



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 is issued to:

PRODUCER	DEIF A/S	
PLACE OF PRODUCTION	Frisenborgvej 33 7800 Skive Denmark	
DESCRIPTION	Power management system	
TYPE	DELOMATIC 4	
	Comprising the following modules:	
	Power supply and control module	PCM 4.1, PCM4.5
	Input/Output module	IOM 4.1
	Synchronising, control and measuring module	SCM 4.1
	Synchronising, control and measuring module	SCM 4.2
	Display unit	DU-2
	Additional operator panel 1	AOP-1
	Additional operator panel 2	AOP-2

APPLICATION Marine, offshore and industrial applications for use in environmental categories ENV1, ENV2 and ENV3 as defined in Lloyd's Register's Type Approval System, Test Specification Number 1 – 2002.


ADDITIONAL TEST Low temperature (-25°C/16 hrs)

Certificate No. 07/20009 (E3)

Issue Date 21 March 2017

Expiry Date 20 March 2022

Sheet 1 of 2


 Thorsten Wolff
 Hamburg Technical Support Office
 Lloyd's Register EMEA
LR031.1.2013.12

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Lloyd's
Register

DESIGN CODE Manufacturer's specification
LR Type Approval Test Specification Number 1 – 2002

RATINGS Power supply: 24 Vdc

OTHER CONDITIONS The complete installation is subject to a separate plan appraisal according to applicable Rules and Regulations when installed on LR classed vessels.

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 Design Appraisal Document No. HTS/ETS 34961-17 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

Certificate No. 07/2009 (E3)

Issue Date 21 March 2017

Expiry Date 20 March 2022

Sheet 2 of 2

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Design Appraisal Document

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Date
21 March 2017

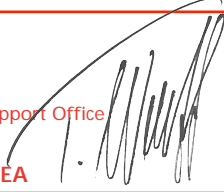

Please quote this reference number on all future communications
HPC1462075/34961-17/TW/KW

THE LLOYD'S REGISTER'S TYPE APPROVAL SYSTEM, 2015
ISSUED TO: DEIF A/S, DENMARK
FOR: POWER MANAGEMENT SYSTEM
TYPE APPROVAL CERTIFICATE NO. 07/20009 (E3)

The undernoted documents have been reviewed for compliance with the requirements of the Lloyd's Register's Type Approval System Procedure TA14 and this Design Appraisal Document forms part of the Certificate.

APPROVAL DOCUMENTATION

EPC659	Application Request renewal Delomatic 4 Certification	22.12.2016
HPC1462075	Production Quality Assessment Form	13.01.2017
4921240294C	Delomatic 4 data sheet	undated
HTS/ETS 30198-14	Marine Design Appraisal Document of Certificate No. 07/20009 (E2)	01.09.2014
4910290064 Rev. B	Declaration of Conformity	20.04.2016

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FINAL ACCEPTANCE OF ACTUAL ITEM(S) DEPEND(S) ON SATISFACTORY SURVEY AND TESTING

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Date
21 March 2017

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Supplementary Type Approval Terms and Conditions

Type Approval certifies that a representative sample of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein. It does not mean or imply approval for any other use, nor approval of any product(s) designed or manufactured otherwise than in strict conformity with the said representative sample.

Type Approval is based on the understanding that the manufacturer's recommendations and instructions and any relevant requirements of the Rules and Regulations are complied with.

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

Lloyd's Register EMEA reserves the right to cancel or withdraw this Type Approval Certificate in accordance with the LR Type Approval System Procedure.

FINAL ACCEPTANCE OF ACTUAL ITEM(S) DEPEND(S) ON SATISFACTORY SURVEY AND TESTING

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Part 2

Protective Devices

Producer/Licence No.	Type	Standard	Rating	Category/ Additional Tests	Remarks	Cert. No.
<p>DEIF A/S Frisenborgvej 33 7800 Skive Denmark</p>	<p>Power management system</p> <p>Type DELOMATIC 4</p> <p>Comprising the following modules: Power supply and control module PCM 4.1, PCM 4.5 Input/Output module IOM 4.1 Synchronising, control and measuring module SCM 4.1 Synchronising, control and measuring module SCM 4.2 Display unit DU-2 Additional operator panel 1 AOP-1 Additional operator panel 2 AOP-2</p>	<p>Manufacturer's specification</p>	<p>Power supply (Vdc): 24</p>	<p>ENV1, ENV2, ENV3 (2002)</p> <p>Low temperature (-25C°/16 hours)</p>	<p>Expires: 20 March 2022</p>	<p>07/20009 (E3)</p>