

SRM-12

全绝缘全密封共箱式环网开关设备 Fully insulated enclosed ring main unit

吾心求索·通享未来

得益于多年的电气产品研发和制造经验，索通电气为您提供结合了先进技术和卓越工程设计的高压开关设备；系列产品符合智能化、安全性和可靠性要求最严苛的标准。该系列能为公共配电、工业和楼宇领域提供极具成本效益的解决方案，提高竞争力。



节能型
Energy Saving



智能化
Intellectualization



易维护
Easy Maintenance



安全性
Safety

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产品概述 General

SRM-12/24系列SF6全绝缘全密封紧凑型共箱式环网开关设备(简称SF6充气柜)是新一代小尺寸模块式开关设备具有单元型及共箱型等模块化结构,每个模块都具有其各自的功能,在一个SF6绝缘气箱内最多可以配置6个模块(单元)。当系统要求配置数大于6个单元时,要采用扩展母线的形式将柜子连接起来;每个SF6绝缘气箱都可以在左右侧任意扩展,根据不同的设计方案任意排列,实现不同的配置要求。

SRM-12/24系列充气环网柜的气箱采用进口不锈钢钢板,利用先进的激光焊接技术焊接而成,充气柜体的防护等级达到IP67,气箱内充以SF6气体,并经过同步抽真空、氦检漏,确保气箱的密封性。负荷开关、接地开关等开关活动部件及母线、熔断器绝缘筒、真空灭弧室均密封在不锈钢气箱内。气箱底部装有防爆膜片,当开关出现异常而使气箱内的气压超过一定数值时,能从下部防爆口卸压,有效防止高压气体对人、电缆及变电站内其余设备的损害。

SRM-12/24系列充气环网柜具有结构紧凑、全封闭、全绝缘、长寿命、免维护、占用空间小、安全可靠、不受工作环境影响等优点,广泛应用于工业及民用电缆环网和终端供电。特别适用于小型二次配电站、开闭所、工矿企业、机场、铁路、商业区、高层建筑、高速公路、地铁、隧道等领域。

SRM-12/24系列充气环网柜遵循IEC所发表的IEC60056, IEC60129, IEC60265, IEC60298, IEC60420和IEC60694标准。

SRM-12/24 series fully insulated enclosed ring main unit (SF6 switchgear) is a new generation of small-scale modular switchgear with modular and box-type modular structure, each module All have their own functions, in a SF6 insulated air box can be configured up to 6 modules (unit). When the system requires more than 6 units of configuration, to use the form of expansion bus to connect the cabinet; each SF6 insulated air box can be any extension on the left and right sides, according to different design options arbitrarily arranged to achieve different configuration requirements.

SRM-12/24 series fully insulated enclosed ring main unit imported stainless steel plate, the use of advanced laser welding technology welding, inflatable cabinet protection class to IP67. Air box filled with SF6 gas, and after the simultaneous vacuum, helium Leak detection, to ensure that the air box seal. Load switch, grounding switch and other switch parts and bus, fuse insulation, vacuum interrupter are sealed in the stainless steel box. The bottom of the tank is equipped with explosion-proof membrane, when the switch is abnormal and the air pressure inside the box more than a certain value, from the lower explosion-proof mouth pressure relief, effectively prevent high-pressure gas on people, cables and substations damage the rest of the equipment.

SRM-12/24 series fully insulated enclosed ring main unit has the advantages of compact structure, fully enclosed, full insulation, long life, maintenance-free, small footprint, safe and reliable, free from working environment and so on. It is widely used in industrial and civil cable girders and terminals powered by. Particularly applicable to small secondary distribution stations, opening and closing, industrial and mining enterprises, airports, railways, commercial areas, high-rise buildings, highways, subways, tunnels and other fields.

SRM-12/24 series fully insulated enclosed ring main unit conform to IEC60056, IEC60129, IEC60265, IEC60298, IEC60420, IEC60694.

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适用范围 Application

SRM-12/24适用于以下场合：

- 紧凑型二次变电站
- 小型工厂
- 风力发电站
- 酒店、购物中心、办公楼、商业中心等
- 轻型采矿设备、隧道与地铁

SRM-12/24 is designed for use in the following applications:

- Compact secondary substations
- Small industries
- Wind power plants
- Hotels, shopping centers, office buildings, business centers etc.
- Light mining applications, airports, hospitals, tunnels and underground railways

正常使用条件 Normal service conditions

- 环境温度：上限+40℃，下限-15℃(特殊工艺下，可达-45℃)；
- 海拔高度不超过2500m(特殊工艺下，可达4000m)；
- 空气相对湿度：日平均值不大于95%，月平均值不大于90%；
- 饱和蒸气压力日平均值不大于2.2Kpa,月平均值不大于1.8Kpa；
- 外绝缘耐污秽等级为II级、无经常性的剧烈震动；
- 不适用于有腐蚀性或可燃性气体、水蒸气等明显污染的场所。
- 注：超出上述正常使用条件时，用户可与制造厂协商确定。
- Ambient air temperature:
Maximum air temperature: +40℃,
Minimum air temperature: -15℃ (Under a special process, up to -45 °C);
- Altitude: ≤ 2500m(Under a special process, up to 4000m);
- Humidity:
Daily average value of relative humidity: ≤95%
Monthly average value of relative humidity: ≤90%
- Atmospheric pressure:
Daily average value of relative humidity: ≤2.2Kpa
Monthly average value of relative humidity: ≤1.8Kpa
- Earthquake grade less than Degree 8
- The ambient air is not significantly polluted by dust, smoke, corrosive and/or flammable gases, vapours or salt.
- Notes: If the operating conditions exceed the normal conditions, please contact our technical department.

主要技术参数 Technical specifications

开关设备技术参数 Main technical data of the switchgear							
名称 Description	单位 Unit	C模块 C module	F模块 F module	V模块 V module		CB模块 CB module	
		负荷开关 Load switch	组合电器 Combination	真空开关 Vacuum switch	隔离/接地开关 Isolator / earthing switch	真空开关 Vacuum switch	隔离/接地开关 Isolator / earthing switch
额定电压 Rated voltage	kV	12/24	12/24	12/24	12/24	12/24	12/24
额定频率 Rated frequency	Hz	50	50	50	50	50	50
额定电流 Rated current	A	630	注1)	630	630	630,1250	630
工频耐受电压 Power frequency withstand voltage	相间、 相对地	kV	42/65	42/65	42/65	42/65	42/65
	断口	kV	48/79	48/79	48/79	48/79	48/79
雷电冲击耐受电压 Lightning impulse withstand voltage	相间、 相对地	kV	75/125	75/125	75/125	75/125	75/125
	断口	kV	95/145	95/145	95/145	95/145	95/145
额定短路关合电流(峰值) Rated short-circuit closing current (peak)	kA	63/50	注2)	50/40	50/40	63/50	50/50
额定短路开断电流 Rated short circuit breaking current	kA		注2)	20/20		25/20	
额定短时耐受电流 Rated short time withstand current	kA	20/20		20/20	20/20	25/20	25/20
额定短时耐受 电流持续时间 Rated short time withstand current duration	主回路 Main circuit	s	3		3	3	
	接地回路 Ground circuit	s	2		2	2	
额定开断转移电流 Rated breaking transfer current	A		1750/1400				
机械寿命 Mechanical life	次 Times	5000	3000	5000	3000	5000	3000
主回路电阻 Main circuit resistance	$\mu\Omega$	≤ 180	≤ 300	≤ 180	≤ 300	≤ 180	≤ 300
密封箱内SF6气体压力(表压) SF6 gas pressure(Gauge pressure)	MPa	0.045					
SF6年泄漏率 SF6 Leakage rate / year		$\leq 0.025\%$					
气箱不锈钢厚度 Stainless steel thickness	mm	3.0					
防护等级 Degree of Protection	SF6气室 SF6 air chamber					IP67	
	熔断器室 Fuse room					IP67	
	开关柜外壳 Switchgear housing					IP3X	

注：1)取决于熔断器的电流额定值； 2)受限于高压熔断器
 Note: 1) according to rated current of fuse 2) limited by H.V. fuse