metallkraft
Metallbearbeitungsmaschinen

Operating instructions

Metal belt sander

- MBSM 75-201-1, MBSM 75-203-1, MBSM 75-203-2 MBSM
- 75-203-2 AS, MBSM 75-240-1, MBSM 75-240-2 MBSM
- 75-240-2 AS, MBSM 100-140-1, MBSM 100-140-2 MBSM
- 150-203-2, MBSM 150-203-2 AS
- MBSM 150-240-2, MBSM 150-240-2 AS

MBSM 100-140-2 / 400 V

MBSM 150-240-2 / 400V

MBSM 150-240-2 AS / 400V

MBSM-SERIE

imprint

Product identification

Metal belt sander	Article number
MBSM 75-201-1 / 230V	3925271
MBSM 75-203-1 / 400V	3925272
MBSM 75-203-2 / 400V	3925273
MBSM 75-203-2 AS / 400V	3925274
MBSM 75-240-1 / 230V	3923271
MBSM 75-240-1 / 400V	3923272
MBSM 75-240-2 / 400V	3923273
MBSM 75-240-2 AS / 400V	3923274
MBSM 100-140-1 / 230V	3923141
MBSM 100-140-2 / 400V	3923142
MBSM 150-203-2 / 400V	3925315
MBSM 150-203-2 AS / 400V	3925316
MBSM 150-240-2 / 400V	3923315
MBSM 150-240-2 AS / 400V	3923316

Manufacturer

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Information on the operating instructions

Original operating instructions

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Copyright information

Contents

1 Introduction

By purchasing the machine from METALLKRAFT you have made a good choice.

Please read the operating instructions carefully before commissioning.

This provides information on proper commissioning, intended use, and safe and efficient operation and maintenance of the machine.

The operating instructions are an integral part of the machine. They must always be kept at the machine's place of use. In addition, the local accident prevention regulations and general safety regulations for the area of application of the machine apply.

Illustrations in this operating manual are for general understanding purposes only and may differ from the actual design.

1.1 Copyright

The contents of this manual are protected by copyright. Their use is permitted within the scope of the belt sander's operation. Any other use is prohibited without the written permission of the manufacturer.

We register trademark, patent, and design rights to protect our products, wherever possible. We vigorously oppose any infringement of our intellectual property.

1.2 Customer service

If you have any questions about your machine or require technical information, please contact your authorized dealer. They will be happy to provide you with expert advice and information.

Germany:
Stürmer Maschinen GmbH
Dr.-Robert-Pfleger-Str. 26
D-96103 Hallstadt

Repair service:
Fax: 0951 96555-111
E-mail: service@stuermer-maschinen.de

Ordering spare parts:
Fax: 0951 96555-119
E-mail: ersatzteile@stuermer-maschinen.de

We are always interested in information and experiences that arise from use and can be valuable for improving our products.

1.3 Limitation of liability

All information and instructions in the operating instructions have been compiled taking into account the applicable standards and regulations, the state of the art and our many years of knowledge and experience.

The manufacturer assumes no liability for damages in the following cases:

- Failure to follow the operating instructions,
- Improper use,
- Use of untrained personnel,
- Unauthorized modifications,
- Technical changes,
- Use of unauthorized spare parts.

The actual scope of delivery may differ from the explanations and illustrations described here in the case of special designs, the use of additional ordering options or due to the latest technical changes.

The obligations agreed in the supply contract, the general terms and conditions as well as the delivery conditions of the manufacturer and the legal regulations valid at the time the contract is concluded apply.

2 Security

This section provides an overview of all important safety packages for the protection of personnel and for safe and trouble-free operation. Further task-specific safety instructions are included in the individual chapters.

2.1 Explanation of symbols

Safety instructions

Safety instructions in this manual are marked with symbols. The safety instructions are introduced by signal words that express the extent of the hazard.

DANGER!

This combination of symbol and signal word indicates an immediately dangerous situation which, if not avoided, will result in death or serious injury.

WARNING!

This combination of symbol and signal word indicates a potentially dangerous situation which, if not avoided, will result in death or serious injury.

CAUTION!

This combination of symbol and signal word indicates a potentially dangerous situation which, if not avoided, may result in minor or light injuries.

DANGER!

This combination of symbol and signal word indicates a potentially dangerous situation which, if not avoided, could result in property damage and environmental damage.

A NOTICE!

This combination of symbol and signal word indicates a potentially dangerous situation which, if not avoided, could result in property damage and environmental damage.

Tips and recommendations

This symbol highlights useful tips and recommendations as well as information for efficient and trouble-free operation.

To reduce the risk of personal injury and property damage and to avoid dangerous situations, the safety instructions contained in this operating manual must be observed.

2.2 Operator’s responsibility

The operator is the person who operates the machine himself for commercial or economic purposes or who makes it available to a third party for use or application and who bears legal product responsibility for the protection of the user, personnel or third parties during operation.

Operator’s obligations:

If the machine is used in a commercial setting, the operator is subject to legal obligations regarding occupational safety. Therefore, the safety instructions in this manual, as well as the safety, accident prevention, and environmental protection regulations applicable to the machine's area of use, must be observed. The following applies in particular:

- The operator must familiarize himself with the applicable occupational health and safety regulations and, in a risk assessment, identify additional hazards arising from the specific working conditions at the machine's location. These must be implemented in the form of operating instructions for the machine.
- The operator must check throughout the entire service life of the machine whether the operating instructions he has drawn up comply with the current regulations and adapt them if necessary.
- The operator must clearly regulate and define the responsibilities for installation, operation, troubleshooting, maintenance and cleaning.
- The operator must ensure that all persons handling the machine have read and understood these instructions. Furthermore, the operator must train personnel at regular intervals and inform them of the hazards involved.
- The operator must provide the necessary protective equipment to the personnel and instruct them to wear the necessary protective equipment.

Furthermore, the operator is responsible for ensuring that the machine is always in perfect technical condition. Therefore, the following applies:

- The operator must ensure that the maintenance intervals described in this manual are observed.
- The operator must have all safety devices checked regularly for functionality and completeness.

2.3 Qualifications of staff

The various tasks described in this manual place different demands on the qualifications of the persons entrusted with these tasks.

WARNING!

Danger if people are not sufficiently qualified!

Insufficiently qualified persons cannot assess the risks involved in operating the machine and expose themselves and others to the risk of serious or fatal injuries.

- Have all work carried out only by qualified persons.

- Keep insufficiently qualified persons away from the work area.

Only persons who can be expected to perform the work reliably are permitted to perform any work. Persons whose reaction time is impaired, for example, by drugs, alcohol, or medication are not permitted.

In this operating manual, the qualifications of the persons for the various tasks are listed below:

Operator:

The operator has been instructed by the owner about the tasks assigned to him and the potential dangers associated with improper use. The operator may only perform tasks that go beyond normal operation if specified in these operating instructions and if the owner has expressly authorized him to do so.

Electrician:

Due to their professional training, knowledge and experience as well as knowledge of the relevant standards and regulations, the qualified electrician is able to carry out work on electrical systems and to independently identify and avoid potential hazards.

Specialist staff:

Due to their professional training, knowledge and experience as well as knowledge of the relevant standards and regulations, the specialist personnel are able to carry out the work assigned to them and to independently identify possible dangers and avoid hazards.

Manufacturer:

Certain work may only be performed by the manufacturer's qualified personnel. Other personnel are not authorized to perform this work. Please contact our customer service department to have the required work performed.

2.4 Personal protective equipment

Personal protective equipment is designed to protect people from adverse health and safety risks at work. Personnel must wear personal protective equipment while performing various tasks on and with the device, as specifically indicated in the individual sections of this manual.

The following section explains personal protective equipment:

Respiratory protection

Respiratory protection is used to protect the respiratory tract and lungs from the ingestion of dust particles.

Eye protection

The safety goggles protect the eyes from flying debris and liquid splashes.

Hearing protection

Hearing protection protects the ears from hearing damage caused by noise.

Head protection

The industrial helmet protects the head from falling objects and collisions with stationary objects.

protective gloves

The protective gloves protect the hands from sharp-edged components, as well as from friction, abrasions or deeper injuries.

Safety shoes

The safety shoes protect the feet from crushing, falling objects and slipping on slippery surfaces.

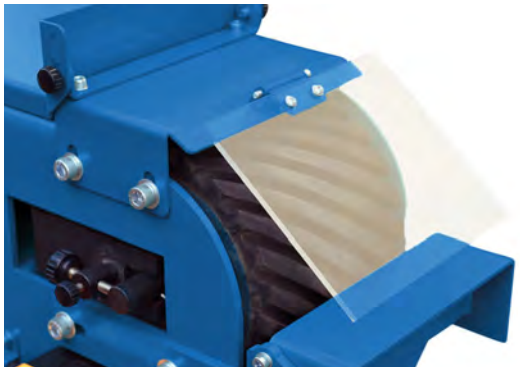
protective work clothing

The protective work clothing is tight-fitting clothing with low tear resistance.

2.5 Safety devices

protective screen

To protect against flying sparks, a protective disc is attached to the housing above the contact wheel.



To protect against overload, the machine is equipped with a motor protection

Fig. 2: Motor protection switch

Emergency stop button

Pressing the emergency stop button (Fig. 3) immediately stops the machine. After pressing the emergency stop button, it must be unlocked by turning it to allow it to be restarted.

Fig. 3: Emergency stop button

2.6 Safety markings on the belt grinder

The following safety markings are attached to the belt grinder (Fig. 1), which must be observed and followed.

Fig. 4: Safety markings

The safety signs attached to the machine must not be removed. Damaged or missing safety signs can lead to incorrect operation, personal injury, and property damage. They must be replaced immediately.

If the safety signs are not immediately visible and understandable, the machine must be taken out of service until new safety signs have been installed.

2.7 Safety data sheets

Safety data sheets for dangerous goods are available from your specialist dealer or by calling +49 (0)951/96555-0.

Specialist retailers can find safety data sheets in the download area of the partner portal.

2.8 General safety instructions

A NOTICE!

The machines are designed to meet general safety requirements. Please always observe the relevant accident prevention regulations. In case of doubt, consult the technical supervisor.

DANGER!

Before starting, using, maintaining, or performing any other work on the machine, the operating and maintenance instructions must be read carefully. Only persons who are thoroughly familiar with its operation and functioning are permitted to handle and operate the machine.

- When working with the machine, never put your hands near rotating parts!
- Do not remove the sharp-edged chips by hand; use a hand brush or chip hook!
- Use the safety guards and fasten them securely. Never work without them and keep them in working order. Check that they are working properly before starting work.
- Always keep the machine and its working area clean. Ensure adequate lighting.
- Always secure your workpiece with suitable clamping devices when working. Ensure a sufficient support surface.
- The design of the machine must not be modified and it must not be used for purposes other than those intended by the manufacturer.
- Never work under the influence of illnesses that impair concentration, overtiredness, drugs, alcohol or medication.
- Remove tool keys and other loose parts from the machine after assembly or repair before switching it on.
- Observe all safety and hazard warnings on the machine and keep them in perfect, legible condition
- Keep children and people unfamiliar with the machine away from your work area, the machine and tools.
- The machine may only be used, equipped and maintained by persons who are familiar with it and are informed about the hazards.
- Always turn off the machine during maintenance, setup, and repair work! Also unplug the power cord or disconnect the machine from the power supply!
- Do not pull on the power cord to remove the plug from the socket.
- Protect the cable from heat, oil and sharp edges.
- Make sure that the main switch is in the "OFF" position when connecting the machine to the power supply to avoid accidental switching on.
- Wear close-fitting work clothing, safety goggles, safety shoes, and hearing protection. Tie back long hair. Do not wear watches, bracelets, necklaces, rings, or gloves while working (rotating parts!).
- Wear a dust mask in dusty working conditions.
- Wear a face mask.
- Ensure you have a secure footing and adequate balance while working. Never work while bent over; always stand upright.
- Read the instructions carefully. Familiarize yourself with the tool's possible uses, limitations, and potential hazards.
- The machine must be earthed.
- Risk of fire if the engine is not adequately ventilated.
- Immediately eliminate any faults that affect safety.
- Never leave the machine running unattended and remain with the machine until it has come to a complete stop. Then unplug the power cord to prevent accidental restart.
- Protect the machine from moisture (risk of short circuit!).
- Maintain your tools carefully. Work is best done with clean and sharp tools.
- Follow the instructions for lubrication and replacement of spare parts.
- Never use power tools and machines in the presence of flammable liquids and gases (risk of explosion!).
- Before each use of the machine, make sure that no parts are damaged. Damaged parts must be replaced immediately to avoid potential hazards!
- Do not overload the machine! You will work better and more safely within the specified power range.

- Use the correct tools! Make sure the tools are not blunt or damaged.

- The workpiece may only come into contact with the sanding belt after it has been switched on.

- Protruding parts such as stop plates, handles, etc. must be secured in such a way that people are not endangered.
- Keep hands away from rotating parts.
- This machine is not suitable for wet sanding. Never use water on the workpiece surface or on the sanding belt.
- Use only original spare parts and accessories to avoid possible dangers and accidents.

3 Intended Use

The machine is designed for grinding angular metal and metal-like workpieces.

The machine is universally applicable for schools, craft businesses, workshops and for do-it-yourselfers, but not for industrial use.

Proper use also includes compliance with all information in this manual. Any use beyond the intended use or any use other than that specified is considered misuse.

A NOTICE!

Unauthorized modifications to the machine or improper use of the machine as well as disregard of the safety regulations or the operating instructions exclude the manufacturer's liability for resulting damage to persons or objects and result in the expiration of the warranty claim!

WARNING!

Severe injuries due to improper use.

Modifications and changes to the metal belt grinder are prohibited.
They endanger people and can cause damage to the metal belt grinder.

If used improperly

- dangers to people may arise,
- the metal belt grinder and other material assets may be endangered,
- the function of the metal belt grinder may be impaired.

Stürmer Maschinen GmbH assumes no liability for design and technical changes to the metal belt grinding machine.

Claims of any kind for damages due to improper use are excluded.

3.1 Foreseeable misuse

- Processing workpieces that are too large or heavy.
- Machining of workpieces that are not fixed or not sufficiently fixed.
- Grinding of flammable materials (e.g. magnesium, wood, etc.).

3.2 Residual risks

- Touching rotating parts or tools
- Injuries caused by flying workpieces or workpiece parts
- Touching live parts
- Tearing of the sanding belt due to faulty tension

- Hearing impairment when working for long periods without hearing protection

4 Technical data

4.1 Table

Model MBSM	75-201-1	75-240-1	75-240-2	100-140-1	100-140-2	150-240-2
Length [mm]	980	1000	1000	640	640	1000
Width / Depth [mm]	460	500	500	450	450	570
Height [mm]	1100	1150	1150	420	420	1150
Weight [kg]	83	82	82	39	39	98
Connection voltage [V]	230	230 / 400	400	230	400	400
Drive motor power [kW]	3.3	3.3	3/4	1.5	1/1.5	3/4
Graphite coating length [mm]	495	495	495	285	285	495
Graphite coating width [mm]	75	75	75	100	100	150
Graphite coating thickness [mm]	2	2	2	2	2	2
Grinding width max. [mm]	75	75	75	100	100	150
Drive wheel diameter [mm]	200	240	240	140	140	240
Contact wheel diameter [mm]	200	200	200	127	127	200
Sanding belt length [mm]	2000	2000	2000	1220	1220	2000
Sanding belt width [mm]	75	75	75	100	100	150
Belt rotation speed(s) [m/s]	30	36	18/36	20	10.20	18/36
Nominal diameter of the suction nozzle outside [mm]	2x100	2 x 100	2 x 100	2 x 75	2 x 75	2 x 100
Emission sound pressure level at the workplace Lp (idle without extraction) [dB(A)]	87	87	87	87	87	87
Protection class	IP54	IP43	IP43	IP43	IP43	IP43

Model MBSM	75-203-1	75-203-2	75-203-2-AS	75-240-2 AS	150-203-2	150-203-2 AS	150-240-2 AS
Length [mm]	980	980	980	1000	955	955	1010
Width / Depth [mm]	460	460	460	470	530	530	560
Height [mm]	1100	1100	1100	1140	1025	1025	1140
Weight [kg]	83	83	98	97	99	114	113
Connection voltage [V]	400	400	400	400	400	400	400
Drive motor power [kW]	3.3	2.5/3.3	2.5/3.3	3/4	2.5/3.3	2.5/3.3	3/4
Graphite coating length [mm]	495	495	495	495	495	495	495
Graphite coating width [mm]	75	75	75	75	150	150	150
Graphite coating thickness [mm]	2	2	2	2	2	2	2
Grinding width max. [mm]	75	75	75	75	150	150	150

Model MBSM	75-203-1	75-203-2	75-203-2-AS	75-240-2 AS	150-203-2	150-203-2 AS	150-240-2 AS
Drive wheel diameter [mm]	200	200	200	240	200	200	240
Contact wheel diameter [mm]	200	200	200	200	200	200	200
Sanding belt length [mm]	2000	2000	2000	2000	2000	2000	2000
Sanding belt width [mm]	75	75	75	75	150	150	150
Belt rotation speed(s) [m/s]	30	30/15	30/15	36/18	30/15	30/15	36/18
Nominal diameter of the suction nozzle outside [mm]	2x100	2x100	2x100	2x100	2x100	2x100	2x100
Emission sound pressure level at the workplace Lp (idle without extraction) [dB(A)]	87	87	87	87	87	87	87
Protection class	IP54	IP54	IP54	IP54	IP54	IP54	IP54

4.2 Noise level

The noise level of the belt sander is
87 dB(A), measured according to the applicable regulations of the professional association.

WARNING!

It should be noted that the duration of noise exposure, the type and condition of the work area and other machines that are in operation at the same time all influence the noise level in the workplace.

4.3 Nameplate

Fig. 5: Type plate

5 Transport and packaging

5.1 Delivery and transport

Upon delivery, inspect the machine for visible transport damage. Any damage should be reported immediately to the shipping company or dealer. The belt sander is delivered on a pallet. This pallet can also be used as an internal transport base.

transport

WARNING!

Danger to life from falling load!

If the weight of the device is not taken into account during transport, the machine may tip over.

The machine may only be transported upright and with the engine switched off.

Improper transport is prone to accidents and can cause damage or malfunctions to the machine, for which we assume no liability or guarantee.

Transport the delivery contents to the installation site using a sufficiently dimensioned industrial truck or a crane, ensuring they cannot shift or tip over.

WARNING!

Severe to fatal injuries can occur if machine parts tip over or fall from a forklift, pallet truck, or transport vehicle. Observe the instructions and information on the transport crate.

Please note the total weight of the machine. The weight of the machine is specified in the "Technical Data" of the machine. When the machine is unpacked, the weight can also be read on the rating plate.

Only use transport equipment and load lifting devices that can support the total weight of the machine.

WARNING!

Severe to fatal injuries can occur due to damaged or inadequately rated lifting equipment and load-slinging devices that break under load. Check the lifting equipment and load-slinging devices for sufficient load-bearing capacity and proper condition.

Observe the accident prevention regulations of the professional association responsible for your company or other supervisory authorities.

Secure the loads carefully.

A NOTICE!

Protect the belt sander from moisture.

General hazards during internal transport

WARNING TIPPING HAZARD

The machine may be lifted unsecured by a maximum of 2 cm.

Employees must be outside the danger zone, the reach of the load.

Warn employees and inform them of the hazard.

Machines may only be transported by authorized and qualified personnel. Act responsibly during transport and always consider the consequences. Avoid daring and risky actions.

Particularly dangerous are inclines and declines (e.g., driveways, ramps, etc.). If driving on such sections is unavoidable, special caution is required.

Before starting the transport, check the transport route for possible hazards, unevenness

ities and defects as well as sufficient strength and load-bearing capacity.

Hazardous areas, unevenness, and disruptions must be inspected before transport. The removal of hazardous areas, unevenness, and disruptions by other employees during transport poses significant risks.

Careful planning of internal transport is therefore essential.

Transport with a forklift/pallet truck:

For shipping, the device is mounted firmly on a pallet so that it can be transported with a forklift or pallet truck.

5.2 Packaging

All packaging materials and packaging aids used in the device are recyclable and must be recycled.

Cardboard packaging components must be shredded and disposed of as waste paper.

The films are made of polyethylene (PE), and the padding is made of polystyrene (PS). These materials must be disposed of at a recycling center or with the responsible waste disposal company.

5.3 Storage

Store the metal belt grinder thoroughly cleaned in a dry, clean, and frost-free environment. Cover the machine with a protective tarpaulin and ensure that it cannot be operated by unauthorized persons.

6 Device description

6.1 Representation

Illustrations in this operating manual are for general understanding purposes only and may differ from the actual design.

6.1.1 MBSM 100-140-1 and MBSM 100-140-2

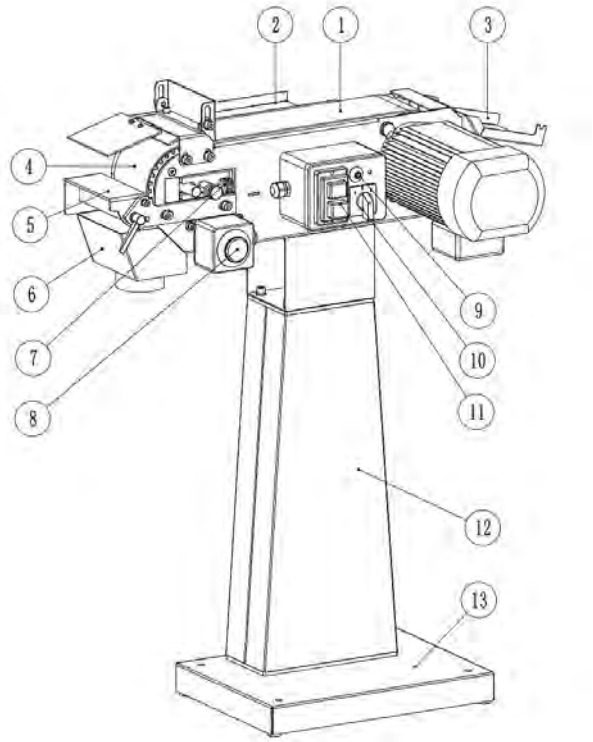


Fig. 6: Device description MBSM 100-140-1 and MSBM 100-140-2

1 Planing table with sanding belt

2 Protective cover

3 Protective cover

4 sanding rollers

5 Support surface for workpiece 6

Dust collection container

7 Sanding belt adjustment 8

Emergency stop button

9 Motor protection switch

10 Speed switch 11 On / Off switch

12 Substructure

13 Base plate with anchoring holes

6.1.2 MBSM 75-240-1, MBSM 75-240-2, MBSM 150-240-2, MBSM 75-201-1, MBSM 75-203-1, MBSM 75-203-2, MBSM 150-203-2

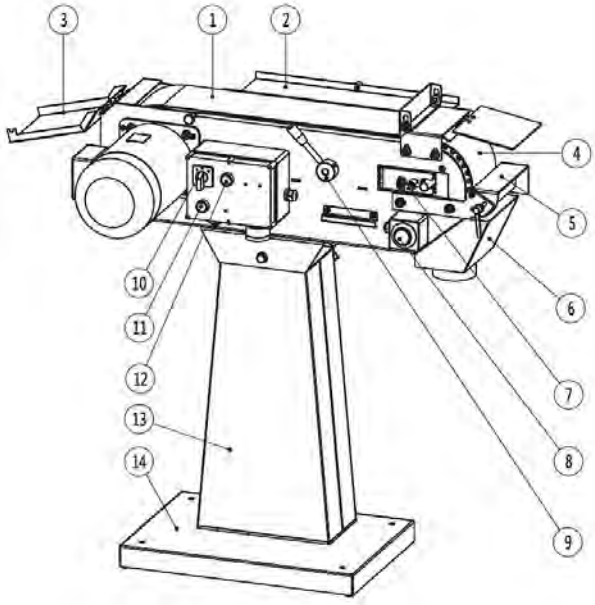


Fig. 7: Device description MBSM 75-240-1, MBSM 75-240-2, MBSM 150-240-2, MBSM 75-201-1, MBSM 75-203-1, MBSM 75-203-2, MBSM 150-203-2

1 Planing table with sanding belt

2 Protective cover

3 Protective cover

4 sanding rollers

5 Support surface for workpiece 6

Dust collection container

7 Sanding belt adjustment 8

Emergency stop

9 Sanding belt adjustment

10 Speed switch 11 Stop button

12 Start button

13 Substructure

14 Base plate

6.1.3 MBSM 75-203-2 AS, MBSM 150-203-2 AS, MBSM 75-240-2 AS, MBSM 150-240-2 AS

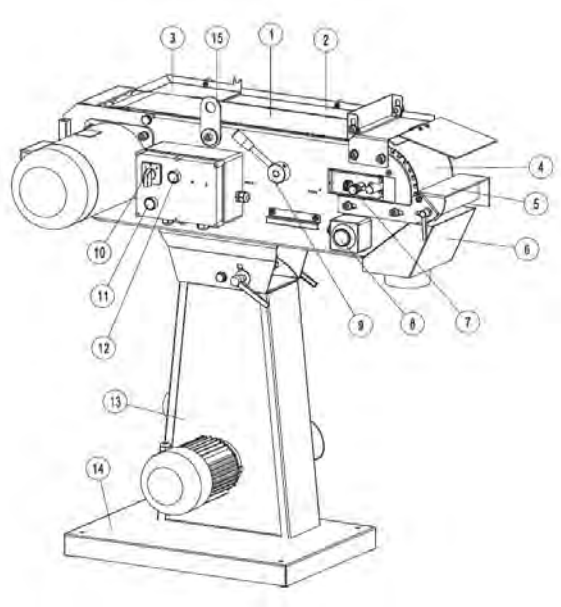


Fig. 8: Device description MBSM 75-203-2 AS, MBSM 150-203-2 AS, MBSM 75-240-2 AS, MBSM 150-240-2 AS

1 Planing table with sanding belt

2 Protective cover

3 Protective cover

4 sanding rollers

5 Support surface for workpiece 6

Dust collection container

7 Sanding belt adjustment 8

Emergency stop

9 Sanding belt adjustment

10 Speed switch 11 Stop button

12 Start button

13 Substructure

14 Base plate

15 Extractor motor

A NOTICE!

To ensure a secure stand, we recommend that you secure the machine to a stable, level surface (preferably concrete) using the holes provided in the machine base.

A NOTICE!

Thoroughly clean bare metal parts. Use common solvents. Do not use water!

6.1.4 MBSM 100-140-1 and 100-140-2

Assemble the metal belt grinder with the following steps:

Step 1: Unpack the machine and check for completeness and check for damage.

Step 2: Metal belt grinder with the help of a second person lift it onto the base frame.

Step 3: Base frame and base plate using the 8 Mount screws on the metal belt sander.

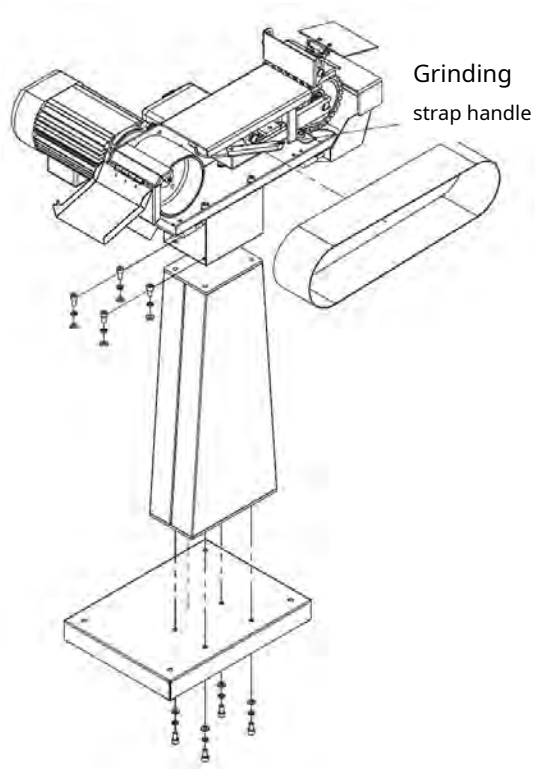


Fig. 9: Installation of MBSM 100-140-1 and 100-140-2

Step 4: Sanding belt in the metal belt sander insert and tighten.

Step 5: Close the side protective cover.

Step 6: Using steel bolts, secure the machine Attach the 4 fixing points in the base plate to the floor.

6.1.5 MBSM 75-240-1, MBSM 75-240-2, MBSM 150-240-2, MBSM 75-201-1, MBSM 75-203-1, MBSM 75-203-2, MBSM 150-203-2

Assemble the metal belt grinder with the following steps:

Step 1: Unpack the machine and check for completeness and check for damage.

Step 2: Metal belt grinder with the help of a second person lift it onto the base frame.

Step 3: Base frame and base plate using the 8 Mount screws on the metal belt sander.

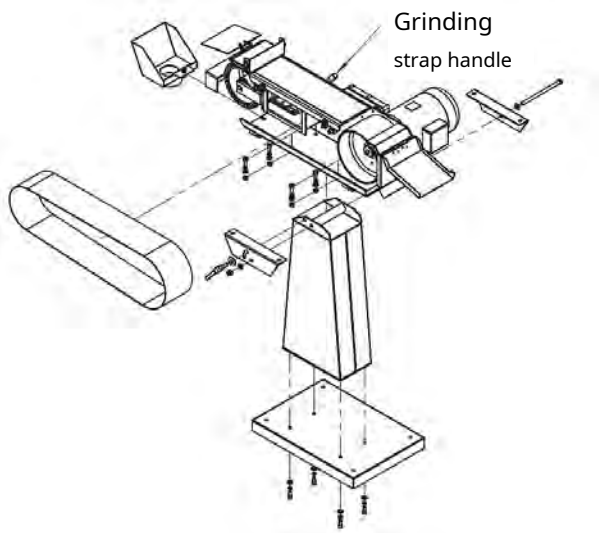


Fig. 10: Assembly MBSM 75-240-1, MBSM 75-240-2, MBSM 150-240-2, MBSM 75-201-1, MBSM 75-203-1, MBSM 75-203-2, MBSM 150-203-2

Step 4: Sanding belt in the metal belt sander insert and tighten.

Step 5: Close the side protective cover.

Step 6: Using steel bolts, secure the machine Attach the 4 fixing points in the base plate to the floor.

6.1.6 MBSM 75-203-2 AS, MBSM 150-203-2 AS, MBSM 75-240-2 AS, MBSM 150-240-2 AS

Assemble the metal belt grinder with the following steps:

Step 1: Unpack the machine and check for completeness and check for damage.

Step 2: Metal belt grinder with the help of a second person lift it onto the base frame.

Step 3: Base frame and base plate using the 8 Mount screws on the metal belt sander.

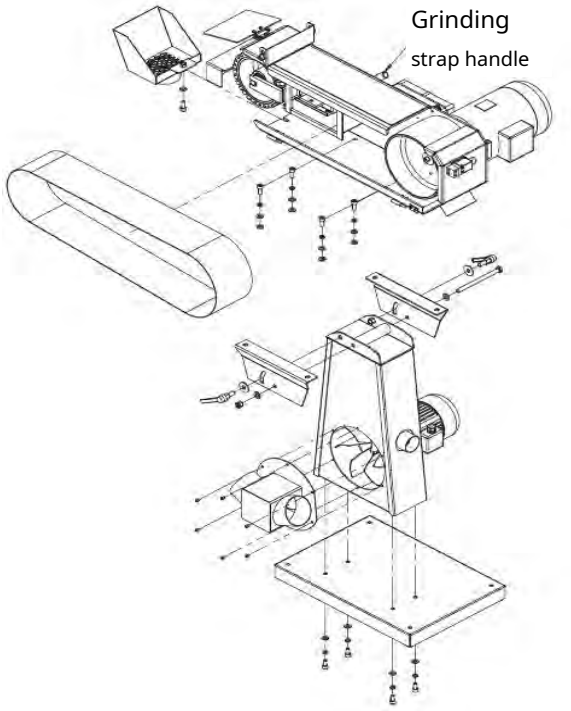


Fig. 11: Assembly MBSM 75-203-2 AS, MBSM 150-203-2 AS, MBSM 75-240-2 AS, MBSM 150-240-2 AS

Step 4: Sanding belt in the metal belt sander insert and tighten.

Step 5: Close the side protective cover.

Step 6: Using steel bolts, secure the machine Attach the 4 fixing points in the base plate to the floor.

6.2 Electrical connection

DANGER!

Danger of death from electric shock!

Contact with live components is life-threatening. Live electrical components can perform uncontrolled movements and cause serious injuries.

- Unplug the machine before making any adjustments.

DANGER!

The machine is delivered without a power plug. The electrical connection to the power supply and the installation of the power plug may only be carried out by a qualified electrician.

Only use the metal belt grinder in a dry environment. Only operate the metal belt grinder with a power supply that meets the following requirements:

- the mains voltage and frequency of the power supply must correspond to the information on the type plate.
- Machines with 400 V voltage must be protected with a 16 A fuse.
- Protection with a residual current device (RCD).

- Use of a protective contact socket (properly earthed socket).
- Position the power cable so that it does not interfere with operation and cannot be damaged.
- Protect the power cord from heat, aggressive liquids and sharp edges.

Check motor rotation direction 400 V models

After connecting the electrical system, check that the grinding belt's rotation direction corresponds to the direction indicated on the plate. If the rotation direction is incorrect, the phase cable connections must be replaced.

When equipped with a phase inverter:
Press the disc into the plug with a screwdriver and turn it 180°.

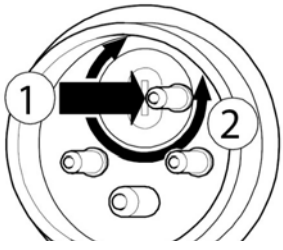


Fig. 12: Motor-D

DANGER!

Incorrect rotation direction can result in injury. Only switch the machine on briefly to determine the correct rotation direction (if possible without the workpiece).

7 Operation

7.1 General

DANGER!

Rotating parts! Wear tight-fitting clothing. Make sure that your hair or clothing does not get caught in rotating parts! Wear a hairnet. Do not wear jewelry while operating the machine.

DANGER!

Risk of injury!

Flying chips and ejected debris! Be sure to wear safety goggles! Protect your eyes from flying chips and other debris.

The following checks must be carried out before starting any work:

- Check all cables and connectors.
- Check that the workpiece supports are aligned and tightened.
- Please note that there are different grits of abrasives for different jobs.

- Before starting the machine, make sure that the sanding belt can rotate freely and is not slowed down or blocked by any workpieces.

- Lubricate the machine regularly according to the maintenance section
- Before commissioning, check that the sanding belt is running in the center!
- Check belt tension!

7.2 Grinding on the surface grinding table

Step 1: Connect the machine to the power supply.

Step 2: Open the top protective cover.

Step 3: Check that the emergency stop switch is unlocked.

Step 4: Machine by pressing the START button turn on.

Step 5: Adjust the sanding belt speed.

Step 6: Place the workpiece on the surface grinding table and slowly guide it against the sanding belt.

Step 7: Belt sander after completion of the work Turn off the work by pressing the STOP button.

Step 8: Close the protective cover and plug in the power cord pull.

The lifespan of a new sanding belt is significantly extended if you sand with light pressure.

DANGER!

Don't apply too much pressure, as this will cause the sanding belt to wear out too quickly. Avoid letting your fingers come into contact with the sanding belt.

7.3 Grinding on the workpiece support

Step 1: Connect the machine to the power supply.

Step 2: Close the top protective cover.

Step 3: Check that the emergency stop switch is unlocked.

Step 4: Machine by pressing the START button turn on.

Step 5: Adjust the sanding belt speed

Step 6: Place the workpiece on the support. The workpiece Slowly guide the piece against the sanding belt with both hands and hold it firmly.

Step 7: Belt sander after completion of the work Turn off the work by pressing the STOP button.

Step 8: Unplug the power cord.

DANGER!

The edge of the workpiece supports must be positioned so that there is a maximum distance of 1 mm to the sanding belt to prevent workpieces or fingers from becoming trapped between the table and the sanding belt.

8 Instructions for the grinding process

When grinding, pay attention to the safety instructions and use the protective devices on the machine as well as your personal protective equipment (safety glasses, hearing protection, safety shoes, etc.).

Special information on situations that may cause damage to persons, the machine and/or the environment or lead to financial loss:

- Make sure the gap between the work table and the sanding belt isn't set too large. Especially with thin workpieces, there's a risk of the workpiece being pulled into the gap!

- Since the machine does not have any clamping facility, it is important that your workpiece rests on the work table with as much surface area as possible and can be held in place!
- Ensure that your abrasives are in good condition and replace worn-out abrasives promptly. Only with flawless tools can you achieve good sanding quality!

9 Care, maintenance and repair

DANGER!

Danger of death from electric shock!

Contact with live components is life-threatening. Live electrical components can perform uncontrolled movements and cause serious injuries.

- Before starting any cleaning or maintenance work, switch off the machine and unplug it.

- Connections and repairs to electrical equipment may only be carried out by a qualified electrician.

9.1 Care after work

Wear protective gloves!

A NOTICE!

Never use harsh cleaning agents for any cleaning work. This may damage or destroy the device.

Step 1: Unplug the power cord from the outlet.

Step 2: Clean the machine of chips and dust with pressure gap (Caution: Wear safety goggles and dust mask!) and/or clean with a dry cloth.

Step 3: All unpainted metal surfaces with some
Spray or oil with anti-rust spray.

Step 4: Empty and clean the chip container.

Step 5: Check the machine for damage to the
Check safety devices. If necessary, carry out or arrange for repairs in accordance with the safety instructions.

Step 6: Check the machine regularly for:

- Lubrication of bearings (1x month)
- Loose screws and nuts
- Worn or damaged switches

Step 7: Every 6 months, monthly for daily use
Check the graphite layer and replace it if worn or damaged.

9.2 Maintenance and repair

Maintenance and repair work is finally carried out by specialist personnel

If the metal belt grinder does not work properly, contact your dealer or our customer service. You can find the information in chapter 1.2 Customer service.

9.2.1 Changing the sanding belt

DANGER!

Only use belts with the specifications listed in the technical data before installation and for your safety. Check the dimensions of the sanding belt and check it for any design defects. Always select a sanding belt that fits the material.

Choose sanding belts with a surface where the opposite ends are glued together. Sanding belts with E surfaces glued together will tear when the belt direction changes.

Use the following steps to grind the

Step 1: Turn off the machine and N

Step 2: Loosen the locking screw and
Open protective cover.

Step 3: Front protective cover of the workpiece holder
Open the position by turning the lever and fold it upwards.

Step 4: Remove the sanding belt using the lever (Fig.11).
tension.

Fig. 13: Relaxing the sanding belt

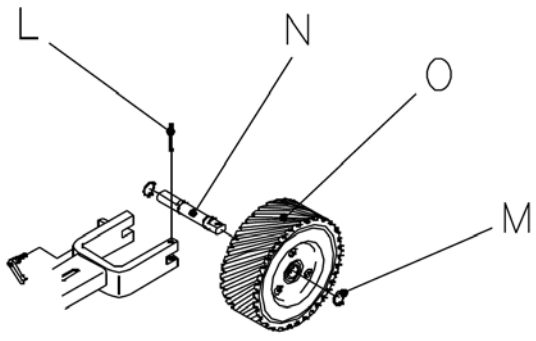


Fig. 15: Tape guide roller

Step 1: Before changing the tape guide roller,
Remove the belt, the grinding device and the housing.

Step 2: Using a 6 mm mandrel, remove the pin (M)
press.

Step 3: Assemble the belt guide roller with axle and bearing
get undressed.

Step 4: Remove the retaining ring (P) and the axle (N)
dismantle.

Step 5: Insert the new tape guide roller (O) in reverse
Assemble in order.

DANGER!

The grain size of the abrasives must be selected according to requirements.

DANGER!

When fitting the sanding belt, make sure that the direction of the arrow (see inside of the sanding belt) matches the direction of the arrow on the housing.

10 Malfunctions, possible causes and measures

A NOTICE!

If you are unable to resolve the issue with your machine yourself, please contact your nearest Metallkraft dealer. Beforehand, please write down the following information from the machine or the operating manual so that we can best assist you with your problem.

- Model of the machine
- Serial number of the machine
- Year of construction
- exact error description

DANGER!

If any of the following errors occur, stop using the machine immediately. Before troubleshooting, turn off the machine and unplug it. All repairs or replacement work may only be performed by qualified and trained personnel.

Disturbance	possible cause	remedy
Engine does not start.	Damaged on/off switch. Defective power cable. Relay damaged. Engine defective. Fuses are defective.	Have the machine checked by an electrician and replace any damaged parts.
Machine slows down while working.	Too much pressure is being applied.	Apply less pressure to the workpiece.
Short service life of the abrasives	Sanding belt with too fine a grain.	Use sanding belt with coarser grain
Poor sanding pattern	Sanding belt with too coarse grain	Use sanding belt with finer grain
The belt comes into contact with the housing near the grinding wheel	Graphite layer is worn out	Replace graphite layer
Sanding belt appears to be running unevenly	Sanding belt not applied correctly	Apply sanding belt in the center
Sanding belt runs off the drive rollers	Tape path is not adjusted correctly.	Adjust the belt path

11 Disposal and recycling of old equipment

In the interest of the environment, care must be taken to ensure that all components of the machine are disposed of only via the designated and approved methods.

11.1 Decommissioning

Obsolete equipment must be professionally taken out of service immediately to prevent future misuse and danger to the environment or people.

- Dispose of all environmentally hazardous operating materials from the old device.
- If necessary, dismantle the machine into manageable and reusable assemblies and components.
- Dispose of the components and operating materials in the designated disposal routes.

11.2 Disposal of lubricants

DANGER!

Please ensure that the coolants and lubricants used are disposed of in an environmentally friendly manner. Follow the disposal instructions provided by your local waste disposal company.

Used oils should not be mixed together, as only unmixed used oils can be recycled without pretreatment.

The lubricant manufacturer provides disposal instructions for the lubricants used. If necessary, ask for the product-specific data sheets.

11.3 Disposal via municipal collection points

Disposal of used electrical and electronic equipment (Applicable in the countries of the European Union and other European countries with a separate collection system for these devices).

The symbol on the product or its packaging indicates that this product shall not be treated as normal household waste. Instead, it shall be taken to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help protect the environment and the health of others. Incorrect disposal of this product endangers both the environment and human health. Recycling of materials helps to reduce the consumption of raw materials. For more information about recycling of this product, please contact your local council, your household waste disposal service, or the shop where you purchased the product.

12 spare parts

DANGER!

Risk of injury due to the use of incorrect spare parts!

The use of incorrect or faulty spare parts may endanger the operator and cause damage and malfunctions.

- Only original spare parts from the manufacturer or spare parts approved by the manufacturer may be used.
- If you have any questions, please always contact the manufacturer.

Tips and recommendations

The use of unauthorized spare parts will void the manufacturer's warranty.

12.1 Ordering spare parts

Spare parts can be obtained from authorized dealers or directly from the manufacturer. Contact details can be found in Chapter 1.2 Customer Service.

Please provide the following key information when making inquiries or ordering spare parts:

- Device type
- Item number
- Position number
- Year of construction
- Crowd
- desired shipping method (mail, freight, sea, air, express)
- Shipping address

Spare parts orders without the above information cannot be considered. If the shipping method is not specified, shipping will be at the supplier's discretion. Information about the device type, article number, and year of manufacture can be found on the rating plate attached to the machine.

Example

The motor for the MBSM 100-140-1 230V metal belt grinder must be ordered. The motor is numbered 50 in spare parts drawing 3.

When ordering spare parts, send a copy of the spare parts drawing (3) with the component (engine) and the marked position number (50) to the authorized dealer or the spare parts department and provide the following information:

- Device type: **Metal belt sander machine MBSM 100-140-1 230V**
- Item number: **3923141**
- Drawing number: **3**
- Position number: **50**

The article number of your device:

MSBM 75-201-1	3925271
MSBM 75-203-1	3925272
MSBM 75-203-2	3925273
MSBM 75-203-2 AS	3925274
MBSM 75-240-1 / 230V	3923271
MBSM 75-240-1 / 400V	3923272
MBSM 75-240-2 / 400V	3923273
MBSM 75-240-2 AS / 400V	3923274
MBSM 100-140-1 / 230V	3923141
MBSM 100-140-2 / 400V	3923142
MBSM 150-203-2	3925315
MBSM 150-203-2 AS	3925316
MBSM 150-240-2 / 400V	3923315
MBSM 150-240-2 AS / 400V	3923316

12.2 Spare parts drawings

The following drawings are intended to help you identify the necessary spare parts in the event of service. If necessary, send a copy of the parts drawing with the marked components to your authorized dealer.

12.2.1 Spare parts drawings MBSM 100-140-1/230V and MBSM 100-140-2/400V

Spare parts drawing 1

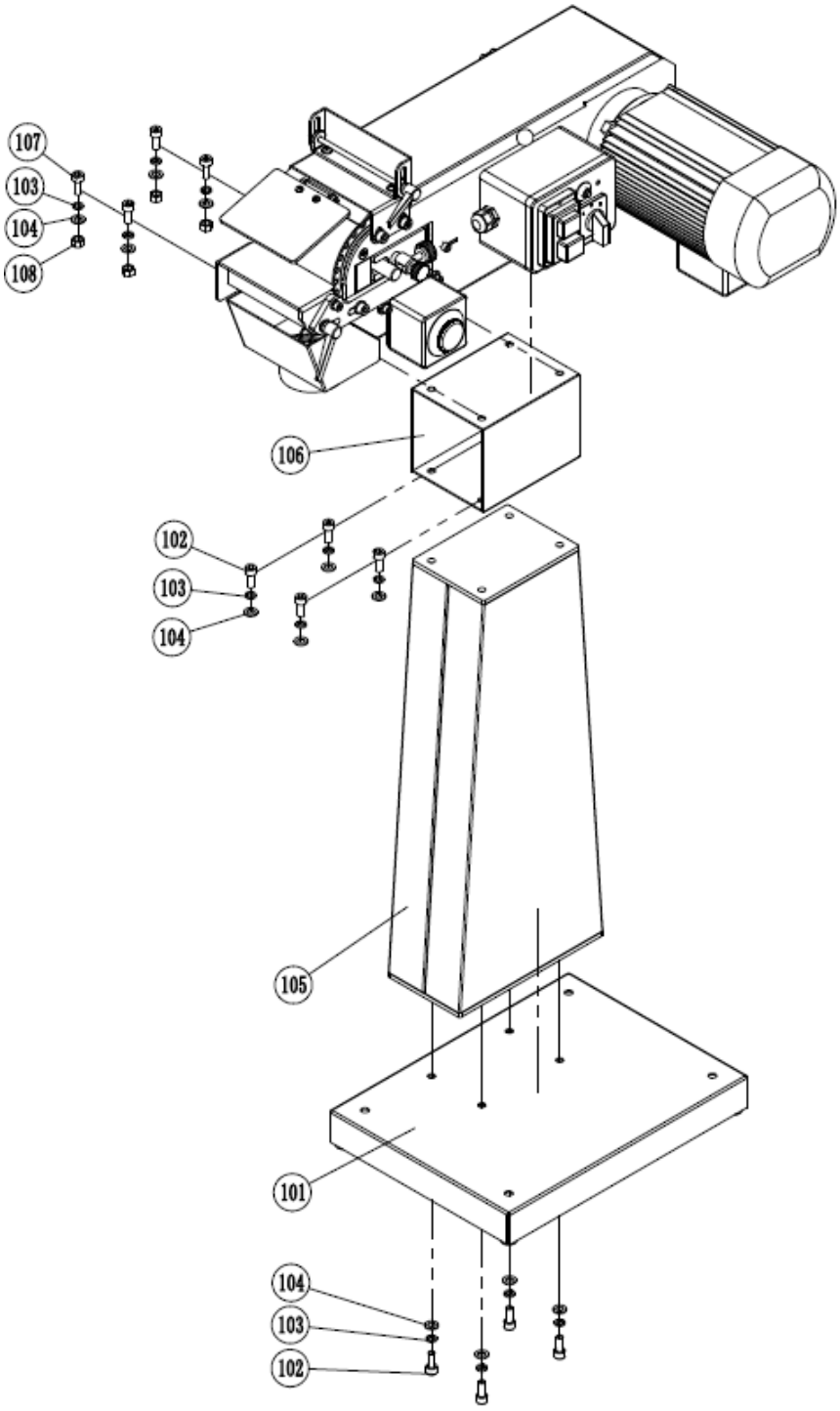


Fig. 16: Spare parts drawing 1 MBSM 100-140-1/230V and MBSM 100-140-2/400V

Spare parts drawing 2

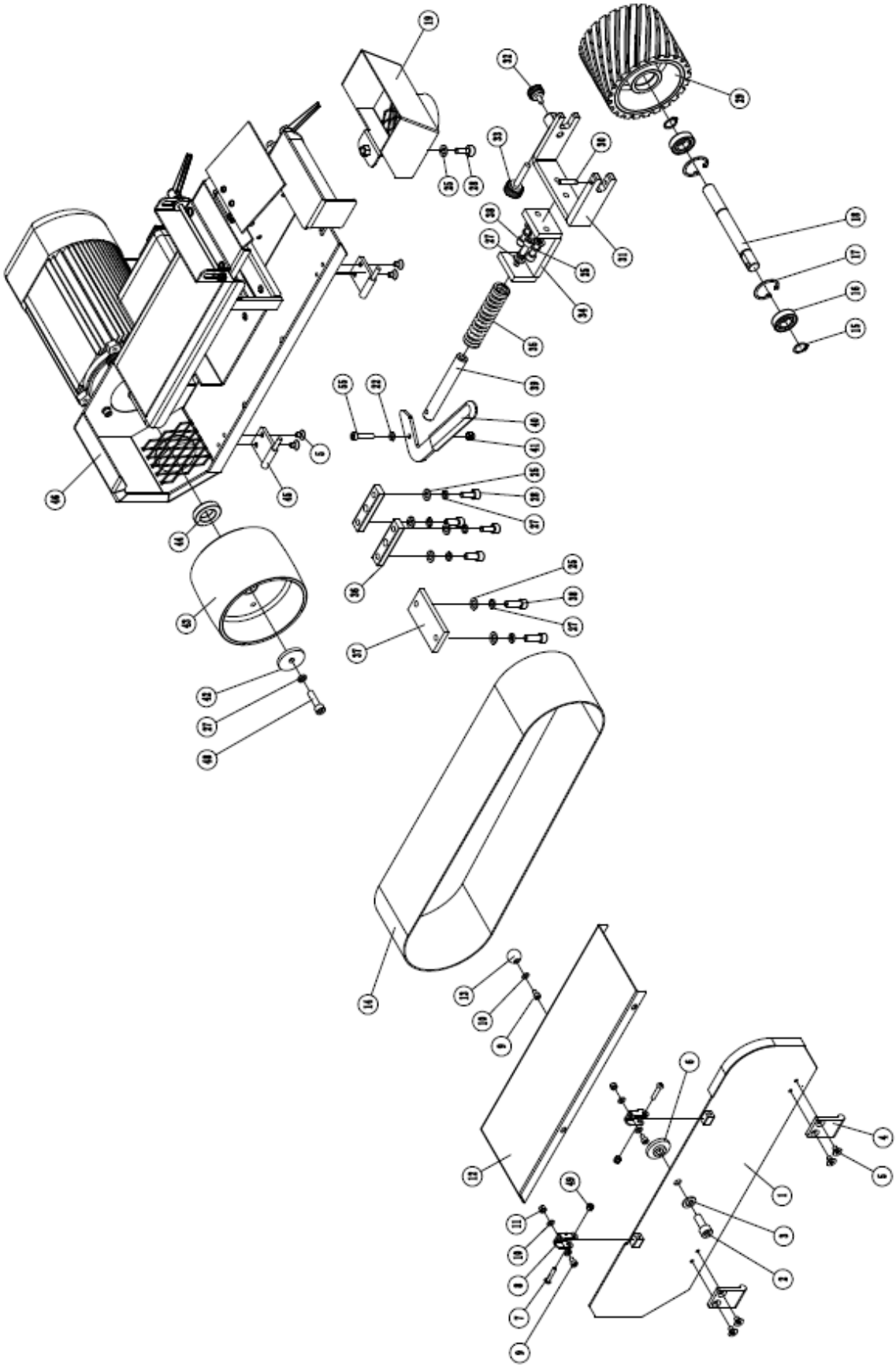


Fig. 17: Spare parts drawing 2 MBSM 100-140-1/230V and MBSM 100-140-2 /400V

Spare parts drawing 3

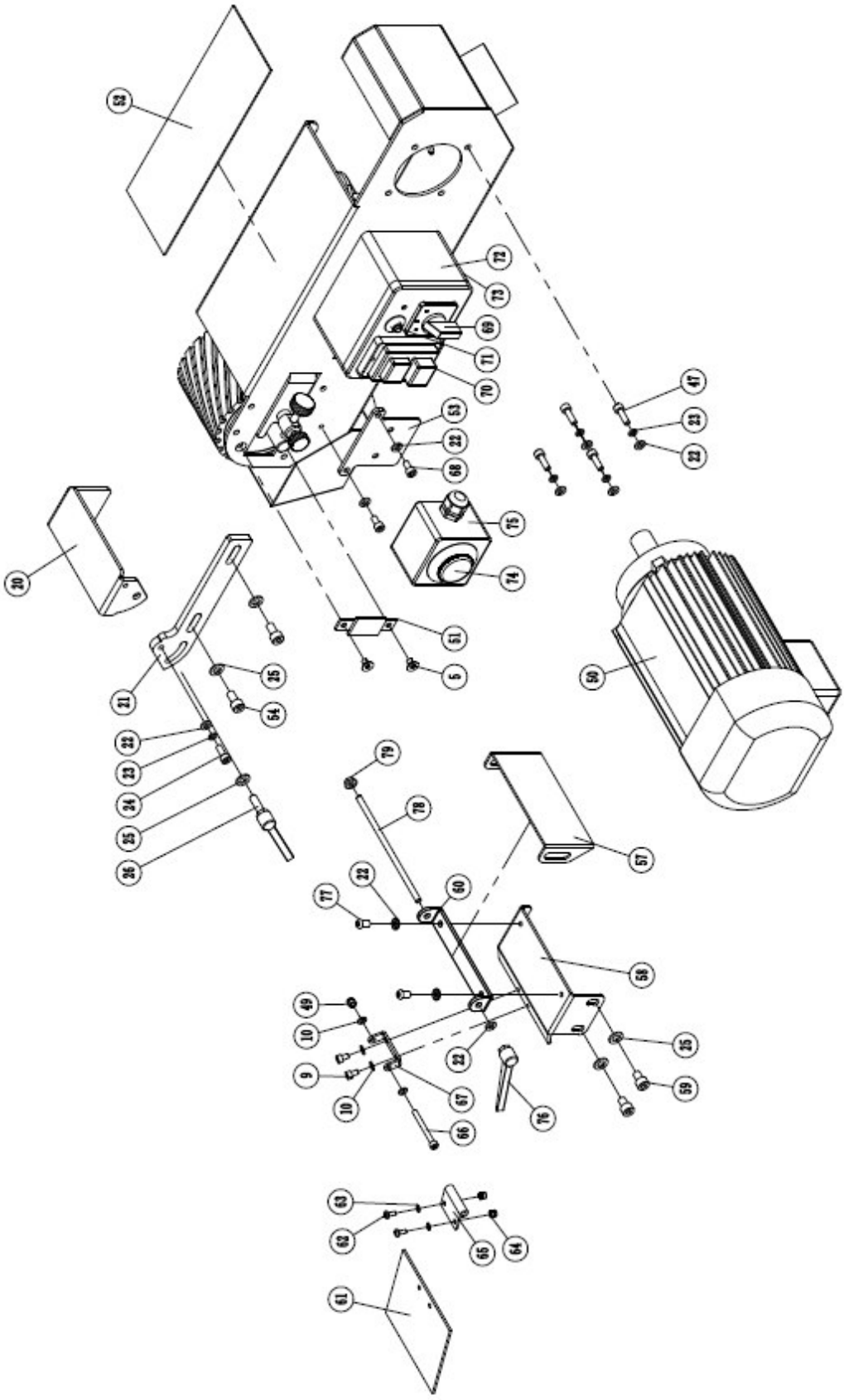


Fig. 18: Spare parts drawing 3 MBSM 100-140-1/230V and MBSM 100-140-2/400V

12.2.2 Spare parts drawings MBSM 75-240-1/230V, MBSM 75-240-1/400V, MBSM 75-240-2/400V, MBSM 150-240-2/400V, MBSM 75-201-1/230V, MBSM 75-203-1/400V, MBSM 75-203-2/400V, MBSM 150-203-2/400V

Spare parts drawing 1

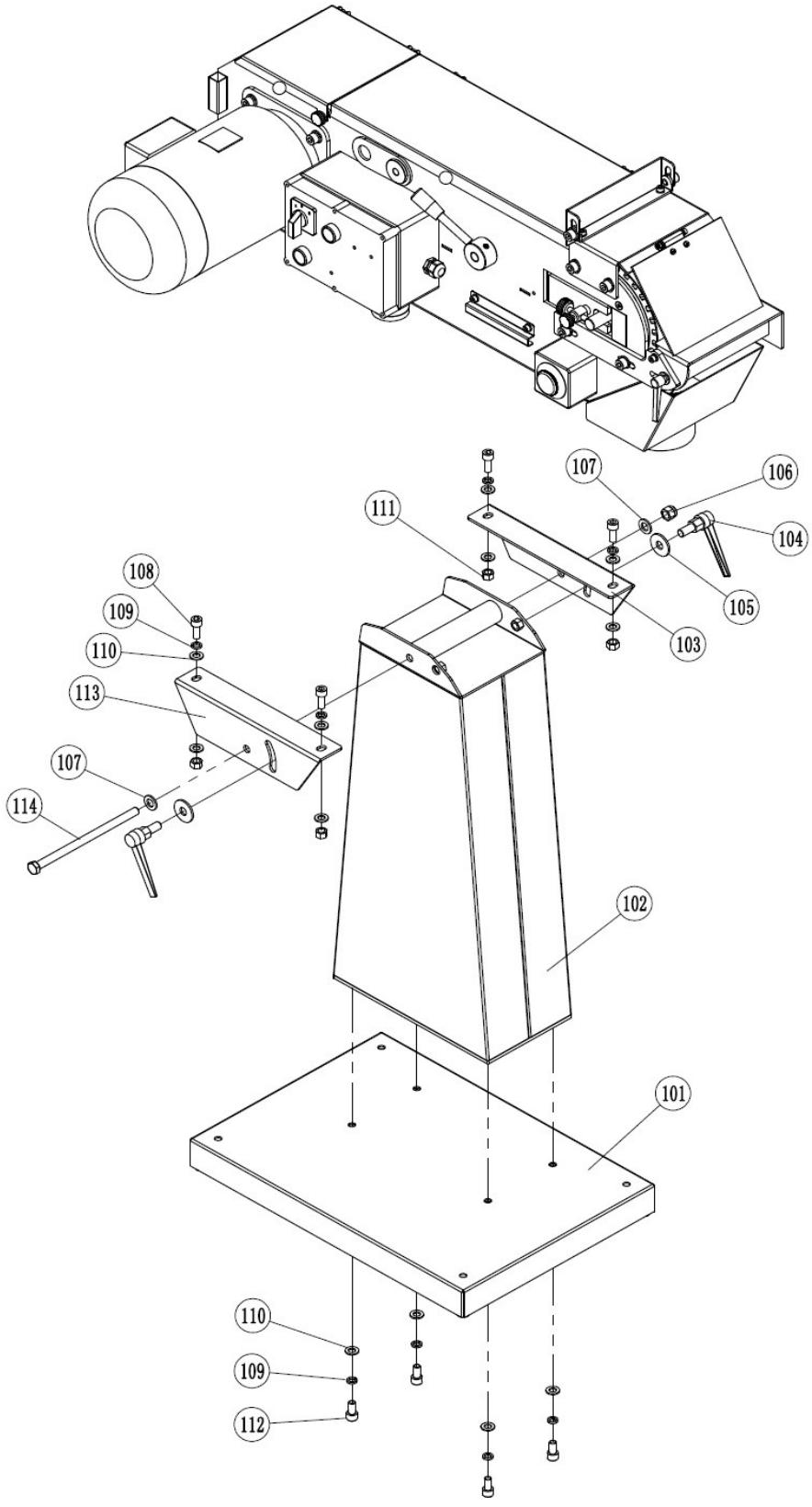


Fig. 19: Spare parts drawing 1 MBSM75-240-1/230V, MBSM75-240- /400V, MBSM75-240-2/400V, MBSM150-240-2/400V, MBSM 75-201-1/230V, MBSM 75-203-1/400V, MBSM 75-203-2/400V, MBSM 150-203-2/400V

Spare parts drawing 2

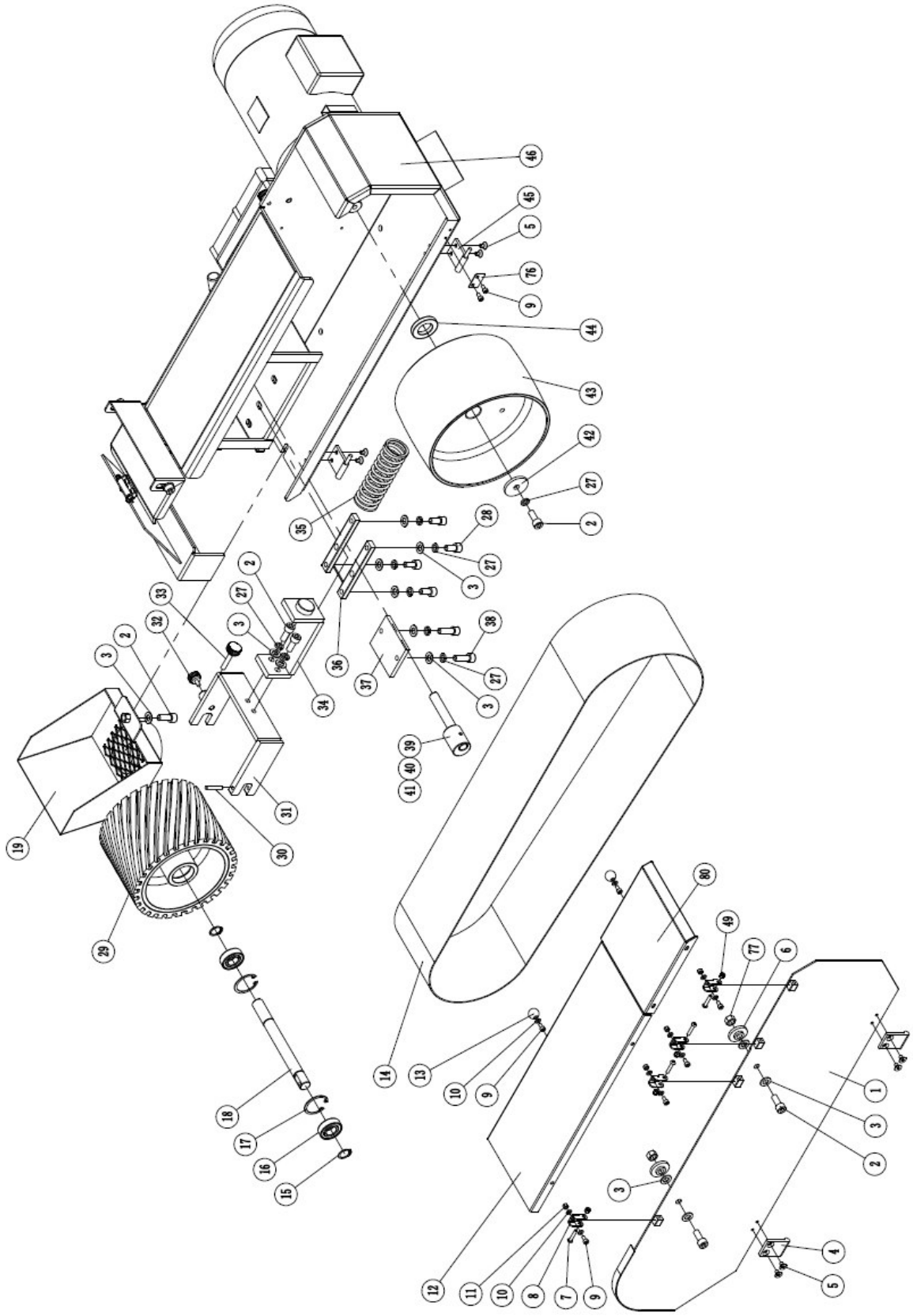


Fig. 20: Spare parts drawing 2 MBSM75-240-1/230V, MBSM75-240-/400V, MBSM75-240-2/400V, MBSM150-240-2/400V, MBSM 75-201-1/230V, MBSM 75-203-1/400V, MBSM 75-203-2/400V, MBSM 150-203-2/400V

Spare parts drawing 3

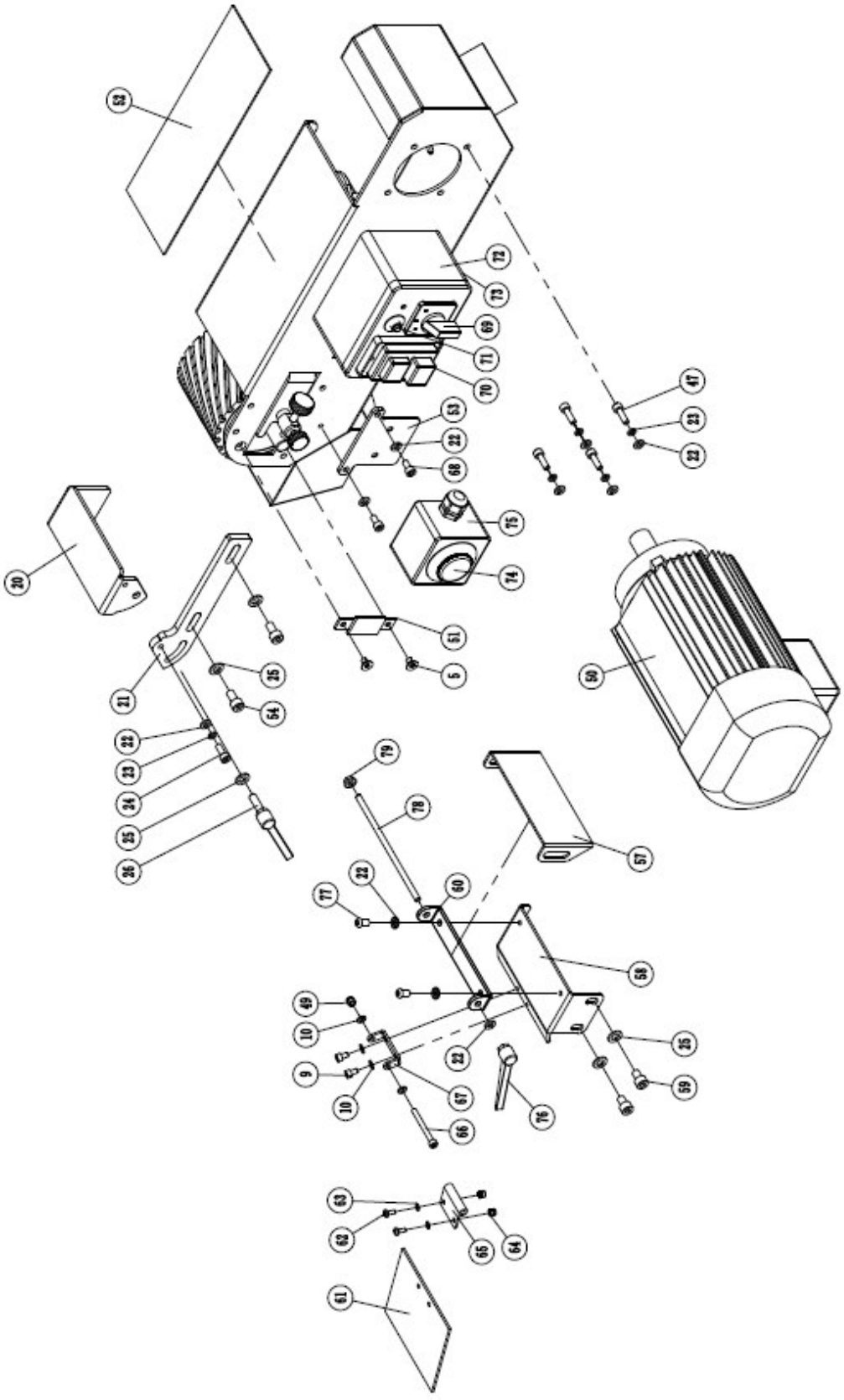
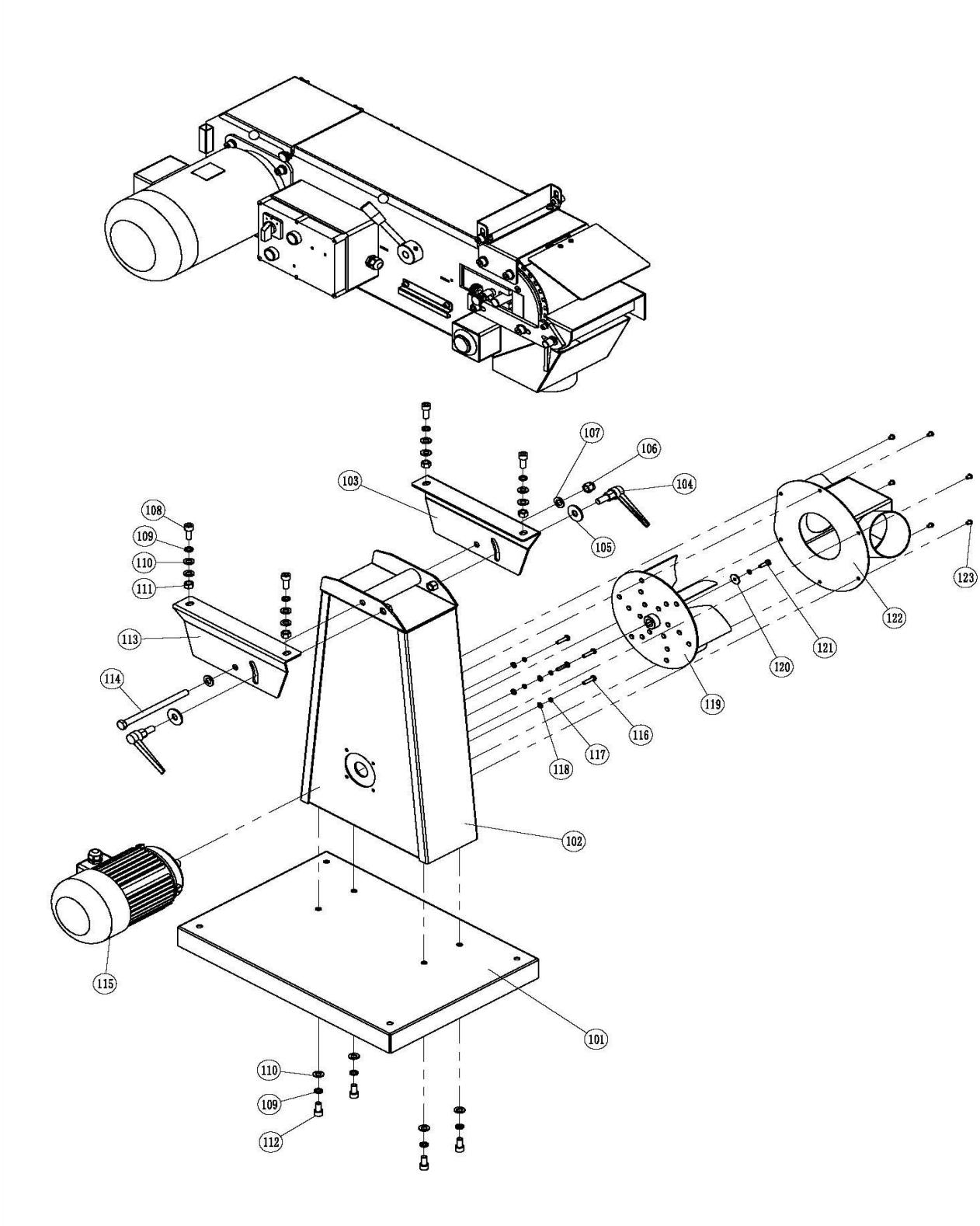
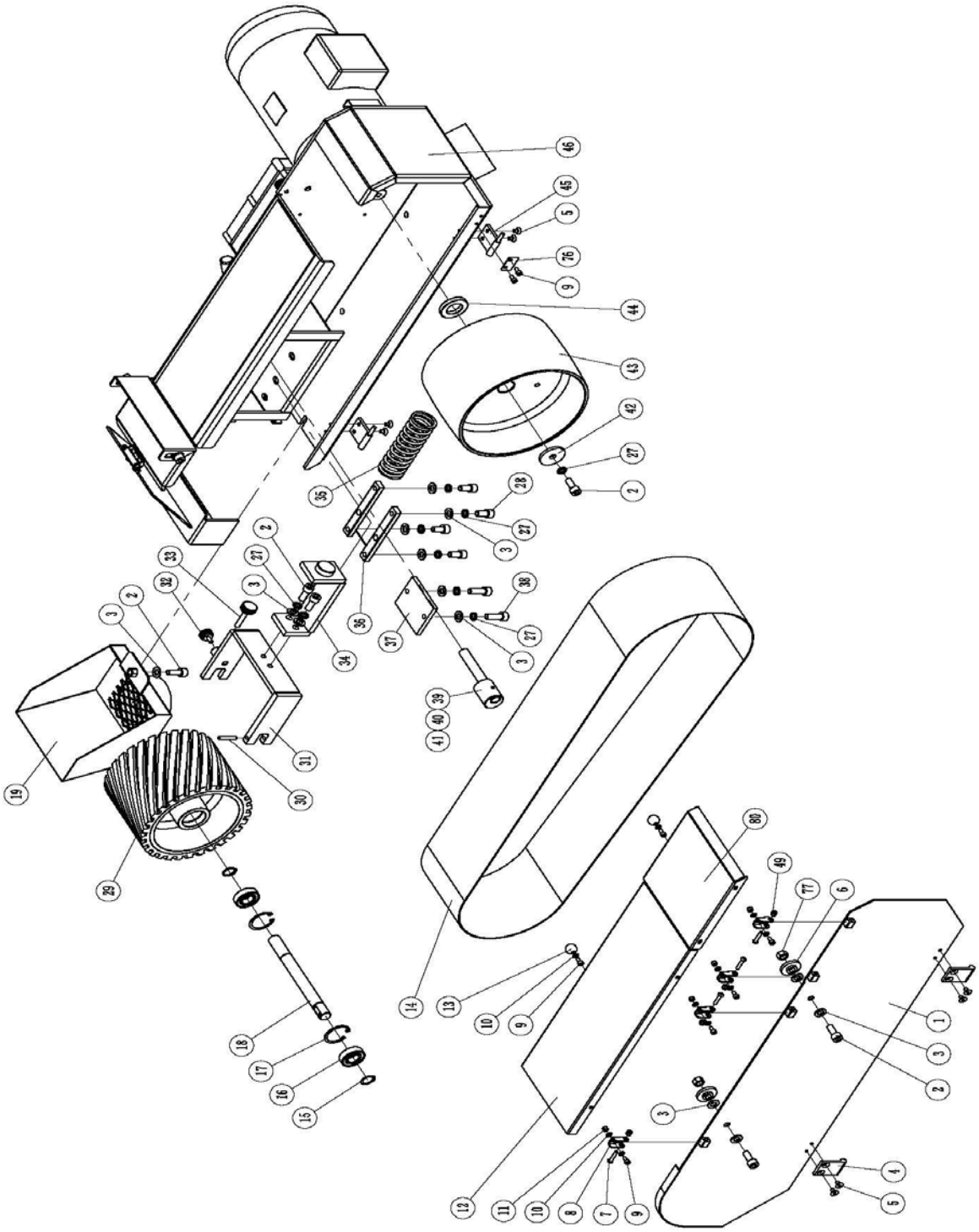


Fig. 21: Spare parts drawing 3 MBSM75-240-1/230V, MBSM75-240/400V, MBSM75-240-2/400V, MBSM150-240-2/400V, MBSM 75-201-1/230V, MBSM 75-203-1/400V, MBSM 75-203-2/400V, MBSM 150-203-2/400V

12.2.3 Spare parts drawings MBSM 75-203-2 AS/400V, MBSM 150-203-2 AS/400V





Spare parts drawing 3

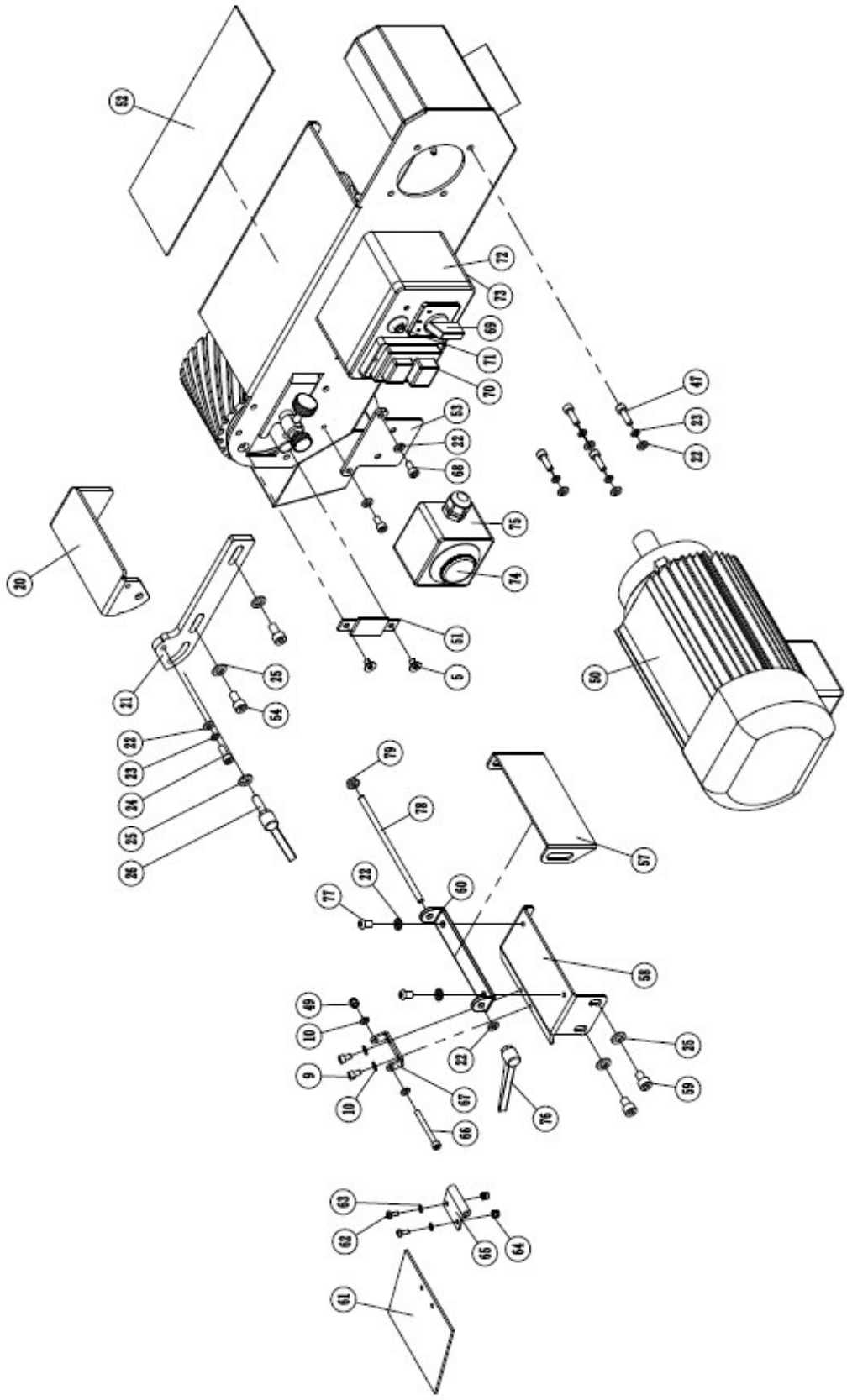
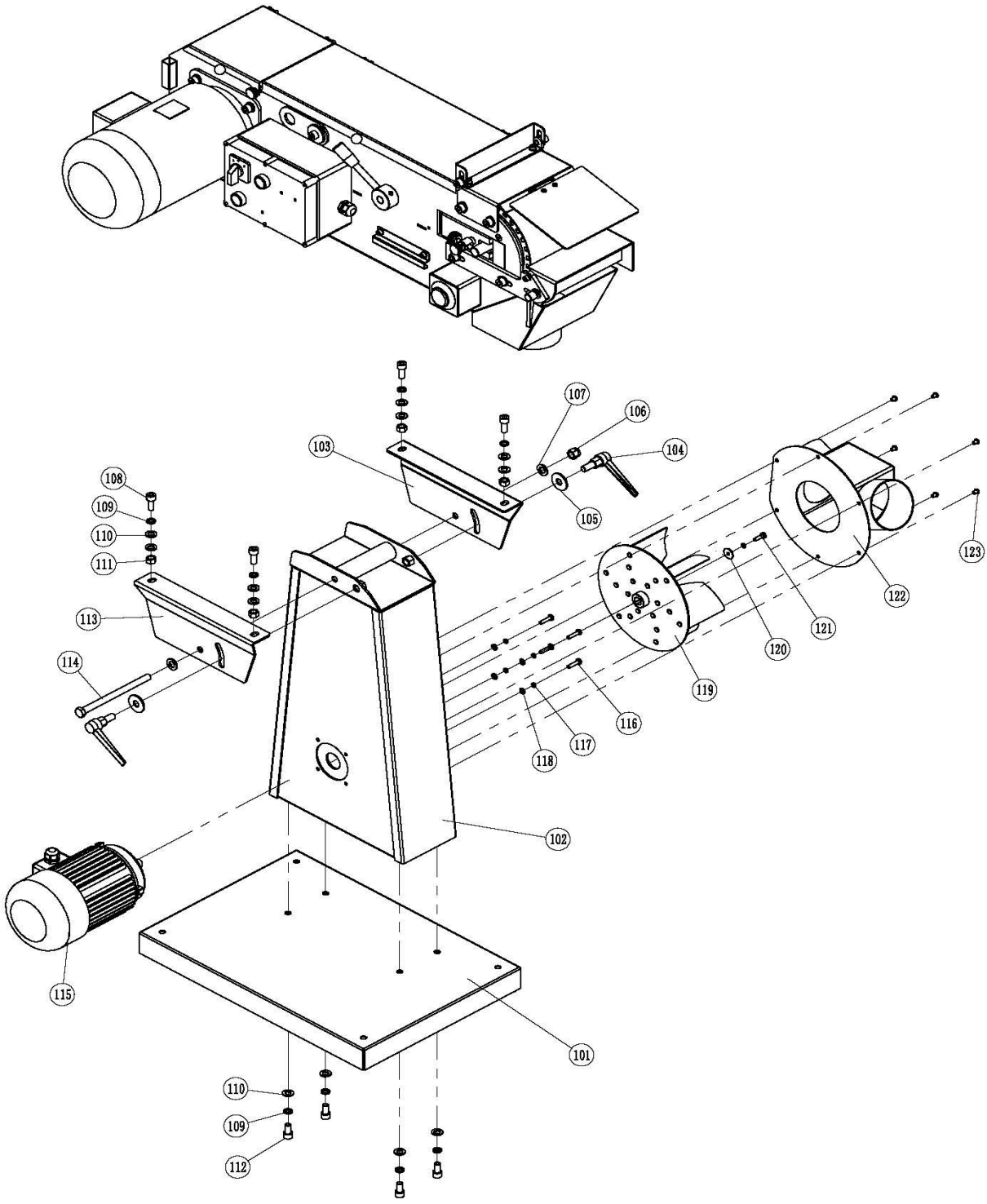


Fig. 24: Spare parts drawing 3 MBSM 75-203-2 AS/400V, MBSM 150-203-2 AS/400V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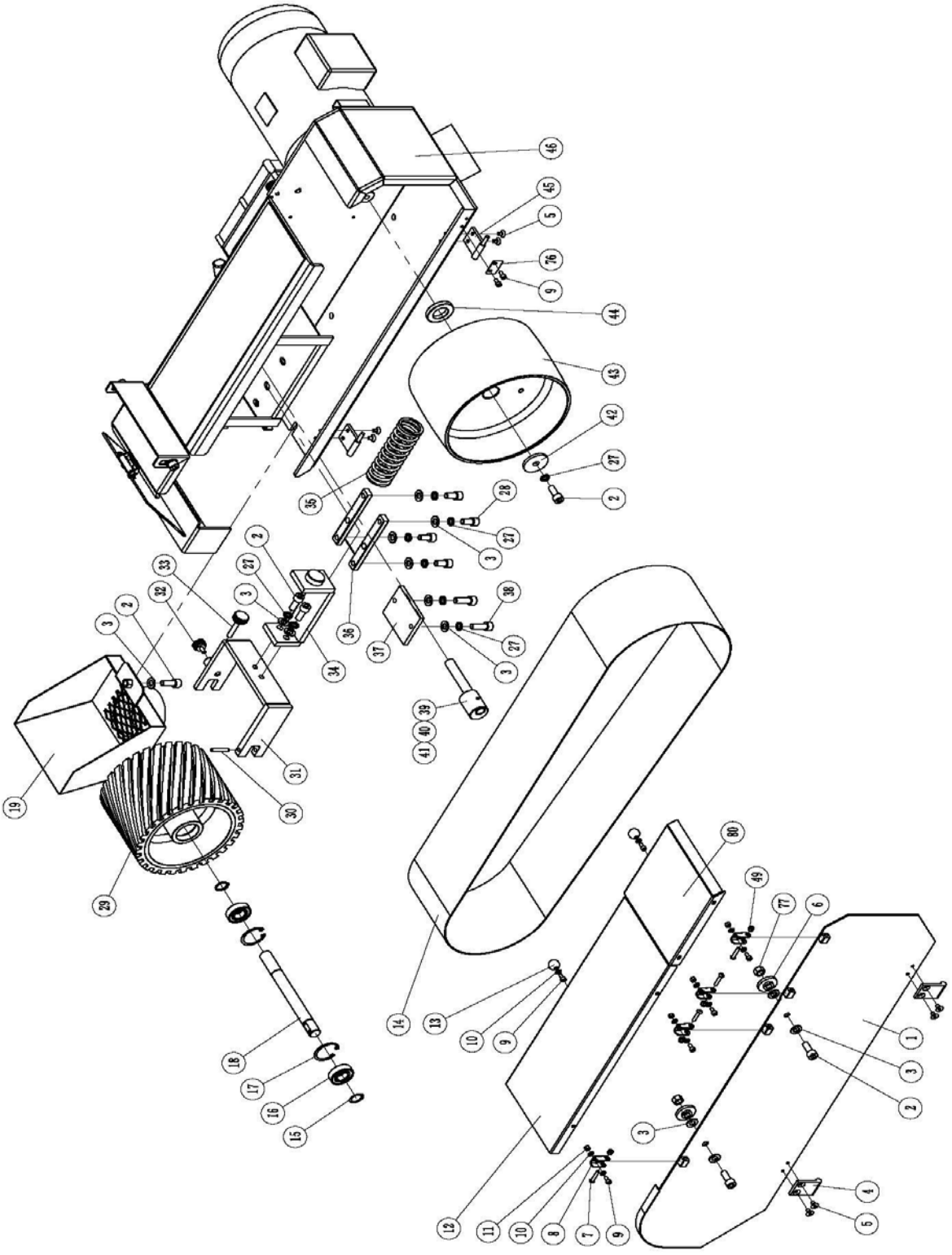
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Spare parts drawing 3

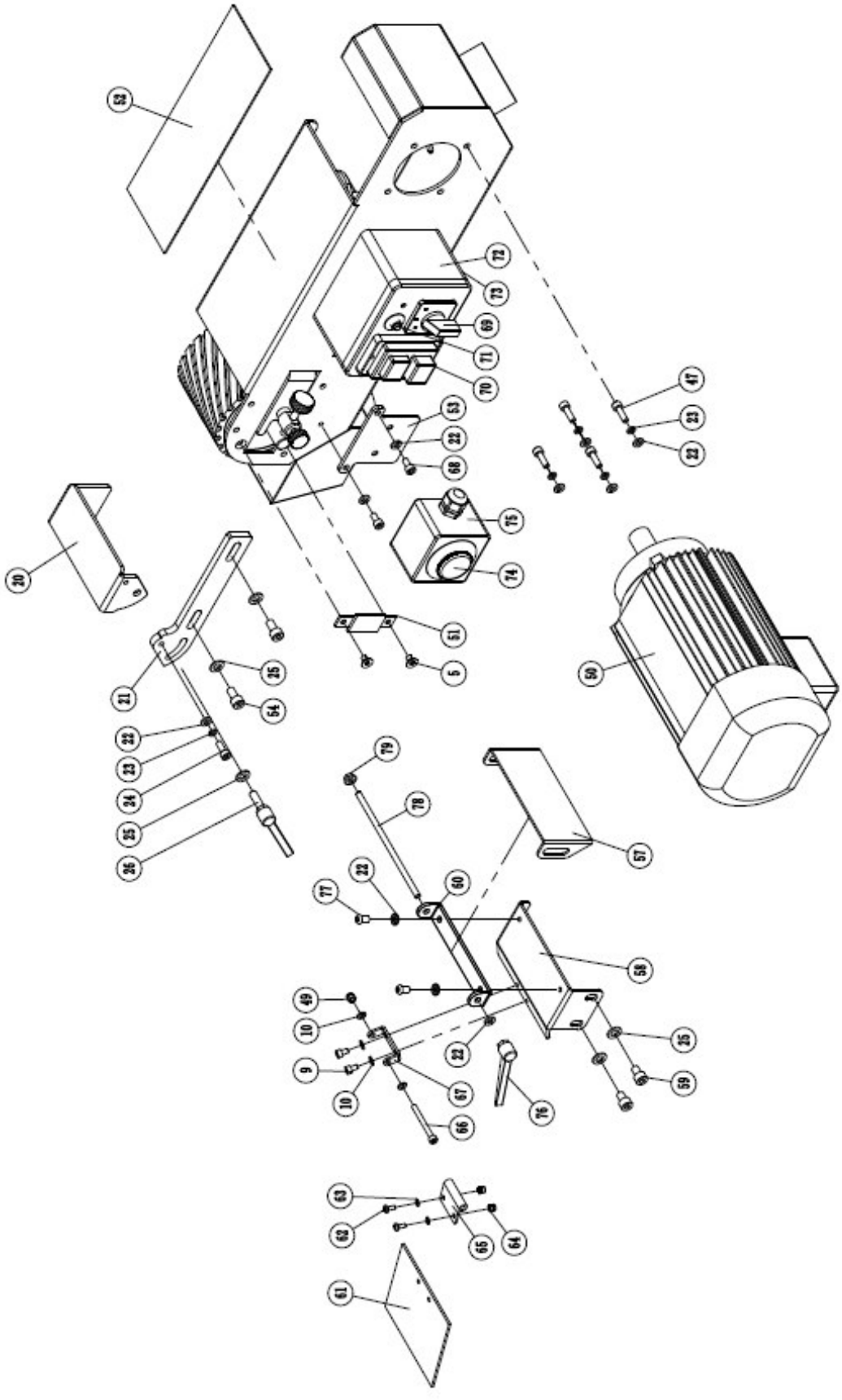

Fig. 27: Spare parts drawing 3 MBSM 75-240-2 AS/400V, MBSM 150-240-2 AS/400V

13 electrical circuit diagrams

Electrical diagram MBSM 100-140-1 / 230V

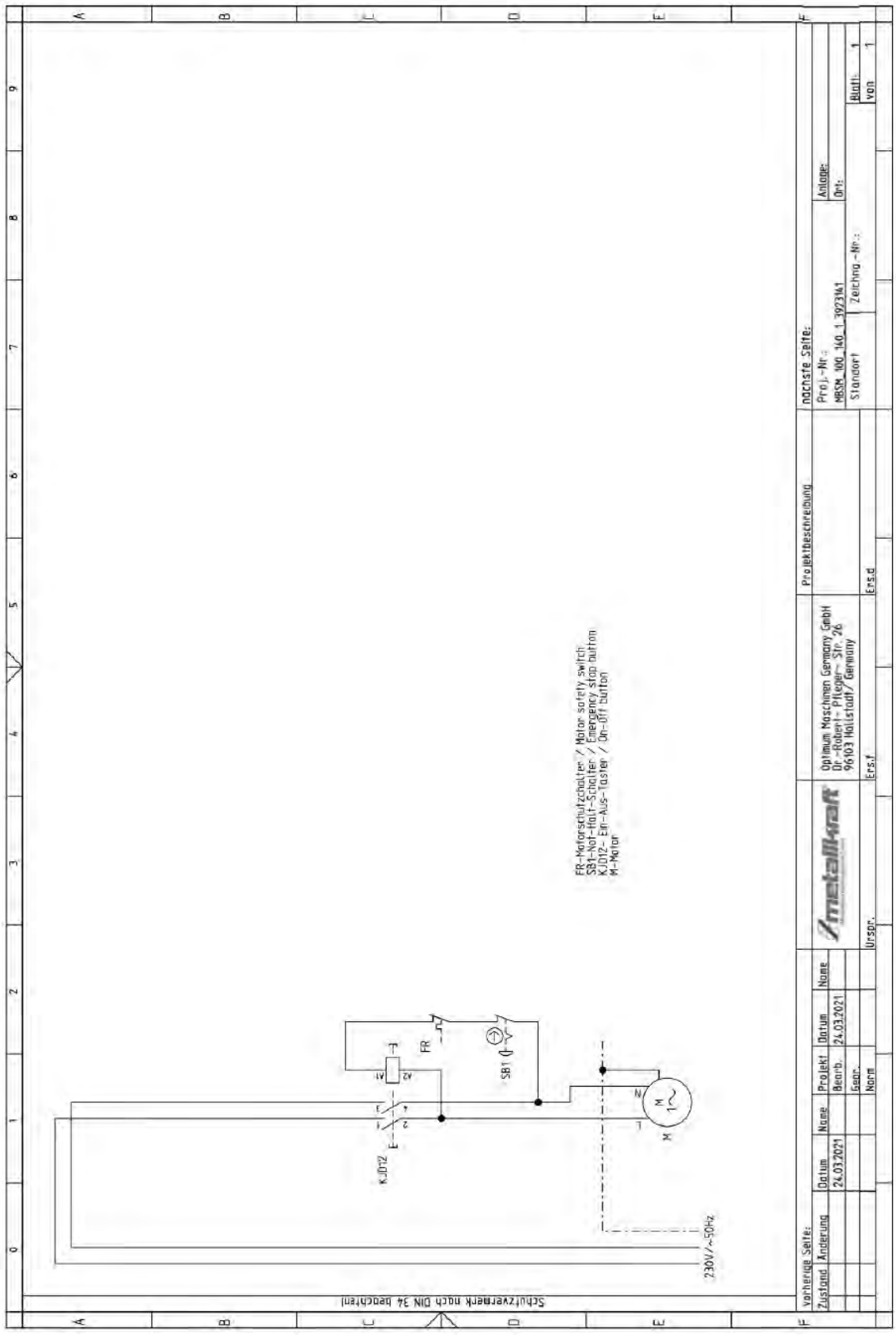

Fig. 28: Electrical circuit diagram MBSM 100-140-1 / 230V

Electrical diagram MBSM 100-140-2 / 400V

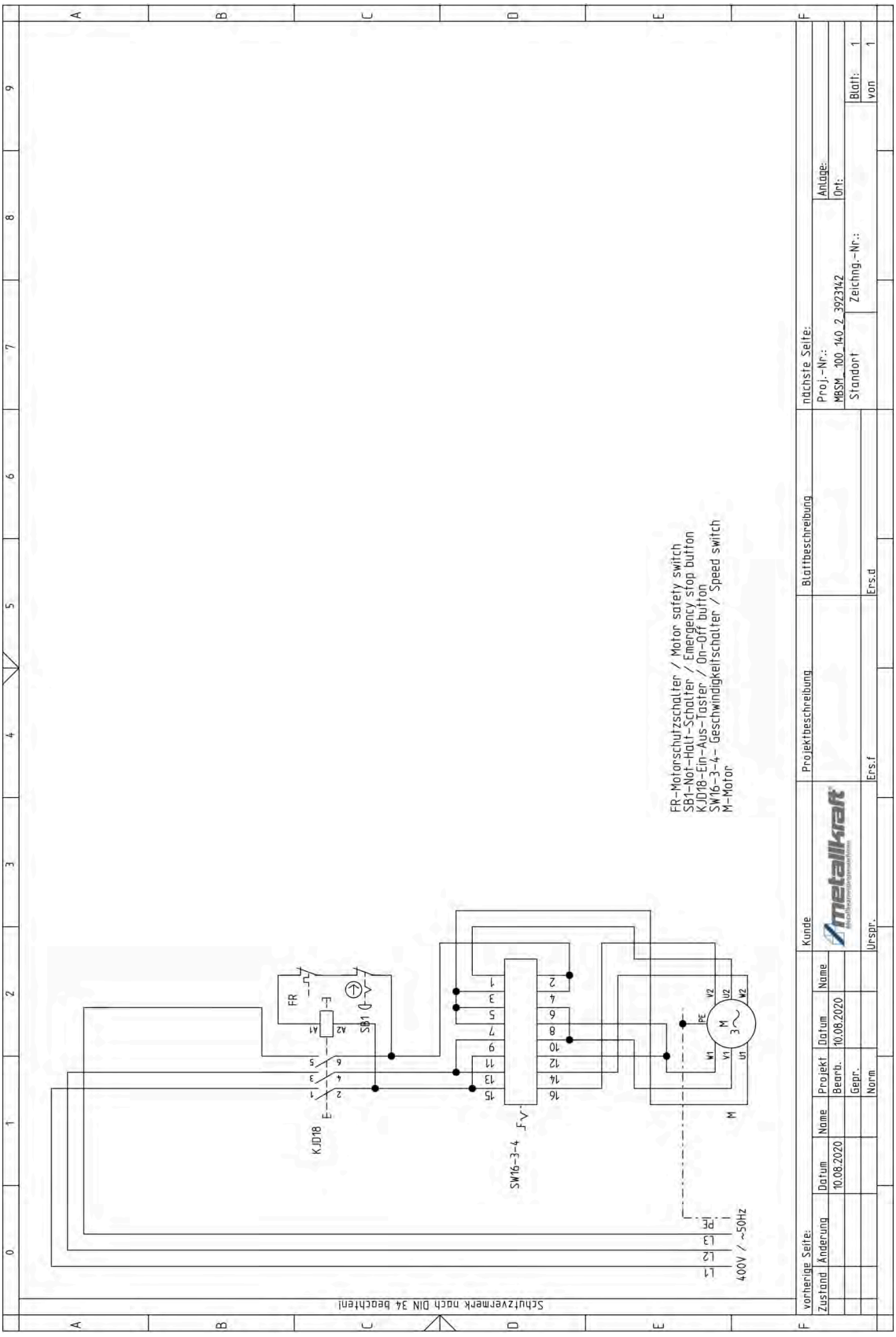

Fig. 29: Electrical circuit diagram MBSM 100-140-2 / 400V

Electrical diagram MBSM 75-240-1 / 230V

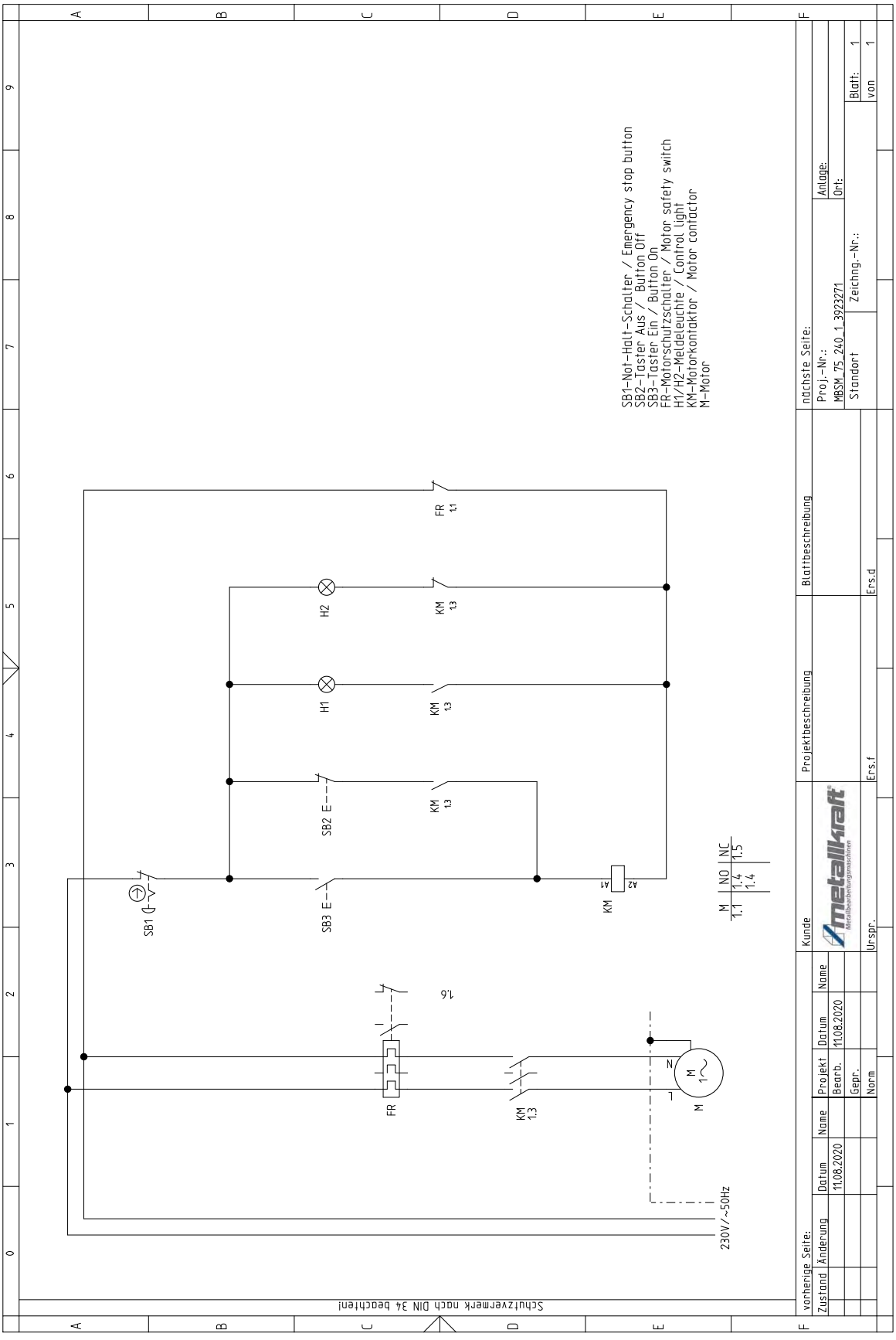

Fig. 30: Electrical circuit diagram MBSM 75-240-1 / 230V

Electrical diagram MBSM 75-240-1 / 400V

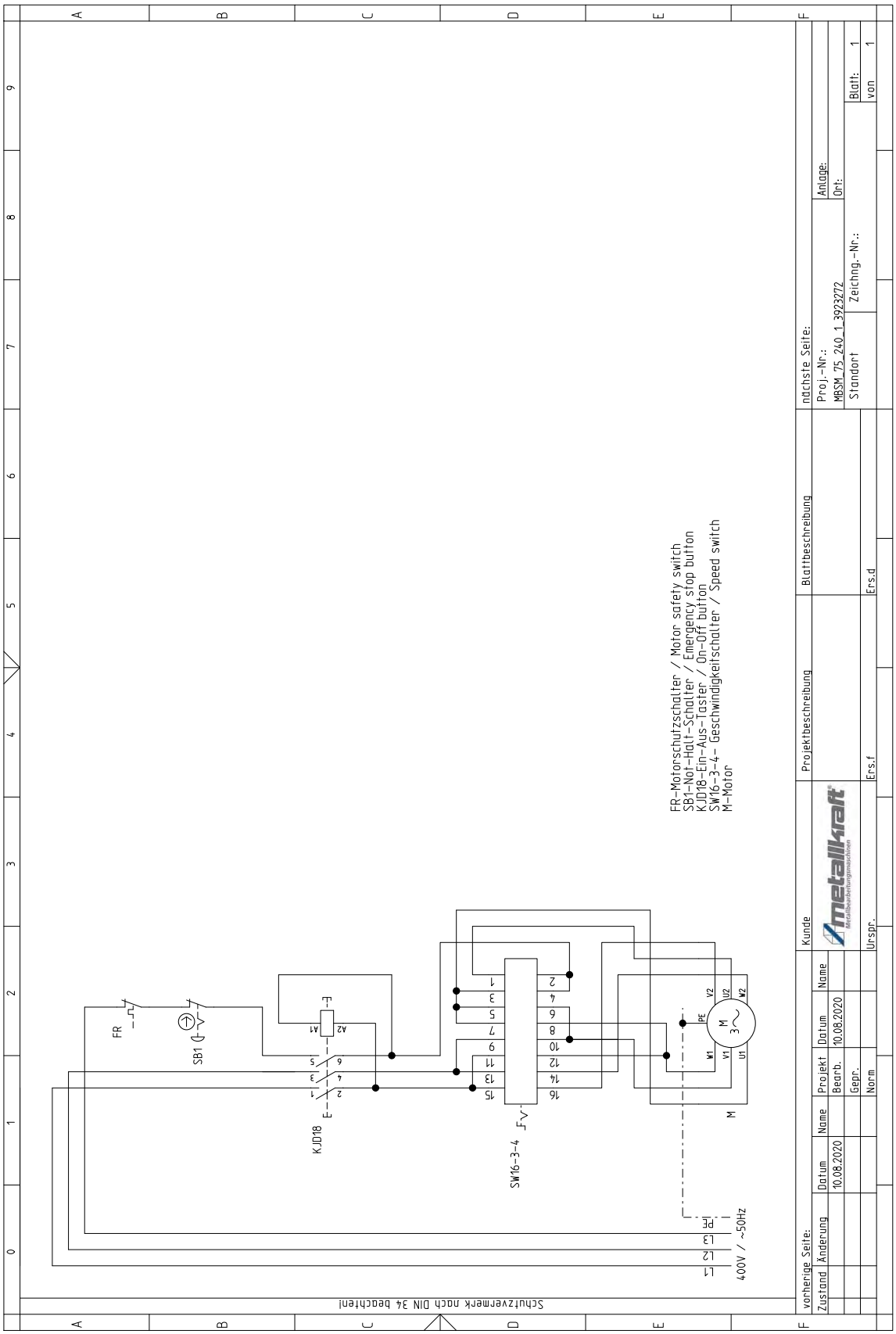

Fig. 31: Electrical circuit diagram MBSM 75-240-1 / 400V

Electrical diagram MBSM 75-240-2 / 400V

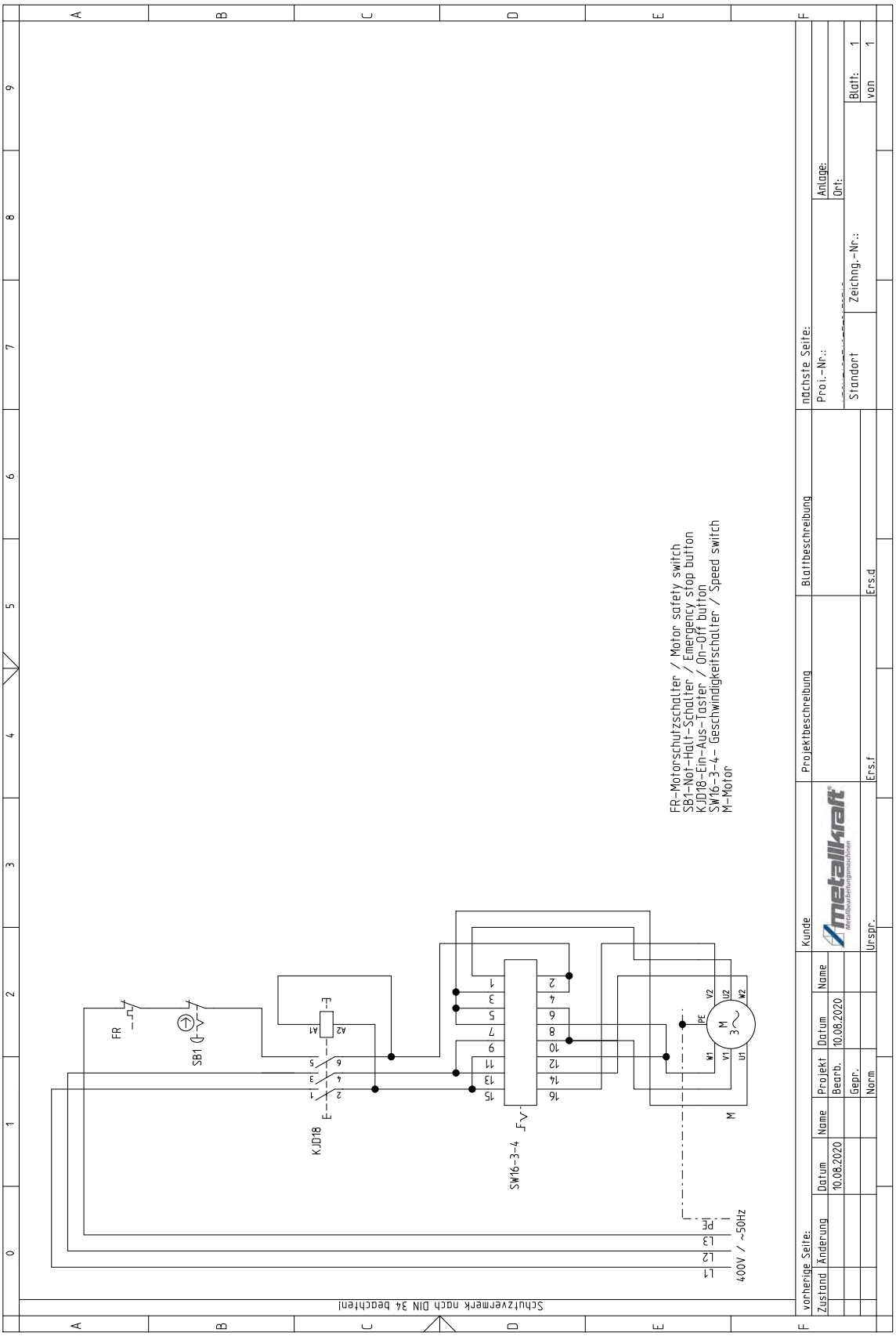

Fig. 32: Electrical circuit diagram MBSM 75-240-2 400V

Electrical diagram MBSM 150-240-2 / 400V

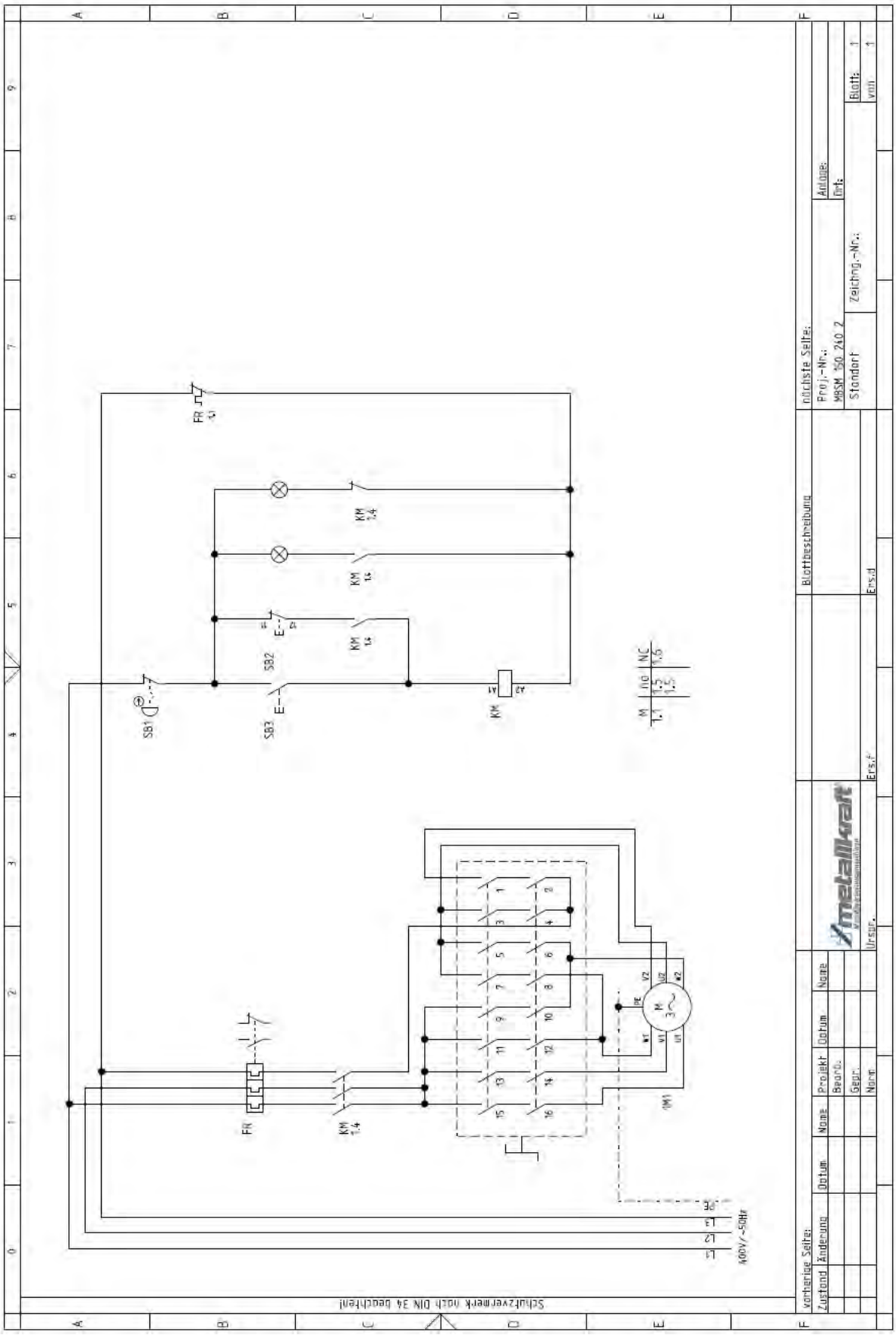

Fig. 33: Electrical circuit diagram MBSM 150-240-2 / 400V

Electrical diagram MBSM 75-201-1 / 230V

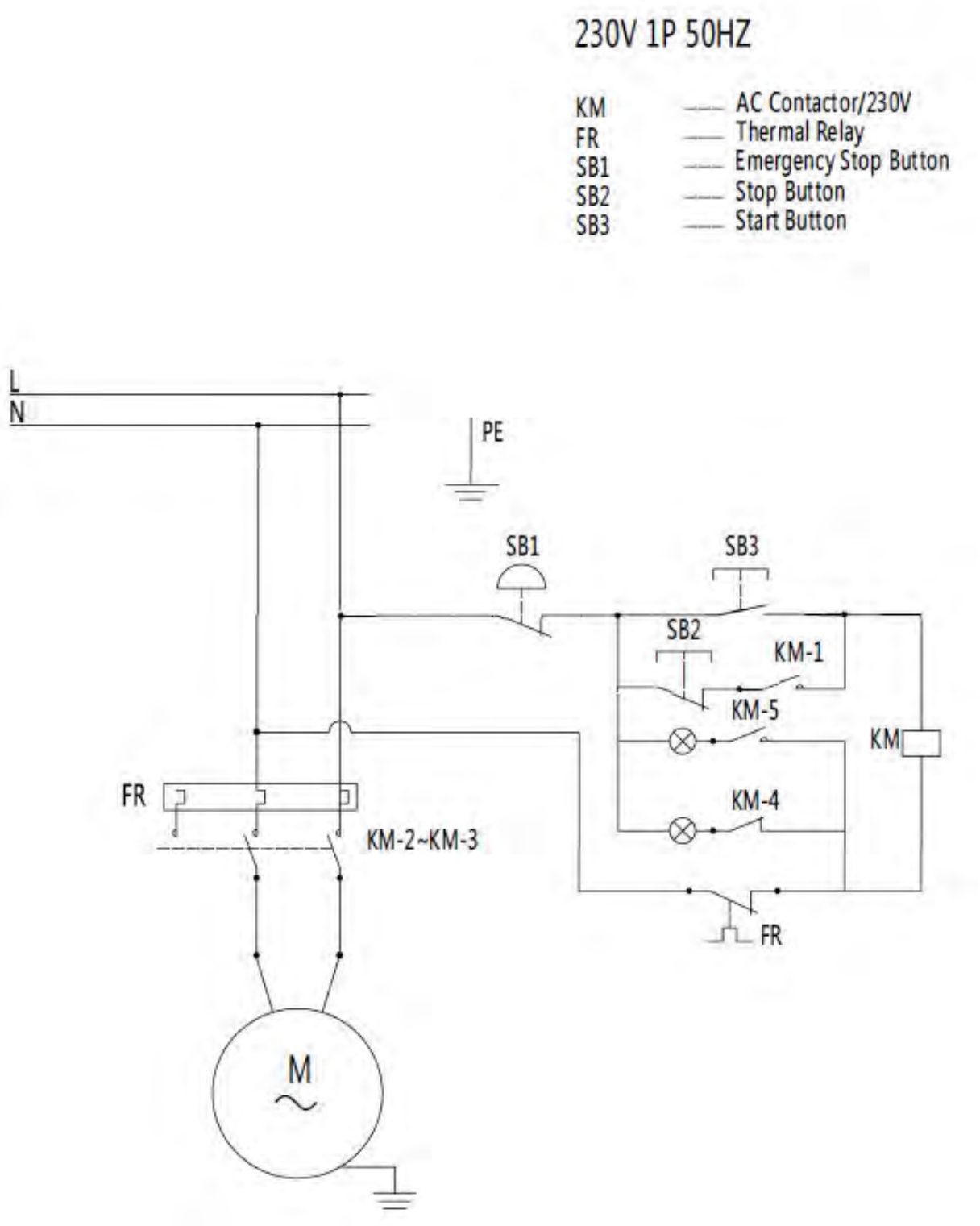

Fig. 34: Electrical circuit diagram MBSM 75-201-1 / 230V

Electrical diagram MBSM 75-203-1 / 400V

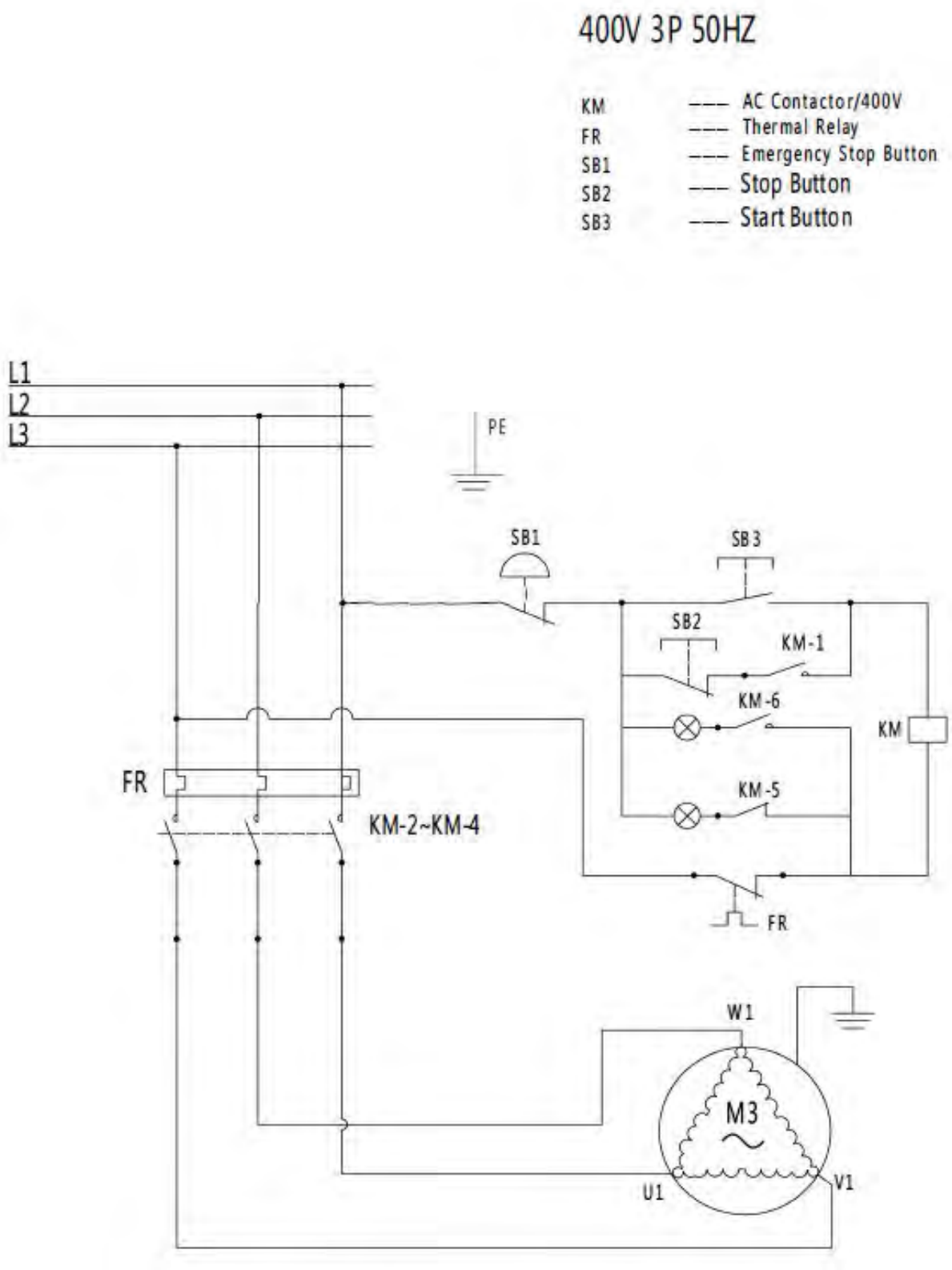

Fig. 35: Electrical circuit diagram MBSM 75-203-1 / 400V

Electrical circuit diagram MBSM 75-203-2 / 400V & MBSM 150-203-2 / 400V

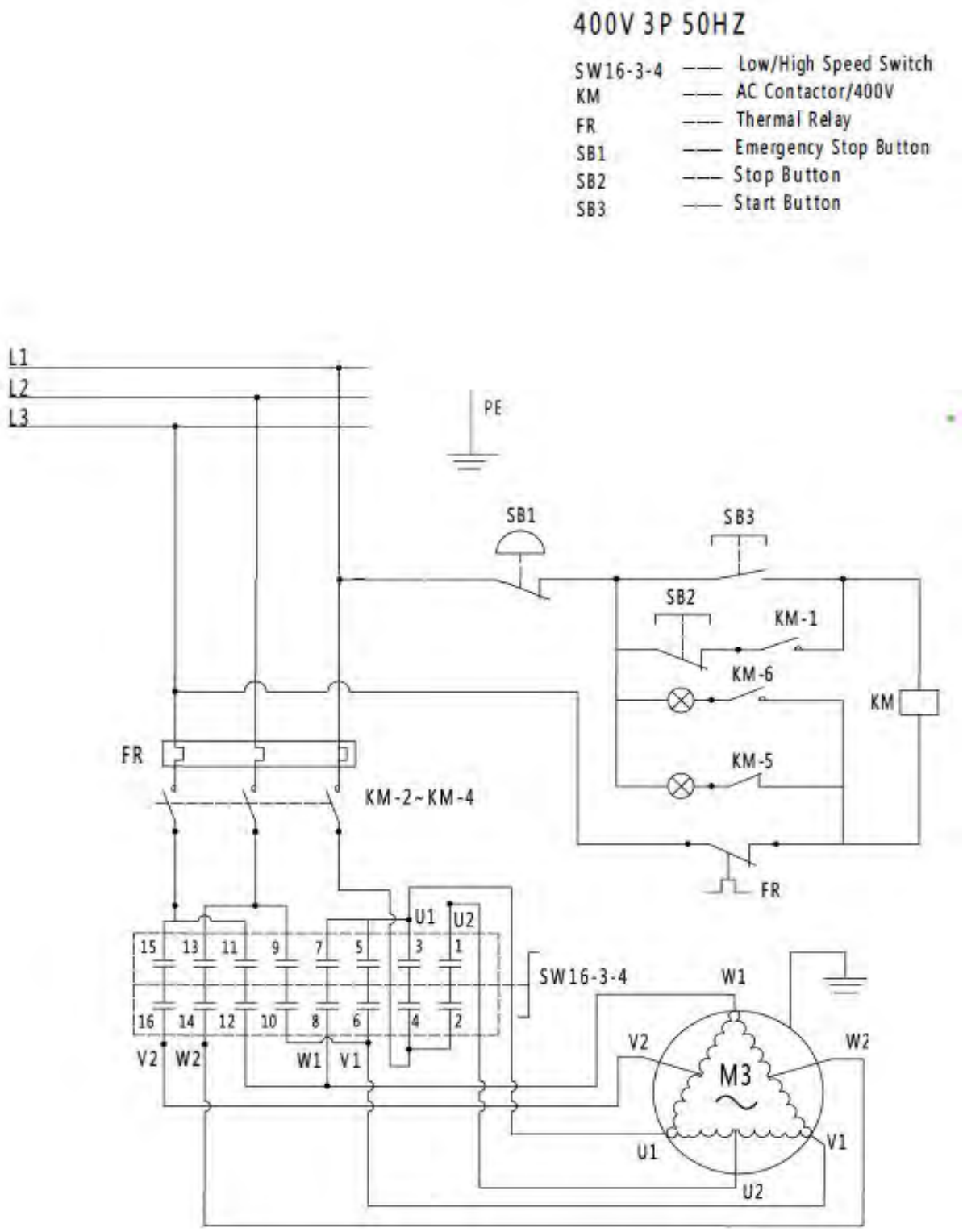

Fig. 36: Electrical circuit diagram MBSM 75-203-2 / 400V & MBSM 150-203-2 / 400V

Electrical wiring diagram MBSM 75-203-2 AS/400V, MBSM 150-203-2 AS/400V, MBSM 75-240-2 AS/400V, MBSM 150-240-2 AS/400V

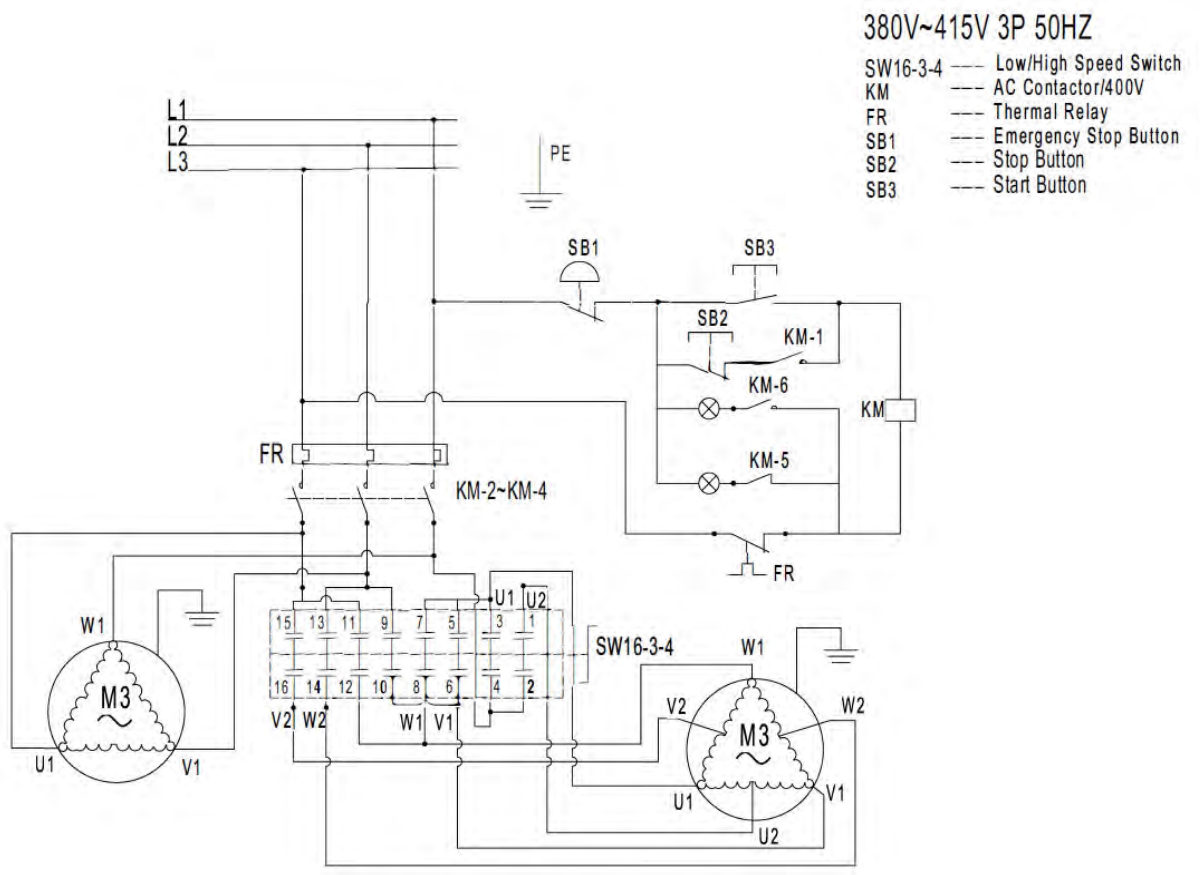

Fig. 37: Electrical circuit diagram MBSM MBSM 75-203-2 AS/400V, MBSM 150-203-2 AS/400V, MBSM 75-240-2 AS/400V, MBSM 150-240-2 AS/400V

14 EU Declaration of Conformity

According to Machinery Directive 2006/42/EC Annex II 1.A

Manufacturer/distributor: Stürmer Maschinen GmbH
Dr.-Robert-Pfleger-Straße 26
D-96103 Hallstadt

hereby declares that the following product

Product group: Metallkraft® metalworking machines

Machine type: Metal belt sander

Name of the machine *:

- ☐ MBSM 75-201-1 / 230V, 3925271
- ☐ MBSM 75-203-1 / 400V, 3925272
- ☐ MBSM 75-203-2 / 400V, 3925273
- ☐ MBSM 75-203-2 AS / 400V, 3925274
- ☐ MBSM 75-240-1 / 230V, 3923271
- ☐ MBSM 75-240-1 / 400V, 3923272
- ☐ MBSM 75-240-2 / 400V, 3923273
- ☐ MBSM 75-240-2 AS / 400V, 3923274
- ☐ MBSM 100-140-1 / 230V, 3923141
- ☐ MBSM 100-140-2 / 400V, 3923142
- ☐ MBSM 150-203-2 / 400V, 3925315
- ☐ MBSM 150-203-2 AS / 400V, 3925316
- ☐ MBSM 150-240-2 / 400V, 3923315
- ☐ MBSM 150-240-2 AS / 400V, 3923316

Serial number*: _____

Year of construction*: 20___

* Fill in these fields according to the information on the type plate

complies with all relevant provisions of the above-mentioned Directive and the other applicable Directives (hereinafter) – including any amendments thereto in force at the time of the declaration.

Relevant EU directives		
	2014/30/EU	EMC Directive
	2012/19/EU	WEEE Directive
	2011/65/EU	RoHS Directive

The following harmonized standards were applied:

EN ISO 12100:2010	Safety of machinery - General principles for design - Risk assessment and risk reduction (ISO 12100:2010)
EN 60204-1:2018	Safety of machinery - Electrical equipment of machines - Part 1: General requirements (IEC 60204-1:2016, modified)

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Hallstadt, May 23, 2025

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Kilian Stürmer
Managing Director

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15 notes


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