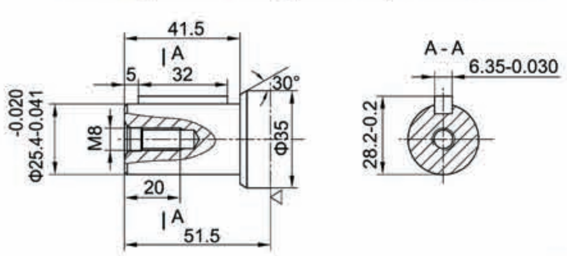
P10：Φ32平键轴，平键10X8X45
Φ32 Cylindrical shaft, parallel key 10X8X45



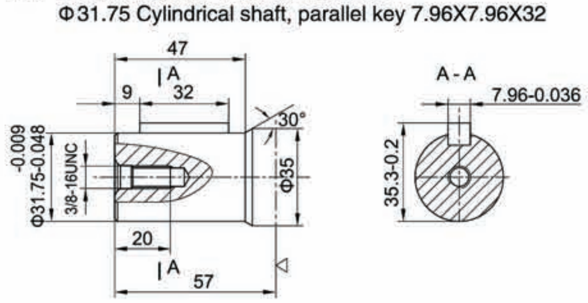
P1：Φ25平键轴，平键8X7X32
Φ25 Cylindrical shaft, parallel key 8X7X32



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



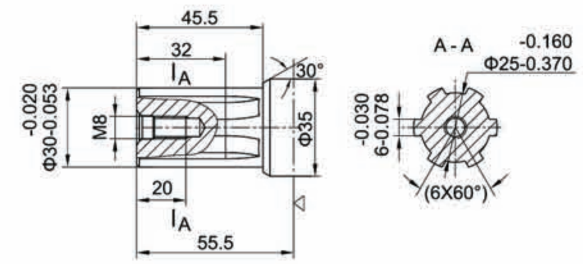
P5：Φ31.75平键轴，平键7.96X7.96X32
Φ31.75 Cylindrical shaft, parallel key 7.96X7.96X32



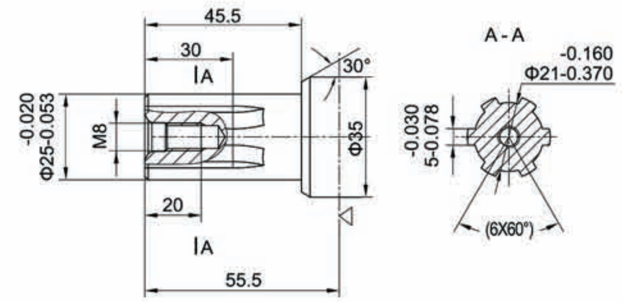
◁–– 马达安装面
Motor mounting surface

■ BM3 外形连接尺寸–输出轴 SHAFT VERSION

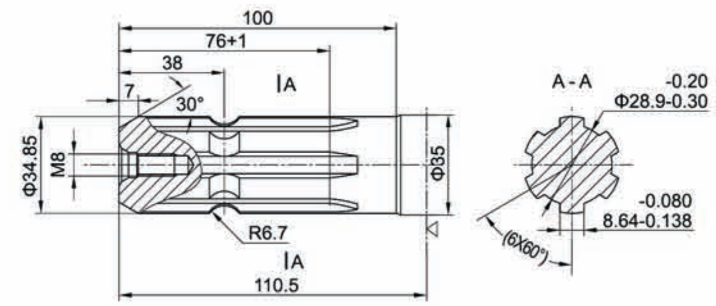
H1：Φ30矩形花键轴，6–30X25X6
Φ30 Splined shaft, 6–30X25X6



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



H3：Φ34.85矩形花键轴，6–34.85X28.9X8.64
Φ34.85 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	Φ32平键轴，平键10X8X45 Φ32 Cylindrical shaft, parallel key 10X8X45
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
P5	Φ31.75平键轴，平键7.96X7.96X32 Φ31.75 Cylindrical shaft, parallel key 7.96X7.96X32
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	Φ34.85矩形花键轴，6–34.85X28.9X8.64 Φ34.85 Splined shaft, 6–34.85X28.9X8.64

3	安装法兰 Mounting Flange
A	4–Φ13.5方法兰，止口Φ82.5 4–Φ13.5 Square flange, pilot Φ82.5
AⅡ	2–Φ13.5菱形法兰，止口Φ82.5 2–Φ13.5 Oval flange, pilot Φ82.5
A2Ⅲ	4–Φ13.5大方法兰，止口Φ100 4–Φ13.5 Square flange, pilot Φ100
AⅣ	4–Φ13.5菱形法兰，止口Φ82.5 4–Φ13.5 Oval flange, pilot Φ82.5

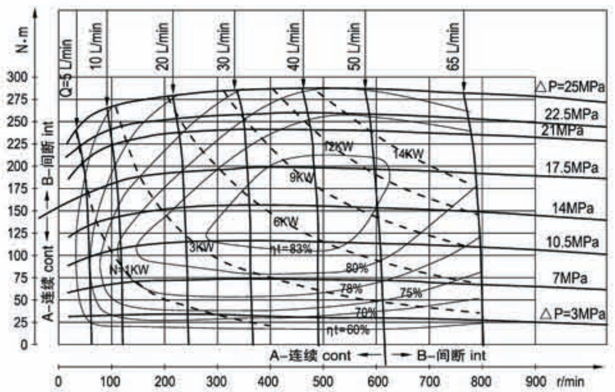
4	油口 Ports	
	P(A,B)(深deep)	T(深deep)
Y	G1/2(15)	G1/4(12)
Y2	M22X1.5(15)	M14X1.5(12)
Y5	7/8–14UNF(15)	7/16–20UNF(12)
Y8	NPT 1/2(15)	G1/4(12)

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

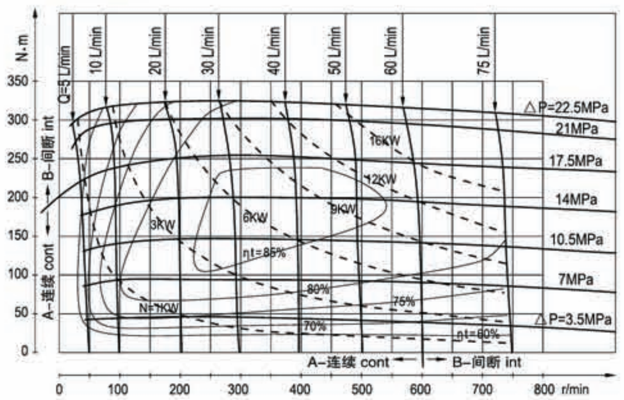
5	特殊要求 Special Features
省略 Omit	没有 none

■ BM3 性能曲线图 FUNCTION DIAGRAMS

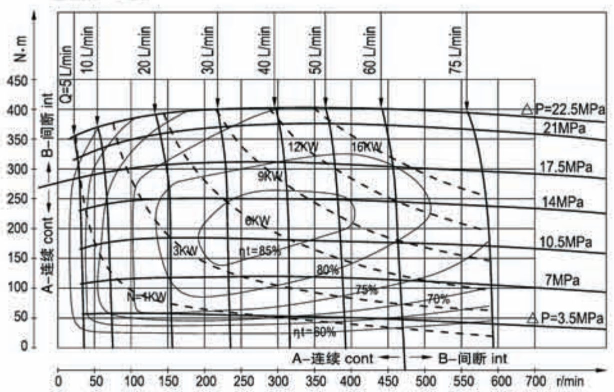
BM3-80



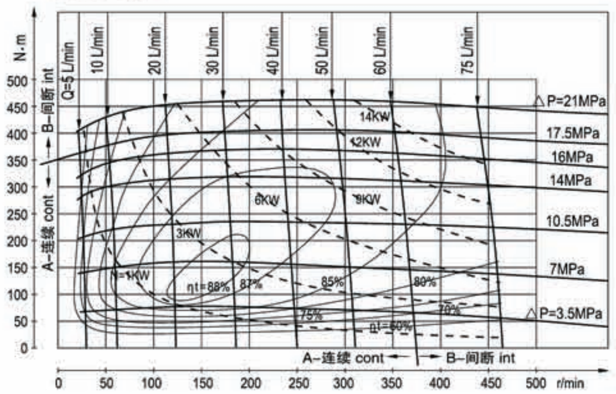
BM3-100



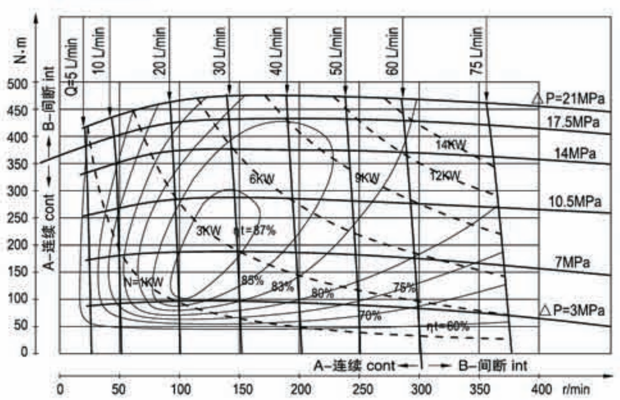
BM3-125



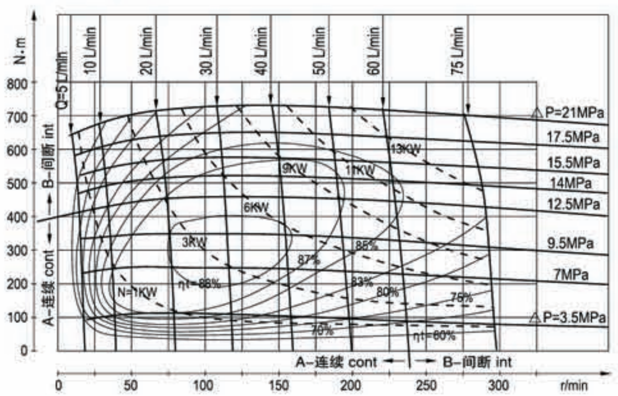
BM3-160



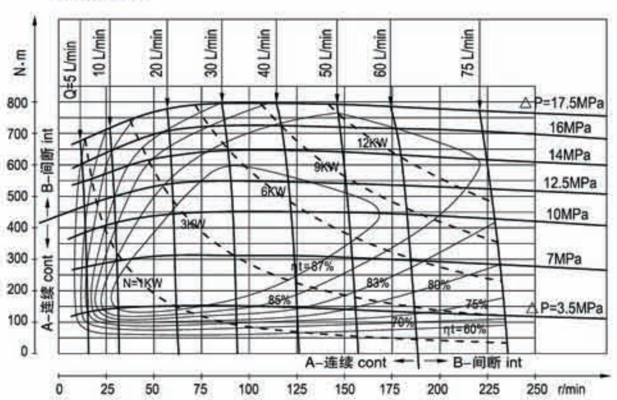
BM3-200



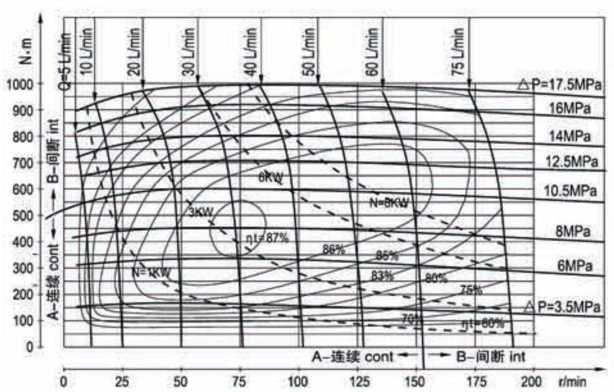
BM3-250



BM3-315

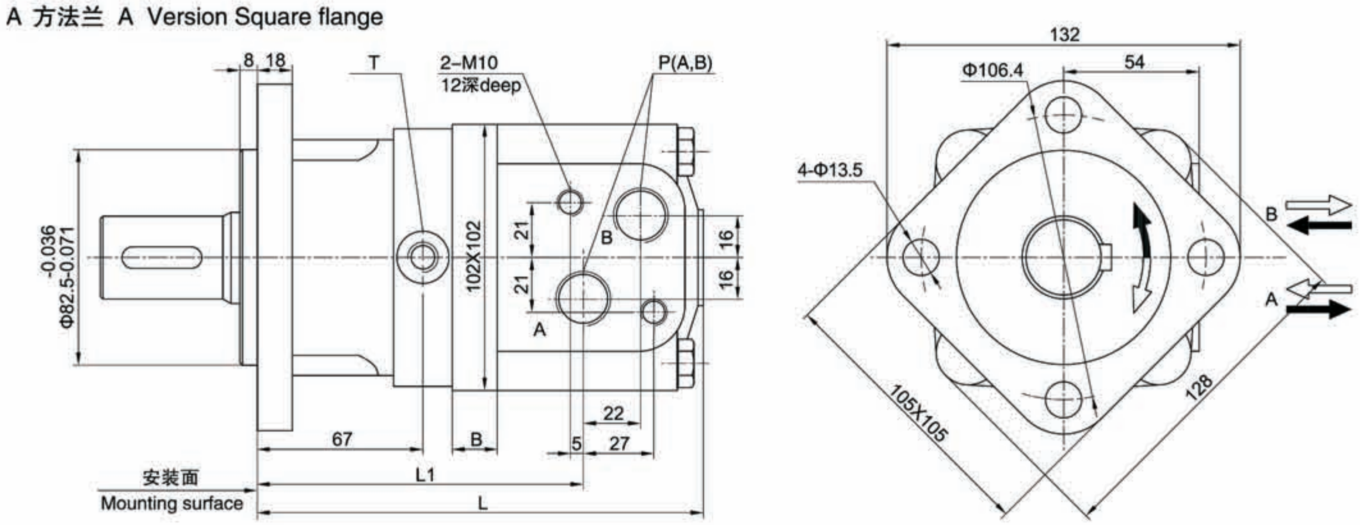


BM3-400

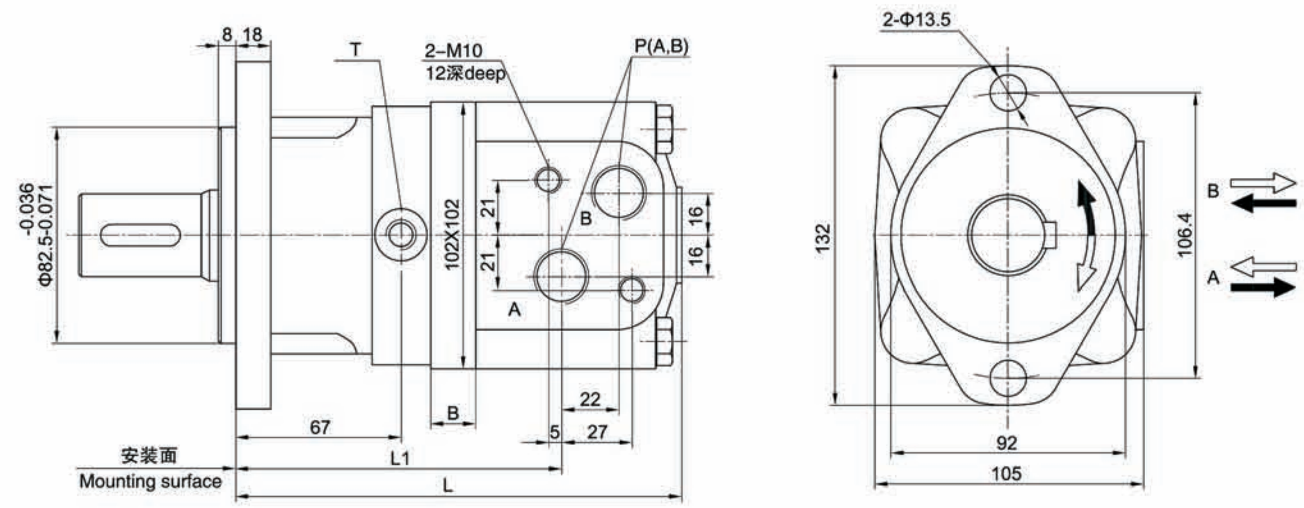


■ BM3 外形安装图 Installation

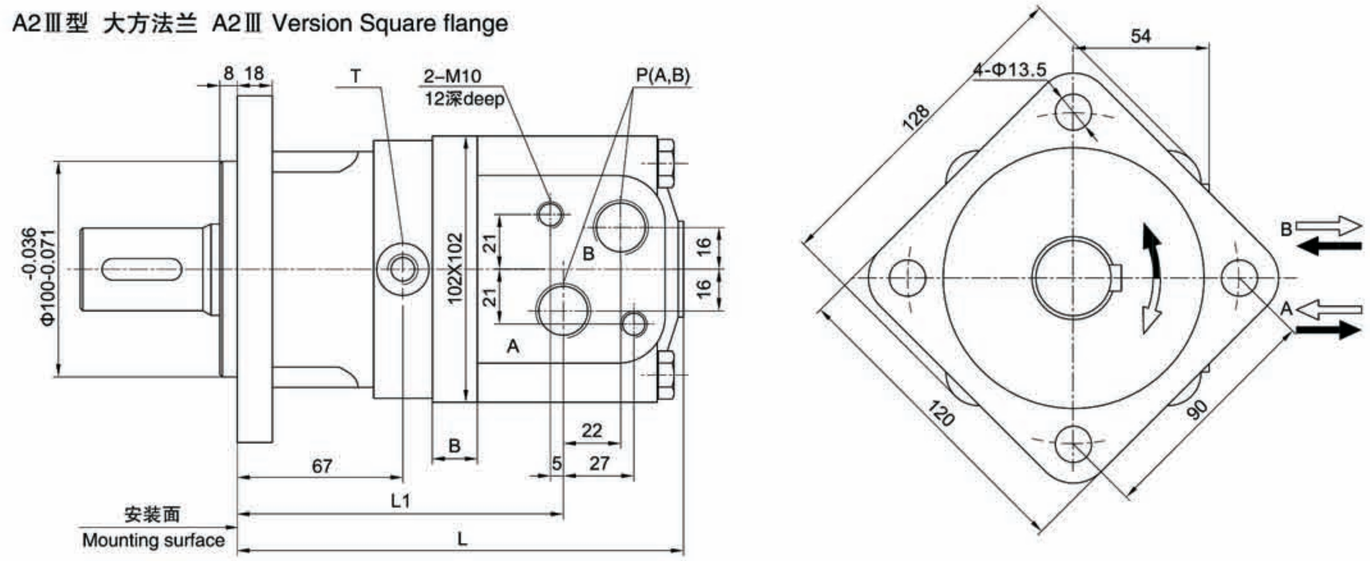
A 方法兰 A Version Square flange



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

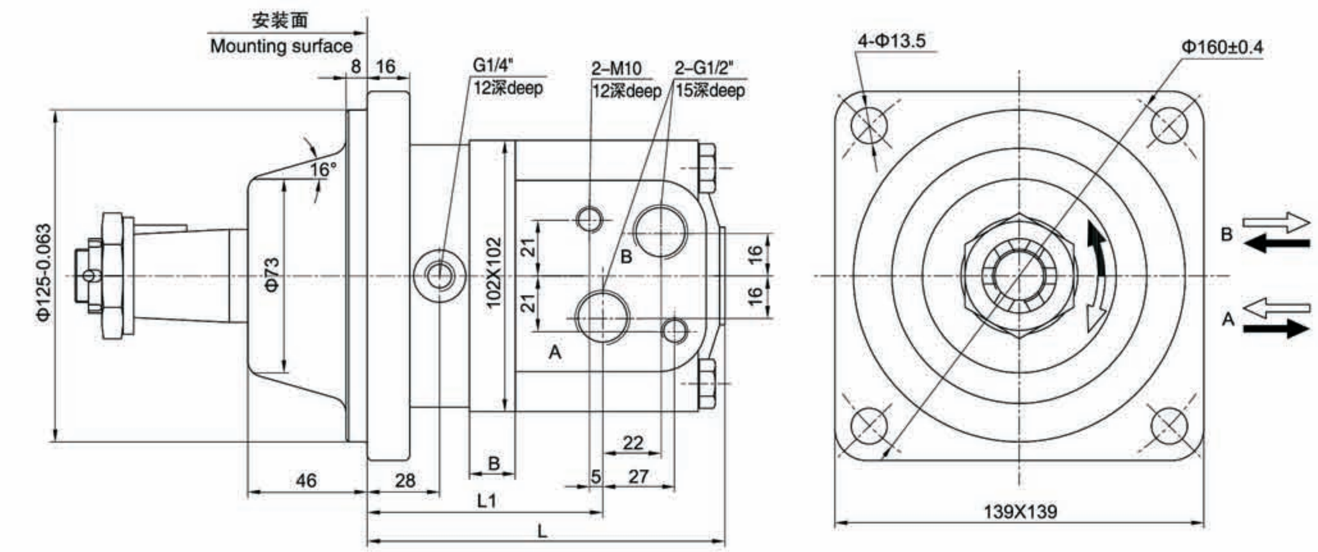


A2Ⅲ型 大方法兰 A2Ⅲ Version Square flange



P(A,B)--进出油口，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 connettion, can be found on page 24.

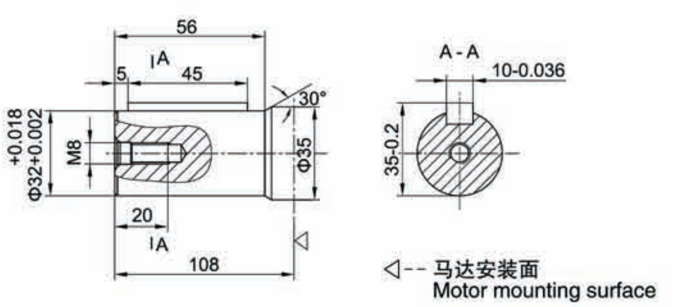
■ BM3W轮用马达 外形安装图 Installation



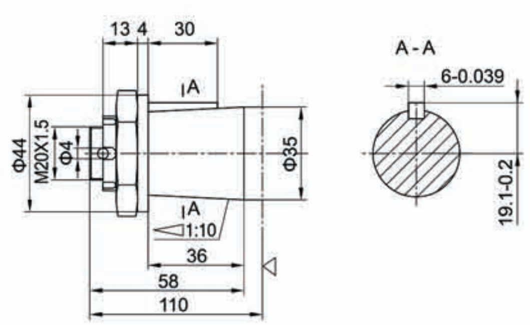
型 号 TYPE	BM3W-80	BM3W-100	BM3W-125	BM3W-160	BM3W-200	BM3W-250	BM3W-315	BM3W-400
L	126	129.5	134	140	147	156	168	182
L1	83	86.5	91	97	104	113	125	139
B	11	14.5	19	25	32	41	53	67

■ 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

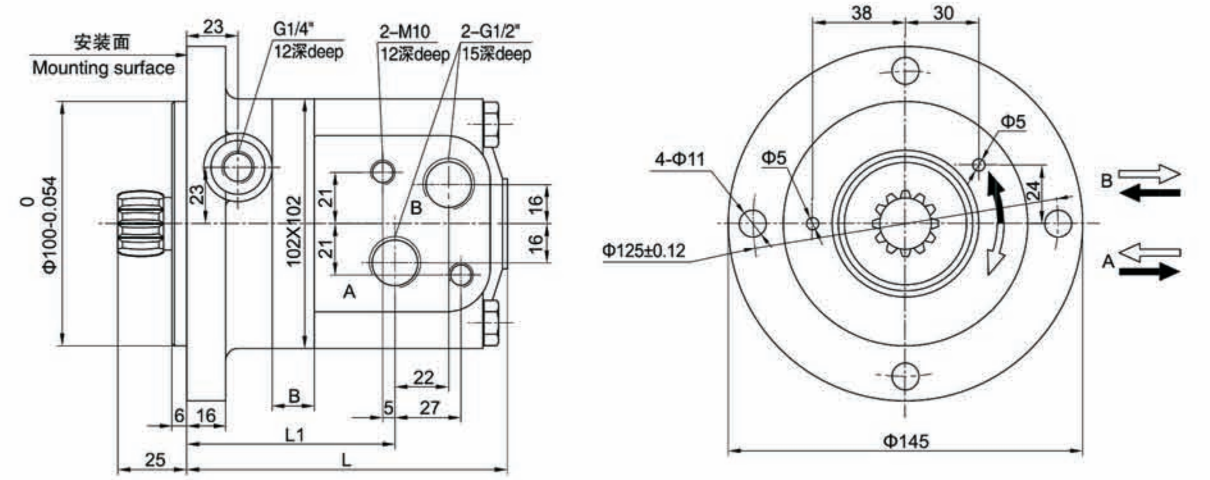
	1		2			3
BM3W	–			A	Y	/

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

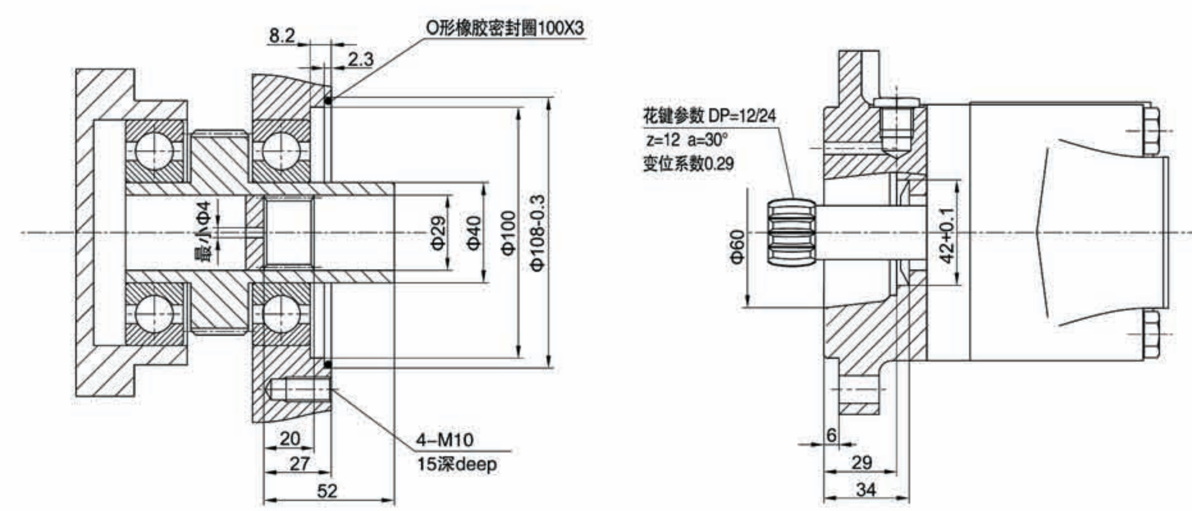
■ BM3S 外形安装图 Installation



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		2
BM3S	–		/	

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