ELPRO

ATS-63A-4P

AUTOMATIC TRANSFER SWITCH

DESCRIPTION

The ATS-63A changeover switch is designed to transfer loads automatically and manually from main power source to reserve source in a wide variety of 1-3 phase applications.

FEATURES

- Design based on 63A automatic circuit breakers;
- Motorized or manual switching;
- 1-3 phase operation;
- High reliability due to stable positions of the change-over mechanism energized during switching process only;
- Internal position indication lamps and external lamp outputs;
- Built-in mechanical and electrical interlocking;
- Automatic / Manual / Remote switching modes;
- Manual switching 3-position handle.

TECHNICAL SPECIFICATIONS

- Voltage: **230/400V(2-3 phase), 230V (1 phase), 120/208V(3 phase), 120/240V (2 phase).**
- Voltage frequency: **50/60Hz.**
- Switching poles: 4
- Phase current: up to 63A
- Working temperature range: от -0'C до +60'C
- Humidity: up to 50%
- Installation type: vertical
- Power loss: not more than 5W;
- Switching time: 3-4 sec
- Category: CB
- Weight: 2.3 kg

INPUTS AND OUTPUTS

- Normal inputs/outputs: R, S, T phases+ Neutral
- Reserve inputs/outputs: R, S, T phases+ Neutral
- External indication lamp outputs;
- Control phase inputs (yellow wires)
- Control phase inputs (blue wires)

OPERATION

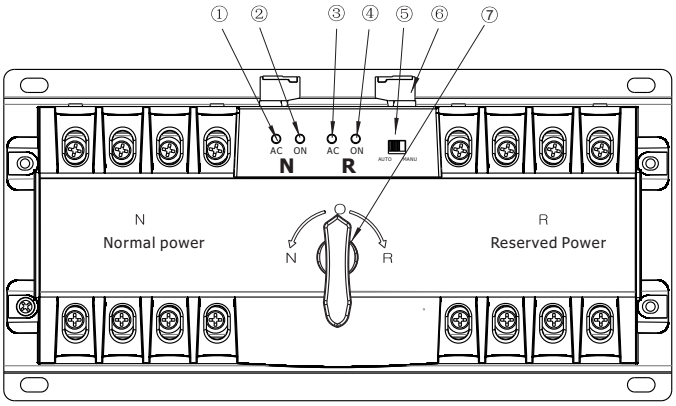
Device monitors normal and reserve source control phase voltages.
In case if there is the normal control phase voltage, the device connects the load circuits to the normal power source inputs.
If the normal control phase voltage is lost, the device comes to a waiting mode keeping the load circuits connected to the normal power source inputs.
In case if there is the reserve sourcecontrol phase voltage (while normal control phase voltage is absent), the device connects the load circuits to the reserve power source inputs.
If the reserve control phase voltage is lost, the device comes to a waiting mode keeping the load circuits connected to the reserve power source inputs.
In case if the normal source control phase voltage is recovered, the device connects the load circuits to the normal power source inputs independently on having the reserve control phase voltage or not.
If the Auto mode switch in the OFF position, you could switch the load circuit connection between normal and reserve power source inputs manually.
Normal power source inputs always have the priority.

TROUBLESHOOTING

If the load circuits are not powered while having the active power supply inputs energized, it may be caused by the overload protection. To solve this failure, please turn the auto mode switch to the OFF position, then check your load circuits and phase sequence. After the overload problem is solved, rotate the manual switch handle on both sides subsequently to re-activate the connection. Then turn the auto mode switch to the ON position again.
In case if the device does switch automatically, please check these items:

- the automatic mode switch (should be the ON position);
- voltage on the device control phases and other phases;
- control wires (yellow-blue pairs) connection to the normal and reserve power source inputs;
- normal and reserve control input fuses .

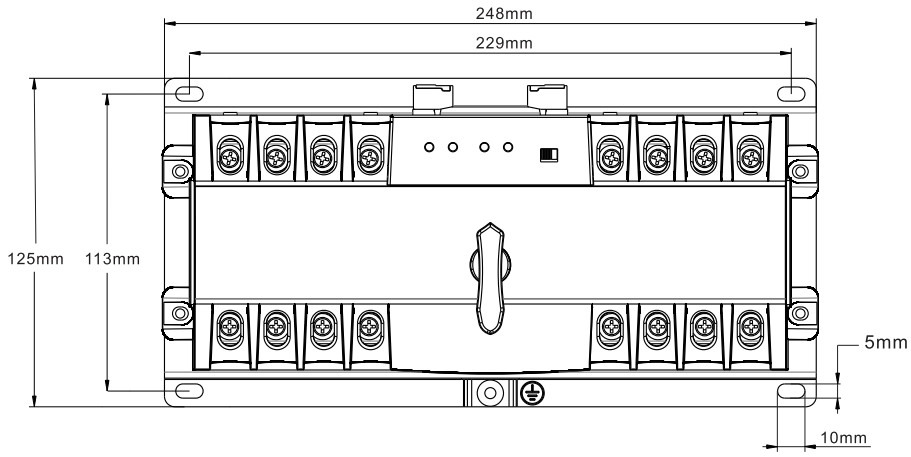
CONTROLS AND DIMENSIONS

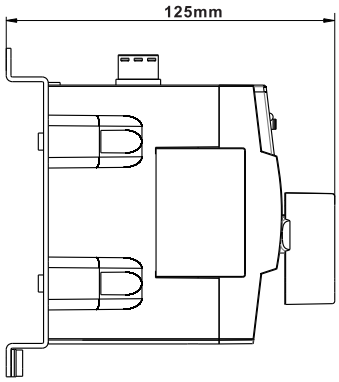


1: Normal power indicator
2: Normal power ON indicator
3: Reserved power indicator
4: Reserved power ON indicator
5: Auto/Manual transfer mode select switch
6: External wiring terminal
7: Manual switch control (NORMAL-OFF-RESERVE)

Normal power = Main Power
Reserved power = Backup Power

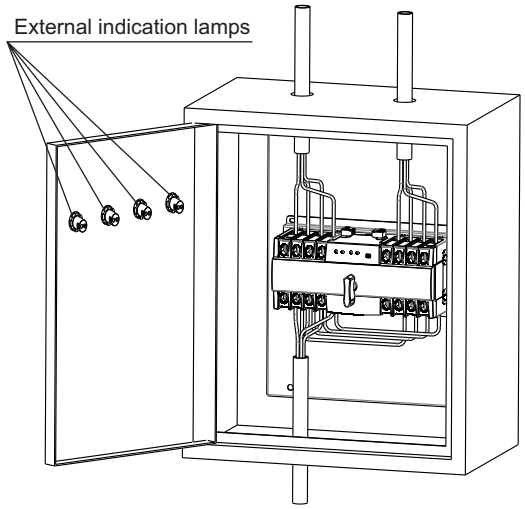
DIMENSIONS



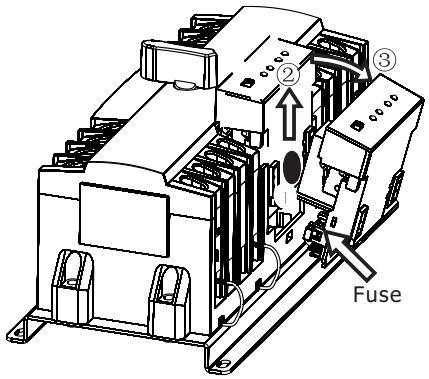


INSTALLATION

The device should be installed in a power control cabinet.
The device frame must be grounded.

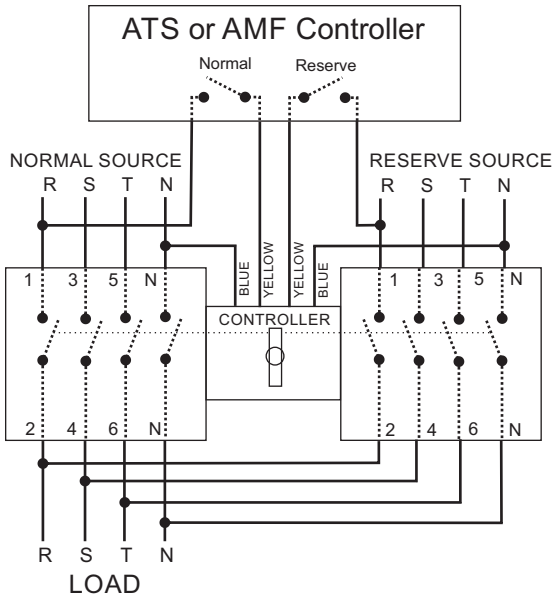


FUSE REPLACEMENT



1. Press on the solid ellipse position to release the buckle,
2. Pull up the controller to a certain distance.
3. As the direction show in the picture, incline move out, will see the fuse and change the fuse (5x20 2A).

REMOTELY CONTROLED SWITCHING



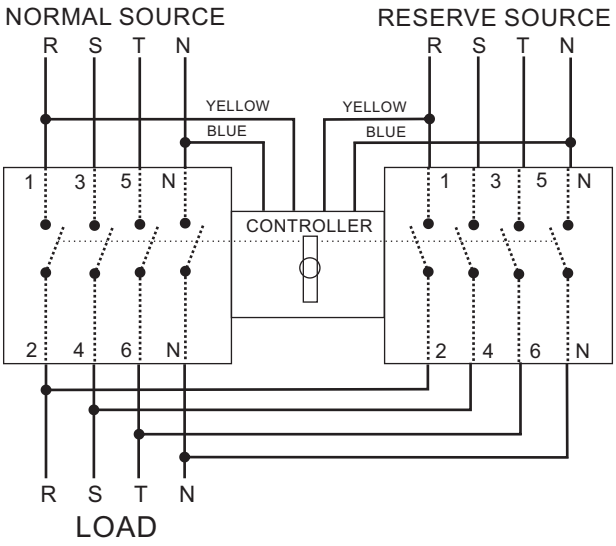
Additionally to the automatic and manual switching mode, the device could be controlled remotely via external ATS controller or AMF generator controller.
The switch has all necessary mechanic and electric interlocking protections against load connection to both power sources simultaneously.
If both inputs are activated, Normal source always has a priority.

R, S, T - phase wires;
N - neutral wires;
YELLOW+BLUE- Normal and Reserve source control wire pairs.

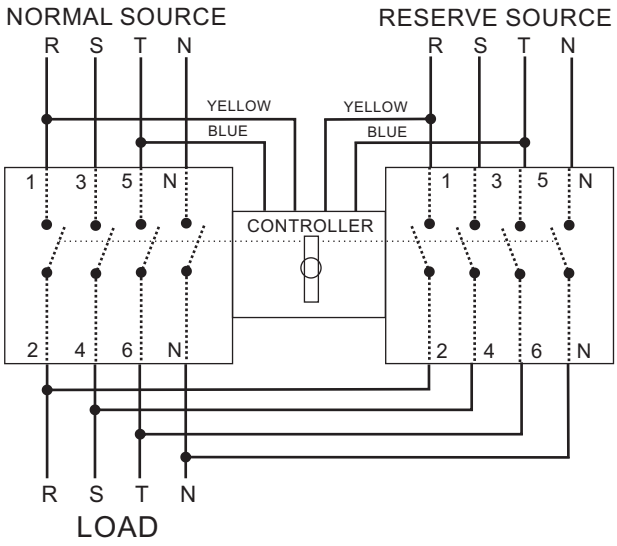
Notes:
The control voltage between Blue and Yellow control wires must be 200-240VAC.
The Auto mode switch must be in “ON” position.

CONNECTION DIAGRAMS

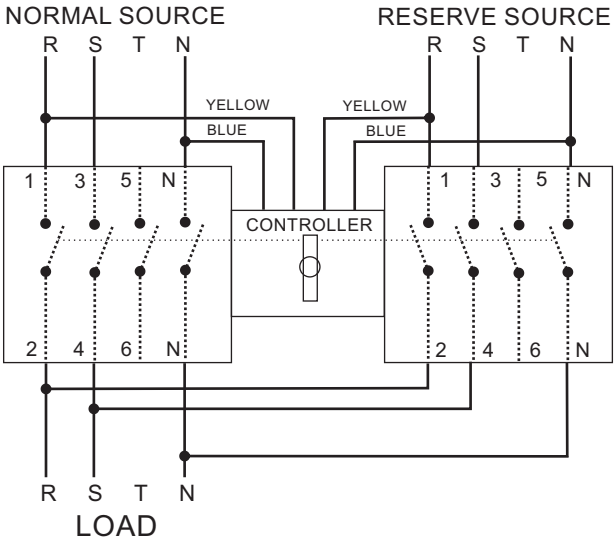
230/400 VAC 3 PHASE CONNECTION



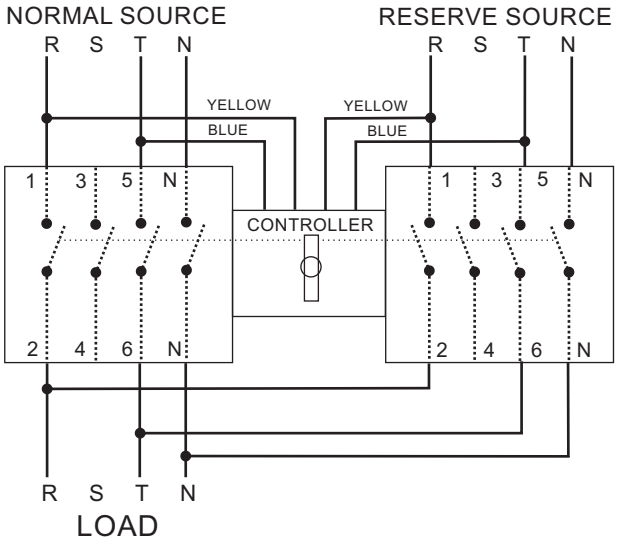
120/208 VAC 3 PHASE CONNECTION



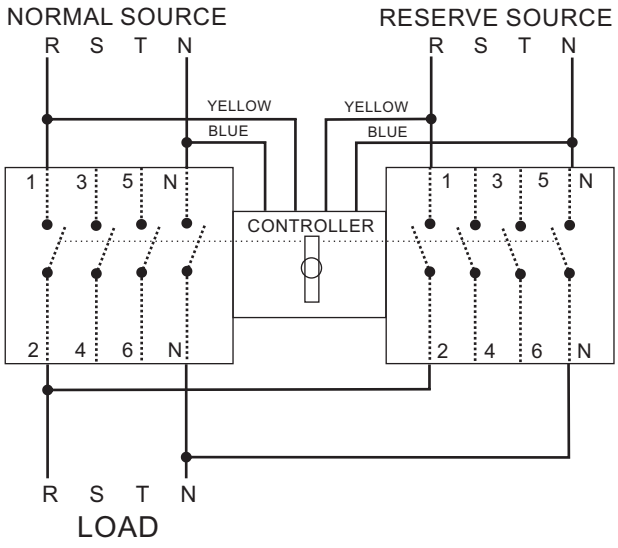
230/400 VAC 2 PHASE CONNECTION



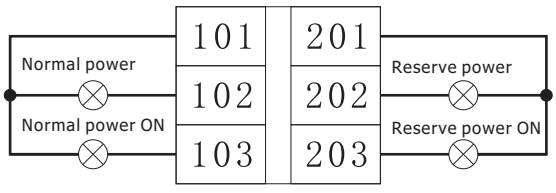
120/240 VAC 2 PHASE CONNECTION



230 VAC SINGLE PHASE CONNECTION



EXTERNAL INDICATOR LAMP CONNECTION



Note: External indication lamps must be 230VAC.

R, S, T - phase wires;
N - neutral wires;
Yellow + Blue - control wire pairs.