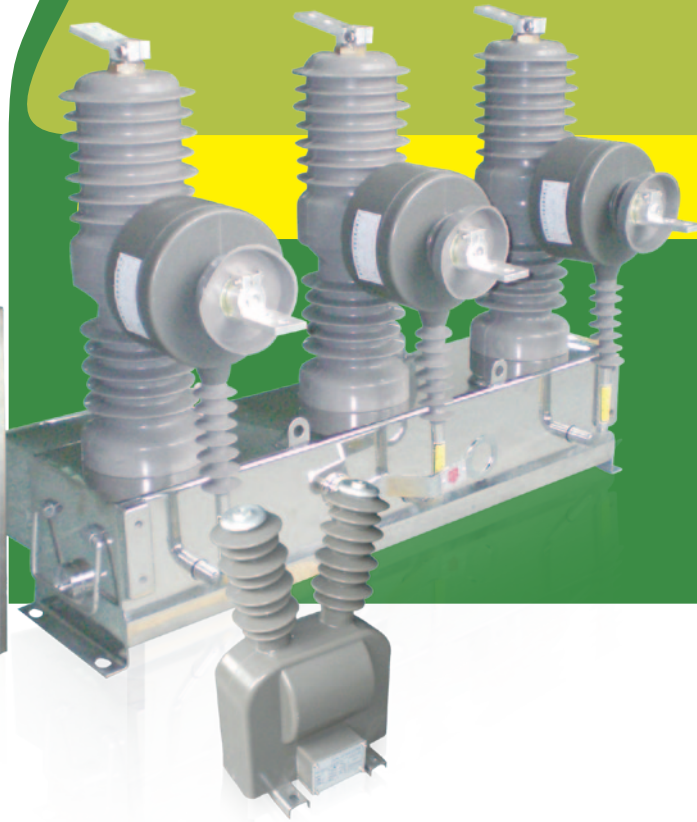


SCHVB34-12W/Z

户外智能永磁真空断路器

Outdoor Intelligent Permanent Magnet Vacuum Circuit Breaker



适用范围

Application

随着电网建设的迅速发展，对安全供电可靠性要求越来越高，以及电力系统中配网运行要求的提高和馈线自动化 (FA) 建设的需要，功能单一的一次设备在配电网的应用中日益显示出其不便之处。因而从配电网系统的发展着眼，开发一系列利用现代电子技术、通信技术、计算机技术、传感器技术和网络技术，将配电网实时信息、离线信息、用户信息、电网结构参数进行集成，具备故障检测功能、保护控制功能、自动测量功能、现代通讯功能及事件记录功能，可实现自动分断故障电流、快速隔离配电故障的节点 (FTU/TTU) 的智能一体化开关已势在必行。基于这一思想，本公司研制开发了 SCHVB34-12/M 型户外永磁式真空断路器，广泛适用于城市电网作为分断或联络开关，或用于农网配电系统户外变电站作为出线开关，可有效分、合负荷电流和短路电流。装置内部所配置的测量保护控制和通讯功能可充分满足配电自动化系统要求。

由于 SCHVB34-12/M 型户外永磁式真空断路器应用了多项专利技术，使它具有很多优点：无 SF6、无油，受环境影响小、有利于环境保护；单元尺寸小、重量轻、便于柱上安装；智能控制单元紧凑适用可以简单地安装在柱子的下方，可以在 100 米范围内控制开关的分合；适用于城乡电网就地操作和远方控制；除了电池和电容每 6 至 7 年更换一次外，断路器本体终身免维护。

With the rapid development of the power grid construction, power supply reliability requirements for safety more and more high, and in the power system, the improvement of the distribution network operation requirements and feeder automation (FA) the need to build a single function equipment in the application of the distribution network is more and more shows its inconvenience. From the development of the system and distribution network on, developed a series of using the modern electronic technology and communication technology, the computer technology, the sensor technology and network technology, will power distribution network real-time information, information, and the user's information, power grid structure parameters for integration, have fault detection function, protection control function, the automatic measurement function, modern communication function and the event log function, can realize the automatic segmentation fault current, fast break fault isolation distribution node (FTU/TTU) intelligent integration switch is imperative. Based on this thought, the company developed the SCHVB34-12/M type outdoor permanent magnet type vacuum circuit breaker, widely used in the city grid as points off or contact switch, or used for rural substation to qualify as a distribution system outdoor switch, but effective points, and load current and short circuit current. Device configuration of the internal control and communication function measurement protection can fully satisfy the power distribution automation system requirements.

Because SCHVB34-12/M type outdoor permanent magnet type vacuum circuit breaker for many patent technology application, make it has many advantages: no SF6, no oil, environmental influences small, it is favorable to the environment protection; Unit of small size, light weight, easy to install column; Intelligent control unit is compact can simply installed in the bottom of the pillars, can be in within 100 meters of control switch and the points; Apply to urban and rural power grid on-site operation and remote control; Besides the battery and capacitance every six to seven years replacement of a outside, circuit breaker ontology lifelong free maintenance.

使用环境

The use of environmental conditions

- 环境温度：不高于 +40 °C，不低于 -40 °C；
- 空气相对湿度：日平均值不大于 95%，月平均值不大于 90%；
- 海拔高度不超过 2000 米；
- 风压不超过 700Pa(相当于风速 34m/s)；
- 地震烈度不超过 8 级；
- 无火灾、爆炸、严重污秽、化学腐蚀以及剧烈震动的场所。

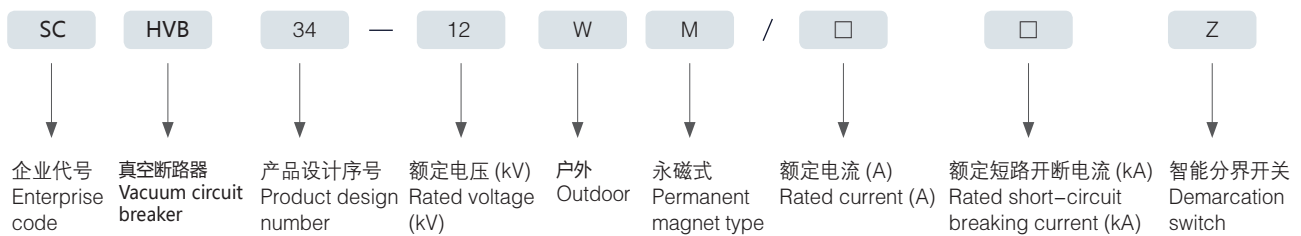
客户如有其它特殊要求，可在订货时提出，我公司可给予最大满足。

- Environmental temperature: no higher than +40°C ,no less than -40 °C ;
- Air relative humidity: day average no greater than 95%, on average less than 90%;
- The altitude does not exceed 2000 m;
- Wind pressure not more than 700 Pa (equivalent to wind speed 34 m/s);
- Seismic intensity not more than eight level;
- No fire, explosion, serious filthy, chemical corrosion and violent vibration of places.

If the customers have other special requirements, can be in order to put forward, our company can offer most satisfied.

断路器型号、名称及含义

Type of circuit breaker, the name and meaning



产品特点

Features

- 装有真空灭弧室的柱上真空断路器开断性能稳定可靠，具有无燃烧和爆炸危险、安全、免维护、体积小、重量轻和使用寿命长等特点；
- 断路器采用永磁操动机构，具有结构简单、零件少，运动部件只有一个，与传统弹簧机构近百个零件相比，大大地减少了故障源，极大地提高了可靠性。同时取消了容易引发故障的机械脱、锁扣装置，使整个系统的操作可靠性大大得到了提高；
- 永磁机构控制器独有的自适应及自检功能，可对永磁机构的运动特性进行优化，使真空断路器的机械特性达到最佳，从而延长了永磁机构和真空灭弧室的寿命；
- 由于产品采用永磁机构操动，具有动作可靠及快速的独特优点，其固有动作时间不会超过 10ms 及动作时间一致，非常方便于各级断路器保护参数的设置及动作；
- 产品的永磁操动机构具有电动分合闸和带负荷手动合（具有国家专利）及紧急分闸四种功能。装设有三相保护 CT、零序 CT、AB 相间电压，通过控制器的实时监测上传的输入量，并与定值进行比较来判断线路故障的类型，从而进行相应处理；
- 操作机构密封在开关箱体内部，可以有效避免开关因长期处于户外环境下而引起机构锈蚀。
- 操作机构新颖、简单、动作可靠、体积小、机械寿命可达 3 万次。

- Equipped with vacuum arcing chamber of the column in vacuum circuit breaker (performance is stable and reliable, and has no combustion and explosion danger, safety, free of maintenance, small volume, light weight and long service life etc;
- Circuit breaker using permanent magnet operation system, the structure is simple, less parts, moving parts, only one, and the traditional spring institutions than nearly parts, greatly reduce the fault source, greatly enhancing the reliability. Also cancelled and prone to failure of mechanical off and lock device, make the whole system operation reliability greatly improved;
- Permanent magnetic actuator controller unique adaptive and self-check function, may to the of the pma optimization, make vacuum circuit breaker of mechanical properties to achieve the best, extending a permanent magnetic actuator and vacuum arcing chamber of life;
- Because the product the permanent magnetic actuator hold still, reliable and fast with the unique advantages, its inherent action time can't more than 10 ms and the action time consistent, very convenient at all levels in the circuit breaker protection parameter setting and action;
- Product of permanent magnet operation system has electric points off and loading manual \$(a national patent) and emergency break-brake four functions. Installed have three-phase protection CT, zero sequence voltage CT, AB alternate with, through the controller of the real-time monitoring upload inputs, and with the value is used in the comparison to determine the type of line fault, and the corresponding processing;
- Operator seal in the switch internal, can avoid effectively switch from long outdoors environment and cause institutions rust.
- Operator novel, simple, reliable operation, small volume, mechanical life can reach 30000 times.

主要技术参数

Mainly technical parameters

断路器的主要技术参数 The main technical parameters of

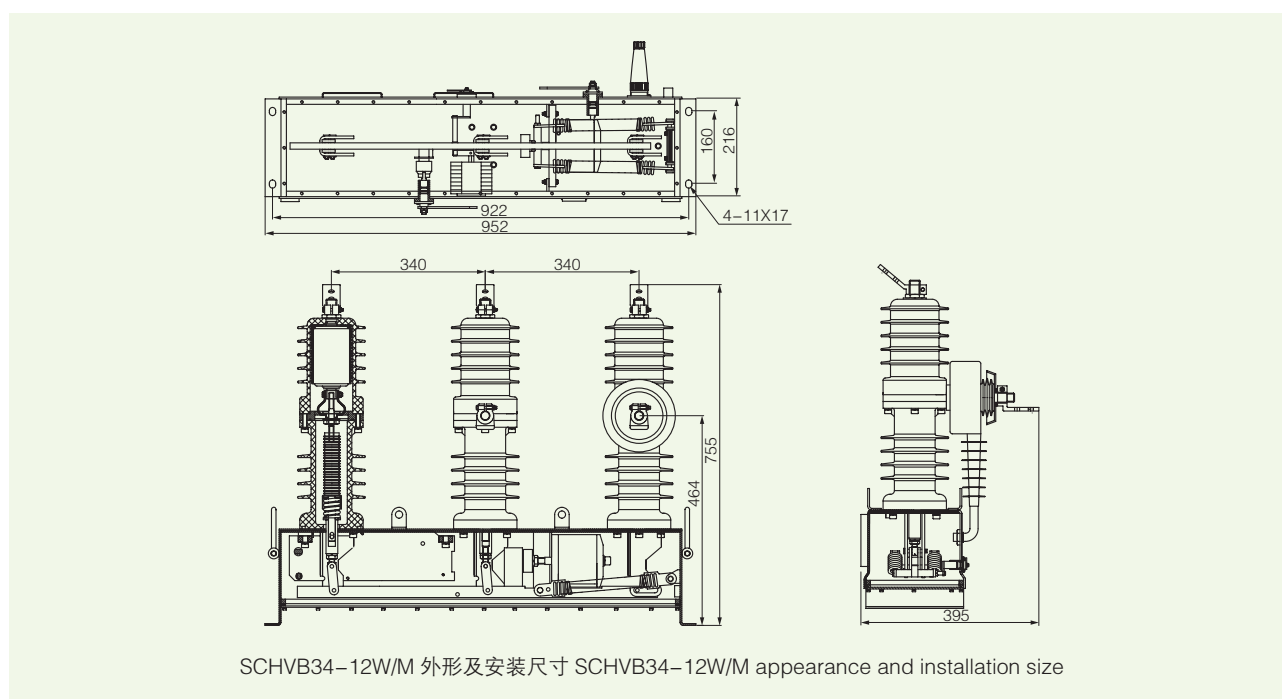
序号 No.	项目 Item	单位 Unit	数值 Number of values	
1	额定电压 Rated voltage	kV	12	
2	额定电流 Rated current	A	630、1250	
3	额定频率 Rated frequency	Hz	50	
4	工频耐压 (1min) Power frequency withstand voltage (1min)	干试 (相间、对地 / 断口) Dry test (white/ fracture)	42/48	
			湿试 (对地、外绝缘) Wet again(on the ground outside the insulation)	34
5	雷电冲击耐受电流 (峰值)(相间、对地 / 断口) Lightning impulse withstand current (peak) (white/fracture)	kV		75/85
6	额定短路开断电流 Rated short-circuit breaking current	kA	20	25
7	额定短路关合电流 (峰值) Rated short-circuit current (peak)	kA	50	63
8	额定峰值耐受电流 Rated peak withstand current	kA	50	63
9	4S 短时耐受电流 4S short-time withstand curren	kA	20	25
10	额定操作循环 Rated operating cycle		分 - 0.3s - 合分 - 180s - 合分 Sub-0.3s-Hop sub-180s-Hop sub-	
11	额定短路电流开断次数 Rated short-circuit current breaking time	次 Times	30	
12	机械寿命 Mechanical life	次 Times	30000	
13	二次回路 1min 工频耐压 Secondary circuit 1min power frequency withstand voltage	kV	2	

断路器的主要机械参数 The main mechanical parameters of the circuit breaker

序号 No.	参数名称 Parameter name	单位 Unit	数值 Number of values
1	触头开距 Contact opens the distance	mm	9 ± 1
2	触头超行程 Contact ultra-travel	mm	2.5 ± 1
3	分闸速度 Opening speed	m/s	1.1 ± 0.3
4	合闸速度 Closing speed	m/s	0.6 ± 0.2
5	触头合闸弹跳时间 Contact closing bounce time	ms	≤ 2
6	相间中心距离 White center distance	mm	340 ± 2
7	三相分合闸不同期性 Three-phase of opening and closing of	ms	≤ 2
8	各相导电回路电阻 Each phase conductive loop resistance	$\mu\Omega$	<80(带隔离刀 150) < 80 (with isolation knife 150)
9	重量 Weight	kg	约 70 About70

外形及安装尺寸

General structure drawing and installation size



订货需知

Ordering

- 产品型号、名称及参数;
- 断路器操作方式: 手动、电动及电源参数;
- 电流互感器的数量、参数;
- 数量及交货期;
- 备品、备件名称、数量。
- Product model, name and parameters;
- Circuit breaker operating mode: manual and electric power supply, power parameters;
- Current transformer, the number of parameters;
- Number and date of delivery;
- Spare parts, spare parts name, quantity.