Control Electrical Product Manual

控制电气产品手册

SINGI® 信基伟业

建筑电气 & 智能家居集成商 国家高新技术企业

Building electrical & intelligent household integrator

National high-tech enterprises

SINGI®

上海奉贤庄行欧洲工业园区的上海信基工业园
Shanghai Singi Electrical Co. Ltd

浙江信基电气股份有限公司工业园
Zhejiang Singi Electrical LLC

关于我们
About Us

信基伟业始创于1995年，是目前国内知名的建筑电气& 智能家居集成商；专业研发和生产智能光纤信息箱、墙壁式无线路由器、吸顶式无线路由器、电脑线、电视线、照明配电箱、小型断路器、家居安防线缆、开关插座等。

Singi Electric was established in 1995 and now become the well-known building electric integrator. Singi are professional in producing fiber information box, wall-type WIFI router, roof-type WIFI router, low voltage cables, circuit breaker, wall switch and etc.

核心价值观：
· 以客户为中心；
· 以奋斗者为本，尊重个人，制度至上；
· 尽一切可能创新产品和管理；
· 正直、协作、效率、分享。

Core Values：
· Customer focus;
· Take the strivers as the foundation, respect the individual, and put the system first;
· Innovate products and management as much as possible;
· Integrity, collaboration, efficiency and sharing.

核心使命：
· 聚焦客户所想，以信赖的品质，做用户电气安全的好伙伴；
· 让更多善良的人因公司的久远存续得到帮助。

Core Mission：
· Focus on customers' needs, and be a good partner for users' electrical safety with reliable quality;
· Let more kind-hearted people get help because of the long-term existence of the company.

企业愿景：
提供客户称道的产品和服务，更提供安全和解决方案。

Enterprise Vision：
Provide products and services that customers praise, and provide security and solutions.

发展历程
Development History

企业成长期
1995年丨信基电器厂(信基伟业前身)成立
1999年丨与正泰集团、鸿雁电气结为战略合作联盟

二次创业期
2001年丨浙江信基电气股份有限公司、上海信基电气有限公司成立
2003年丨与西蒙电气、霍尼韦尔朗能公司结为战略合作联盟

跨越发展期
2006年丨投资3800多万元的浙江乐清信基工业园建成并投入使用
2007年丨投资2000多万元的上海奉贤信基工业园建成并投入使用
2009年丨产品出口欧美、东南亚等地;产品使用于上海世博会场馆建设

企业腾飞期
2010年丨举办“牵手姚明,共享未来”的品牌推广,年产值突破2亿
2011年丨信基伟业商标被认定为“中国驰名商标”年产值突破2.7亿
2012年丨与国内多家房地产集团建立战略合作关系,年产值突破3亿
2013年丨信基伟业商标被评为“中国电工十大品牌”与“保障性安居工程推荐品牌”
2014年丨公司通过ISO14000环境体系认证,公司产品由太平洋保险公司承保
2015年丨公司通过OHSAS18001职业健康安全管理体系
2016年丨信基携手CCTV强力助推,并获得“国家高新技术企业”称号
2017年丨信基荣获“中国配电箱十大品牌”称号
2018年丨信基荣获“中国房地产供应商高成长型企业”称号
2019年丨国家高新技术企业顺利通过复评
2021年丨建筑面积40000m²新厂房投入使用

Enterprise Growth Period
· In 1995, SINGI Electric Appliance Factory (predecessor of SINGI) was founded
· In 1999, it formed a strategic cooperation alliance with CHINT Group and HONYAR Electric

Second Entrepreneurial Period
· In 2001, Zhejiang SINGI Electric Co., Ltd. and Shanghai SINGI Electric Co., Ltd. were established
· In 2003, it formed a strategic cooperation alliance with SIMON Electric and Honeywell Lunergy

Leapfrog Development Period
· In 2006, Zhejiang Yueqing SINGI Industrial Park with an investment of more than 38 million yuan was completed and put into use
· In 2007, Shanghai Fengxian SINGI Industrial Park with an investment of more than 20 million yuan was completed and put into use
· In 2009, the products were exported to Europe, America, Southeast Asia and other places; The product is used in the construction of Shanghai World Expo venues

Enterprise Take-off Period
· In 2010, the brand promotion of "holding hands with Yao Ming and sharing the future" was held, and the annual output value exceeded 200 million
· In 2011, SINGI trademark was recognized as "China's famous trademark" with annual output value exceeding 270 million
· In 2012, it established strategic cooperative relations with many domestic real estate groups, with annual output value exceeding 300 million
· In 2013, the trademark of SINGI was rated as "Top Ten Brands of CNEEC" and "Recommended Brands for Affordable Housing Project"
· In 2014, the company passed ISO14000 environmental system certification, and its products were underwritten by Pacific Insurance Company
· In 2015, the company passed OHSAS18001 occupational health and safety management system
· In 2016, SINGI joined hands with CCTV and won the title of "National High-tech Enterprise"
· In 2017, SINGI won the title of "Top Ten Brands of Distribution Box in China"
· In 2018, SINGI won the title of "China's real estate supplier high-growth enterprise"
· In 2019, the national high-tech enterprises successfully passed the re-evaluation
· By 2021, a new plant with a building area of 40000 m^2 will be put into use

SINGI®

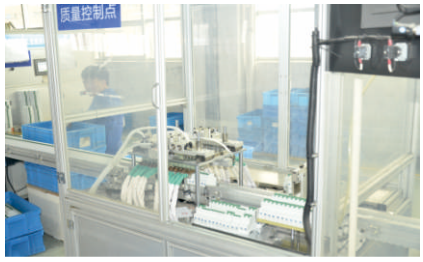
企业实力
Enterprise Strength

是目前国内专业生产建筑电气产品的高科技民营股份制企业，公司生产员工800多人，各种管理及技术人员100多人；各类大型生产、检测设备300多台，致力于智能家居、配电控制系统产品、照明控制系统产品、低压电器和安防线缆的研发、生产和销售。

At present, it is a high-tech private joint-stock enterprise specializing in the production of building electrical products in China. The company has more than 800 production staff and 100 management and technical personnelMultiple people; More than 300 sets of large- scale production and testing equipment of various types are dedicated to smart home, power distribution control system products, lighting control system products, low- voltage electrical appliances and safety R&D, production and sales of anti-cable.









资质荣誉
Honor Of Qualification

公司先后通过ISO9001、ISO14001、ISO45001国际管理标准三体系认证及UL、CE、CB、ETL等国际产品认证；拥有50多项专利，40多份CCC强制认证，获得“中国建筑电气知名品牌”“中国电工十大品牌”、“保障性家居工程推荐品牌”、“CCTV央视上榜品牌”、“国家高新技术企业”、“中国房地产供应商高成长型企业”等70多项荣誉。

Singi has passed ISO9001, ISO14001, ISO45001 international three system certification. Also get the international production certification of the UL, CE, CB, ETL and etc. Singi have over 50 copy rights, over 60 CCC certification. During the 20 years production experience, Singi get the over 70 titles such as“top 10 electric brand in China”, “Chinese building electric well-known brand”, “Government-subsidized housing project recommend brand” and etc.

-国家高新技术企业
National high-tech enterprises

-CCTV央视助推品牌
CCTV boosts brand

-产品责任保险证书
Product liability insurance certificate

-ISO9001质量管理体系认证
ISO9001 quality management system certification

-ISO14001环境管理体系认证
ISO14001 Environmental Management System Certification

-ISO45001职业健康安全管理体系认证
ISO45001 Occupational Health and Safety Management System Certification

-50多份专利
More than 50 patents

-40多份CCC证书
More than 40 CCC certificates

-欧盟RoHS认证
EU RoHS certification

-CE认证
CE certification

-CB认证
CB certification

-UL认证
UL certification

-ETL认证
ETL certification

SINGI®

工程案例
Engineering Template

多年来，SINGI信基，凭借卓越的品牌信誉和质量在竞争激烈的市场中开疆拓土，业绩斐然，产品销售网络覆盖国内各大中城市，在工程上广泛地得以应用。

在智能化信息化方面我们不断超越，在开发人性化产品的征途中，我们不遗余力，让SINGI信基的产品遍布世界每一个角落，是我们至高的追求目标。

Over the years, SINGI with its excellent brand reputation and quality, has expanded its territory in the highly competitive market, achieved remarkable results and covered its product sales network Large and medium-sized cities in China have been widely used in engineering.

In terms of intelligence and informatization, we continue to surpass. In the process of developing humanized products, we spare no effort to make the products of SINGI spread all over the world Every corner is our highest goal.


南宁凯旋1号 Nanning Kaixuan No.1


世博会中国馆 China Pavilion of the World Expo


昆明华润中央公园 Kunming China Resources Central Park


上海证大家园 Shanghai Zendai Home


珠江太阳城 Pearl River Sun City


重庆西南医院 Chongqing Southwest Hospital


深圳半岛·城邦 Shenzhen Peninsula · City State


聊城三山帝景城 Liaocheng Sanshan Emperor Scenic City

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目录
Catalogue

SINGI®

SWCPS

系列控制与保护开关电器

SWCPS Series Control and protection switch

SWCPS系列 控制与保护开关电器
SWCPS SERIES CONTROL AND PROTECTION SWITCHGEAR

概述 PRODUCT OVERVIEW

SWCPS系列控制与保护开关电器（以下简称SWCPS），适用于交流50Hz(60Hz),额定工作电压至690、额定电流自0.4A至125A的电力系统中，能够接通、承载和分断正常条件下包括规定的运行过载条件下的电流，且能够接通、承载并分断规定的非正常条件下电流，如短路电流。

The SWCPS series control and protection switchgear (hereinafter referred to as SWCPS) is suitable for power systems with AC 50Hz (60Hz), rated working voltage up to 690, and rated current ranging from 0.4A to 125A. It can connect, carry, and disconnect current under normal conditions, including specified operating overload conditions, and can also connect, carry, and disconnect current under specified abnormal conditions, such as short-circuit current.

功能 FUNCTION

SWCPS具有远距离自动控制和就地直接人工控制功能，具有过载、短路、欠流、漏电、过压、欠压、断相、堵转、隔离、三相不平衡等功能。

SWCPS has remote automatic control and local direct manual control functions, including overload, short circuit, undercurrent, leakage, overvoltage, undervoltage, phase failure, locked rotor, isolation, and three-phase imbalance.

特点 CHARACTERISTIC

◎SWCPS控制器具有状态显示（LED屏）及信号报警功能；
◎SWCPS控制器具有故障记忆功能，便于故障查询、分析；
◎SWCPS控制器配有外部按钮，可对各种参数进行设定和查询。
◎SWCPS控制器具有485通讯接口，给用户系统集成带来方便，实现智能化管理。
◎SWCPS能协调配合时间电流保护特性（过载长延时、短路短延时、短路瞬时三段保护特性）。

◎The SWCPS controller has status display (LED screen) and signal alarm functions;
◎The SWCPS controller has a fault memory function, which is convenient for fault inquiry and analysis;
◎The SWCPS controller is equipped with external buttons to set and query various parameters.
◎The SWCPS controller has a 485 communication interface, which brings convenience to user system integration and realizes intelligent management.
◎SWCPS can coordinate and cooperate with time current protection characteristics (overload long delay, short circuit short delay, and short circuit instantaneous protection characteristics).

型号含义 TYPE MEANING

SW CPS D-45 C /M 45A/06 M F

派生型号: 无: 基本型; F: 消防型; G: 隔离型; L: 漏电型; T: 通讯型	Derived model: None: Basic type; F: Fire protection type; G: Isolation type; L: Leakage type; T: Communication type
控制电压: M：AC230V、Q：AC400V	Control voltage: M：AC230V、Q：AC400V
辅助代号: 02辅助：2常开+1常闭+1故障+1短路; 06辅助：3常开+3常闭+1故障+1短路; 09辅助：2常开+1常闭	Auxiliary code: 02 auxiliary: 2 normally open+1 normally closed+1 fault+1 short circuit; 06 auxiliary: 3 normally open+3 normally closed+1 fault+1 short circuit; 09 Auxiliary: 2 normally open+1 normally closed
工作电流: 45型: 0.4A~45A; 125型: 50A~125A	Working current: 45 Type: 0.4A~45A; 125 Type: 50A~125A
功能代号: M：电机用、P：配电用	Function code: M：For electric motors、P：For power distribution
数字化控制器类型: C:经济型、 Y:标准型、 H:高级型	Digital controller type: C: Economical、 Y: standard form、 H: Advanced
壳架等级: 45型; 125型	Shell frame level: 45 Type; 125Type
组合形式: 无: 无组合; N: 可逆型; J: 星三角; Z: 自耦; R: 电阻; S: 双电源; D: 双速	Combination form: None: No combination; N: Reversible type; J: Star Triangle; Z: Autocoupling; R: Resistance; S: Dual power supply; D: Two speed
产品代号:控制与保护开关电器	Product code: Control and protection switchgear
企业代号（信基公司）	Company code(SINGI)

工作条件 WORKING CONDITIONS

◎海拔高度≤2000m；
◎环境温度-5°C～40°C ；
◎最高温度40°C时，相对湿度≤50%；
◎最低温度20°C时，相对湿度≤90%；
◎污染等级：3级，无直接雨雪水侵蚀的地方。
◎八小时工作制或不间断工作制。

◎ Altitude ≤ 2000m;
◎Environmental temperature -5 °C~40 °C;
◎When the maximum temperature is 40 °C, the relative humidity is ≤ 50%;
◎When the minimum temperature is 20 °C, the relative humidity is ≤ 90%;
◎ Pollution level: Level 3, in areas without direct rain, snow, or water erosion.
◎Eight hour or uninterrupted working hours.

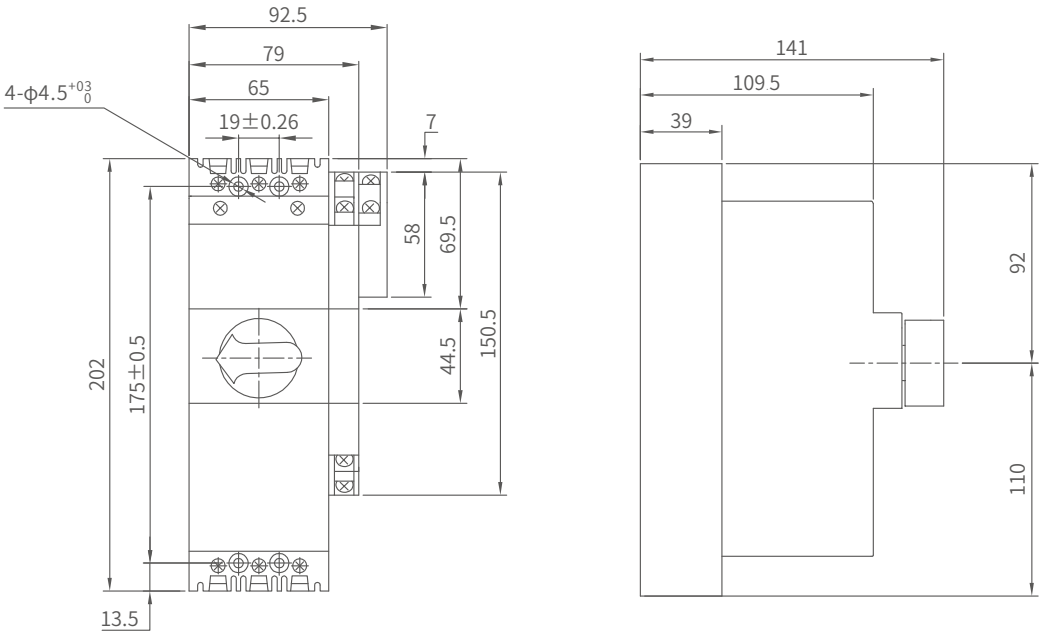
技术参数 TECHNICAL PARAMETER

壳架等级 Inm(A) Shell level rated current Inm (A)	极数 Pole	额定工作电压 Ue(V) Rated working voltage Ue(A)	额定绝缘电压 Ui(V) Rated insulation voltage Ui(V)	额定工作电流 Ie (A) Rated working current Ie (A)	额定控制电源电压 Us(V) Rated control power supply voltage Us (V)	额定工作频率 Hz Rated operating frequency Hz	使用类别 Usage Category	电磁脱扣器额定电流 In (A) Rated current of electromagnetic release In (A)	漏电额定电流 In (mA) Rated leakage current In(mA)	额定冲击耐受电压 Uimp (kV) Rated impulse withstand voltage Uimp (V)
45	3P	400	690	0.4、1、3、6、10、12、16、20、25、32、40、45	M: 230 Q: 400	50(60)	AC-43 AC-44	16、45	30、50、75、100、150、200、300、400、500	6000
125				50、63、80、100、125				100、125		

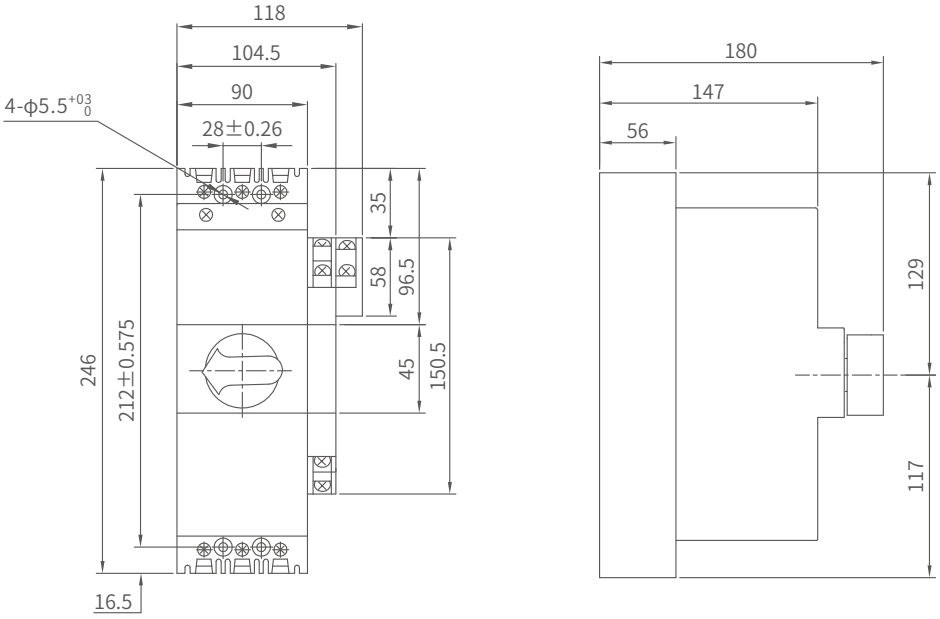
◎智能脱扣器的参数 ◎Parameters of intelligent release

壳架电流 Inm(A) Shell level rated current Inm (A)	电磁脱扣器额定电流 In(A) Rated current of electromagnetic release In (A)	智能脱扣器额定工作电流 Ie(A) Rated working current of intelligent release Ie (A)	长延时电流整定范围 (A) Long delay current setting range (A)	380V的控制功率范围 (kW) 380V control power range (kW)	使用类别 Usage Category
45	16	0.4	0.16~0.4	0.07~0.18	AC-42 AC-43 AC-44
		1	0.4~1	0.18~0.5	
		3	1~3	0.5~1.5	
		6	3~6	1.5~3	
		10	5~10	3~5	
		16	9~16	5~7.5	
	45	20	15~20	7.5~9	
		25	18~25	9~11	
		32	23~32	11~15	
		40	16~40	15~18.5	
		45	29~45	18.5~22	
125	63	50	42~50	22~24	
		63	47~63	24~30	
	125	80	58~80	30~37	
		100	67~100	37~45	
		125	67~125	32~60	

外形及安装尺寸 OUTLOOK AND MOUNTING SIZE



SWCPS-45



SWCPS-125

SINGI®

CB级
系列双电源自动转换开关

CB level series dual power automatic transfer switch

概述 PRODUCT OVERVIEW

SWQ系列智能双电源自动转换开关(以下简称开关),是一种紧急时仍继续供电开关,开关由断路器和线路控制器组成,它以最新的控制系统为核心,长期连续工作稳定可靠,是一种理想的机电一体化新型双电源自动转换开关。
产品符合标准:GB/T14048.11《低压开关设备和控制设备第6部分;多功能电器第1篇:自动转换开关电器》。

The SWQ series intelligent dual power automatic transfer switch (hereinafter referred to as the switch) is a type of switch that continues to supply power in case of emergency. The switch is composed of a circuit breaker and a line controller. It is based on the latest control system and has stable and reliable long-term continuous operation. It is an ideal electromechanical integrated new type of dual power automatic transfer switch.
The product meets the standard: GB/T14048.11 "Low voltage switchgear and control equipment - Part 6: Multifunctional electrical appliances - Part 1: Automatic transfer switching appliances".

适用范围 APPLICABLE SCOPE

本开关适用于50/60Hz,额定电压1000V以下的双电源供电开关,能实现常用电源(N)与备用电源(R)之间的自动或手动切换。(主备电源可以是电网、起动发电机组、蓄电池等,主备电源由用户自定)使双电源用电客户实现无人职守。本开关适用于国家规定的特级或一级负荷用户,如高层楼宇、邮电通讯、煤矿船舶、工业流水线、医疗卫生、军事设施、机场、消防、冶金、化工、纺织、石油等不允许停电的重要场所。

This switch is suitable for dual power supply switches with a rated voltage below 1000V at 50/60Hz, and can achieve automatic or manual switching between commonly used power supply (N) and backup power supply (R). (Main the backup power supply can be the power grid, starting generator set, battery, etc., and the main and backup power supply can be determined by the user, enabling dual power customers to achieve unmanned duty. This switch is applicable to the special level specified by the country or primary load users, such as high-rise buildings, post and telecommunications, coal mining ships, industrial assembly lines, medical and health facilities, military facilities, airports, fire protection, metallurgy, chemical, textile, petroleum, etc important places where power outages are allowed.

工作条件 WORKING CONDITIONS

◎海拔高度≤2000m;
◎环境温度-5℃～40℃ ;
◎最高温度40℃时,相对湿度≤50%;
◎最低温度20℃时,相对湿度≤90%;
◎类别为IV类;倾斜度不大于±23°;
◎污染等级:3级,无直接雨雪水侵蚀的地方。
◎八小时工作制或不间断工作制。
◎如果上述条件不能满足时,订货时应与制造商协商,本开关用于海上,石油和核电站应另行签订技术协议。

◎ Altitude ≤ 2000m;
◎Environmental temperature -5 °C~40 °C;
◎When the maximum temperature is 40 °C, the relative humidity is ≤ 50%;
◎When the minimum temperature is 20 °C, the relative humidity is ≤ 90%;
◎ Class IV; The inclination shall not exceed ± 23 °;
◎ Pollution level: Level 3, in areas without direct rain, snow, or water erosion.
◎Eight hour or uninterrupted working hours.
If the above conditions cannot be met, the manufacturer should be consulted when placing an order. This switch is used offshore, and a separate technical agreement should be signed for oil and nuclear power plants.

结构特点与功能 STRUCTURAL CHARACTERISTICS AND FUNCTIONS

SWQ系列开关切换驱动采用单电机驱动,结构简单,切换可靠平稳、无噪音、冲击力小。操作器驱动电机执行开关只在转换瞬间通过电流,稳态工作无需提供工作电流,节能显著,无温升发热、结点熔焊和电机烧毁现象;开关带有机械联锁保护,确保主备电源不会同时接通、保证常用、备用电源工作可靠,互不干涉。开关能带符合切换,紧急时可采用手柄进行手动切换。开关有电气或机械合闸指示,A.T.S控制电源均引自主备电源交流220V(无需另加控制电流)。
智能控制器同时提供带有失压、断相控制、欠压、延时控制、发电机控制、消防复位、反馈信号等多种功能,且抗干扰能力强,具有自投自复、互为备用三种工作模式;具有采用电源合、备用电源分、备用电源合;常用电源分、备用电源分三种稳定工作状态。
安装方便,控制回路采用接插式端子连接。
可用专用手柄在手动状态下进行手动转换。

The SWQ series switch switching drive adopts a single motor drive, with a simple structure, reliable and stable switching, no noise, and low impact force. The operator drives the motor to execute the switch only at the moment of conversion By using current, steady-state operation does not require the provision of working current, which significantly saves energy and eliminates temperature rise, heat generation, node welding, and motor burning; The switch is equipped with mechanical interlocking protection to ensure that the main and backup power supplies are not simultaneously connect and ensure reliable operation of both common and backup power sources, without interfering with each other. The switch can be switched according to the requirements, and in case of emergency, the handle can be used for manual switching. The switch is electrically or mechanically closed Indications: The A.T.S control power supply is all sourced from the main and backup power supply AC 220V (without the need for additional control current).
The intelligent controller provides multiple functions such as voltage loss, phase loss control, undervoltage, delay control, generator control, fire reset, feedback signal, etc., and has strong anti-interference ability there are three working modes: automatic switching and automatic recovery, and mutual backup; Capable of using power on, backup power off, and backup power on; There are three stable operating states for commonly used power sources and backup power sources.
Easy to install, the control circuit is connected with plug-in terminals.
A dedicated handle can be used for manual switching in manual mode.

SWQ1-63S/4P
基本型(Basic type)

SWQ1-63S/4P X
消防型(Fire protection type)

型号含义 TYPE MEANING

SW Q 1 - □□ / □P □ □A

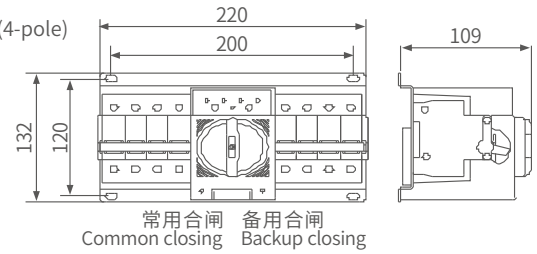
额定电流	Rated current
控制器类型:无:基本型; X:消防型	Controller type: None: Basic type; X: Fire protection type
极数:2P 、3P、4P	Number of poles: 2P, 3P, 4P
产品代号:S型、N型	Product code: S-type, N-type
壳架等级	Shell frame level
设计序号	Design serial number
双电源自动转换开关	Dual power automatic transfer switch
公司代号(信基公司)	Company code (SINGI)

技术参数 TECHNICAL PARAMETER

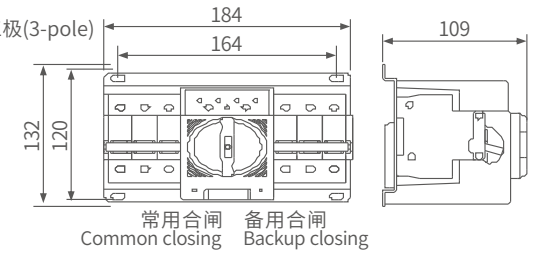
极数 Pole	额定电压Ue(V) Rated voltage Ue (V)	额定电流In(A) Rated current In (A)	频率(Hz) Frequency (Hz)	极限短路分断能力(A) Ultimate short-circuit breaking capacity (A)	机械寿命(次数) Mechanical life (number of times)
2	220V	6、10、16、20、25、32、40	50/60	6000	10000
3	380V				
4	380V	50、63		4500	

外形及安装尺寸 OUTLOOK AND MOUNTING SIZE

四极(4-pole)

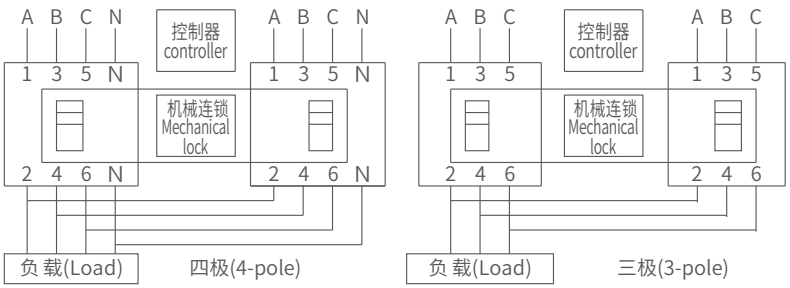


三极(3-pole)



接线示意图 WIRING DIAGRAM

◎主回路接线图
Main circuit wiring diagram

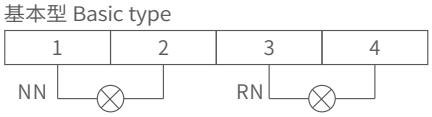


注意:如果用户选用三极产品时,N线必接,常用N线(外接端子序号1)、备用N线(外接端子序号3),三极N线不接此处,产品不会动作(四极除外)。

Note: If the user selects a three pole product, the N wire must be connected. The commonly used N wire (external terminal number 1) and the backup N wire (external terminal number 3) are not connected here, and the product will not operate (except for the four poles).

◎外接合闸指示及消防接线图
External closing indication and fire wiring diagram

基本型 Basic type



常用合闸指示220V
Common closing output indication 220V

备用合闸指示220V
Backup closing output indication 220V

消防型 Fire protection type

常用合闸输出指示220V
Common closing Output indication 220V

备用合闸输出指示220V
Backup closing Output indication 220V

消防无源触点
Fire passive contact

SWQ1系列 双电源自动转换开关(N型)
SWQ1 SERIES DUAL POWER AUTOMATIC TRANSFER SWITCH (N TYPE)

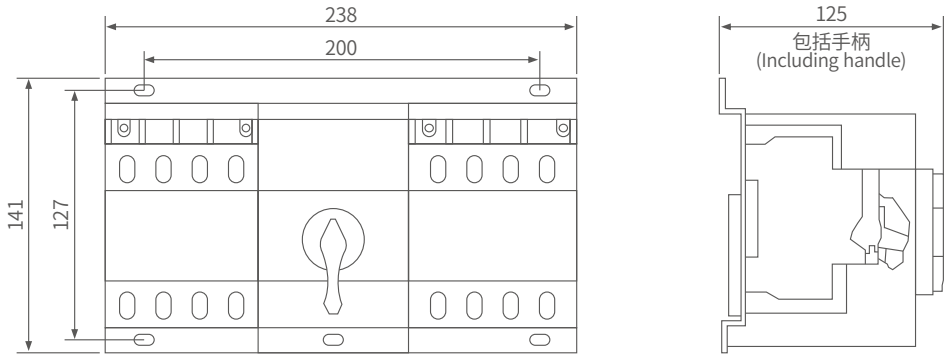
SWQ1- 63N/4P

接通与分断能力 MAKING AND BREAKING CAPACITY

使用类别 Usage Category	接通与分断试验条件 Connection and disconnection test conditions					
	I/Ie	U/Ue	CosΦ	通电时间Power on time	循环周期Cycle period	操作循环次数Number of operation cycles
Ac-33iB	6.0	1.05	0.5	0.05s	Imin	5

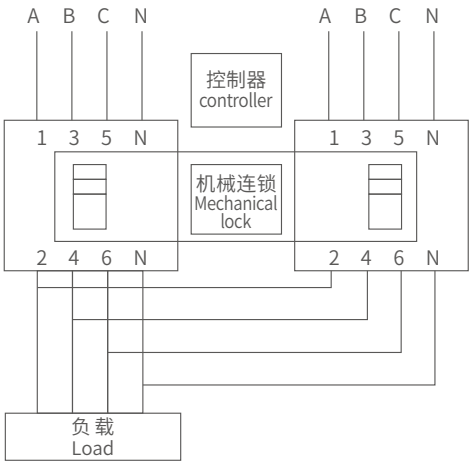
注:Ae- 33iB系统总负荷包含笼型电动机及阻性负载
Note: The total load package of Ae-33iB system includes cage motors and resistive loads

外形及安装尺寸 OUTLOOK AND MOUNTING SIZE

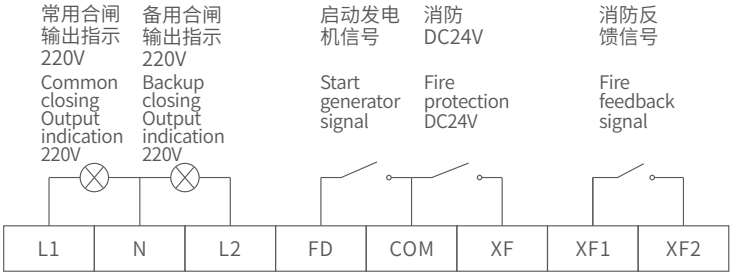


接线示意图 WIRING DIAGRAM

◎主回路接线图
Main circuit wiring diagram



◎外接合闸指示及消防接线图
External closing indication and fire wiring diagram



注:
1.XF、XF1、XF2为带消防端子,基本型该端子不使用;
2.当使用消防型时可按上图接线消防接口输入电源为DC24V;图中L1为常用合闸指示灯、L2为备用合闸指示灯。

Note:
1. XF, XF1, and XF2 are equipped with fire terminals, which are not used for basic models;
2. When using the fire protection type, the fire interface can be wired according to the above diagram, and the input power supply is DC24V; In the figure, L1 is the commonly used closing indicator light, and L2 is the backup closing indicator light.

SWQ1系列 双电源自动转换开关(Y/F型)

SWQ1 SERIES DUAL POWER AUTOMATIC TRANSFER SWITCH (Y/F TYPE)

SWQ1Y- 100M/4P
(一体式)

SWQ1F- 100M/4P
(分体式)

型号含义 TYPE MEANING

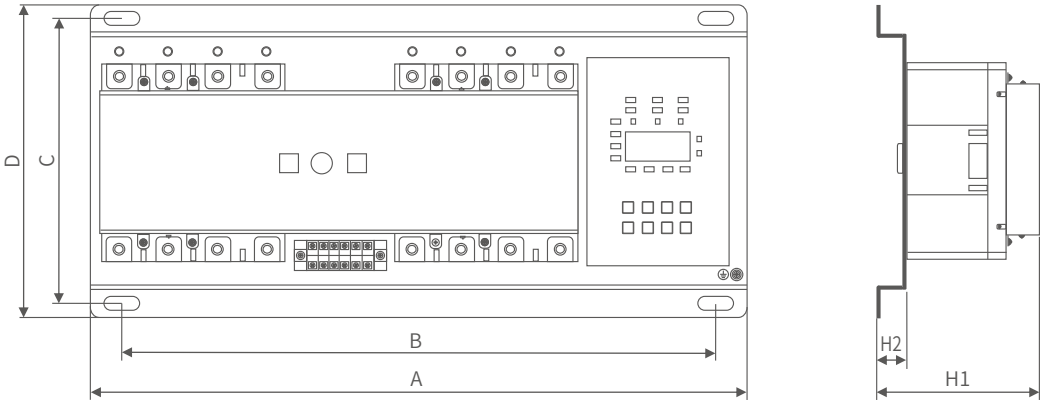
SW Q 1 □-□ □/□P □A

额定电流	Rated current
极数:3P、4P	Number of poles: 3P, 4P
塑壳断路器分断能力:L型、M型	Breaking capacity of molded case circuit breakers: L-type, M-type
壳架等级	Shell frame level
产品代号:Y:一体数码管显示;F:分体数码管显示; YJ:一体液晶显示;FJ:分体液晶显示	Product code: Y: integrated Nixie tube display; F: Split Nixie tube display; YJ: Integrated LCD display; FJ: Split LCD display
设计序号	Design serial number
双电源自动转换	Dual power automatic conversion
公司代号(信基伟业)	Company code (SINGI)

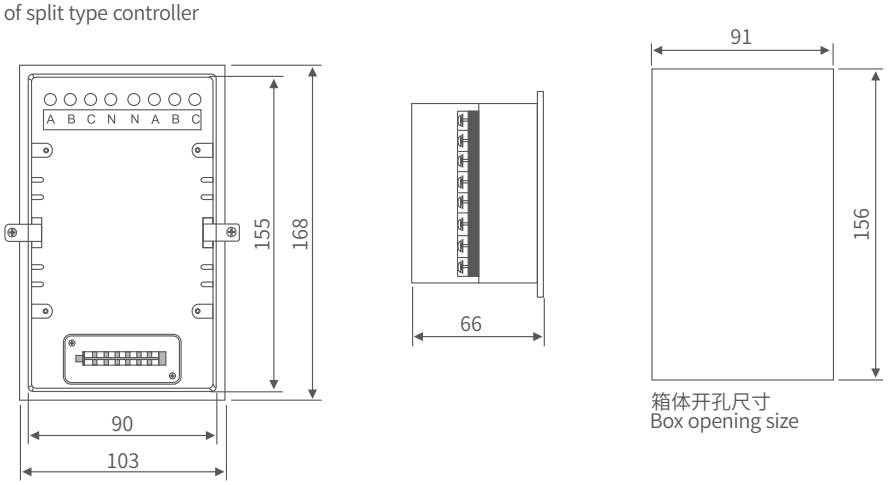
技术参数 TECHNICAL PARAMETER

型号 Type	机械寿命 Mechanical life	电寿命 Electrical lifespan	额定工作制 Rated duty system	过电压切换整定值 Overvoltage switching setting value	欠电压切换整定 调节范围 Undervoltage switching adjustment range	触头转换时间 Contact transfer time	分闸时间 t1 Opening time t1	分闸时间 t2 Opening time t2
SWQ1-100/225	5000	1000	不间断工作制 Uninterrupted working system	120%Ue	(60%~85%)Ue 连续可调 continuously adjustable	＜4S	0.5-30s 连续可调 continuously adjustable	
SWQ1-400	3000	1000						
SWQ1-630	2500	500						

外形及安装尺寸 OUTLOOK AND MOUNTING SIZE



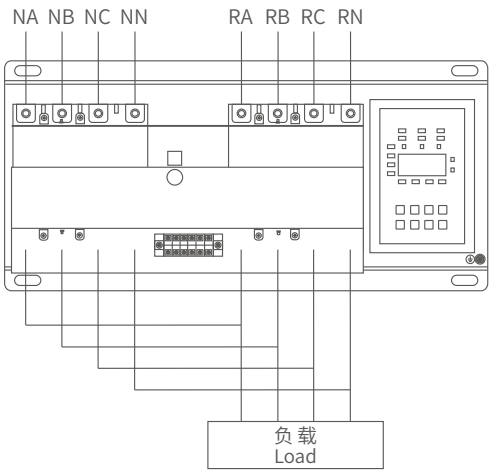
◎分体式控制器外形尺寸
External dimensions of split type controller

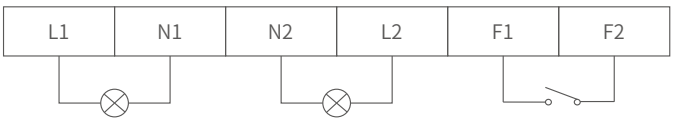


箱体开孔尺寸
Box opening size

尺寸Size / 型号Type	A(mm)		D(mm)	B(mm)		C(mm)	H1(mm)
	3P	4P		3P	4P		
SWQ1-100	430	460	244	402	434	225	＜150
SWQ1-225	475	510	244	447	482	225	＜160
SWQ1-400	570	618	325	522	572	302	＜200
SWQ1-630	670	730	325	617	682	302	＜250
SWQ1-800	725	790	328	670	742	307	＜250

接线示意图 WIRING DIAGRAM





N电源合闸输出指示 AC220V

N power supply closing output indication AC220V

R电源合闸输出指示 AC220V

R power supply closing output indication AC220V

发电机启动触点

Generator start contact

注：本接线图适合四极ATSE，当选用三极ATSE时，常用电源零线(NN)接到接线板N1脚，备用电源零线(RN)接到接线板N2脚。

Note: This wiring diagram is suitable for a four pole ATSE. When using a three pole ATSE, the common power supply zero line (NN) is connected to the N1 pin of the wiring board, and the backup power supply zero line (RN) is connected to the N2 pin of the wiring board.

SWQ1系列 双电源自动转换开关(YJ/FJ型)

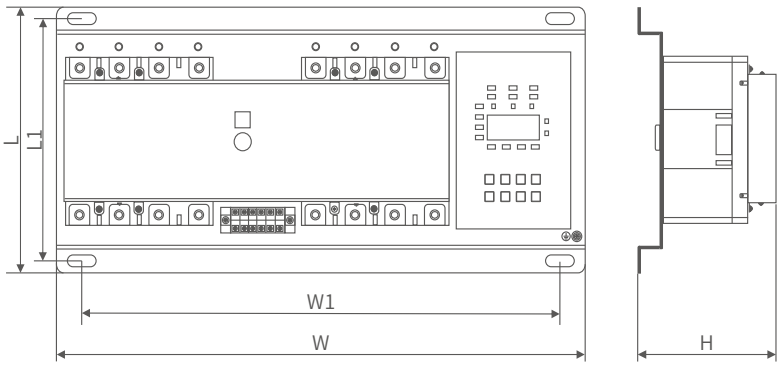
SWQ1 SERIES DUAL POWER AUTOMATIC TRANSFER SWITCH (YJ/FJ TYPE)

SWQ1YJ-100M/4P

技术参数 TECHNICAL PARAMETER

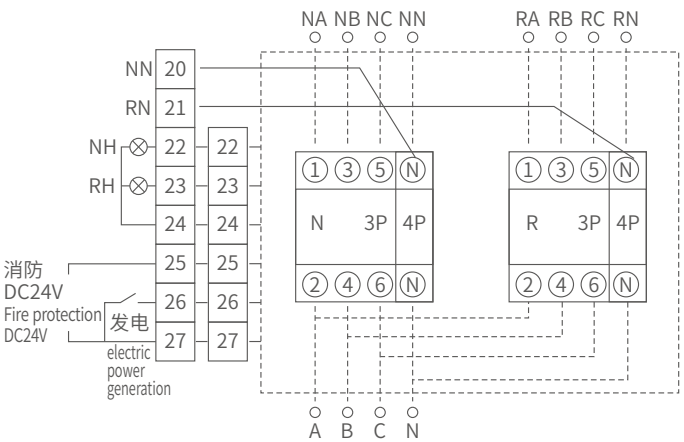
型号 Type	断路器型号 Circuit breaker type	壳架电流(A) Shell level rated current (A)	额定工作电流(A) Rated working current (A)	绝缘电压(V) Insulation voltage (V)	频率 frequency	延时时间 Delay Time	控制额定工作电压(V) Control rated working voltage (V)	机械寿命 mechanical life
SWQ1YJ-100	CM1系列 M型	100	10/16/20/32/40/50/63/80/100	2500 一分钟内无闪烁无击穿 No flickering or breakdown within one minute	50~60Hz	0~30秒可调 Adjustable in 0~30 seconds	AC230V	5000次 (times)
SWQ1YJ-225		225	100/125/140/160/180/200/225					
SWQ1YJ-400		400	200/250/315/350/400					
SWQ1YJ-630		630	250/315/350/400/500/630					
SWQ1YJ-800		800	630/700/800					
SWQ1YJ-1250		1250	1250/1600/2000					

外形及安装尺寸 OUTLOOK AND MOUNTING SIZE



型号Type	W	L	H	W1	L1
SWQ1YJ-100M/3P	385	210	138	350	190
SWQ1YJ-100M/4P	420	240	138	390	220
SWQ1YJ-225M/3P	435	215	173	400	195
SWQ1YJ-225M/4P	470	245	173	440	225
SWQ1YJ-400M/3P	560	310	205	510	285
SWQ1YJ-400M/4P	610	320	205	555	295
SWQ1YJ-630M/3P	630	320	205	580	300
SWQ1YJ-630M/4P	740	330	205	685	300
SWQ1YJ-800M/3P	725	330	210	670	300
SWQ1YJ-800M/4P	790	330	210	735	300
SWQ1YJ-1250M/3P	670	390	210	625	370
SWQ1YJ-1250M/4P	800	390	210	755	370

接线示意图 WIRING DIAGRAM



20.常用零线	20. Common zero line
21.备用零线	21. Spare zero line
22.常用指示灯	22. Common indicator lights
23.备用指示灯	23. Backup indicator light
24.指示灯公用端	24. Indicator light common terminal
25.消防信号输入	25. Fire signal input
26.发电触点(5A)	26. Power generation contact (5A)
27.发电消防公用端	27. Power generation and fire protection common terminal

SWK1系列 双电源自动转换开关控制器
SWK1 SERIES DUAL POWER AUTOMATIC TRANSFER SWITCH CONTROLLER

SINGI®

电气性能及功能 PRODUCT OVERVIEW

◎常用电源及备用电源电压检测(欠电压60%~85%可调，过电压120%)。
◎可任意设置自投自复、自投不自复、电网-发电机模式。
◎消防报警联动-转换到0位。
◎具有手动转换模式与自动转换模式选择功能
◎在电网-发电机模式下可输出发电机启动信号。
◎可单独设定分闸延时和合闸延时(0.5-30秒任意调节)。

◎ Common and backup power supply voltage detection (under voltage 60%~85% adjustable, over voltage 120%).
◎ It is possible to set automatic switching and self recovery, automatic switching and non automatic recovery, and grid
generator modes at will.
◎ Fire alarm linkage - switch to 0 position.
◎ It has the function of selecting manual and automatic conversion modes
◎ In the grid generator mode, the generator start signal can be output.
◎ The opening delay and closing delay can be set separately (adjustable from 0.5 to 30 seconds).

工作模式 WORKING MODE

◎**自投自复(R)**
通电初始化默认为常用电源供电，当常用电源(N)电压发生异常。经分闸延时后开关自动断到零界位，再经合闸延时后自动切换到备用电源(R)供电，当常用电源(N)恢复正常后关自动回复到常用电源。
◎**自投不自复(S)**
控制器对两路电源的常用(N)及备用(R)时进行检测与切换。初始化状态时默认常用供当常用电源(N)电压出现异常(任一相电源电压发生过电压、欠电压缺相)时，经分闸延时开关自动切换到零界位。经合闸延时后，自动切换到备用电源(R)供电。当常用电源(N)恢正常后，开关不能自动回复，只有当备用电源(R)出现异常后，开关才回复到常用电源(N)
◎**电网--发电机(F)**
控制器检测常用电源(N)，因备用电源(R)为发电机时，常用电源电压正常时不起动发电在电网电压出现异常时本智能系统会由发电控制接口给发电机提供一个发电指令(以一组闭触点)。当发电机正常启动后，开关经延时后自动切换到备用电源(R)供电。当电网电压(N)恢复正常后，智能系统经延时后自动从备用电源(R)断开，切换到常用电源(N)供电然自动停止发电机。

◎ **Automatic switching and recovery (R)**
Power on initialization defaults to the common power supply, and when the voltage of the common power supply (N) is abnormal. After the opening delay, the switch automatically switches off to the zero limit position, and then after the closing delay, it automatically switches to the backup power supply (R) for power supply. When the common power supply (N) returns to normal, it automatically returns to the common power supply when turned off.
◎ **Automatic switching and non automatic recovery (S)**
The controller detects and switches between the common (N) and backup (R) of two power sources. When in the initialization state, the default commonly used power supply (N) automatically switches to the zero limit position through the opening delay switch when the voltage of the commonly used power supply (N) is abnormal (overvoltage, undervoltage, and phase loss occur in any phase of the power supply). After the delay of the power switch, it automatically switches to the backup power supply (R) for power supply. When the common power supply (N) returns to normal, the switch cannot automatically return. Only when the backup power supply (R) is abnormal, the switch will return to the common power supply (N)
◎ **Grid - Generator (F)**
The controller detects the commonly used power supply (N), as when the backup power supply (R) is the generator, the power generation will not start when the commonly used power ply voltagsupe is normal. In case of abnormal grid voltage, this intelligent system will provide a power generation command (with a set of closed contacts) to the generator through the power generation control Interface. After the generator starts normally, the switch automatically switches to the backup power source (R) for power supply after a delay. When the grid voltage (N) returns to normal, the intelligent system automatically disconnects from the backup power supply (R) after a delay, switches to the common power supply (N), and automatically stops the generator.

设置说明 SETTING INSTRUCTIONS

◎Y型控制器与开关本体安装在一起，采用智能单片机程序控制;操作方便、功能强大。
◎根据工作电源电压是否在所设定的范围内，以及自动转换开关所处的工作方式决定是否进行电源转换。
◎对备用发电机组进行启停控制。
◎方便的按键式手动强制转换动作。
◎消防联动功能。
◎故障状态:常用及备用A、B、C相电源，若遇到电路故障(欠电压、过电压、缺相)，常用及备用电源的故障指示将显示该电源有故障，GNK1控制器将进一步检测该电源是否遇到欠电压、过电压或缺相，然后在控制器面板显示所故障。
◎电压显示(采用滚动方式): 常用电源工作时控制器面板所显示的电压为常用A、B、C相电压，当备用电源工作时控制器面板所显示的电压为备用电源A、B、C相的电压。

键盘操作区：
◎自动/手动:自动模式切换手动模式,需要在面板“自动/手动”键连续按5次，才可以自动/手动切换模式。
◎设置:在工作状态下，按下设置键将进入设置模式可设置的项目有:欠电压值、过电压值、延时值、自投自复值、自投不自复、电网对电网模式、电网对发电机模式、设置完成后按“保存”退出。
◎常用:在手动转换方式下若常用电源正常时，按下此键开关即可转换到常用电源供电。
◎备用:在手动转换方式下若备用电源正常时，按下此键开关即可转换到备用电源供电。
◎双分:在手动转换方式下若开关处于合闸位置时按下此键开关立即转换到双分位置，负载将停止供电。

◎ The Y-type controller is installed together with the switch body and controlled by an intelligent microcontroller program; Easy to operate and powerful in functionality.
◎ Determine whether to perform power conversion based on whether the working power supply voltage is within the set range and the working mode of the automatic transfer switch.
◎ Start and stop control of the backup generator set.
◎ Convenient button type manual forced conversion action.
◎ Fire linkage function.
◎ Fault status: Common and backup A, B, and C phase power supplies. If a circuit fault (undervoltage, overvoltage, or phase loss) is encountered, the fault indicator of the common and backup power supplies will display that the power supply has a fault. The GNK1 controller will further detect whether the power supply has encountered undervoltage, overvoltage, or phase loss, and then display the fault on the controller panel.
◎ Voltage display (using scrolling mode): When the common power supply is working, the voltage displayed on the controller panel is the voltage of the common A, B, and C phases. When the backup power supply is working, the voltage displayed on the controller panel is the voltage of the backup power supply A, B, and C phases.

Keyboard operation area:
◎ Automatic/Manual: To switch between automatic mode and manual mode, it is necessary to press the "Automatic/Manual" button continuously 5 times on the panel to switch between automatic and manual modes.
◎ Setting: In working mode, press the setting button to enter the setting mode. The items that can be set include: undervoltage value, overvoltage value, delay value, automatic switching and self resetting value, automatic switching and non automatic resetting, grid to grid mode, grid to generator mode. After setting, press "save" to exit.
◎ Common: In manual conversion mode, if the common power supply is normal, press this key switch to switch to the common power supply.
◎ Backup: In manual conversion mode, if the backup power supply is normal, press this key switch to switch to the backup power supply.
◎ Double opening: In manual switching mode, if the switch is in the closed position and this key is pressed, the switch will immediately switch to the double opening position, and the load will stop power supply.

FJ、YJ控制器

电气性能及功能 PRODUCT OVERVIEW

智能控制器由键盘位置输入和(LED)显示,可对常用电源(N)和备用电源(R)三相同步检测,并轮流显示每一相电压的状态:对断相、失压、失压或欠压,低于额定工作电压值的80%时判为欠压,高于额定工作电压值的120%时判为过压,微机对检测结果做出处理,然后发出相应指令,处理结果可显示在(LECD)上,给用户一个良好的人机对话界面;当控制器检测到消防指令(DC24V电源)时,控制器发出指令将开关双分;当报警系统打开时(按⛁键,同时LCD显示“报警”,表示报警系统打开),当检测到消防指令或常备用电源都出现异常时会发出“嘟嘟”的报警声;报警系统可人工关闭(按⛁键,LCD上的“报警”字样消失)。

The intelligent controller is equipped with a keyboard position input and (LED) display, which can synchronously detect the three phases of the commonly used power supply (N) and backup power supply(R), and alternately display the status of each phase's voltage: for open phase, loss of voltage, loss of voltage, or undervoltage, it is judged as undervoltage when it is below 80% of the rated working voltage value, and overvoltage when it is above 120% of the rated working voltage value. The microcomputer processes the detection results and sends corresponding instructions, and the processing results can be displayed on LECD, Provide users with a good human-machine dialogue interface; When the controller detects a fire command (DC24V power supply), the controller sends a command to double open the switch; When the alarm system is turned on (press the⛁key, and the LCD displays "Alarm" to indicate that the alarm system is turned on), a "beep" alarm sound will be emitted when abnormal fire command or standby power supply are detected; The alarm system can be manually turned off (by pressing the⛁key, the word "alarm" on the LCD disappears).

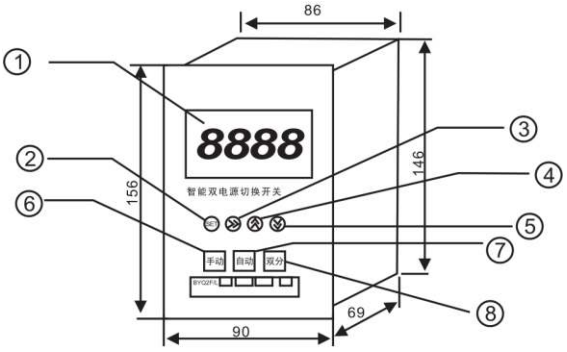
工作模式:
◎自投自复(R)式:适用电网与电网
◎自投不自复(S)式:适用电网与电网
◎自投自复(F)式:适用电网与发电
◎内置发电和消防功能DC24V
注:自保是该系列中的特色,当电源出现异常具有先保护再延时的特色。

Working mode:
◎Self switching and self restoring (R) type: suitable for power grids and power grids
◎Self switching and non self resetting (S) type: suitable for power grids and power grids
◎Self switching and self recovery (F) type: suitable for power grids and power generation
◎Built in power generation and fire protection function DC24V
Note: Self protection is a feature of this series, and when there is an abnormality in the power supply, it has the feature of first protecting and then delaying.

设置说明 SETTING INSTRUCTIONS

SET设置键、位移◑、增⛁、减⛁、初始密码为8888。内部参数厂方已预设好,用户无需改动。“0.3S”延时时间、“FFF0”自动不自负,“SF01”双分时间。

SET setting key, displacement⛁, increase by⛁, decrease by⛁, initial password 8888. The internal parameters have been preset by the factory and do not need to be modified by the user. The delay time of "0.3S", "FFF0" are automatically not self reliant, and "SF01" is a dual split time.



开孔尺寸(Opening size):86×146mm

1.LCD显示屏	1. LCD display screen
2.设定键	2. Setting key
3.右移键	3. Right shift key
4.数字加键	4. Numeric keying
5.数字减键/报警	5. Number reduction key/alarm
6.手动键	6. Manual key
7.自动键	7. Automatic key
8.双分键	8. Double split key

液晶屏显示内容：

1.“常用”表示开关处于常用合闸位置；
2.“备用”表示开关处于备用合闸位置；
3.“NA”显示检测常用A相电压
4.“NB”显示检测常用B相电压；
5.“NC”显示检测常用C相电压；
6.“RA”显示检测备用A相电压；
7.“RB”显示检测备用B相电压；
8.“RC”显示检测备用C相电压；
9.“设置”表示控制器已进入设置状态；
10.“自动”表示控制器处于自动工作状态，自动检测常用，备用各相电压是否正常，并且按设定的状态切换开关位置；
11.“手动”表示控制器处于手动状态，点按手动按键开关可切换一次；
12.“双分”表示控制器已经检测到按手动按钮切换到双分位置；
13.“自投自复”表示控制器工作状态为自投不自复；
14.“自投不自复”表示控制器工作状态为自投不自复；
15.“报警”表示控制器报警系统已打开；
16.“N-R”闪动表示常用优先；
17.“R-N”闪动表示备用优先；
18.按“◑”显示相应电压值。

智能控制器操作说明：
进入方法及按键说明：控制器工作时按“SET”键进入设置状态，如图1所示，按“◑”进入下一参数显示或右移位，按“◑”键对当前数据进行增加，按“⊖”键对当前数据进行减少。

LCD screen display content：

1. "Common" indicates that the switch is in the common closing position;
2. "Standby" indicates that the switch is in the standby closing position;
3. "NA" displays the commonly used A-phase voltage for detection
4. "NB" displays the commonly used B-phase voltage for detection;
5. "NC" displays the commonly used C-phase voltage for detection;
6. "RA" displays the detection of standby phase A voltage;
7. The "RB" display detects the backup B-phase voltage;
8. "RC" display detects backup C-phase voltage;
9. "Setting" indicates that the controller has entered the setting state;
10. "Automatic" indicates that the controller is in automatic working state, with automatic detection of common and backup phases check if the voltage is normal and switch the switch position according to the set state;
11. "Manual" indicates that the controller is in manual mode, and pressing the manual button switch can switch once;
12. "Double split" indicates that the controller has detected that the manual button has been pressed to switch to the double split position;
13. "Self switching and self resetting" indicates that the controller's working state is self switching and not self resetting;
14. "Self switching and non self resetting" indicates that the controller's working state is self switching and non self resetting;
15. "Alarm" indicates that the controller alarm system has been turned on;
16. "N-R" flashing indicates common priority;
17. "R-N" flashing indicates backup priority;
18. Press "◑" to display the corresponding voltage value.

Intelligent controller operation instructions:
Entry method and key instructions: When the controller is working, press the "SET" button to enter the setting state, as shown in Figure 1. Press "◑" to enter the next parameter display or right shift, press "◑" to increase the current data, and press "⊖" to decrease the current data.

步骤 Step	按键 key	显示数据 Display data	操作 Operate		功能 Function
1	>>	CodE	进入设定状态	Entering the set state	密码设定 Password Setting
2	>>	OodE	用(≈≈)键设定第一位密码数据	Use the (≈≈) key to set the first password data	
3	>>	80dE	用(≈≈)键设定第二位密码数据	Use the (≈≈) key to set the second password data	
4	>>	880E	用(≈≈)键设定第三位密码数据	Use the (≈≈) key to set the third password data	
5	>>	8880	用(≈≈)键设定第四位密码数据	Use the (≈≈) key to set the fourth digit password data	密码设定8888 Password Setting 8888
6	>>	dddd/N-R 03s	密码正确显示常用-备用转换时间	Correct password display for common backup conversion time	常用-备用转换时间 Common backup conversion time
			用(≈≈)键设定N-R第一位时间长短	Use the (≈≈) key to set the duration of the first digit of N-R	
7	>>	N-R 03s	显示常用-备用转换时间	Display common standby conversion time	
			用(≈≈)键设定N-R第二位时间长短	Use the (≈≈) key to set the duration of the second digit of R-N	
8	>>	R-N 03s	显示备用-常用转换时间	Display standby to common conversion time	备用-常用转换时间 Standby to common conversion time
			用(≈≈)键设定R-N第一位时间长短	Use the (≈≈) key to set the duration of the first digit of R-N	
9	>>	R-N 03s	显示备用-常用转换时间	Display standby to common conversion time	
			用(≈≈)键设定R-N第二位时间长短	Use the (≈≈) key to set the duration of the second digit of R-N	
10	>>	SF 08s	显示双分转换时间	Display double split conversion time	双分转换时间 Dual conversion time
			用(≈≈)键设定SF第一位时间长短	Use the (≈≈) key to set the duration of the first position of SF	
11	>>	SF 08s	显示双分转换时间	Display double split conversion time	
			用(≈≈)键设定SF第二位时间长短	Use the (≈≈) key to set the duration of the second position of SF	
12	>>	FFF 1	用(≈≈)键设定自复为1，不自复为0	Use the (≈≈) key to set the self reset to 1 and the non self reset to 0	自复，不自复 Self-recovery,No self-recovery
13	>>	FD 0	用(≈≈)键设定全自动发电为0，半自动为1	Use the (≈≈) key to set fully automatic power generation to 0 and semi-automatic to 1	起动发电机 Starter Generator
14	>>	FC 0	用(≈≈)键设定常用优先为0，备用优先为1	Use the (≈≈) key to set the common priority to 0 and the backup priority to 1	优先级设定 Priority Setting
15	>>	H 130	用(≈≈)键设定过压值设定(220V*130%)	Use the (≈≈) key to set the overvoltage value setting (220V * 130%)	过压值设定 Overvoltage value setting
16	>>	L 50	用(≈≈)键设定欠压值设定(220V*50%)	Use the (≈≈) key to set the undervoltage value setting (220V * 50%)	欠压值设定 Undervoltage value setting
17	>>	NA 220V	用(≈≈)键校正常用电A相电压值	Use the (≈≈) key to calibrate the normal A-phase voltage value of power consumption	显示实际电压 Display actual voltage
18	>>	NB 220V	用(≈≈)键校正常用电B相电压值	Use the (≈≈) key to calibrate the normal B-phase voltage value of power consumption	
19	>>	NC 220V	用(≈≈)键校正常用电C相电压值	Use the (≈≈) key to calibrate the normal C-phase voltage value of power consumption	
20	>>	RA 220V	用(≈≈)键校正备用电A相电压值	Use the (≈≈) key to correct the backup power A-phase voltage value	
21	>>	RB 220V	用(≈≈)键校正备用电B相电压值	Use the (≈≈) key to correct the backup power B-phase voltage value	
22	>>	RC 220V	用(≈≈)键校正备用电C相电压值	Use the (≈≈) key to correct the backup power C-phase voltage value	
23	>>	SAVE			

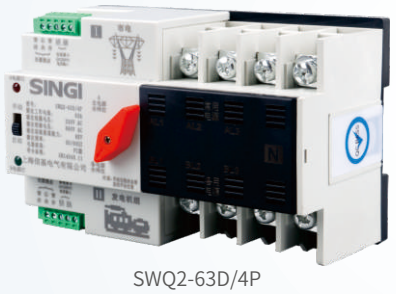
SINGI®

PC级
系列双电源自动转换开关

PC level series dual power automatic transfer switch

SWQ2系列 双电源自动转换开关(D型)

SWQ2 SERIES DUAL POWER AUTOMATIC TRANSFER SWITCH(D TYPE)



SWQ2-63D/4P

适用范围 SCOPE OF APPLICATION

本开关适用于50/60Hz，额定电压1000V以下的双电源供电开关，能实现常用电源(N)与备用电源(R)之间的自动或手动切换。(主备电源可以是电网、起动发电机组、蓄电池等，主备电源由用户自定)使双电源用电客户实现无人职守。本开关适用于国家规定的特级或一级负荷用户，如高层楼宇、邮电通讯、煤矿船舶、工业流水线、医疗卫生、军事设施、机场、消防、冶金、化工、纺织、石油等不允许停电的重要场所。

This switch is suitable for dual power supply switches with a rated voltage of less than 1000V at 50/60Hz, and can achieve automatic or manual switching between commonly used power supply (N) and backup power supply (R). The main and backup power sources can be the power grid dynamic generator sets, batteries, etc., with the main and backup power sources determined by the user, enable dual power customers to achieve unmanned operation shou. This switch is suitable for special or first class load users as stipulated by the state, such as high-rise buildings, post and telecommunications coal mining vessels, industrial assembly lines, medical and health facilities, military facilities, airports, fire protection, metallurgy, chemical industry, textiles Important places such as textiles and oil that do not allow power outages.

型号含义 TYPE MEANING

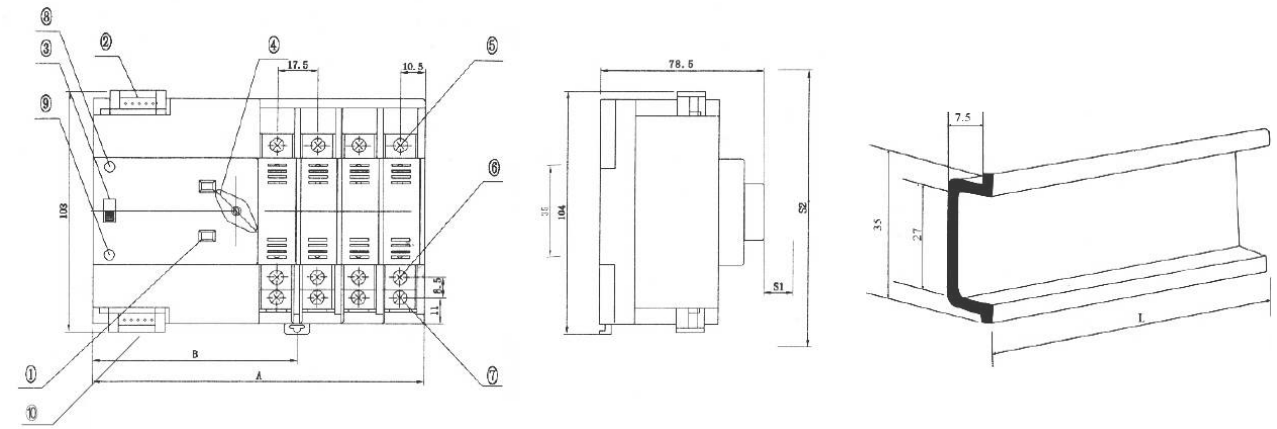
SW Q 2 - 63 D / □P □A

额定电流	Rated current
极数：2P,3P,4P	Number of poles: 2P, 3P, 4P
产品代号	Product code
壳架等级	Shell frame level
设计序号	Design serial number
双电源自动转换开关	Dual power automatic transfer switch
公司代号(信基伟业)	Company code (SINGI)

技术参数 TECHNICAL PARAMETER

额定工作电流Ie(A)	Rated working current Ie (A)	6、10、16、20、25	32、40、50、63
额定绝缘电压Ui(V)	Rated insulation voltage Ui (V)	AC690V	
额定工作电压Ue(A)	Rated working voltage Ue (A)	AC400V	
级别	Level	PC级(Level)	
使用类别	Utilization category	AC-33iB	AC-31B
重量(kg)	Weight (kg)	2P:1.7 3P:2.1 4P:2.6	
寿命	Life	电气寿命：2000次；机械寿命：5000次 Electrical life: 2000 times; Mechanical life: 5000 times	
额定限制短路电流Is	Rated limiting short-circuit current Is	50kA	
额定短时耐受电流Is	Rated short time withstand current Is	1.5kA	
额定冲击耐受电压Uimp	Rated impulse withstand voltage Uimp	8kV	
转换时间	Conversion time	<50mS	
触头转换时间	Contact transfer time	<50mS	
返回时间	Return Time	<50mS	
总动作时间	Total operating time	<50mS	
额定控制电压Us	Rated control voltage Us	AC220V,正常工作电压85%Us-110%Us AC220V, normal working voltage 85% Us-110% Us	

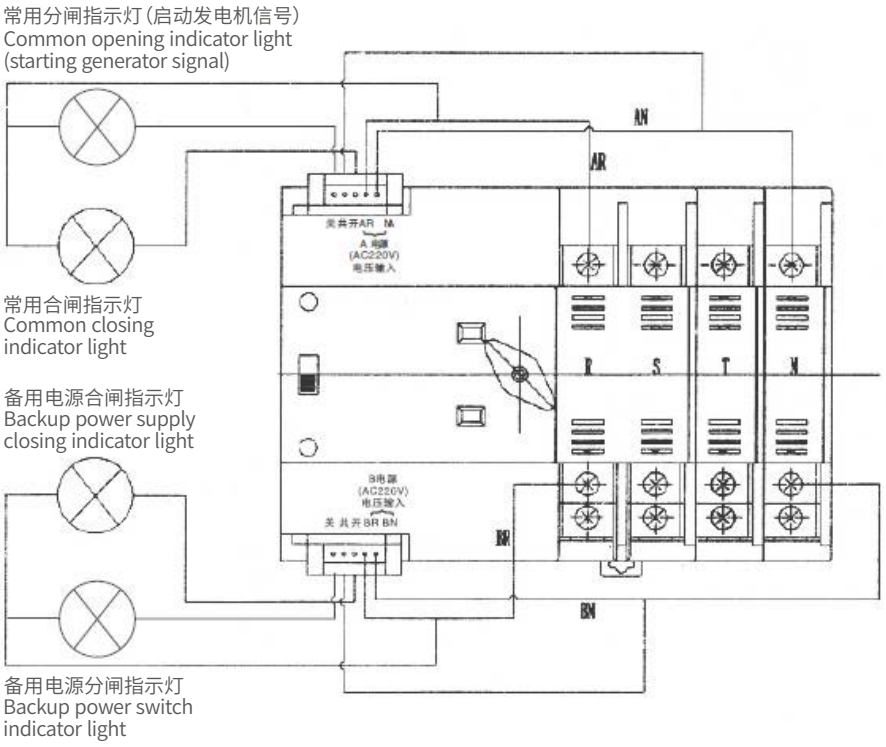
外形及安装尺寸 OUTLOOK AND MOUNTING SIZE



极数 Pole	A	B
2P	107.5	72
3P	125	78
4P	142.5	88

①开/关指示灯	① On/Off indicator light
②常用接线端子(AC220V)	② Common terminal blocks (AC220V)
③选择开关(手动/自动	③ Selection switch (manual/automatic
④手动旋钮	④ Manual knob
⑤常用电源侧主接线端子	⑤ Common power side main wiring terminal
⑥备用电源侧主接线端子	⑥ Main wiring terminal on the backup power side
⑦负载接线侧主接线端子	⑦ Main wiring terminal on the load wiring side
⑧电源A指示灯	⑧ Power A indicator light
⑨电源B指示灯	⑨ Power B indicator light
⑩备用接线端子(AC220V)	⑩ Spare terminal blocks (AC220V)

接线图 WIRING DIAGRAM



SWQ2系列 双电源自动转换开关(GS型)

SWQ2 SERIES DUAL POWER AUTOMATIC TRANSFER SWITCH (GS TYPE)

SWQ2-100GS/4P

型号含义 TYPE MEANING

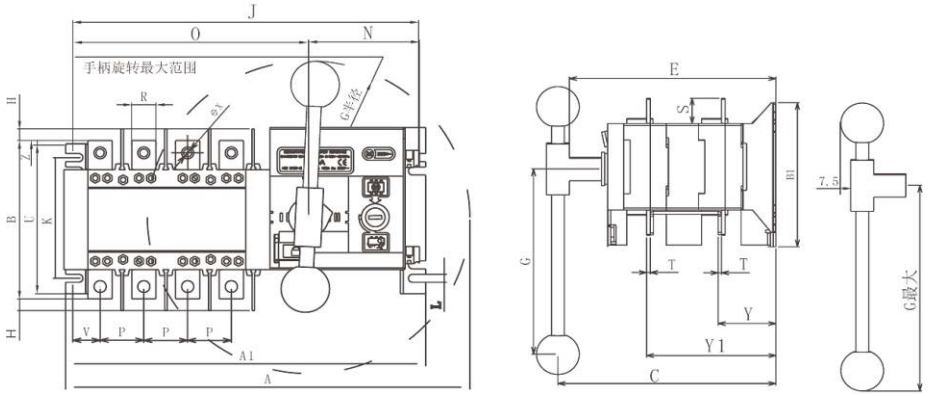
SW Q 2-□□/□P □ □A

额定电流	Rated current
控制器工作形式: 无:基本型(只有GS/GX有区分) X:消防型(只有GS/GX有区分)	Controller working form: None: Basic type (only GS/GX can be distinguished) X: Fire protection type (only GS/GX can be distinguished)
极数:3P、4P	Number of poles: 3P, 4P
产品代号:GS、GX、GZ、NS、C、M、L、S	Product code: GS, GX, GZ, NS, C, M, L, S
壳架等级	Shell frame level
设计序号	Design serial number
双电源自动转换	Dual power automatic conversion
公司代号(信基伟业)	Company code (SINGI)

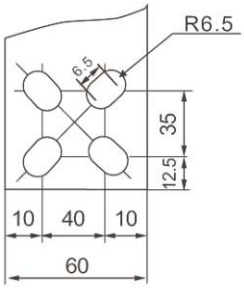
技术参数 TECHNICAL PARAMETER

额定电流Ith(A) Rated current Ith (A)		20	40	60	80	100	125	160	250	400	630	800	1000	1250	1600	2000	2500	3200
额定绝缘电压Ui(V) Rated insulation voltage Ui (V)		750V								1000V								
额定冲击耐受电压Uimp(V) Rated impulse withstand voltage Uimp (V)		8kV								12kV								
额定工作电压Ue(A) Rated working voltage Ue (A)		AC440V																
额定工作电流Ie(A) Rated working current Ie (A)	AC-31A	20	40	60	80	100	125	160	250	400	630	800	1000	1250	1600	2000	2500	3200
	AC-35A	20	40	60	80	100	125	160	250	400	630	800	1000	1000	1600	1250	1250	1250
	AC-33A	20	40	60	80	100	125	160	250	400	400	630	800	800	1000	2000	2500	3200
额定接通能力 Rated making capacity		10Ie																
额定分断能力 Rated breaking capacity		8Ie																
额定限制短路电流Is Rated limiting short-circuit current Is		50kA								70kA				100kA	120kA			
额定短时耐受电流Is Rated short time withstand current Is		7kA						9kA		13kA		26kA		50kA				55kA
转换时间 Ⅰ-Ⅱ或Ⅱ-Ⅰ Conversion time I-II or II-I		2s					0.6s			0.6s		1.2s				1.8s		2.4s
控制电压 Control voltage		DC24V、48V、110V、AC220V																
额定功率 rated power	起动 start	300W						325W		355W		400W	440W			600W		
	正常 normal	55W						62W		74W		90W	98W			120W		
重量(kg)4极 Weight (kg) 4 poles		7.0	7.2	7.2	7.2	7.5	7.5	8.8	9.0	16.5	17	32	36	40	43	50	53	75

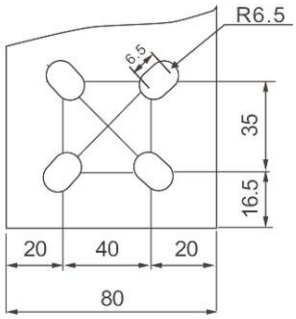
外形及安装尺寸 OUTLOOK AND MOUNTING SIZE



20~1600A

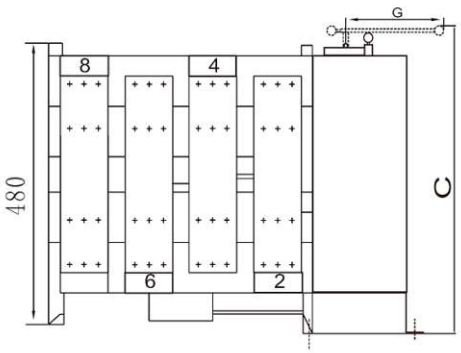


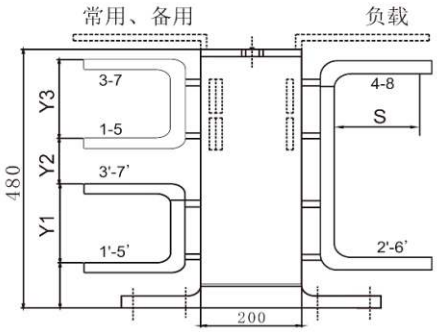
800A~1000A



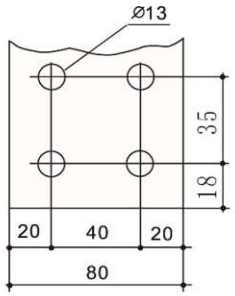
1250A~1600A

规格 Specifications	总尺寸 overall size								开关安装 Switch installation										接线端子 connecting terminal				
	A	A1	B	B1	C	E	G	H	J	K	L	N	O	P	R	S	T	U	V	ΦX	Y	Y1	Z
20~100A	280	244	107	103	150	140	115	19	226	84	7	83.5	142.5	30	14	18	2.5	103	13	6	41.5	93	2
125~160A	360	303	140	142	213	200	145	10	286	117	7	93	192	36	20	25	3.5	127	21	9	55.5	127.5	4
250A	420	362	180	142	213	200	145	6	343	103	7	93	250	50	25	28	3.5	141	29	11	58	131.5	9
400A/3P	530	370	270	222	286	275	245	20	365	179	9	97	268	65	32	37	5	222	38	11	83	193	6
400A/4P	590	440	270	222	286	275	245	20	425	179	9	97	328	65	32	37	5	222	38	11	83	193	6
630A/3P	530	370	270	222	286	275	245	20	365	179	9	97	268	65	40	45	6	222	38	11	83.5	193.5	14
630A/4P	590	440	270	222	286	275	245	20	425	179	9	97	328	65	40	45	6	222	38	11	83.5	193.5	14
800~1000A	785	520	380	250	351	340	360	20	503	220	11	88	415	120	60	64	8	250	59	13	109	254	39
800~1000A	1080	634	380	250	351	340	240	20	617	220	11	88	529	120	60	64	8	250	59	13	109	254	39
1250A/3P	785	520	380	250	351	340	360	20	503	220	11	88	415	120	80	68	8	250	59	13	109	254	43
1250A/4P	1080	634	380	250	351	340	540	20	617	220	11	88	529	120	80	68	8	250	59	13	109	254	43
1600A/3P	785	520	380	250	351	340	360	20	503	220	11	88	415	120	80	68	10	250	59	13	110	255	43
1600A/4P	1080	634	380	250	351	340	540	20	617	220	11	88	529	120	80	68	10	250	59	13	110	255	43

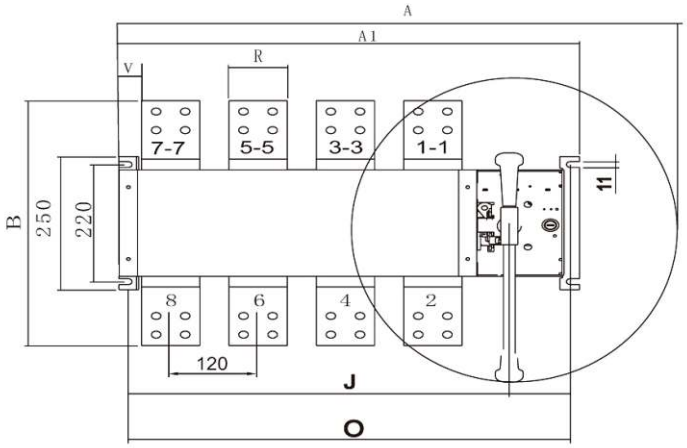




两进两出负载接线端子同常用、备用



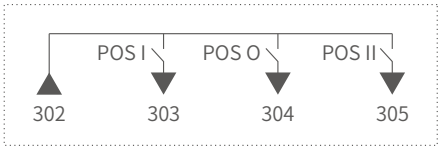
2000A~3200A



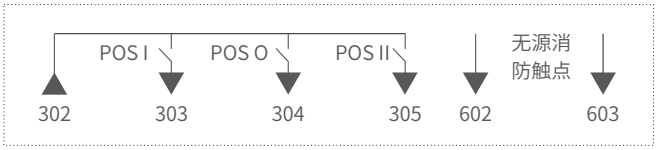
2000A~3200A

规格 Specifications	A	A1	B	N	G	J	O	R	S	T	V	Y1	Y2	Y3
2000A/3P	785	535	423	560	360	408	490	80	81	10	30	113	121	113
2000A/4P	1080	650	423	560	540	523	605	80	81	10	30	113	121	113
2500A/3P	785	535	433	560	360	408	490	80	81	15	30	118	116	118
2500A/4P	1080	650	433	560	540	523	605	80	81	15	30	118	116	118
3200A/3P	785	535	443	560	360	408	490	80	81	20	30	123	111	123
3200A/4P	1080	650	443	560	540	523	605	80	81	20	30	123	111	123

接线示意图 WIRING DIAGRAM



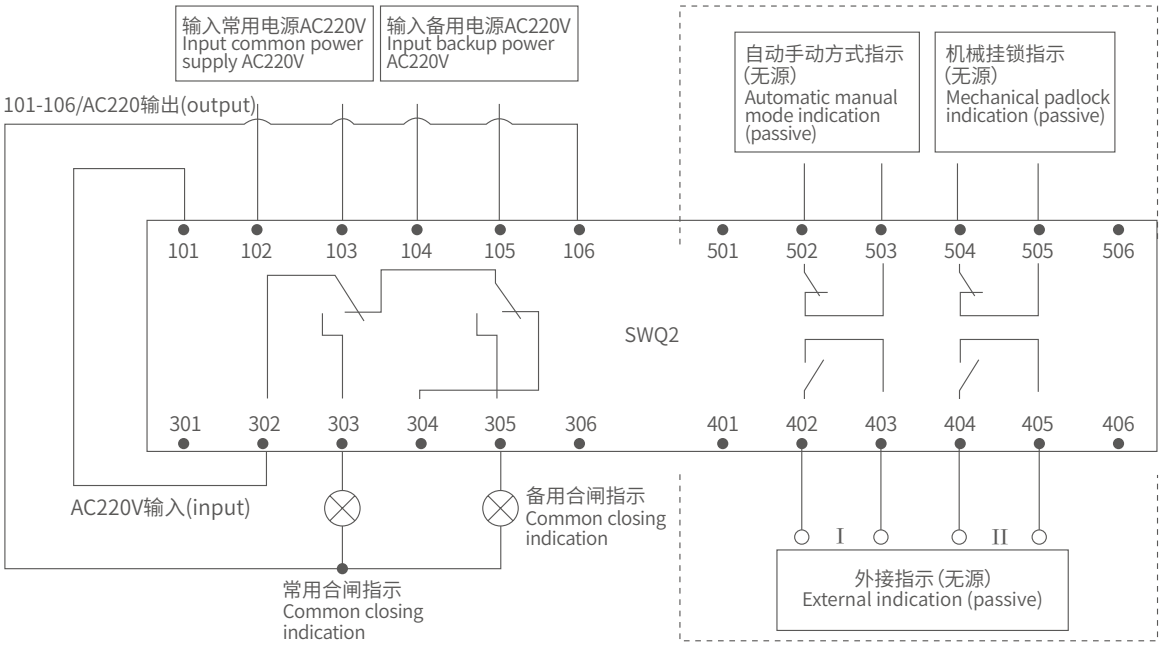
100GS基本型 端子接线图
100GS Basic Terminal Wiring Diagram

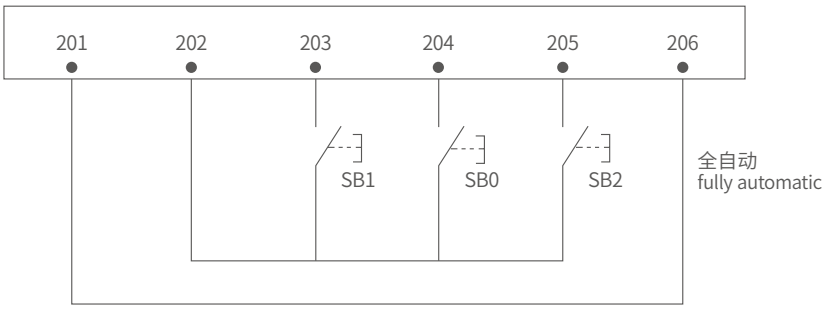


100GS消防型 端子接线图
100GS Fire Protection Terminal Wiring Diagram

注:POS Ⅰ、POSO、POS Ⅱ 分别为常用合闸指示,双分指示,备用合闸指示。
Note: POS I, POSO, and POS II are commonly used closing indications, double opening indications, and backup closing indications, respectively.

◎125A~3200A手/自动接线方式 ◎125A~3200A manual/automatic wiring method





◎SB0、SB1、SB2 分别为强制置零、常用电源、备用电源投入的控制按钮输入(只能接无源触头);
◎401~406,501~506为630A以上可选用端子;

◎SB0, SB1, and SB2 are control button inputs for forced zero setting, common power supply, and backup power supply input (only passive contacts can be connected);
◎401~406501~506 are optional terminals for 630A and above;

SWQ2系列 双电源自动转换开关(GX型)

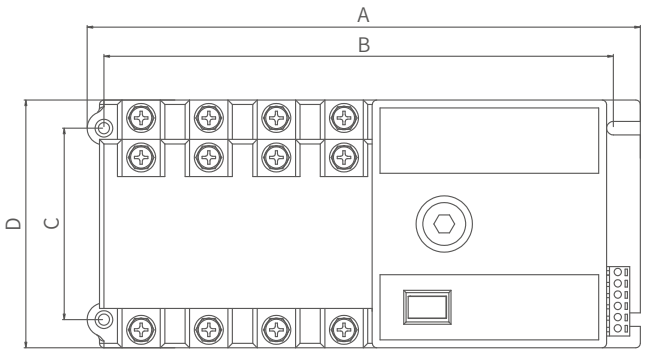
SWQ2 SERIES DUAL POWER AUTOMATIC TRANSFER SWITCH (GX TYPE)

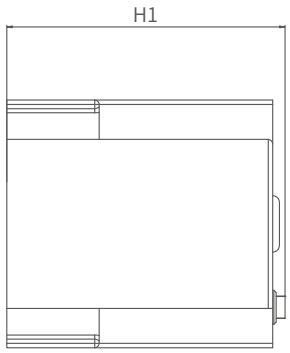
SWQ2-100GX/4P

技术参数 TECHNICAL PARAMETER

额定电流Ith(A)	Rated current Ith (A)		20	40	60	80	100	125	160	250	400	630
额定绝缘电压Ui(V)	Rated insulation voltage Ui (V)		750V								1000V	
额定冲击耐受电压Uimp(V)	Rated impulse withstand voltage Uimp (V)		8kV								12kV	
额定工作电压Ue(A)	Rated working voltage Ue (A)		AC440V									
额定工作电流Ie(A)	Rated working current Ie (A)	AC-31A	20	40	60	80	100	125	160	250	400	630
		AC-35A	20	40	60	80	100	125	160	250	400	630
		AC-33A	20	40	60	80	100	125	160	250	400	400
额定接通能力	Rated making capacity		10Ie									
额定分断能力	Rated breaking capacity		8Ie									
额定限制短路电流Is	Rated limiting short-circuit current Is		50kA								70kA	
额定短时耐受电流Is	Rated short time withstand current Is		7kA						9kA		13kA	
转换时间 I - II 或 II - I	Conversion time I-II or II-I		2s					0.6s			0.6s	
控制电压	Control voltage		DC24V、48V、110V、AC220V									
额定功率 rated power	起动 start		300W						325W		355W	
	正常 normal		55W						62W		74W	

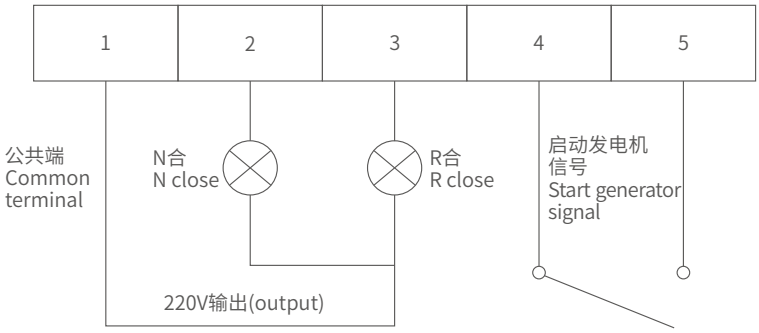
外形及安装尺寸 OUTLOOK AND MOUNTING SIZE



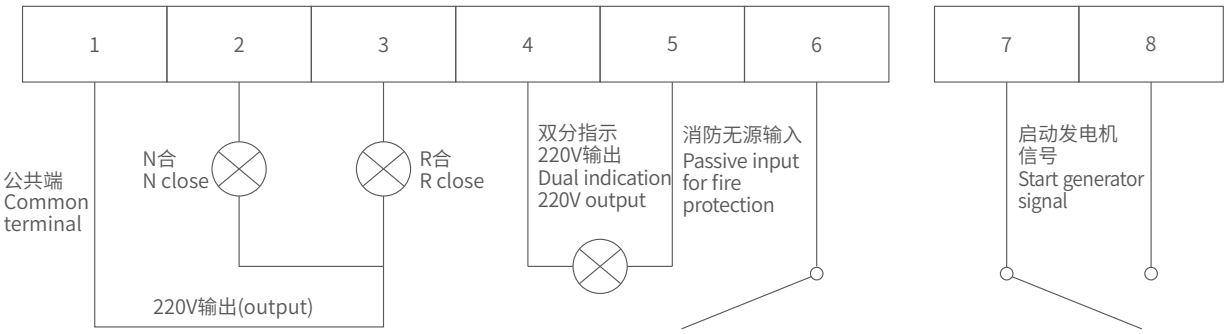


型号 Type	外形尺寸(AxDxH1) External dimensions (AxDxH1)	安装尺寸(BxC) Installation size (BxC)
100/4P	240×110×125mm	230×85mm
160/4P-250/4P	300×135×140mm	285×110mm
400/4P-630/4P	380×215×195mm	325×180mm

接线示意图 WIRING DIAGRAM



基本型端子接线图



消防型端子接线图
Fire protection terminal wiring diagram

注：
GX产品统一为二进一出，100A以下分为基本型和消防型，160A-630A全部为消防型，无基本型。

Note:
GX products are unified as two inputs and one output. Below 100A, they are divided into basic and fire protection types, while 160A-630A are all fire protection types without basic types.

SINGI®

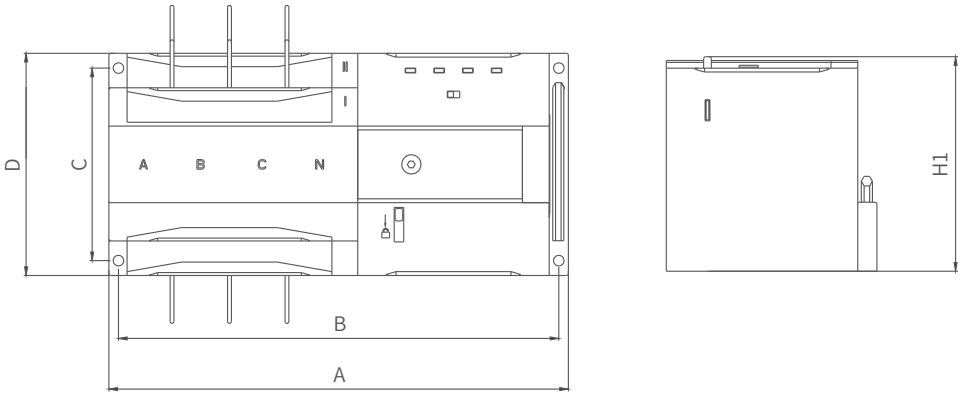
SWQ2系列 双电源自动转换开关(GZ型)

SWQ2 SERIES DUAL POWER AUTOMATIC TRANSFER SWITCH (GZ TYPE)

技术参数 TECHNICAL PARAMETER

额定电流Ith(A)	Rated current Ith (A)		20	40	60	80	100	125	160	250	400	630
额定绝缘电压Ui(V)	Rated insulation voltage Ui (V)		750V								1000V	
额定冲击耐受电压Uimp(V)	Rated impulse withstand voltage Uimp (V)		8kV								12kV	
额定工作电压Ue(A)	Rated working voltage Ue (A)		AC440V									
额定工作电流Ie(A)	Rated working current Ie (A)	AC-31A	20	40	60	80	100	125	160	250	400	630
		AC-35A	20	40	60	80	100	125	160	250	400	630
		AC-33A	20	40	60	80	100	125	160	250	400	400
额定接通能力	Rated making capacity		10Ie									
额定分断能力	Rated breaking capacity		8Ie									
额定限制短路电流Is	Rated limiting short-circuit current Is		50kA								70kA	
额定短时耐受电流Is	Rated short time withstand current Is		7kA						9kA		13kA	
转换时间 I - II 或 II - I	Conversion time I-II or II-I		2s					0.6s			0.6s	
控制电压	Control voltage		DC24V、48V、110V、AC220V									
额定功率 rated power	起动 start		300W						325W		355W	
	正常 normal		55W						62W		74W	

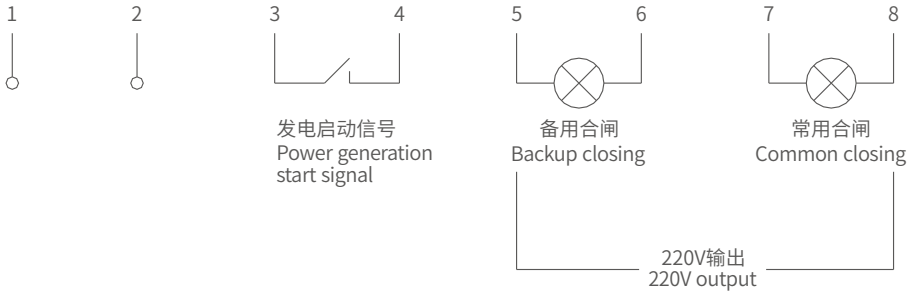
外形及安装尺寸 OUTLOOK AND MOUNTING SIZE



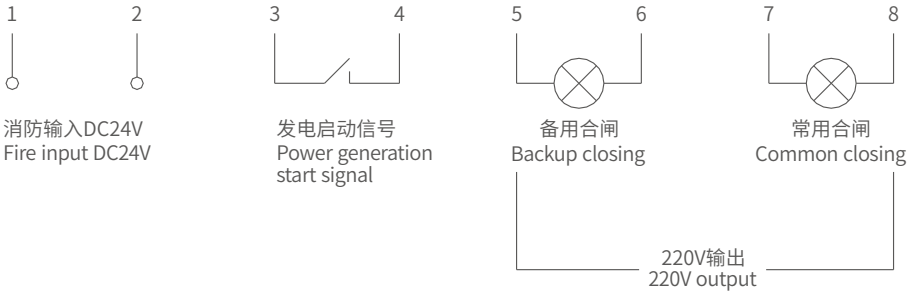
型号 Type	外形尺寸(AxDxH1) External dimensions (AxDxH1)	安装尺寸(BxC) Installation size (BxC)
100/4P	240×110×112mm	230×100mm
160/4P-250/4P	300×135×140mm	285×110mm
400/4P-630/4P	380×215×195mm	325×180mm

接线示意图 WIRING DIAGRAM

◎基本型端子接线图
Basic terminal wiring diagram



◎消防型端子接线图
Fire protection terminal wiring diagram



注：
GZ产品统一为二进一出，100A以下分为基本型和消防型，160A~630A全部为消防型，无基本型。

Note:
GZ products are unified as two inputs and one output. Below 100A, they are divided into basic and fire protection types. 160A to 630A are all fire protection types, without basic types.

SWQ2系列 双电源自动转换开关(NS型)

SWQ2 SERIES DUAL POWER AUTOMATIC TRANSFER SWITCH (NS TYPE)

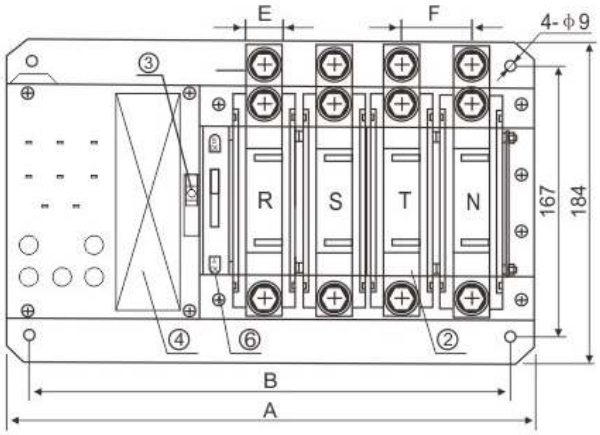
SWQ2-32NS/4P

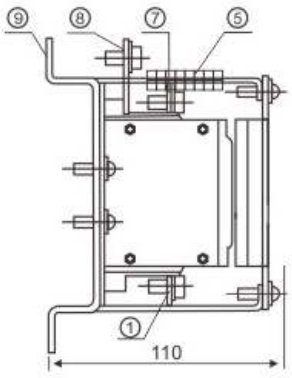
SWQ2-125NS/4P

技术参数 TECHNICAL PARAMETER

型号	Type	SWQ2-32NS			SWQ2-40NS			SWQ2-63NS			SWQ2-125NS		
额定电流(A)	Rated current (A)	25,32			40			63			125		
操作电流(A)	Rated current (A)	3.5											
额定短时耐受电流Is	Rated short time withstand current Is	5											
使用寿命 service life	机械寿命 mechanical life	8000											
	电气寿命 Electrical life	3000											
极数	Pole	2P	3P	4P	2P	3P	4P	2P	3P	4P	2P	3P	4P
重量 (kg)	Weight (kg)	4.2	4.7	5.2	5	5.5	6.5	5.2	5.5	6.5	5	5.5	6.5
操作周期 (次)	Operation cycle (times)	15											

外形及安装尺寸 OUTLOOK AND MOUNTING SIZE



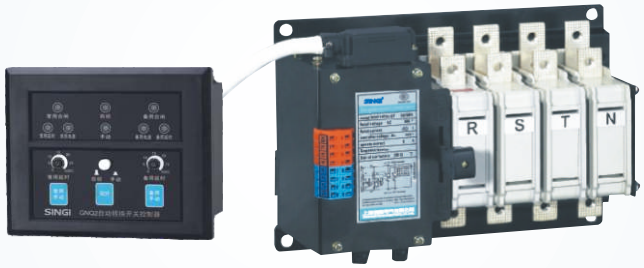


1.负载母线	1. Load busbar
2.电源模块	2. Power module
3.调试手柄	3. Debugging handle
4.标牌	4. Signage
5.接线端子	5. Wiring terminals
6.电源转换机械指示	6. Power conversion mechanical indication
7.主电源母线	7. Main power bus
8.备用电源母线	8. Backup power bus
9.底座	9. Base

型号(Type)	极数(Pole)	A	B	E
SWQ2-32NS	2P	215	190	12
	3P	238	215	
	4P	270	245	
SWQ2-125NS	2P	240	210	20
	3P	275	245	
	4P	310	290	

SWQ2系列 双电源自动转换开关(C型)

SWQ2 SERIES DUAL POWER AUTOMATIC TRANSFER SWITCH (C TYPE)



SWQ2-125C/4P

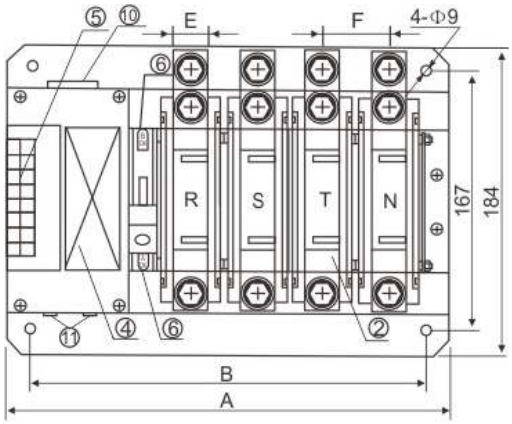
技术参数 TECHNICAL PARAMETER

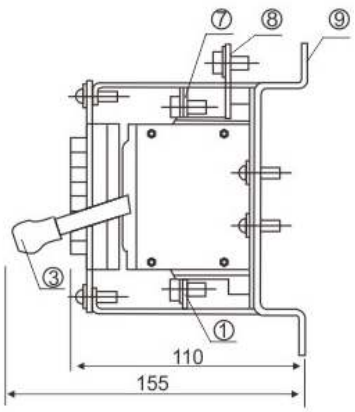
型号	Type	SWQ2-32C			SWQ2-40C			SWQ2-63C			SWQ2-125C		
额定电流(A)	Rated current (A)	25,32			40			63			125		
操作电流(A)	Rated current (A)	3.5											
额定短时耐受电流Is	Rated short time withstand current Is	5											
使用寿命 service life	机械寿命 mechanical life	8000											
	电气寿命 Electrical life	3000											
极数	Pole	2P	3P	4P	2P	3P	4P	2P	3P	4P	2P	3P	4P
重量 (kg)	Weight (kg)	3.2	3.7	4.2	4	4.5	5.5	4	4.5	5.5	4	4.5	5.5
操作周期 (次)	Operation cycle (times)	15											

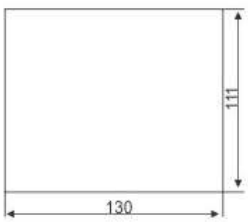
外形及安装尺寸 OUTLOOK AND MOUNTING SIZE

为了用户安装方便，我公司将分体式ATS控制器与开关本体之间改用专用连接插座连接，用户只需将主回路接通，插上连接插座就可以使用，省去了用户接线困难的烦恼。

For the convenience of user installation, our company has changed the connection between the split type ATS controller and the switch body to a dedicated connection socket. Users only need to connect the main circuit and plug in the connection socket to use it, saving users the trouble of difficult wiring.







P型智能控制器安装开孔尺寸图
(总深度76mm,安装柜体内深度65mm)

Installation hole size diagram of P-type intelligent controller
(Total depth 76mm, installation depth 65mm inside the cabinet)

1.负载母线	1. Load busbar
2.电源模块	2. Power module
3.调试手柄	3. Debugging handle
4.标牌	4. Signage
5.接线端子	5. Wiring terminals
6.电源转换机械指示	6. Power conversion mechanical indication
7.主电源母线	7. Main power bus
8.备用电源母线	8. Backup power bus
9.底座	9. Base
10.控制器连接插座	10. Controller connection socket
11.10A熔断器	11.10A fuse

型号(Type)	极数(Pole)	A	B	E
SWQ2-32C	2P	175	155	12
	3P	196	176	
	4P	227	207	
SWQ2-40C SWQ2-63C SWQ2-125C	2P	195	176	20
	3P	228	208	
	4P	266	246	

SINGI®

SWQ2系列 双电源自动转换开关(M型)

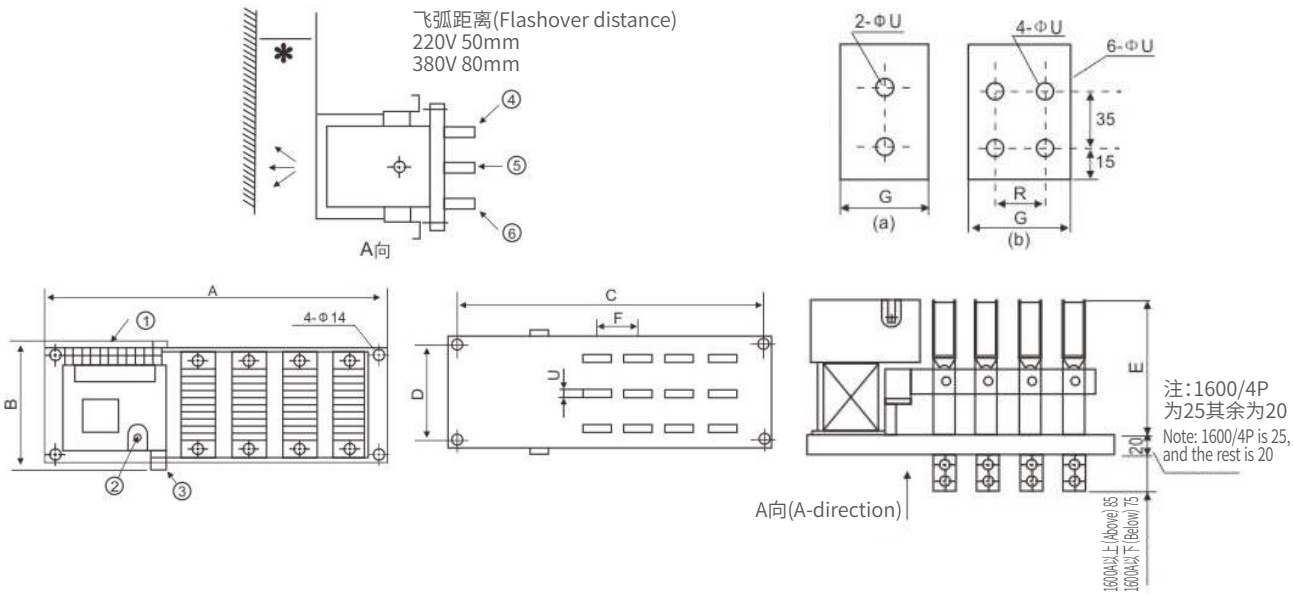
SWQ2 SERIES DUAL POWER AUTOMATIC TRANSFER SWITCH (M TYPE)

SWQ2-630M/4P

技术参数 TECHNICAL PARAMETER

型号	Type	SWQ2-630M		SWQ2-800M		SWQ2-1000M		SWQ2-1250M		SWQ2-1600M	
额定电流(A)	Rated current (A)	630		800		1000		1250		1600	
操作电流(A)	Rated current (A)	16									
额定短时耐受电流Is	Rated short time withstand current Is	15		18		20		25		32	
使用寿命 service life	机械寿命 mechanical life	3000									
	电气寿命 Electrical life	10000									
极数	Pole	3P	4P	3P	4P	3P	4P	3P	4P	3P	4P
重量 (kg)	Weight (kg)	37	42.5	39	46	41	48	48	57	56	67
操作周期 (次)	Operation cycle (times)	15		20		25		25		25	

外形及安装尺寸 OUTLOOK AND MOUNTING SIZE



1.控制电路端子排	1. Control circuit terminal block
2.手动操作柄插口	2. Manual operation handle socket
3.开关状态机械指示	3. Mechanical indication of switch status
4.主电源母线	4. Main power bus
5.负载母线	5. Load busbar
6.备用电源母线	6. Backup power bus

型号(Type)	A		C		B	D	E	F	G	R	U
	3P	4P	3P	4P							
SWQ2-630M	530	600	490	560	280	210	250	90	30(a)		12
SWQ2-800M									40(a)		
SWQ2-1000M									45(a)		
SWQ2-1250M									55(a)		
SWQ2-1600M	640	750	580	710				130	75(a)	40	14

SWQ2-D型控制器
SWQ2-D CONTROLLER

电气性能及功能

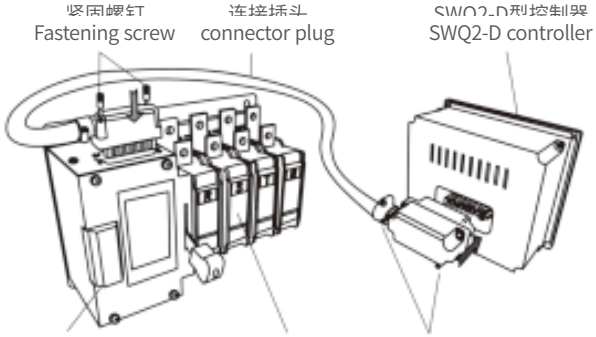
PRODUCT OVERVIEW

◎SWQ2-D型控制器用于控制由双线圈组成的二段式C型ATS;
◎控制器与开关之间用一条专用电缆连接，使其安装极为方便;
◎具有对两路电源的过电压、欠电压、缺相等故障检测功能;
◎带有发电机组启动信号输出功能(主电源有故障时延时约3S发出)。

◎SWQ2-D controller is used to control a two-stage C-type ATS composed of dual coils;
◎A dedicated cable is used to connect the controller and switch, making their installation extremely convenient;
◎Equipped with the function of detecting overvoltage, undervoltage, and phase loss faults of two power sources;
◎Equipped with generator set start signal output function (delayed for about 3 seconds when the main power supply has a fault).

C型本体与SWQ2-D型安装连接示意图

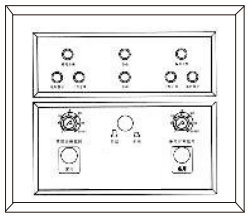
SCHEMATIC DIAGRAM OF INSTALLATION AND CONNECTION BETWEEN C-TYPE BODY AND SWQ2-D TYPE



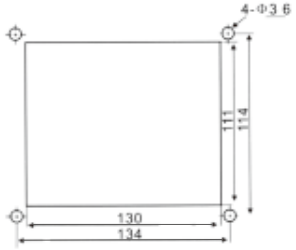
合闸信号输出及三极接零端子
Closing signal output and three-pole neutral terminal

C型开关本体
C-type switch body

紧固螺钉
Fastening screw



SWQ2-D型智能控制器面板布局
SWQ2-D Intelligent Controller Panel Layout



SWQ2-D型智能控制器开孔图
Opening diagram of SWQ2-D intelligent controller

(总深度73mm，安装柜体内深度61mm)
(Total depth 73mm, installation depth 61mm inside the cabinet)

接线端子示意图

PRODUCT OVERVIEW

R1	R2	F1	F	F2	L1	L2

◎F，F1，F2为发电机启动信号输出端子，F为公共端，当主电源正常时F与F2闭合、F与F1断开;当主电源异常且备用电源没电时F与F1延时三秒后闭合，同时F与F2断开。
◎R1，R2接通时，控制器然后就处于禁止状态，这时，无论按主电源转换按钮、备用电源转换按钮，还是回到自动模式，控制器都不响应。(R1,R2只能接无源触点，否则导致控制器损坏)
◎L1，L2按用户要求增加功能(备用)

◎F, F1, F2 are the generator start signal output terminals, and F is the common terminal. When the main power supply is normal, F and F2 are closed and F and F1 are disconnected; When the main power supply is abnormal and the backup power supply is out of power, F and F1 close after a delay of three seconds, while F and F2 are disconnected.
◎When R1 and R2 are connected, the controller is then in a prohibited state. At this time, whether the main power conversion button, backup power conversion button, or returning to automatic mode, the controller does not respond. (R1, R2 can only be connected to passive contacts, otherwise it will cause damage to the controller)
◎L1, L2 add functions according to user requirements (backup)

SWQ2系列 双电源自动转换开关(S/L型)
SWQ2 SERIES DUAL POWER AUTOMATIC TRANSFER SWITCH (S/L TYPE)

SWQ2-125L/4P
(二段式two-stage)

SWQ2-125S/4P
(三段式three-stage)

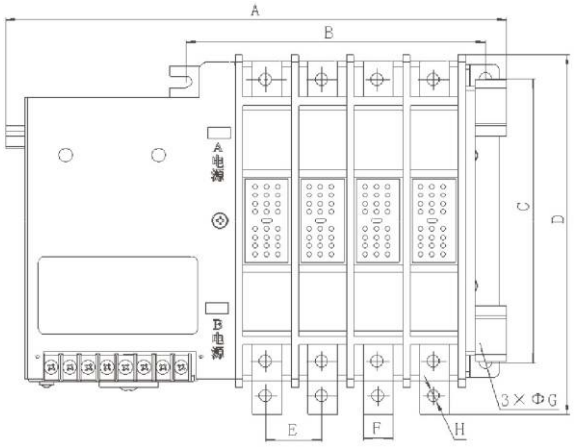
技术参数 TECHNICAL PARAMETER

壳架电流(A)	Shell level rated current (A)	100				250				400		800
额定电流(A) Ie	Rated current (A) Ie	16/25/40/63		80/100		125		160/200/250		320/400		630/800
产品分类 Classification	标准型 Standard type	●		●		●		●		●		●
	轨道专用型 Track specific type	●		●		●		●		●		●
额定电压(V) Ie	Rated voltage (V) Ie	AC400/DC125										
额定频率(Hz)	Rated frequency (Hz)	50/60		50/60		50/60		50/60		50/60		50/60
极数(P)	Pole(P)	2/3/4		2/3/4		2/3/4		2/3/4		2/3/4		3/4
接线方式	Connection	板前(Plate front)										板后 Behind the board
操作电流(A) Operating current (A)	110V AC/DC	6		6		6		8		12		16
	220V AC/DC	3		3		3		4		6		8
脱扣电流(A) Tripping current (A)	110V AC/DC	1.4	–	1.4	–	1.4	–	1.4	–	2	–	24
	220V AC/DC	0.7	–	0.7	–	0.7	–	0.7	–	1	–	12
额定短时耐受电流(KA)	Rated short time withstand current (KA)	5		5		5		10		12.5		32
额定限制短路电流(IQ) Rated limiting short-circuit current (IQ)	以断路器保护时可达值(kA) Reachable value with circuit breaker protection (kA)	35		35		35		50		65		65
	以熔断器保护时可达值(kA) Reachable value with fuse protection (kA)	100		100		100		120		120		120
接通与分断能力	Making and breaking capacity	6Ie(AC-33i,cosΦ)				4Ie(DC-33,L/R=2.5ms)						
本体开关转换时间(ms)≤	Body switch conversion time (ms) ≤	75		75		75		75		80		130
操作电流(A) Operating current (A)	电气寿命 Electrical life	10000		10000		10000		10000		10000		6000
	机械寿命 mechanical life	30000		30000		30000		30000		30000		30000
操作循环次数(次/小时)	Number of operation cycles (times/hour)	75		75		75		75		80		130
电器级别	Electrical level	专用一体化PC级 Dedicated integrated PC level										
使用类别	Utilization category	AC-33iA										
符合标准	standard	GB/T14048.11-2008										

注:
1、2P:单个相线和N线;3P:L1/L2/L3;4P:L1/L2/L3/N;
2、两位:指开关本体只在常用电源和备用电源两个位置;
3、三位:指开关本体有常用电源、备用电源和停止三个位置。

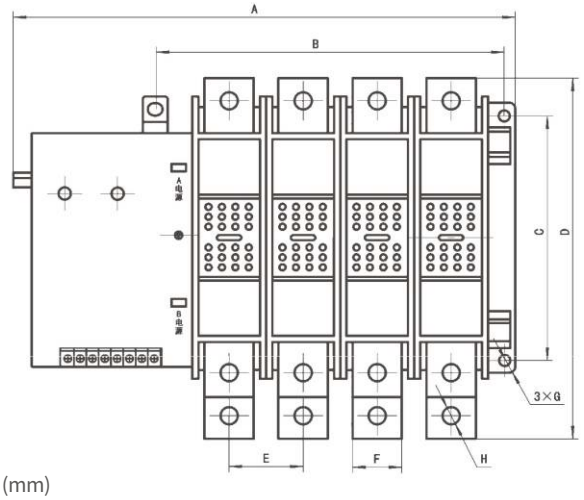
Note:
1. 2P: Single phase line and N line; 3P:L1/L2/L3; 4P:L1/L2/L3/N;
2. Two positions: refers to the switch body being only in two positions: the common power supply and the backup power supply;
3. Three positions: Refers to the switch body having three positions: common power supply, backup power supply, and stop.

L型外形及安装尺寸图 L-SHAPED APPEARANCE AND INSTALLATION DIMENSIONS



◎63A-250A安装尺寸(mm)
Installation dimensions of 63A-250A (mm)

壳架电流(A) Shell frame current (A)	极数 Pole	A	B	C	D	E	F	G	H
63A	2P	162	86	152	193	22	12	Φ6	M8
	3P	185	109	152	193	22	12	Φ6	M8
	4P	207	131	152	193	22	12	Φ6	M8
125A	2P	209	103	152	193	30	15	Φ6	M8
	3P	239	133	152	193	30	15	Φ6	M8
	4P	269	163	152	193	30	15	Φ6	M8
250A	2P	219	113	152	193	35	20	Φ6	M8
	3P	254	148	152	193	35	20	Φ6	M8
	4P	289	183	152	193	35	20	Φ6	M8



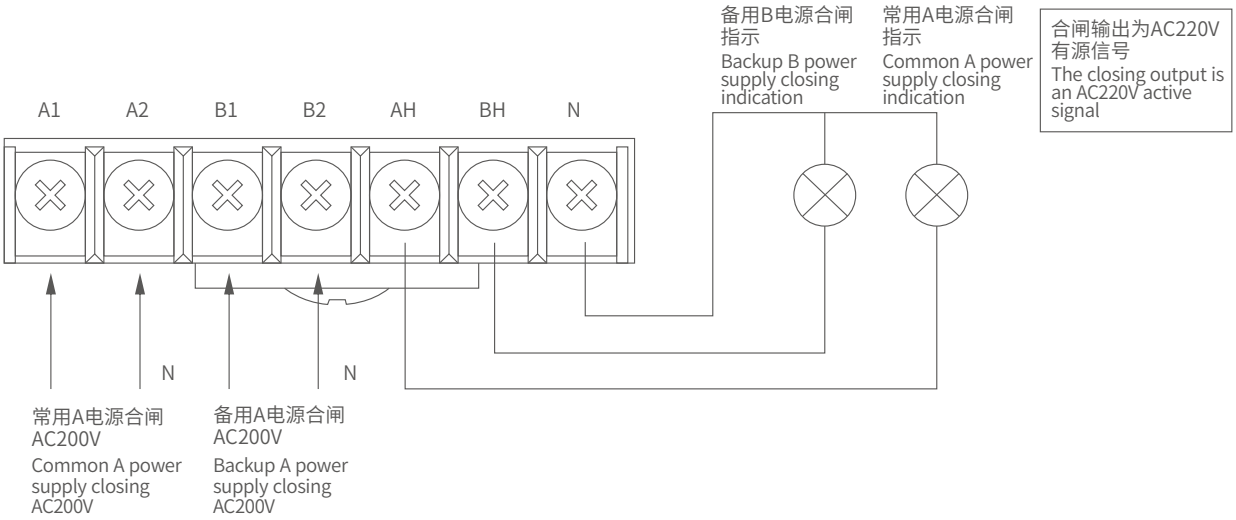
◎400A-500A安装尺寸(mm)
Installation dimensions of 400A-500A (mm)

壳架电流(A) Shell frame current (A)	极数 Pole	A	B	C	D	E	F	G	H
400A	2P	162	86	152	193	22	12	Φ6	M8
	3P	185	109	152	193	22	12	Φ6	M8
500A	4P	207	131	152	193	22	12	Φ6	M8
	2P	209	103	152	193	30	15	Φ6	M8

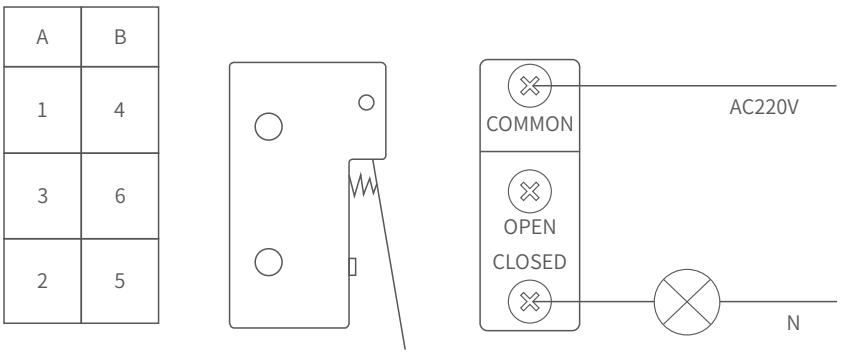
注: 63A~250A壳架高度为115mm，400A、500A壳架高度为135mm,此高度不含把手，把手可去下，面板至柜体安全距离应大于：30mm(400V),60mm(690V)。
Note: The height of the 63A~250A shell frame is 115mm, and the height of the 400A and 500A shell frames is 135mm. This height does not include the handle, which can be removed. The safe distance from the panel to the cabinet should be greater than 30mm (400V) and 60mm (690V).

L型接线示意图 L-SHAPED WIRING DIAGRAM

两路电源的N线应分别接A2和B2，不可错接，否则将导致内部切换继电器触点拉弧而烧毁。
The N wires of the two power supplies should be connected to A2 and B2 respectively, and should not be wrongly connected, otherwise it will cause the internal switching relay contacts to arc and burn out.



A1：常用A电源任一相线	A1: Any phase line of commonly used A power supply
A2：常用A电源N线(中性线)	A2: Common A power supply N-wire (neutral wire)
B1：备用B电源任一相线	B1: Backup B power supply, any phase line
B2：备用B电源N线(中性线)	B2: Backup B power supply N-wire (neutral wire)
AO：常用A电合闸输出	AO: Common A electric closing output
BO：备用B电源合闸输出	BO: Backup B power supply closing output
N：合闸输出共用中性线端	N: Closing output shared neutral terminal

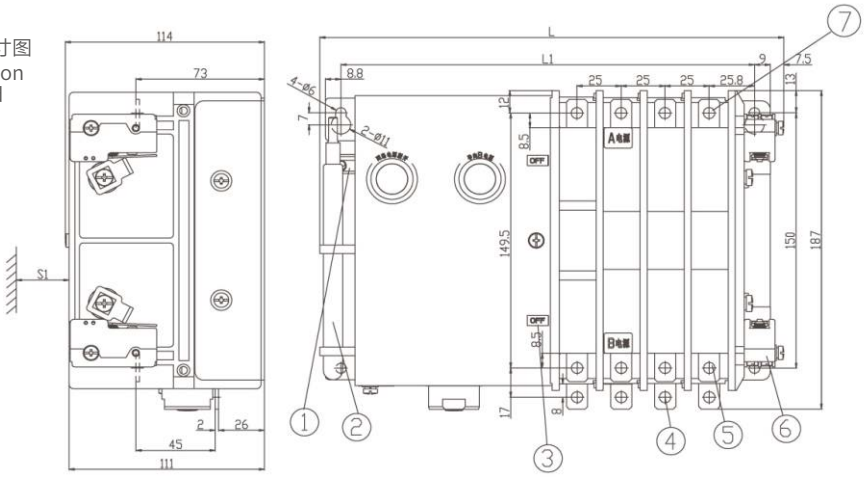


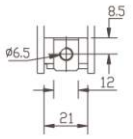
辅助接线示意：
ATS系列常规型双电源转换开关辅助输出为无源单触点(有双触点规格)，其触点额定容量为AC220V/10A。用户根据需要自行接出。

Auxiliary wiring diagram:
The auxiliary output of the ATS series conventional dual power conversion switch is passive single contact (with dual contact specifications), and its contact rated capacity is AC220V/10A. Users can connect and connect according to their needs.

S型外形及安装尺寸图 S-SHAPED APPEARANCE AND INSTALLATION DIMENSIONS

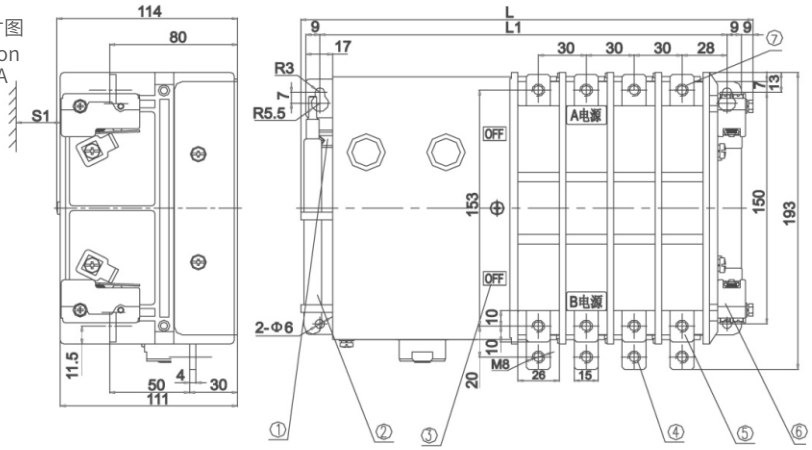
◎63A及以下安装尺寸图
Installation dimension diagram for 63A and below

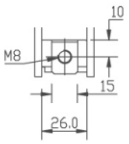




连接母排尺寸
Connecting busbar size

◎80A~125A安装尺寸图
Installation dimension diagram of 80A~125A





连接母排尺寸
Connecting busbar size

①手动转动轴	① Manual rotation of the shaft
②手动手柄	② Manual handle
③分合闸指示牌	③ Opening and closing indicator board
④负载侧主接线端子	④ Main wiring terminal on the load side
⑤备用电源侧主接线端子	⑤ Backup power side main wiring terminal
⑥辅助开关	⑥ Auxiliary switch
⑦主电源侧主接线端子	⑦ Main wiring terminal on the main power supply side

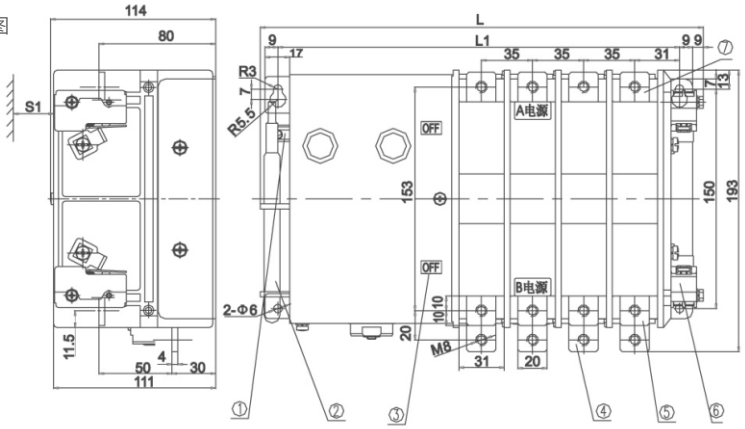
连接母排尺寸和重量表 Connecting busbar size and weight table

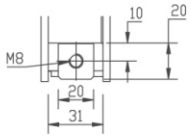
	63A以下(Below)			63A~125A		
	尺寸(Size)		重量 weight	尺寸(Size)		重量 weight
	L	L1		L	L1	
2P	215	185	5.3kg	225	195	5.5kg
3P	240	210	6kg	255	225	6.5kg
4P	265	235	6.7kg	285	255	7.2kg

面板与柜门的安全距离:
Safe distance between panel and cabinet door : S1:30mm(400V) 60mm(690V)

S型外形及安装尺寸图 S-SHAPED APPEARANCE AND INSTALLATION DIMENSIONS

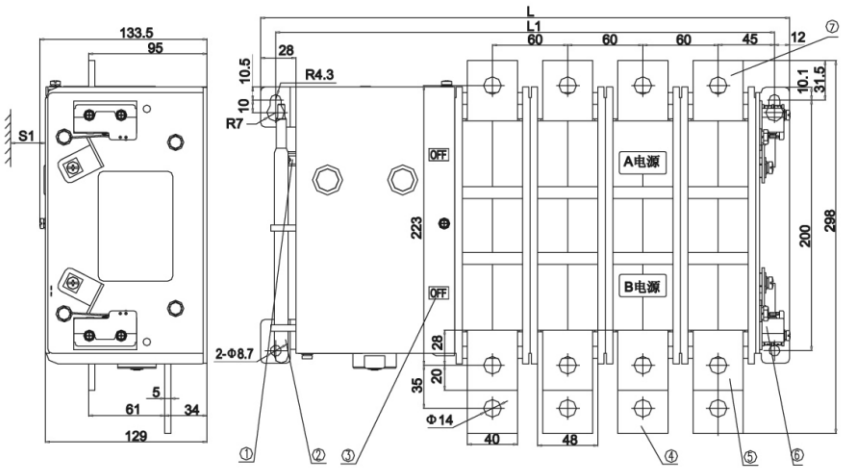
◎160A~250A安装尺寸图
Installation dimension diagram of 160A~250A

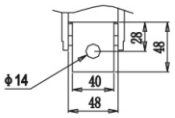




连接母排尺寸
Connecting busbar size

◎320A~400A安装尺寸图
Installation dimension diagram of 320A~400A





连接母排尺寸
Connecting busbar size

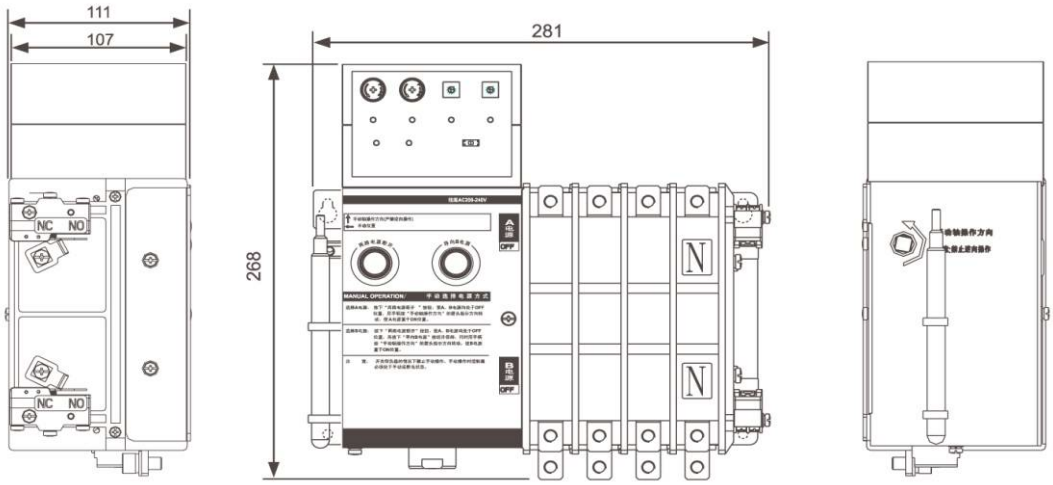
①手动转动轴	① Manual rotation of the shaft
②手动手柄	② Manual handle
③分合闸指示牌	③ Opening and closing indicator board
④负载侧主接线端子	④ Main wiring terminal on the load side
⑤备用电源侧主接线端子	⑤ Backup power side main wiring terminal
⑥辅助开关	⑥ Auxiliary switch
⑦主电源侧主接线端子	⑦ Main wiring terminal on the main power supply side

连接母排尺寸和重量表 Connecting busbar size and weight table

	160A~250A			320A~400A		
	尺寸(Size)		重量 weight	尺寸(Size)		重量 weight
	L	L1		L	L1	
2P	235	205	6.5kg	302	278	12.5kg
3P	270	240	7.5kg	362	338	15.5kg
4P	305	275	8.5kg	422	398	18.4kg

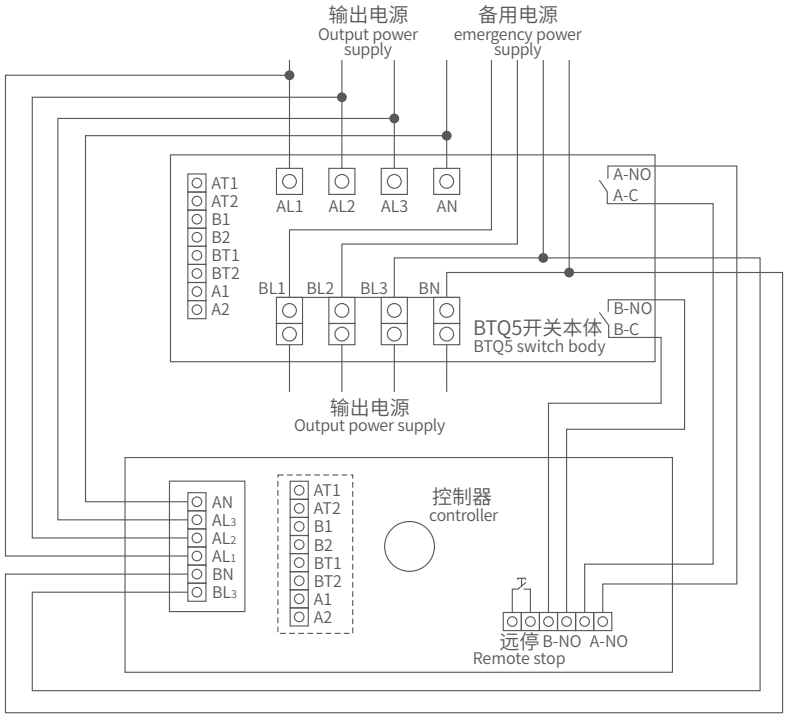
面板与柜门的安全距离:
Safe distance between panel and cabinet door : S1:30mm(400V) 60mm(690V)

控制器安装及外形尺寸 CONTROLLER INSTALLATION AND OVERALL DIMENSIONS



S型接线示意图 S-TYPE WIRING DIAGRAM

主体开关与控制器接线图:
Main switch and controller wiring diagram:



注:
1.虚线框内接线排直接和主体开关对应线排连接。
2.控制器设置为两端位时,无远停功能。
3.开关本体的A-C、A-NO、B-C、B-NO为双组触点型微动开关。(C为公共点,NO为常开点)
4.与控制器相连的那组触点不能加电源用于外扩指示。
5.微动开关辅助触点的状态与开关本体状态一致;A电源合闸,对应的A侧辅助触点为闭合状态,A电源分闸,A侧辅助触点为断开状态。B侧接线同理。

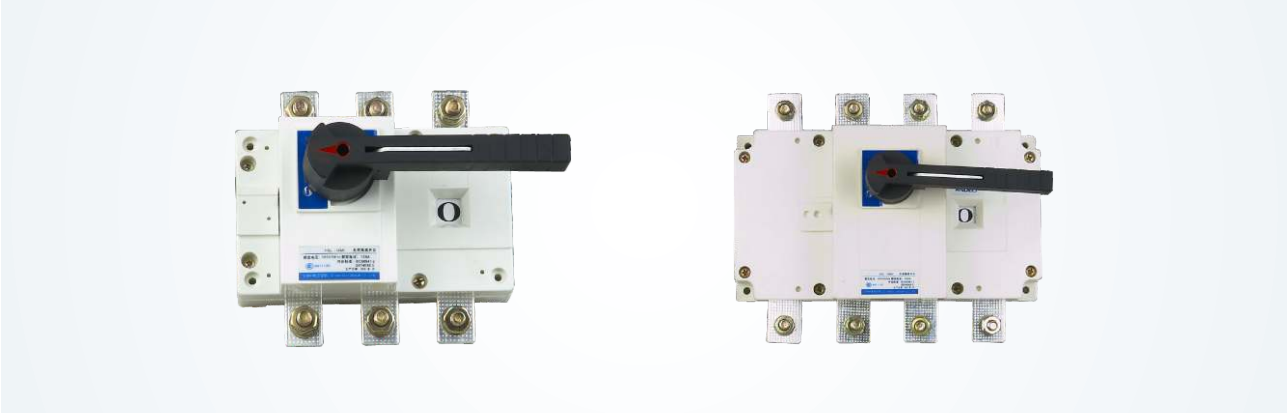
Note:
1. The wiring strip in the dashed box is directly connected to the corresponding wiring strip of the main switch.
2. When the controller is set to both ends, there is no remote stop function.
3. The A-C, A-NO, B-C, and B-NO of the switch body are dual contact type microswitches. (C is the common point, NO is the normally open point)
4. The set of contacts connected to the controller cannot be powered for external indication.
5. The state of the auxiliary contact of the microswitch is consistent with the state of the switch body; When the A power supply is closed, the corresponding A side auxiliary contact is in the closed state. When the A power supply is opened, the A side auxiliary contact is in the open state. The wiring on side B is the same.

SINGI®

SWL
系列负荷隔离开关

SWL series
load isolation switch

SWL系列 负荷隔离开关
SWL SERIES LOAD ISOLATION SWITCH



概述 OVERVIEW

SWL系列负荷隔离开关适用于交流50Hz、额定电压至660V、直流电压至440V、约定发热电流至3200A的工企业配电设备中，用作不频繁接通与分断电路及电气隔离之用，广泛应用于建筑、电力、石油化工及其他行业的配电系统和自动化系统中。
SWLC侧面侧面操作负荷隔离开关，在SWL负荷隔离开关的基础上增加了一个侧面操作机构，适用于侧面操作的接通与分断电路及电气隔离之用。
SWLZ转换负荷隔离开关，由两台SWL负荷隔离开关上下叠装或左右并装而组成，适用于双路电源的切换或两台负载设备的转换及安全隔离等。
开关符合IEC60947-3、GB14048.3标准。
开关造型美观、新颖简洁，体积小、功能全，是同类产品的最佳选择！

The SWL series load isolation switches are suitable for AC 50Hz, rated voltage up to 660V, and DC voltage up to 440V, as agreed upon in industrial and enterprise distribution equipment with a heating current of up to 3200A, it is widely used for infrequent connection and disconnection of circuits and electrical isolation, Applied in distribution systems and automation systems in construction, power, petrochemical, and other industries.
SWLC side operated load isolation switch, with an additional side operated switch added to the SWL load isolation switch as a mechanism, suitable for making and breaking circuits and electrical isolation during side operation.
The SWLZ load isolation switch is composed of two SWL load isolation switches that are stacked up and down or installed side by side, suitable for used for switching between dual power sources or switching between two load devices, as well as safety isolation.
The switch complies with IEC60947-3 and GB14048.3 standards.
The switch has a beautiful appearance, novel and simple design, small size, and full functionality, making it the best choice for similar products!

型号含义 TYPE MEANING

SW L □ □ □ J K □ B H

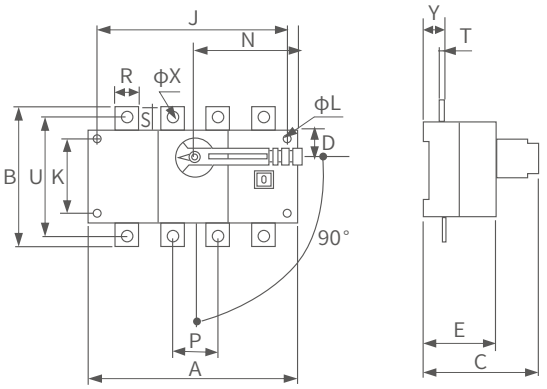
柜后操作，不需要不注	Operation behind the cabinet, no need to note
板后接线，板前接线不注	Rear board wiring, front board wiring not noted
辅助触点功能代号(见表)，不需要不注	Auxiliary contact function code (see table), does not need to be specified
直接观察触头窗口，不需要不注	Directly observe the contact window without paying attention
柜外操作，柜内操作不注	Operation outside the cabinet, not noted for operation inside the cabinet
极数：3极、4极(3极+可通断中性极)	Pole: 3P, 4P (3P+neutral pole that can be turned on or off)
额定电流值	Rated current value
C:侧面操作负荷隔离开关; Z:转换负荷隔离开关	C: Side operated load isolation switch; Z: Switching load isolation switch
隔离开关代号	Isolation switch code
企业代号	Enterprise code

一常开一常闭	One normally open and one normally closed	11	NO+NC
二常开二常闭	Two normally open and two normally closed	22	2NO+2NC

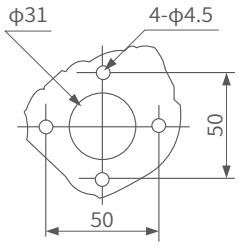
开关采用模块化设计，适用于接通与分断电路或电气隔离之用，1000A以上只用作电气隔离。开关采用弹簧蓄能、瞬间释放的加速关合机构及同时接通与断开并联双断点的触头结构，极大的提高了产品的电气性能与机械性能。
开关采用玻璃纤维增强和饱和聚脂模塑料及手动操作手柄，具有很高的介电性能、防护能力及可靠的操作安全性。
开关具有3极、4极(3极+可通断中性极)。开关正面设有标记窗口，指示触头的通断状态，可根据需要提供后面观察窗口，直接观察触头的通断状态，保证开关操作的可靠性和安全性。
手柄可直接装在开关上操作(简称柜内操作)，也可以通过加长轴在配电柜门外操作(简称柜外操作)，提供操作方便。可根据需要提供常开常闭辅助触点及安装专用底板与板前板后接线方式，以满足客户的多种需求。
在分断位置“0”时，可用两至三把锁锁住手柄，以防止误操作。

The switch adopts a modular design, suitable for making and breaking circuits or electrical isolation. Above 1000A is only used for electrical isolation. The switch adopts an accelerated closing mechanism with spring energy storage and instant release, as well as a contact structure that simultaneously connects and disconnects parallel double breakpoints, greatly improving the electrical and mechanical performance of the product.
The switch adopts glass fiber reinforced and saturated polyester molded plastic, as well as a manual operating handle, which has high dielectric performance, protective ability, and reliable operation safety.
The switch has 3 poles and 4 poles (3 poles+neutral pole that can be turned on or off). There is a marking window on the front of the switch to indicate the on/off status of the contacts. A rear observation window can be provided as needed to directly observe the on/off status of the contacts, ensuring the reliability and safety of switch operation.
The handle can be directly installed on the switch for operation (referred to as inside cabinet operation), or can be operated outside the distribution cabinet through an extended shaft (referred to as outside cabinet operation), providing convenient operation. We can provide normally open and normally closed auxiliary contacts as needed, as well as installation of dedicated backplane and front and rear wiring methods to meet various customer needs.
When in the breaking position "0", two to three locks can be used to lock the handle to prevent misoperation.

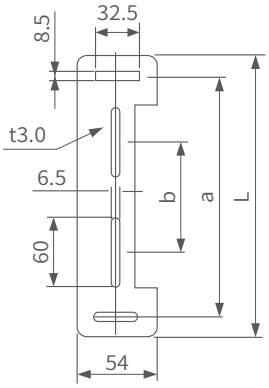
SWL-125~630A 外形及安装尺寸图 SWL-125~630A OUTLINE AND INSTALLATION DIMENSION DRAWING



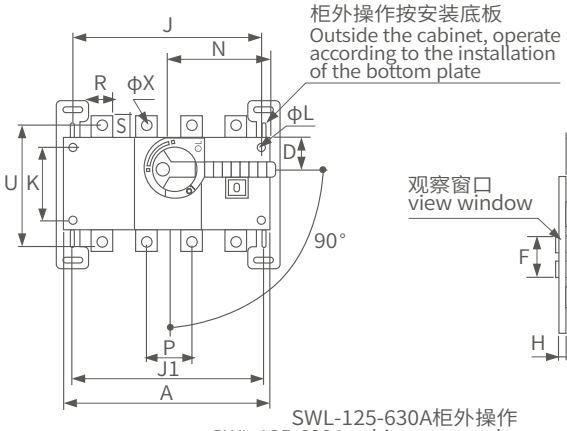
SWL-125-630A柜内操作
SWL-125-630A cabinet operation

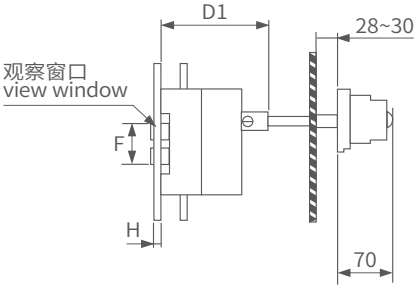


门孔
630A以下柜外手柄座安装尺寸
Doorhole
Installation dimensions of handle base outside the cabinet below 630A



630A以下安装专用底板
Special bottom plate for installation below 630A



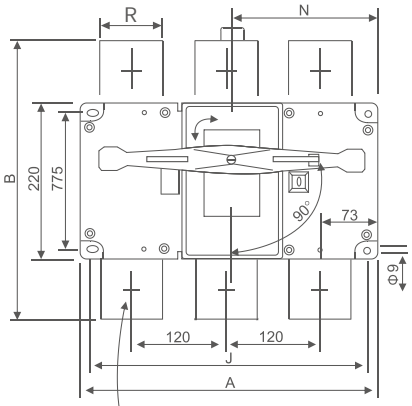


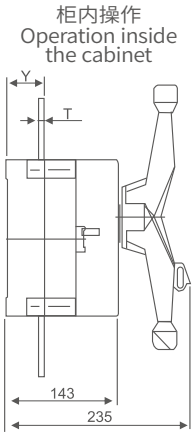
SWL-125-630A柜外操作
SWL-125-630A cabinet external operation

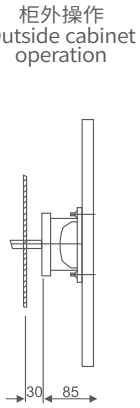
型号 Type	底板尺寸 plate size(mm)		
	L	a	b
SWL-125~160	218	190	85
SWL-200~250	245	220	110
SWL-315~630	270	340	135

型号 Type	A	B	C	D	D1	E	ΦL	J	J1	K	N	P	R	S	T	U	ΦX	Y	F	H
SWL-125/3	140	135	125	27	92	73	5.5	120	120	65	85	36	20	25	3.5	115	9	25	59	10
SWL-125/4	170	135	125	27	92	73	5.5	150	150	65	85	36	20	25	3.5	115	9	25	59	10
SWL-160/3	140	135	125	27	92	73	5.5	120	120	65	85	36	20	25	3.5	115	9	25	59	10
SWL-160/4	170	135	125	27	92	73	5.5	150	150	65	85	36	20	25	3.5	115	9	25	59	10
SWL-200/3	180	170	138	35	98	86	5.5	160	160	90	115	50	25	30	3.5	140	11	25	76	15
SWL-200/4	230	170	138	35	98	86	5.5	210	210	90	115	50	25	30	3.5	140	11	25	76	15
SWL-250/3	180	170	138	35	98	86	5.5	160	160	90	115	50	25	30	3.5	140	11	25	76	15
SWL-250/4	230	170	138	35	98	86	5.5	210	210	90	115	50	25	30	5	140	11	25	76	15
SWL-315/3	230	240	170	50	135	110	7	210	210	140	145	65	32	40	5	206	11	37	94	20
SWL-315/4	290	240	170	50	135	110	7	270	270	140	145	65	32	40	5	206	11	37	94	20
SWL-400/3	230	240	170	50	135	110	7	210	210	140	145	65	32	40	5	206	11	37	94	20
SWL-400/4	290	240	170	50	135	110	7	270	270	140	145	65	32	40	5	206	11	37	94	20
SWL-500/3	230	260	170	50	135	110	7	210	210	140	145	65	40	50	6	220	13	37	94	20
SWL-500/4	290	260	170	50	135	110	7	270	270	140	145	65	40	50	6	220	13	37	94	20
SWL-630/3	230	260	170	50	135	110	7	210	210	140	145	65	40	50	6	220	13	37	94	20
SWL-630/4	290	260	170	50	135	110	7	270	270	140	145	65	40	50	6	220	13	37	94	20

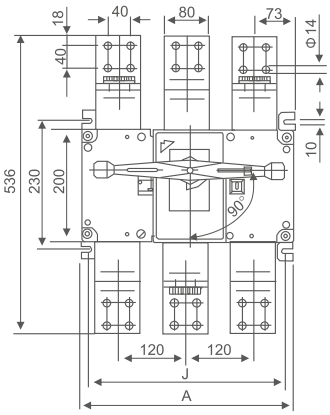
SWL-125~3200A 外形及安装尺寸图 SWL-125~630A OUTLINE AND INSTALLATION DIMENSION DRAWING



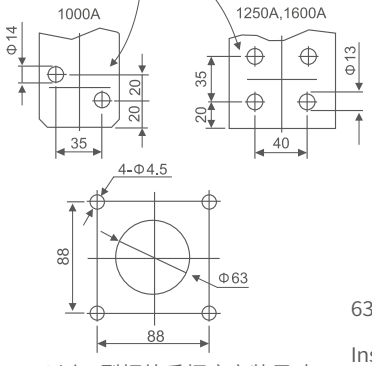




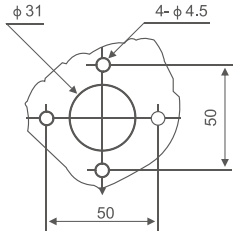
SWL-1000,1250,1600A



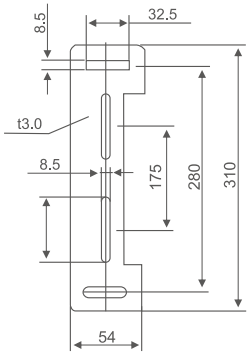
SWL-2000,2500,3200A



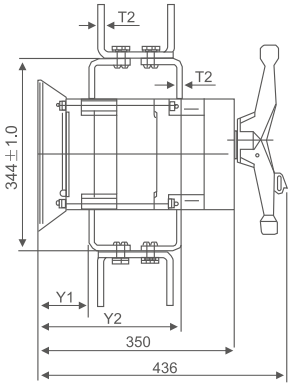
1000A以上A型柜外手柄座安装尺寸
Installation dimensions of handle base outside Type A cabinet with a capacity of 1000A and above



门孔
630A以下柜外手柄座安装尺寸
Doorhole
Installation dimensions of handle base outside the cabinet below 630A



630A以下安装专用底板
Special bottom plate for installation below 630A



型号 Type	A	B	J	N	R	T	Y
SWL-1000/3	378	312	353	185	60	8	48
SWL-1000/4	498	312	473	249	60	8	48
SWL-1250/3	378	356	353	185	80	8	48
SWL-1250/4	498	356	473	249	80	8	48
SWL-1600/3	378	356	353	185	80	10	49
SWL-1600/4	498	356	473	249	80	10	49

型号 Type	A	J	T1	T2	Y1	Y2
SWL-2000/3	378	350	10	12	90	255
SWL-2000/4	498	470	10	12	90	255
SWL-2500/3	378	350	10	12	90	255
SWL-2500/4	498	470	10	12	90	255
SWL-3200/3	378	350	12	14	89	256
SWL-3200/4	498	470	12	14	89	256

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