

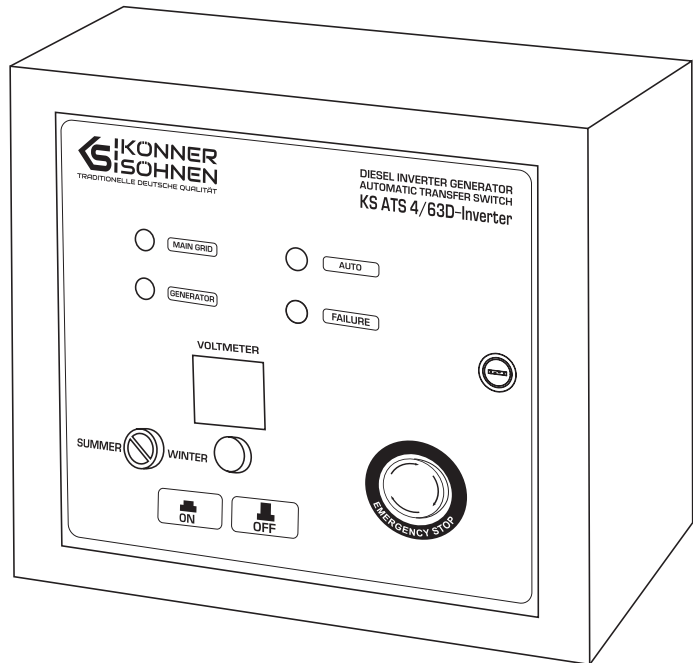
Please, read this manual carefully
before use!

Manual



Automatic Transfer Switch (ATS)

KS ATS 4/63D-Inverter



TRADITIONELLE DEUTSCHE QUALITÄT

**KONNER
SOHNEN**



Thank you for opting for **Könnner & Söhnen®** products. This manual contains a brief description of safety, setup and use. More information can be found on the official importer's website in the support section: **konner-sohnen.com/manuals**

You can also go to the support section and download the manual by scanning the QR code or on the website of the official importer of **Könnner & Söhnen®** at **www.konner-sohnen.com**



Please, read this manual carefully before use!

The manufacturer of **Könnner & Söhnen®** products reserves the right to make changes that may not be reflected in this manual, namely:

- The manufacturer reserves the right to make changes in the product design, configuration and construction.
- The images and drawings in this manual are for reference only and may differ from the actual components and inscriptions on the products.

Contact information that you are free to use in case of any problems can be found at the end of this manual. All information in this manual is correct to the best of our knowledge and belief at the date of its publication. The current list of service centers can be found on the official importer's website at **www.konner-sohnen.com**



ATTENTION – DANGER!



Failure to follow the recommendations marked with this sign may lead to serious injury or death of the operator or third parties.



IMPORTANT!



Useful information while operating the machine.

ATS UNIT USE AND SAFETY PRECAUTIONS

1

WORK AREA

Do not use the product near flammable gases, liquids or dust. Keep the work area clean and well lit to avoid injuries. Keep unauthorized persons, children and animals away from the running product.

ELECTRICAL SAFETY

The product is energized. Observe safety precautions to avoid electric shock. Avoid operating the product in high-humidity environments. Do not allow moisture to enter the product, as this increases the risk of electric shock. Avoid direct contact with grounded surfaces (pipes, radiators, etc.). Be careful when working with the power cord. Replace it immediately in case of damage, as damaged power cord increases the risk of electric shock. All product connections must be carried out by a certified electrician in accordance with all electrical codes and regulations. Do not operate the product with your feet in the water, on wet or damp soil. Do not touch live parts of the product. Keep all electrical equipment dry and clean. Replace damaged or worn wiring. Worn, damaged, or rusted terminals must be replaced as well.

PERSONAL SAFETY

Do not operate the product when you are tired or under the influence of potent drugs, alcohol or medication. During operation, inattention can cause serious injury. Make sure there are no foreign objects on the product when it is turned on. Do not overload the product; use it for its intended purpose only.



PLEASE NOTE!

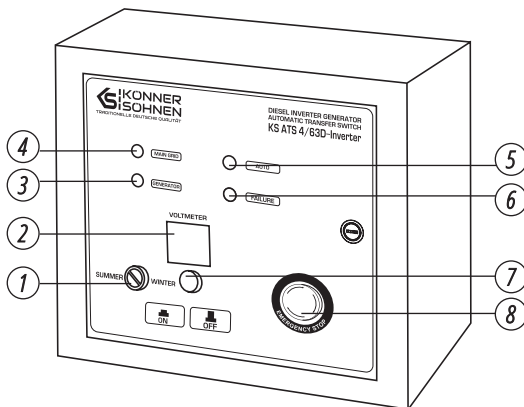


The total power of power consumers connected to the ATS system must not exceed the maximum permissible power for this ATS unit model.

GENERAL VIEW OF THE ATS UNITS KS ATS 4/63D-INVERTER

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1. Preheater
2. Voltmeter
3. Generator power indicator
4. Main power indicator
5. LED light signals an error
6. Automatic mode LED light
7. ATS unit switch
8. Generator emergency stop button



IMPORTANT!



Manufacturer reserves the right to make changes and/or improvements in design, components set and technical attributes without notice and without incurring obligation. The pictures in this manual are schematical and may not match the parameters of original product.

SPECIFICATIONS

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Model	KS ATS 4/63D-Inverter	
Operating voltage	230 V	400 V
Power	14,5 kW	41,5 kW
Maximum current	63 A	63 A
Working environment	-10 °C до +50 °C; humidity: ≤ 60%	
Storage environment	-10 °C до +70 °C; humidity: ≤ 60%	
IP protection class	IP21	
Insulation class	F	
Maximum battery charging current from the built-in power supply	3 A	
Control cable length	3 m	
Net dimensions (LxWxH)	450×215×415/430×195×393 mm	
Net weight	10/9,3 kg	

OPERATING THE ATS UNIT

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ATS UNIT FUNCTION

The ATS unit automatically starts the generator and switches over power consumers to it when the main power supply is deenergized.



PLEASE NOTE!

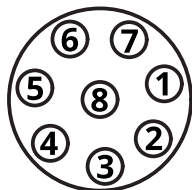


Use the control cable to connect the ATS unit to the power generator; the generator must have a special connector for connecting the ATS.

OPERATING PROCEDURE

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ATS CONNECTOR AND ITS CONNECTION



Number	Connection function
1	+12V
2	-
3	-12V
4	Start relay
5	Fuel level
6	Air heating
7	Charging coil
8	Charging coil

1. After the mains power is supplied, the delay time for the load to switch from the generator to the mains power is 60S;
2. After the load is switched to the mains power, the generator stop delay time is 60S±1S.
3. The heating time of the air heating system in summer mode is 0S, and the heating time in winter mode is 15S.

Connect the ATS unit as shown in Figs. 2-3.

AUTOMATIC MODE

Press ENGINE START button on the generator control panel to "ON".

Set the ATS unit main switch to "ON". The "AUTO" LED light indicates that the ATS system is in automatic mode.

When the main power supply is disconnected, the ATS system automatically starts the generator in 10S±1S seconds. After 30 seconds following the generator startup, the system will switch over power consumers to the backup power source (generator).

In case of unsuccessful startup, the ATS system attempts to start the generator three times. If all three attempts are unsuccessful, the ATS unit will stop trying to start the engine and signal an error.

GENERATOR STOP IN THE AUTOMATIC MODE

If the generator was started in automatic mode, to stop it, turn the switch to the "OFF" position and shut down the generator using the ENGINE SWITCH button on the generator. Or press the emergency stop button.

TEST MODE

If it is necessary to start the generator without connecting it to the electrical network, turn the main switch of the ATS unit to the "OFF" position.

BATTERY

The ATS unit battery is charged automatically. The maximum charging current is 3A.

CONNECTION OF THE GENERATOR AND ATS TO THE BUILDING POWER SUPPLY NETWORK

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The wiring diagrams have been developed in accordance with the guidelines for planning, installation and operation of emergency power systems developed by European power grid operators.

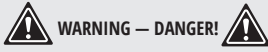
We recommend using three wiring options.

The generator must be connected via a 32A 230V CEE socket.

The generator must be grounded using either the screw connection or the PE pin in the generator CEE socket. The PE pin (earth) in the generator sockets is connected to the generator housing. The N pin (neutral) in the generator sockets is NOT connected to the generator housing and must be connected to the main earthing busbar as a separate cable at the point of connection of the neutral from the generator on the AVR for the TN power supply system. When switching power supply to the generator side as instructed, the ATS disconnects not only the phase conductors, but also the neutral conductor of the external power grid.

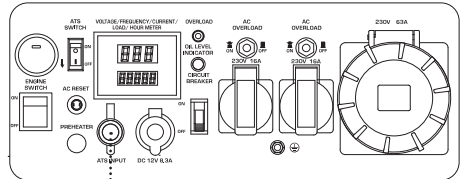
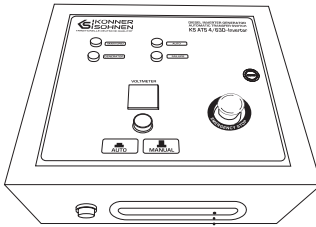
DISCLAIMER:

This material is for informational purposes only and does not constitute a manual for installing the equipment or connecting it to the mains, but we strongly recommend that you read the instructions below. Equipment connection must always be carried out by a certified electrician responsible for the installation and electrical connection of the equipment according to local laws and regulations. The manufacturer assumes no liability for improper connection of the equipment or for any material or physical damage that may result from improper installation, connection or operation of the equipment.



WARNING — DANGER!

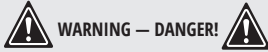
Opening of ATS unit and its connection to the mains must be carried out only by qualified specialist. The product is under tension.



The ATS contact socket is located on the control panel of the generator.

Connect the ATS to the generator using the generator automatic start control cable (supplied as a set with ATS)

WIRING DIAGRAMS **7**



WARNING — DANGER!

The ATS unit may only be tampered with and connected by a qualified technician. The product is live.

Open the ATS unit door. Inside you will see the connection terminals. Connect the ATS unit as shown in Figs. 2, 3.

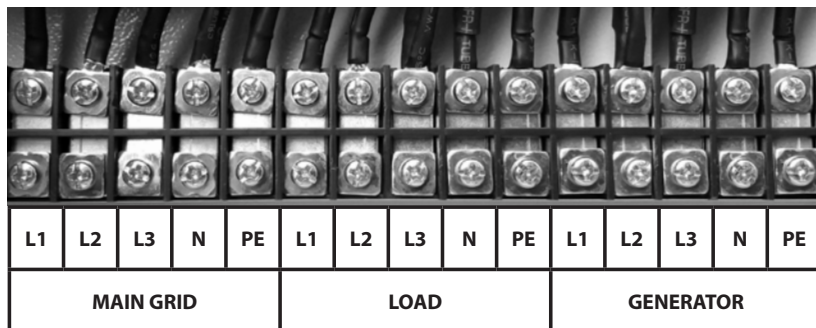


Contact stripe for connection

Fig. 2

CONTACT STRIPES WITH WIRING DIAGRAM FOR MODEL KS ATS 4/63D-INVERTER FOR MAINS

Fig. 3



MAIN GRID – terminals for the main power supply.

L1 - phase 1, **L2** - фаза 2, **L3** - фаза 3, **N** - neutral, **PE** - earthing.

LOAD – terminals for home or other power consumers.

L1 - phase 1, **L2** - phase 2, **L3** - phase 3, **N** - neutral, **PE** - earthing.

GENERATOR – terminals for the generator.

L1 - phase 1, **L2** - phase 2, **L3** - phase 3, **N** - neutral, **PE** - earthing.

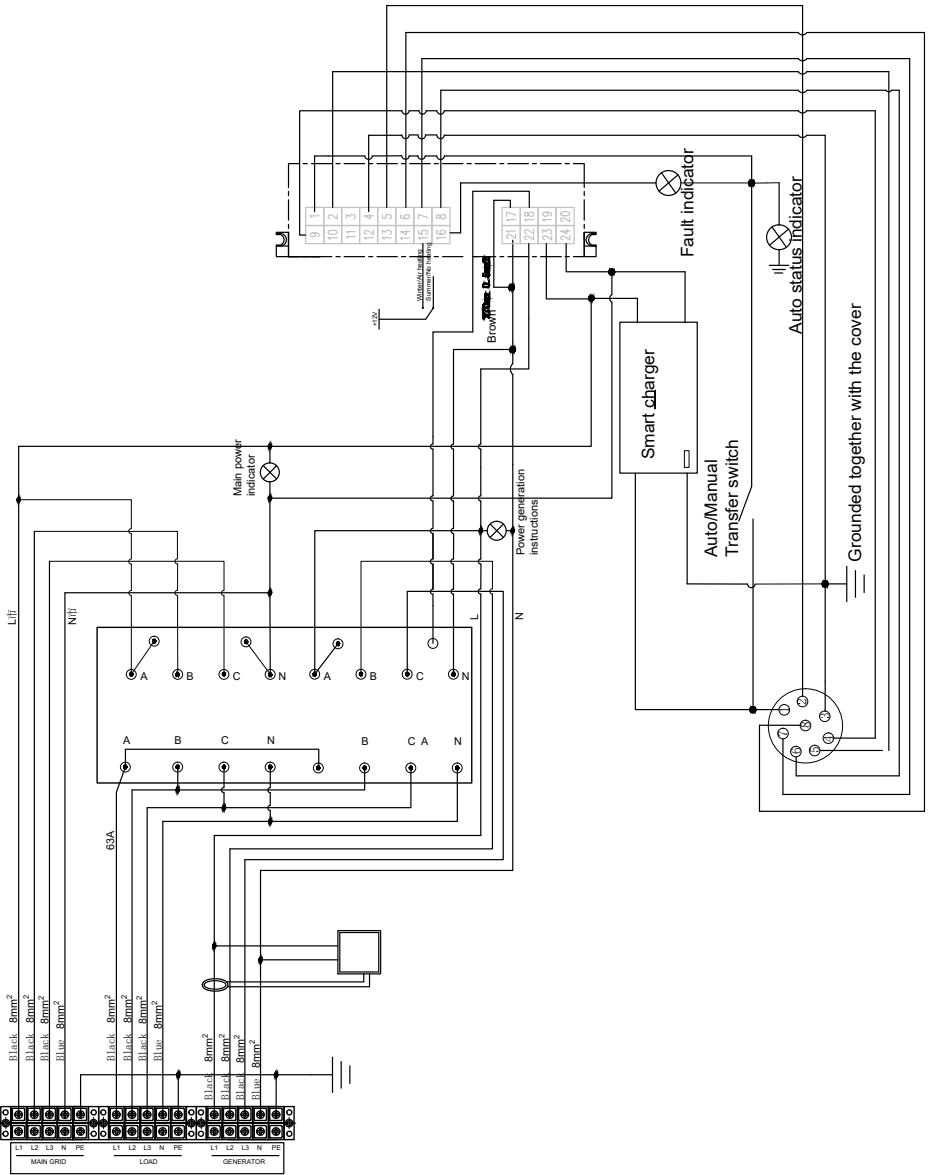
WARRANTY PROVISIONS

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The international manufacturer warranty is 1 year. The warranty period starts from the date of purchase. In cases when warranty period is longer than 1 year according to local legislation please contact your local dealer. The Seller which sells the product is responsible for granting the warranty. Please contact the Seller for warranty. Within the warranty period, if the product fails because of defects in the production process, it will be exchanged on the same product or repaired.

The warranty card should be kept throughout the warranty period. In case of warranty card loss, a second one will not be provided. The customer must provide the warranty card and buyer`s check during request for repair or exchange. Otherwise, the warranty service will not be provided. The warranty card, attached to the product during sale, should be correctly and fully completed by the retailer and customer, signed and stamped. In other cases, warranty is not considered as valid.

Provide clean product to the service center. Parts, that must be replaced, are the property of the service center.



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