

ZF12B-72.5型GIS

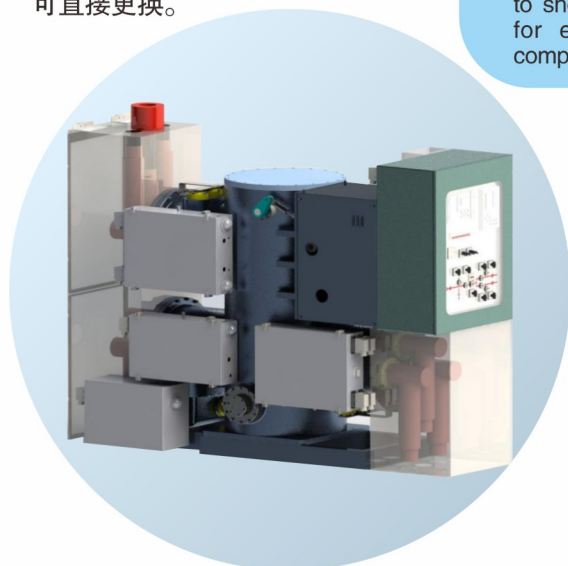
ZF12B-72.5 GIS

ZF12B-72.5 (L) GIS产品广泛应用于风机、换流站平台、陆上平台及传统变电站等72.5kV集电系统。尤其是提供了一种适用海上风电项目内部空间及操作有限的方案。该产品采用成熟SF₆开断技术，合理取消绝缘盆子，保证了产品运行的安全可靠。同时断路器、隔离接地开关、进出线模块一体化设计，实现了GIS各元件的高度集成。整个GIS集成于一个气室，尺寸小、重量轻、零部件通用性好，可整体进入和退出风机塔筒。该产品具有高可靠性、经济型、紧凑型、免维护的技术特点。

- 1.高可靠性：**整个GIS采用一个气室，无盆式绝缘子，产品绝缘可靠性大幅提高；断路器采用成熟弹簧储能机构，机械寿命10000次，机械可靠性高；开断单元采用单动自能式灭弧室结构，短路开合能力可达到31.5kA，开断可靠性高。
- 2.经济型：**尺寸小、重量轻，原材料使用量少；零部件系列化程度高，通用性好，有效降低成本。
- 3.紧凑型：**整体尺寸参数优于国内外同类产品，典型的两进一出间隔尺寸仅2630mm*2000mm*870mm。
- 4.生命周期影响小：**产品可靠性高、年漏气率小于0.1%，GWP值低。
- 5.易运维：**可实现整机运输，可整体进入和退出风机塔筒，缩短安装周期；F型套管采用插接式结构，便于更换；机构、汇控柜等元件可直接更换。

ZF12B-72.5 (L) GIS is widely used in 72.5kV power collection systems such as wind turbines, converter station platforms, onshore platforms and traditional substation. Especially, provided an ideal solution for offshore wind turbine as to limited operating conditions and internal space. The product are designed in a well proven SF₆ breaking technology and reasonably cancels the insulator to ensure the safety and reliability of the equipment. At the same time, the compact design of circuit breaker, disconnector-earthing switch and incoming and outgoing line modular realizes the high integration of GIS components. The whole GIS is integrated into one compartment with small size, light weight and good versatility of parts and components, which can enter and exit the wind turbine tower as a whole. This product has the technical characteristics of high reliability, economy, compactness and maintenance free.

- 1.High reliability:** the whole GIS adopts a chamber without basin insulator, which greatly improves the insulation reliability of the product; The circuit breaker adopts mature spring mechanism, with a mechanical endurance of 10000 times and high mechanical reliability; The breaking unit adopts a single acting self-energy arc extinguishing chamber structure, with a short-circuit breaking capacity of 31.5 kA and high breaking reliability.
- 2.Economic efficiency:** small size, light weight, and less raw materials; High serialization of parts and components, good versatility, and effective cost reduction.
- 3.Compactness:** the overall dimension is less than those of similar products at home and abroad, and the dimension of typical bay with two incoming and one outgoing is only 2630mm × 2000mm × 870mm.
- 4.Low life cycle impact:** high product reliability, annual SF₆ gas leakage rate less than 0.1%, low GWP.
- 5.Easy operation and maintenance:** it can realize the transportation of the whole equipment, and can enter and exit the wind turbine tower as a whole to shorten the installation cycle; F-type connector adopts plug-in structure for easy replacement; The mechanism, control cabinet and other components can be directly replaced.



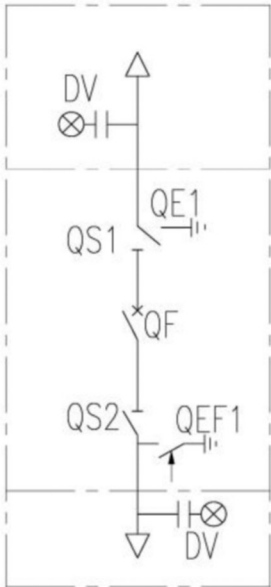
★ 环境条件

- 使用地点：户内/户外
- 环境温度：-30℃~+55℃
- 平均湿度：90%
- 最大湿度：100%
- 海拔高度：≤2000m
- 防腐等级：C4-H

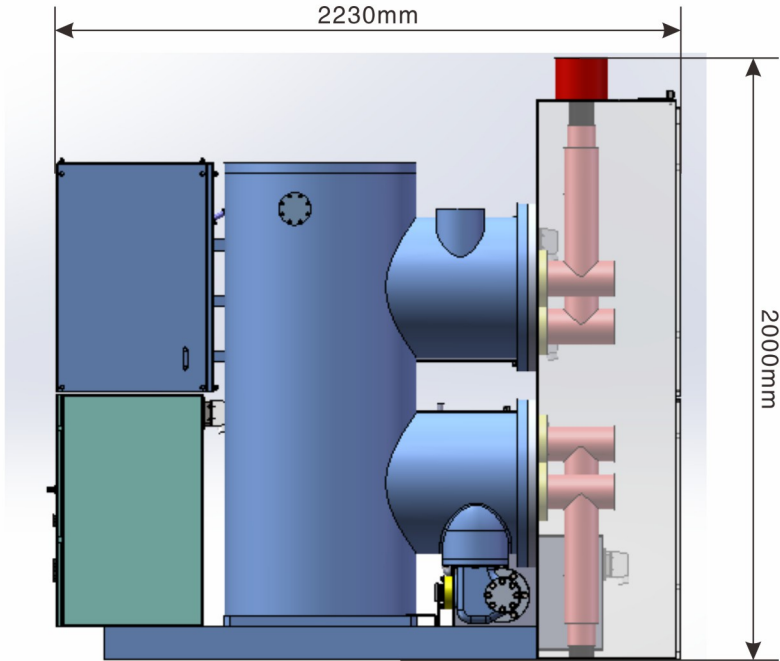
★ Service Conditions

- Location: indoor / outdoor
- Temperature range: -30 °C~+55 °C
- Average humidity: 90%
- Maximum humidity: 100%
- Altitude: ≤2000m
- Anti corrosion grade: C4-H

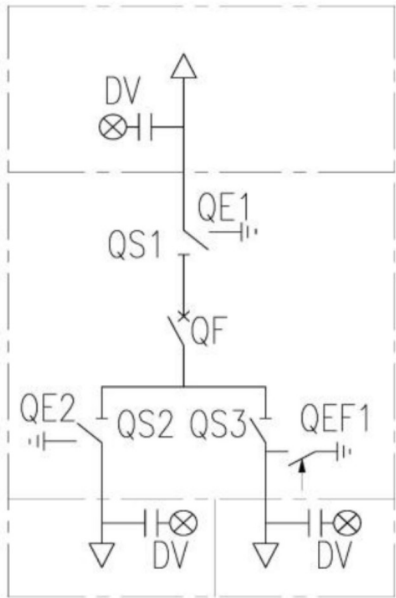
ZF12B-72.5 (L) 型GIS典型间隔布置
ZF12B-72.5 (L) GIS Typical bay arrangement



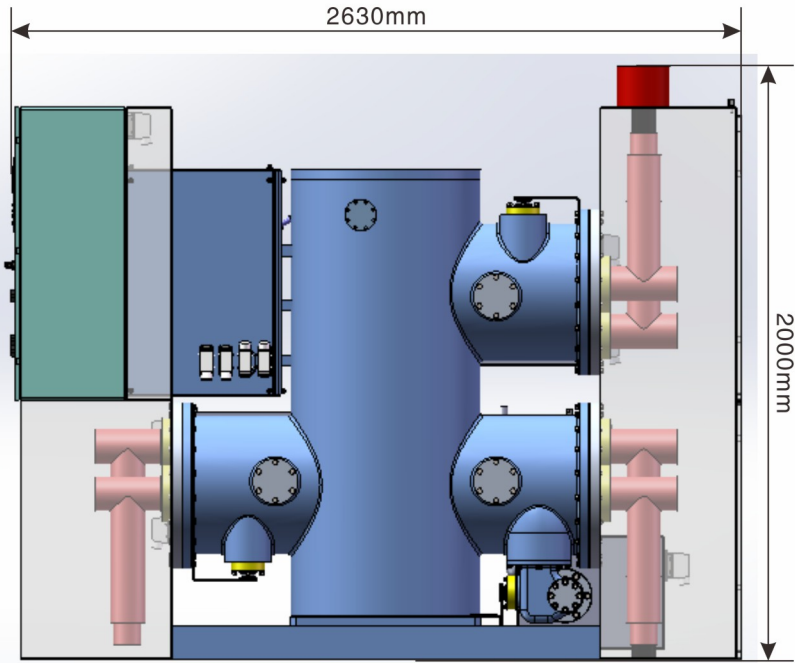
主接线 (A)
Single line diagram (A)



type 1: 1 feeder in and 1 feeder out



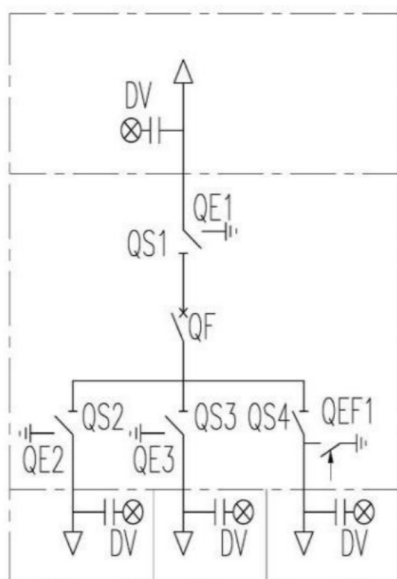
主接线 (B)
Single line diagram (B)



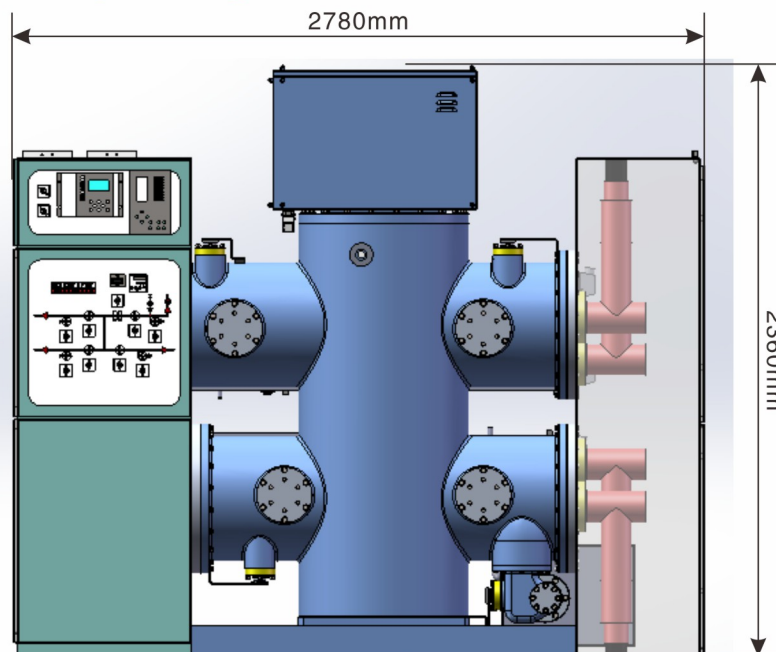
type 2: 2 feeder in and 1 feeder out

ZF12B-72.5 (L) 型GIS典型间隔布置

ZF12B-72.5 (L) GIS Typical bay arrangement



主接线 (C)
Single line diagram (C)



type 3 : 3 feeder in and 1 feeder out

主要技术参数 / Main Technical Parameters

序号 No.	项目 Item	单位 Unit	技术参数 Technical Data
1	额定电压 Rated voltage	kV	72.5
2	额定频率 Rated frequency	Hz	50/60
3	额定电流 Rated current	A	1250/2500
7	额定短时工频耐受电压 Rated short-duration power-frequency withstand voltage (1 min rms)	kV rms	140
			140 (+42)
8	额定雷电冲击耐受电压 (峰值) Rated lightning impulse withstand voltage (peak value)	kV	325
			325 (+59)
11	额定短时耐受电流/持续时间 Rated short-circuit breaking current/duration time	kA /s	31.5/3
12	额定峰值耐受电流 Rated peak withstand current	kA	80
8	断路器 Circuit Breaker	首开极系数 First-pole-to-clear factor	1.5 (non-effectively earthed neutral system)
		操作顺序 Rated operating sequence	/
		断路器等级 Class of circuit breaker	E2-C2-M2
		额定线路充电电流 Rated line-charging breaking current	A 10
		额定电缆充电电流 Rated cable-charging breaking current	A 125
9	Disconnecter/Earthing switch	机械寿命 Mechanical endurance	M2 (10000 /times)
		母线转换电流 Bus-transfer current switching capability	300V/1600A, 100times
		接地开关等级 Class of Earthing switch	E2-M2-B
		静电感应 Electrostatically induced current/voltage	2A/6kV, 10 times
		电磁感应 Electromagnetically induced current/voltage	100A/4kV, 10times
		短路关合 Short-circuit making current	Peak value 125 kA, 2times
10	SF ₆ 压力 (20℃表压) SF ₆ gas pressure (abs.20℃)	断路器气室 Circuit Breaker compartment	0.60MPa
11	GIS年漏气率 Annual gas leakage rate		<0.1%

平高集团有限公司

地址：河南省平顶山市南环东路22号

销售热线：86-371-55008935

售后电话：86-375-2206608

网址：http://www.pinggaogroup.com

PingGao Group Co.,Ltd

Address : No.22.Nanhuandong Road,Pingdingshan City,
Henan Province,China

Sales Hotline : 86-371-55008935

After sales Telephone: 86-375-2206608

HTTP: www.pinggaogroup.com