DNV·GL

Certificate No:
TAA0000015

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Generator Automation System

with type designation(s)
C6200 FlexGen Gencontroller, C6250 UI Module

Issued to
Littelfuse Selco A/S
ROSKILDE, Denmark

is found to comply with
Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and Det Norske Veritas' Offshore Standards

Application :

Location classes:

Temperature	**B**
Humidity	**B**
Vibration	**B**
EMC	**A**
Enclosure	**Required protection according to the Rules to be provided upon installation on board**

This Certificate is valid until **2017-06-30**.

Issued at **Høvik** on **2015-06-26**

for **DNV GL**

DNV GL local station: **Copenhagen**

Approval Engineer: **Knut Omberg**

Odd Magne Nesvåg
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

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Product description

C6200 Gencontroller Module (phase/phase) provides automatic and semi-automatic synchronizing, active and reactive load sharing, frequency and voltage control, load depending start/stop of generators, reverse power protection and excitation loss protection.
C6200 also includes 8 programmable inputs and outputs that can be used for functions such as indication of protection trips, external commands for start of synchronizing or load sharing and manual control of speed and voltage.

C6250 UI Module is a display and configuration tool for C6200.

Firmware Versions:
C6200: 110103 version 1-1-75
C6250: 100323 version 1-0-11

Major changes should affect first digit. Minor changes causing change in second or third digit of the software version will not require any update in the type approval certificate.

Application/Limitation

Protection functions in addition to those listed above are not included in this type approval.

The type approval cover hardware and software (firmware) listed under product description.

The following documentation for the actual application shall be submitted for approval in each case (normally as part of the documentation for the switchboard):

- Reference to this Type Approval Certificate and other type relevant type approval certificates, if applicable
- System functional description, including configuration set up for the actual application
- Firmware Log document for C6200 and C6250, if not identical to approved firmware listed under Product description
- System block diagram
- Power supply arrangement (may be part of the System block diagram)
- Test program for the certification test

Product certificate
Each delivery of the application system is to be certified according to Pt.4 Ch.9 Sec.1. The certification test is to be performed before the system is installed onboard at the company defined as responsible for the system, typically at the switchboard manufacturer. The product certificate must identify this Type Approval Certificate. After the certification the clause for application software control will be put into force.

Clause for application software control
All changes in software are to be recorded as long as the system is in use on board. The records of all changes are to be forwarded to DNV for evaluation and approval.
Major changes in the software are to be approved before being installed in the computer.

Type Approval documentation
Tests carried out

Applicable tests according to Standard for Certification No. 2.4, April 2006.
Function Test, witnessed by DNV Copenhagen, dated 22.09.2009

Periodical assessment

The scope of the retention/renewal survey is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the survey are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Retention survey is to be performed at least every second year and at renewal of this certificate.

END OF CERTIFICATE