

Operating manual for DC- /EC- motors

name: BCI-63.55 B00

item number: 9316355001

The name and the item number as well as the manufacturing date (calendar week/year of construction) can be found either on the nameplate or as overprint on the product.

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IMPORTANT SAFETY INFORMATION

This manual has to be supplied to the staff before working on or with the product, before every installation and operation, before maintenance or overhauls and any other use. Keep this manual for any later use and for following owners.

By all means read this manual carefully before working on or with the product. Pay attention to the following information and warnings to avoid risk of persons or objects and act accordingly.

In the event of resale or transfer of the product the manual must accompany the product. This manual may be copied and provided as information on potential risks and their avoidance.

Hazard classification of warning notices

The following risk ratings are used in this manual to denote potential risk situations and important safety instructions:



DANGER

This is a potentially dangerous situation and warns of an impending health risk or risk of fatal injury if this warning is not observed. Observe this warning by all means.



WARNING

The dangerous situation can occur and result in major or fatal injuries if the warning is not observed. Work with extreme care.



CAUTION

The dangerous situation can occur and result in minor injuries or damage to property if the warning is not observed.



NOTE

A potentially dangerous situation can occur and result in damage to property if not avoided.

Qualification of personnel

Only instructed and authorized skilled personnel is permitted to transport, unpack, operate and service the product.

Only skilled electricians are permitted to install the product, carry out the test run and work on the electrical unit.

Basic safety regulations

Safety risks related to the product must be reassessed after installation into the final device.

The operating manual was developed in accordance with European market requirements and may need adapting to the market requirements of the country in question.

When working on or with the product, observe the following:

Electrical voltage and current

DANGER Electrical voltage

Regularly check the electrical equipment of the product.

Even at low supply voltage the voltage may rise due to current regeneration of energy. Motors which decelerate or slow down, work similarly to a generator and hereby release electrical power. Thus life-threatening voltages can arise. Eliminate immediately loose connections and defective cables. All connections may only be contacted when not under voltage.



Risk of injury!

Do not wear loose-fitting garments or jewellery or other objects when working on moving parts. Protect long hair by wearing a hair net.

WARNING 251659264 Electromagnetic radiation

At the system integration of the product in the context of electromagnetic compatibility (EMC) there may occur influences by interaction. Ensure the electromagnetic compatibility of the total system.



WARNING Health risk for persons with heart pacemakers, metallic implants and hearing aid devices

These persons are not allowed to enter the following areas: areas in which electrical devices and parts are mounted, run or put into service. areas in which motor parts with permanent magnets are stored, repaired or mounted.



Safety and protective functions

DANGER Dangerous movements

Pay attention to sufficient safeguards in the devices and facilities. There are dangerous movements because of faulty triggering of motors.

Possible correctives are: Keep clear of the movement area of the devices or facilities. Provide sufficient tightness of the protection cover and housing against the maximum movement and rotation energy respectively. Before opening of the devices or when entering the danger area stop all motors completely and secure them from being switched on again.



WARNING A noise pressure level higher than 70dB(A) is possible depending on the installation and operating conditions.

Risk of deafness due to noise. Take technical protective measures. Provide operating personnel with protective equipment, e.g. ear protection.



Moving parts

DANGER Self-starting product

If voltage is applied, the motor -- depending on the type -- can automatically restart after a mains failure or when blocking has been eliminated.

Do not stand in the danger zone of the product. Switch off the mains voltage when working on the product and secure it against switching on again.



CAUTION Hot surface - Risk of burns High temperature at motor housing or heat sink

Provide adequate protection against accidental contact. Pay attention to sufficient cooling.



Transport

Transport the product only in its original packaging. Secure during transport. The vibration values, temperature and climate ranges should not be exceeded during transport.

Storage

Store the product in a dry and clean environment that is well protected. Observe the storage temperature referred to in the technical data.

Do not make any alterations to the product.

WARNING Impermissible high loading

After impermissible loading (e.g. impact, heat, overvoltage, axial or radial stress) the product can be damaged and must be stopped immediately. Check prior to each use for their proper condition.



WARNING Rotating parts (shaft / rotor)

Objects like long hair, loose-fitting garments and jewellery can be caught and pulled into the rotating motor parts.



TECHNICAL DATA

Please see the exact technical data in the detailed specifications of the products.

INTENDED USE

This motor is a built-in device. It is only intended for the use within devices and has no independent function. It is not meant to be passed on to the end user. All motors and all motor-controller combinations must be qualified by the final manufacturer within its intended application and must be validated for overload and block safety. The final manufacturer is responsible for the final product and must ensure sufficient safety measures.

NOT INTENDED USE

Do not use this product in technical systems, for which special requirements to the failure safety are mandatory. This includes e.g. the usage

- in aircraft and spacecraft,
- in railway vehicles, motor vehicles and ships as well as
- in explosive atmospheres (explosion-risk areas)

In these areas the use of the product is forbidden:

- operating of the product near combustible materials or components
- usage of the product as safety related component or to take over safety related functions
- operating with completely or partly dismantled or changed safety devices
- All usages mentioned under NOT INTENDED USE (see above).

CONNECTION AND COMMISSIONING

Connect mechanical parts



CAUTION

Risk of cuts or crushing when removing the product from the packaging and during mounting.

Grasp the housing and lift the product carefully out of the packaging. Avoid impact by all means!

- Wear safety boots and cut-resistant gloves.
- Use suitable mounting devices.



NOTE

Risk of damage to electronic components.

Use ESD protective equipment when mounting.

Connect electrical parts

Connect to the mains after mechanical installation.



DANGER

Risk of fatal injury from electrical current, do not touch any parts carrying live voltage.

Only electrically qualified persons are allowed to carry out the electrical work.

Ensure that the electrical lines are de-energized.

Secure the operating voltage against switching on again.

Never work on parts that are energized.



CAUTION

Electrical voltage

The product is a built-in component and has no switch for disconnecting power.

Only connect the product to current circuits that can be switched off by a switch (all poles disconnected).

When working on the product secure that the system/machine is absolutely switched off and it is secured against restart.

Requirements for connection and commissioning:

- Before connecting the product, ensure that the supply voltage corresponds with the product voltage.
- Check whether the data on the nameplate and the detailed specification correspond with the interface data of the power supply.
- Only use cables that are designed for the current on the nameplate and the corresponding ambient conditions. Ensure that the electrical interface data is adequately protected (mechanical).



The wiring diagram is to be found in the manual.

Switch the product on

Before each switching on examine the product carefully for visible damage and other adverse effects. Furthermore check the proper condition and operability of protective equipment each time. If damage is visible, do not start the product and do not use it for any

other purposes.

FAULTS, POSSIBLE CAUSES AND REMEDIES

Do not repair the product yourself.



DANGER Electrical voltage at motor

Open the product after the standstill of the motor and after the voltage (all poles) is switched off.

Fault/ Error	Possible cause	Possible remedial action
Motor is not rotating	Mechanical blocking	Switch off, de-energize and eliminate mechanical blocking.
	Mains voltage fault	Check mains voltage, re-connect voltage supply.
	Connection faulty	Rectify connection, see pin connection.
	Motor is too hot.	Allow motor to cool / identify cause of fault.
	Motor winding interrupted	Exchange product.
	Ambient temperature too high	Reduce ambient temperature if possible.

Cleaning

Product damaged during cleaning, malfunction possible:

- Do not clean the product using a water jet or pressure washer.
- Do not use cleaning agents that contain acids, caustic solutions or solvents.
- Do not clean the product using pointed or edgy objects.

Maintenance

During the foreseen life expectancy the motors are maintenance-free.

Disposal

When disposing of the product, observe all requirements and regulations that are relevant in your country.



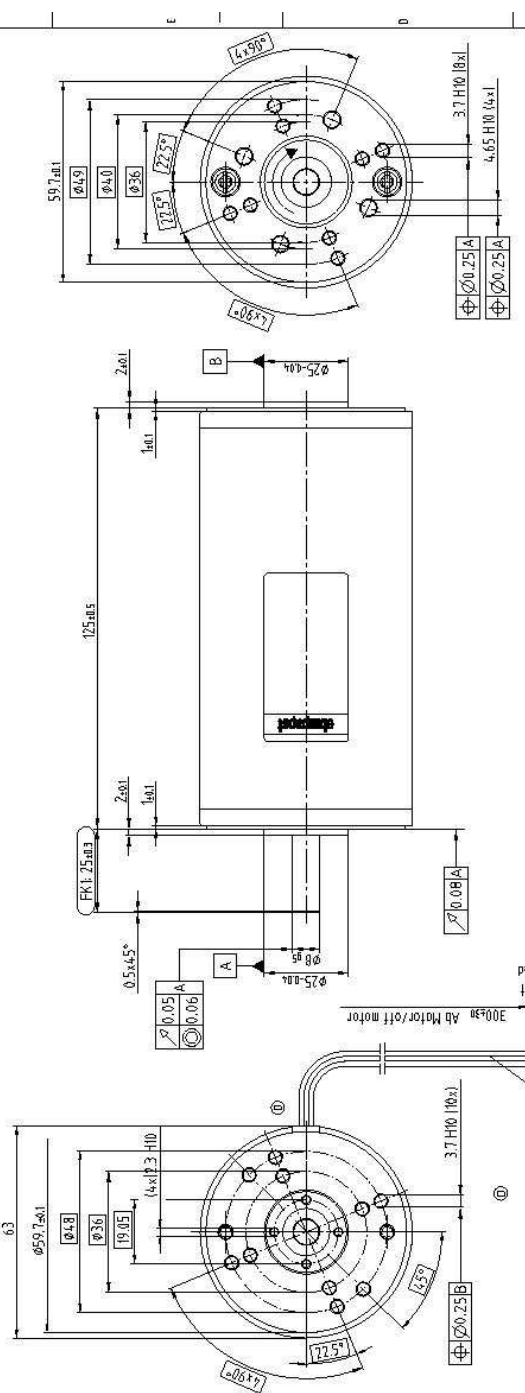
In case of further faults, contact ebm-papst.





Motor Daten / Motor Data

Bezeichnung	U _N	Y _c	Z _N
Nennspannung			
Nennleistung			
Nennstrom			
Wirkungsgrad			
Lebensdauer			
Temperaturklasse			
... (rows omitted for brevity) ...			



Sacklochbohrungen für gewindeformende Schrauben nach DIN 7500
blind holes for thread-forming screws according to DIN 7500

AS	BS
Ø3,7H10	Ø3,7H10
7mm	7mm
Ø4,65H10	Ø4,65H10
7mm	7mm

Technische Ausführung elektrische Daten
und Maße nach Prüfung freigegeben
Technical Specification, Electrical Data And
Dimensions Approved

Datum / Date
Firmenstempel / Stamp
Unterschrift / Signature

Ab Motor/off motor
UL Style 1002
CSA TP 64



Gesamt Zahl / Total Number	Merkmale / Characteristics	Gültigkeit Zahl / Valid Number
2	A-Merkmale / A-Characteristics	-
3	FK-Merkmale / FK-Characteristics	-
-	PK-Merkmale / PK-Characteristics	-

(A X: XXX) = Merkmale unterliegen einer besonderen Anfertigung
characteristics are subject to special filing

(FK X: XXX) = Funktionsspezifische Merkmale
function-critical characteristics

(PK X: XXX) = Prozesskritische Merkmale
process-critical characteristics



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