TYPE APPROVAL CERTIFICATE

DNV·GI

This is to certify that the undernoted product(s) has/have been tested in accordance with the relevant requirements of the DNV GL Type Approval System.

Certificate No.

45 320 - 16 HH

Company

Robert Birkenbeul GmbH & Co.KG

Auf der Bitze 4

57577-Hamm/Sieg, GERMANY

Product Description

6APE.. - series, 7APE.. - series, 8APE.. - series

Sizes 71M up to 315L

Type

Asynchronous Low-Voltage Motors

Environmental Category

Technical Data / Range of Application Places of manufacturing:

97616 Bad Neustadt, Germany 789 85 Mohelnice, Czech Republic 744 01 Frenstat, Czech Republic

Rated voltage:

200 V up to 690 V

Rated power:

S1 0,03 kW up to 378 kW 750 1/min up to 3600 1/min

Synchronous speed: Rated frequency:

50 Hz, 60 Hz, conv. Operation <= 690V

Ambient temperature: 45° C or 50 °C Thermal class: 155 (F), 180 (H)
Degree of protection: IP 55, IP 56, IP 65

2, 4, 6, 8 and pole-changing types

No. of poles: Spec. Model:

For marine applications / environments On request optional with built-in units like

e.g. brakes, external fans, encoders

Test Standard

IEC 60034-1:2010-02, IEC 92-301-3rd ed. 1980 + Amd 1-1994 + Amd 2-1995

GL Test Requirements for Electrical Machinery (VI-7-6), edition 1999

Documents

Birkenbeul-Catalogues: Motor line IE2-28.04.2016, Motor line IE3-03.03.2016 Operating instruction for motor types 1TZ9.., 6AP.., 7AP.., 8AP.., 9AP.. / 02-

2016

Relevant documents, drawings, test reports are listed on page 2

Remarks

This certificate is issued on the basis of GL Guidelines for the Performance of

Type Approvals, Chapter 1 - Procedure (VI-7-1), Edition 2007.

Valid until

2020-05-18

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File No.

I.G.03

Hamburg, 2016-05-31

Type Approval Symbol

DNV GL

Schaarmann

Heinz-Dieter Hespe

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Motor description:

Type: 6APE... Aluminium motor, self-ventilated or separate-ventilated

Aluminium motor, non-ventilated (without fan)

Frame sizes 71 to 160, IE2

Type: 7APE... Cast iron motor, self-ventilated or separate-ventilated

Cast iron motor, non-ventilated (without fan)

Frame sizes 180 to 315, IE2

Type: 8APE... Cast iron and aluminium motor, self-ventilated or separate-ventilated

Cast iron and aluminium motor, non-ventilated (without fan)

Frame sizes 80 to 315, IE3

Documents:

Datasheets Motor line IE2, part 2 – 6APE, 7APE... dated 28.04.2016 Datasheets Motor line IE3, part 2 – 8APE... dated 03.03.2016

Drawing "8APE250M-4-IE3-IMB3", motor dimension, dated 17.11.2015 Drawing "8APE280S-4-IE3-IMB3", motor dimension, dated 17.11.2015 .. Drawing "Normwelle 8APE250M-4IE3" dated 26.04.2016

- .. Drawing "Normwelle 8APE250M-4IE3" dated 26.04.2016
- .. Drawing "Normwelle 8APE280M-4IE3" dated 25.04.2016

Part list "Stückliste 8APE250M-4" dated 26.04.2016 Part list "Stückliste 8APE280S-4-IE3-IMB3", dated 26.04.2016

Test reports:

3F Asynchronmotor 8APE280S-4, 75 kW, DNV-GL Prfg 2, dated 28.04.2016 3F Asynchronmotor 8APE250M-4, 55 kW, DNV-GL Prfg 3, dated 28.04.2016 3F Asynchronmotor 8APE280S-4, 75 kW, DNV-GL Prfg 4, dated 26.04.2016

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DNV GL

Arne Schaarmann

Heinz-Dieter Hespe