GSA7-63自动转换开关

GSA7-63 Automatic Transfer Switching Equipment

——配电电器产品名录 2013

安全 智能 环保

CE UL CCC TÜV CB RoHS

ISO9001 ISO14001 OHSAS18001

GSA7-63自动转换开关

>> 用途 APPLICATION

GSA7-63自动转换开关（以下简称ATS）适用于交流50Hz，额定工作电压415V及以下的双电源供电系统，用自动或手动方式来完成常用电源和备用电源之间的转换。

该ATS主要用于医院、商店、银行、化工、冶金、高层建筑、军事设施等不允许断电的重要场合。

GSA7-63 automatic transfer switching equipment（ ATS） adapt in AC 50Hz, rated operational voltage 415V double power supply system, with automatic or manual mode to complete conversion between common power supply and backup power supply.

The ATS is mainly used in hospitals, store, bank, chemical industry, metallurgy, high-rise buildings, military facilities do not allow power outage important occasions.

>> 结构特点、采用标准及认证情况 STRUCTURAL FEATURES, ADOPT STANDARD AND AUTHENTICATION SITUATION

结构特点 STRUCTURAL FEATURES

△ 具有三极、四极产品。
With three pole, fore pole products.

△ 体积小、结构简单、外形美观，具备1A～63A电流规格，操作方便，使用寿命长。
Small volume, simple structure, beautiful shape, with 1A ~ 63A current specifications, convenient operation, long service life.

△ 切换驱动采用单电机驱动，结构简单、切换可靠平稳、无噪音、冲击小。
Switch driven by a single motor drive, simple structure, stable reliable switching, no noise, small impact.

△ 具有机电连锁保护，确保开关可靠工作，互不干涉。
With mechanical and electrical chain protection, ensure switch reliable work, mutual noninterference.

△ 能带负载自动切换，也可用手柄进行手动切换。
With load automatic switchover, the handle can also be used to manually switchover.

△ 产品具有欠压、缺相、过电流保护功能。
The product has undervoltage, phase loss, over-current protection function.

△ 在手动与自动运行间加有互锁，保证自动情况下不能手动操作。
Between the manual and automatic operation added interlocking, ensure the automatic case can't manual operation.

△ 三种稳定工作位置 Three kinds of stable working position
常用电源合，备用电源分。
Commonly used power on, standby power off.
常用电源分，备用电源合。
Commonly used power off, standby power on.
常用电源分，备用电源分（手动档）。
Commonly used power off, standby power off (manual operation tap position).

△ 防护能力高及操作安全可靠。
The protective capability high and safe and reliable operation.

△ 常用、备用侧各带一对辅助触头，保证可靠切换和提供控制信号;便于用户观察的面板电源状态指示或 引出在开关柜面板指示。
Commonly used, reserve side each brought a pair of auxiliary contacts, to ensure reliable switching and provide control signal, is convenient for user to observe panel power supply status indication or eduction in switchgear panel instructions.

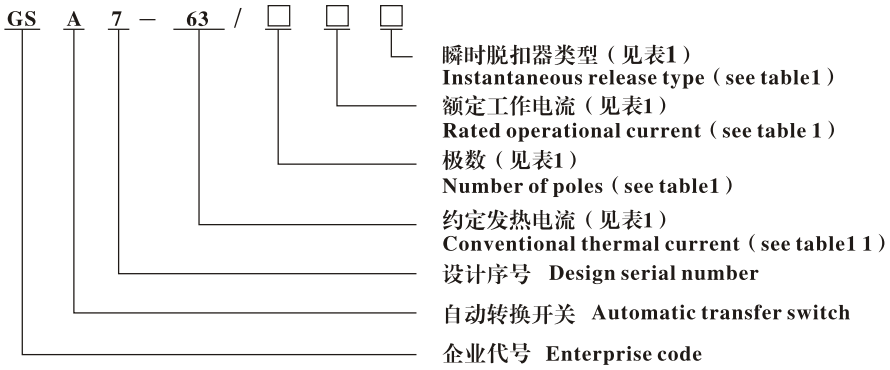
■ 采用标准 ADOPT STANDARD

△ GB/14048.1-2006 低压开关设备和控制设备 第1部分：总则
GB/14048.1-2006 Low-voltage switchgear and controgear Part 1: General rules

△ GB/T14048.11 低压开关设备和控制设备 第6-1部分：多功能电器转换开关电器
GB/T14048.11 Low-voltage switchgear and controgear Part 6-1: Multi-function electrical equipment reverse switch electrical equipment

■ 认证情况 Authentication situation 获得 CCC认证 The CCC certification

>> 型号及含义 TYPE AND MEANING



>> 正常工作条件与安装方式 NORMAL WORKING CONDITION AND INSTALLATION WAY

■ 正常工作条件 Normal working conditions

△ 环境温度：-5℃ ~ +40℃，且其24h内的平均温度值不超过+35℃。
Ambient temperature: -5℃~40℃, and the average temperature value within 24h does not exceed +35 ℃.

△ 安装地点的海拔不超过2000m。
Installation site elevation does not exceed 2000m.

△ 在最高温度为+40℃时，空气的相对湿度不超过50％。在较低温度下 可以允许较高的相对 湿度，例如+20℃时达90％。对由于温度变化偶尔产生的凝露应采取适当的措施。
Ambient relative humidity is not exceeding 50％ at the maximum temperature is +40℃.In the lower

temperature can allow higher relative humidity, such as +20 ℃ reach 90%. Should give proper consideration to the dews, which would appear due to temperature change;

△ 在无爆炸危险的介质中，且介质无足以腐蚀金属和破坏绝缘的气体和导电尘埃的地方。

In the medium of no explosion danger, and the medium without enough to corrode metal and damage insulation gas and conductive dust place.

△ 污染等级：3级。

Class of pollution: Class 3.

■ 安装条件 installation condition

△ 安装类别III。

Installation category III.

△ 安装于配电箱、配电柜或盒中。

Installed in distribution box, power distribution cabinet or box.

△ 安装处应无显著冲击和振动。

Installation area should be no significant impact and vibration.

>> 主要技术参数 MAIN TECHNICAL PARAMETERS

■ 基本参数（见表1）basic parameter（as table 1）

表1 Table1

产品型号 Product model	GSA7-63
极数 Number of poles	3、4
瞬时脱扣器类型 Instantaneous release type	C、D
频率（Hz） Frequency（Hz）	50
约定发热电流（A） Conventional thermal current（A）	63
额定绝缘电压（V） Rated isolated voltage（V）	415
额定工作电压（V） Rated operational voltage（V）	415
额定工作电流（A） Rated operational current	1、3、6、10、16、20、25、32、40、50、63
使用类别 Use classes	AC-33B
电器级别 Electrical level	CB级
机械寿命（次） Mechanical life（time）	4500
电气寿命（次） Electrical life（time）	1500
额定短路分断能力（kA） Rated short circuit breaking capacity（KA）	6

■ 过电流脱扣特性（见表2）

Overcurrent tripping characteristics（see table 2）

表2 Table2

试验电流 Test current	额定电流（A） Rated current（A）	规定时间 Preset-time	预期结果 Expected result	起始状态 Start status	基准温度 Reference temperature	备注 Remark
1.13In	1、3、6、10、16、20、25、32、40、50、63A	T≥1h	不脱扣 Non tripping	冷态 Cold state	30℃	
1.45In		T＜1h	脱扣 Tripping	热态 Thermal state		电流在5s内稳定地升至规定值 Current steadily rose to a specified value within 5 seconds
2.55In	In≤ 32A	1s＜t＜60s	脱扣 Tripping	冷态 Cold state	30℃	
	In>32 A	1s＜t＜120s				
5In	1、3、6、10、16、20、25、32、40、50、63A	T≤0.1s	不脱扣 Non tripping	冷态 Cold state		C型脱扣器 C-type trip
10In		T＜0.1	脱扣 Tripping	冷态 Cold state		
10In		T≤0.1s	不脱扣 Non tripping	冷态 Cold state		D型脱扣器 D-type trip
14In		T＜0.1	脱扣 Tripping	冷态 Cold state		

控制电路额定值（见表3）Control circuit rated value（as table 3）

表3 Table3

电器类型 Electrical type	AC50Hz	
	额定控制电源电压Us Rated control power supply voltage Us	控制电压范围 Control voltage range
电动机操作机构 Motor operating mechanism	220V	85％Us～110Us％

电压偏差与动作时间（见表4）Voltage deviation and action time（as table 4）

表4 Table4

电压种类 Voltage type	电压整定值 Voltage setting value	返回整定值 Return to setting value	触头转换时间 Contact switching time	转换动作总时间 Conversion action total time
欠压 Under voltage	70％Ue	85％Ue	≤2S	＜3S
缺相 Lack of phase	0	85％Ue		＜2S

>> 外形及安装尺寸 OUTLINE AND INSTALLATION DIMENSIONS（SEE PICTURE 1 UNIT：MM）

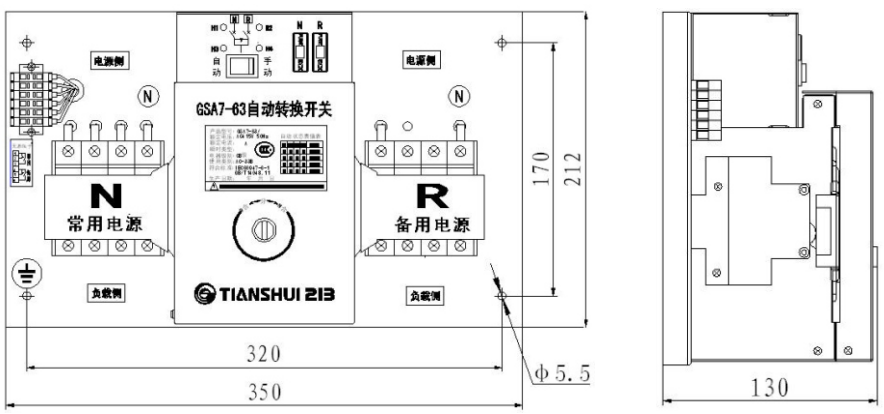


图1 Picture1

>> 使用说明 INSTRUCTIONS

接线 Wiring

三极ATS：接执行断路器上口“常用电源”、“备用电源”U、V、W相，中性线接入中性线端子上，中性端子位于产品左侧，外接指示灯端子排上（见图2）。常用电源N线接在端子排“3”上，备用电源N线接在端子排“6”上。

Three pole ATS：Connection to upper interface of executive circuit breaker " commonly used power ", " standby power " U, V, W phases, neutral line access neutral line terminal, neutral terminal is located on the left of the product, external is connected to indicator light terminal block (see picture 2). Commonly used power N line is connected to the terminal block "3", standby power N line is connected to the terminal block "6".

四极ATS：接执行断路器上口“常用电源”、“备用电源”U、V、W、N相；“常用电源”、“备用电源”中性线分别接入常用、备用执行断路器上口N极，中性线不得公用(见图3）。

Four pole ATS：Connection to upper interface of executive circuit breaker " commonly used power ", " standby power " U, V, W phases; " commonly used power ", " standby power " and neutral line respectively access commonly used, standby upper interface N pole of executive circuit breaker, the neutral line shall not public (see picture 3).

ATS提供AC220V外接信号输出端子，用户可根据需要确定外接指示灯(见图2、图3）。

ATS provide AC220V external signal output terminal, the user can according to need to confirm external indicator light (see picture 2, picture 3)

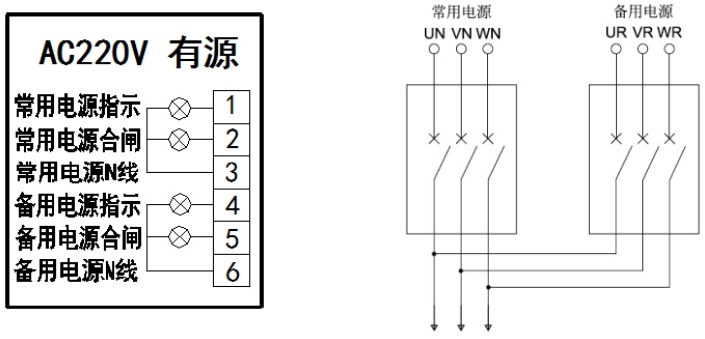


图2 三极接线图
Picture 2 Three pole wiring diagram

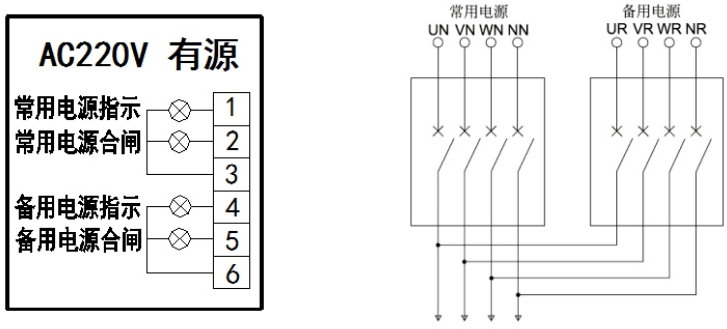


图3 四极接线图
Picture 3 Four pole wiring diagram

AC 220V:Active

常用电源指示：Commonly used power indicator

常用电源合闸：Commonly used power switch on

备用电源指示：Standby power indicator

备用电源合闸：Standby power switch on

常用电源N线：Commonly used power N line

备用电源N线：Standby power N line

注意 Notice:

△ 两台断路器的主回路的相序必须一致；

The phase sequence of major loop of circuit breaker must be consistent;

△ 接地线必须可靠；

Grounding line must be reliable;

△ 三极ATS装在箱体中，应将ATS的中性线端子与中性线排相连；

Three pole ATS is mounted in the cabient, neutral line terminal and neutral line row of the ATS should connected;

△ 四极ATS的中性线各自接到“常用电源”、“备用电源”断路器的进线端，不得将中性线共用；

The neutral line of four pole ATS respectively access “commonly used power”, “standby power” coil in terminal of circuit breaker, the neutral line shall not public;

△ 工频耐压试验时不能对控制器进行耐压试验，以免损坏内部线路；

When power frequency withstand voltage test cannot do withstand voltage test to controller, so as not to damage to internal wiring.

△ ATS处于自动控制工作方式时，禁止手动操作电动操作机构。

When ATS in the automatic control working mode, banned manual operating electric operating mechanism.

常见故障及排除（见表5）Common Faults and exclusion (as Table 5)

表5 Table5

故障现象 Fault phenomenon	故障分析 Failure analysis	排除方法 Elimination method
通电后控制器指示灯不亮 After electrify controller indicator light not bright	电源采样线脱落 Power sampling line fall off.	将线对应接好 Connected to the line corresponding
	3极开关中性线端子未接中性线 3 pole switch neutral line terminal is not connected to neutral line.	
	控制器熔断器断或接触不良。 Controller fuse break or bad contact.	检查两路电源相序是否一致，再更换熔断器 Check whether the two way power phase sequence are consistent, then replace fuse
接入电源，开关不工作 Access power, switch doesn't work	自动手动开关在手动位置。 Auto – Manual switch in the manual position.	将开关置于自动状态 Switch to the automatic state
开关正常，开关处于合闸位置，而负载端没电 Switch to normal, switch in switching position, and load end without power	检查开关是否脱扣 Check whether the switch trip.	负载故障消除后，手动使开关再扣 Load fault is cleared manua l to make the switch on again

> > 订货须知 ORDER NOTICE

■ 订货时须指明产品型号、规格、数量及运输方式

When placing order, please specify product model, specification, quantity and mode of transportation.

△ 如：GSA7-63 C25/4P 200台 铁路快运

For example: GSA7-63 C25/4P 200 sets railway express