KVIA ApS, Kausager 6, DK - 6200 Aabenraa

Cow Brushes

User manual

USER HANDBOOK

Cow Brushes

Congratulations on your new cow brush!

We are confident that this brush will fulfil your expectations.
It is easy to operate for the animals – it is agile and maneuverable – and it performs a gentle massage. It is important to read this manual carefully before using the brush.
Follow the instructions and you will get a full and long-lasting benefit from your new cow brush.

The brush fulfils the requirements of the EU Machinery Directive and is therefore CE labelled.

Machine type:	**Cow brush**
Type number:	**Otto**
Serial number:	
Manufacturer:	**KVIA ApS**

TABLE OF CONTENT

PRODUCT DESCRIPTION

The brush works by rotating a brush system mounted on a round nylon disc by means of a geared motor. The brush unit is one unit with rigid nylon bristles attached. The brush contains several thousand nylon hairs.

The brush and geared motor are combined into 1 unit, which is mounted on a fixed motor flange on the wall arm. The brush can move between a rubber suspension.

The brush starts automatically when the cow pushes it.

The Otto brush starts in the opposite direction of rotation every time it starts.

A shield is mounted on the outside of the brush disc to prevent the cow from getting its tail caught on the brush.

WARNINGS

- Always install a safety switch on the fixed installation to switch off the power to the brush's electrical system
- Always switch off the power at the switch when working on the machine
- Only connect the cow brush to an approved electrical installation with additional protection
- Check voltage, fuses, cables and any junction boxes before connecting the brush
- Do not touch the plug and socket with wet hands
- Replace damaged wires immediately
- Check the bolts of the cow brush every 6 months and tighten them as needed
- Incorrect connection of the cow brush can cause fatal electric shocks

SETUP/INSTALLATION

Unpack the cow brush from its packaging and inspect it for any transport damage.

The cow brush must be set up in a safe and secure manner, possibly using a hoist or forklift truck.

Mount the wall bracket and stand using the supplied fixing bolts.

Check voltage, fuses, cables and stop button before connecting.

Connecting the cow brush must be done with the electricity disconnected.

Always install a safety switch in front of the brush's electrical system.

Only connect the cow brush to an approved electrical installation with extra protection.
All cow brushes have frequency converter operation.

If you are in doubt about the connection, contact your electrician.

GETTING STARTED/OPERATION

- Connect the cow brush as described in the section; "Setup/Installation"
- Tighten all bolts and screws before commissioning
- Before switching on the power, check the free movement of the brush by pushing it in all directions
- If the cow brush is mounted on a wall stand, the installer must ensure that the wall stand can support the weight of the brush under load
- Connect power to the cow brush, switch on the circuit breaker
- Cow brush starts with motion sensor
- The brush starts when the cow pushes the brush
- Brush changes direction of rotation at every start-up

MAINTENANCE

The cow brush has a direct drive from motor to gearbox to brush shaft, which, together with a lifetime-lubricated gearbox, means that the transmission itself is maintenance-free.

SEMI-ANNUAL MAINTENANCE

- Lubricate the grease nipple on the brush support arm with consistency grease.

- Check the brush module for impurities. Clean if necessary.

The brush module wears out over time and some of the modules wear more than others. The modules should be replaced when the bristles are no longer brushing effectively.

Troubleshooting		
Symptom	Cause	Solution
Brush motor stops	Stop button released	Pull out the stop button
Brush motor stops	Cable breakage	Switch off brush, power off Replace the cable
Machine makes noise and squeaks	Lack og lubrication	Lubricate grease nipples according to lubrication list

REPAIR/REMOVAL

It should be strived for as far as possible that all commonly occurring repairs and replacements are carried out by a trained craftsman or a maintenance man.

Any repairs beyond what is described in the "Troubleshooting" section must be carried out by a service technician sent or approved by KVIA ApS, or if the problem appears to be electrical in nature, an authorised electrician must be used.

If unauthorised personnel attempts to repair the system, this will affect the warranty, as will replacement with non-original spare parts.

When dismantling/disposing of the cow brush, the following procedure should be used:

1. Remove brush modules, tail guard and other plastic parts and destroy them separately.
2. Remove the gear, motor, bearing and electrical control with cables.
3. The remaining parts can now be sent together for scrapping and will have a higher scrap value as the parts are made of stainless steel.

When reselling used equipment to a third party, it is the seller's responsibility to ensure that the machine is in a safe condition and that the buyer is provided with a complete manual.

WARRANTY/PRODUCT LIABILITY

The attached EU Declaration of Conformity also serves as your warranty certificate.
The warranty is valid for five calendar years from the date of signature.

THE WARRANTY COVERS:

- The mechanical and electrical faults of the entire cow brush including:
    - Faults in components
    - Construction defects
    - Manufacturing defects
- Labour and materials
    - Liability is only covered if the machine is defective from the factory

WARRANTY RESERVATIONS:
Liability is reduced/void if the user does not follow the maintenance instructions or uses unauthorised spare parts that are not approved by KVIA ApS.

The warranty does not cover the following cases:

- When the machine has been attempted to be repaired by unauthorised personnel
- If the machine has been exposed to violence, frost, transport damage or other inappropriate overload
- Faults caused by installation failure
  Wear parts, bearings, gaskets, brushes, etc.

NOT COVERED BY WARRANTY:

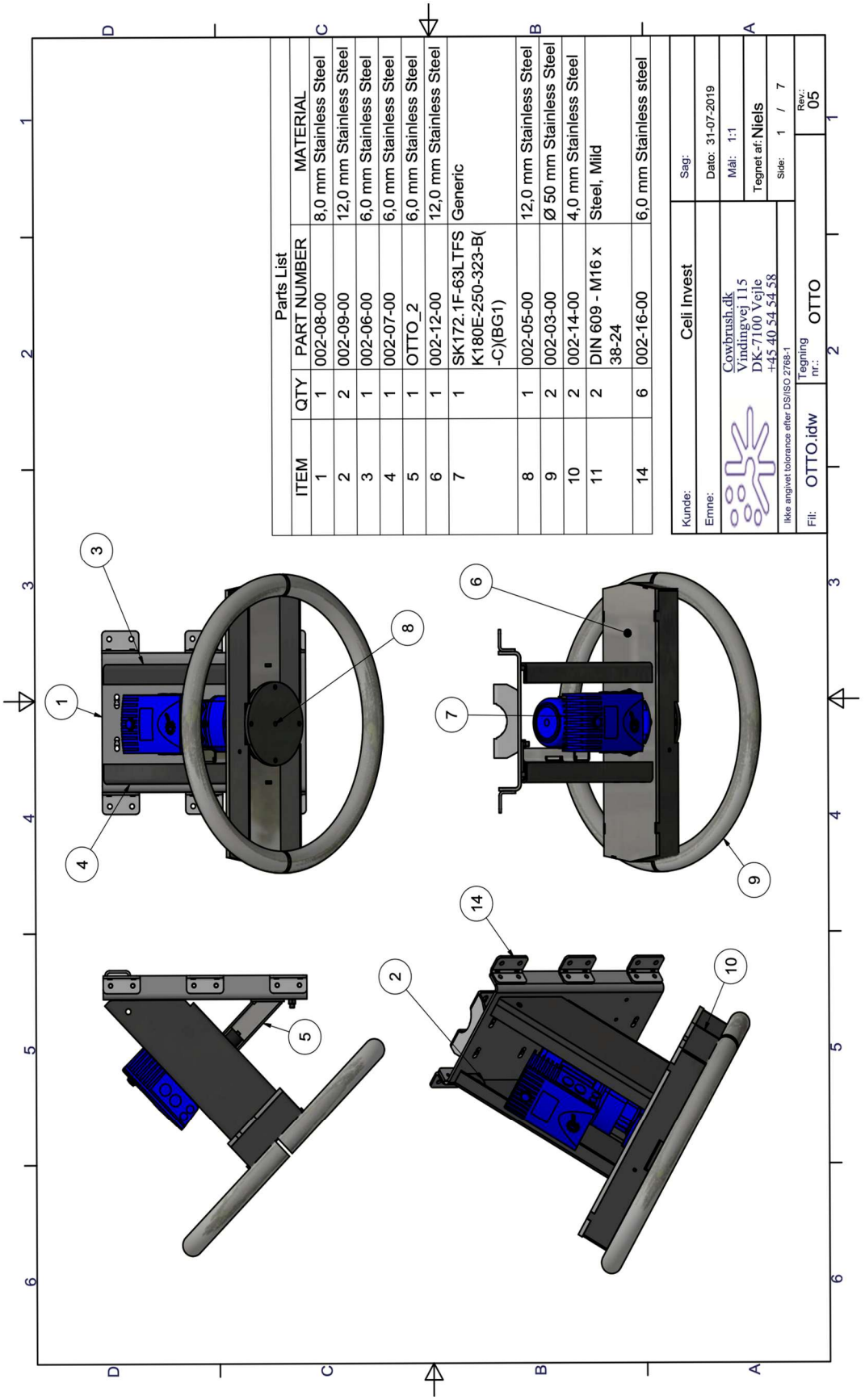
- Brush wear and tear

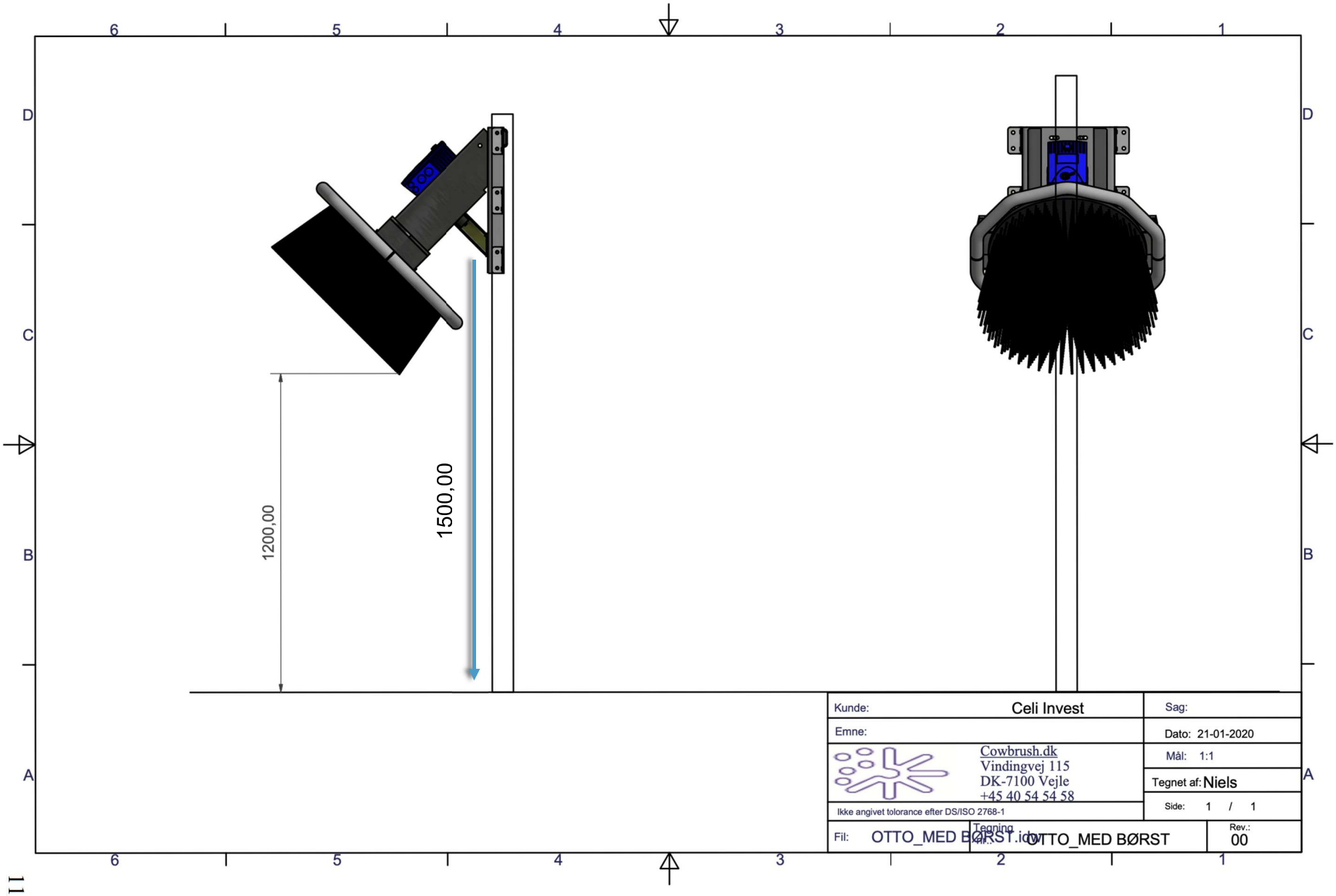
KVIA ApS accepts no liability for indirect damage.

If the cow brush is to be included as part of an overall system, it is the responsibility of the company performing the final assembly to prepare the necessary documentation in accordance with the EU Machinery Directive.

TECHNICAL SPECIFICATIONS			
Model	Karoline	Molly	Otto
Hight from floor to brush section	60-80 cm	60-80 cm	120-140 cm
Brush length	340 / 200	340	
Brush Diameter	500	500	600
Distance from wall	1150	1150	
Power consumption	0,25 kW	0,25kW	0,12kW
Weight	52	63	
Noise levels db.	<50	<50	<50

SPARE PARTS SKETCH





Kunde:	Celi Invest	Sag:	
Emne:		Dato:	21-01-2020
	Cowbrush.dk Vindingvej 115 DK-7100 Vejle +45 40 54 54 58	Mål:	1:1
		Tegnet af:	Niels
Ikke angivet tolorance efter DS/ISO 2768-1		Side:	1 / 1
Fil:	OTTO_MED BØRST.idw	Tegning nr.: OTTO_MED BØRST	Rev.: 00

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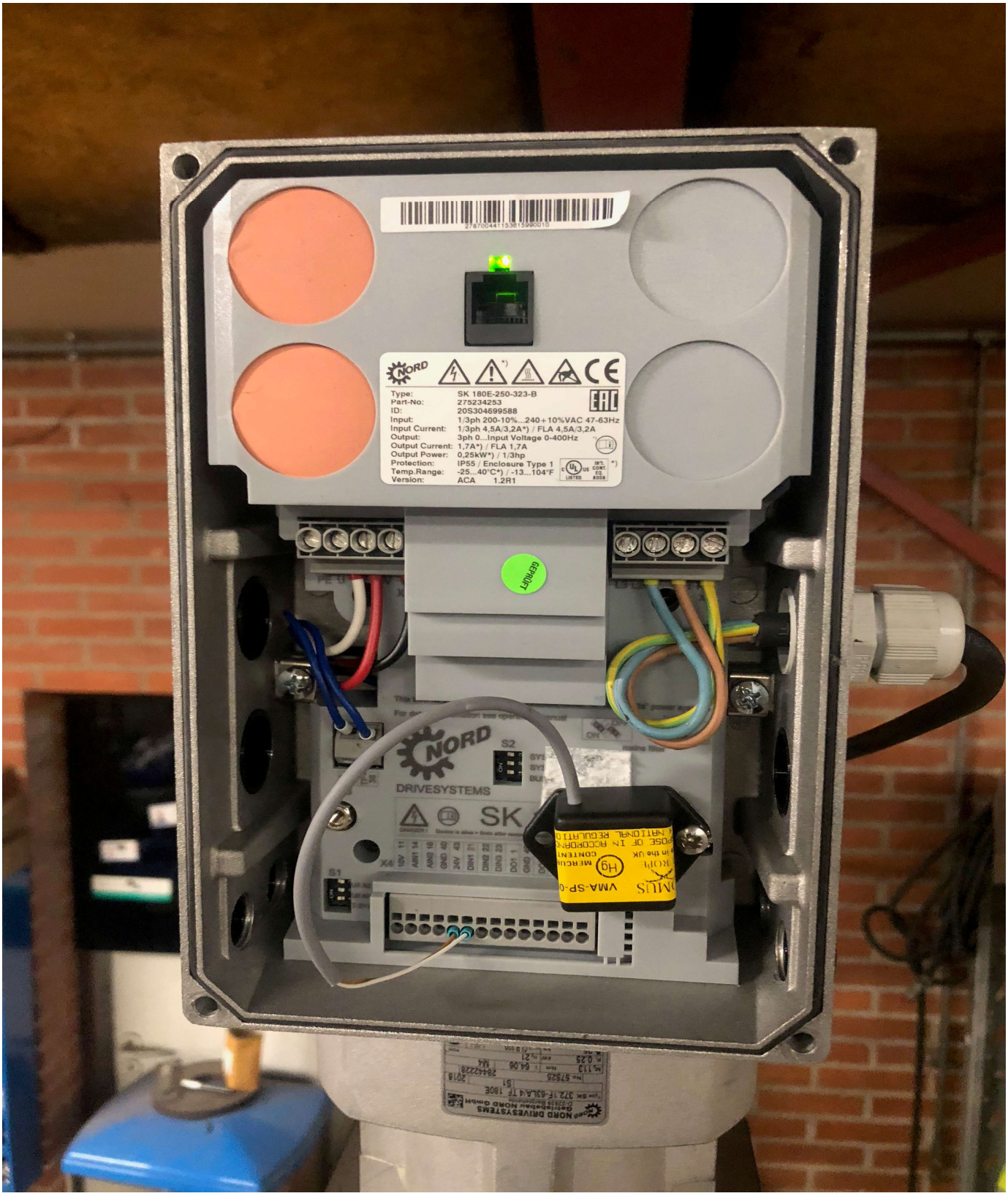
OTTO

APPENDIX

1. Electrical Diagram



2. EU Declaration of Conformity (1)

GETRIEBEBAU NORD
Member of the NORD DRIVESYSTEMS Group

NORD DRIVESYSTEMS

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C310400_2219

EU Declaration of Conformity

In the meaning of the directive 2014/35/EU Annex IV, 2014/30/EU Annex II and 2011/65/EU Annex VI

Getriebebau NORD GmbH & Co. KG as manufacturer in sole responsibility hereby declares, that the variable speed drives from the product series

- **SK 180E-xxx-123-B-.. , SK 180E-xxx-323-B-.. , SK 180E-xxx-340-B-..**
- **SK 190E-xxx-123-B-.. , SK 190E-xxx-323-B-.. , SK 190E-xxx-340-B-..**
  (xxx= 250, 370, 550, 750, 111, 151, 221)

  and the further options/accessories:
  SK CU4-... , SK TU4-... , SK TI4-... , SK TIE4-... , SK BRI4-... , SK BRE4-... ,
  SK PAR-3. , SK CSX-3. , SK SSX-3A, SK POT1-. , SK TIE5-BT-STICK

comply with the following regulations:

Low Voltage Directive	**2014/35/EU**	OJ. L 96 of 29.3.2014, p. 357–374
EMC Directive	**2014/30/EU**	OJ. L 96 of 29.3.2014, p. 79–106
RoHS Directive	**2011/65/EU**	OJ. L 174 of 1.7.2011, p. 88–11
Delegated Directive(EU)	**2015/863**	OJ. L 137 of 4.6.2015, p. 10–12

Applied standards:

EN 61800-5-1:2007+A1:2017	EN 61800-3:2004+A1:2012+AC:2014	EN 61800-9-1:2017
EN 60529:1991+A1:2000+A2:2013+AC:2016	EN 50581:2012	EN 61800-9-2:2017

It is necessary to notice the data in the operating manual to meet the regulations of the EMC-Directive. Specially take care about correct EMC installation and cabling, differences in the field of applications and if necessary original accessories.

First marking was carried out in 2014.

Bargteheide, 28.05.2019

U. Küchenmeister
Managing Director

pp F. Wiedemann
Head of Inverter Division

2. EU Declaration of Conformity (2)

GETRIEBEBAU NORD
Member of the NORD DRIVESYSTEMS Group

DRIVESYSTEMS

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C210102_2919

EU Declaration of Conformity

In the meaning of the directive 2014/35/EU Annex IV, 2014/30/EU Annex II, 2009/125/EC Annex IV, 2011/65/EU Annex VI

Getriebebau NORD GmbH & Co. KG as manufacturer in sole responsibility hereby declares, that the single- and three-phase asynchronous motors from the product series

- **SK 63*0) *1)/*2) *3) to SK 315*0) *1)/*2) *3)**
  - 0) Frame sizes: 63, 71, 80, 90, 100, 112, 132, 160, 180, 200, 225, 250, 280, 315
  - 1) Power code: S, SA, SX, M, MA, MB, MX, L, LA, LB, LX, R, X, Y, A, W -optionally supplemented by: H, P, Q
  - 2) Number of poles: 2, 4, 6, 8, ...
  - 3) Additional options (e.g. HM TF)

comply with the following regulations:

Low Voltage Directive	**2014/35/EU**	OJ. L 96 of 29th March 2014, P. 357–374
Eco-design Directive	**2009/125/EC (VO No. 640/2009)**	OJ. L 285 of 31th October 2009, P. 10–35
EMC Directive	**2014/30/EU**	OJ. L 96 of 29th March 2014, P. 79–106
RoHS Directive	**2011/65/EU**	OJ. L 174 of 1th July 2011, P. 88–110
Delegated Directive (EU)	**2015/863**	OJ L137 of 4th June 2015, P. 10-12

Applied standards:

EN 60034-1:2010+AC:2010	EN 60034-2-1:2014	EN 60034-5:2001+A1:2007
EN 60034-6:1993	EN 60034-7:1993+A1:2001	EN 60034-8:2007+A1:2014
EN 60034-9:2005+A1:2007	EN 60034-11:2004	EN 60034-14:2018
EN 60034-30-1:2014	EN 55011:2016+A1:2017	EN 61000-6-3:2007+A1:2011+AC:2012
EN 61000-6-4:2007+A1:2011	EN 60204-1:2018	EN IEC 63000:2018

First marking was carried out in 1996.

Bargteheide, 22.07.2019

U. Küchenmeister
Managing Director

Dr. O. Sadi
Technical Director