

# SCHVB-12/T

户内真空断路器

Indoor vacuum circuit breaker



## 适用范围

### Application

SCHVB-12/T 系列户内真空断路器是三相交流 50Hz，额定电压为 12kV 的户内开关设备，可供工矿企业、发电厂及变电站、电气设施的控制和保护之用，并适合于频繁操作的场所。采用 VET 操动机构与断路器本体一体化，设计即可做为固定安装单元，也可配用专用推进机构，组成手车单元使用。主回路部分可采用整体固封极柱，以实现断路器小型化、高可靠、免维护，可配用 KYN28A-12(GZS) 等中置手车式开关柜，也可配用于 XGN 固定式开关柜。

SCHVB-12/T series indoor vacuum circuit breaker is a three-phase AC 50Hz, rated voltage of 12kV indoor switchgear, control and protection for industrial and mining enterprises, power plants and substations, electrical facilities, and for frequent operation place. Adopting VET operating mechanism and circuit breaker integrated, design can be used as a fixed installation unit can also be equipped with special advance mechanism, the composition of handcart unit used. Some of the main circuit can use the whole solid seal post, in order to achieve smaller circuit breakers, high reliability, maintenance-free, can be equipped with KYN28A-12 (GZS) and other handcart switch cabinet in the home can also be used with fixed XGN switchgear.

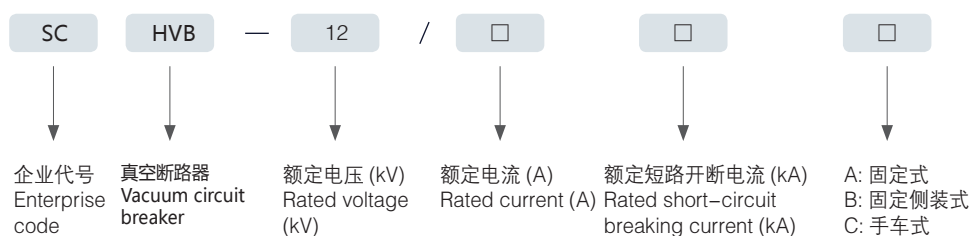
## 使用环境

### The use of environmental conditions

- 环境温度：不高于 40℃，不低于 -10℃ (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%，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：不超过 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 °C , not less than -10°C (at -30 °C to allow storage and transportation).
- Altitude: not exceed 1000m.
- Relative humidity: daily 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.

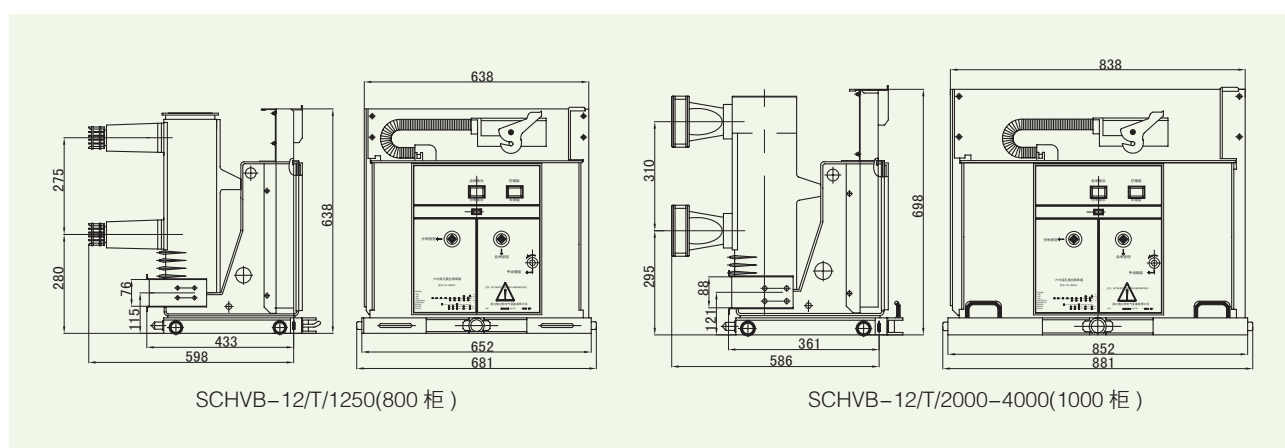
## 断路器型号、名称及含义

Type of circuit breaker, the name and meaning



## 外形及安装尺寸

General structure drawing and installation size



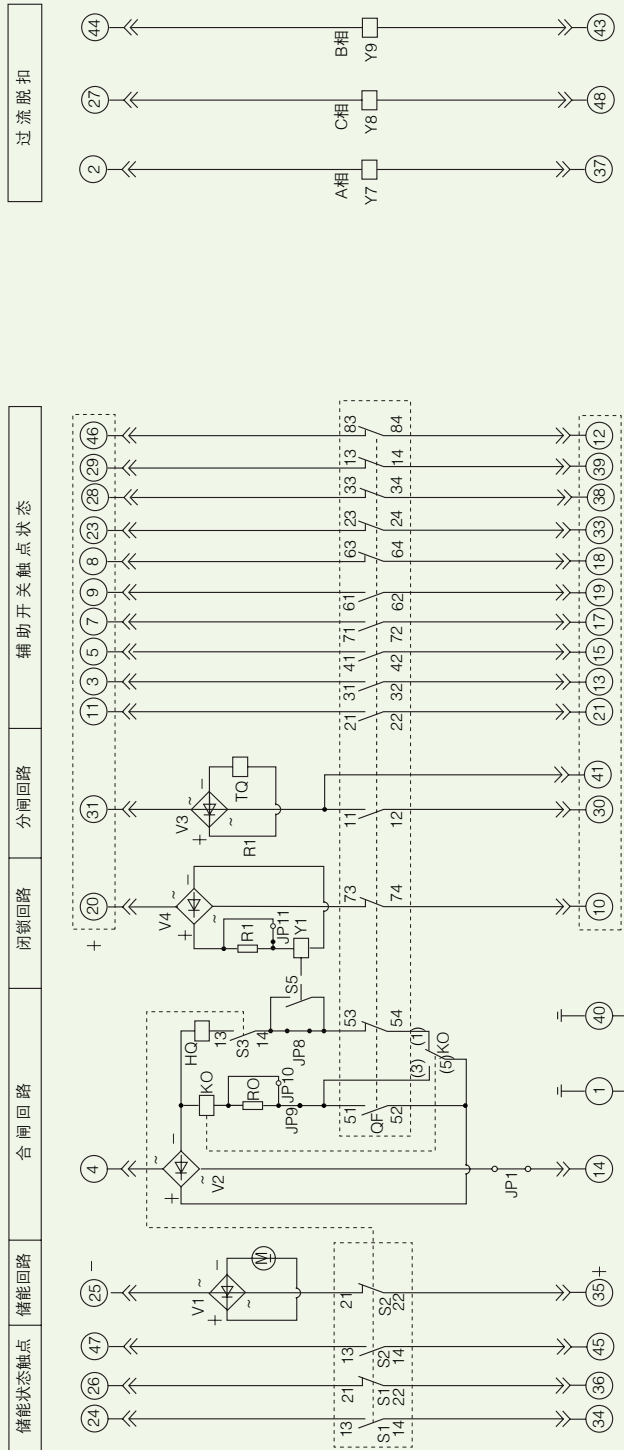
## 主要技术参数

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	额定雷电冲击耐受电压峰值 Rated Lightning Impulse voltage tolerance 1 min 工频耐压 1min Frequency voltage	75			
			42			
3	额定短路开断电流 Rated short-circuit breaking current	kA	20/25	31.5	40	
4	额定电流 Rated current	A	630 1250	630 1250 1600 2000 2500 3150	1250 1600 2000 2500 3150 4000	
5	额定热稳定电流 (有效值) Rated thermal stability of current (RMS)	kA	20/25	31.5	40	
6	额定动稳定电流 (峰值) Dynamic Stability rated current (peak)		50/63	80	100	
7	额定短路关合电流 (峰值) Rated short-circuit closing current (peak)		50/63	80	100	
8	额定短路开断电流开断次数 Rated short-circuit breaking current breaking number	次 Times	50			
9	二次回路工频耐受电压 (1min) Frequency tolerance of the secondary circuit voltage (1min)	V	2000			
10	额定操作顺序 Rated operating sequence		O-0.3s-CO-180s-CO			
			O-180s-CO180sCO			
11	额定热稳定时间 Rated thermal stabilization time	S				
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

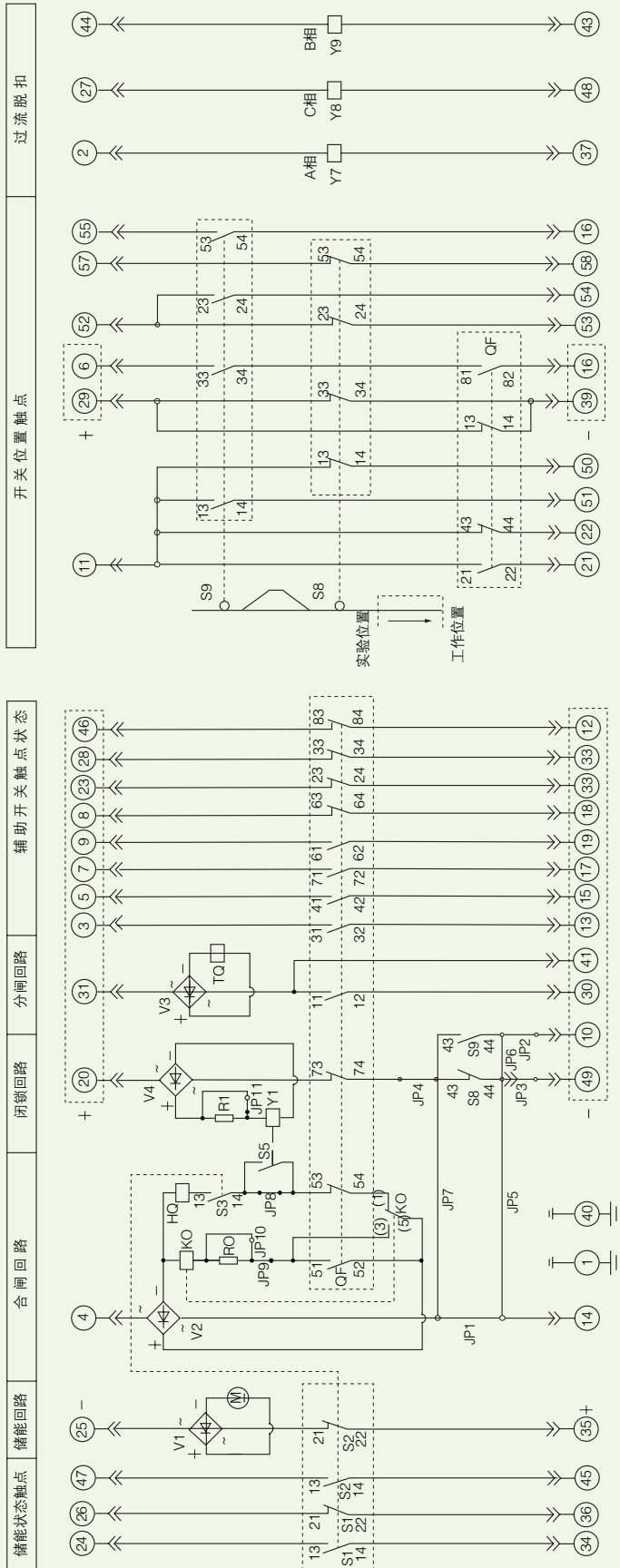
## Fixed second principle diagram



- 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)