

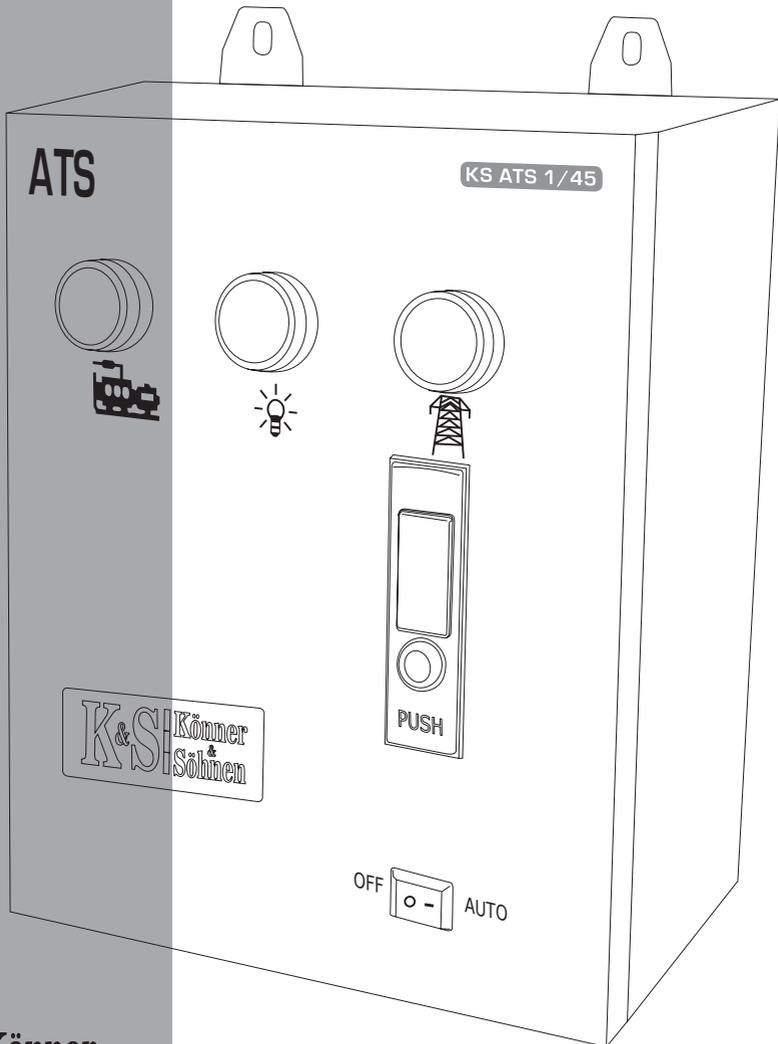
Please, read this manual  
carefully before use!

Owner's manual



## Automatic Transfer Switch

KS ATS 1/45



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## ABBREVIATIONS MEANING:

ATS      Automatic Transfer Switch

# INTRODUCTION

We are grateful to you for your purchase of **TM Könnner & Söhnen** automatic transfer switch. This manual contains safe working recommendations, operation and adjustment description of ATS block and maintenance instructions.

Manufacturer reserves the right to make alterations into the generators, which may not be reflected in this manual. Pictures and photos of the product may vary from its actual appearance.

At the end of this manual, you may find contact information which you are free to use in case of any issues occurrence. All data, specified in this operation manual is the most up to date for the moment of its publishing. The current list of service centers can be found at the official importer website: **www.ks-power.de**.



**IMPORTANT!**



**In order to provide equipment integrity and avoid any possible injuries we strongly recommend you to read this manual carefully before operating the generator.**

## PRECAUTIONS WHEN USING THE ATS BLOCK

### WORKING AREA

- Please don't use the ATS block near flammable gases, liquids or dust.
- Be sure to keep cleanliness and good lighting in the work area. Clutter and poor lighting may cause an injury.
- Do not let the presence of unauthorized persons, children or animals when working with the device.

### ELECTRICAL SAFETY

- The product is under the current. Follow safety precautions to avoid electric shock.
- In the high humidity level conditions generator exploit is prohibited. Keep the generator in a dry place only.
- Avoid direct contact with grounded surfaces (pipes, radiators, etc.).
- Be careful when working with power cables. Immediately replace it in case of damage, as damaged wire increases the risk of electric shock.
- All connecting the generator to the network must be made by certified electrician in accordance with all electrical rules and regulations.
- Do not with the device, placed in water, on a wet or damp soil.
- Do not touch parts of the generator under voltage.

- Store all electrical equipment dry and clean. Wires with damaged or spoiled insulation should be replaced. You should also replace worn, damaged or rusty contacts.

#### **PERSONAL SAFETY**

- Be careful. Do not operate the device, if you are tired, under the influence of drugs or alcohol. Inattention may cause a serious injury.
- Make sure no outsider objects are placed on the device when it is turned on.
- Do not overload the ATS block, use it only for the purpose.



**IMPORTANT!**



**Total power of current consumers, linked to ATS, should not exceed the maximum capacity for this ATS unit model.**

#### **PREPARATION FOR OPERATION**

1. When connecting the power cable to the main ATS unit, please install the circuit breaker for ATS system protection (indicated in the diagram Fig. 2).
2. Set the generator circuit breaker to «ON» position, than please switch the ATS unit automatic operation mode to «AUTO» position.
3. Once the «AUTO» indicator lit (orange one), the generator operates automatically.

## MODEL DESCRIPTION

ATS unit	KS ATS 1/45
Voltage range, V	230
The maximum current, A	45
Power kW	11

ATS unit automatically starts the generator and switches the load to the generator after disconnecting of the main source of electric power. The generator is starting for 2-6 seconds and then supplies power to the load. When restoring voltage in the main power source, the load automatically switches to its power, then generator stops for 2-6 seconds. There is an embedded charger inside the ATS unit, that charges generator battery. In case of the generator failure, install the OFF-AUTO switch to OFF and start the generator again.

## ATS UNIT MAIN OVERVIEW

Fig. 1



- 1. Generator power LED
- 2. LED of automatic mode (AUTO)
- 3. Main power indicator
- 4. Switches automatic operation mode
- 5. ATS-entry
- 6. Openings for cable entry

# OPERATING ATS UNIT



**IMPORTANT!**



**To connect the ATS unit, please use an automatic start management cable.**

## **THE OPERATING PROCEDURE**

Set the «OFF-AUTO» switch to «AUTO» position. Once the «AUTO» indicator lights up, it means that the ATS system operates automatically.

If you turn off the main power supply, the ATS system automatically starts the generator in 2 seconds. In 6 seconds after the generator switches on, the system switches load to backup power supply (the generator).

In case of failure run, the ATS system makes three attempts to start the generator with intervals of 5 seconds between launches. If three attempts have failed, the generator stops trying to start the engine.

## **GENERATOR STOP**

When the main source of electricity is working, the ATS system transfers the load to the main power source and stops the generator in 5 seconds.

## **MANUAL START**

If necessary, run the generator without the ATS unit. Set the «OFF-AUTO» switch to «OFF» position and run the generator with the key.

## **GENERATOR STOP IN «AUTO» POSITION**

If the generator was running in «AUTO» position, to stop it please switch the ATS system to «OFF» position. The generator will be immediately stopped.

## **THE BATTERY**

ATS system performs battery charging automatically. The current charge is 2A.

# WIRING ATS UNIT TO POWER SYSTEM

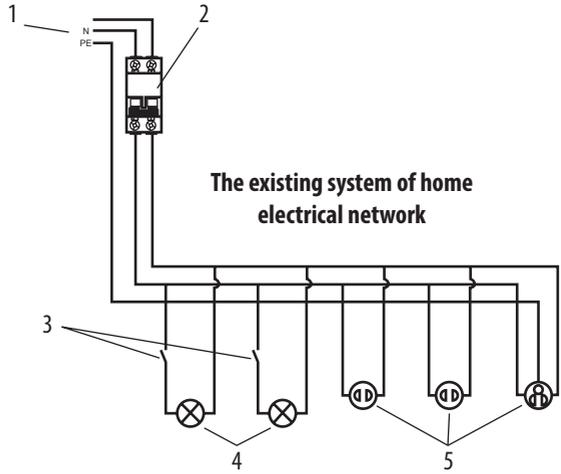


Fig 2

- 1. Power supply from AC network
- 2. Automatic switch
- 3. Switches
- 4. Lighting
- 5. Sockets

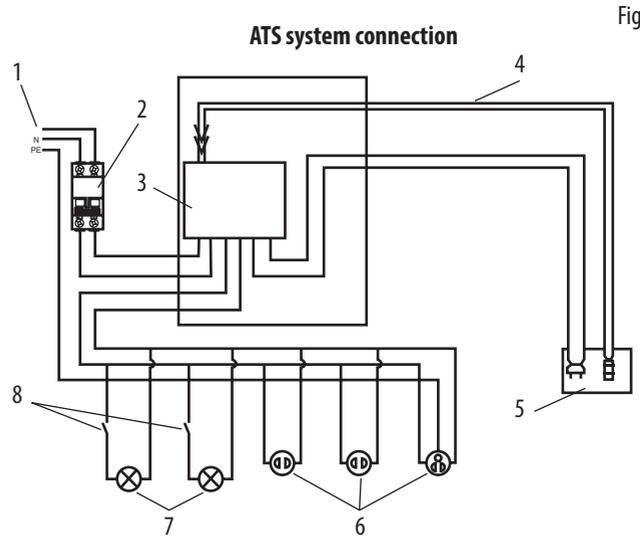


Fig 3

- 1. Main AS power
- 2. Automatic switch
- 3. ATS system
- 4. Automatic start management cable
- 5. Generator connection
- 6. Sockets
- 7. Lighting
- 8. Switches

# SWITCHING SCHEMES

Wiring for single-phase alternating current circuit



**Disclosure and ATS unit connection to the mains must be carried out only by qualified specialist. The product is under tension.**

Open the ATS-block door. You will find terminals for connection inside. Connect ATS-block according to the circuit in Figure 4.

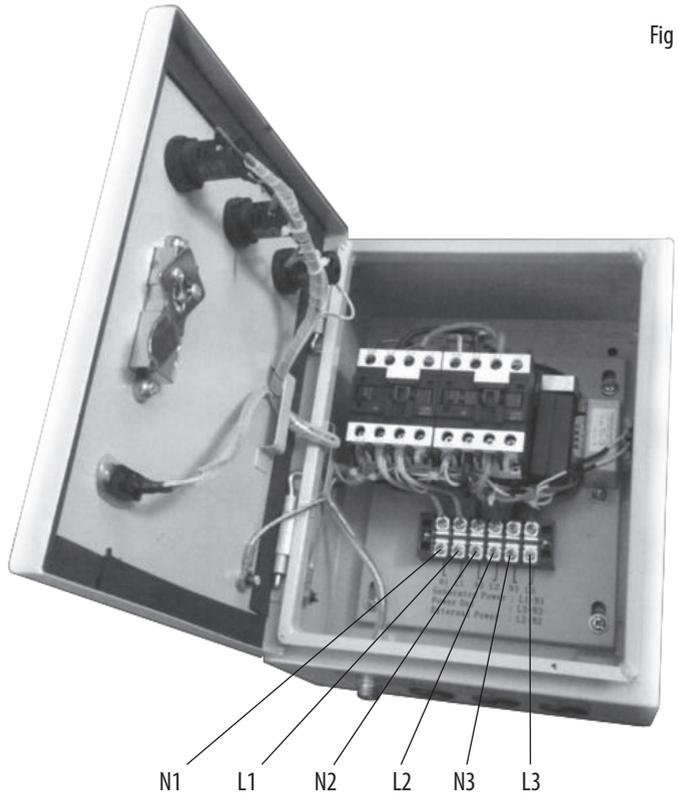


Fig 4

- N1 > Connecting the power from the generator
- L1 >
- N2 > Power by the central highway
- L2 >
- N3 > Your house connection (electricity consumers)
- L3 >

# WARRANTY SERVICE TERMS

## WARRANTY POLICY

Warranty period starts since the day of unit sales and constitutes 1 year. During the warranty term, all malfunctions occurred on the fault of manufacturer will be repaired free of charge.

Warranty enters force only on conditions of correct filling the warranty ticket and coupons. The device is accepted for repairs only in clean condition and in complete set.

## WARRANTY DOES NOT COVER:

- mechanical damages (cracks, fractures, paint exfoliation etc.) caused by influence of aggressive environments, penetration of foreign objects inside the device or through ventilation grills, as well as damages inflicted by improper storage (metal parts corrosion);
  - damages inflicted as a result of improper exploitation, utilisation of the device against its intended use, overloading the device and by irregularities of electric network. Signs of device overloading are: melting or discoloration of parts through exposure to high temperatures, scratches on cylinder or piston surfaces, destruction of connecting rod bushes, piston seals. Also, warranty does not cover the malfunction of automatic generator voltage regulator as a result of improper operation;
  - malfunctions, caused by fuel or cooling system contamination;
  - wear parts (belts, rubber sealers, spark plugs, nozzles, clutch springs, roller guidance pulleys, cordsm manual starters, chucking devices, collet holders, removable accumulators, filtering and safety elements, oil, removable devices, fittings, knives, cutters, etc);
  - electrical cables with mechanical and thermal damages;
  - units opened or repaired outside the authorized service center.
- Signs of such are as among all others: breakage of fastening elements splined parts;
- maintenance and servicing the unit (cleaning, washing, lubrication ets), installation and adjustment of the unit;
  - cases of natural wear and tear (unit serviceable life termination)
  - malfunctions, occurred during use of this equipment for purposes related to entrepreneurship activities performance;
  - cases of non-filling the warranty ticket or the dealer's seal absence;
  - cases if the owners personal signature is absent on the warranty ticket;
  - warranty obligations are terminated in case of violating operation, transportation and storage conditions, incorrect or negligent mounting, incorrect electric network connection.