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1) DADH75、80、90、120 系列液压盘式制动器

DADH75、 80、 90 and 120 series Hydraulic Disc Brakes

应用

主要用于风力发电机组的偏航制动，也广泛应用于起重运输、港口装卸、工程车辆、冶金、电缆、吊索设备等多种机械驱动配套的减速制动或驻车制动。

Application

This type is mainly used for yaw braking of wind turbine, and it is also widely used for deceleration braking or parking braking of various mechanical drives in lifting transportation, port loading and unloading, engineering vehicles, metallurgy, cable, sling equipment and other industries.

主要特点：

- 1) 采用固定式安装设计。
- 2) 采用常开式设计，液压站驱动制动，动作迅速，安全可靠。
- 3) 高性能的摩擦材料，耐温性能好，摩擦系数稳定。
- 4) 制动间隙小，反应时间短，制动更迅速。
- 5) 设有泄漏油口，安全可靠。

Main features:

- 1) Fixed installation design is adopted.

2) It adopts the normal open design, and the hydraulic station drives the brake, which is fast, safe and reliable.

3) High performance friction material, good temperature resistance, stable friction coefficient.

4) The braking clearance is small, the reaction time is short, and the braking is faster.

5) With oil leakage port, it is safe and reliable.

使用条件:

(1) 环境温度: 常温型-20℃~+50℃; 低温型-40℃~+50℃。

(2) 低温型制动器液压油应能在低温环境温度下正常运行。

(3) 周围工作环境中不得有易燃、易爆性气体和介质。

(4) 空气相对湿度 $\leq 95\%$ 。

(5) 户外雨雪侵蚀或有腐蚀性气体和介质应采用防腐型产品。

Service conditions:

(1) Ambient temperature: normal temperature - 20 °C ~ + 50 °C; Low temperature type - 40 °C ~ + 50 °C.

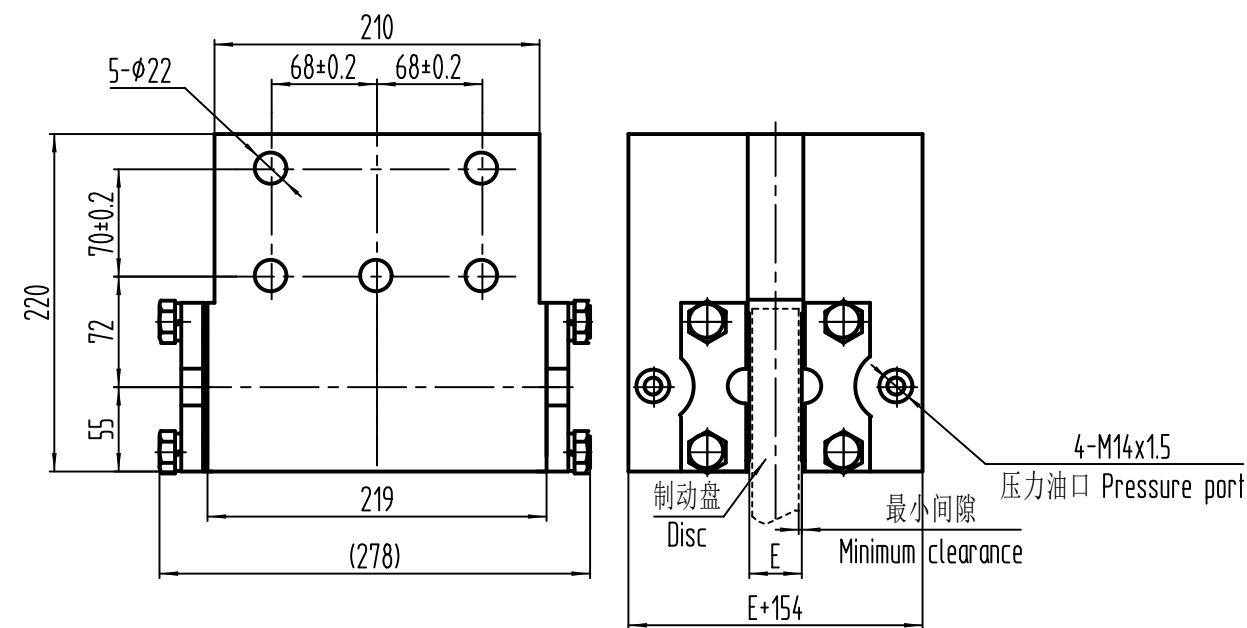
(2) The low temperature brake hydraulic oil shall be able to operate normally at low ambient temperature.

(3) There shall be no inflammable, explosive gas and medium in the surrounding working environment.

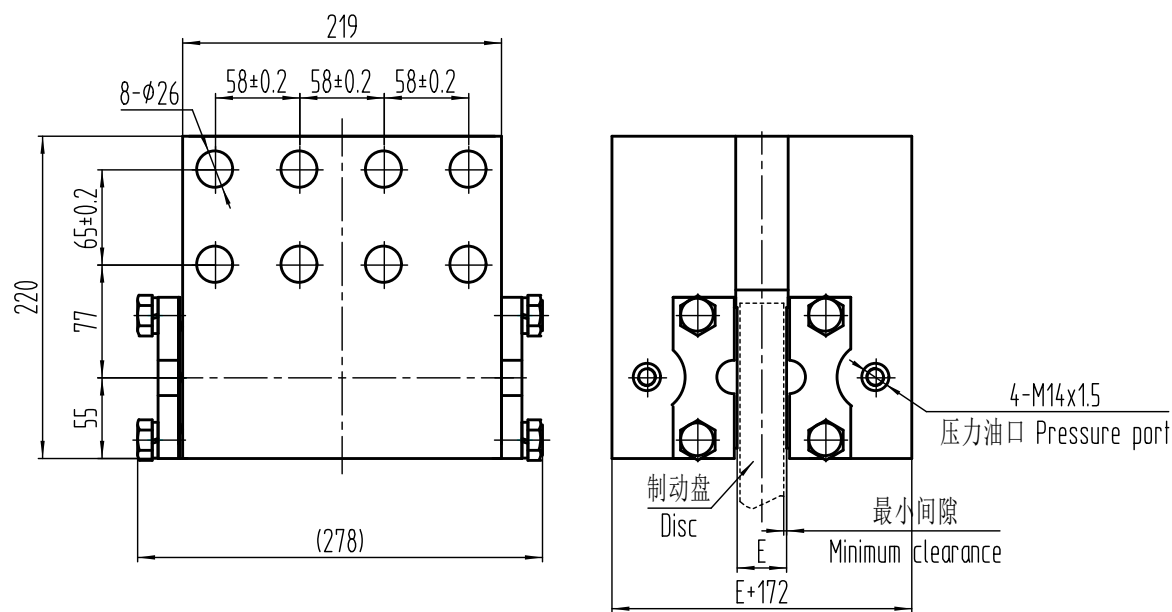
(4) Air relative humidity $\leq 95\%$.

(5) Outdoor rain and snow erosion or corrosive gases and media should

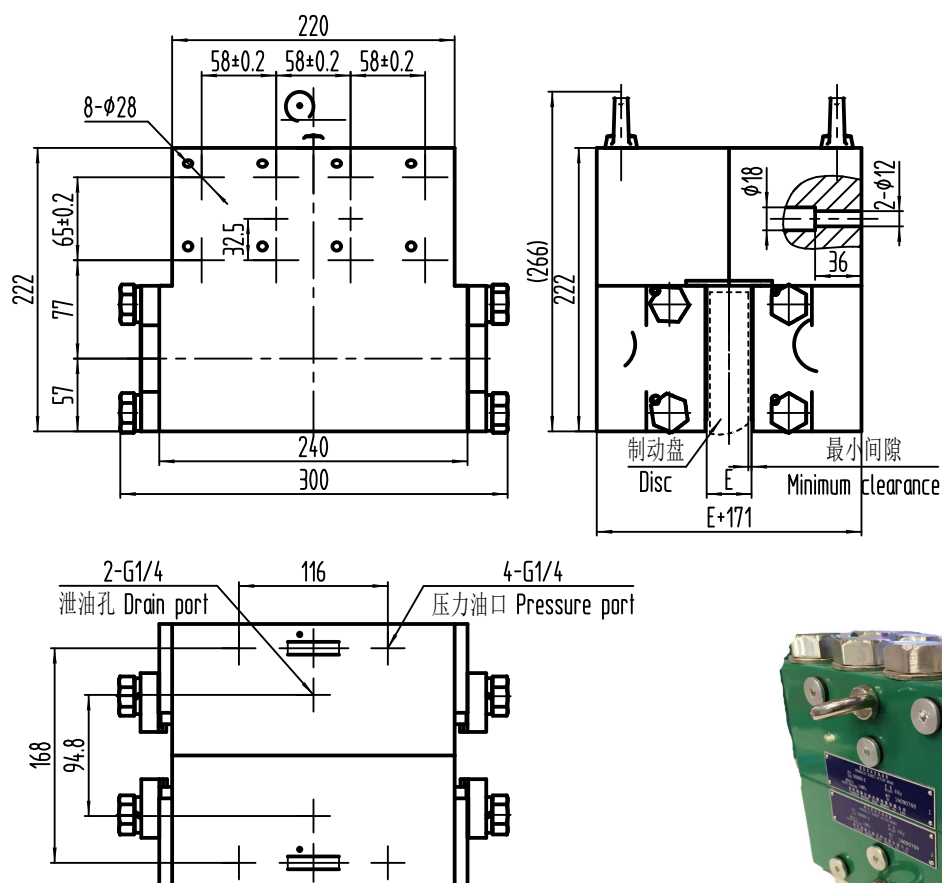
use anti-corrosion products.



DADH75 系列外形图
Outline drawing of *DADH75* series



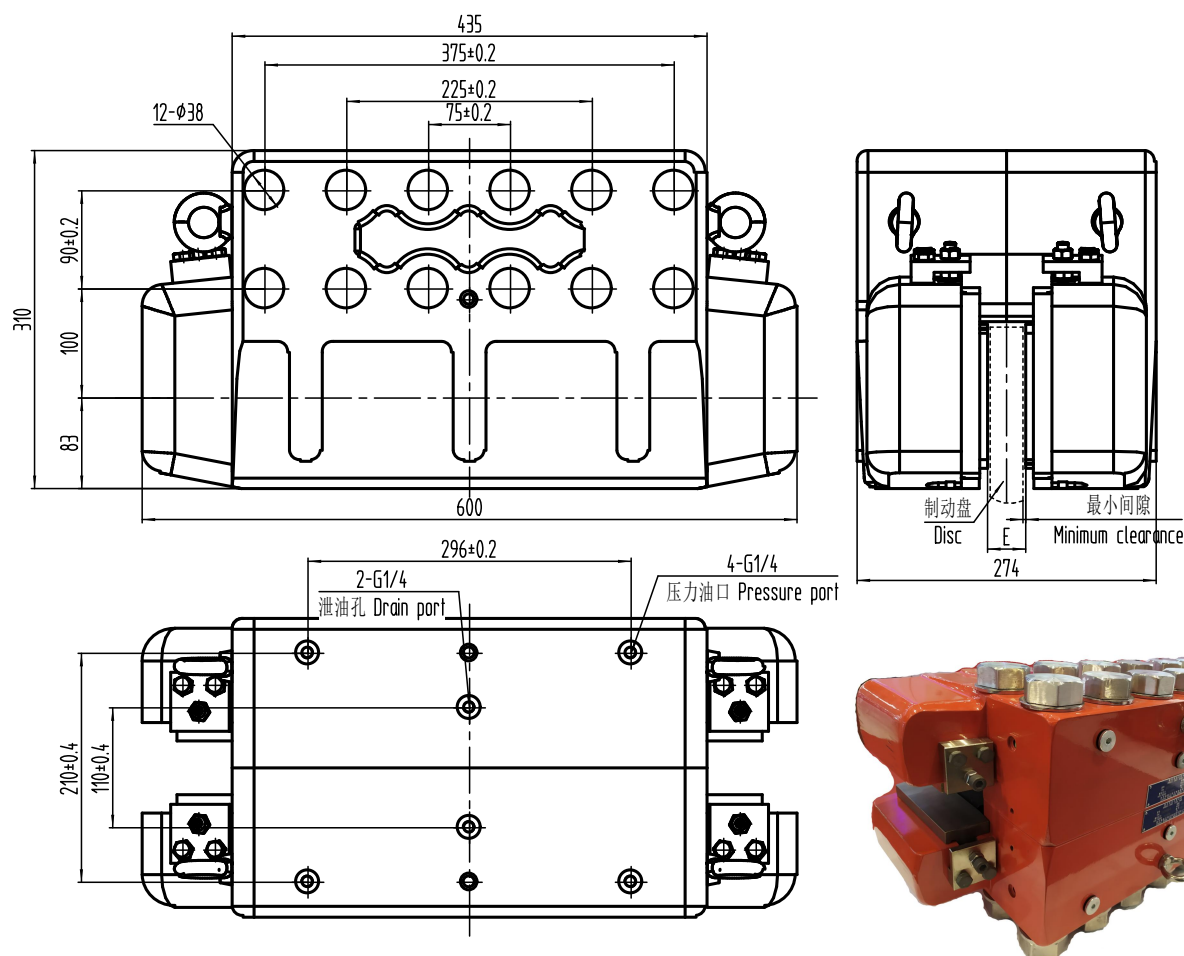
DADH80 系列外形图
Outline drawing of *DADH80* series



DADH90 系列外形图
Outline drawing of *DADH90* series

技术参数表 Technical parameter table

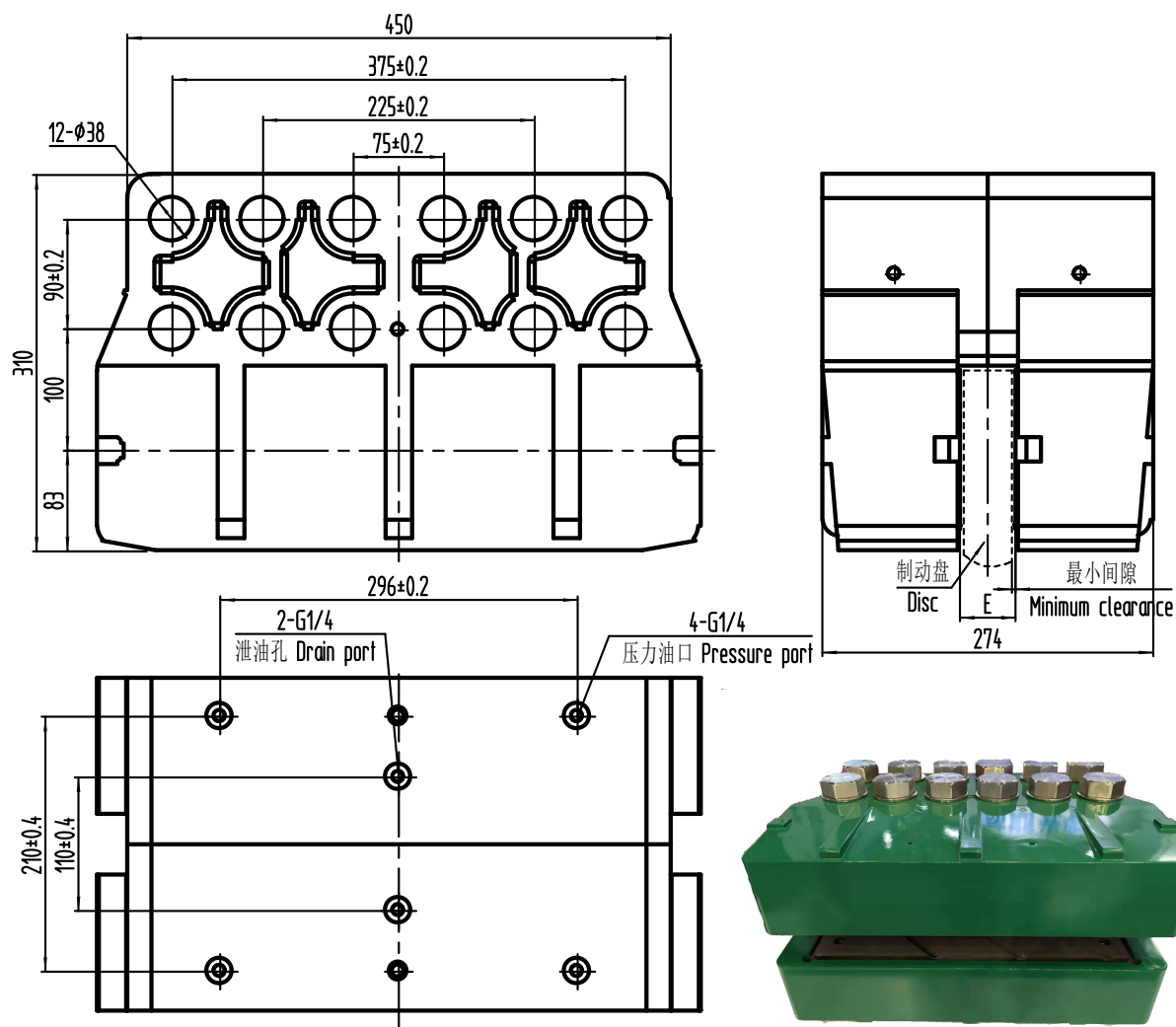
型号 Type	活塞直 径 (mm) Piston diameter	工作压 力 Working pressure (MPa)	最大压力 (MPa) Maximum pressure	1mm 行 程流量 (cm ³) Stroke volume	名义摩擦系 数 (μ) Nominal friction coefficient	摩擦片最 大磨损量 (mm) Maximum wear volume of friction plate	制动力 (KN,16MPa) Braking Force	安装螺栓 Mounting bolts	重量 (Kg) Weight
DADH75	75	16	20	18	0.4	6	107	M20	60
DADH80	80	16	20	20	0.4	6	122	M24	63
DADH90	90	16	20	26	0.4	6	154	M27	65



DADH120-B 系列外形图
Outline drawing of *DADH120-B* series

技术参数表 Technical parameter table

型号 Type	活塞直径 (mm) Piston diameter	工作压 力 (MPa) Working pressure	最大压力 (MPa) Maximum pressure	1mm 行程 流量 (cm ³) Stroke volume	名义摩擦 系数 (μ) Nominal friction coefficient	摩擦片的最大 磨损量 (mm) Maximum wear of friction plate	制动力 (KN,16 MPa) Braking force	安装螺栓 Mounting bolt	重量 (Kg) Weight
DADH1 20-B	120	16	18.5	68	0.4	6	412	M36	250



DADH120-D 系列外形图
Outline drawing of *DADH120-D* series

技术参数表 Technical parameter table

Type	活塞直径 (mm) Piston diameter	工作压力 (MPa) Working pressure	最大压力 (MPa) Maximum pressure	1mm 行 程流量 (cm ³) Stroke volume	名义摩擦 系数 (μ) Nominal friction coefficient	摩擦片 最大磨 损量 (mm) Maximu m wear of friction plate	制动力 (KN,16MPa) Braking force	安装螺 栓 Mounting bolt	重量 (Kg) Weight
DADH120-D	120	16	18.5	68	0.4	6	412	M36	250

2) DADH90、120 系列液压盘式制动器

DADH90、120 series of hydraulic disc brakes

应用 Application

主要用于风力发电机组的转子制动。

It is mainly used for rotor braking of wind turbine.

主要特点: Main features

- 1) 采用固定式安装设计。
 - 2) 采用常开式设计，液压站驱动制动，动作迅速，安全可靠。
 - 3) 高性能的摩擦材料，耐温性能好，摩擦系数稳定。
 - 4) 制动间隙小，反应时间短，制动更迅速。
 - 5) 设有泄漏油口，安全可靠。
- 1) Fixed installation design is adopted.
 - 2) It adopts the normal open design, and the hydraulic station drives the brake, which is fast, safe and reliable.
 - 3) High performance friction material, good temperature resistance, stable friction coefficient.
 - 4) The braking clearance is small, the reaction time is short, and the braking is faster.
 - 5) With oil leakage port, it is safe and reliable.

使用条件: Service conditions

- (1) 环境温度：常温型-20℃～+50℃；低温型-40℃～+50℃。

(2) 低温型制动器液压油应能在低温环境温度下正常运行。

(3) 周围工作环境中不得有易燃、易爆性气体和介质。

(4) 空气相对湿度 $\leq 95\%$ 。

(5) 户外雨雪侵蚀或有腐蚀性气体和介质应采用防腐型产品。

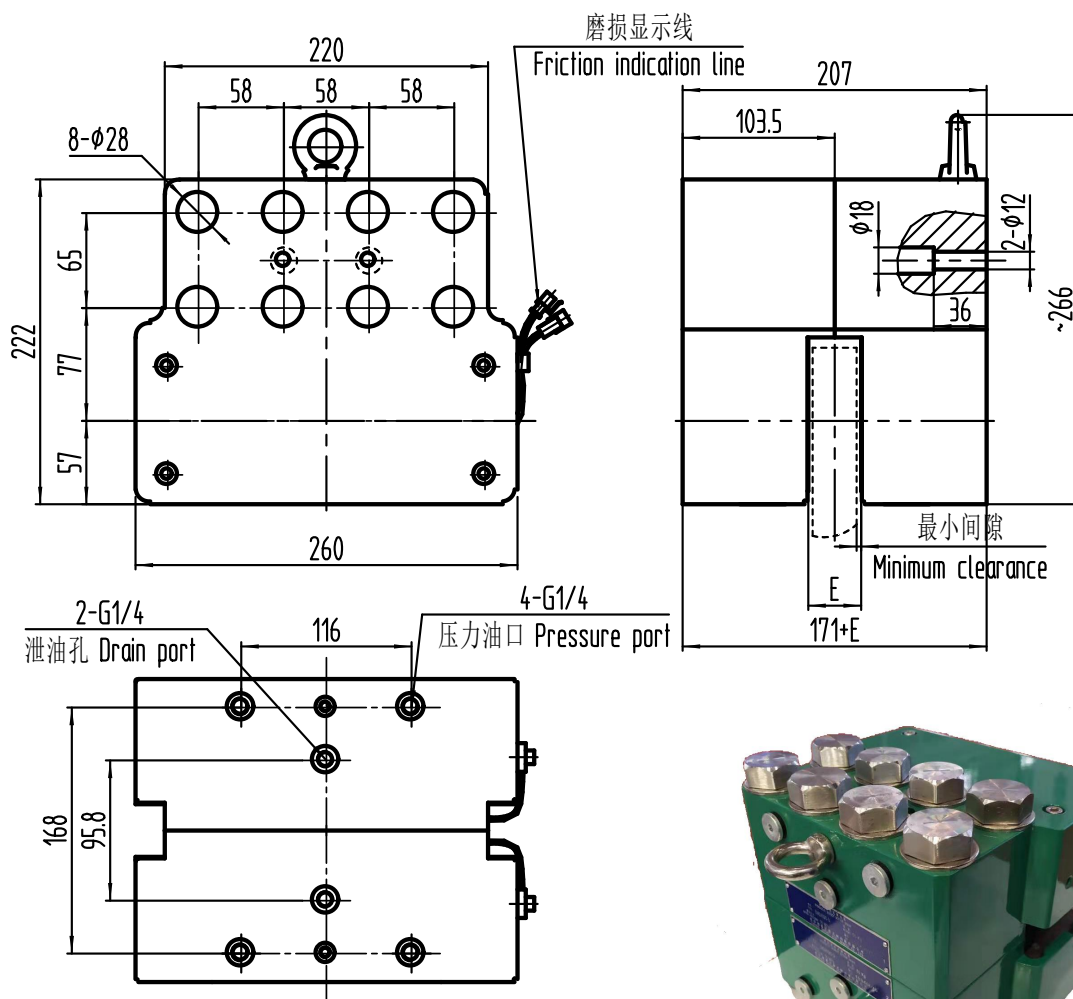
(1) Ambient temperature: normal temperature - 20 °C ~ + 50 °C; Low temperature type - 40 °C ~ + 50 °C.

(2) The low temperature brake hydraulic oil shall be able to operate normally at low ambient temperature.

(3) There shall be no inflammable, explosive gas and medium in the surrounding working environment.

(4) Air relative humidity $\leq 95\%$.

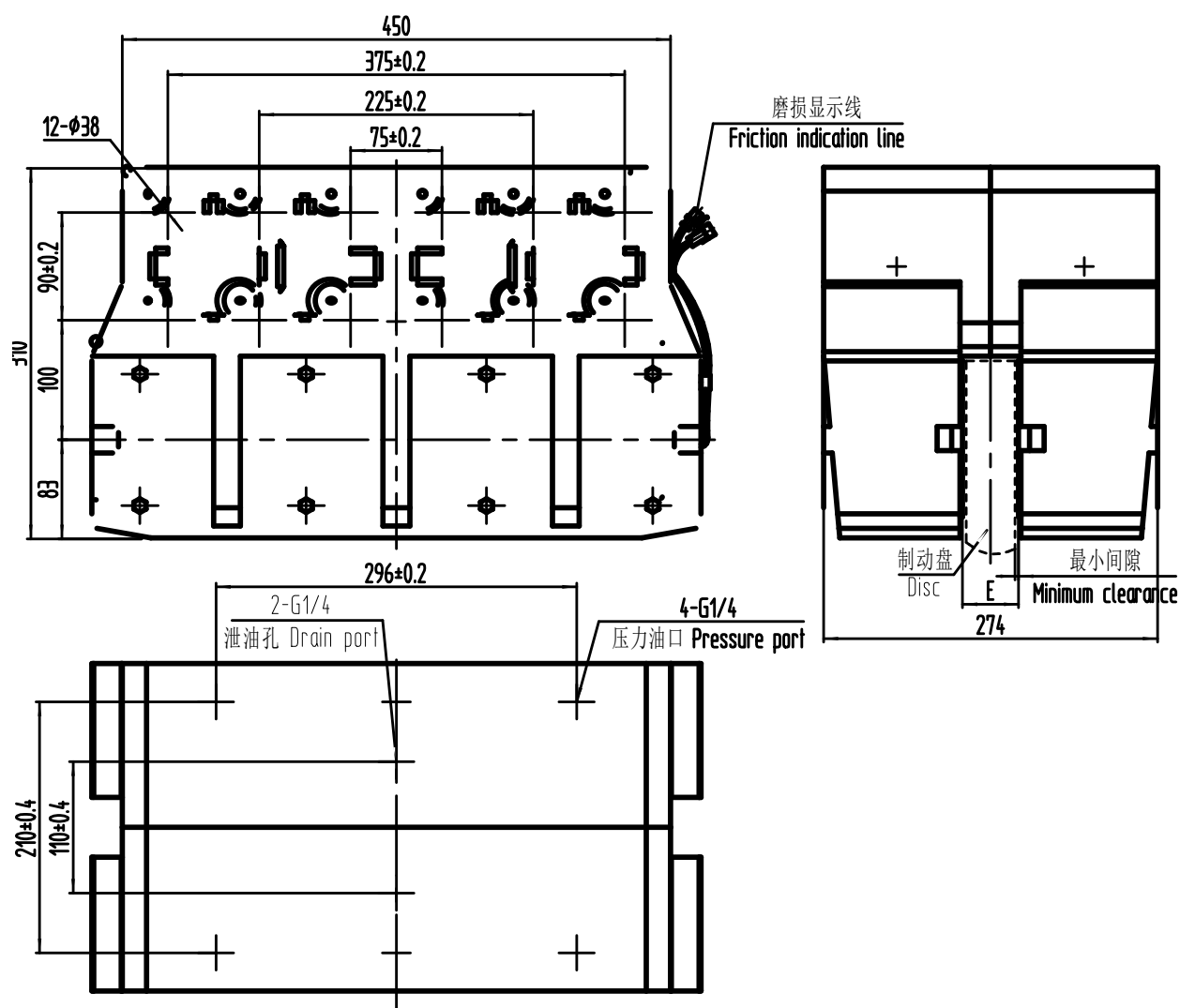
(5) Outdoor rain and snow erosion or corrosive gases and media should use anti-corrosion products.



DADH90-C-JFFW 系列外形图
Outline drawing of *DADH90-C-JFFW* series

技术参数表 Technical parameter table

型号 Type	活塞直径 (mm) Piston diameter	工作压 力 (MPa) Working pressure	最大压力 (MPa) Maximum pressure	1mm 行 程流量 (cm ³) Stroke volume	名义摩擦 系数 (μ) Nominal friction coefficient	摩擦片最 大磨损量 (mm) Maximu m wear of friction plate	制动力 (KN,16MPa) Braking force	安装螺栓 Mounting bolt	重量 (Kg)
DADH90	90	16	20	26	0.4	6	154	M27	65



DADH120-D-JF 系列外形图
Outline drawing of *DADH120-D-JF* series

技术参数表 Technical parameter table

型号 Type	活塞直径 (mm) Piston diameter	工作压力 (MPa) Working pressure	最大压力 (MPa) Maximum pressure	1mm 行程流量 (cm ³) Stroke volume	名义摩擦系数 (μ) Nominal friction coefficient	摩擦片最大磨损量 (mm) Maximum wear of friction plate	制动力 (KN,16MPa) Braking force	安装螺栓 Mounting bolt	重量 (Kg) Weight
DADH120-D-JF	120	16	18.5	68	0.4	6	412	M36	250

3) ADH 系列液压盘式制动器

Hydraulic disc brake of *ADH* series

应用 Application

ADH 系列液压直动制动器主要用于风力发电机组偏航系统的减速制动或驻车制动。

ADH series hydraulic direct acting brake is mainly used for deceleration braking or parking braking of wind turbine yaw system.

主要特点: Main features

- 1) 采用固定式安装设计。
 - 2) 采用常开式设计，液压站驱动制动，动作迅速，安全可靠。
 - 3) 高性能的摩擦材料，耐温性能好，摩擦系数稳定。
 - 4) 制动间隙小，反应时间短，制动更迅速。
 - 5) 设有泄漏油口，避免油液泄漏时污染制动盘，更安全可靠。
- 1) Fixed installation design is adopted.
 - 2) It adopts the normal open design, and the hydraulic station drives the brake, which is fast, safe and reliable.
 - 3) High performance friction material, good temperature resistance, stable friction coefficient.
 - 4) The braking clearance is small, the reaction time is short, and the braking is faster.
 - 5) There is a leakage port to prevent the brake disc from being

polluted by oil leakage, which is more safe and reliable.

使用条件: Service condition

(1) 环境温度: 常温型 $-20^{\circ}\text{C} \sim +50^{\circ}\text{C}$; 低温型 $-40^{\circ}\text{C} \sim +50^{\circ}\text{C}$ 。

(2) 低温型制动器液压油应能在低温环境温度下正常运行。

(3) 周围工作环境中不得有易燃、易爆性气体和介质。

(4) 空气相对湿度不大于 95%。

(5) 户外雨雪侵蚀或有腐蚀性气体和介质应采用防腐型产品。

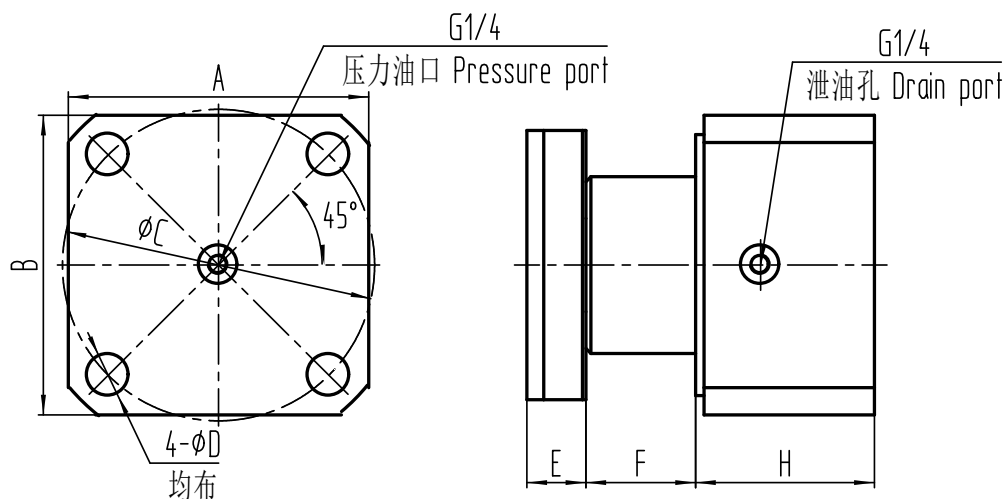
(1) Ambient temperature: normal temperature - $20^{\circ}\text{C} \sim +50^{\circ}\text{C}$; Low temperature type - $40^{\circ}\text{C} \sim +50^{\circ}\text{C}$.

(2) The low temperature brake hydraulic oil shall be able to operate normally at low ambient temperature.

(3) There shall be no inflammable, explosive gas and medium in the surrounding working environment.

(4) The relative humidity of the air is not more than 95%.

(5) Outdoor rain and snow erosion or corrosive gases and media should use anti-corrosion products.



ADH 系列外形图

Outline drawing of *ADH* series

技术参数及外形尺寸表 Table of technical parameters and dimensions

型号 Type	制动力 (压力 $\leq 30\text{MPa}$) Braking force (pressure $\leq 30\text{MPa}$)	制动力矩(N·m) Braking torque	A	B	C	D	E	F	H
ADH110	4750×压力	制动力/1000×R [R:有效摩擦半径 (mm)] Braking force / 1000 × R [R: effective friction radius (mm)]	165	170	174	22	35	68	106
ADH125	5500×压力		178	178	185	26	35	71	106

4) BD 系列机械式制动器

BD series mechanical brake

应用

BD 系列机械式制动器主要用于风力发电机组偏航系统的减速制动。

BD series mechanical brake is mainly used for deceleration braking of yaw system of wind turbine.

主要特点: Main features

- 1) 常闭式设计，依靠碟簧力实现制动阻尼作用。

2) 高性能的摩擦材料，摩擦性能稳定。

3) 结构简单，安装、维护方便。

1) Normally closed design, relying on disc spring force to achieve braking damping effect.

2) High performance friction material, stable friction performance.

3) Simple structure, easy installation and maintenance.

使用条件： Service condition

(1) 环境温度：常温型-20℃～+50℃；低温型-40℃～+50℃。

(2) 周围工作环境中不得有易燃、易爆性气体和介质。

(3) 空气相对湿度不大于 95%。

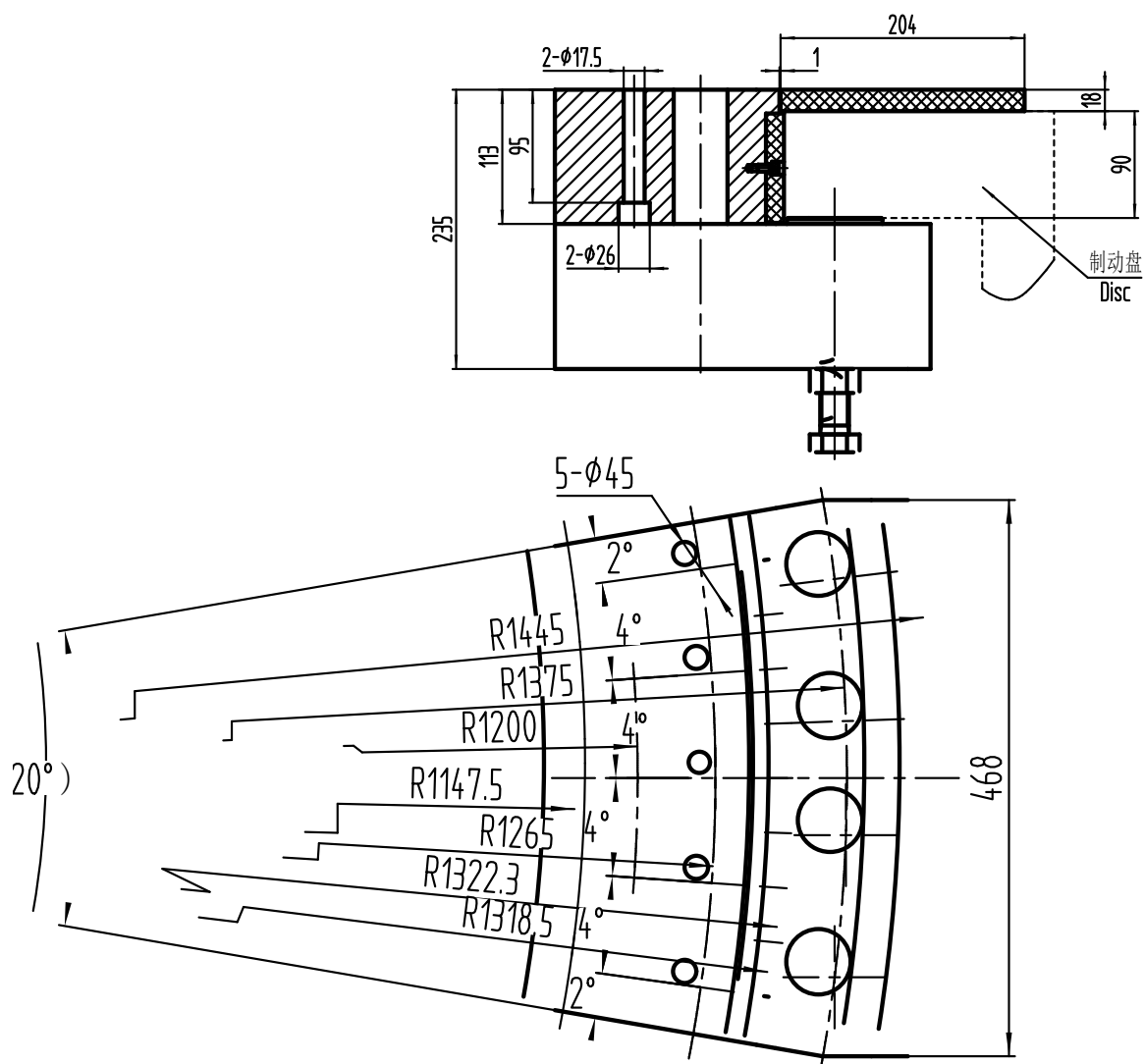
(4) 户外雨雪侵蚀或有腐蚀性气体和介质应采用防腐型产品。

(1) Ambient temperature: normal temperature - 20 °C ~ + 50 °C; Low temperature type - 40 °C ~ + 50 °C.

(2) There shall be no inflammable, explosive gas and medium in the surrounding working environment.

(3) The relative humidity of the air is not more than 95%.

(4) Outdoor rain and snow erosion or corrosive gases and media should use anti-corrosion products.



BD80 系列外形尺寸图
Outline drawing of BD80 series

技术参数表 Technical parameter table

型号 Type	额定夹力 (KN) Rated force	名义摩擦系数 Nominal friction coefficient (μ)			摩擦片最大磨 损量 (mm) Maximum wear of friction plate	安装螺栓 Mounting bolt	重量 (Kg) Weight
		上 摩 擦 片 (涂脂润滑) Upper friction plate (greased)	下摩擦片 (干态) Lower friction plate (dry state)	径向摩擦片 (涂脂润滑) Radial friction plate (greased)			

BD80	80	0.04-0.12	0.12-0.15	0.04-0.12	6	M42	170

5) ZSDB 系列液压盘式制动器

Hydraulic disc brake of ZSDB series

应用 Application

ZSDB 系列液压盘式制动器主要用于风力发电机组高速轴应急制动，也广泛应用与起重运输、港口装卸、电缆、吊索设备等行业多种机械驱动配套的减速制动或驻车制动。

ZSDB series hydraulic disc brake is mainly used for emergency braking of high-speed shaft of wind turbine, and it is also widely used for deceleration braking or parking braking matching with various mechanical drives in lifting transportation, port loading and unloading, cable, sling equipment and other industries.

主要特点: Main features

- 1) 采用浮动式安装设计，高性能的摩擦材料，耐温性能好（可达 600℃），摩擦性能稳定。
 - 2) 采用常开式设计，液压站驱动制动，动作迅速，安全可靠。
 - 3) 制动间隙小，反应时间短，制动更迅速。
 - 4) 结构简单，安装、维护方便。
- 1) Floating installation design, high performance friction material,

good temperature resistance (up to 600 °C), stable friction performance.

2) It adopts the normal open design, and the hydraulic station drives the brake, which is fast, safe and reliable.

3) The braking clearance is small, the reaction time is short, and the braking is faster.

4) Simple structure, easy installation and maintenance.

使用条件: Service condition

(1) 环境温度: 常温型-20℃~+50℃; 低温型-40℃~+50℃。

(2) 制动盘厚度: 15mm-45mm。

(3) 允许联轴器最大直径: 300mm。

(4) 工作压力: 10bar~125bar。

(5) 最小制动盘径 ≥ 500 mm。



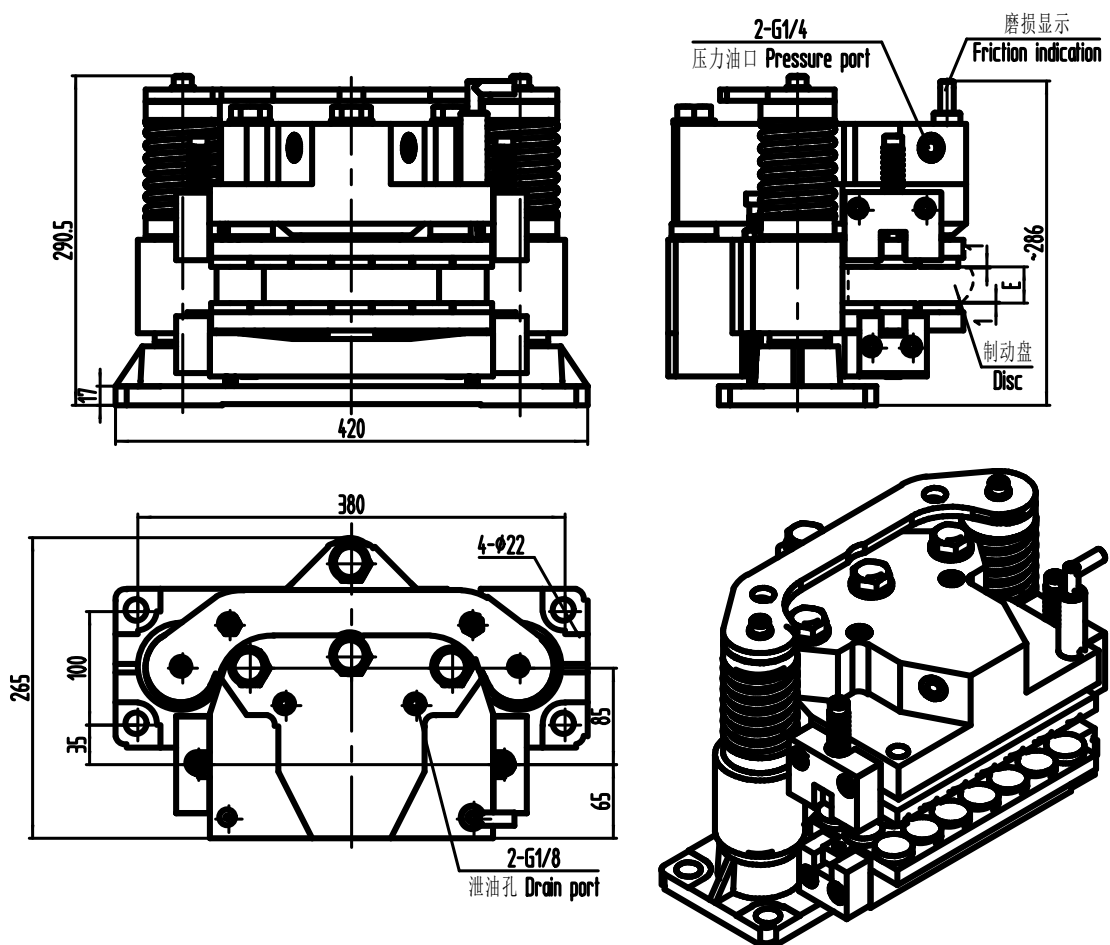
(1) Ambient temperature: normal temperature - 20 °C ~ + 50 °C; Low temperature type - 40 °C ~ + 50 °C.

(2) Brake disc thickness: 15mm-45mm.

(3) Maximum allowable diameter of coupling: 300 mm.

(4) Working pressure: 10bar ~ 125bar.

(5) Minimum diameter of brake disc ≥ 500 mm.



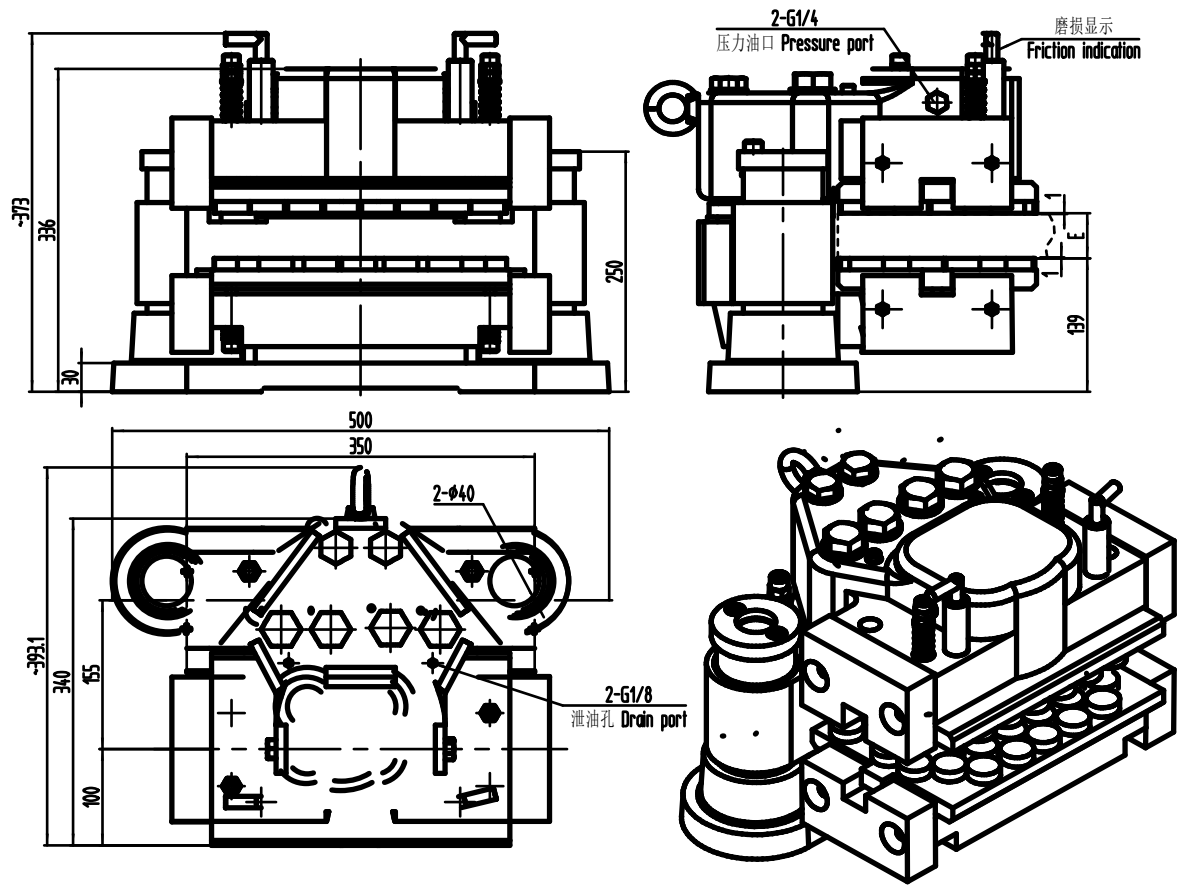
ZSDB75、90 系列外形尺寸图

Outline drawing of ZSDB75、90 series

技术参数表 Technical parameter table

型号 Type	活塞直径 (mm) Piston diameter	工作压 力 (MPa) Working pressure	最大压力 (MPa) Maximum pressure	1mm 行 程流量 (cm ³) Stroke volume	名义摩擦 系数 (μ) Nominal friction coefficient	摩擦片最 大允许磨 损量 (mm) Maximum allowable wear of friction plate	制动力 (KN,10MPa) Braking force	安装 螺栓 Moun ting bolt	重量 (Kg)
ZSDB75	75	12.5	16	4.4	0.4	6		M20	73

ZSDB90	90	9.5	16	6.4	0.4	6		M20	7
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ZSDB120 系列外形尺寸图
Outline drawing of ZSDB120 series

技术参数表 Technical parameter table

型号 Type	活塞直径 (mm) Piston diameter	工作压力 (MPa) Working pressure	最大压力 (MPa) Maximum pressure	1mm 行程流量 (cm³) Stroke volume	名义摩擦系数 (μ) Nominal friction coefficient	摩擦片最大允许磨损量 (mm) Maximum allowable wear of friction plate	制动力 (KN,10 MPa) Braking force	安装螺栓 Mounting bolt	重量 (Kg)
ZSDB120	120	11.5	12.5	11.3	0.4	6		M36	192

6) FSDB 系列液压盘式制动器

Hydraulic disc brake of *FSDB* series

应用 Application

FSDB 系列液压盘式制动器主要用于风力发电机组高速轴应急制动，也广泛应用与起重运输、港口装卸、电缆、吊索设备等行业多种机械驱动配套的减速制动或驻车制动。

FSDB series hydraulic disc brake is mainly used for emergency braking of high-speed shaft of wind turbine, and also widely used for deceleration braking or parking braking matching with various mechanical drives in lifting transportation, port loading and unloading, cable, sling equipment and other industries.

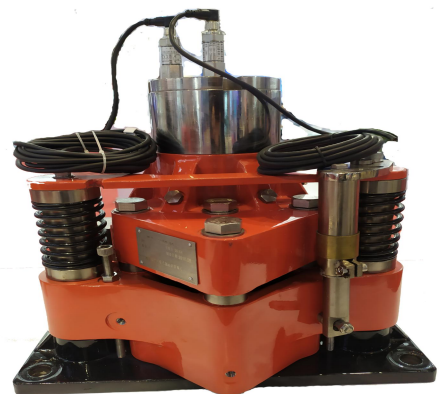
主要特点: Main features

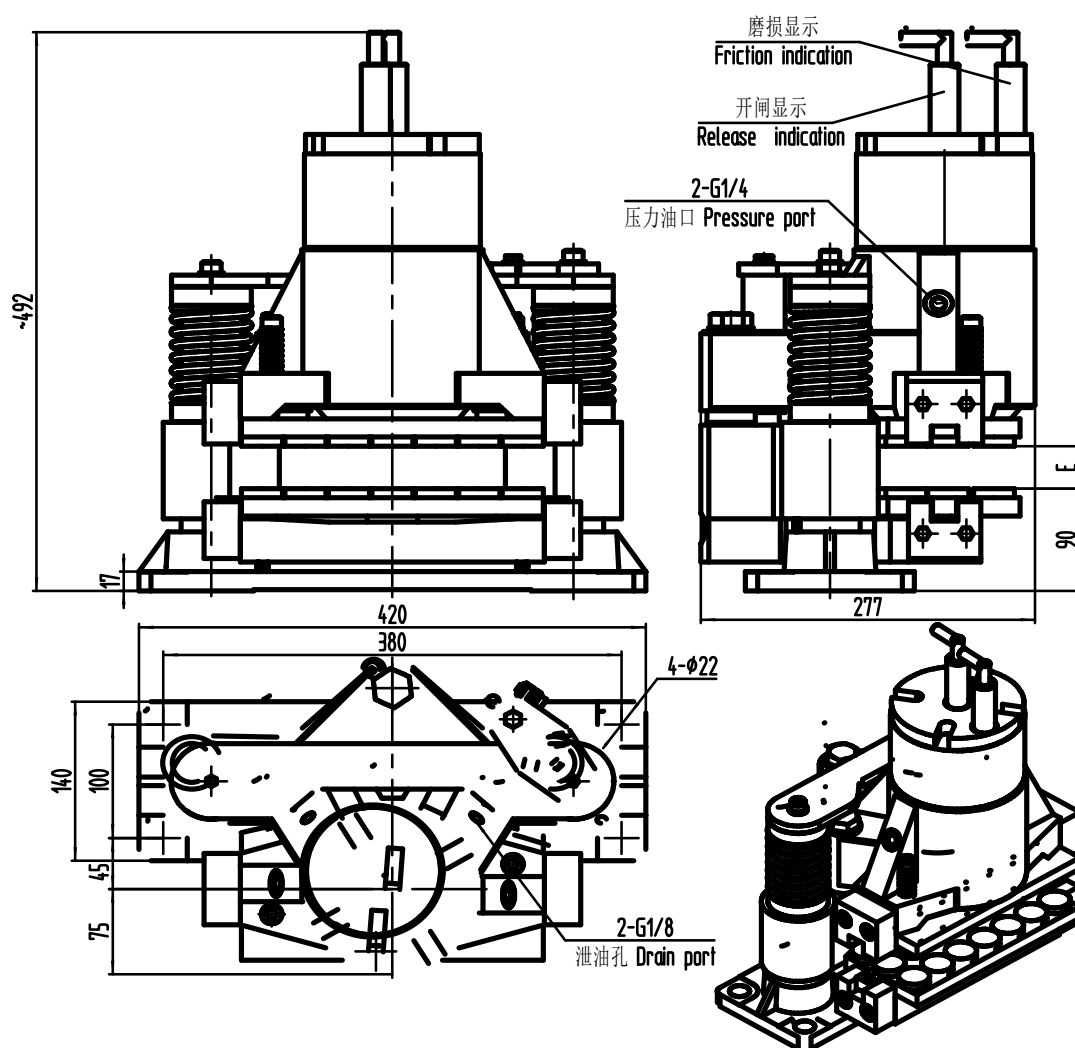
- 1) 采用浮动式安装设计，安装调试快捷、便利。
- 2) 高性能的摩擦材料，耐温性能好（可达 600℃），摩擦性能稳定。
- 3) 联动复位设计，开闸间隙均等，调整方便。
- 4) 具有显示功能，能显示工作状态，可进行连锁保护。
- 5) 可加装制动衬垫磨损自动补偿装置。实现制动衬垫磨损时瓦块退距和制动力矩无级补偿。体积小，结构紧凑。

- 1) Adopt floating installation design, installation and debugging is fast and convenient.
 - 2) High performance friction material, good temperature resistance (up to 600 °C), stable friction performance.
 - 3) Linkage reset design, even opening clearance, easy adjustment.
 - 4) With display function, it can display the working state and carry out interlock protection.
 - 5) The brake pad wear automatic compensation device can be added.
- The stepless compensation of pad back distance and braking torque is realized when the brake pad is worn. Small size, compact structure.

使用条件: Service condition

- (1) 环境温度: 常温型-20℃~+50℃; 低温型-40℃~+50℃。
- (2) 制动盘厚度: 20mm-40mm。
- (3) 允许联轴器最大直径: 300mm。
- (4) 工作压力: 40bar~190bar。
- (5) 最小制动盘径 \geq 500mm。

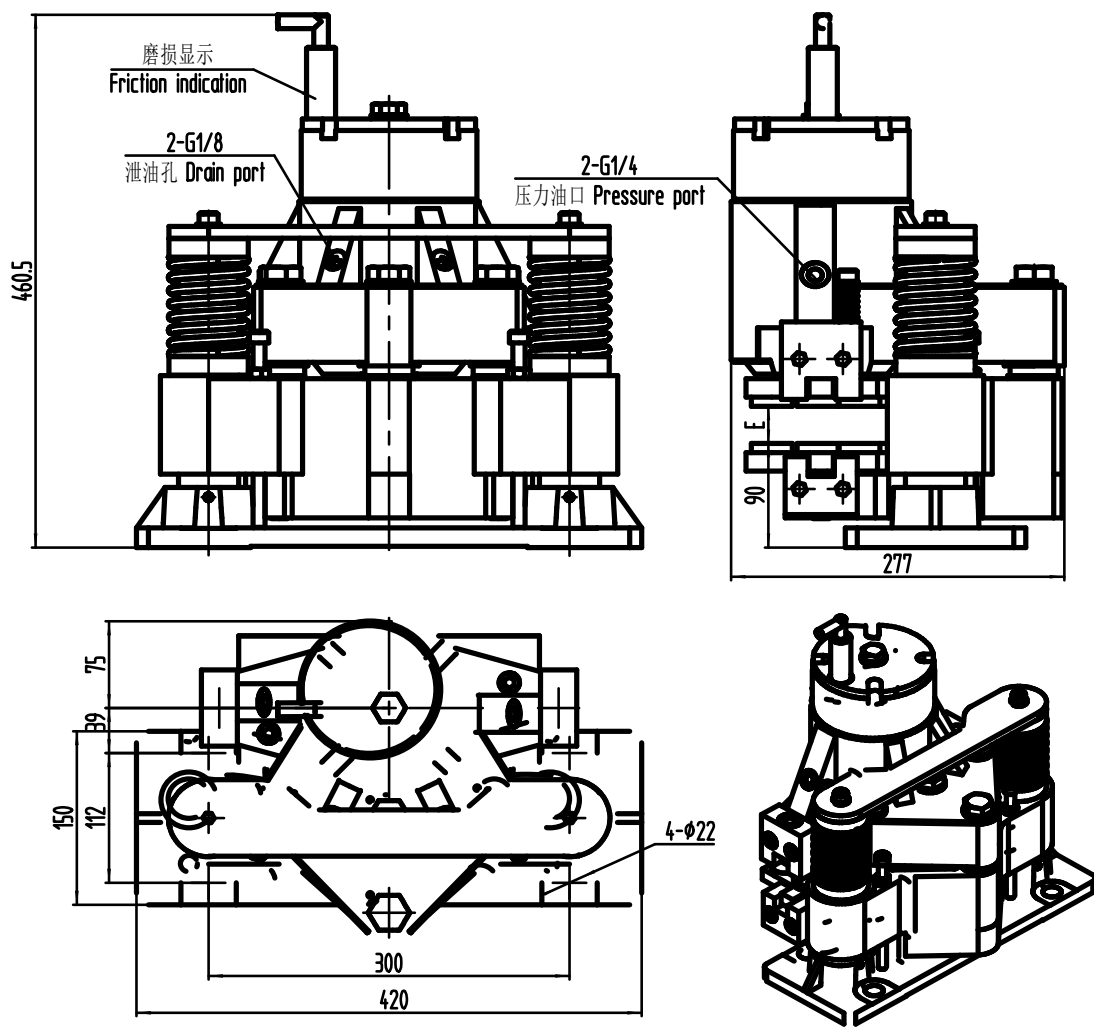




FSDB20 系列外形尺寸图
Outline drawing of *FSDB20* series

技术参数表 Technical parameter table

型号 Type	开闸压力 (MPa) Opening pressure	开闸流量 (cm ³) Opening flow	夹紧力 (KN) Clamping force	名义摩擦系数 (μ) Nominal friction coefficient	摩擦片最大 允许磨损量 (mm) Maximum allowable wear of friction plate	制动力 (KN) Braking force	安装螺栓 Mounting bolt	重量 (Kg) Weight
FSDB20	4.5	109	20	0.4	6	16	M20	132



FSDB40 系列外形尺寸图

Outline drawing of *FSDB40* series

技术参数表 Technical parameter table

型号 Type	开闸压力 (MPa) Opening pressure	开闸流量 (cm ³) Opening flow	夹紧力 (KN) Clamping force	名义摩擦系数 (μ) Nominal friction coefficient	摩擦片最大允许磨损量 (mm) Maximum allowable wear of friction plate	制动力 (KN) Braking force	安装螺栓 Mounting bolt	重量 (Kg) Weight
FSDB40	8.5	93	40	0.4	6	32	M20	132

7) YYSDX 系列液压锁定销

YYSDX series hydraulic locking pin

应用 Application

YYSDX 系列液压锁紧销主要用于风力发电机组的轮毂锁紧。

The YYSDX series hydraulic locking pin is mainly used for hub locking of wind turbines.

主要特点: Main features

- 1) 采用固定式安装设计。
 - 2) 采用常开式设计，液压站驱动制动，动作迅速，安全可靠。
 - 3) 反应时间短，锁紧更迅速。
- 1) Fixed installation design is adopted.
 - 2) It adopts the normal open design, and the hydraulic station drives the brake, which is fast, safe and reliable.
 - 3) The reaction time is short and the locking speed is faster.

使用条件:

- (1) 环境温度：常温型-20℃~+50℃；低温型-40℃~+50℃。
- (2) 周围工作环境中不得有易燃、易爆性气体和介质。
- (3) 空气相对湿度不大于 95%。
- (4) 可用于户外、盐雾、沙漠等工作环境。

Service conditions:

- (1) Ambient temperature: normal temperature - 20 °C ~ + 50 °C;

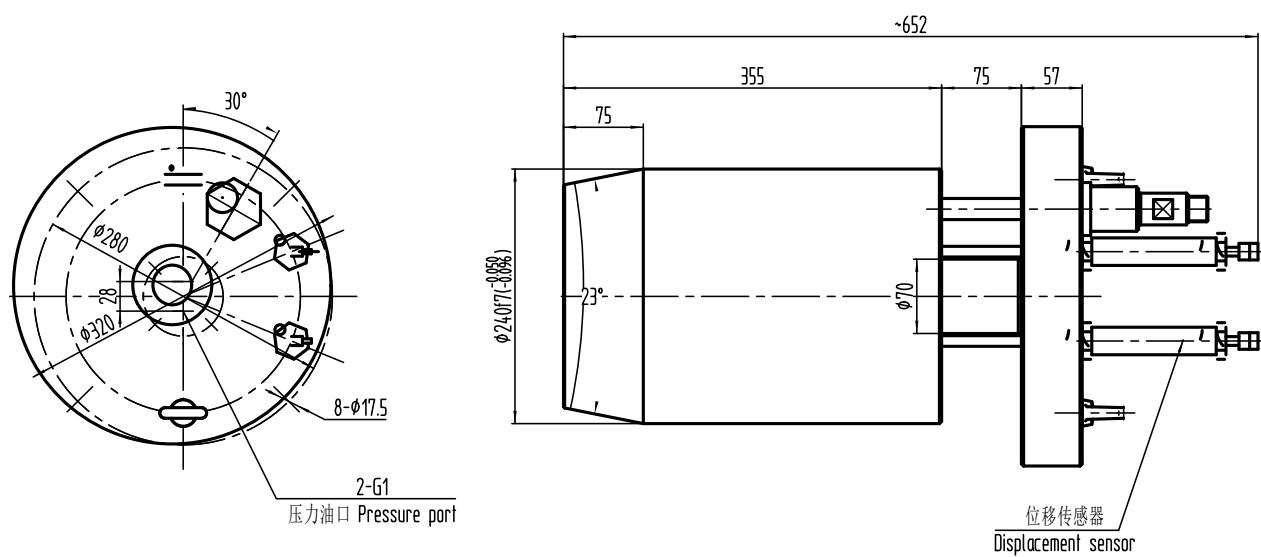
Low temperature type - $-40\text{ }^{\circ}\text{C} \sim +50\text{ }^{\circ}\text{C}$.

(2) There shall be no inflammable, explosive gas and medium in the surrounding working environment.

(3) The relative humidity of the air is not more than 95%.

(4) It can be used in outdoor, salt fog, desert and other working environment.



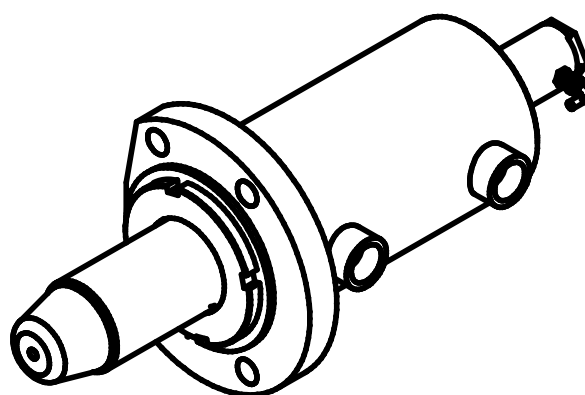
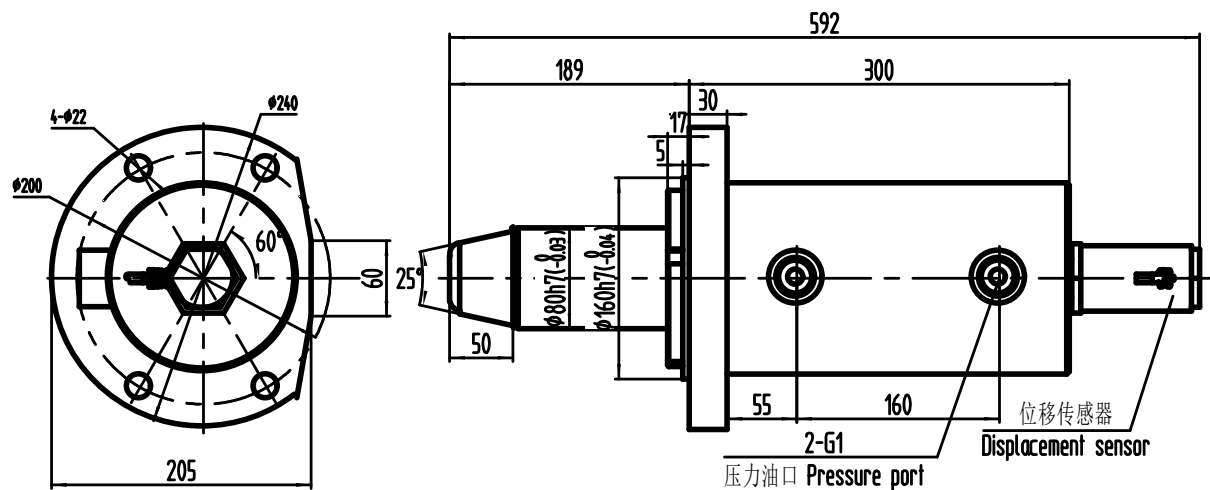


YYSDX120 系列外形尺寸图

Outline drawing of YYSDX120 series

技术参数表 Technical parameter table

型号 Type	活塞直 径 (mm) Piston diameter	活塞杆直 径 (mm) Piston rod diameter	工作压 力 (MPa) Working pressure	最大压力 (MPa) Maximum pressure	最大剪切力 (KN) Maximum shear force	行程 (mm) Stroke	最大伸出 推力+ (KN) Maximum extension thrust +	最大伸出 推力- (KN) Maximum extension thrust-	重量 (Kg) Weight
YYSDX 120	120	70	16	25	4000	75	283	187	140



YYSDX120-XD 系列外形尺寸图

Outline drawing of YYSDX120-XD series

技术参数表 Technical parameter table

型号 Type	活塞直径 (mm) Piston diameter	活塞杆 直径 (mm) Piston rod diameter	工作压力 (MPa) Working pressure	最大压力 (MPa) Maximum pressure	1mm 行 程流量 (cm ³) Stroke flow	最大剪切 力 (KN) Maximum shear force	行程 (mm) stroke	最大伸出 推力+ (KN) Maximum extension thrust +	最大伸出 推力- (KN) Maximum extension thrust -	重量 (Kg) Weight
YYSDX 120-XD	120	80	16	21	11.3	300	100	23.7	13.2	50