

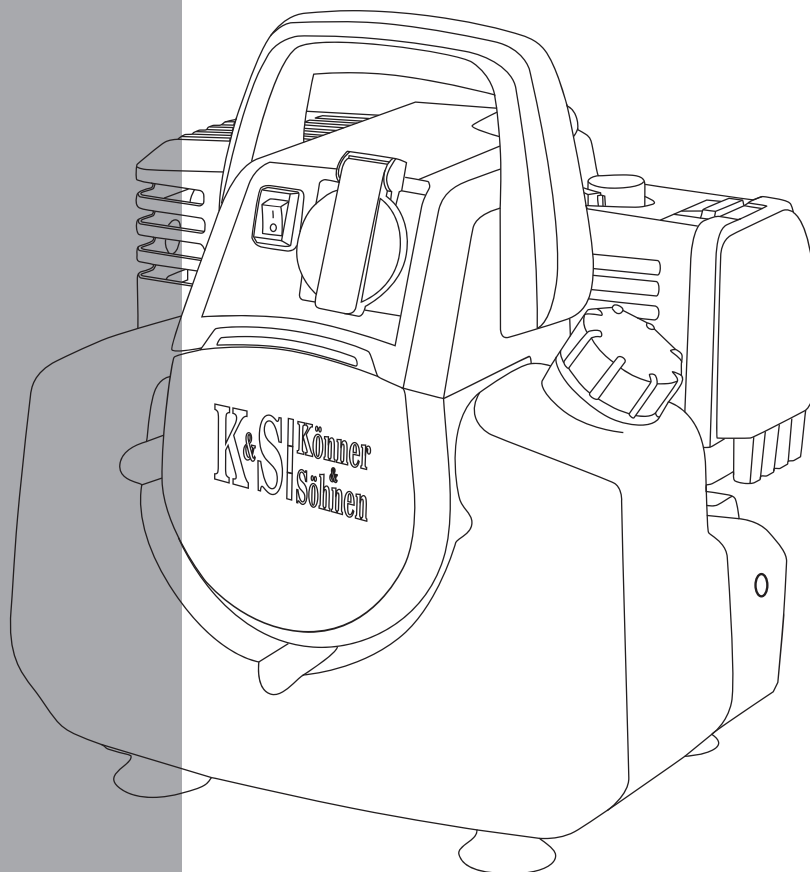
Please, read this manual
carefully before use!

Owner's manual



Inverter Generator

KS 1000i



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ABBREVIATIONS MEANING:

KS	Generator model
i	Inverter



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.

INTRODUCTION

We are grateful to you for your purchase of **TM 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.



ATTENTION - DANGER!



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

The current list of service centers you can find at the website of official importer:

www.ks-power.de

SAFETY INFORMATION

Carefully read this manual before you start to work with the generator

WORKING AREA

- 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 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 generator. If necessary, make sure to fencing the working area.

ELECTRICAL SAFETY

- The generator produces electricity that may lead to an electric shock while neglecting compliance regulations.
- 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.).
- Do not allow moisture in the generator. The water inside the device increases the risk of an electric shock.
- 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.
- 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.
- Insulate any damaged wires and connections.

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.
- Do not wear loose clothing or jewelry when working. Long hair, jewelry or loose clothing may get into the moving parts of the generator and cause an injury.
- Avoid inadvertent start. Make sure to set the switch to Off when you turn off the generator.
- Make sure no outsider objects are on the generator when it is turned on.
- Always keep a stable position and balance when starting the generator.
- Use safety equipment. Always wear non-slip sole shoes.
- Do not overload the generator, use it only for the purpose. Proper use of the generator will do the job for which it is designed better and safer.
- The device should be used as intended. Using the device for other purposes deprives the buyer generator right for free warranty. It is prohibited to sit and stand on the generator and to deal with the equipment improperly.
- To avoid inhaling exhaust gas, the generator does not have to work in conditions of poor ventilation. Exhaust gas contains poisonous carbon monoxide.



IMPORTANT!



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

GENERATOR USE AND MAINTENANCE

- Before you start before operating check, make sure that the generator is on a flat level surface and the engine switch is set to Off.
- Keep the generator in a dry, well ventilated place if you are not using it.
- Check the connection of moving parts, no damaged parts that affect the operation of the generator. If the generator is damaged, remove them before using.
- Use recommended oil and fuel only for repair and maintenance. Using other lubricants, spare parts and consumables deprives you of warranty apparatus.
- Servicing the generator should be carried out only by qualified personnel.
- When servicing the generator please follow all instructions in this manual.

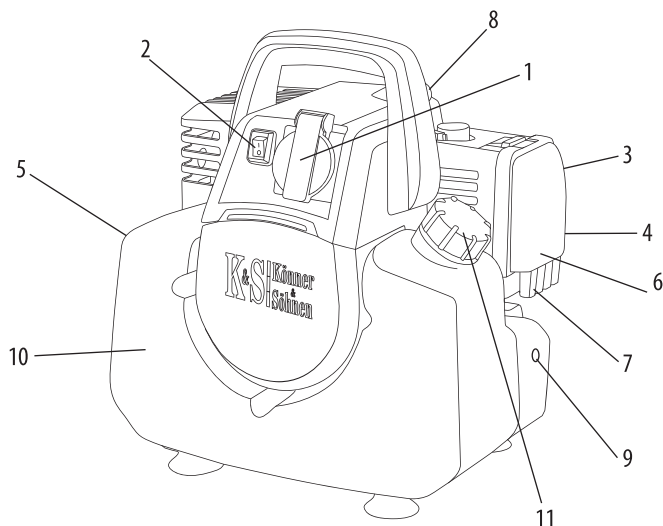


IMPORTANT!



The generator runs gasoline. Do not use diesel or kerosene as fuel.

MAIN OVERVIEW



- | | |
|----------------------|-----------------------|
| 1. 220W power socket | 7. Hand pump (primer) |
| 2. Engine switcher | 8. Spark plug |
| 3. Choke lever | 9. Work indicator |
| 4. Manual starter | 10. Fuel tank |
| 5. Earth terminal | 11. Fuel tank cap |
| 6. Air filter | |



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

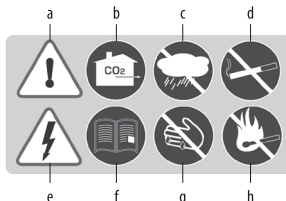
MODEL DESCRIPTION

Model	KS 1000i
Rated Frequency (Hz)	50
Rated Voltage (V)	230
Peak load (W)	1000
Rated Output Power (W)	800
Charging Current (A)	3,8
Engine power, hp	2
Engine model	KS 50i
Power Factor	1
Engine	Inverter
Displacement cm ³	42,7
Max Output Power, W	1,1
Fuel tank capacity, l	3
Noise level (7 m distance), dB (L _{WA})	95
Dimensions (L*W*H) (mm)	360x260x320
Weight (kg)	8,5
Protection class	IP23M
Acceptable deviation of a current is 5%	

SYMBOLS DESCRIPTION

K&S Könnert Söhne Model: KS 1000i INVERTER GENERATOR GENERATOR INVERTOROWY		CE USE ONLY A MIXTURE OF UNLEADED GASOLINE! Mix ratio of 50:1 (50 parts of fuel to 1 part of two stroke oil) Należy używać tylko mieszaniny benzyny bezolowiennej z olejem! Proporcja mieszni 50:1 (50 części paliwa do 1 części oleju do silników dwusuwowych)	
MAXIMUM POWER MOC MAKSYMALNA	1000W	POWER FACTOR WSPÓŁCZYNNIK MOCY	1.0
RATED POWER MOC NOMINALNA	800W	PROTECTED CLASS STOPNIEN OCHRONY	IP23M
VOLTAGE NAPIECIE	230V	WEIGHT WAGA	8.5 Kg
FREQUENCY CURRENT CZĘSTOTLIWOŚĆ	50Hz	YEAR OF ISSUE ROK PRODUKCJI	2017
AC RATED CURRENT PRĄD NOMINALNY AC	3.8A	S/N	

Specification table



Indicates the noise level at 7 m.

- Be careful when using the device! Follow safety rules listed in manual.
- Use the generator only in areas that are well ventilated, or on open areas. The exhaust gases contain CO₂, which are dangerous to life.
- Do not use or store the device in high humidity.
- Do not smoke when using the generator!
- The device generates electricity. Follow safety precautions to avoid electric shock.
- Carefully read the manual before using the device.
- Do not touch the generator with wet or dirty hands.
- Follow fire safety rules, do not use open flames near the generator.

INVERTER GENERATOR TERMS OF USE

When starting operating the generator, it's recommended to ground it. Before starting the unit, remember that the total power of consumers connected should not exceed the rated capacity of the generator.

TYPES OF CONSUMERS AND INRUSH CURRENT

Consumers (electrical devices connected to the generator) are divided into active and reactive ones. Active ones are those, which energy is converted into heat (heating devices).

Reactive are all consumers with electric motor. When you run the engine, starting currents occur briefly, the size of which depends on engine design and purpose. Please consider those starting currents when choosing a generator.

Most electric tools have starting current ratio 2-3. This means that when you turn such tools required generator power have 2-3 times more power load. The biggest factor of inrush current have such consumers as compressors, pumps, washing machines.

GENERATOR GROUND CIRCUIT

In order to prevent electric shock due to shoddy electrical appliances or wrong use of electricity, the generator must be grounded with a good-quality insulated conductor.

STARTING TO WORK

Before you start working with the generator please fill it with a mixture of gasoline and oil. **Use a mixture of oil and gasoline at a ratio of only 50:1 (2%)!** Provide adequate ventilation for the generator not to be overheated during the operation. Do not allow the leaking of gasoline and beware of fire and sparks.

TO ADD FUEL:

1. Remove the fuel cap.
2. Pour the mixture into the fuel tank with a funnel.
3. Tightly screw the fuel cap.



IMPORTANT!



Without adding oil to the gasoline engine overheats and piston may jam. You can use any oil from known manufacturers for 2-stroke engines with air cooling.

Ensure that the power tool or consumers meet **current capabilities of the generator** before starting the engine. It is prohibited to exceed its rated capacity. **Do not connect the device before starting the engine!**



IMPORTANT!



Oil pollutes land and groundwater. Do not allow the oil leaking.

The generator can be used with the rated output load at standard atmospheric conditions.

STANDARD ATMOSPHERIC CONDITIONS

Ambient temperature: 25°C

Barometric pressure: 100 kPa

Relative humidity: 30%

The output of the generator varies due to change temperature, altitude (lower air pressure at higher altitude) and humidity. The output of the generator is reduced when the temperature, the humidity and the altitude are higher than standard atmospheric conditions.

Additionally, the load must be reduced when using in a confined area, as generator cooling is affected.



IMPORTANT!



Do not change the configuration of the amount of fuel or speed controllers (this adjustment was made before the sale). Otherwise, there will be possible changes in the engine work or breakage.



ATTENTION - DANGER!



Generator in power supply mode in range from nominal to maximum should work no more than 30 seconds.

STARTING THE ENGINE

- Do not connect the generator to the load before you start the engine.
- Do not let the fuel mixture flow and do not use instruments to facilitate the launch.
- Provide ventilation and beware of fire and sparks.
- Put the engine switch in ON position.
- Press the hand pump 3-5 times. Press until gasoline starts to flow from a transparent plastic tube.
- Turn lever air flaps to position «CLOSE». **If the engine is warmed up, do not switch the air damper.**
- Slowly pull the starter cord until you feel a slight resistance. Then pull sharply to start the engine
- After starting the generator - heat the engine until it starts to work steadily with closed air dampers. Turn Lever air flaps in position «OPEN» (open).



ATTENTION - DANGER!



Compare connected consumers total power with generator output power. Do not connect the load in the first 3 minutes after starting the generator.

Ensure that the devices are in good condition before connecting them to the generator. If the connected device suddenly stopped working, immediately disconnect the device from the socket and check it out. Use fork connectors which are corresponding generator current load.

1. Start the generator and let it warm up.
2. Insert the plug into the socket.
3. Turn on the consumer.



ATTENTION - DANGER!



Electric shock can be fatal. Do not connect the generator to other electric systems (such as PSTN) and power generation systems (eg other plants).

COMMISSIONING

The generator is supplied without fuel. Before the operation please fill fuel mixture. Follow maintenance recommendations during the first month or twenty hours (whichever occurs first) contained in the «Maintenance» section.



IMPORTANT!



Do not connect the load with the capacity of more than 50% of the nominal (working) power unit during commissioning.

WORKING WITH THE DEVICE

GENERATOR TRANSPORTATION

Before you start to transfer the generator, please ensure to turn off the engine and give it some time to cool. Transport the generator with a handle, do not rush.

OPERATION INDICATOR

Once the generator is working in the normal mode, output voltage light is green. In case of overload indicator lights red. After 2 minutes working in overload mode, protection device switches on and turns off the power generation to protect the connected electrical equipment and generator. In the event of a short circuit protection device immediately shuts off electricity. In both cases indicator is blinking red, but the engine does not stop.

Restart the engine to make the generator produce electricity again.



IMPORTANT!



In case the excessive amount of gasoline that has arisen through non-compliance startup creates difficulties when you first start the engine, unscrew the spark plug, completely open the air flaps and repeatedly pull the starter handle. Then tighten the spark plug in place to run the generator.

STOPPING THE ENGINE

Disconnect all the devices before stopping the generator (detach from the socket). Do not stop the generator, if there are connected devices. This may lead generator down! Avoid flammable and explosive substances placed close to the generator. Let the generator run without load several minutes before stopping it.

TO STOP THE ENGINE:

1. Disconnect all electric devices.
2. Let the generator run at no load for 3 minutes for alternator to be cooled.
3. Set the engine switch to position OFF.

TECHNICAL MAINTENANCE WORKS

Works, specified in "Technical maintenance" section, are to be regularly performed. If the generator user has no possibility to perform regular maintenance independently, it is necessary to address the official service center to registrate 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 not 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.

MANUAL COMPLIANCE

Technical maintenance, operation and Könnert & Söhne™ 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	First month or after 20 working hours	Before starting	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
Air filter	Cleaning	✓		✓			
	Changing				✓		
Sparking plug	Cleaning	✓			✓		
	Changing					✓	
Fuel tank	Checking level		✓				
	Cleaning						✓

- If the engine is often running in dusty or other harsh conditions, please clean the air filter every 10 hours. If necessary, it should be replaced every 25 operating hours.



ATTENTION - DANGER!



Stop the engine before servicing. Place the generator on a flat surface and remove the spark plug cap to prevent starting the engine. Do not run the engine in a poorly ventilated room or a closed room.

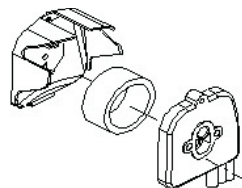
The working area should be well ventilated. Emission from the engine contain toxic CO, inhalation of which can cause shock, loss of consciousness and even death.

AIR FILTER TECHNICAL MAINTENANCE

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 top cover of the air filter.
2. Remove the sponge filter element.
3. The filter element thoroughly with in warm water with detergent.
4. Dry the filter sponge and put it back.



IMPORTANT!



Never run the engine without the air filter, this can lead to increased wear of the piston and cylinder.

SPARK PLUG TECHNICAL MAINTENANCE

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 INSPECTION:

1. Remove the cap from the spark plug. Remove the spark plug by means of a corresponding spanner.
2. Examine the spark plug. Check for discoloration and remove the carbon.
3. Measure the gap. It has to be within range 0.7 – 0.8 mm.
4. Place the spark plug in its place by means of a spark plug spanner.
5. Put back the spark plug cap.

GENERATOR STORAGE

Storage room has to be dry and free from dust deposits. Storage room also has to be locked away from children.



IMPORTANT!



Generator should always remain ready for operation. Therefore in case of device malfunctions, they have to be repaired before dismantling the generator for storage.

PROLONGED GENERATOR STORAGE

If you do not plan to use the generator for a long time, we recommend:

- To drain the fuel.
- Pull the manual starter until you feel the light resistance so that the inlet and outlet windows are closed.
- Clean the generator from dirt and dust.

When starting the generator after long storage, follow all procedures mentioned in Commissioning chapter.

POSSIBLE FAILURES AND SOLUTIONS

Typical failures	Possible reason	Solution
Engine does not start	Engine starting swinch set to OFF position	Set the engine starting switch to ON
	No fuel	Add fuel
Low engine power / heavy starting	Dirt in fuel tank	Clean the fuel tank
	Dirt in the air filter	Clean the air filter
Engine is overheated	The generator is placed in a poorly ventilated area or under direct sunlight rays	Place the generator to another location
	Dirt in the air filter	Clean the air filter
No voltage while engine is working	Generator protection has been activated	Restart the engine
	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 ocured 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

AVERAGE POWER USAGE

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

WARRANTY SERVICE TERMS

WARRANTY POLICY

Warranty period starts since the day of unit sales and constitutes 1 year for petroleum-powered generators. 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.

NOTES

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

The current list of service centers you can find at the website of official importer:

www.ks-power.de



EC Declaration of Conformity

Nr. 010

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 , Low Voltage Directive 2006/95/EC , Electromagnetic compatibility directive (EMC) 2004/108/EC , Noise Directive 2000/14/EC

Manufacturer: DIMAX INTERNATIONAL GmbH
Address: Hauptstr. 134, 51143 Cologne, Germany
Product: Inverter generator „Könner & Söhnen”
Type/Model: KS 1000i

The statement is based on a single evaluation of one sample 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
2006/95/EU Low Voltage Directive
2004/108/EC Electromagnetic compatibility Directive (EMC)
2000/14/EC Noise Directive

Applied Standards: EN 12601:2010, EN 1679-1:1998+A1:2011,
EN 60204-1:2006+A1:2009+AC:2010
EN 55012:2007+A1
EN 61000-6-1:2007
EN ISO 3744:1995
ISO 8528 -10: 1998

For model KS 1000i

Noise: measured $L_{WA} = 93$ dB(A), guaranteed $L_{WA} = 95$ dB(A)



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DIMAX
International
GmbH

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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 and 2006/95/EC Low Voltage Directive of 26 February 2014 , 2004/108/EC Electromagnetic compatibility directive (EMC) of 15 December 2004 ,2000/14/EC Noise Directive 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.