

ManHua

MANHUA ELECTRIC CO., LTD.

Operating Manual

(Changeover Switch)

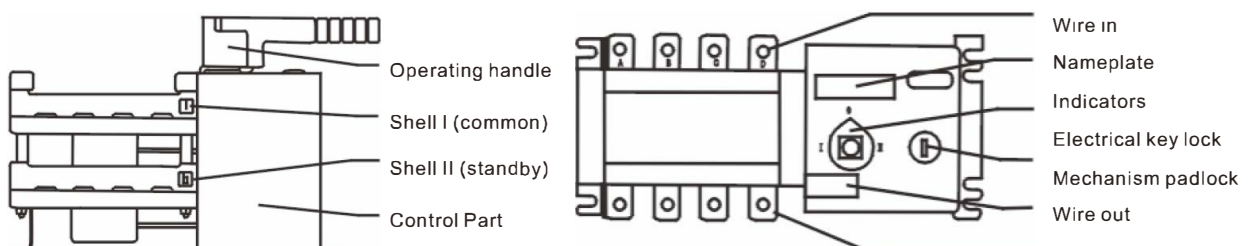
MANUFACTURED BY MANHUA ELECTRIC

1.Switch Introduction

MATYS dual-power automatic change-over switch is an automatic switching switch that integrates switching and logic control and realizes mechanical-electrical integration. It is suitable for power distribution equipment in industrial enterprises with 50 Hz AC, rated voltage to 440 V and agreed heating current to 3200 A. It has the functions of voltage detection, communication interface, electrical and mechanical interlocking, etc. It can realize automatic, remote control, forced to position "0" and emergency manual operation. It is widely used in automatic conversion between main power supply and standby power supply of power supply system or automatic conversion and safety isolation of two load equipment. Switches with logic commands issued by the control circuit board to control the generators. The generator drives the operating mechanism of the main part of the switch. The switch can quickly make and break circuits or switch on the circuit or convert the circuit. Safety isolation can be achieved through the obvious visible state.

2.Switch Structure Instruction

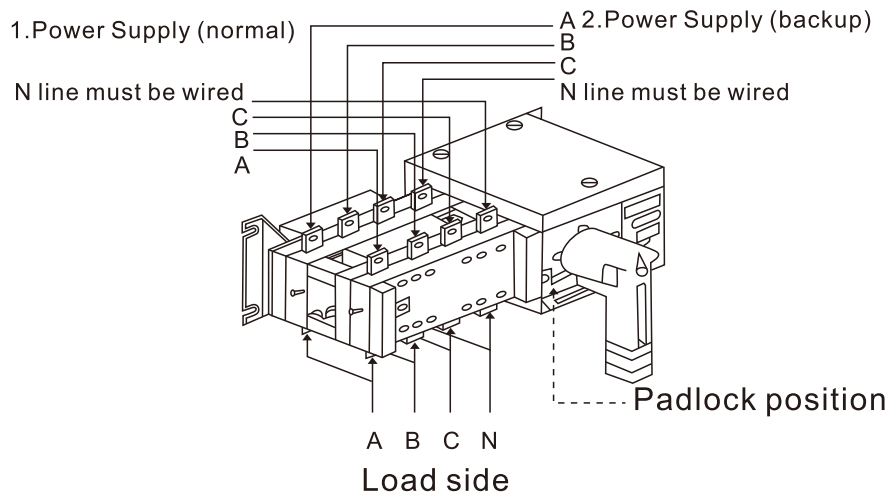
- 1). Electric key locker: Control switch controls internal circuit power supply, when the electric lock is opened, the switch can achieve full automation, operation control and forced position "0" operation: when the electric lock is closed, the switch can only be operated manually.
- 2). Operating handle: When using the operating handle to manually operate the operating room, the electric lock must be closed first.
- 3). Mechanism padlock: only for overhaul, that is, place the switch on the "0" position with the operating handle, then connect the padlock mechanism and put on the padlock, so that the overhaul can be carried out. (When the padlock is connected, the internal control power of the switch is cut off, and the switch can not be automatically and manually operated.)
- 4). Indicators: Indicating the working status and position of the switch (I, 0, II)



3.Parameters

- 1). Standard: IEC60947-6
- 2). Rated Voltage: AC415V
- 3). Grade : PC Class

4.Wiring Diagram



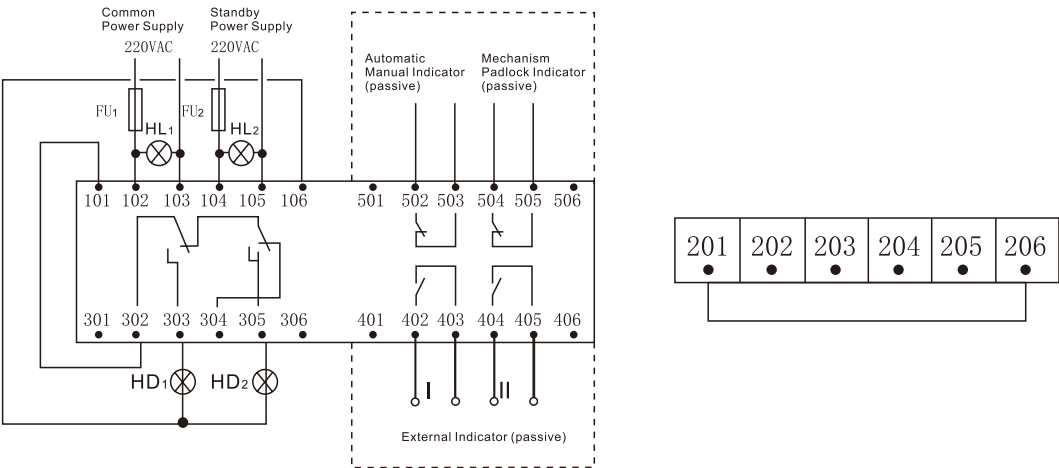
5.Usage method

1) Switch Function

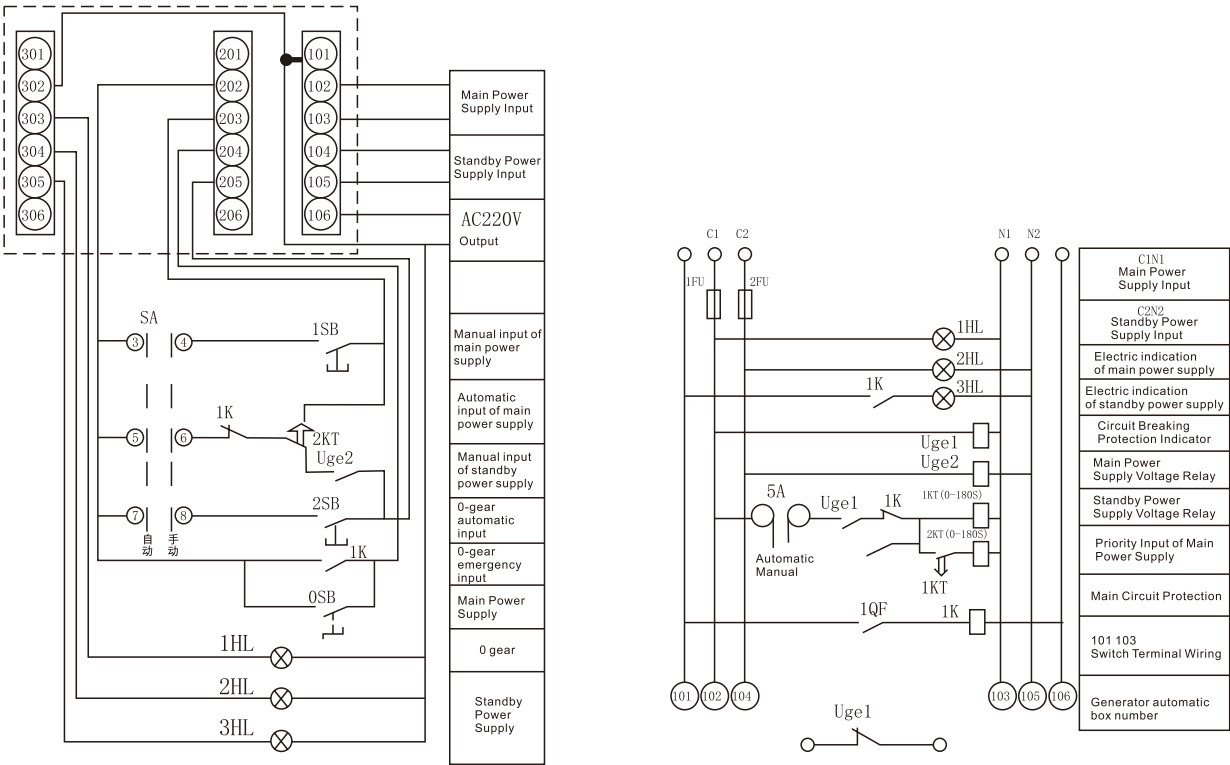
- ① Full-automatic function: When the common power supply is cut off, the switch automatically converts to the standby power supply; when the common power supply returns to normal, the switch automatically returns to the common power supply.
- ② Forced to the "0" function: Start the "0" button, and the switch will cut off the two-way power supply.
- ③ Remote control function: that is, remote control, press the "I" button, then the common power supply works; press the "II" button, then the standby power supply works; press the "0" button, then cut off the dual power supply.
- ④ Please select the switch function according to the need and connect wires according to the corresponding function.
- ⑤ Please specify switch type, current specifications and required functions during ordering.

6.External Terminal Wiring Diagram

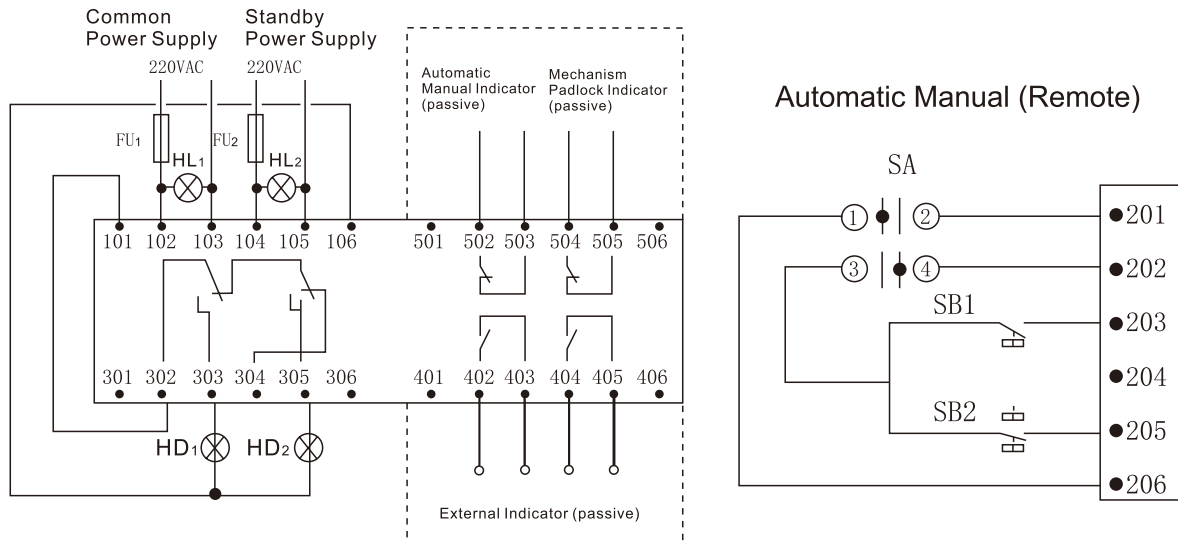
1) Fire-fighting Wiring Method



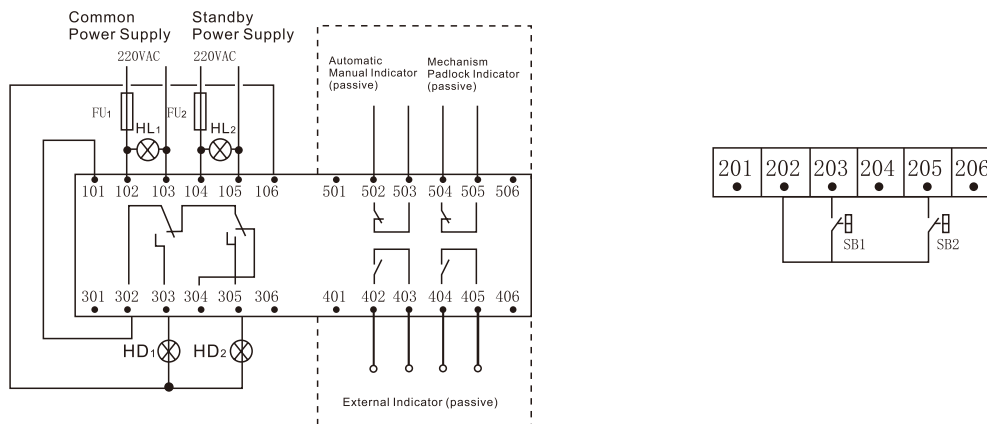
2) Generator Wiring Method



3) Automatic + Manual (Remote) Wiring Method



4) Generator Wiring Method



Instruction

- ① HL1 and HL2 are common power supply, standby power supply and call indication HD1 and HD2 are common power supply, standby power supply input indication FU1 and FU2 are 2A fuses.
- ② 302-305 is switch terminal.
- ③ 101-106, 201-206, 301-306 is switch terminal.
- ④ 401-406, 501-506 switch terminal is optional.
- ⑤ SA Selected Switches for Automatic/Manual Functions.
- ⑥ SB1 and SB2 are the common power supply, and the standby power supply manually puts the button (passive contacts).
- ⑦ IQF is the main circuit (main power supply) protection switch alarm contact IKT is the pass delay, 2KT is the power cut delay.

MANHUA ELECTRIC CO., LTD.

101~103--Output of Outside State Indicator of Common Power Supply (Active)

101--Public null line of signal lamp.

102-- Common Power Supply Signal Output.

103-- Common Switch-on Signal Output.

201~203--Output of Outside State Indicator of Standby Power Supply (Active).

201-- Public null line of signal lamp.

202--Standby Power Supply Signal Output.

203--Standby Switch-on Signal Output.

301~302--Generator Start DC 24V Auxiliary Power Input.

301--DC24V Positive Input.

302--DC24V Negative Input.

401~404--Fire fighting joint control signal input and feedback signal output.

401~402--Passive input of fire-fighting joint type, such as fire-fighting equipment output signal bit active signal, need to switch the signal source, for example, by installing relay connection, and then connect the relay normally open contacts to 401, 402, normally open contacts closed and dual power supply switch to off position. 403, 404 - Feedback model of dual power change-over switch to switch off the load power supply at the opening position. Note: When the fire fighting joint function starts, the automatic switch will stop working. In order to make the switch work normally, the fire fighting model must be revoked first, and then the automatic/manual switch can be converted once to resume normal working status.

501~503--When the standby power supply is a self-starting generator set, the user can automatically start the generator by connecting 501-503 terminals with the generator controller. The interior of 501-503 is a group of passive relay trunk nodes, 502 is the common end of the relay, 503 is the normal closing point, 501 is the normal opening point; 501 and 502 are closed when the common power supply is normal, 503 and 501 are disconnected; 501 and 502 are disconnected when the common power supply fails, and 503 and 502 are closed to produce the generator start-up model.