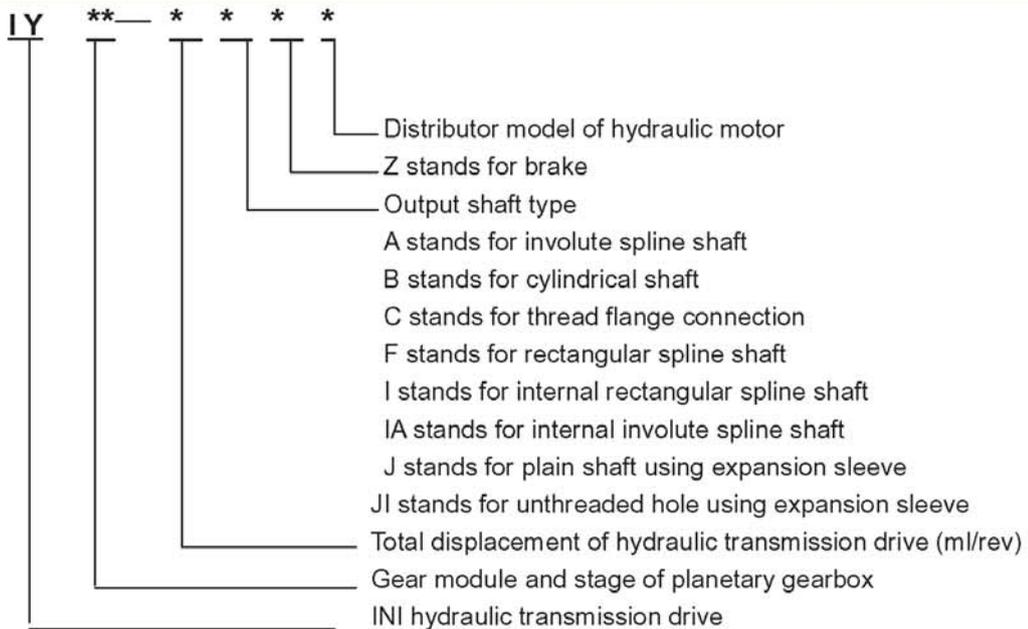


IY hydraulic transmission drives series

1. Brief introduction

IY series hydraulic transmission drives consist of hydraulic motor, planetary gearbox, disc brake and multi-function distributor. It features small radial dimension, light weight, high torque and high starting efficiency, good stability at low speed, low noise and good economy. In addition, the output shaft can bear large external radial and axial load. They are widely used in construction engineering, railway, road, ship, petroleum, coal mine, metallurgy industries. Different brakes and distributors with functional valves are available to meet customers' requirements.

2. Model Options



3. Options Example

IY2.5-800CD31 represents that the hydraulic transmission drive uses one stage planetary gearbox, gearbox module is 2.5, total displacement is 800ml/rev, the output shaft uses thread flange connection, and the distributor of the hydraulic motor is D31.

4. Specification explanation

- 1) Total displacement is determined by hydraulic motor displacement multiplies transmission ratio of planetary gearbox.
- 2) Rated torque is the actual output torque considering pressures lose of 2MPa and transmission efficiency when the system pressure is 16Mpa or 20Mpa.
- 3) Transmission efficiency includes mechanical and volumetric efficiency of hydraulic motor and mechanical efficiency of planetary gearbox.

5. Selection instruction

- 1) IY series hydraulic transmission drives can run at high back pressure. The allowable back pressure is 10MPa under continuous working condition.
- 2) The maximum allowable pressure of casing is 0.1Mpa. If the back pressure at the system return line is higher than 0.1MPa, please specify it when place an order.
- 3) Hydraulic oil: It's recommended to use high quality mineral-based hydraulic oil, which is anti-wear, anti-foam and anti-oxidation. The ideal oil temperature is between 30°C and 50°C, and the allowable oil temperature is between -20°C and 80°C. If the temperature is higher than 60°C or lower than 10°C, please use low-freezing hydraulic oil. The oil viscosity is between 40cSt and 60cSt, and allowable viscosity is between 5cSt and 3000cSt. If customer chooses water-based emulsified liquid as medium, please contact us for right products.
- 4) It is recommended to use hydraulic oil with a filter rating of 25 μm or even higher.
- 5) The hydraulic transmission drives are bi-directional. See attached drawings for more information. Reverse direction is available if customers request so when place an order.
- 6) Positioning of drain line. IY hydraulic transmission drives can be installed in any direction. To ensure the smooth movement of kinematic pairs in the hydraulic motor, please fill the motor casing with hydraulic oil. The oil drain port must be positioned in such a way that there is always sufficient hydraulic oil in the motor casing. If the output shaft is pointing downward, please add a check valve of 0.5bar at the oil drain port.
- 7) Selection of distributors: Customers can choose different types of distributors for the hydraulic transmission drive based on different working conditions. Please take into consideration working pressure, speed, flow, connection type and function of integral valve block when select distributors.
Installation of distributor: The direction of oil port can rotate by every 72 ° Please take care not to damage the O ring when rotate the distributor.
- 8) If customers require over power operation, please contact us. We can greatly improve the performance of the product and transmission power by giving special treatment to the material and surface of moving parts inside planetary gearbox.
- 9) We can add an output gear to the hydraulic transmission drives to gain hydraulic slewing drives, if you need it please contact us.

IY2.5系列液压传动装置

IY2.5 Hydraulic transmission dives

型号 Model	总排量 (ml/rev) Total displacement	额定扭矩 (N.m) Rated torque		转速范围 (r/min) Speed	液压马达型号 Motor model	行星减速器型号 Gearbox model	制动器型号 Brake	可选配流器型号 Distributor
		16 MPa	20 MPa					
IY2.5-450 ***	430	843	1084	0~100	INM05-90	C2.5A (i=5)	Z052.5	D31, D60*** D40, D120*** D47, D240***
IY2.5-630 ***	645	1264	1626		INM05-130			
IY2.5-800 ***	830.5	1628	2093		INM05-150	C2.5D (i=5.5)		
IY2.5-1000 ***	1050.5	2059	2648		INM05-200			

注：总排量为液压马达排量乘以减速器传动比；

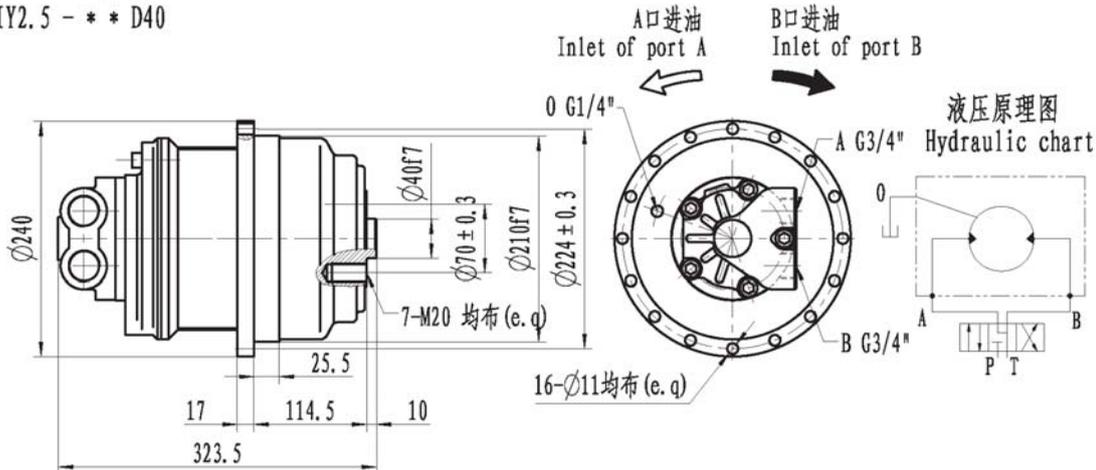
额定扭矩是系统压力（16MPa、20MPa）下考虑压力损失2MPa和传动效率后的实际扭矩；

Note: Total displacement is determined by hydraulic motor displacement multiplies transmission ratio of planetary gearbox.

Rated torque is the output torque considering pressures lose of 2MPa and transmission efficiency when the system pressure is 16Mpa or 20Mpa.

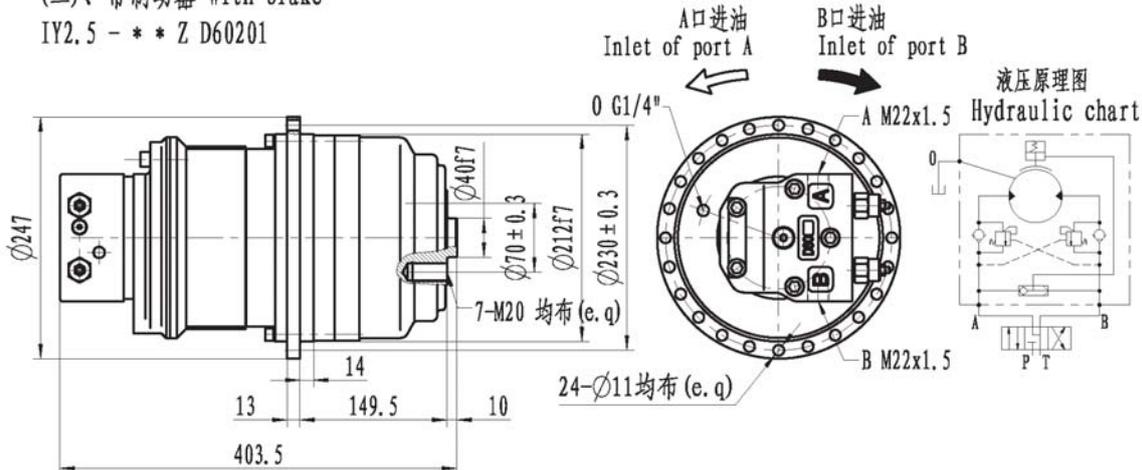
(一)、无制动器 Without brake

IY2.5 - ** D40

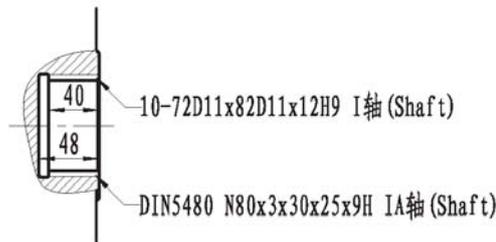
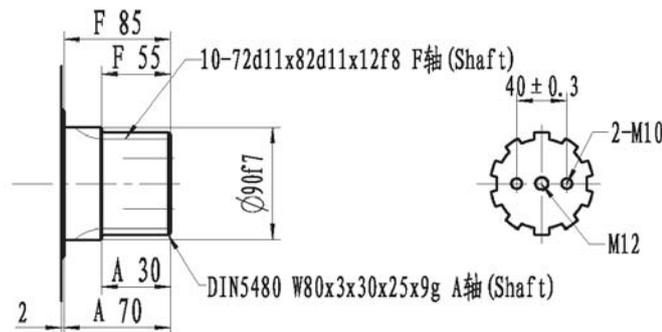
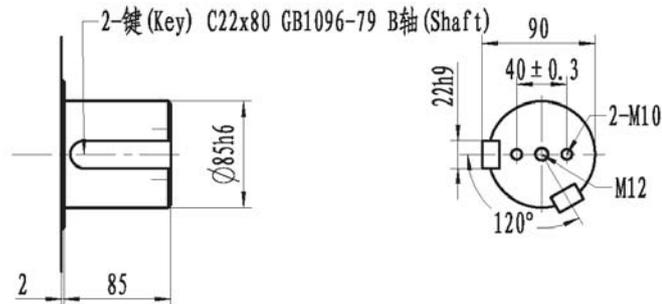


(二)、带制动器 With brake

IY2.5 - ** Z D60201



IY2.5 系列输出轴尺寸:
IY2.5 Series shaft dimensions:



注: 外形联接尺寸及输出轴有特殊要求, 请与我们直接联系
Note: Please contact us if there are any requirements from customer

IY3系列液压传动装置

IY3 Hydraulic transmission dives

型号 Model	总排量 (ml/rev) Total displacement	额定扭矩 (N.m) Rated torque		转速范围 (r/min) Speed	液压马达型号 Motor model	行星减速器型号 Gearbox model	制动器型号 Brake	可选配流器型号 Distributor
		16 MPa	20 MPa					
IY3-2000 ***	1908.5	3742	4811	1~85	INM2-350	C3D (i=5.5)	Z23	D31, D60*** D40, D120*** D47, D240***
IY3-2500 ***	2337.5	4583	5892	1~65	INM2-420			
IY3-2750 ***	2711.5	5316	6835	1~60	INM2-500			
IY3-3400 ***	3426.5	6593	8476	1~45	INM2-630			

注：总排量为液压马达排量乘以减速器传动比；

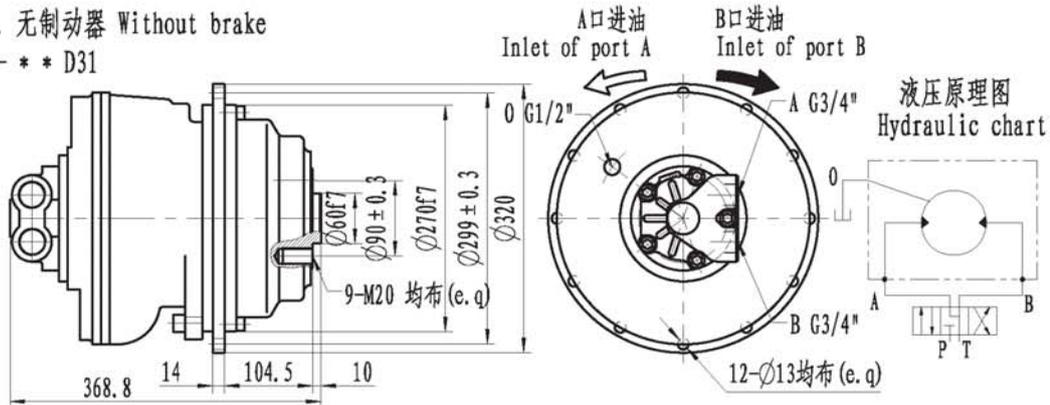
额定扭矩是系统压力(16MPa、20MPa)下考虑压力损失2MPa和传动效率后的实际扭矩；

Note: Total displacement is determined by hydraulic motor displacement multiplies transmission ratio of planetary gearbox.

Rated torque is the output torque considering pressures lose of 2MPa and transmission efficiency when the system pressure is 16mpa or 20MPa.

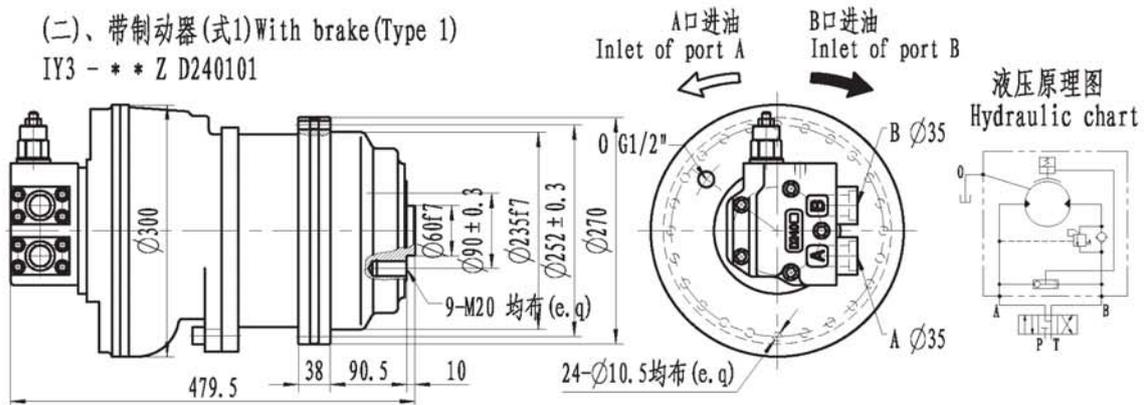
(一)、无制动器 Without brake

IY3 - ** D31



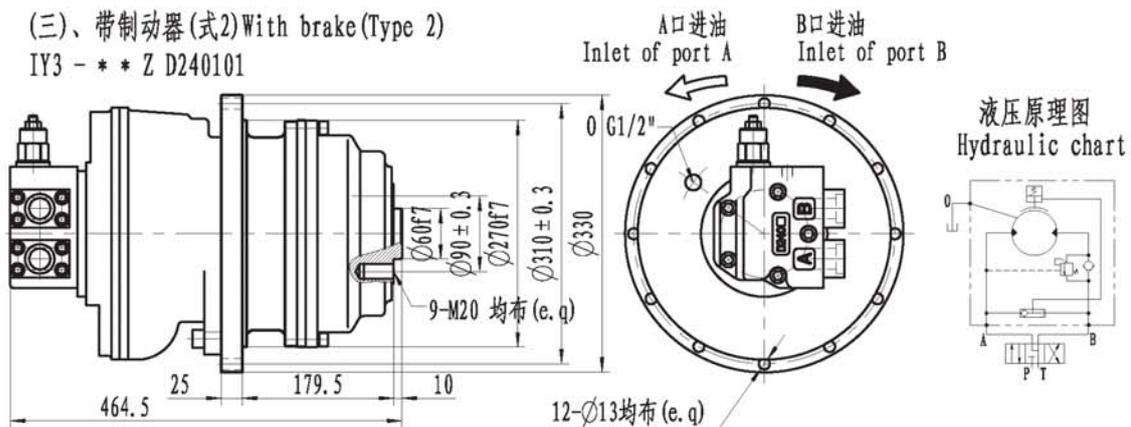
(二)、带制动器(式1) With brake (Type 1)

IY3 - ** Z D240101

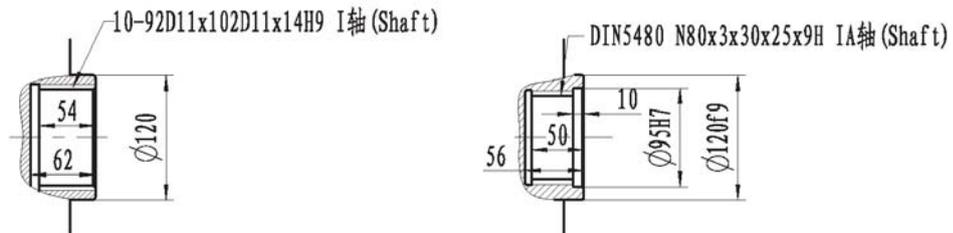
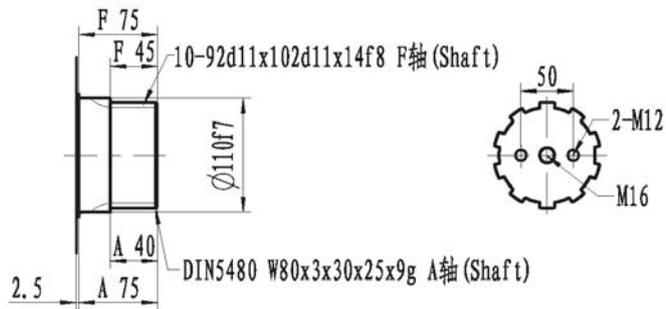
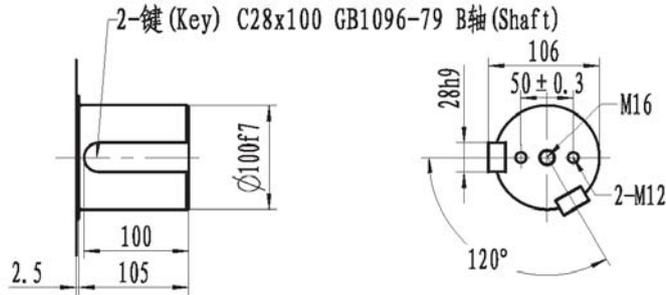


(三)、带制动器(式2) With brake (Type 2)

IY3 - ** Z D240101



IY3 系列输出轴尺寸:
IY3 Series shaft dimensions:



注: 外形联接尺寸及输出轴有特殊要求, 请与我们直接联系
Note: Please contact us if there are any requirements from customer

IY4系列液压传动装置

IY4 Hydraulic transmission dives

型号 Model	总排量 (ml/rev) Total displacement	额定扭矩 (N.m) Rated torque		转速范围 (r/min) Speed	液压马达型号 Motor model	行星减速器型号 Gearbox model	制动器型号 Brake	可选配流器型号 Distributor
		16 MPa	20 MPa					
IY4-3400 ***	3402	6640	8537	1~70	INM3-500	C4 (i=7)	Z34	D40, D47, D90, D120*** D240*** D480***
IY4-4200 ***	4165	8014	10303	1~60	INM3-600			
IY4-4800 ***	4830	9293	11949	1~50	INM3-700			
IY4-5500 ***	5544	10667	13715	1~40	INM3-800			

注: 总排量为液压马达排量乘以减速器传动比;

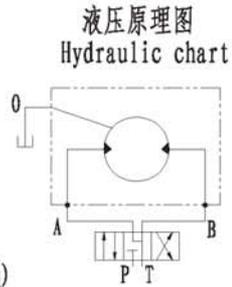
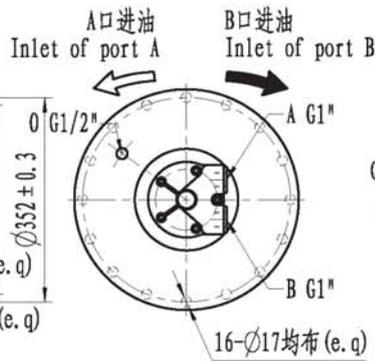
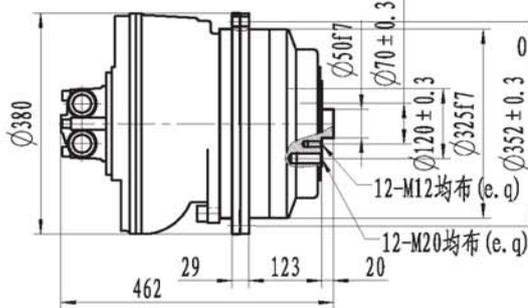
额定扭矩是系统压力(16MPa、20MPa)下考虑压力损失2MPa和传动效率后的实际扭矩;

Note: Total displacement is determined by hydraulic motor displacement multiplies transmission ratio of planetary gearbox.

Rated torque is the output torque considering pressures lose of 2MPa and transmission efficiency when the system pressure is 16Mpa or 20Mpa.

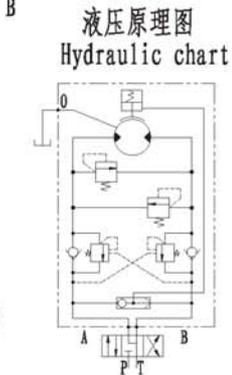
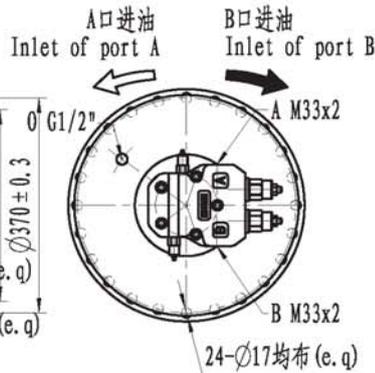
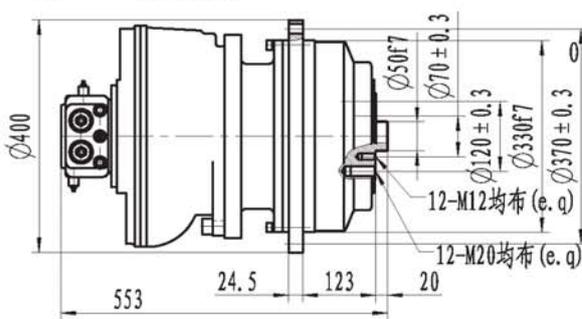
(一)、无制动器 Without brake

IY4 - ** D40



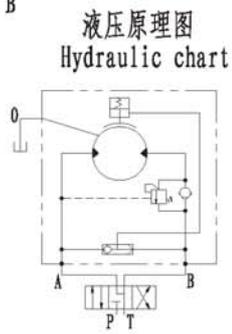
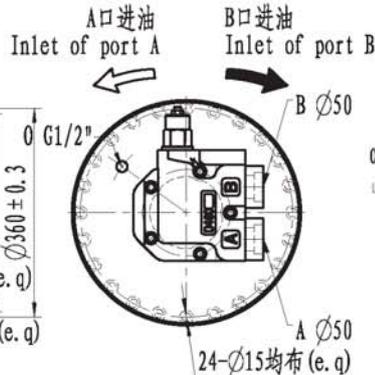
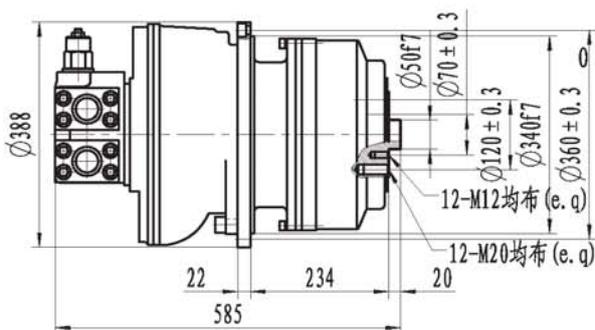
(二)、带制动器(式1) With brake (Type 1)

IY4 - ** Z D240221

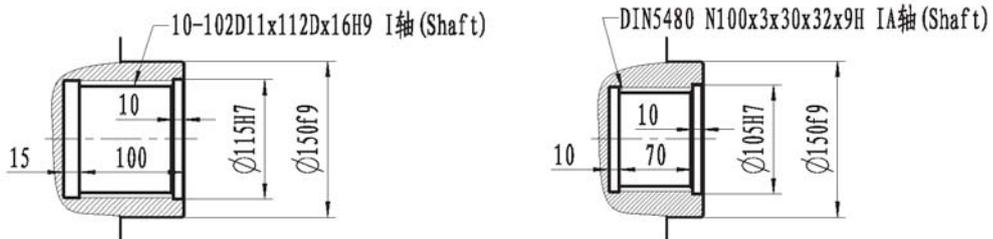
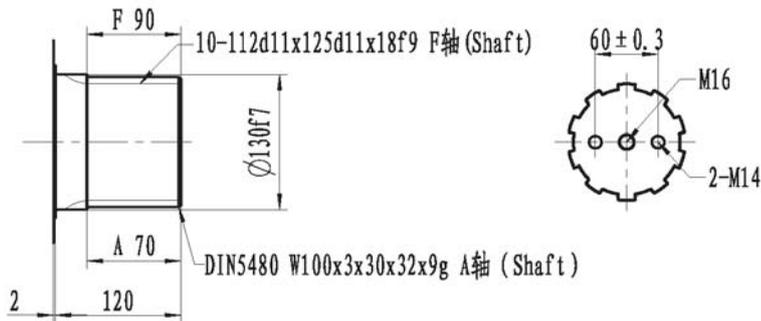
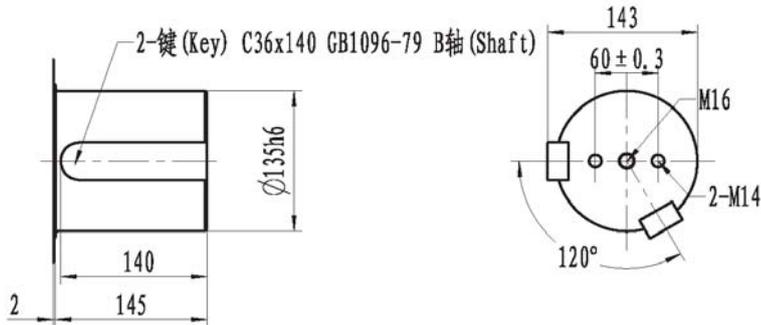


(三)、带制动器(式2) With brake (Type 2)

IY4 - ** Z D480101



IY4 系列输出轴尺寸:
IY4 Series shaft dimensions:



注: 外形联接尺寸及输出轴有特殊要求, 请与我们直接联系
Note: Please contact us if there are any requirements from customer

IY5 系列液压传动装置

IY5 Hydraulic transmission dives

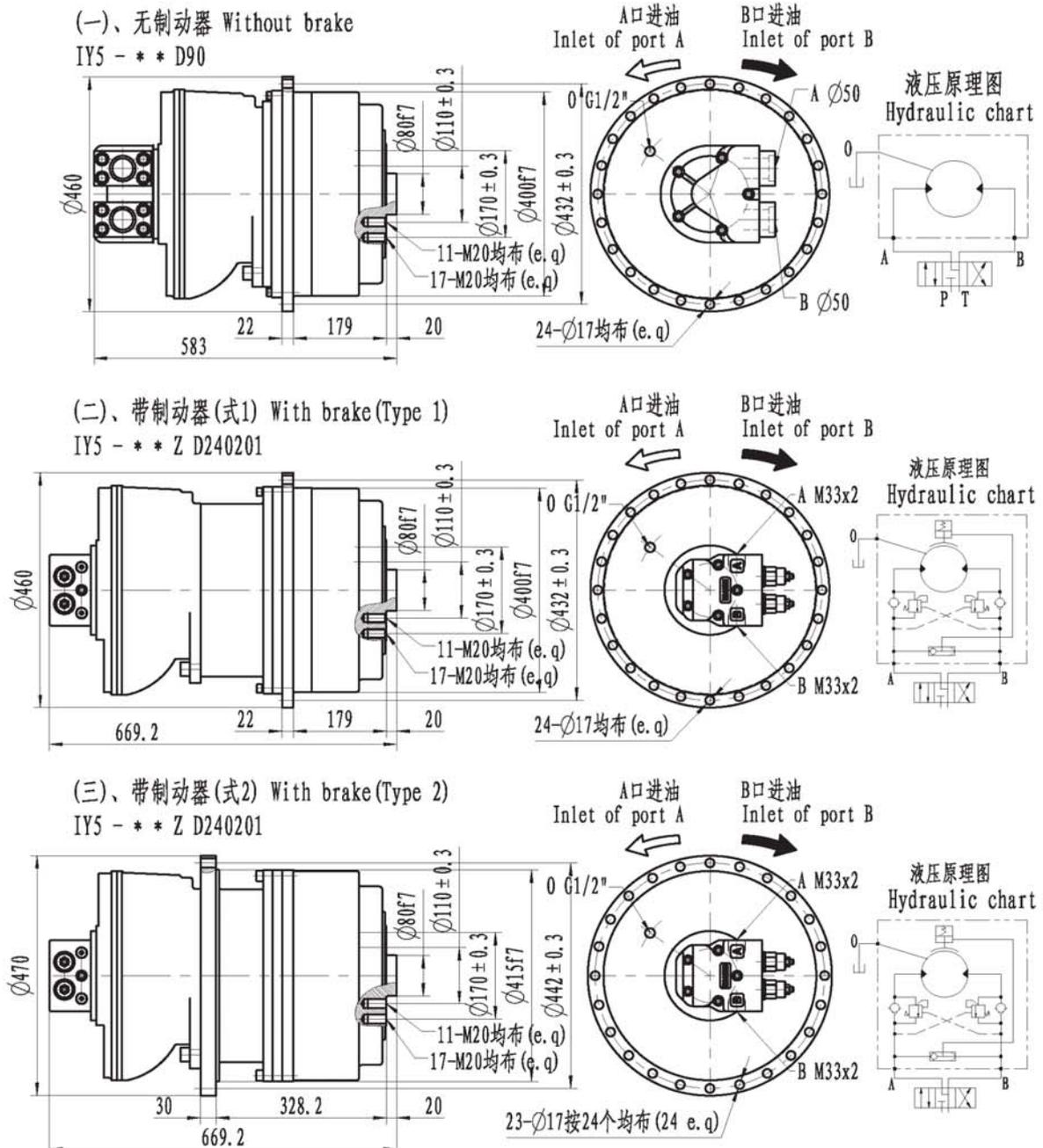
型号 Model	总排量 (ml/rev) Total displacement	额定扭矩 (N.m) Rated torque		转速范围 (r/min) Speed	液压马达型号 Motor model	行星减速器型号 Gearbox model	制动器型号 Brake	可选配流器型号 Distributor
		16 MPa	20 MPa					
IY5-7200 ***	7154	13675	17698	0.5~40	INM4-900	C5 (i=7)	Z55	D240***
IY5-7800 ***	7812	15031	19325	0.5~32	INM4-1100			D480***
IY5-9200 ***	9212	19384	24922	0.5~25	INM4-1300			D90, D90F480***

注: 总排量为液压马达排量乘以减速器传动比;

额定扭矩是系统压力(16MPa、20MPa)下考虑压力损失2MPa和传动效率后的实际扭矩;

Note: Total displacement is determined by hydraulic motor displacement multiplies transmission ratio of planetary gearbox.

Rated torque is the output torque considering pressures lose of 2MPa and transmission efficiency when the system pressure is 16Mpa or 20Mpa.



IY5系列液压传动装置

IY5 Hydraulic transmission dives

型号 Model	总排量 (ml/rev) Total displacement	额定扭矩 (N.m) Rated torque		转速范围 (r/min) Speed	液压马达型号 Motor model	行星减速器型号 Gearbox model	制动器型号 Brake	可选配流器型号 Distributor
		16 MPa	20 MPa					
IY5-10000 ***	9988	20029	25752	0.5~20	INM5-1800	CSD (i=5.5)	Z55	D240***
IY5-11000 ***	11038.5	22136	28460	0.5~15	INM5-2000			D480***

注: 总排量为液压马达排量乘以减速器传动比;

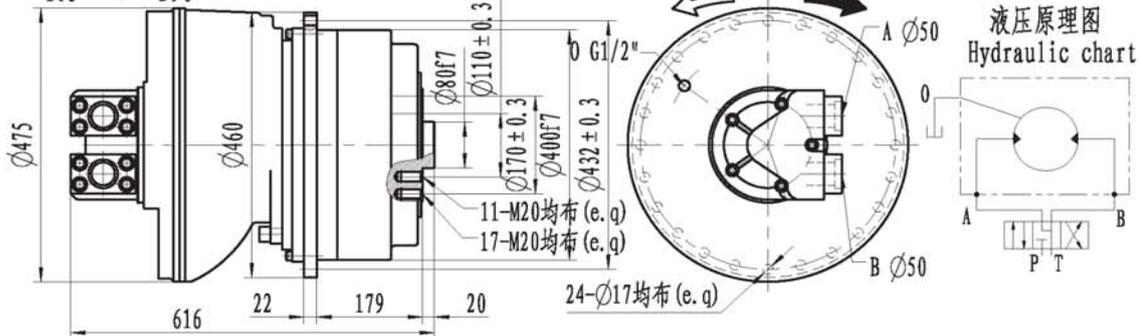
额定扭矩是系统压力(16MPa、20MPa)下考虑压力损失2MPa和传动效率后的实际扭矩;

Note: Total displacement is determined by hydraulic motor displacement multiplies transmission ratio of planetary gearbox.

Rated torque is the output torque considering pressures lose of 2MPa and transmission efficiency when the system pressure is 16Mpa or 20Mpa.

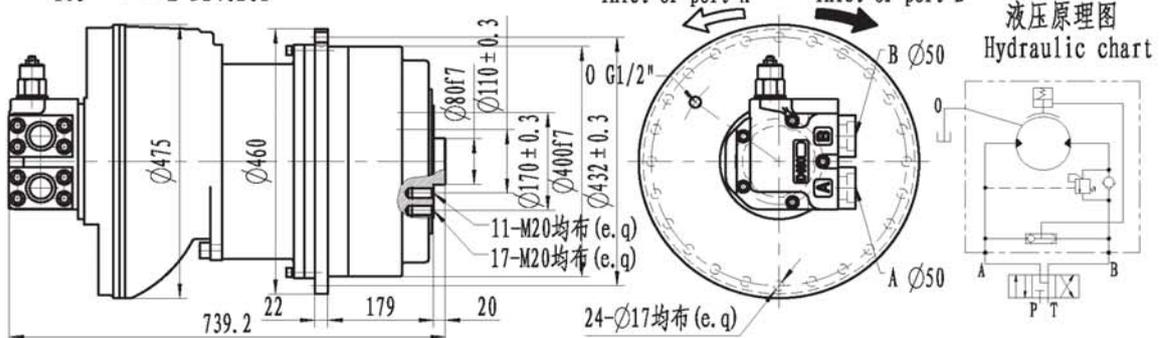
(一)、无制动器 Without brake

IY5 - ** D90



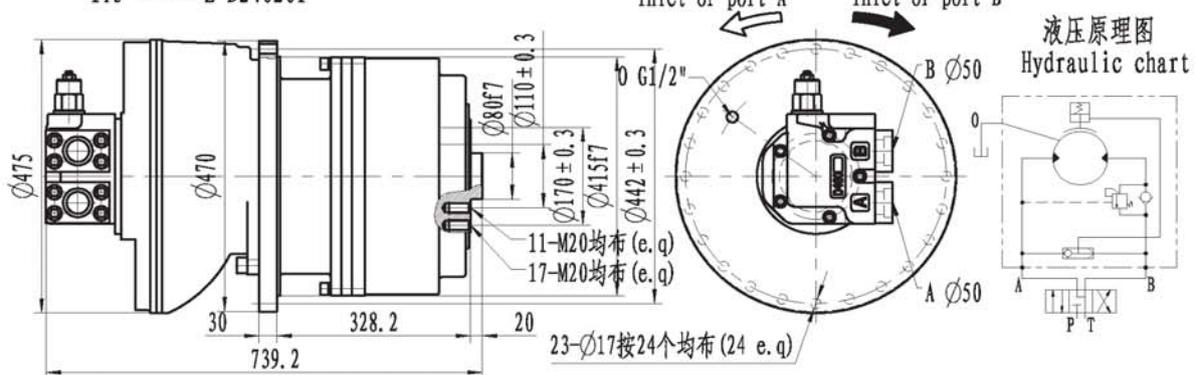
(二)、带制动器(式1) With brake (Type 1)

IY5 - ** Z D240201

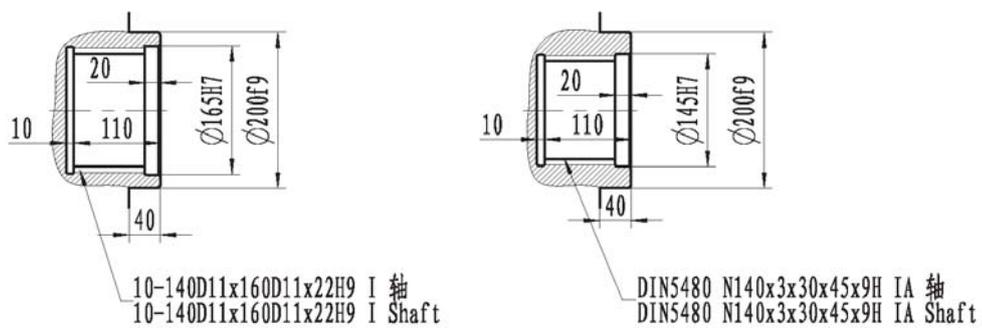
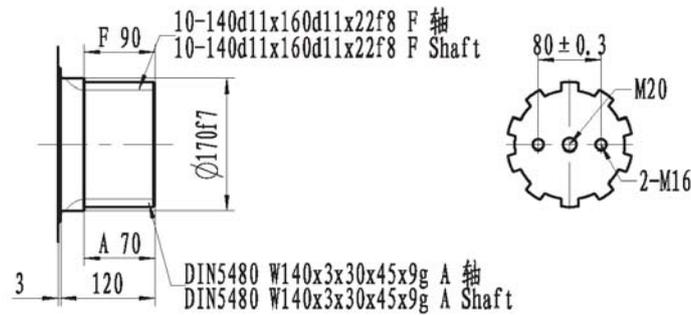
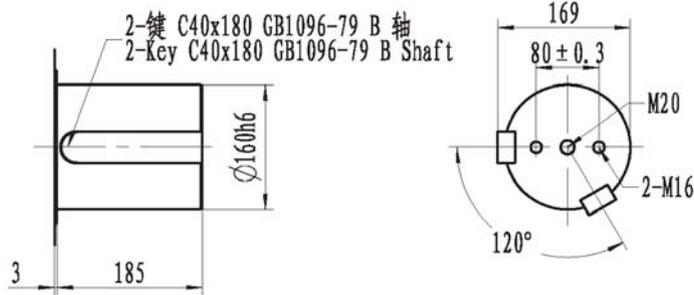


(三)、带制动器(式2) With brake (Type 2)

IY5 - ** Z D240201



IY5 系列输出轴尺寸:
IY5 Series shaft dimensions:



注: 外形联接尺寸及输出轴有特殊要求, 请与我们直接联系
Note: Please contact us if there are any requirements from customer

IY6 系列液压传动装置

IY6 Hydraulic transmission dives

型号 Model	总排量 (ml/rev) Total displacement	额定扭矩 (N.m) Rated torque		转速范围 (r/min) Speed	液压马达型号 Motor model	行星减速器型号 Gearbox model	制动器型号 Brake	可选配流器型号 Distributor
		16 MPa	20 MPa					
IY6-14800 ***	14889	28647	36832	0.5~32	INM6-2100	C6 (i=7)	Z66	D90, D480101
IY6-17600 ***	17591	33846	43517	0.5~25	INM6-2500			D90F480***
IY6-21300 ***	21287	40958	/	0.5~20	INM6-3000			D90F720***

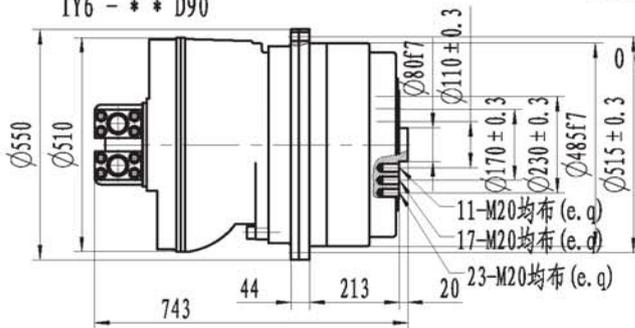
注：总排量为液压马达排量乘以减速器传动比；

额定扭矩是系统压力 (16MPa、20MPa) 下考虑压力损失 2MPa 和传动效率后的实际扭矩；

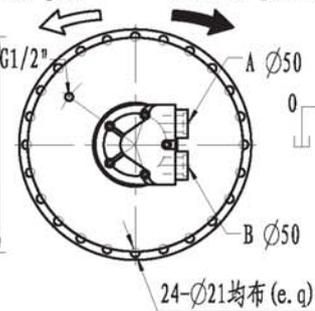
Note: Total displacement is determined by hydraulic motor displacement multiplies transmission ratio of planetary gearbox.

Rated torque is the output torque considering pressures lose of 2MPa and transmission efficiency when the system pressure is 16MPa or 20MPa.

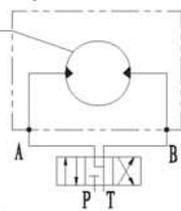
(一)、无制动器 Without brake
IY6 - ** D90



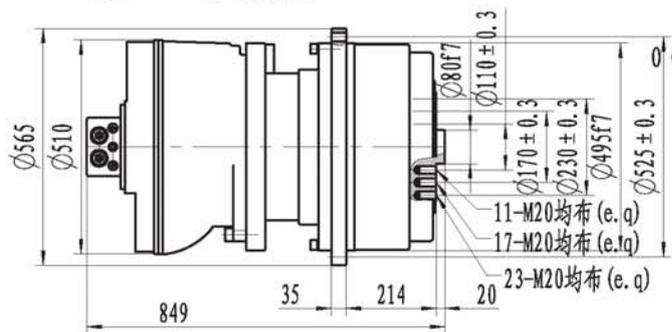
A口进油 Inlet of port A
B口进油 Inlet of port B



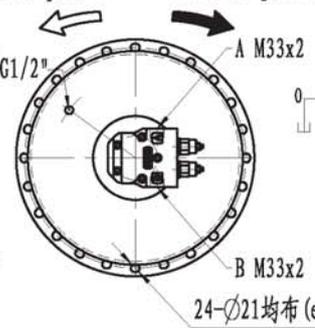
液压原理图
Hydraulic chart



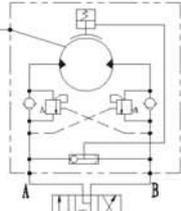
(二)、带制动器 (式1) With brake (Type 1)
IY6 - ** Z D240201



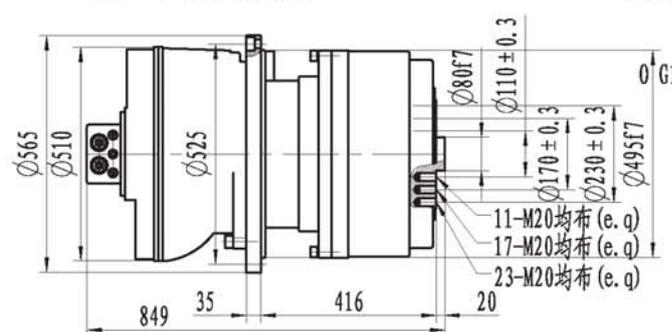
A口进油 Inlet of port A
B口进油 Inlet of port B



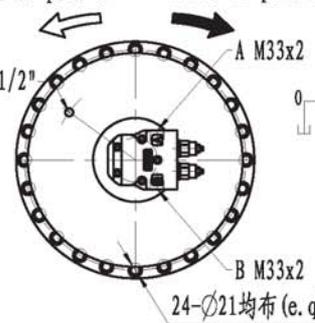
液压原理图
Hydraulic chart



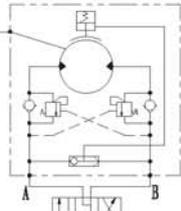
(三)、带制动器 (式2) With brake (Type 2)
IY6 - ** Z D240201



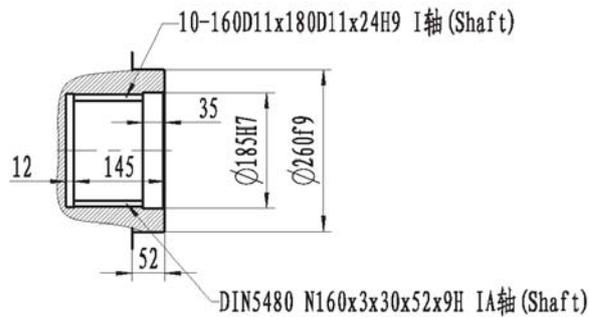
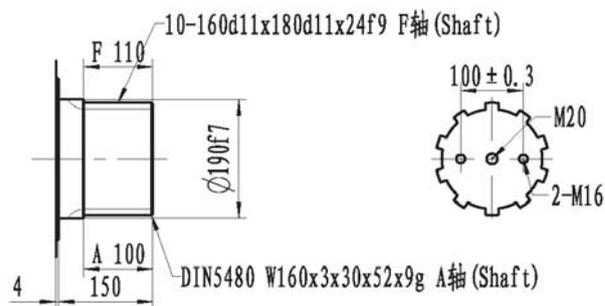
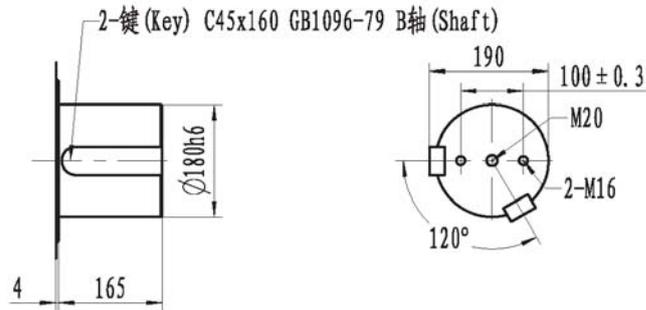
A口进油 Inlet of port A
B口进油 Inlet of port B



液压原理图
Hydraulic chart



IY6 系列输出轴尺寸:
IY6 Series shaft dimensions:



注: 外形联接尺寸及输出轴有特殊要求, 请与我们直接联系
Note: Please contact us if there are any requirements from customer

IY7 系列液压传动装置

IY7 Hydraulic transmission dives

型号 Model	总排量 (ml/rev) Total displacement	额定扭矩 (N.m) Rated torque		转速范围 (r/min) Speed	液压马达型号 Motor model	行星减速器型号 Gearbox model	可选配流量器型号 Distributor
		16 MPa	20 MPa				
IY7-18000 ***	17650	35394	45507	0.5~40	IHM31-3500	C7A (i=5)	D90 D250 D240*** D480***
IY7-20000 ***	20060	40227	51720	0.5~32	IHM31-4000		
IY7-25000 ***	24940	50013	64303	0.5~30	IHM31-5000		
IY7-27500 ***	27434	55014	70733	0.5~25	IHM31-5000	C7D (i=5.5)	
IY7-29200 ***	29199.5	56182	72234	0.5~20	IHM31-5500		
IY7-33800 ***	33869	65166	83785	0.5~16	IHM31-6300		

注：总排量为液压马达排量乘以减速器传动比；

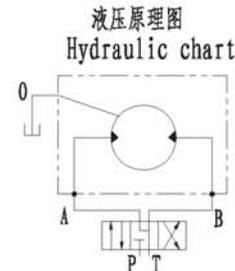
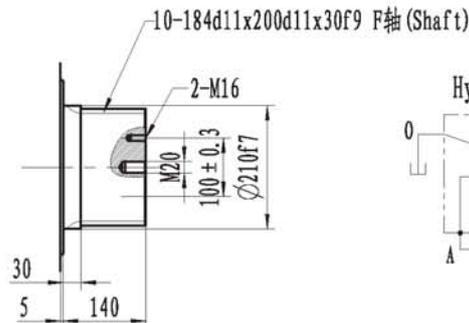
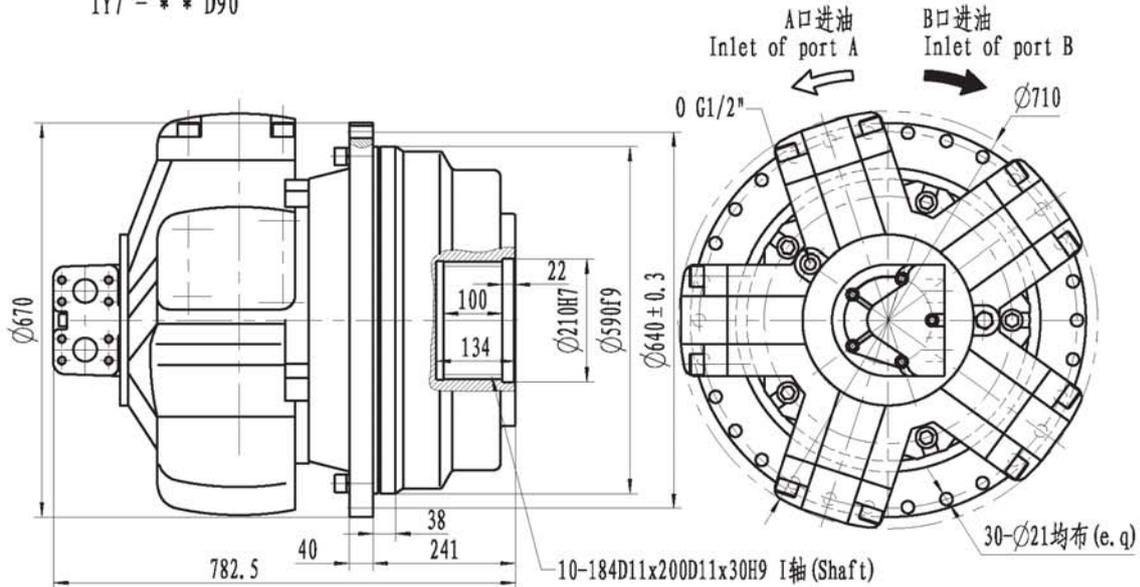
额定扭矩是系统压力（16MPa、20MPa）下考虑压力损失2MPa和传动效率后的实际扭矩；

Note: Total displacement is determined by hydraulic motor displacement multiplies transmission ratio of planetary gearbox.

Rated torque is the output torque considering pressures lose of 2MPa and transmission efficiency when the system pressure is 16Mpa or 20Mpa.

(一)、无制动器 Without brake

IY7 - ** D90



注：外形联接尺寸及输出轴有特殊要求，请与我们直接联系

Note: Please contact us if there are any requirements from customer

IY2.53 系列液压传动装置

IY2.53 Hydraulic transmission dives

型号 Model	总排量(ml/rev) Total displacement	额定扭矩(N.m) Rated torque		转速范围 (r/min) Speed	液压马达型号 Motor model	行星减速器型号 Gearbox model	制动器型号 Brake	可选配流器型号 Distributor
		16 MPa	20 MPa					
IY2.53-2400***	2408	4500	6000	0.25~30	INM05-90	C2.53(i=28)	Z05	D31, D60***
IY2.53-3200***	3220	6000	8000	0.25~25	INM05-110			D40, D120***
IY2.53-4200***	4228	8000	/	0.25~20	INM05-150			D47, D240***

注：总排量为液压马达排量乘以减速器传动比；

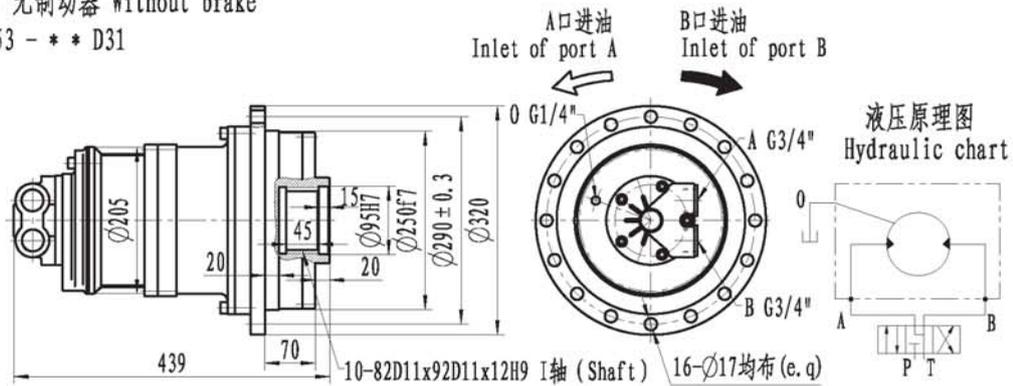
额定扭矩是系统压力(16MPa、20MPa)下考虑压力损失2MPa和传动效率后的实际扭矩；

Note: Total displacement is determined by hydraulic motor displacement multiplies transmission ratio of planetary gearbox.

Rated torque is the output torque considering pressures lose of 2MPa and transmission efficiency when the system pressure is 16Mpa or 20Mpa.

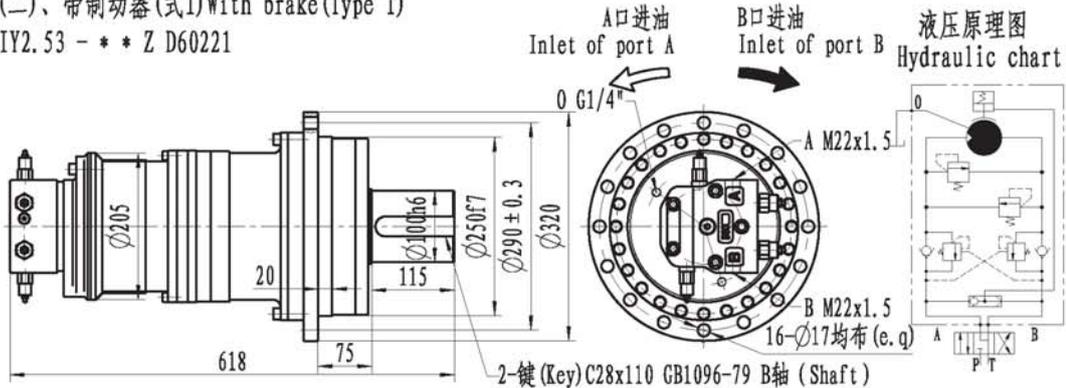
(一)、无制动器 Without brake

IY2.53 - * * D31



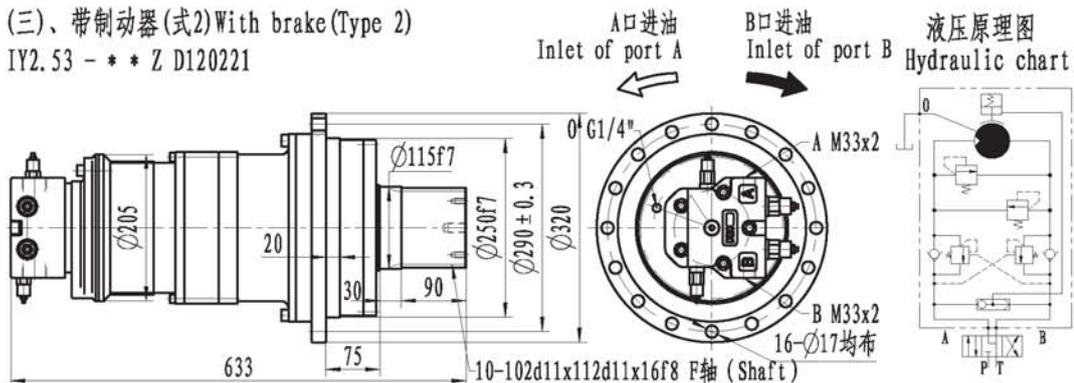
(二)、带制动器(式1) With brake (Type 1)

IY2.53 - * * Z D60221



(三)、带制动器(式2) With brake (Type 2)

IY2.53 - * * Z D120221



IY34 系列液压传动装置

IY34 Hydraulic transmission dives

型号 Model	总排量 (ml/rev) Total displacement	额定扭矩 (N.m) Rated torque		转速范围 (r/min) Speed	液压马达型号 Motor model	行星减速器型号 Gearbox model	制动器型号 Brake	可选配流器型号 Distributor
		16 MPa	20 MPa					
IY34-4300 ***	4312	8638	11100	0.2~16	INM1-150	C34 (i=28)	Z13	D40 D60*** D120*** D240***
IY34-5600 ***	5628	11275	14500		INM1-200			
IY34-6800 ***	6804	13630	17525	0.2~10	INM1-250			
IY34-8800 ***	8792	17600	/		INM1-320			

注: 总排量为液压马达排量乘以减速器传动比;

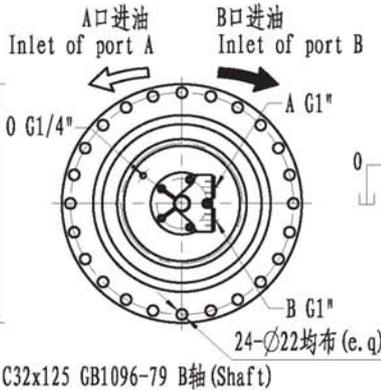
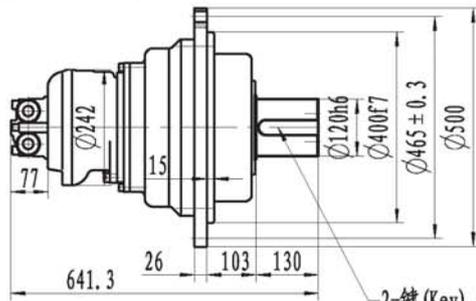
额定扭矩是系统压力 (16MPa、20MPa) 下考虑压力损失 2MPa 和传动效率后的实际扭矩;

Note: Total displacement is determined by hydraulic motor displacement multiplies transmission ratio of planetary gearbox.

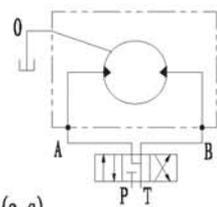
Rated torque is the output torque considering pressures lose of 2MPa and transmission efficiency when the system pressure is 16Mpa or 20Mpa.

(一)、无制动器 Without brake

IY34 - ** D40

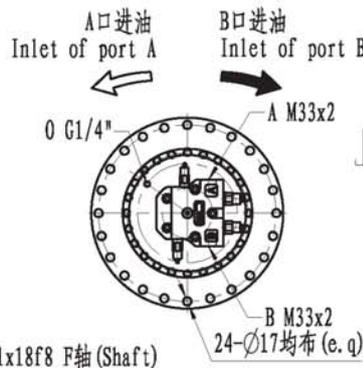
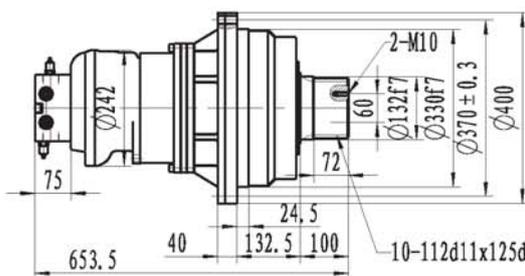


液压原理图
Hydraulic chart

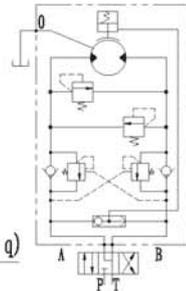


(二)、带制动器 (式1) With brake (Type 1)

IY34 - ** Z D120221

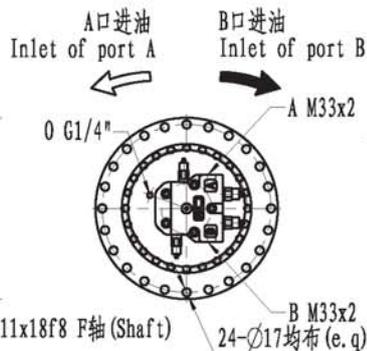
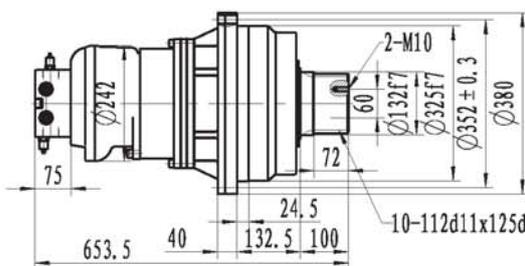


液压原理图
Hydraulic chart

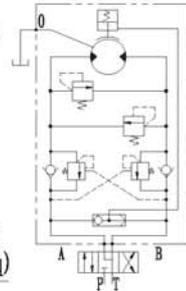


(三)、带制动器 (式2) With brake (Type 2)

IY34 - ** Z D120221



液压原理图
Hydraulic chart



IY45 系列液压传动装置

IY45 Hydraulic transmission dives

型号 Model	总排量 (ml/rev) Total displacement	额定扭矩 (N.m) Rated torque		转速范围 (r/min) Speed	液压马达型号 Motor model	行星减速器型号 Gearbox model	制动器型号 Brake	可选配流器型号 Distributor
		16 MPa	20 MPa					
IY45-11900 ***	11928	23000	29000	0.2~15	INM3-425	C45 (i=28)	Z34	D47 D90 D240***
IY45-13600 ***	13608	25000	33000		INM3-500			
IY45-16600 ***	16660	32000	38000	0.2~10	INM3-600			

注：总排量为液压马达排量乘以减速器传动比；

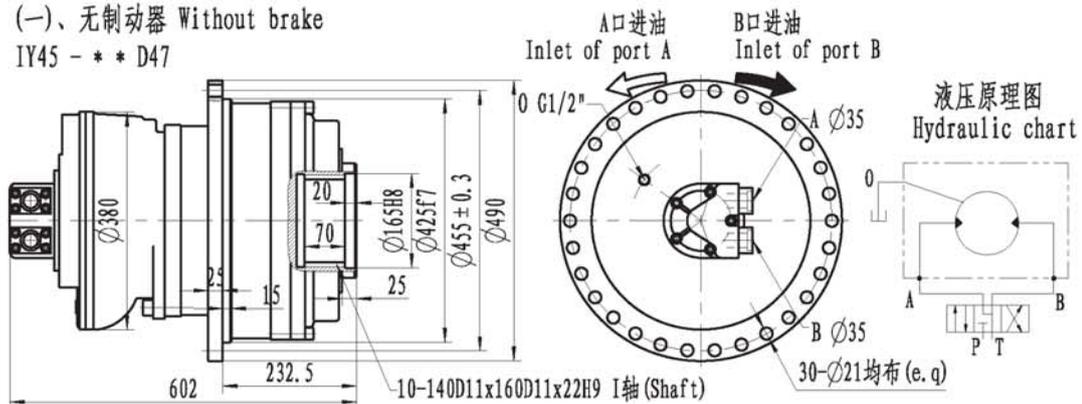
额定扭矩是系统压力 (16MPa、20MPa) 下考虑压力损失 2MPa 和传动效率后的实际扭矩；

Note: Total displacement is determined by hydraulic motor displacement multiplies transmission ratio of planetary gearbox.

Rated torque is the output torque considering pressures lose of 2MPa and transmission efficiency when the system pressure is 16Mpa or 20Mpa.

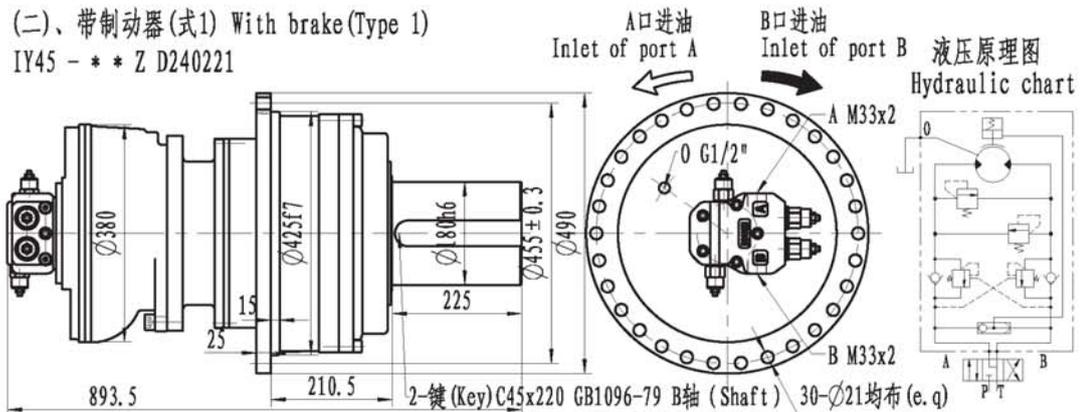
(一)、无制动器 Without brake

IY45 - ** D47



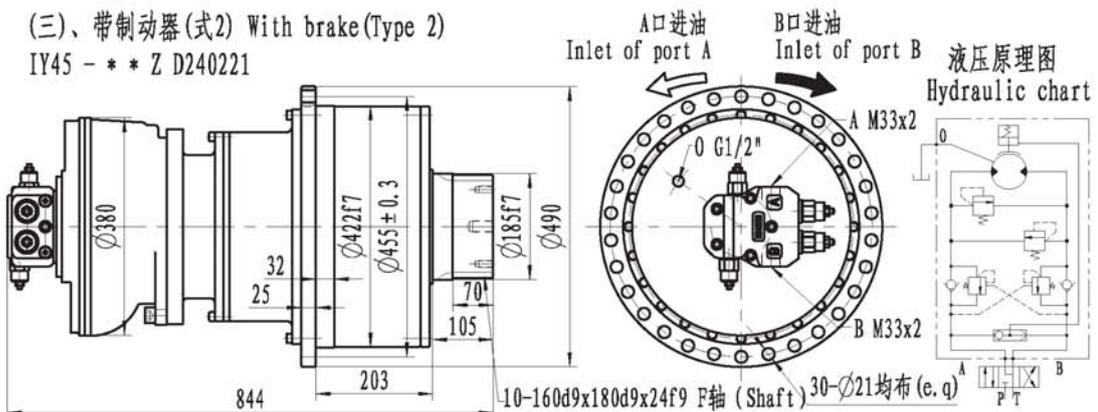
(二)、带制动器 (式1) With brake (Type 1)

IY45 - ** Z D240221



(三)、带制动器 (式2) With brake (Type 2)

IY45 - ** Z D240221



IY56 系列液压传动装置

IY56 Hydraulic transmission dives

型号 Model	总排量(ml/rev) Total displacement	额定扭矩(N.m) Rated torque		转速范围 (r/min) Speed	液压马达型号 Motor model	行星减速器型号 Gearbox model	制动器型号 Brake	可选配流器型号 Distributor
		16 MPa	20 MPa					
IY56-24400 ***	24444	46000	60000	0.2-8	INM3-900	C56 (i=28)	Z45	D90 D120*** D240***
IY56-28600 ***	28616	54000	66000		INM4-1000			
IY56-31200 ***	31248	63000	/		INM4-1100			

注：总排量为液压马达排量乘以减速器传动比；

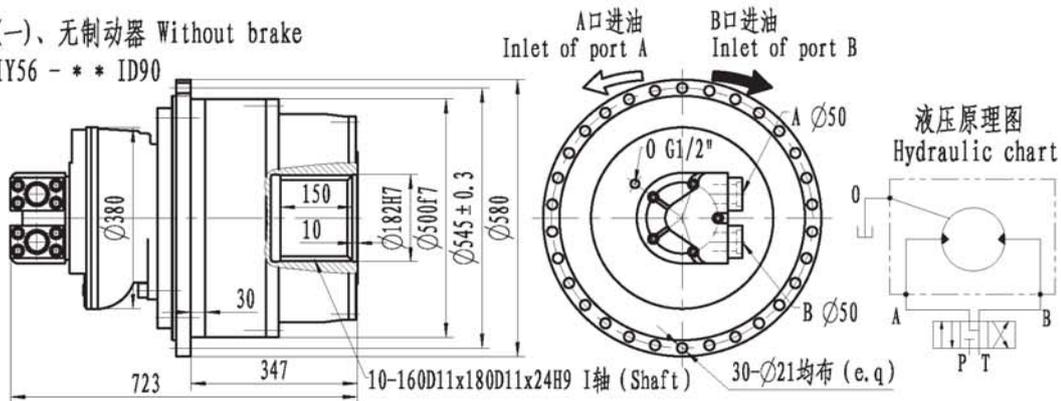
额定扭矩是系统压力(16MPa、20MPa)下考虑压力损失2MPa和传动效率后的实际扭矩；

Note: Total displacement is determined by hydraulic motor displacement multiplies transmission ratio of planetary gearbox.

Rated torque is the output torque considering pressures lose of 2MPa and transmission efficiency when the system pressure is 16Mpa or 20Mpa.

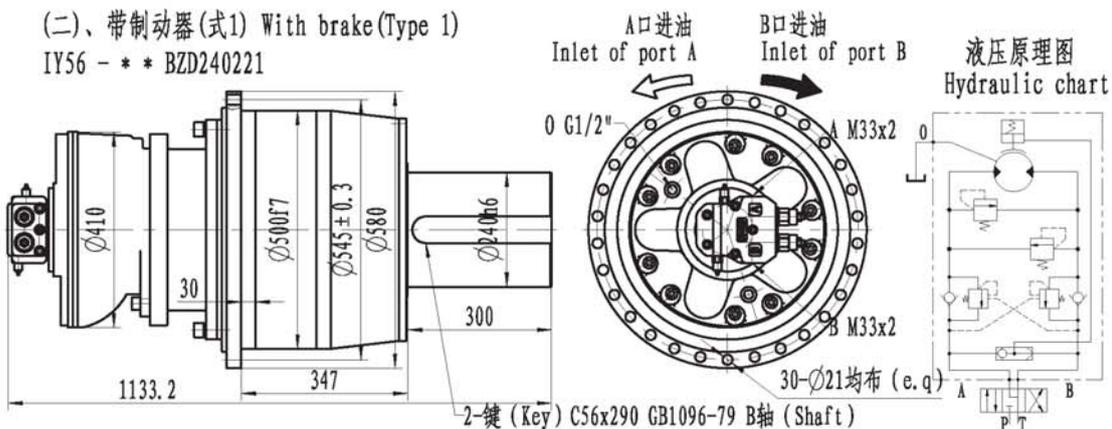
(一)、无制动器 Without brake

IY56 - ** ID90



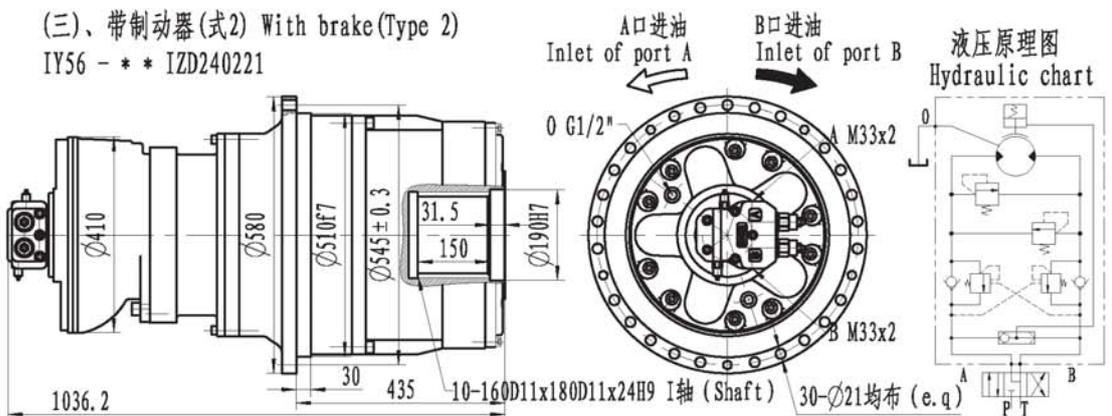
(二)、带制动器(式1) With brake (Type 1)

IY56 - ** BZD240221



(三)、带制动器(式2) With brake (Type 2)

IY56 - ** IZD240221



IY67系列液压传动装置

IY67 Hydraulic transmission dives

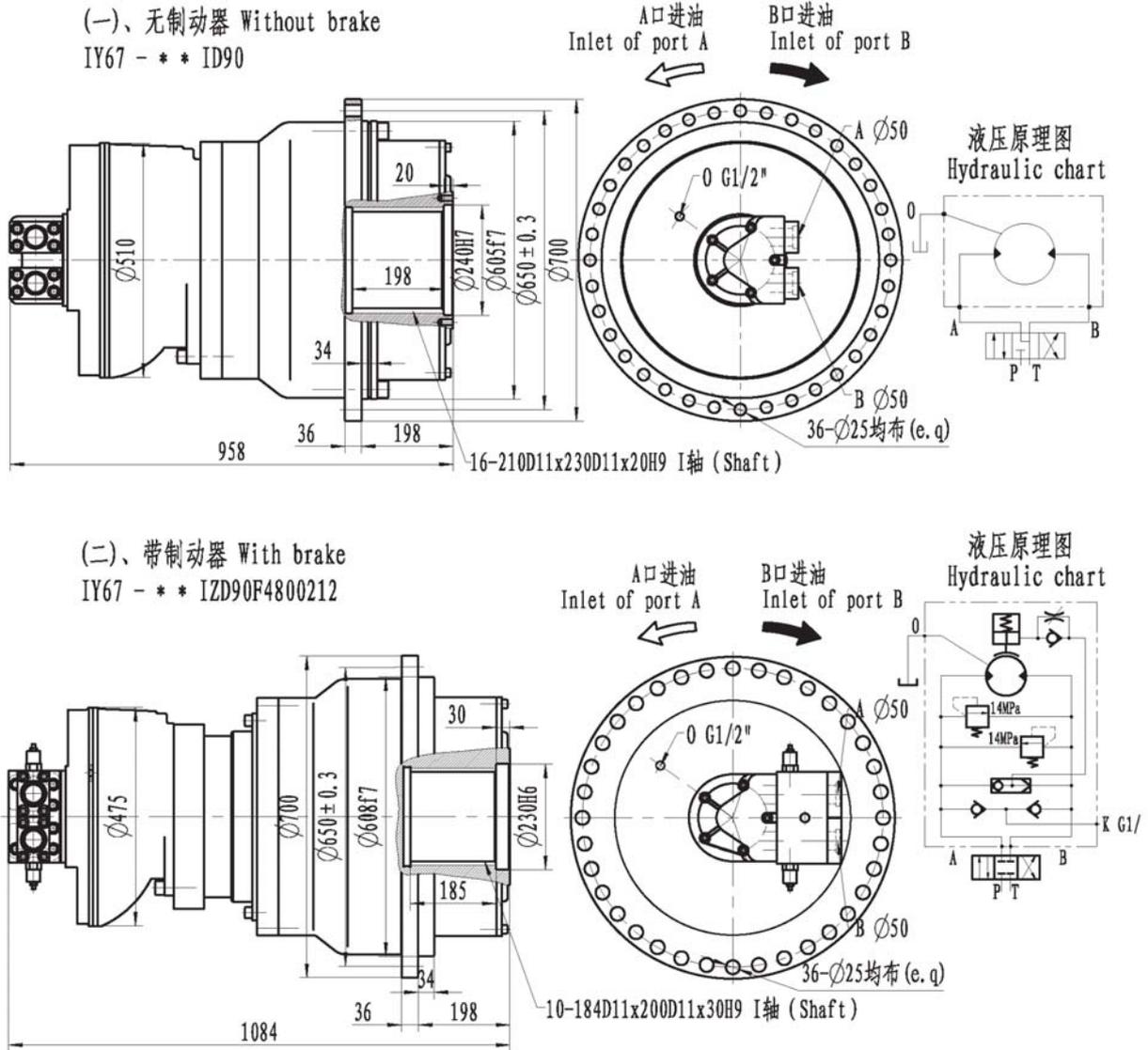
型号 Model	总排量 (ml/rev) Total displacement	额定扭矩 (N.m) Rated torque		转速范围 (r/min) Speed	液压马达型号 Motor model	行星减速器型号 Gearbox model	制动器型号 Brake	可选配流器型号 Distributor
		16 MPa	20 MPa					
IY67-36000 ***	35948	65000	80000	0.2~6	INM5-1600	C67 (i=22)	Z56	D90
IY67-40000 ***	39952	75000	90000		INM5-1800			D240***
IY67-46000 ***	46794	90000	/		INM6-2100			D480***

注：总排量为液压马达排量乘以减速器传动比；

额定扭矩是系统压力(16MPa、20MPa)下考虑压力损失2MPa和传动效率后的实际扭矩；

Note: Total displacement is determined by hydraulic motor displacement multiplies transmission ratio of planetary gearbox.

Rated torque is the output torque considering pressures lose of 2MPa and transmission efficiency when the system pressure is 16Mpa or 20Mpa.



IY79系列液压传动装置

IY79 Hydraulic transmission dives

型号 Model	总排量 (ml/rev) Total displacement	额定扭矩 (N.m) Rated torque		转速范围 (r/min) Speed	液压马达型号 Motor model	行星减速器型号 Gearbox model	可选配流器型号 Distributor
		16 MPa	20 MPa				
IY79-55000 ***	55286	110867	142544	0.2~10	INM6-2500	C79 (i=22)	D90
IY79-67000 ***	66902	134162	172494	0.2~8	INM6-3000		D240***
IY79-80000 ***	77660	155735	200231	0.2~5	IHM31-3500		D480***

注: 总排量为液压马达排量乘以减速器传动比;

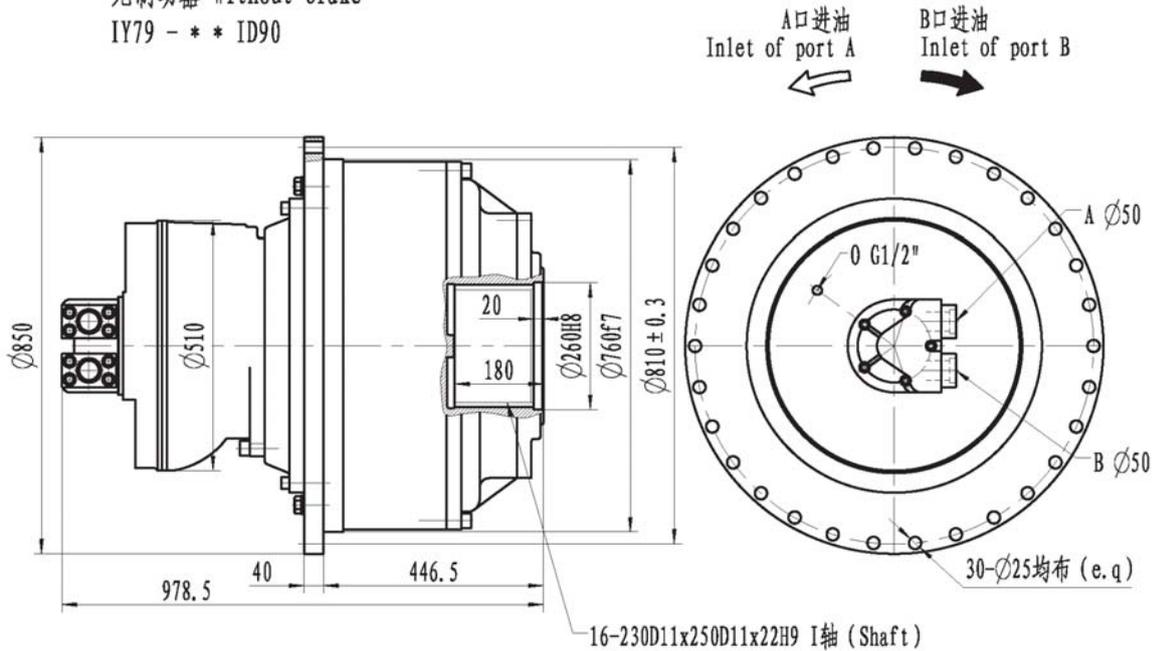
额定扭矩是系统压力(16MPa、20MPa)下考虑压力损失2MPa和传动效率后的实际扭矩;

Note: Total displacement is determined by hydraulic motor displacement multiplies transmission ratio of planetary gearbox.

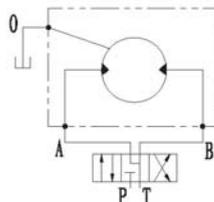
Rated torque is the output torque considering pressures lose of 2MPa and transmission efficiency when the system pressure is 16MPa or 20MPa.

无制动器 Without brake

IY79 - * * ID90

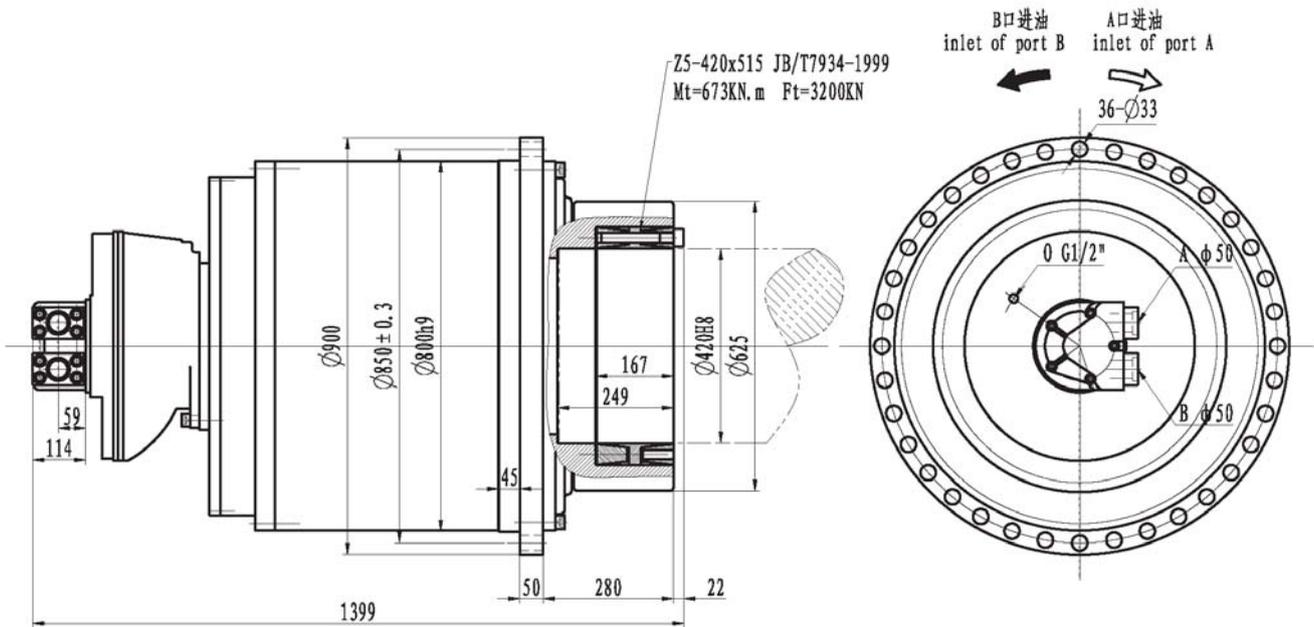


液压原理图
Hydraulic chart



IY61111-235000 液压传动装置

IY61111-235000 Hydraulic transmission series



主要技术参数
Main Specification

额定扭矩	Rated torque (N.m)	550000
转速	Speed (r/min)	1
排量	Displacement (mL/r)	235125.7
系统额定压力	System rated pressure (Bar)	190
工作压力差	Work pres. diff. (Bar)	175
泵供油流量	Pump flow (L/min)	261 ($\eta_v=0.9$)
液压马达型号	Hydraulic motor type	INM5-1000D90
行星减速器型号	Planetary gearbox type	C61111 ($i=226.3$)

液压原理图
Hydraulic principle diagram

