



Lloyd's  
Register

# Type Approval Certificate

*This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.*

This certificate supersedes certificate number 05/20051 (E1) issued on 22 September 2011 which is hereby cancelled.

This certificate is issued to:

<b>PRODUCER</b>	NORIS Automation GmbH Muggenhofer Strasse 95 90429 Nürnberg Germany
<b>DESCRIPTION</b>	Single-phase A.C. Tachogenerator
<b>TYPE</b>	GE 14-09, GE 14-091, GE 14-10, GE 14-12
<b>APPLICATION</b>	Marine, offshore and industrial applications for use in environmental categories ENV1, ENV2, ENV3 and ENV4 as defined in Lloyd's Register's Type Approval System, Test Specification Number 1 – 2002.
<b>STANDARD</b>	Manufacturer's specification
<b>RATINGS</b>	Range (rpm) : 0 to 3000

*The Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations.*

*If the specified standards are amended during the validity of this certificate, the product is to be re-approved prior to it being supplied to vessels to which the amended standards apply.*

*The attached Design Appraisal Document No. HTS/ETS 32666-15 and its supplementary Type Approval Terms and Conditions form part of this Certificate.*

<b>Certificate No.</b>	05/20051 (E2)
<b>Issue Date</b>	10 November 2015
<b>Expiry Date</b>	20 November 2020
<b>Sheet</b>	1 of 1



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**Part 3**  
**Control Systems – Speed and S.H.P.s**

Producer/ Licence No.	Item Description	Technical Details	Category/ Additional Tests	Remarks	Cert. No.
NORIS Automation GmbH Muggenhofer Strasse 95 90429 Nürnberg Germany	Single-phase A.C. Tachogenerator  Types: GE 14-09 GE 14-091 GE 14-10 GE 14-12	Range (rpm) : 0 to 3000	ENV1, ENV2, ENV3, ENV4 (2002)	Expires: 20 November 2020	05/20051 (E2)

