

**Document No. / month.year:** ce\_dr\_rsafety-f6-e-2-9\_en.docx / 10.2023

KEB Automation KG Manufacturer:

> Südstraße 38 32683 BARNTRUP

Germany

Product type: Inverter type yy**F6**zxx - xxxx

Inverter size yy = 12 up to 33 (housing 2 - 9 )

Control type z = A, K; P

x = any number or letter for different versions

Voltage category 230 / 400 V ac

This declaration of conformity is issued under the sole responsibility of KEB.

The above given product is in accordance with the following directives of the European Union

Number: Machine: 2006 / 42 / EU Text: Directive on machinery.

Number: EMC: 2014/30/EU

Text: Directive on the approximation of the laws of the Member States relating to

electromagnetic compatibility.

Eco Design: 2009 / 125 / EC (incl. 2019 / 1781 / EC) Number:

Directive on the approximation of the laws of the Member States establishing a Text:

framework for the setting of ecodesign requirements for energy-related products

Number: Hazardous Substances: 2011 / 65 / EEC (incl. 2015 / 863 / EU)

Directive on the approximation of the laws of the Member States relating on the Text:

restriction of the use of certain hazardous substances in electrical and electronic

equipment.

Responsible: **KEB Automation KG** 

> Südstraße 38 32683 BARNTRUP

Place, date Barntrup, 18. October 2023

Issued by:

W. Wiele / Technical Manager

This declaration certifies the conformity with the named directives, but does not contain any assurance of quality.

The safety instructions, described in the instruction manual are to be followed.



#### ANNEX 1 - A- Control board

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Product type: Inverter type yy**F6**zxx - xxxx

> Inverter size yy = 12 up to 33 (housing 2 - 9 )

Control type

x = any number or letter for different versions

Voltage category 230 / 400 V ac

The above given product is in accordance with the following directives of the European Union 2006 / 42 / EU Directive on Machinery

> Definitions: Article 2, c) Safety component

Annex V Safety components: 4. Logic units to ensure safety functions

The conformity is given by complete approval / testing to the following European harmonized standards:

EN - standard Text:

EN 61800-5-2 Adjustable speed electrical power drive systems – part 5-2: Safety

requirements - Functional Safety

EN 60204 - 1 Safety of machinery - Electrical equipment of machines -

Part 1: General requirements

Safety of Machinery – Functional Safety of safety-related electrical, EN 62061

electronic and programmable electronic control systems

EN ISO 13849-1 Safety of Machinery - Safety-related parts of control systems -

Part 1: General principles for design

EN61508 - 1 up to 7 Functional Safety of electrical, electronic and programmable

electronic safety-related systems - Part 1 up to 7

The details for version of standard are given in below certificates by number!

The following Safety Boards may be used. The conformity to above requirements within the standards was approved by:

Notified body: TÜV – Rheinland Industrie Service GmbH

Adress: Zertifizierungsstelle für Maschinen (NB Nr. 0035)

> Alboinstrasse 56 D - 12103 Berlin

No. of Certificate Dated: Valid until: Safety Board Typ 1 01/205/5056.03/20 26.05.2020 xx F6 A1x - xxxx 26.05.2025 Safety Board Typ 3 xx F6 A3x - xxxx 01/205/5781.00/20 28.05.2020 28.05.2025

Details for versions are given in TÜV revision list!



#### ANNEX 2 - K- Control board

Document-No. / month.year: ce dr rsafety-f6-e-2-9 en.docx / 10.2023

Product type: Inverter type yy**F6**zxx - xxxx

Inverter size yy = 12 up to 33 (housing 2 - 9 )

Control type z = K

x = any number or letter for different versions

Voltage category 230 / 400 V ac

The above given product is in accordance with the following directives of the European Union 2006 / 42 / EU Directive on Machinery

> Article 2. c) Safety component

Annex V Safety components: 4. Logic units to ensure safety functions

The conformity is given by complete approval / testing to the following European harmonized standards:

EN - standard Text:

EN 61800-5-2 ( 2007 + 2017 ) Adjustable speed electrical power drive systems – part 5-2: Safety

requirements - Functional Safety

EN 60204 - 1 Safety of machinery - Electrical equipment of machines -

Part 1: General requirements

EN 62061 Safety of Machinery - Functional Safety of safety-related electrical,

electronic and programmable electronic control systems

EN ISO 13849-1 Safety of Machinery – Safety-related parts of control systems –

Part 1: General principles for design

EN61508 - 1 up to 7 Functional Safety of electrical, electronic and programmable

electronic safety-related systems - Part 1 up to 7

The details for version of standard are given in below certificates by number!

The following Safety Boards may be used. The conformity to above requirements within the standards was approved by:

Notified body: TÜV - Rheinland Industrie Service GmbH

Zertifizierungsstelle für Maschinen (NB Nr. 0035) Adress:

Alboinstrasse 56 D - 12103 Berlin

No. of Certificate Valid until: Dated:

Control Board 3KF6 x30 - 0010, 01 / 205 / 5517.03 / 22 28.11.2022 28.11.2027

> 3KF6 x30 - 0011,  $3KF6 \times 30 - 0012$ 3KF6 x30 - 0013 3KF6 x30 - 0014 3KF6 x30 - 0015

Details for versions are given in TÜV revision list!



#### ANNEX 3 - P- Control board

Document-No. / month.year: ce dr rsafety-f6-e-2-9 en.docx / 10.2023

Product type: Inverter type yy**F6**zxx - xxxx

> Inverter size yy = 12 up to 33 (housing 2 - 9 )

Control type

x = any number or letter for different versions

Voltage category 230 / 400 V ac

The above given product is in accordance with the following directives of the European Union 2006 / 42 / EU Directive on Machinery

> Article 2, Definitions: c) Safety component

Annex V Safety components: 4. Logic units to ensure safety functions

The conformity is given by complete approval / testing to the following European harmonized standards:

EN - standard Text:

Adjustable speed electrical power drive systems – part 5-2: Safety EN 61800-5-2

requirements - Functional Safety

EN 60204 - 1 Safety of machinery - Electrical equipment of machines -

Part 1: General requirements

EN 62061 Safety of Machinery - Functional Safety of safety-related electrical,

electronic and programmable electronic control systems

EN ISO 13849-1 Safety of Machinery - Safety-related parts of control systems -

Part 1: General principles for design

Functional Safety of electrical, electronic and programmable EN61508 - 1 up to 7

electronic safety-related systems - Part 1 up to 7

IEC 61131 - 2 Programmable Controllers - Functional Safety

The details for version of standard are given in below certificates by number!

The following Safety Boards may be used. The conformity to above requirements within the standards was approved by:

Notified body: TÜV - Rheinland Industrie Service GmbH

Zertifizierungsstelle für Maschinen (NB Nr. 0035) Adress:

> Alboinstrasse 56 D - 12103 Berlin

> > No. of Certificate Dated: Valid until:

Safety Board Typ 5 05H6010-0003 01/205/5768.00/20 21.04.2020 21.04.2025

05H6010-0004

Details for versions are given in TÜV revision list!



### ANNEX 4 (informative)

Document-No. / month.year: ce dr rsafety-f6-e-2-9 en.docx / 10.2023

Inverter type Product type: yy**F6**zxx - xxxx

Inverter size yy = 12 up to 33 (housing 2 - 9 )

Control type z = A, K, P

x = any number or letter for different versions

Voltage category 230 / 400 V ac

The conformity of the above given product to the

European Directive 2014/35/EU (for electrical equipment designed for use within certain voltage limits) is given by complete approval / testing to the following European harmonized standards:

EN - standard

EN 61800-5-1 Adjustable speed electrical power drive systems - part 5-1: Safety requirements -

Electrical, thermal and energy

EN 61800-2 Adjustable speed electrical power drive systems – part 2: general requirements –

rating specifications for low voltage adjustable speed a.c. power drive systems

European Directive 2014/30/EU (for electromagnetic compatibility ) is given by complete approval / testing to the following European harmonized standards. Base for the complete approval is the definition of a complete PDS (power drive system). For not exceeding the required limits or minimum levels of immunity it is necessary to use the KEB defined filters and observe the given wiring specifications.

EN 61800-3: 2018 Adjustable speed electrical power drive systems – part 5-1: EMC

requirements and specific test methods

European Directive 2009/125/EC (establishing a framework for the setting of ecodesign requirements for energy-related products) is given by complete approval / testing to the regulation 2019/1781/EU

Adjustable speed electrical power drive systems – part 9-2: Ecodesign for power Informativ: drive systems, motor starters, power electronics and their driven applications – EN 61800-9-2 / 2017 Energy efficiency indicators for power drive systems and motor starters

European Directive 2011/65/EU with changes of 2015/863/EU (for restrictions of the use for certain hazardous substances in electrical and electronic equipment ) is given by qualification of components and manufacturing process within the ISO 9001 QM system. The necessary information and declarations are documented and memorized.

EN 63000: 2018 Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances

The above given product was developed, manufactured and tested within an internal quality management system. This ISO 9001 QM system was approved by:

TÜV - CERT Notified body:

Zertifizierungsstelle des RWTÜV Adress:

> Steubenstrasse 53 D - 45138 Essen

No. of approval 041 004 500 Dated: 20.10.1994 Valid until: December 2024