

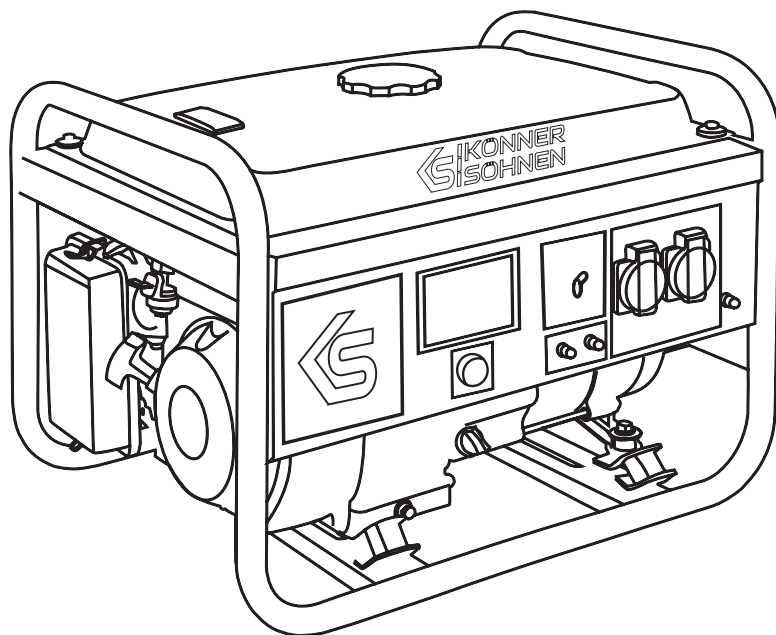


Gasoline generator

| | |
|----------------|-----------------|
| KS 2900 | KS 10000E 1/3 |
| KS 3000 | KS 10000E |
| KS 3000E | KS 10000E-3 |
| KS 7000 | KS 10000E ATS |
| KS 7000E | KS 10000E-3 ATS |
| KS 7000E-3 | |
| KS 7000E ATS | |
| KS 7000E-3 ATS | |
| KS 7000E 1/3 | |

Dual fuel generator

| | |
|------------|-------------|
| KS 2900G | KS 7000E G |
| KS 3000G | KS 9000E G |
| KS 5000E G | KS 10000E G |





| | |
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ABBREVIATIONS MEANING:



| | |
|------------|-----------------------------------|
| KS | Generator model |
| E | Electric start |
| G | Dual fuel type (LPG/gasoline) |
| ATS | Automatic transfer switch |
| - 3 | Three-phase generator |
| 1/3 | Single- and three-phase generator |



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.



We are grateful to you for your purchase of **Könnner & Söhnen®** series gasoline powered generator. This manual contains safe working recommendations, operation and adjustment description of these generators 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 you can find at the website of official importer: **www.konner-sohnen.com**



IMPORTANT!



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

SAFETY INFORMATION

2

WORKING AREA



ATTENTION – DANGER!



As exhaust gases contain poisonous carbon dioxide (CO₂) and carbon monoxide (CO) gases which are dangerous for life, it is strictly forbidden to install the generator in residential buildings, premises connected to residential buildings by a common ventilation system, other rooms from which exhaust gases may enter living premises.

- Do not use generator in the rain, snow and high humidity conditions, do not touch the generator with wet hands. It's prohibited to leave it in direct sunlight in summer for a long time. It is recommended to store and use the generator under a canopy or in a well ventilated area.
- Place the generator on a flat, hard surface, away from flammable liquids/gases (at a minimum distance of 1 m). Install the generator at a distance of not less than 1 m from the front control panel and not less than 50 cm on each side, including the upper part of the generator. To reduce vibration during operation and to avoid damage to the surface, where the generator is installed, it is equipped with dampers.
- Please don't use the generator near flammable gases, liquids or dust. When using the generator exhaust system gets very hot. This may cause fire or explosion of these materials.
- Be sure to follow 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 generator. If necessary, make sure to fencing the working area.
- Please use safety shoes and protective gloves when working with generator.

ELECTRICAL SAFETY



ATTENTION – DANGER!



The device generates electricity. Follow safety precautions to avoid electric shock.

- The generator produces electricity that may lead to an electric shock while neglecting compliance regulations.
- All connecting the generator to the network must be made by certified electrician in accordance with all electrical rules and regulations.
- It is not allowed to supply current from the electrical network to the generator when the power supply is restored.

- Do not allow moisture in the generator. The water inside the device increases the risk of an 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.
- Network connection should only be carried out by a qualified technician
- Connect the generator to the protective ground before operation.
- Do not connect or disconnect a generator to electricity consumers, which are placed in water on a wet or damp soil.
- Do not touch parts of the generator under voltage.
- Connect the generator to those customers only which meet the electrical characteristics and the rated power of the generator.
- 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.



IMPORTANT!



Using device for other purposes deprives the right for free warranty.

PERSONAL SAFETY

- Be careful. Do not operate the generator, if you are tired, under the influence of drugs or alcohol. Inattention may cause a serious injury.
- Avoid inadvertent start. Make sure to set the switch to Off when you turn off the generator.



ATTENTION – DANGER!



Non compliance to these requirements may result in generator combustion or explosion, as well as in electric wiring ignition inside the structure.

- To avoid inhaling exhaust gas, the generator does not have to work in conditions of poor ventilation. Exhaust gas contains poisonous carbon monoxide CO₂.
- Make sure no outsider objects are on the generator when it is turned on. Using device for other purposes deprives the right for free warranty. It is not allowed to sit or stand on the generator.
- Always keep a stable position and balance when starting the generator.
- Do not overload the generator, use it only for the purpose.

PRECAUTIONS WHEN WORKING WITH GASOLINE GENERATOR

- Do not start the generator operation upon presence of electric load. Disconnect the load before you stop the engine.
- Generator installation is to be performed at minimum 1 meter safety distance from flammable objects. All explosive and flammable materials or substances are to be kept away from the generator, for its engine produces heat during operation.
- Do not refuel the running generator.
- It is forbidden to smoke during generator refuelling operations.
- **Only unleaded gasoline is recommended for the generator.** After filling the tank, all excessive fuel spillage are to be removed from the surface. It is forbidden to use kerosene or other fuel types.
- Observe the fuel tank refilling. Do not allow overfilling.
- It is forbidden to touch the exhaust system during the generator start and in process of its running.
- It is forbidden to run the generator in cases when its exposure to rain, snow and possibility of soakage exist.
- Before running the generator, it is necessary to define the place and means of its emergency stop.



ATTENTION - DANGER!



Fuel contaminates the land and groundwater. Do not allow the leaking gasoline from the tank!

PRECAUTIONS WHEN WORKING WITH HYBRID GENERATOR



IMPORTANT!



Könnner & Söhnen® dual fuel generators can use the following types of gas as fuel when working on gas: propane, propane-butane and butane (butane can be used only in the warm season. When the ambient temperature is above +10 °C).

Do not start the generator operation upon presence of electric load! Disconnect the load before you stop the engine.

- You are allowed to connect all the power consuming supplies only after generator got warmed up. If you start generator with appliances being connected the engine may work unstable due to the fuel remains in the carburetor.
- Disconnect the load before you stop the engine, disconnect all the connected devices first, then close the gas valve, then turn off the engine. After that set the starter switch to OFF position and turn off the gas supply valve.
- Before usage make sure, that all the hoses are connected properly.
- In case of gas leakage, stop the gas flow from the source to generator and switch off all the electric appliances connected as soon as possible.
- For stopping gas powered engine: disconnect all the connected devices first, then close the gas valve, then turn off the engine. After that set the starter switch to OFF position and turn off the gas supply valve.



ATTENTION - DANGER!



Do not allow sparks near gas powered generator during its work.



ATTENTION - DANGER!



The gas cylinder valve must not be closed when the generator is not running. The generator must not be operated on gas in basements.



ATTENTION - DANGER!



Pay attention! Usage of gasoline together with liquefied gas is forbidden! When you operate using gasoline, you must stop LPG supply. When you operate generator using LPG - you must stop gasoline supply.

SYMBOLS DESCRIPTION WHEN WORKING WITH GENERATOR

Fig.1

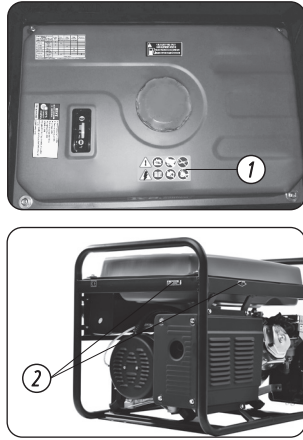


Fig.2

- A.** Be careful when using the device! Follow safety rules listed in manual.
- B.** Use the generator only in areas that are well ventilated, or on open areas. The exhaust gases contain CO₂, which are dangerous to life.
- C.** Do not use or store the device in high humidity.
- D.** Do not smoke when using the generator!
- E.** The device generates electricity. Follow safety precautions to avoid electric shock.

- F.** Carefully read the manual before using the device.
- G.** Do not touch the generator with wet or dirty hands.
- H.** Follow fire safety rules, do not use open flames near the generator.
- I.** Please don't touch! The muffler heats up when running the generator.

SAFETY SYMBOLS DESCRIPTION WHEN WORKING WITH ACCUMULATOR

Fig.3



- A.** Use protective rubber gloves while working with battery. Battery contains acid electrolyte, which is dangerous. If contact with skin or face occurred, rinse it off immediately with plenty of water and consult a doctor.
- B.** Do not use open flames near the generator.
- C.** Do not allow children to be close to area with generator.

- D.** Attention! During the process of battery charging, hydrogen is released, which is explosive!
- E.** Carefully read the manual before using the device.
- F.** Use protective glasses when working with generator.

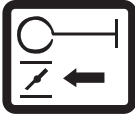
EXCEPT SAFETY SYMBOLS GENERATOR CONTAINS FOLLOWING INSCRIPTION:

| | | | |
|--|---|---|------------------|
| | | Gasoline generator set Generator benzynowy | Model KS 3000 |
| MAXIMUM POWER MOC Maksimalna | 3.0 kW | POWER FACTOR Współczynnik mocy | 1.0 |
| RATED POWER MOC Nominálna | 2.6 kW | PROTECTED CLASS STOPEN OCHRANY | IP23M |
| VOLTAGE Napíe | 230V | PERFORMANCE CLASS Klasa vykonávaci | G1 |
| FREQUENCY CURRENT Cístať/Míe | 50Hz | AMBIENCE TEMPERATURA | 40°C |
| ACTUATED CURRENT Píeží Míe AC | 13.04A | ALTITUDE Výšková | max 1000m |
| WEIGHT Váha | 41.53 kg | YEAR OF ISSUE Rok výroby | 2022 |
| S/N | SERIAL NUMBER IS MARKED ON THE ENGINE OF GENERATOR NUMER Sériový ješ vyznačený na šasi motoru generátora | | |
| <small>Manufacturer: IKONNER Int. GmbH, Ringel Bruch 203, 40235 Düsseldorf, Germany, www.ikonner-sohnen.com, Vyrobena na licenku IKONNER International GmbH, Ringel Bruch 203, 40235 Düsseldorf, Německo, zmont. w CR. Importer do Píeží: IKONNER International Poland Sp. z o.o., Marciniakowa, 306B, 05-600 Szarn Sólca, Píeží</small> | | | |

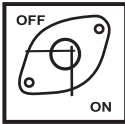
Specification table. For different models this table is different. All characteristics are given in the "Specifications".



Indicates the noise level. For different models this indicator is different. All characteristics are given in the "Specifications".



Note which direction you should open air dampers.



Indicates the position of the fuel tap. Position "ON" - opened, position "OFF" - closed.



Fuel level indicator. The icon on the left indicates that the tank is full, the icon on the right - that the tank is empty.



Carter volume (different for different models)

Oil use recommendations

| Recommended maintenance schedule | | Every start | First month or 20 hours | Each month or after 20 working hours | Each 3 month or after 50 working hours | Each 6 month or after 100 working hours | Each year or after 300 working hrs |
|----------------------------------|---------------------------|-------------|-------------------------|--------------------------------------|--|---|------------------------------------|
| Motor oil | Check the level | X | | | X | | |
| | Replace | | X | | X | | |
| Air filter | Check/Clean out | X | X | X | | | |
| | Replace | | | | | | X |
| Spark plug | Check/Clean out | | | | | X | |
| | Replace | | | | | | X |
| Fuel tank | Check the level | X | | | | | |
| | Clean out | | | | | | X |
| Fuel line | Check (replace if needed) | | | | | X | |

* Clean out more often in a dusty conditions ** Maintenance should be done only by authorized specialist



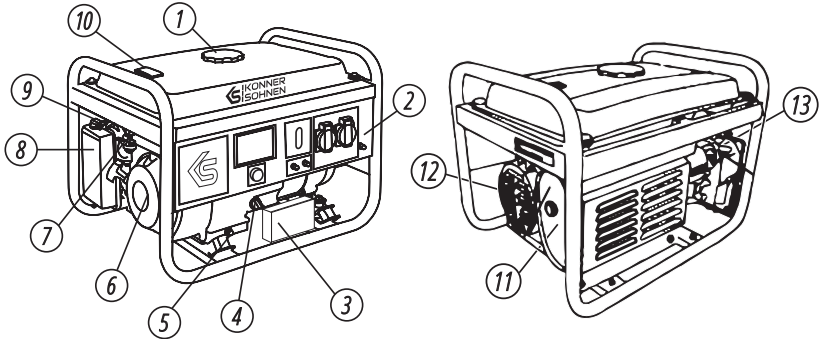
Information on the required level of oil in the crankcase

Maintenance information translated into the language of the country where the generator is sold you may find in "Maintenance".



Grounding

Gasoline generator



- 1. Fuel tank cap
- 2. Control panel
- 3. 12 V power battery
(electric start models only)
- 4. Oil-depth gage
- 5. Oil drain cap
- 6. Manual starter

- 7. Fuel valve
- 8. Air filter
- 9. Air flap switch
- 10. Fuel level indicator
- 11. Silencer
- 12. Alternator
- 13. Sparking plug



IMPORTANT!

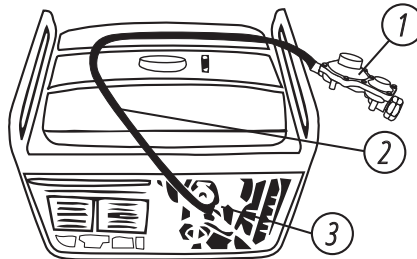


Manufacturer reserves the right to make changes and/or improvements in design, components set and technical attributes without notice and without incurring obligation. The pictures in this manual are schematical and may not match the parameters of original product.

DUAL FUEL GENERATOR OVERVIEW

In addition to the components shown in the figure of a gasoline generator, a generator with a hybrid system (LPG/gasoline) is equipped with a hose for supplying LPG to the generator. That allows the generator to work either on gasoline or on LPG.

Gasoline/LPG generator



The package includes everything you need to use LPG as fuel:

1. *Extra reducer on the hose that is mounted on the cylinder.*
2. *Gas cylinder connection hose (1.5 m).*
3. *Built-in reducer.*



ATTENTION - DANGER!



Pay attention! Usage of gasoline together with liquefied gas is forbidden! When you operate using gasoline, you must stop LPG supply. When you operate generator using LPG - you must stop gasoline supply.

COMPONENTS OF SET

7

1. Generator
2. Packaging
3. Operating instructions
4. Key candle
5. Keys to run the generator (for models with electric start).

| Model | KS 2900 | KS 2900G |
|--|-----------------------------------|-------------------------------------|
| Voltage, V | 230 | 230 |
| Max Power, kW | 2.9 | 2.9 |
| Nominal Power, kW | 2.5 | 2.5 |
| Frequency, Hz | 50 | 50 |
| Current max, A | 12.5 | 12.5 |
| Outlets | 2*16A | 2*16A |
| Fuel tank volume, l | 15 | 15 |
| Working time at 50% load (gasoline fuel)*, h | 15 | 15 |
| LED display | voltage, frequency, working hours | |
| Noise level Lpa (7m)/Lwa, dB | 68/93 | 68/93 |
| Power output V/A | 12/8.3 | 12/8.3 |
| Engine model | KS 200 | KS 200 |
| Engine type | gasoline, 4 stroke cycle engine | LPG/gasoline, 4 stroke cycle engine |
| Engine power, hp | 6.5 | 6.5 |
| Crank case volume, cm ³ | 0.6 | 0.6 |
| Engine cylinder volume cm ³ | 196 | 196 |
| Power output controller | AVR | AVR |
| Engine start | manual | manual |
| Power factor, cos φ | 1 | 1 |
| Dimensions (LxWxH), mm | 610x455x485 | |
| Net weight, kg | 41.5 | 43 |
| Protection class | IP23M | IP23M |
| Altitude (MAX), m | 1000 | 1000 |
| Relative humidity | <95% | <95% |
| Acceptable deviation of a current is 5% | | |

*Fuel consumption depends on many factors, such as load, fuel quality, season, altitude, technical condition of the generator.

To ensure the reliability of the generator and increase its lifespan, the peak capacities may be slightly limited by circuit breakers.

The optimum operating conditions are ambient temperature of 17°C – 25°C, barometric pressure of 0.1 MPa (760 mm Hg), and relative humidity of 50 – 60%. Under such ambient conditions, the generator can guarantee maximum performance in terms of the stated specifications. In case of deviations from the above ambient values, the performance of the generator can be different.

Please note that in order to preserve the lifespan of the generator, continuous loads should not exceed 80% of the rated power

| Model | KS 3000 | KS 3000E | KS 3000G |
|---|-----------------------------------|---------------------------------|-------------------------------------|
| Voltage, V | 230 | 230 | 230 |
| Max Power, kW | 3.0 | 3.0 | 3.0 |
| Nominal Power, kW | 2.6 | 2.6 | 2.6 |
| Frequency, Hz | 50 | 50 | 50 |
| Current max, A | 13.04 | 13.04 | 13.04 |
| Outlets | 2*16A | 2*16A | 2*16A |
| Fuel tank volume, l | 15 | 15 | 15 |
| Working time at 50% load (gasoline fuel)*, h | 15 | 15 | 15 |
| LED display | voltage, frequency, working hours | | |
| Noise level Lpa (7m)/Lwa, dB | 68/93 | 68/93 | 68/93 |
| Power output V/A | 12/8.3 | 12/8.3 | 12/8.3 |
| Engine model | KS 210 | KS 210 | KS 210 |
| Engine type | gasoline, 4 stroke cycle engine | gasoline, 4 stroke cycle engine | LPG/gasoline, 4 stroke cycle engine |
| Engine power, hp | 7.0 | 7.0 | 7.0 |
| Crank case volume, cm³ | 0.6 | 0.6 | 0.6 |
| Engine cylinder volume cm³ | 208 | 208 | 208 |
| Power output controller | AVR | AVR | AVR |
| Engine start | manual | manual/electric | manual |
| Power factor, cos φ | 1 | 1 | 1 |
| Dimensions (LxWxH), mm | 610x455x485 | | |
| Net weight, kg | 41.5 | 46.1 | 45.4 |
| Protection class | IP23M | IP23M | IP23M |
| Altitude (MAX), m | 1000 | 1000 | 1000 |
| Relative humidity | <95% | <95% | <95% |
| Acceptable deviation of a current is 5% | | | |

*Fuel consumption depends on many factors, such as load, fuel quality, season, altitude, technical condition of the generator.

To ensure the reliability of the generator and increase its lifespan, the peak capacities may be slightly limited by circuit breakers.

The optimum operating conditions are ambient temperature of 17°C – 25°C, barometric pressure of 0.1 MPa (760 mm Hg), and relative humidity of 50 – 60%. Under such ambient conditions, the generator can guarantee maximum performance in terms of the stated specifications. In case of deviations from the above ambient values, the performance of the generator can be different.

Please note that in order to preserve the lifespan of the generator, continuous loads should not exceed 80% of the rated power

| Model | KS 5000E G | KS 7000 | KS 7000E |
|--|-------------------------------------|---------------------------------|---------------------------------|
| Voltage, V | 230 | 230 | 230 |
| Max Power, kW | 4.5 | 5.5 | 5.5 |
| Nominal Power, kW | 4.0 | 5.0 | 5.0 |
| Frequency, Hz | 50 | 50 | 50 |
| Current max, A | 19.5 | 23.91 | 23.91 |
| Outlets | 2*16A | 1*16A 1*32A | 1*16A 1*32A |
| Fuel tank volume, l | 25 | 25 | 25 |
| Working time at 50% load (gasoline fuel)*, h | 17 | 17 | 17 |
| LED display | voltage, frequency, working hours | | |
| Noise level Lpa (7m)/Lwa, dB | 70/95 | 70/95 | 70/95 |
| Power output V/A | 12/8.3 | 12/8.3 | 12/8.3 |
| Engine model | KS 390 | KS 390 | KS 390 |
| Engine type | LPG/gasoline, 4 stroke cycle engine | gasoline, 4 stroke cycle engine | gasoline, 4 stroke cycle engine |
| Engine power, hp | 13 | 13.0 | 13.0 |
| Crank case volume, cm ³ | 1.1 | 1.1 | 1.1 |
| Engine cylinder volume cm ³ | 389 | 389 | 389 |
| Power output controller | AVR | AVR | AVR |
| Engine start | manual/electric | manual/electric | manual/electric |
| Power factor, cos φ | 1 | 1 | 1 |
| Dimensions (LxWxH), mm | 700x545x590 | | |
| Net weight, kg | 77 | 69.2 | 76.2 |
| Protection class | IP23M | IP23M | IP23M |
| Altitude (MAX), m | 1000 | 1000 | 1000 |
| Relative humidity | <95% | <95% | <95% |
| Acceptable deviation of a current is 5% | | | |

*Fuel consumption depends on many factors, such as load, fuel quality, season, altitude, technical condition of the generator.

To ensure the reliability of the generator and increase its lifespan, the peak capacities may be slightly limited by circuit breakers.

The optimum operating conditions are ambient temperature of 17°C – 25°C, barometric pressure of 0.1 MPa (760 mm Hg), and relative humidity of 50 – 60%. Under such ambient conditions, the generator can guarantee maximum performance in terms of the stated specifications. In case of deviations from the above ambient values, the performance of the generator can be different.

Please note that in order to preserve the lifespan of the generator, continuous loads should not exceed 80% of the rated power

| Model | KS 7000E G | KS 7000E-3 |
|--|-------------------------------------|---------------------------------|
| Voltage, V | 230 | 400 |
| Max Power, kW | 5.5 | 5.5 |
| Nominal Power, kW | 5.0 | 5.0 |
| Frequency, Hz | 50 | 50 |
| Current max, A | 23.91 | 9.93 |
| Outlets | 1*16A 1*32A | 1*16A 1*16A (400V) |
| Fuel tank volume, l | 25 | 25 |
| Working time at 50% load (gasoline fuel)*, h | 17 | 17 |
| LED display | voltage, frequency, working hours | |
| Noise level Lpa (7m)/Lwa, dB | 70/95 | 70/95 |
| Power output V/A | 12/8.3 | 12/8.3 |
| Engine model | KS 390 | KS 390 |
| Engine type | LPG/gasoline, 4 stroke cycle engine | gasoline, 4 stroke cycle engine |
| Engine power, hp | 13.0 | 13.0 |
| Crank case volume, cm ³ | 1.1 | 1.1 |
| Engine cylinder volume cm ³ | 389 | 389 |
| Power output controller | AVR | AVR |
| Engine start | manual/electric | manual/electric |
| Power factor, cos φ | 1 | 0.8 |
| Dimensions (LxWxH), mm | 700x545x590 | |
| Net weight, kg | 77.2 | 80.8 |
| Protection class | IP23M | IP23M |
| Altitude (MAX), m | 1000 | 1000 |
| Relative humidity | <95% | <95% |
| Acceptable deviation of a current is 5% | | |

*Fuel consumption depends on many factors, such as load, fuel quality, season, altitude, technical condition of the generator.

To ensure the reliability of the generator and increase its lifespan, the peak capacities may be slightly limited by circuit breakers.

The optimum operating conditions are ambient temperature of 17°C – 25°C, barometric pressure of 0.1 MPa (760 mm Hg), and relative humidity of 50 – 60%. Under such ambient conditions, the generator can guarantee maximum performance in terms of the stated specifications. In case of deviations from the above ambient values, the performance of the generator can be different.

Please note that in order to preserve the lifespan of the generator, continuous loads should not exceed 80% of the rated power

| Model | KS 7000E ATS | KS 7000E-3 ATS | KS 9000E G |
|---|-----------------------------------|---------------------------------|-------------------------------------|
| Voltage, V | 230 | 400 | 230 |
| Max Power, kW | 5.5 | 5.5 | 6.5 |
| Nominal Power, kW | 5.0 | 5.0 | 6.0 |
| Frequency, Hz | 50 | 50 | 50 |
| Current max, A | 23.91 | 9.93 | 28.3 |
| Outlets | 1*16A 1*32A | 1*16A 1*16A (400V) | 1*16A 1*32A |
| Fuel tank volume, l | 25 | 25 | 25 |
| Working time at 50% load (gasoline fuel)*, h | 17 | 17 | 15 |
| LED display | voltage, frequency, working hours | | |
| Noise level Lpa (7m)/Lwa, dB | 70/95 | 70/95 | 71/96 |
| Power output V/A | 12/8.3 | 12/8.3 | 12/8.3 |
| Engine model | KS 390 | KS 390 | KS 420 |
| Engine type | gasoline, 4 stroke cycle engine | gasoline, 4 stroke cycle engine | LPG/gasoline, 4 stroke cycle engine |
| Engine power, hp | 13.0 | 13.0 | 16.0 |
| Crank case volume, cm³ | 1.1 | 1.1 | 1.1 |
| Engine cylinder volume cm³ | 389 | 389 | 420 |
| Power output controller | AVR | AVR | AVR |
| Engine start | manual/electric/auto | manual/electric/auto | manual/electric |
| Power factor, cos φ | 1 | 0.8 | 1 |
| Dimensions (LxWxH), mm | 700x545x590 | | |
| Net weight, kg | 76.8 | 82.3 | 79 |
| ATS | + | + | - |
| Protection class | IP23M | IP23M | IP23M |
| Altitude (MAX), m | 1000 | 1000 | 1000 |
| Relative humidity | <95% | <95% | <95% |
| Acceptable deviation of a current is 5% | | | |

*Fuel consumption depends on many factors, such as load, fuel quality, season, altitude, technical condition of the generator.

To ensure the reliability of the generator and increase its lifespan, the peak capacities may be slightly limited by circuit breakers.

The optimum operating conditions are ambient temperature of 17°C – 25°C, barometric pressure of 0.1 MPa (760 mm Hg), and relative humidity of 50 – 60%. Under such ambient conditions, the generator can guarantee maximum performance in terms of the stated specifications. In case of deviations from the above ambient values, the performance of the generator can be different.

Please note that in order to preserve the lifespan of the generator, continuous loads should not exceed 80% of the rated power

| Model | KS 10000E | KS 10000E G | KS 10000E-3 |
|---|-----------------------------------|-------------------------------------|---------------------------------|
| Voltage, V | 230 | 230 | 400 |
| Max Power, kW | 8.0 | 8.0 | 8.0 |
| Nominal Power, kW | 7.5 | 7.5 | 7.5 |
| Frequency, Hz | 50 | 50 | 50 |
| Current max, A | 34.78 | 34.78 | 14,45 |
| Outlets | 1*16A 1*32A | 1*16A 1*32A | 1*16A 1*16A (400V) |
| Fuel tank volume, l | 25 | 25 | 25 |
| Working time at 50% load (gasoline fuel)*, h | 15 | 15 | 15 |
| LED display | voltage, frequency, working hours | | |
| Noise level Lpa (7m)/Lwa, dB | 71/96 | 71/96 | 71/96 |
| Power output V/A | 12/8.3 | 12/8.3 | 12/8.3 |
| Engine model | KS 440 | KS 440 | KS 440 |
| Engine type | gasoline, 4 stroke cycle engine | LPG/gasoline, 4 stroke cycle engine | gasoline, 4 stroke cycle engine |
| Engine power, hp | 18.0 | 18.0 | 18.0 |
| Crank case volume, cm³ | 1.2 | 1.2 | 1.2 |
| Engine cylinder volume cm³ | 440 | 440 | 440 |
| Power output controller | AVR | AVR | AVR |
| Engine start | manual/electric | manual/electric | manual/electric |
| Power factor, cos φ | 1 | 1 | 0.8 |
| Dimensions (LxWxH), mm | 700x545x590 | | |
| Net weight, kg | 85.5 | 87 | 88 |
| Protection class | IP23M | IP23M | IP23M |
| Altitude (MAX), m | 1000 | 1000 | 1000 |
| Relative humidity | <95% | <95% | <95% |
| Acceptable deviation of a current is 5% | | | |

*Fuel consumption depends on many factors, such as load, fuel quality, season, altitude, technical condition of the generator.

To ensure the reliability of the generator and increase its lifespan, the peak capacities may be slightly limited by circuit breakers.

The optimum operating conditions are ambient temperature of 17°C – 25°C, barometric pressure of 0.1 MPa (760 mm Hg), and relative humidity of 50 – 60%. Under such ambient conditions, the generator can guarantee maximum performance in terms of the stated specifications. In case of deviations from the above ambient values, the performance of the generator can be different.

Please note that in order to preserve the lifespan of the generator, continuous loads should not exceed 80% of the rated power

| Model | KS 10000E ATS | KS 10000E-3 ATS |
|--|-----------------------------------|---------------------------------|
| Voltage, V | 230 | 400 |
| Max Power, kW | 8.0 | 8.0 |
| Nominal Power, kW | 7.5 | 7.5 |
| Frequency, Hz | 50 | 50 |
| Current max, A | 34.78 | 14,45 |
| Outlets | 1*16A 1*32A | 1*16A 1*16A (400V) |
| Fuel tank volume, l | 25 | 25 |
| Working time at 50% load (gasoline fuel)*, h | 15 | 15 |
| LED display | voltage, frequency, working hours | |
| Noise level Lpa (7m)/Lwa, dB | 71/96 | 71/96 |
| Power output V/A | 12/8.3 | 12/8.3 |
| Engine model | KS 440 | KS 440 |
| Engine type | gasoline, 4 stroke cycle engine | gasoline, 4 stroke cycle engine |
| Engine power, hp | 18.0 | 18.0 |
| Crank case volume, cm ³ | 1.2 | 1.2 |
| Engine cylinder volume cm ³ | 440 | 440 |
| Power output controller | AVR | AVR |
| Engine start | manual/electric/auto | manual/electric/auto |
| Power factor, cos φ | 1 | 0.8 |
| Dimensions (LxWxH), mm | 700x545x590 | |
| Net weight, kg | 87.8 | 89.2 |
| ATS | + | + |
| Protection class | IP23M | IP23M |
| Altitude (MAX), m | 1000 | 1000 |
| Relative humidity | <95% | <95% |
| Acceptable deviation of a current is 5% | | |

*Fuel consumption depends on many factors, such as load, fuel quality, season, altitude, technical condition of the generator.

To ensure the reliability of the generator and increase its lifespan, the peak capacities may be slightly limited by circuit breakers.

The optimum operating conditions are ambient temperature of 17°C – 25°C, barometric pressure of 0.1 MPa (760 mm Hg), and relative humidity of 50 – 60%. Under such ambient conditions, the generator can guarantee maximum performance in terms of the stated specifications. In case of deviations from the above ambient values, the performance of the generator can be different.

Please note that in order to preserve the lifespan of the generator, continuous loads should not exceed 80% of the rated power

| Model | KS 7000E 1/3 | | KS KS 10000E 1/3 | |
|---|-----------------------------------|------|---------------------------------|-------|
| | Voltage, V | 230 | 400 | 230 |
| Max Power, kW | 5.5 | 5.5 | 8.0 | 8.0 |
| Nominal Power, kW | 5.0 | 5.0 | 7.5 | 7.5 |
| Frequency, Hz | 50 | | 50 | |
| Current max, A | 23.91 | 9.93 | 34.78 | 14.45 |
| Outlets | 1*16A/400V 1*32A/230V | | 1*16A/400V 1*32A/230V | |
| Fuel tank volume, l | 25 | | 25 | |
| Working time at 50% load (gasoline fuel)*, h | 17 | | 17 | |
| LED display | voltage, frequency, working hours | | | |
| Noise level Lpa (7m)/Lwa, dB | 70/95 | | 71/96 | |
| Power output V/A | 12/8.3 | | 12/8.3 | |
| Engine model | KS 390 | | KS 440 | |
| Engine type | gasoline, 4 stroke cycle engine | | gasoline, 4 stroke cycle engine | |
| Engine power, hp | 13.0 | | 18.0 | |
| Crank case volume, cm³ | 1.1 | | 1.2 | |
| Engine cylinder volume cm³ | 389 | | 440 | |
| Power output controller | AVR | | AVR | |
| Engine start | manual/electric | | manual/electric | |
| Power factor, cos φ | 1 | 0.8 | 1 | 0.8 |
| Dimensions (LxWxH), mm | 700x545x590 | | | |
| Net weight, kg | 81 | | 88 | |
| Protection class | IP23M | | IP23M | |
| Altitude (MAX), m | 1000 | | 1000 | |
| Relative humidity | <95% | | <95% | |
| Acceptable deviation of a current is 5% | | | | |

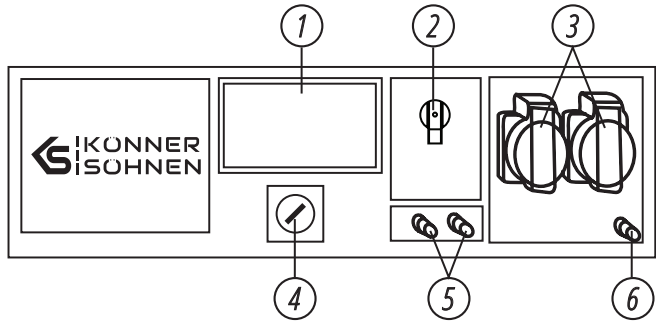
*Fuel consumption depends on many factors, such as load, fuel quality, season, altitude, technical condition of the generator.

To ensure the reliability of the generator and increase its lifespan, the peak capacities may be slightly limited by circuit breakers.

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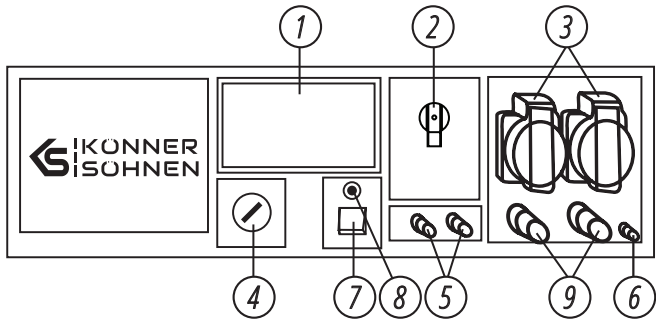
Please note that in order to preserve the lifespan of the generator, continuous loads should not exceed 80% of the rated power

GENERATOR PANEL (MANUAL/ELECTRIC START)

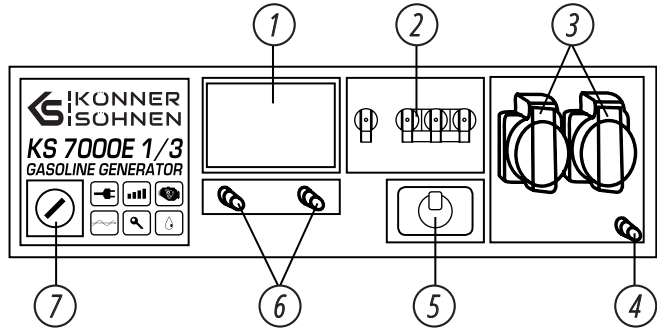


1. LED display
2. Emergency circuit breaker
3. Sockets
4. Engine start key (ON/OFF)/Engine start button for models without electric start (ON/OFF)
5. Direct current sockets 12 V
6. Grounding

GENERATOR PANEL FOR WITH BUIL-IN ATS



1. LED display
2. Emergency circuit breaker
3. Sockets
4. Engine start key (ON/OFF)
5. Direct current sockets 12 V
6. Grounding
7. ATS switch
8. ATS indicator
9. ATS connectors



1. LED display
2. Emergency circuit breaker
3. Sockets
4. Grounding
5. 3 phase/1 phase mode switch
(position 1 - 400V, position 0 - off, position 2 - 230V)
6. Direct current sockets 12 V
7. Engine start key

FEATURES

Using as a three-phase generator:

The three-phase gasoline generator should have the power distributed to all three phases, and the power should be distributed equally. The power at each of the three phases must not exceed 1/3 of the total power of the generator. The balance between phases tolerance should not exceed 20%. If only 1 phase or 2 phases are loaded, the generator will fail. The total power and total current at all three phases must not exceed the normal load and amperage of the generator.

Connecting devices

After starting the engine, make sure the voltmeter readings correspond to the nominal (at 50 Hz 230V \pm 5% for single-phase units and 400 \pm 5% for threephase).

DIGITAL DISPLAY OF GASOLINE GENERATORS

10

The choice of indicators occurs by pressing a button on the display, selection of indicators is cyclic.



Operation time from start-up, min



Voltage, V



Total operating hours, min



Frequency, Hz



The generator is off

COMMISSIONING

11

The generator is supplied without fuel. Before the operation please fill the fuel. Guidelines for filling are below.

Generators are supplied without motor oil. The generator casing may contain residues of oil after tests conducted during production. Before starting to use the generator, be sure to pour oil. Recommendations on oil and it's filling process are below.

Follow maintenance recommendations during the first month or twenty hours (whichever occurs first) contained in the "Maintenance" section.

For commissioning models with electric start please charge the battery. Please use additional battery charger (not included) to charge the battery or let the generator work at least one hour at 50% load at the first start.

It is recommended to ground the generator before operating it for the first time.

GROUND TERMINAL

The ground terminal forms a ground line to prevent electric shock. If the electrical appliance is grounded, the generator must also be grounded.

IN THE FIRST 20 OPERATING HOURS OF THE GENERATOR, THE FOLLOWING REQUIREMENTS SHOULD BE MET:

1. During commissioning, do not connect power consumers, the power of which exceeds 50% of the nominal (operating) power of the device.
2. After the first 20 operating hours, be sure to change the oil. It is better to drain oil while the engine is still hot after operation to ensure quick and complete oil draining. Be very careful! Oil is very hot! Wait a little before draining oil from hot engine.
3. Check and clean the air filter, fuel filter and spark plug.



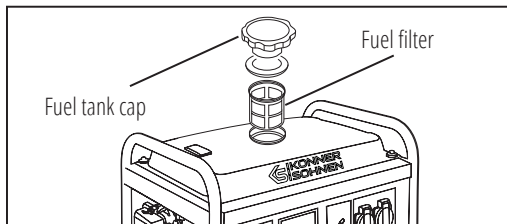
IMPORTANT!



Before starting the generator, connect the ground wire to the ground terminal.

CHECKING THE FUEL LEVEL

1. Please wear protective gloves to avoid getting gasoline on the skin.
2. Unscrew the fuel cap and check the fuel level in the tank.
3. Fill the fuel tank to the fuel filter level.
4. Tighten the fuel cap securely.



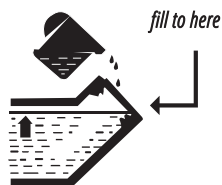
IMPORTANT!



Use only unleaded gasoline. Using leaded gasoline can cause serious damage to the inside of the engine.

CHECKING THE OIL LEVEL

1. Please wear protective gloves to avoid getting oil on the skin.
2. Unscrew the oil dipstick and wipe it out with a clean cloth.
3. Insert the dipstick without screwing it in.
4. Check the oil level by a mark on the oil dipstick.
5. Add oil if its level is below the mark on the oil dipstick.
6. Screw on the dipstick.



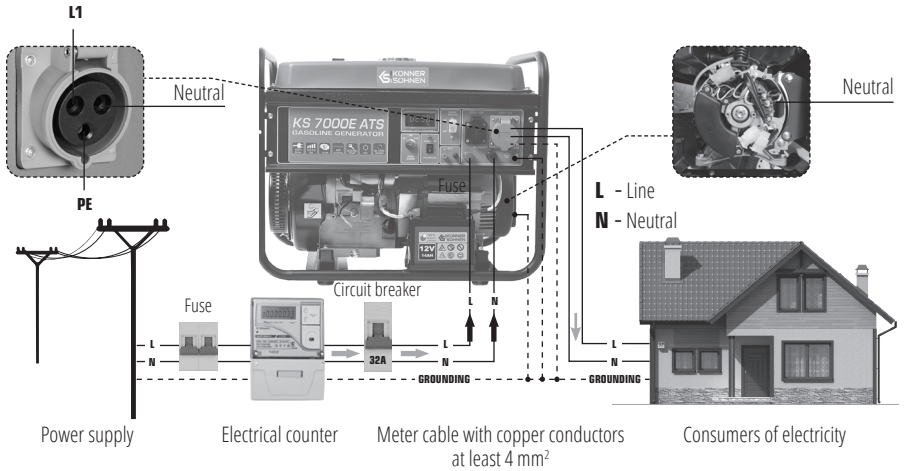
IMPORTANT!



If the generator has not been used for a long time, try charging the battery with the battery charger (not included).

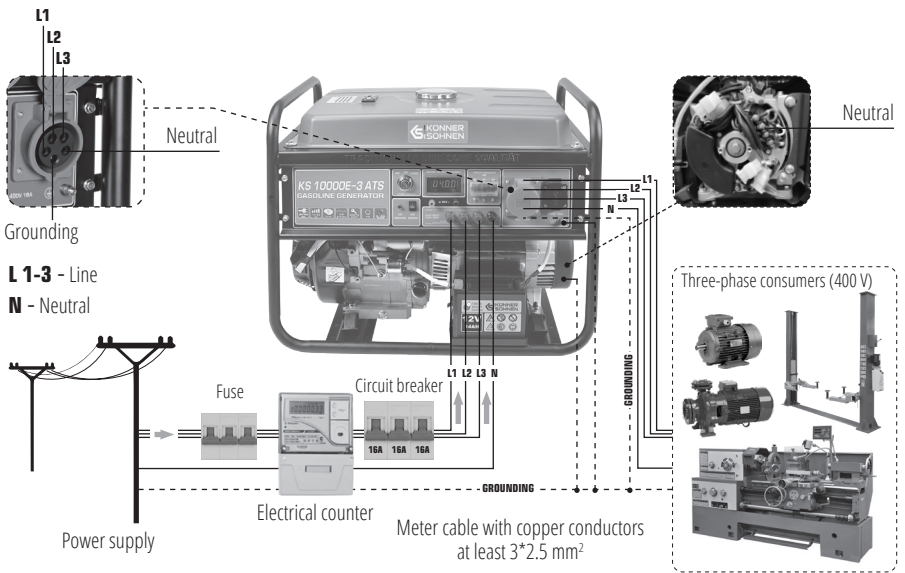
Connection of the generator with the built-in ATS to the consumers of electricity and the central power supply.

SCHEME OF CONNECTION OF A SINGLE-PHASE GENERATOR



CONNECTION SCHEME OF THE THREE-PHASE GENERATOR

WARNING! Only use the three-phase generator for three-phase consumers (400 V)!



ATTENTION - DANGER! Risk of electric shock! Network connection should only be carried out by a qualified technician.

**WARNING!**

The N-conductor (neutral conductor) of the generator is not connected to the housing and the PE conductor of the generator. For TN network, the N-conductor (under the alternator cover) must be connected to the main earthing bar of the building.

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.

ENGINE START**14****ATTENTION - DANGER!**

Before starting the engine please make sure that power of instruments or electric consumers complies to the capacities of the generator. It is forbidden to exceed its nominal capacity. Do not connect devices before starting the engine. In the power supply mode, the generator should operate no longer than 1 minute in the range from nominal to maximum power.

Before turning the generator on, verify that the connected devices are in working order. If the connected device suddenly stops running – turn the power off by means of an emergency switch, disconnect the device and check it.

**ATTENTION - DANGER!**

Do not let the simultaneous connection of two or more devices. Devices are to be connected in turns, according to its maximum allowed power. Do not connect the consumers in first 1-2 minutes after the generator start.

**ATTENTION!**

FOR MODELS KS 7000E ATS, KS 7000E-3 ATS, KS 10000E ATS, KS 10000E-3 ATS:

Generator is equipped with electronics! Monitor the charge level of the battery and prevent it from being completely discharged! Generator cannot start or work correctly with a completely discharged battery, even with a recoil start.

**IMPORTANT!**

In transient modes, the frequency of the generator can change in the short term, that is, during normal operation of the generator, the deviation of the frequency indicator is permissible.

Depending on the type of generator, engine and operating mode, the frequency can be 49-54Hz

GASOLINE GENERATOR ENGINE START

1. Fuel supply valve to be set in "OPEN" position.
2. Air shutter to be set to "CLOSED" position.
3. Upon manual start – set the engine switch to "ON" position.

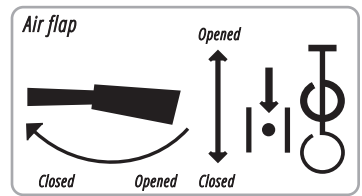
Fuel valve

Closed



Opened

4. Start slowly pulling the starter till you feel slight resistance. By an abrupt movement pull the starter to full cord length. The engine will now start.
5. Upon electric start – turn the key to “ON” position and hold it in “START” position till the engine starts. Immediately release the key after the engine starts.
6. Slowly turn the air shutter to “OPEN” position.



IMPORTANT!

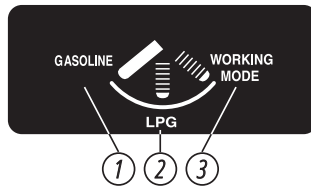


For models with electric start check whether battery is charged, if necessary, charge it using an external charger (not included) or run the generator with manual start and let it run without load for recharging.

RUNNING GENERATOR ON LIQUEFIED GAS

1. Connect the hose to the gas cylinder.
2. Open the gas supply valve on the tank, make sure there are no gas leaks.
3. Set the fuel valve on fuel tank to the closed position (there should be no fuel in the carburetor).
4. Set the air flaps in the middle position. After starting the generator, put it in the open position.
5. When you use generator for the first time to let LPG go into the gas supply system turn the key to the OFF position and pull the starter handle all the way down the cord 2-3 times.
6. For generators with electric start - turn the key in the “START” position and hold in that position for several seconds before starting the engine.
7. To manually start the generator turn the key to position “ON”, grasp the starter handle and slowly pull it for feeling resistance. Abruptly pull the starter cord at full length.
8. Turn the air damper to “OPEN”.

Positions of air flap when running



1. *Position the air flaps when running on gasoline.*
2. *Position the air flaps when running on gas.*
3. *Operating mode.*



IMPORTANT!



Place the container with gas only vertically, according to the instruction manual for gas cylinders. The horizontal placement of gas cylinders leads to hybrid generator gearbox failure.



IMPORTANT!



Disconnect the load from the generator before changing the fuel type!

Fuel can be changed without stopping the generator. When the generator is running on gasoline, simply set the fuel switch to “OFF”, connect the gas hose to the generator and open the gas valve. When switching from gasoline to LPG operation, there is still some gasoline left in the carburetor, which means that the generator will be unstable for the first 5 minutes. The generator becomes stable once all is removed from the fuel system and the generator fully switches to LPG operation.

14.3. GENERATOR LAUNCH IN ATS MODE (FOR GENERATORS WITH ATS):

Built-in automatic start system allows controlling the generator switching on and off in automatic mode. If the main power shuts down, the system will notice that and will start compensation procedures.

To start the generator engine in ATS mode:

1. Check if the accumulator unit is charged. Oil level is to be sufficient. Also confirm the fuel tank filling.
2. Connect the power from main power supply to a corresponding inlet at the generator panel.
3. Set the ATS switch to "AUTO" position.
4. Set the starting key to "ON" position at the generator panel.



IMPORTANT!



Upon activated ATS system when the electric power from main electric network passes through the generator to the connected devices, its accumulator unit is charging. Do not disconnect the battery.

If the power supply from the main network will be stopped, the ATS system will automatically start the generator so that it begins to supply power to devices connected to it. When the power supply from the main network is renewed, the generator system turns off and the voltage to consumers goes from the main network.

In order to run the generator without ATS mode – do not set the ATS switch to "AUTO" mode.

DURING GENERATOR OPERATION:

- You may use the generator, if the voltage meter displays the value $230\text{ V} \pm 10\%$ (50Hz).
- Watch the voltage meter and in case of excessive indices values, stop the generator operation.
- Connection to continuous voltage socket 12V is used for accumulator recharge only. Upon accumulator unit recharge, it is mandatory to verify the polarity correctness (+ to +, - to -). Current shouldn't exceed 8A.
- Wires of charging device are to be at first connected to the accumulator unit and only then – to the generator itself. All "generator to network" connections are to be carried out by a certified electrician. Any mistakes may result in serious equipment damage.
- It is forbidden to use 12V voltage simultaneously with 230V.

STOPPING THE ENGINE

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IMPORTANT!



Do not stop the generator, if there are any devices connected. This may result in generator or your appliances breakdown.

TO STOP GASOLINE GENERATOR ENGINE:

1. Stop all power consuming devices connected to the generator, by setting the emergency switch to "OFF".
2. Please let the generator to work for 1-2 minutes without load to cool the alternator.
3. In case of manual start – set the engine switch to OFF position.
4. In case of electric start, turn the key to OFF position.
5. Turn the fuel valve to "CLOSED" position.

15.2. TO STOP HYBRID GENERATOR ENGINE:

1. Stop all power consuming devices connected to the generator, by setting the emergency switch to "OFF".
2. Please let the generator to work for 1-2 minutes without load to cool the alternator.
3. In case of manual start – set the engine switch to OFF position.
4. In case of electric start, turn the key to OFF position.
5. Twist gas cylinder valve to CLOSED position.

Works, specified in “Technical maintenance” section, are to be regularly performed. If the end user has no means for performing regular maintenance independently, it is necessary to address the official service centre to place an order for such works performance.



IMPORTANT!



In case of any damages, occurred due to non-performance of regular maintenance works, the manufacturer bears no responsibility for such damages.

SUCH DAMAGES ARE ALSO:

- Damages occurred as a result of using non original spare parts;
- Corrosion damages and other results of improper equipment storage;
- Damages occurs as a result of maintenance performance by inexperienced and unauthorized specialists.

THIS MANUAL COMPLIANCE.

Technical maintenance, operation and **Könnner & Söhnen®** generator storage are to be performed according to this manual recommendations. Manufacturer bears no responsibility for damages and losses, caused by in compliance to safety requirements and technical maintenance rules.

FIRST OF ALL THIS APPLIES TO:

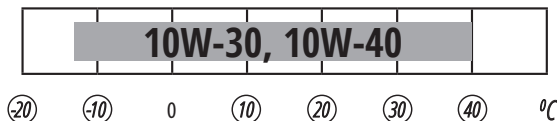
- use of lubricants, gasoline and motor oils, forbidden by the manufacturer;
- device technical alterations;
- equipment operations against its intended use;
- indirect damages, caused by operating faulty equipment;

MAINTENANCE SCHEDULE

| Node | Service type | Every start | First month or 20 hours | Each month or after 20 working hours | Each 3 months or after 50 working hrs | Each 6 months or after 100 working hrs | Each year or after 300 working hrs |
|------------|---------------------------|-------------|-------------------------|--------------------------------------|---------------------------------------|--|------------------------------------|
| Motor oil | Check the level | ☑ | | | | | |
| | Replace | | ☑ | | ☑ | | |
| Air filter | Check/Clean out | ☑ | ☑ | ☑ | | | |
| | Replace | | | | | | ☑ |
| Spark plug | Check/Clean out | | | | | ☑ | |
| | Replace | | | | | | ☑ |
| Fuel tank | Check the level | ☑ | | | | | |
| | Clean out | | | | | | ☑ |
| Fuel line | Check (replace if needed) | | | | | ☑ | |

Motor oil has a serious impact on performance characteristics and is a major attribute, defining its service life. Use oils designed for four-stroke cycle vehicle engines, since such oils contain cleaning additives, which comply or even exceed SE standards according to API classification (or equivalent). In general, the engine is recommended to run with motor oils of SAE 10W-30, SAE 10W-40 viscosity level.

Motor oils with other viscosity levels, may be used only if the average air temperature in your region does not exceed the limits of the temperature range, specified in the table. Oil viscosity according to SAE standards or service category, are specified on the API capacity sticker.



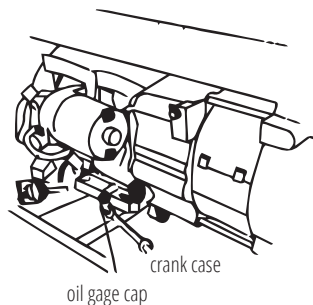
ENGINE OIL REPLACEMENT OR ADDING

Upon oil level decrease it is necessary to add the required quantity in order to provide the correct generator operation. It is necessary to check the oil levels according to technical maintenance schedule.



TO REPLACE ENGINE OIL, PERFORM THE FOLLOWING ACTIONS:

1. Wear protective gloves to avoid getting oil on the skin.
2. Place a drain oil holding tank under the engine.
3. Turn the drain cap, located in the engine under the oil-depth gage cap, by means of a hexagon spanner 10 mm (for generators with a power up to 3000 W) or 12 mm (for models with a power of more than 3000 W).
4. Wait till the oil drains.
5. Replace the drain cap and tighten it well.
6. Please drain the oil while the engine is warm. This provides a quick and complete oil drain.



TO REFILL OIL, PERFORM THE FOLLOWING ACTIONS:

1. Make sure that the generator is set on flat level surface.
2. Open the oil-depth gage cap on the engine
3. By means of a funnel, pour the advanced purification engine oil to the crankcase. The funnel is not included. Oil level after filling, has to be close to the upper part of oil filler.



IMPORTANT!



Oil pollutes land and groundwater. Do not allow the oil leaking from the crankcase. Drain used oil to a tightly closing container. Return used oil into recycling of wast-oil.

It is necessary to, from time to time, check the air filter and clean any contaminations. Regular air filter maintenance is necessary to maintain sufficient carburetor air inflow.

CLEANING THE FILTER:

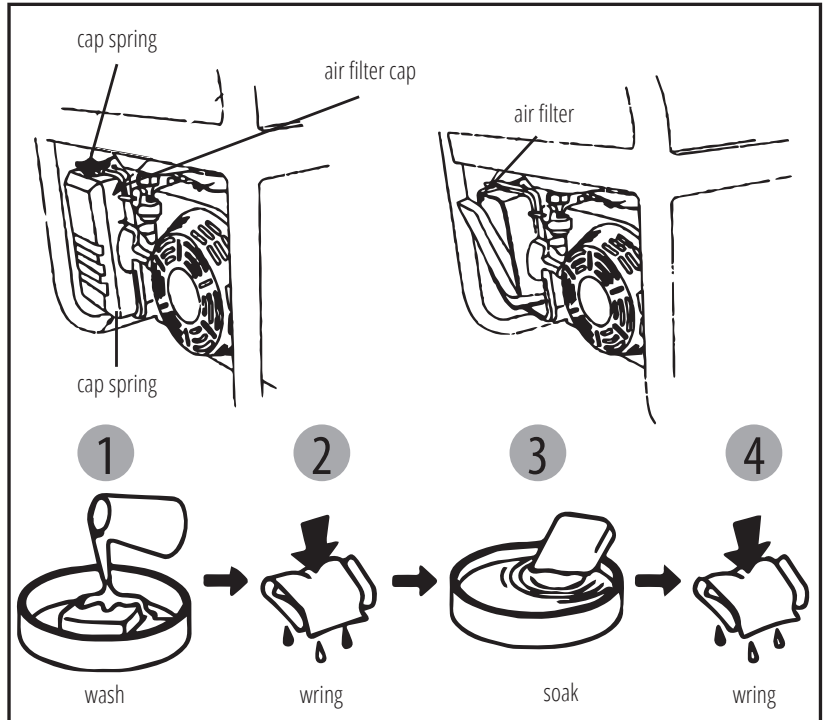
1. Open the clips on the upper cap of the air filter.
2. Remove the sponge filtering element.
3. Remove all dirt deposits inside the hollow case of the air filter.
4. Thoroughly wash the filtering element in warm soapy water.
5. Dry the sponge filter.
6. Dry filtering element is to be moistened by machine oil and excess oil is to be squeezed out.



IMPORTANT!



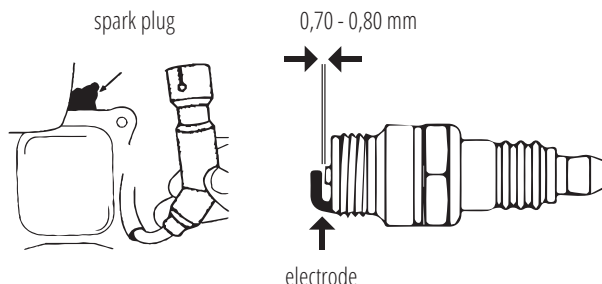
Air filter replacement is to be performed each 50 hours of the generator operation (every 10 hours in unusually dusty conditions).



Spark plug is an important element providing the correct engine operation. It has to be intact, without soot deposits and to have a correct gap.

SPARK PLUG VERIFICATION:

1. Remove the cap from the spark plug.
2. Remove the spark plug by means of a corresponding spanner.
3. Examine the spark plug. If it is shattered – it is necessary to replace it. Recommended replacement spark plugs – F7TC .
4. Measure the gap. It has to be within range 0.7 – 0.8 mm.
5. In case of repeated use, the spark plug has to be cleaned by means of a metal brush. After that – set the correct gap.
6. Place the spark plug in its place by means of a spark plug spanner.
7. Replace the spark plug cap.



The generator battery is not subject to service. If the generator is not used for a long time, the battery may fail. To prolong battery life it is recommended to do battery charging with an external device (not included) every three months.

Please use protective gloves when working with battery. The battery contains acid electrolyte, which is dangerous. After contact with skin or face, rinse immediately with plenty of water and seek for medical advice.

Battery warranted - three months from the date of purchase of the generator.

Storage room has to be dry and free from dust deposits. Storage room also has to be locked away from children and animals. It is recommended to store and use the generator at temperature of -20°C to +40°C. Avoid direct sunlight, rain on the generator. When using and storing hybrid generator, gas tank should be kept indoors at temperatures below +10°C. If the temperature is lower, gas will evaporate.



IMPORTANT!



Warning! Generator is to remain ready for operation at all times. Therefore in case of device malfunctions, they are to be repaired before dismantling the generator for storage.



IMPORTANT!



Before long-term storage of the generator during the engine work close the fuel valve and let the engine to elaborate gasoline from carburetor. Wait until engine stops itself.

BEFORE LONG-TERM GENERATOR IDLE TIME – PERFORM THE FOLLOWING ACTIONS:

- Generator and engine external parts (especially the cooling radiators) are to be thoroughly cleaned.
- Carburetor float chamber screw has to be removed and the chamber – drained.
- Remove the spark plug.
- Oil drain screw is to be removed and the oil – drained.
- Pour one teaspoon of motor oil to the cylinder (5-10 ml). After that – pull the starter cord for a few times, to let the oil equally distribute on the cylinder walls.
- Install the spark plug.
- Pull the starter handle until you feel the resistance. to let the piston relocate to the upper pressure tact point.
- Smoothly release the starter handle.
- Remove the battery terminals. Grease the battery terminals and connecting terminals with grease to protect against oxidation.

GENERATOR TRANSPORTATION

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For easy generator transportation use packaging, which generator was sold in. Secure the box with the generator so that it does not tip over during transportation. Before moving the generator drain the fuel and disconnect the terminals of the battery.

To move the generator from one place to another lift it by holding the frame. Be careful - the generators are heavy (40 to 90 kg). At least two men are needed to move the generator. Be careful, do not expose your feet under the frame of the generator.

BATTERY AND GENERATOR DISPOSAL

24

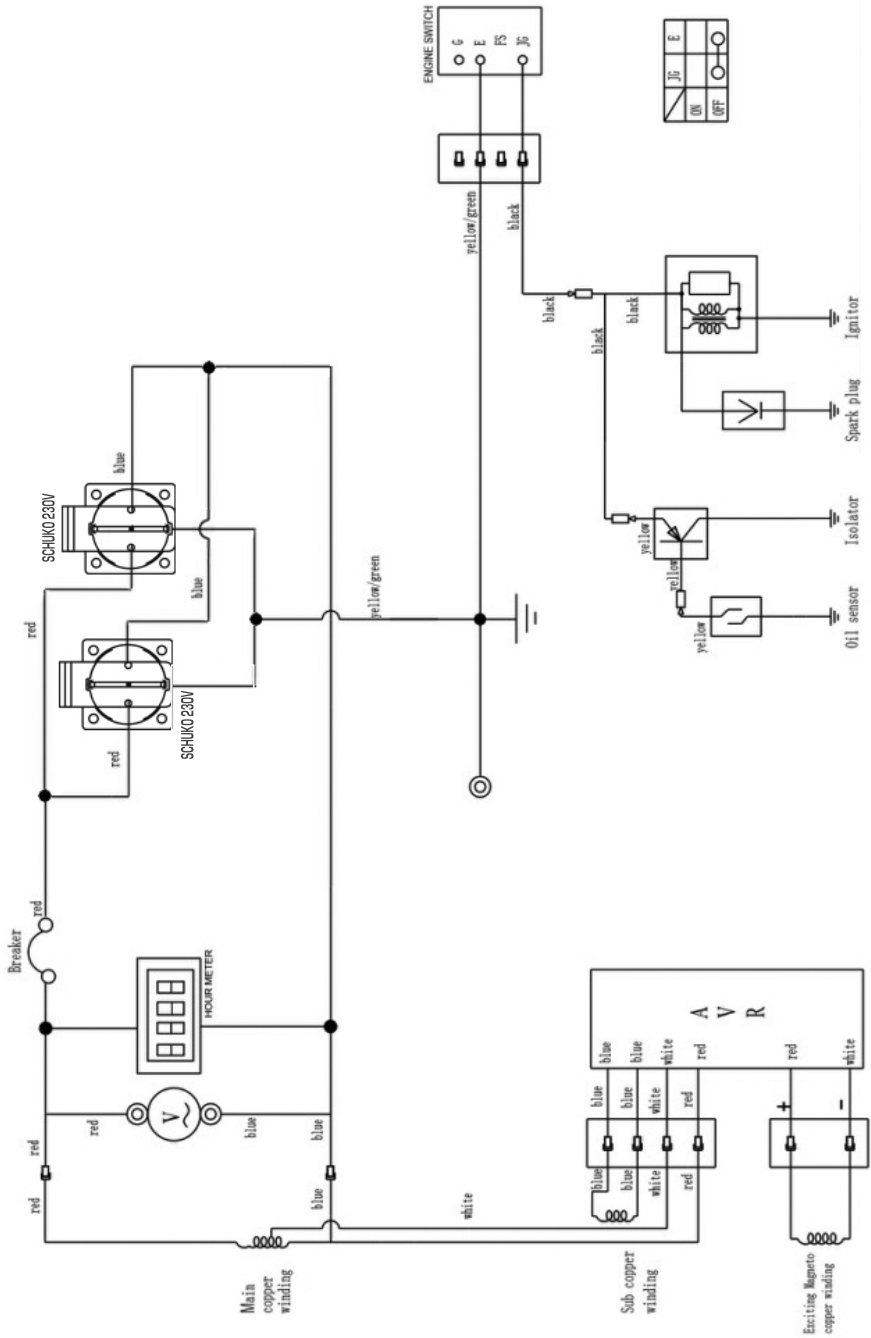
To prevent environment damage generator and battery should be separated from ordinary waste. Please recycle them in the safest way, passing it to special place for disposal.

| Typical failures | Possible reason | Solution |
|---|---|---|
| Engine does not starting | Engine starting swinch set to OFF position | Set the engine starting switch to ON |
| | Fuel valve set to off position | Turn the valve to ON position |
| | Air flap is opened | Shut the air flap |
| | No fuel | Add fuel |
| | Low-quality or dirty fuel is in engine | Change the fuel |
| | Sparking plug smoked or corrupted distance between contacts is not nominal | Clean or replace the plug; Set proper distance between contacts |
| Low engine power / heavy starting | Dirt in fuel tank | Clean the fuel tank |
| | Dirt in the air filter | Clean the air filter |
| | Water in a fuel tank/ carburetor; carburetor is jammed | Empty the fuel tank, carburetor |
| | Distance between contacts of a sparking plug is not nominal | Set proper distance between contacts |
| Engine overheated | Cooling fins are dirty | Clean the cooling fins |
| | Air filter is dirty | Clean the air filter |
| No voltage while working engine | Circuit breaker is active | Turn on the cricuit breaker |
| | Connected cables are corrupted | Check the cables; if using extension cord, change it |
| | Plugged device failure | Try to connect other devices |
| Connected devices are not working while generator is running | Generator is overloaded | Unplug some devices to reduce load |
| | Short circuit occured in one of the devices connected | Unplug that device to restore the stability of a system |
| | Air filter is dirty | Clean the air filter |
| | Repetitions of an engine are lower than nominal | Contact the service center |

| Device | Average power usage, W |
|---------------------------|------------------------|
| Iron | 500-1100 |
| Air hair dryer | 450-1200 |
| Coffee machine | 800-1500 |
| Electric cooking stove | 800-1800 |
| Toaster | 600-1500 |
| Air heater | 1000-2000 |
| Vacuum cleaner | 400-1000 |
| Radio | 50-250 |
| BBQ Grill electric device | 1200-2300 |
| Oven | 1000-2000 |
| Refrigerator | 100-150 |
| TV set | 100-400 |
| Hammer drill | 600-1400 |
| Drill | 400-800 |
| Freezer | 100-400 |
| Grinding machine | 300-1100 |
| Circular saw | 750-1600 |
| Angle grinder | 650-2200 |
| Electro jigsaw | 250-700 |
| Electro planer | 400-1000 |
| Compressor | 750-3000 |
| Water pump | 750-3900 |
| Electric sawing machine | 1800-4000 |
| Electric lawn | 750-3000 |
| Electric powered engines | 550-5000 |
| Electric fan | 750-1700 |
| High pressure machine | 2000-4000 |
| Air conditioner | 1000-5000 |

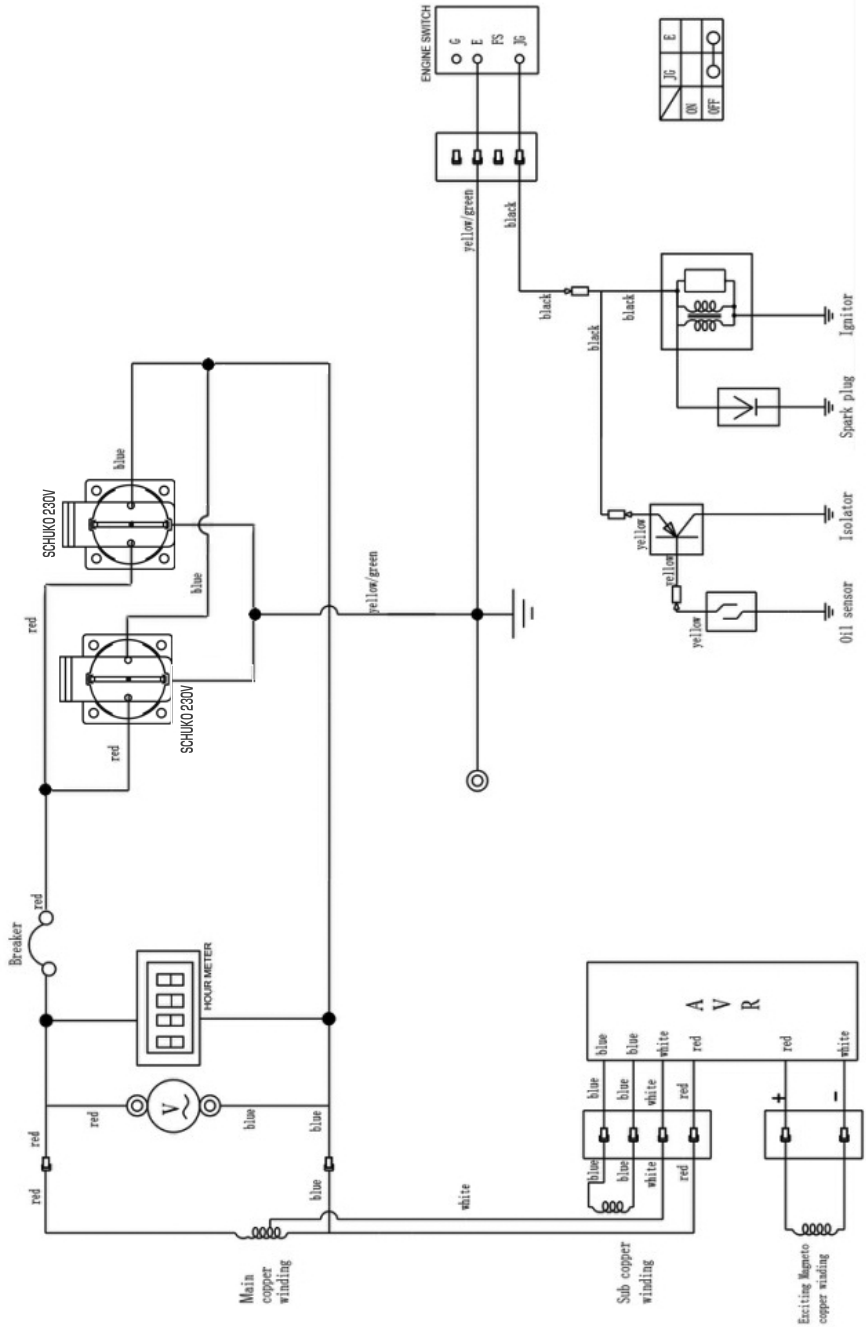


FOR MODELS KS 2900, KS 3000



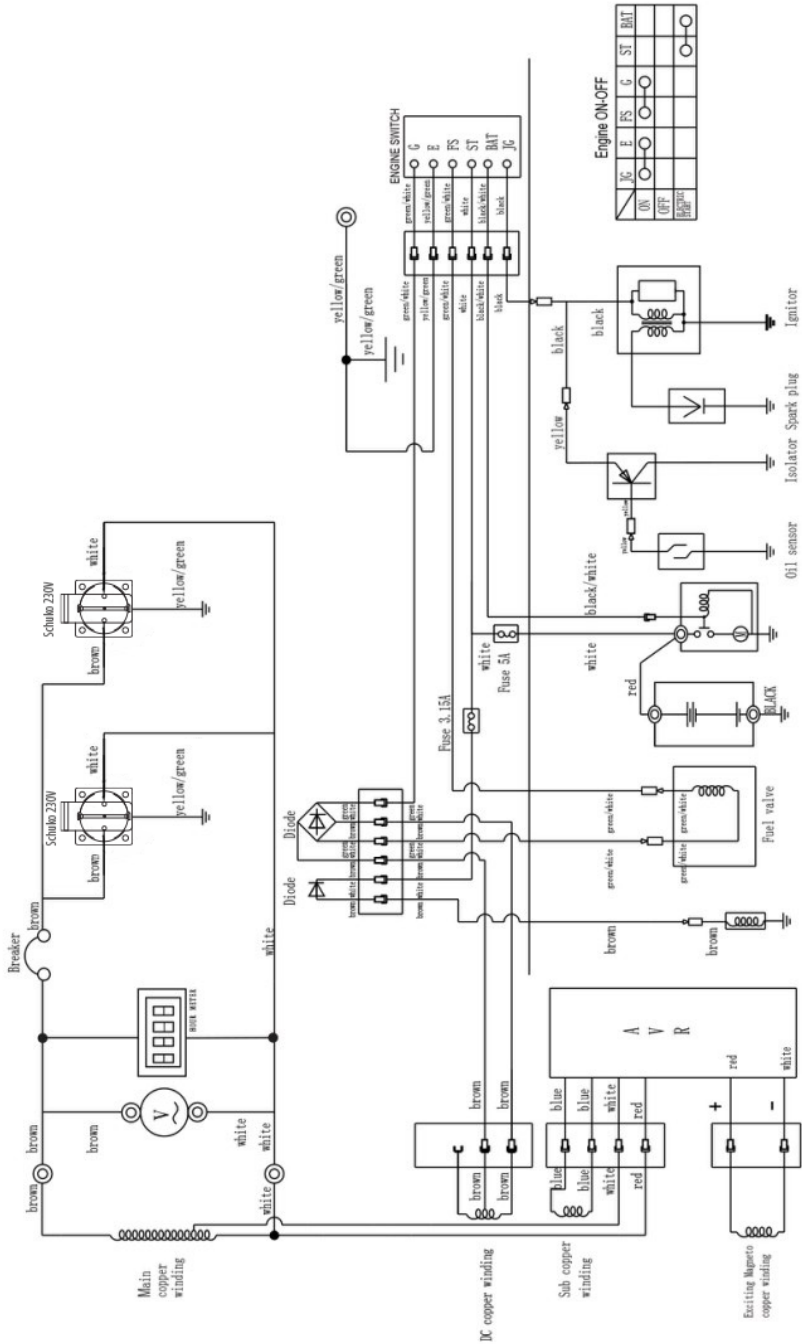


FOR MODELS KS 2900G, KS 3000G



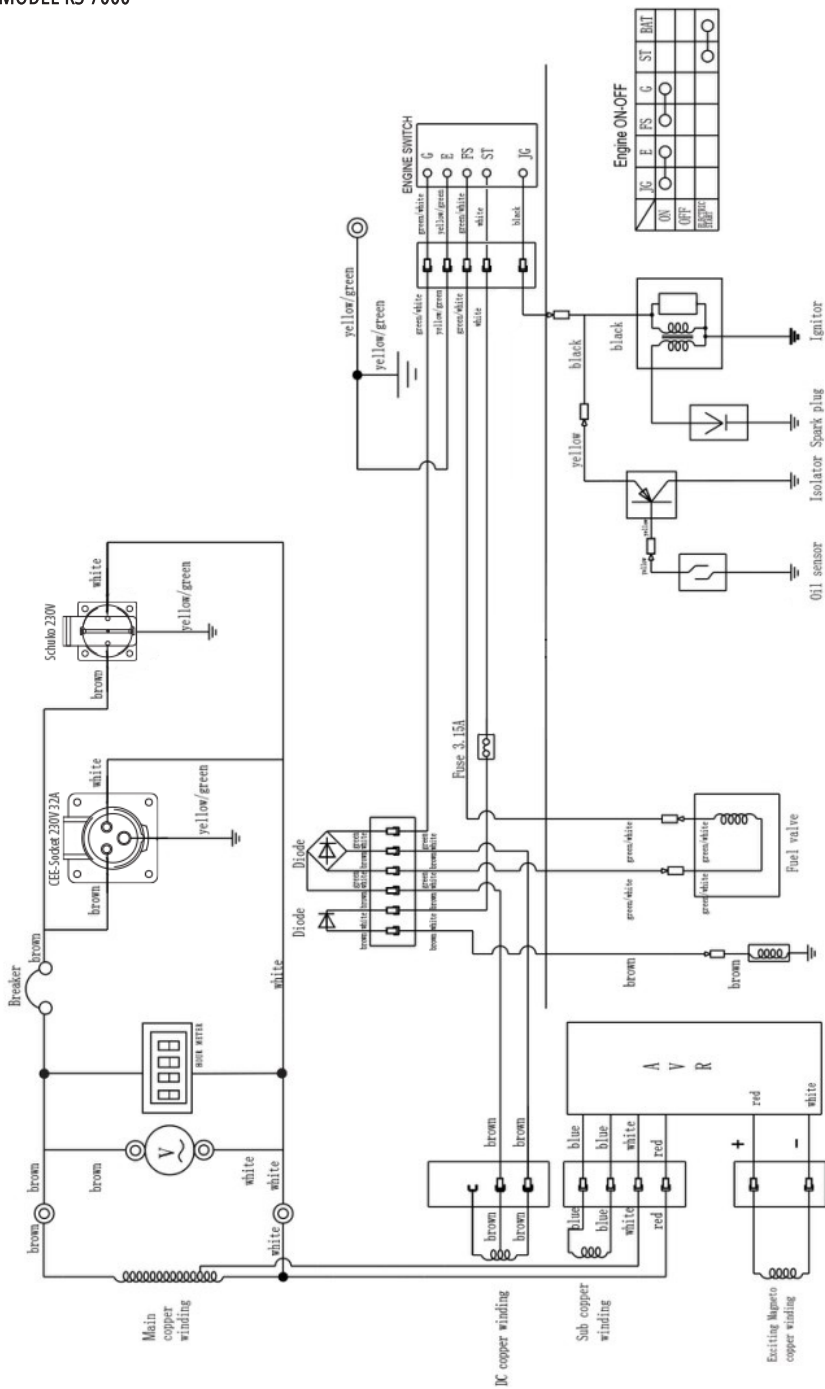


FOR MODEL KS 5000E G



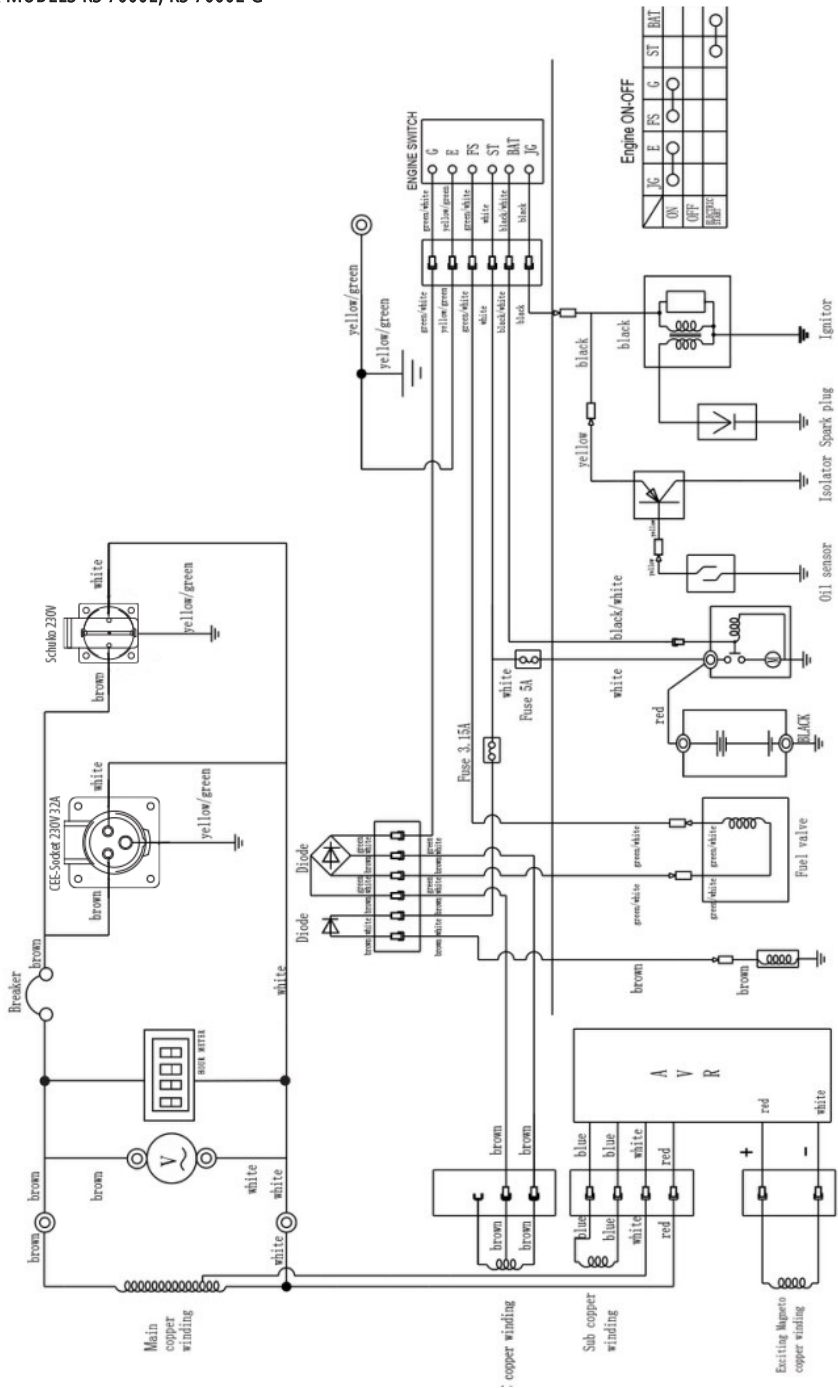
FOR MODEL KS 7000

ELECTRIC SCHEME



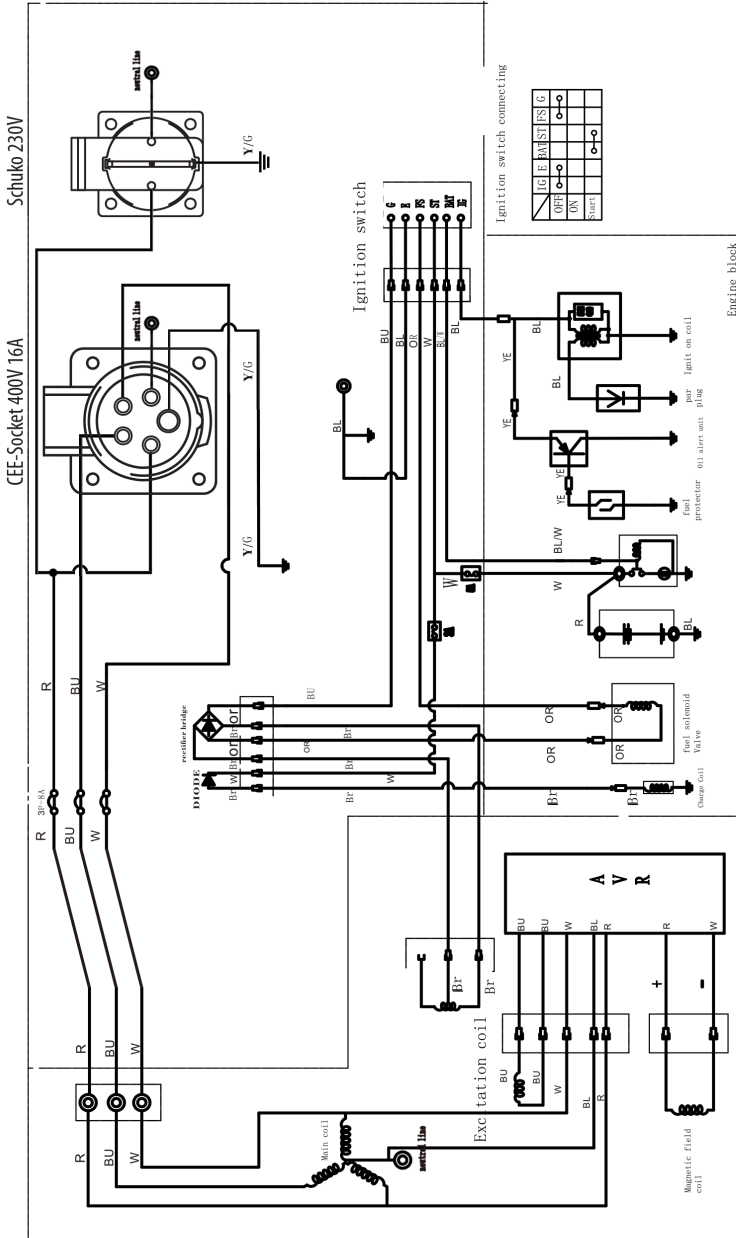


FOR MODELS KS 7000E, KS 7000E G





FOR MODEL KS 7000E-3



Ignition switch connecting

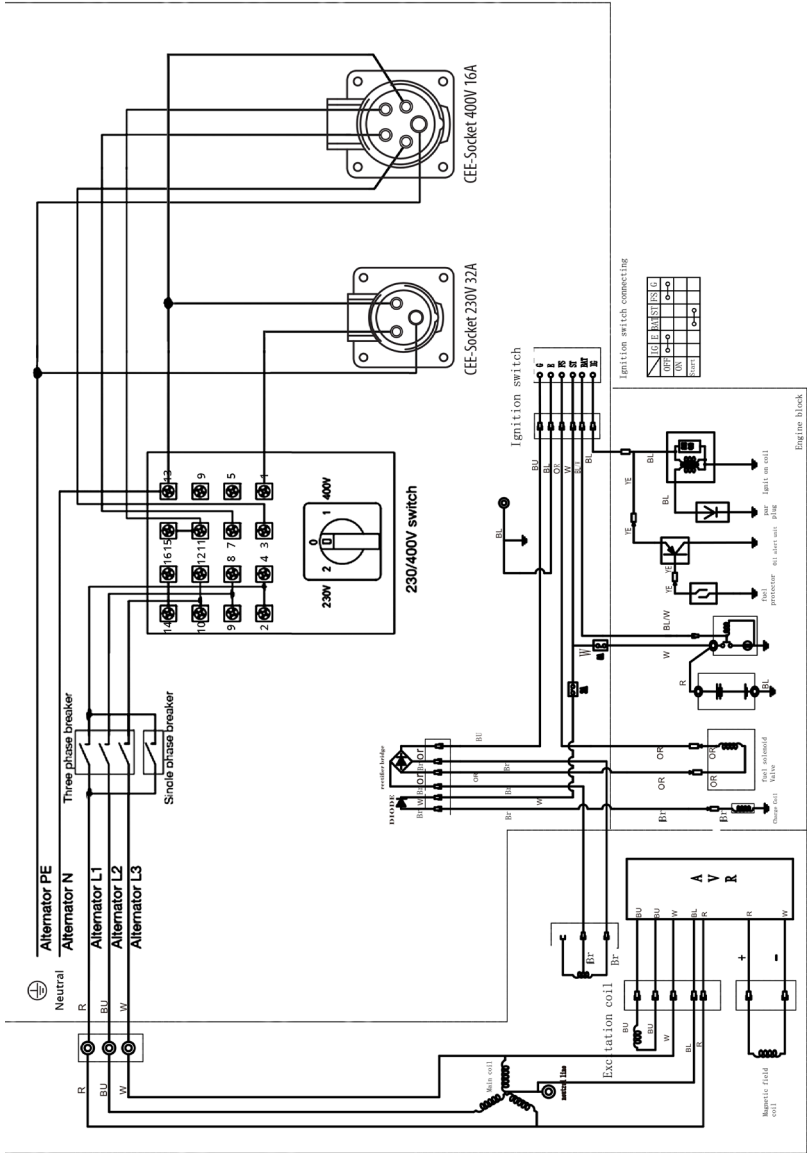
| | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|
| IGN | IG | E | MA | ST | S | G |
| IGN | IGN | IGN | IGN | IGN | IGN | IGN |
| IGN | IGN | IGN | IGN | IGN | IGN | IGN |

| | | | |
|-----|--------------|----|-------|
| BL | Black | Br | Brown |
| O | Orange | | |
| BU | Blue | | |
| Y/G | Yellow/Green | | |
| R | Red | W | White |

WIRING DIAGRAM OF 400V GENERATOR SET



FOR MODEL KS 7000E-1/3



Ignition switch connecting

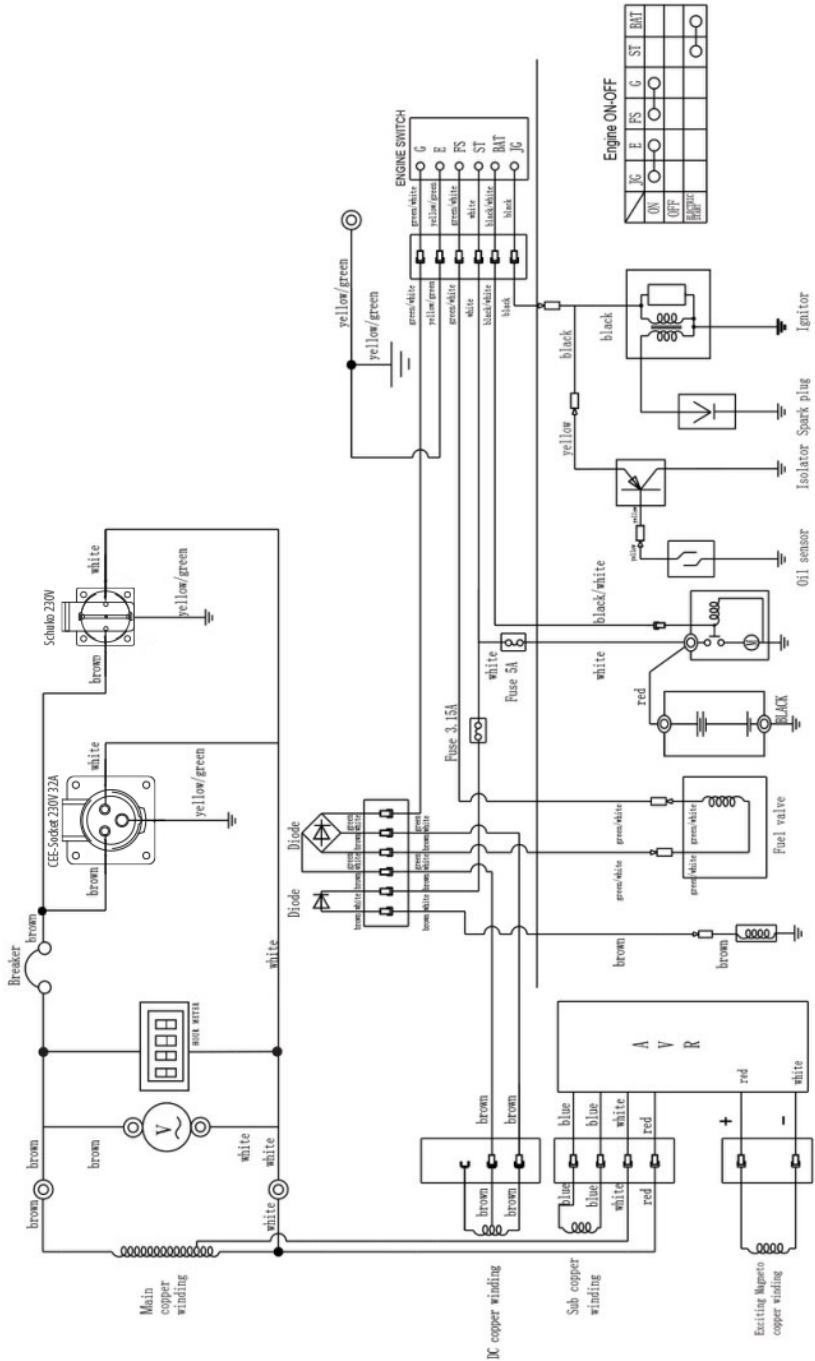
| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |

| | | | |
|----|--------|-----|--------------|
| Bl | Black | Br | Brown |
| O | Orange | | |
| Bu | Blue | V/G | Violet/Green |
| R | Red | W | White |

WIRING DIAGRAM OF GENERATOR SET

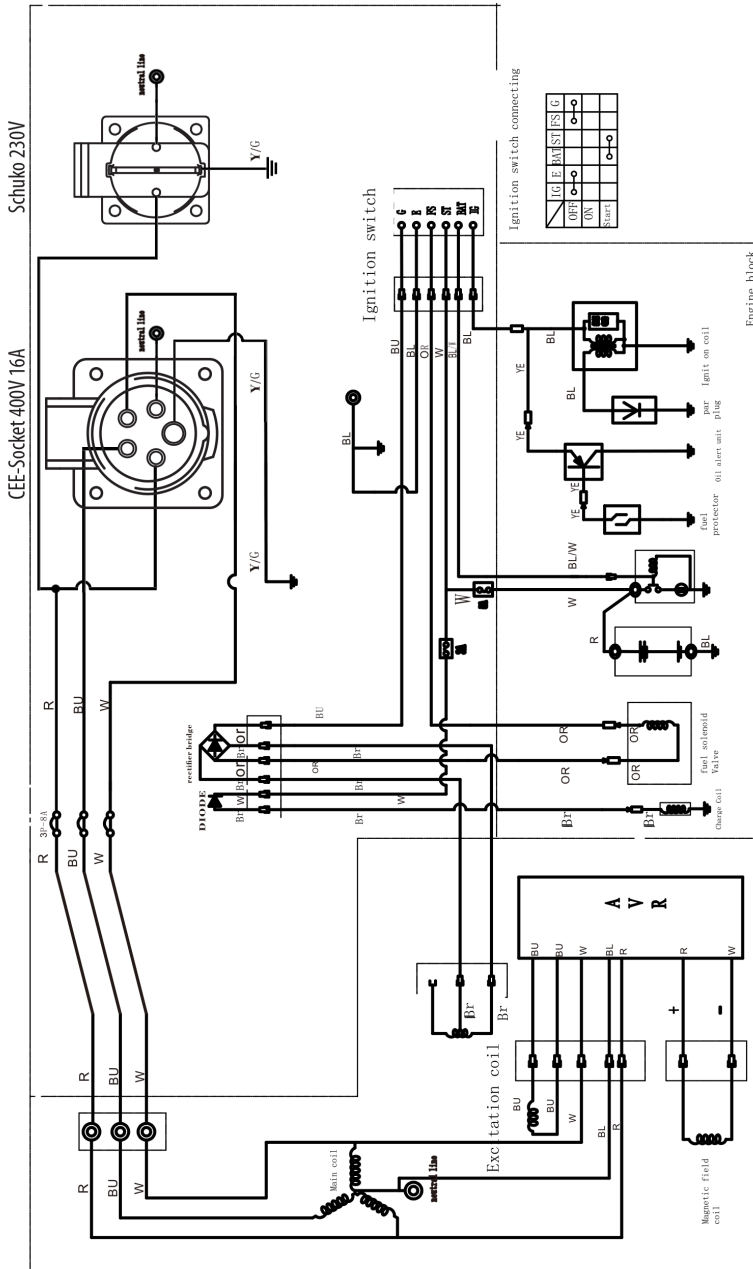


FOR MODEL KS 9000E G, KS 10000E, KS 10000E G





FOR MODEL KS 1000E-3



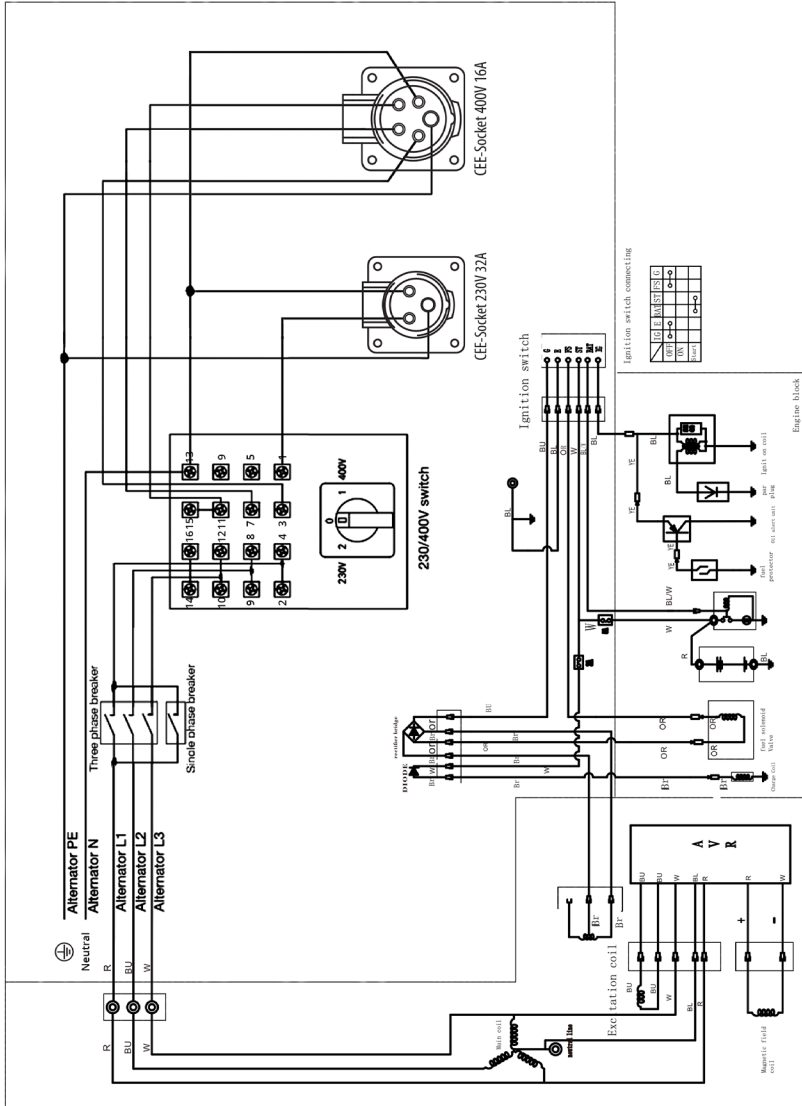
| | | | | | | |
|-------|----|---|-----|----|----|---|
| | IG | E | BAT | ST | FS | G |
| OFF | ○ | ○ | ○ | ○ | ○ | ○ |
| ON | ○ | ○ | ○ | ○ | ○ | ○ |
| Start | ○ | ○ | ○ | ○ | ○ | ○ |

| | | | |
|-----|--------------|----|-------|
| BL | Black | Br | Brown |
| O | Orange | | |
| Blu | Blue | | |
| Y/G | Yellow/Green | | |
| R | Red | W | White |

WIRING DIAGRAM OF 400V GENERATOR SET



FOR MODEL KS 1000E-1/3



Ignition switch connecting

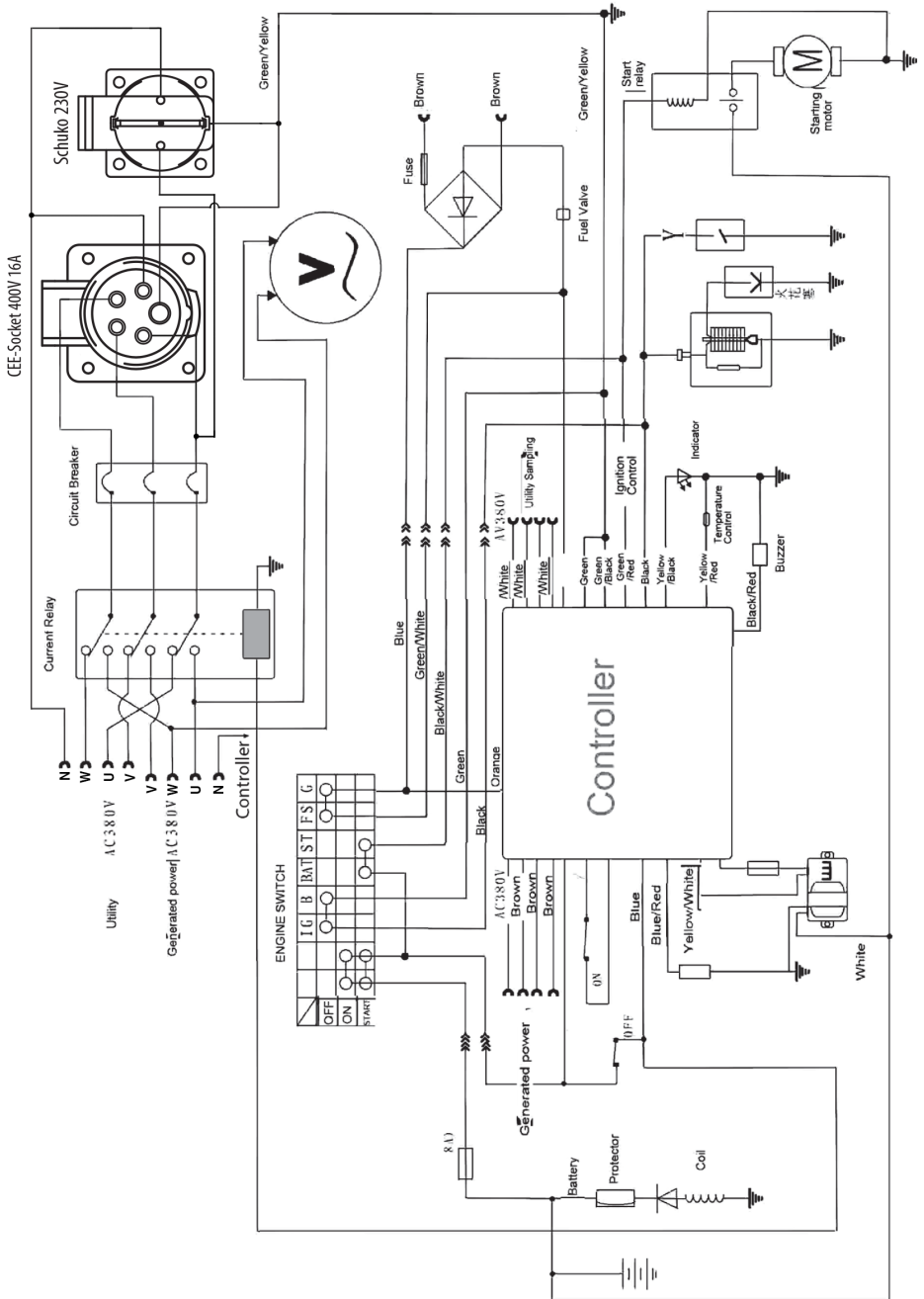
| | | | | | | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| BU | BU | BU | BU | BU | BU | BU | BU | BU | BU | BU | BU | BU | BU | BU | BU |

| | | | |
|-----|--------|-----|-------------|
| Bl | Black | Br | Brown |
| Or | Orange | | |
| Blu | Blue | Blw | Blue/White |
| W | White | W/G | White/Green |
| R | Red | W | White |

WIRING DIAGRAM OF GENERATOR SET



FOR MODELS KS 7000E-3 ATS, KS 10000E-3 ATS





EC Declaration of Conformity

Nr. 148

The following products have been tested by us with the listed standards and found in compliance with the European Community Machinery Directive 2006/42/EC, Electromagnetic compatibility Directive (EMC) 2014/30/EC, Noise Directive 2000/14/EC.

Manufacturer: DIMAX INTERNATIONAL GmbH
 Address: Flinger Broich 203, 40235 Duesseldorf, Germany
 Product: Gasoline generators "Könner & Söhnen"
 Type / Model: KS 2900, KS 2900G, KS 3000, KS 3000E, KS 3000G, KS 5000E G, KS 7000, KS 7000E, KS 7000E G, KS 7000E-3, KS 7000E ATS, KS 7000E-3 ATS, KS 7000E-1/3, KS 9000E G, KS 10000E, KS 10000E G, KS 10000E-3, KS 10000E ATS, KS 10000E-3 ATS, KS 10000E-1/3.

The statement is based on a single evaluation of above mentioned products. It does not imply an assessment of the whole production and does not permit the use of the test lab. logo. The manufacturer should ensure that all product in series production are in conformity with the product sample detailed in this report. The applicant should hold the whole technical report at disposal of the competent all the right.

Applied EC Directives: 2006/42/EC Machinery Directive
 2014/30/EC Electromagnetic compatibility Directive (EMC)
 2000/14/EC Noise Directive
 (EU) 2016/1628 Non-Road mobile machinery emissions

Applied Standards: EN 55012:2007+A1:2009
 EN ISO 8528-13:2016
 EN 12100:2010
 EN ISO 3744: 1995, ISO 8528-10:1998

Gasoline engine KS 210, KS 390, KS 440 correspond to European Emission Standard Euro V (STAGE V). This is confirmed by EU TYPE-APPROVAL CERTIFICATE granted by NSAI certification. Technical service responsible for carrying out the test - TÜV SÜD Auto servise GmbH in München, Germany. Date of issue 15/06/2018

2000/14/EC_2005/88/EC Annex VI

For Models: KS 2900, KS 2900G, KS 3000, KS 3000E, KS 3000G
Noise: measured Lwa=91 dB (A), guaranteed Lwa= 93 dB (A)

For Models: KS 5000E G, KS 7000, KS 7000E, KS 7000E G, KS 7000E-3, KS 7000E ATS, KS 7000E-3 ATS, KS 7000E-1/3
Noise: measured Lwa=93 dB (A), guaranteed Lwa= 95 dB (A)

For Models: KS 9000E G, KS 10000E, KS 10000E G, KS 10000E-3, KS 10000E ATS, KS 10000E-3 ATS, KS10000E-1/3
Noise: measured Lwa=94 dB (A), guaranteed Lwa= 96 dB (A)

Notification body, responsible for 2000/14/EC Noise Directive certificate issuing is TÜV Product Service, TÜV SÜD Certification and Testing (China) Co., Ltd. Shanghai Branch 3-13F, No. 151 Heng Tong Road Shanghai 200070, P.R.China Tel: (+86-21) 6141 0123; Fax: (+86-21) 6140 8600. Notification body number is 0036.

Notification body, responsible for 2006/42/EC Machinery Directive and 2014/30/EU Electromagnetic compatibility Directive (EMC) certificates issuing is Ente Certificazione Macchine Srl Via Ca' Bella, 243 – Loc. Castello di Serravalle – 40053 Valsamoggia (BO) - ITALY +39 051 6705141 +39 051 6705156 info@entecerma.it www.entecerma.it. Notification body number is 1282.



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Issued Date: 2023-01-30
Place of issue: Duesseldorf
General Director: Fomin P.

P. Fomin

DIMAX
 International
 GmbH
 Steuer-Nr.: 103 5722 2493
 USt-Id-Nr.: DE29617274

We DIMAX INTERNATIONAL GmbH hereby declare that specified above conforms covering European Parliament and Council Directives, 2006/42/EC of 17 May 2006 Machinery Directive, Electromagnetic compatibility Directive (EMC) 2014/30/EC of 26 February 2014, Noise Directive 2000/14/EC of 8 May 2000. The CE mark above can be used under the responsibility of manufacturer. After completion of an EC declaration of Conformity and compliance with all relevant EC directives.

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