

4PRO

ATS-125A-4P-RSC

AUTOMATIC TRANSFER SWITCH

DESCRIPTION

The ATS-125A-RSC changeover switch is designed to automatically transfer load circuits from main power source to reserve source in a wide variety of 1-3 phase applications.

FEATURES

- Electric motor gear activated switching;
- 1-3 phase 4 pole operation;
- Auto and Manual/Remote mode switch;
- 3 position switch handle("I"- "0"- "II");
- Generator start/stop remote control outputs;
- External ATS/AMF controller remote control inputs;
- High reliability and low power consumption due to fixed positions of the change-over mechanism energized during switching process only;
- Front side position indication pointer and external lamp outputs;
- Control signal protection fuses;
- Built-in mechanical and electrical interlocking.

TECHNICAL SPECIFICATIONS

- Rated Operating Voltage: 230/400V(2-3 phase), 230V (single phase), 120/208V(3 phase), 120/240V (2 phase).
- Voltage frequency: 50/60Hz.
- Switching poles: 4
- Rated operating current: up to 125A per device pole;
- Working temperature range: от -5°C до +40°C;
- Humidity: up to 95%;
- Installation type: vertical;
- Control voltage: 175-265VAC
- Switching current: up to 0.5A;
- Switching time: 1-2 sec;
- Rated insulation voltage: 800V
- Rated impulse withstand voltage: 8kV
- Rated making capability: 10KA
- Rated short-time withstand current I_e 30ms:17KA
- Nominal control supply voltage: 230VAC
- Life switching cycles: up to 10000;
- Use category: AC-331B;
- Altitude: up to 2000 meters;
- Protection class: IP30
- Weight: 2.2 kg.

INPUTS AND OUTPUTS

- Normal source inputs: R, S, T, N;
- Reserve source inputs: R, S, T, N;
- Load circuit outputs: R, S, T, N;
- External indication lamp outputs;
- Generator start/stop remote control outputs;
- External ATS/AMF controller remote control inputs.



INSTALLATION

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

In case if the unit is used in single- or two-phase application, it is important to have the control input pairs marked as "5" and "N" connected to active Normal- and Reserve source phases according to the connection diagrams below. Otherwise, the device will not switch automatically.

OPERATION

Device monitors normal ("I") and reserve ("II") source phase voltages (internally connected to the "5" and "N" terminal pairs).

AUTO MODE:

In case if there is the normal source phase voltage, the device connects the load circuits to the normal power source inputs.

If the normal source 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 source phase voltage (while normal source phase voltage is absent), the device connects the load circuits to the reserve power source inputs.

If the reserve 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 phase voltage is recovered, the device connects the load circuits to the normal power source inputs independently on having the reserve phase voltage or not.

Normal power source inputs always have the priority.

MANUAL/REMOTE MODE

In this mode, device could be switched manually using the removable handle or via their remote control inputs connected to external ATS/AMF controller relay outputs.

TROUBLESHOOTING

In case if the device does not switch automatically, please check:

- if there is 175-265VAC voltage between "5" and "N" terminals;
- if the Auto/Manual mode switch is in Auto position;
- If both fuses are in work condition.

PRECAUTIONS

Hazardous voltages. Risk of electric shock.

The device power and control terminals are connected to high voltages and can cause an electric shock when incorrectly installed.

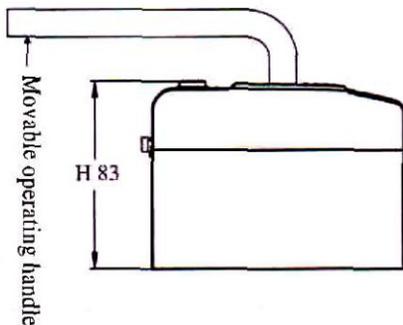
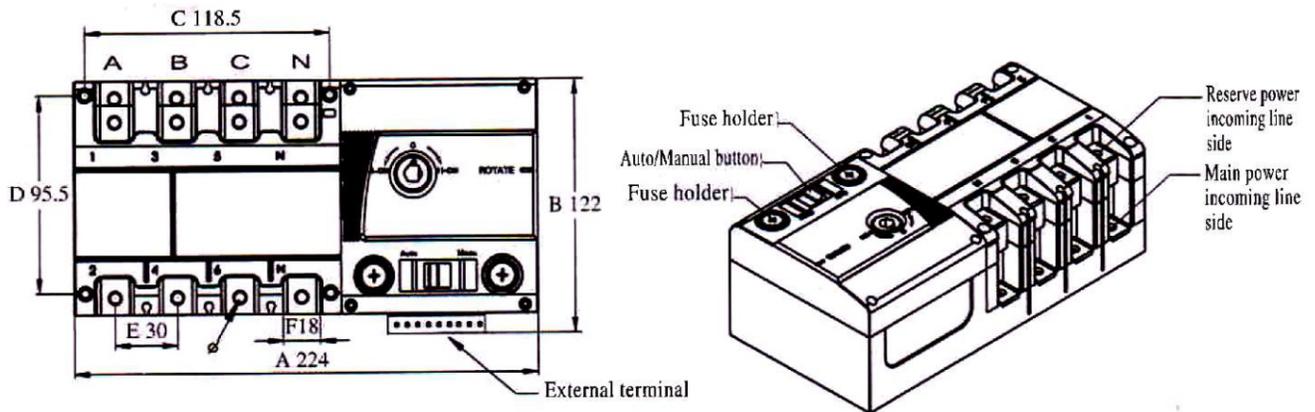
Do not touch any live wires or related wire contacts.

OPERATIONAL LOGIC

AUTO MODE	STATE #1	STATE #2	STATE #3	STATE #4
Normal Power Source	ACTIVE	ACTIVE	NOT ACTIVE	NOT ACTIVE
Reserve Source Availability	NOT ACTIVE	ACTIVE	ACTIVE	NOT ACTIVE
Load is switched to	Normal Source	Normal Source	Reserve Source	Last position
Genset Remote Outputs (4,5) start output	Open	Open	Closed	Closed

MANUAL/REMOTE MODE	STATE #1	STATE #2	STATE #3	STATE #4
Normal Power Source Remove input pair (6,7)	CLOSED	CLOSED	OPEN	OPEN
Reserve Power Source Remove input pair (8,9)	OPEN	CLOSED	CLOSED	OPEN
Load is switched to	Normal Source	Normal Source	Reserve Source	Last position
Genset Remote Outputs (4,5) start output	Open	Open	Closed	Closed

CONTROLS AND DIMENSIONS

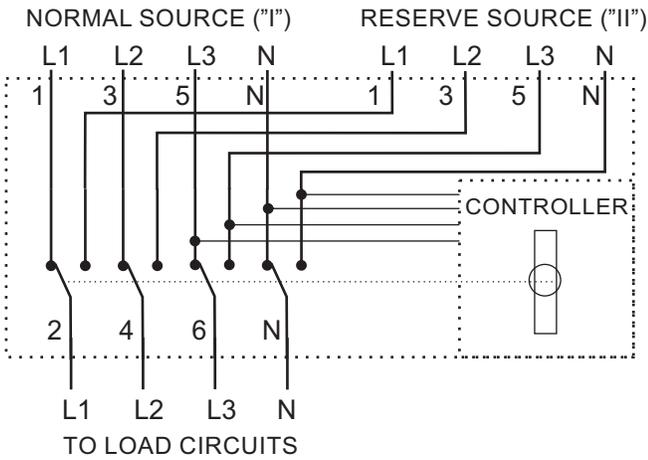


Outline and installation size comparison table

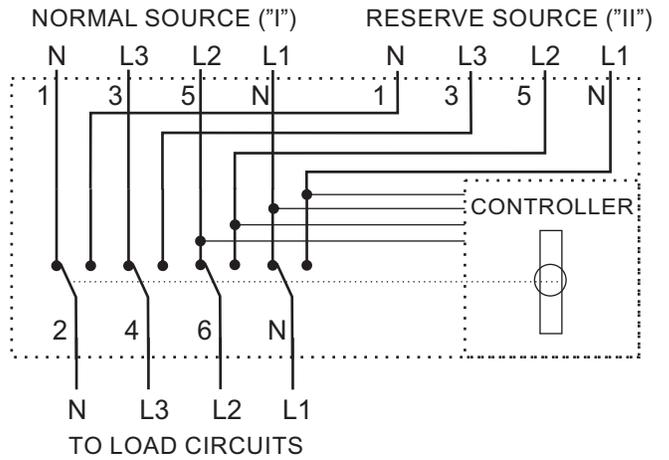
Specification	A	B	C	D	E	F	H	∅	N/W
125	224	122	118.5	95.5	30	18	83	6	2.2

CONNECTION DIAGRAMS

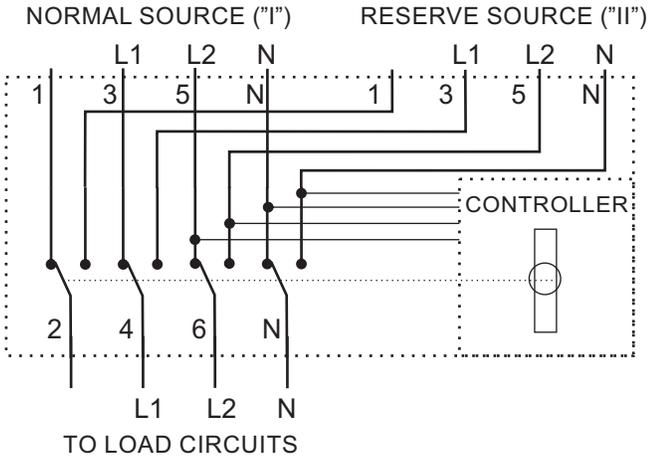
230/400 VAC 3 PHASE CONNECTION



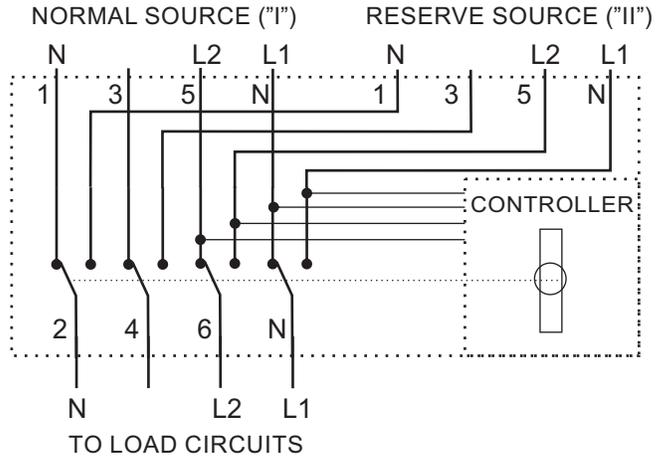
120/208 VAC 3 PHASE CONNECTION



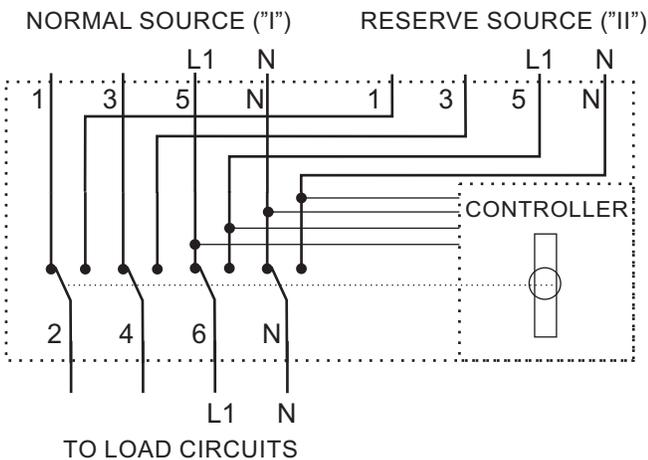
230/400 VAC 2 PHASE CONNECTION



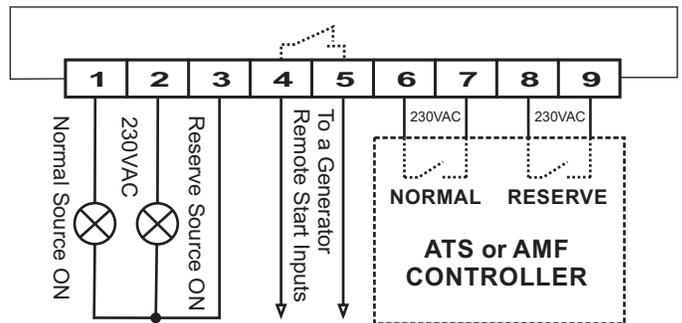
120/240 VAC 2 PHASE CONNECTION



230 VAC SINGLE PHASE CONNECTION



CONTROL INPUTS / OUTPUTS



L1, L2, L3 - SOURCE PHASE WIRES
N - SOURCE PHASE NEUTRAL WIRES