

# SCHVB-12P/T

户内高压固封式真空断路器  
Solid sealing vacuum circuit breaker



## 适用范围

### Application

SCHVB-12P/T 系列固封式户内高压真空断路器采用固体绝缘结构，利用先进的环氧固封技术，首次将真空灭弧室、主导电回路、绝缘支撑等有机地组合成为一个集成固封极柱。成功地从根本上解决了真空断路器的环境耐受问题，使其应用更为广泛。集成固封极柱采用了自对流专利通风技术，巧妙地解决了固体绝缘结构所带来的散热难问题。

SCHVB-12P/T 系列固封式户内高压真空断路器是国内第一个实现免维护概念的断路器。其高寿命的真空灭弧室以及环氧浇注固封技术的应用保证了集成固封极柱的免维护，配用的高可靠性永磁操动机构保证了操动机构的免维护，电子控制部分屏弃传统的辅助开关而代之以光电接近开关，并采用全电子化电源和智能控制单元保证了电子控制部分的免维护。

SCHVB-12P/T series embedded poles type indoor high voltage vacuum circuit breaker adopt solid insulation structure, use of advanced solid epoxy sealing technology, the first time, the vacuum interrupter. A leading electrical circuit.insulation and other support to become an integrated combination of solid seal pole. Successfully from a fundamental solution of the vacuum breaker gas environment, tolerance issues, make it more broad. Integrated solid-pole closure of the fluent use of a self-ventilation technology, cleverly solved the structure of solid insulation caused by heat dissipation.

SCHVB-12P/T series embedded poles type indoor high voltage vacuum circuit breaker is the first to achieve maintenance-free concept of a circuit breaker. Its high-life vacuum interrupter chamber as well as solid cast epoxy sealing technology applications to ensure an integrated solid-pole sealed maintenance-free, with high reliability using permanent magnetic actuator of the actuator to ensure maintenance-free, electronic control parts reject the traditional auxiliary switch and replaced by photoelectric proximity switches, and use the whole power and intelligent electronic control unit ensures that electronically controlled part of the maintenance-free.

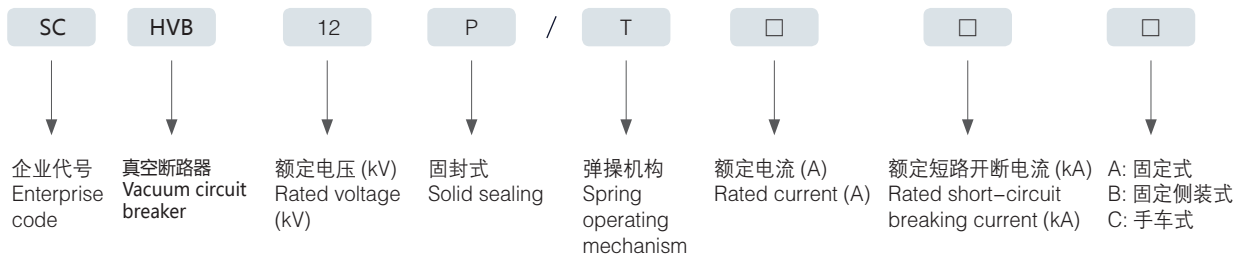
## 使用环境

### The use of environmental conditions

- 环境温度：不高于 +40℃，不低于 -15℃ (允许在 -30℃时储运)。
- 海拔高度：不超过 1000m。
- 相对湿度：日平均值不大于 95%，月平均不大于 90%，饱和蒸汽压日平均值不大于  $2.2 \times 10^{-3}$ MPa，月平均不大于  $1.8 \times 10^{-3}$ MPa。
- 地震烈度：不超度 8 级。
- 无火灾、爆炸、严重污秽、化学腐蚀及剧烈振动的场所。
- Ambient temperature: not higher than +40℃, not less than -15℃ (at -30℃ to allow storage and transportation).
- Altitude: not exceed 1000m.
- Relative humidity: daily average of not more than 90%, month average of not more than 95%.saturated vapor pressure daily average of not more than  $2.2 \times 10^{-3}$ MPa, month average not more than  $1.8 \times 10^{-3}$ MPa.
- Earthquake intensity: not more than eight.
- No fire, explosion hazard, serious filthy, chemical corrosion, as well as places of intense vibration.

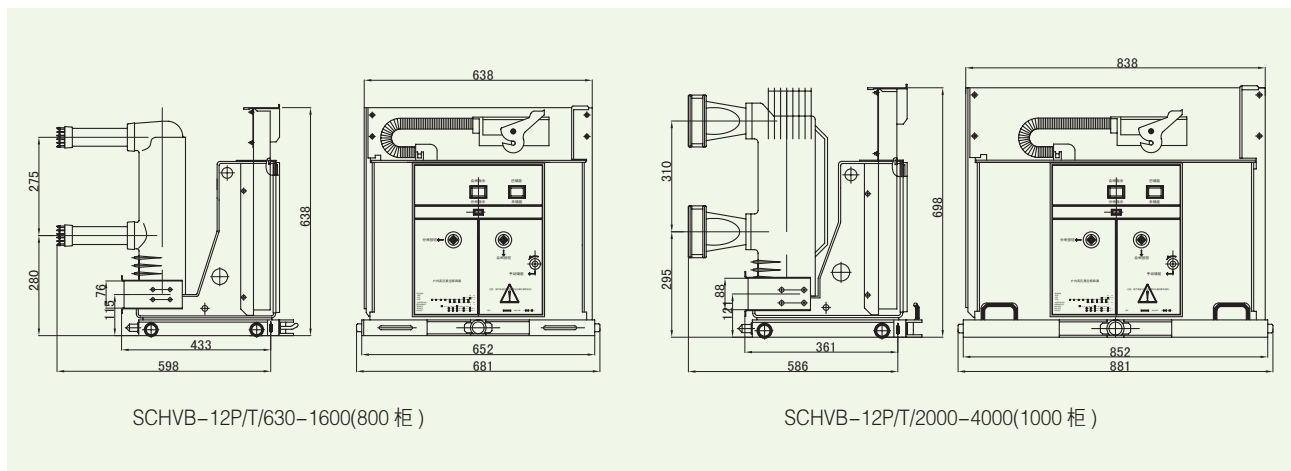
## 断路器型号、名称及含义

Type of circuit breaker, the name and meaning



## 外形及安装尺寸

General structure drawing and installation size



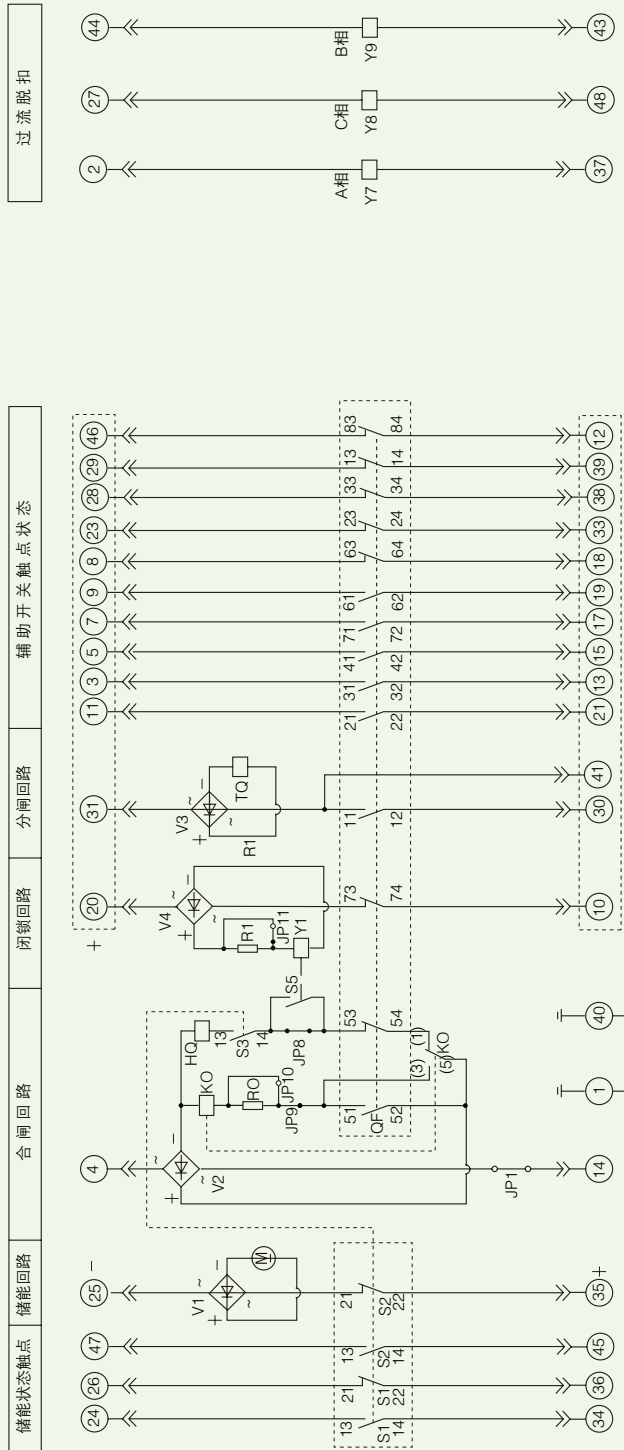
## 主要技术参数

Mainly technical parameters

序号 NO	项目 Item	单位 Units	参数 Parameters		
1	额定电压 Rated voltage	kV	12		
2	额定绝缘水平 Rated insulation level	kV	额定雷电冲击耐受电压峰值 Rated Lightning Impulse voltage tolerance		
			75		
3	额定短路开断电流 Rated short-circuit breaking current	kA	1 min 工频耐压 1min Frequency voltage		
			42		
4	额定电流 Rated current	A	额定短路开断电流 Rated short-circuit breaking current		
			20/25	31.5	40
5	额定热稳定电流 (有效值) Rated thermal stability of current (RMS)	kA	额定电流 Rated current		
			630 1250	630 1250 1600 2000 2500 3150	1250 1600 2000 2500 3150
6	额定动稳定电流 (峰值) Dynamic Stability rated current (peak)	kA	20/25	31.5	40
7	额定短路关合电流 (峰值) Rated short-circuit closing current (peak)	kA	63	80	100
8	额定短路开断电流开断次数 Rated short-circuit breaking current breaking number	次 Times	63	80	100
9	二次回路工频耐受电压 (1min) Frequency tolerance of the secondary circuit voltage (1min)	V	50		
10	额定操作顺序 Rated operating sequence		2000		
			O-0.3s-CO-180s-CO		
11	额定热稳定时间 Rated thermal stabilization time	S	O-180s-CO180sCO		
			4		
12	额定单个 / 背对背电容器组开断电流 Rated a single/back-to-back electric current breaking device group	A	630/400 800/400(40kA)		
13	机械寿命 Mechanical life	次 Times	10000		

# 固定式二次原理图

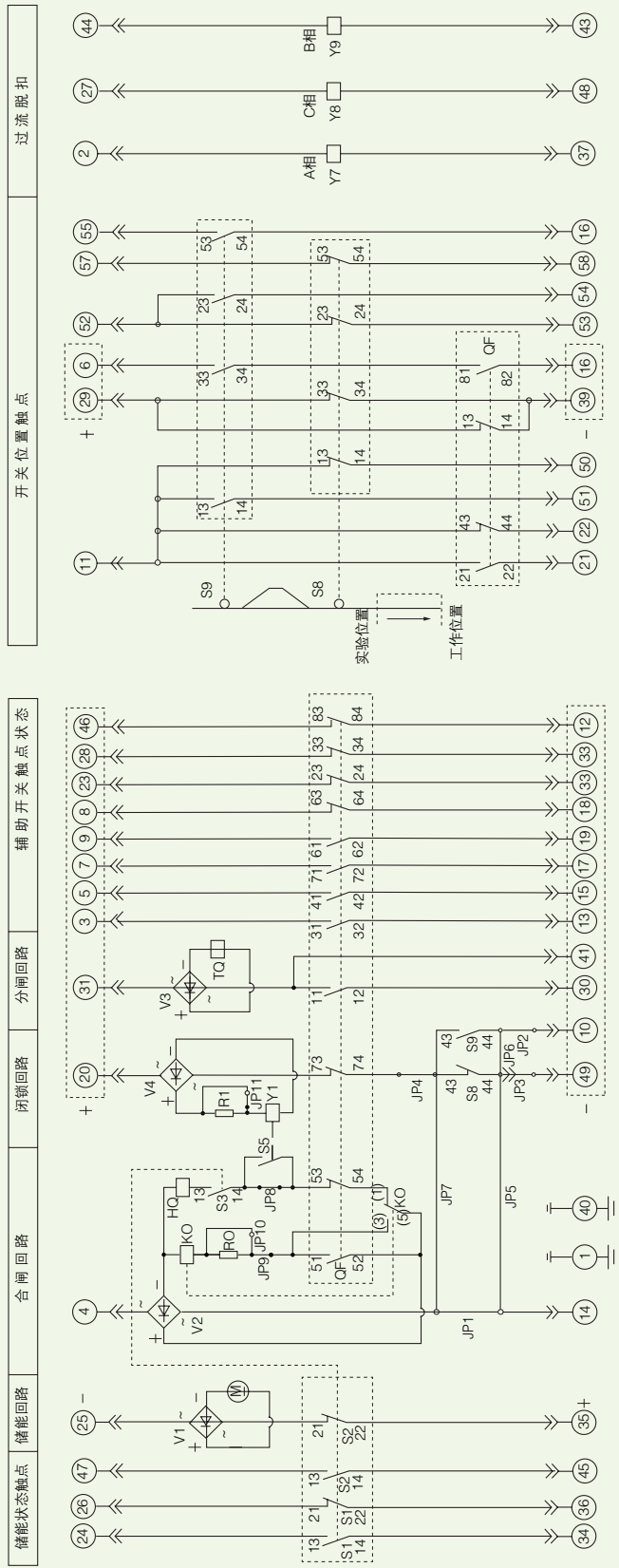
## Fixed second principle diagram



- 13: 2.5 接线端子
- 12: 过流脱扣线圈 (可选)
- 11: 内部防跳继电器 (可选)
- 10: 整流器
- 9: 闭锁电磁铁线圈 (可选)
- 8: 储能电机
- 7: 电阻
- 6: 合闸脱扣线圈
- 5: 分闸脱扣线圈
- 4: 跳线
- 3: 锁电磁铁微动开关 (可选)
- 2: 行程开关 (合闸弹簧储能后切换)
- 1: 辅助开关 8 开 8 闭 (分合闸时切换)

# 手车式二次原理图

## Handcart secondary schematics



- 15: 58 芯航插头
- 14: 过流脱扣线圈 (可选)
- 13: 内部防跳继电器 (可选)
- 12: 整流器
- 11: 闭锁电磁铁线圈 (可选)
- 10: 储能电机
- 9: 电阻
- 8: 合闸脱扣线圈
- 7: 分闸脱扣线圈
- 6: 辅助开关 (工作位置切换)
- 5: 辅助开关实验位置切换)
- 4: 跳线
- 3: 闭锁电磁铁微动开关 (可选)
- 2: 行程开关 (合闸弹簧储能后切换)
- 1: 辅助开关 8 开 8 闭 (分合闸时切换)