



Germanischer Lloyd

# 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 .....

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  
Insulation class: F  
Type of enclosure: 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

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, Bl. 1 - 5/09.93; EW-N 1002, Bl 13  
Works acceptance certificates  
Test reports dated 01. + 02. 12. 1993

Remarks None

Valid until 2009-01-25

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File No. I.G.03

Hamburg, 2006-10-09

Type Approval Symbol



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Heinz-Dieter Hespe

This certificate is issued on the basis of "Guidelines for the Performance of Type Approvals Part 1, Procedure".



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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 K11R, K21R, WE1R, W21R 112 ..... up to 315 ....., K22R 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 420 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  
Insulation class: F  
Type of enclosure: 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

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Documents Drawings ZA 744 / 01.09.93, ZA 745 / 10.09.93  
Descriptions and technical data: ZA 744, Bl. 1 - 5/09.93; EW-N 1002, Bl 13  
Works acceptance certificates, test reports dated 1. + 2. 12. 1993  
Testreport K22R 355My4, Ser. No. 137326/0001 dated 20.01.04

Remarks None

Valid until 2009-01-25

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