

LR Type Approval Certificate Extension

This is to certify that Certificate No. 03/30012 for the under noted products is extended and renumbered as shown.

This certificate is issued to:

PRODUCER	CRE Technology
PLACE OF PRODUCTION	Allée Charles - Victor Naudin Zone des Templiers Sophia Antipolis 06410 Biot FRANCE
DESCRIPTION	Generator Management Module
TYPE	A40Z1 (GENSYS "durci")
APPLICATION	Marine and offshore functional built in applications: - Speed control diesel - Circuit breaker control - Indication of figures I, U, F, Hz, KW, KVAR, PF - Load dependant start/stop - Dead bus start/circuit breakers control - Synchronisation - Droop/Isochronous - Parallel running control - Diesel parameters display

Certificate No.	03/30012(E1)
Issue Date	04 April 2011
Expiry Date	29 May 2013
Sheet	1 of 2


G.J. Xromans
Type Approval Department
Rotterdam

*Lloyd's Register EMEA
P.O. Box 701, 3000 AS Rotterdam*

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SPECIFIED STANDARDS	ENV 2 according Lloyd's Register Type Approval system Specification 1 2002 EN 50081-2 ed. 1 EN 50082-2 ed. 1 Rules and regulations of ships 2008
RATINGS	Max. input voltage 480V
ACCURACY	Indication: 1, 5%
REMARKS	Diesel shutdown sensors and shutdown control system and alarm system are to be independent of Gen System Module. Functional description of each application (ship) is to be submitted for consideration to Lloyd's Registers plan approval office. Any software change to be documented and made available for review by Lloyd's Registers Surveyors.

"This Certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify LR of any modification or changes to the equipment in order to obtain a valid certificate."

"When Rules and Standards mentioned in this certificate are changed within the validity of this certificate, than this certificate becomes no longer valid."

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The Design Appraisal Document No ROT.TA1191189 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

Certificate No.	03/30012(E1)
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Sheet	2 of 2


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All other details remain as the previous Certificate No. 03/30012 to which this extension should be attached.

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DESIGN APPRAISAL DOCUMENT

Date 11 April 2011	Quote this reference on all future communications ROT.TA.1191189/GJV
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LLOYD'S REGISTER'S TYPE APPROVAL SYSTEM, 2002.

**Issued to: CRE Technology, France
for: generator management module
Type: A40Z1 (Gensys durci)**

TYPE APPROVAL CERTIFICATE No. 03/30012(E1)

The under noted documents have been reviewed for compliance with the requirements of Lloyd's Register's Type Approval System, 2002 and this Design Appraisal Document is a supplement to the Certificate.

APPROVAL DOCUMENTATION

Emails dated 18-10-2002,
No. qual/1997/7816C
Technical documentation ref. A40Z0 dated JUNE 2002
Request form I40 9000 certificate.
Letter dd. 9-4-2008
Request for quotation
Email dd. 3-6-2010, 23-11-2010

TEST REPORTS

LRS Report MSC
TEST REPORT 0403.001, 0403.002 dated 08-04-2003
LCIE Test Report 39530020 dated 16-04-2002
LCIE Test Report 39530010 dated 30-08-2002
Factory report dd 27-1-2011
Schneider report 0803S10V 19-02-2009

Supplementary Type Approval Terms and Conditions

LR 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.





Lloyd's Register EMEA
TYPE APPROVAL DEPARTMENT

Address: P.O. Box 701, 3000 AS Rotterdam
Contact N°s: Telephone 010 414 50 88
Email: Rot-planapp@lr.org

Page 2 of 1
Document number ROT.TA.1191189
Issue number 1

DESIGN APPRAISAL DOCUMENT

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

This LR Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations of Lloyd's Register of Shipping.

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

G. J. Vromans
Senior Surveyor in Charge
Type Approval Department