

Type Approval Certificate



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

Certificate No. **89 736 - 94 HH**

Company **VEM motors GmbH
Elektromotorenwerk Wernigerode
Carl-Friedrich-Gauß-Straße 1
38855 Wernigerode, GERMANY**

Product Description **Induction motors
for marine applications / environments**

Type **K1xR, K2xR, WExR, W2xR 112 up to 315, K22R 355
IE*-K1xR, IE*-K2xR, IE*-WExR, IE*-W2xR, IE*-W4xR 112 up to 355**

Environmental Category **H**

Technical Data /
Range of Application **Sizes: 112, 132, 160, 180, 200, 225, 250, 280, 315, 355
Rated voltage: up to 750 V
Rated power: 0,5 kW up to 500 kW
Synchronous speed: 250 1/min up to 3600 1/min
Rated frequency: 50 Hz, 60 Hz
Ambient temperature: 45° C
Duty type: S1- S9
Thermal class: 155 [F], optional 180 [H]
Degree of protection: IP 55, IP 56, IP 66
No. of poles: 2, 4, 6, 8, 10, 12, 16, 24 and combinations
Spec. model: SS (Seewasserschutz), resistant to seawater**

Valid for all variants independent of voltage, power, speed and type of construction

**Description of type: * = 1, 2 or 3 (Efficiency class acc. to IEC)
x = 1, 2, 3 (Code for VEM construction type)**

Test Standard **DIN EN 60034 - 1 / April 2005**

Documents **Drawings ZA 744 / 01.09.93, ZA 745 / 10.09.93
Descriptions and technical data: ZA 744, BI. 1-5/09.93; EW-N 1002, BI 13-01.2005
Works acceptance certificates, test reports dated 1.+2.12.1993/11.06.2009
Testreport K22R 355My4, Ser. No. 137326/0001**

Remarks **None**

Valid until **2014-01-25**

Page **1 of 1**

File No. **I.G.03**

Hamburg, 2012-07-17

Type Approval Symbol



Germanischer Lloyd

W. Voß
Wolfgang Voß

H. Hespe
Heinz-Dieter Hespe

Type Approval Certificate



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

Certificate No. **89 735 - 94 HH**

Company **VEM motors GmbH
Elektromotorenwerk Wernigerode
Carl-Friedrich-Gauß-Straße 1
38855 Wernigerode, GERMANY**

Product Description **Induction motors
for marine applications / environments**

Type **K10R, K20R, WE0R, W20R 112 up to 315
IE*-K10R, IE*-K20R, IE*- WE0R, IE*-W20R 112 up to 315**

Environmental Category **H**

Technical Data /
Range of Application **Sizes: 112, 132, 160, 200, 225, 250, 280, 315
Rated voltage: up to 750 V
Rated power: 0,5 kW up to 300 kW
Synchronous speed: 250 1/min up to 3600 1/min
Rated frequency: 50 Hz, 60 Hz
Ambient temperature: 45° C
Duty type: S1- S9
Thermal class: 155 [F], optional 180 [H]
Degree of protection: IP 55, IP 56, IP 66
No. of poles: 2, 4, 6, 8, 10, 12, 16, 24 and combinations
Spec. model: SS (Seewasserschutz), resistant to seawater**

Valid for all variants independent of voltage, power, speed and type of construction

Description of type: * = 1, 2 or 3 (Efficiency class acc. to IEC)

Test Standard **DIN EN 60034 - 1 / April 2005**

Documents **Drawings ZA 744 / 01.09.93, ZA 745 / 10.09.93
Descriptions and technical data: ZA 744, BI. 1-5/09.93; EW-N 1002, BI 13-01.2005
Works acceptance certificates
Test reports dated 01. + 02. 12. 1993**

Remarks **None**

Valid until **2014-01-25**

Page **1 of 1**

File No. **I.G.03**

Hamburg, 2012-07-17

Type Approval Symbol



Germanischer Lloyd

i.v. w. v. s.
Wolfgang Voß

i. d. H. H. H.
Heinz-Dieter Hesse