



# NIPPON KAIJI KYOKAI

## *Certificate* *OF* *TYPE APPROVAL*

**Manufacturer :** SELCO A/S

**Place of manufacturing:** Betonvej 10, DK-4000 Roskilde, Denmark

**Product description:** Generator Protection, Control and Power Management System

**Model:** S6000 IO/P Module, S6100 S/LS Module, S6500 UI Module, S6610 PM Module

**Approval No.:** 07 A 013

**Specification & documents:** As shown on the attached sheet (-1/2)

**Testing items:** As shown on the attached sheet (-2/2)

THIS IS TO CERTIFY that the above mentioned model of the product has been type approved with **Approval No. 07A013** by the NIPPON KAIJI KYOKAI in accordance with the requirements specified in Part 7, Chapter 1 of Guidance for the approval and type approval of materials and equipment for marine use and relevant Society's Rules.

This certificate will remain in force until the 15th March 2013.

Issued at Tokyo on the 16th March 2007.

S. Ogawa  
General Manager,  
Machinery Department

**Specification & documents :**

1. Ratings ( Primary/Backup Supply ) : DC 24V, Isolated

2. Component and reference drawing :

Component	Drawing
S6000 IO/P Module ( for protection of the generator and non essential load trip )	Data Sheet User's Manual based on Software Version 3-2-X RS232 Setup ( Rev. 13-9-2006 )
S6100 S/LS Module ( for synchronizing and active/reactive load sharing )	Data Sheet User's Manual based on Software Version 3-5-X RS232 Setup ( Rev. 13-9-2006 )
S6500 UI Module ( for indication of measurements and change of settings of modules )	Data Sheet User's Manual based on Software Version 1-4-X
S6610 PM Module ( for power management )	Data Sheet User's Manual based on Software Version 1-0-X RS232 Setup ( Rev. 13-9-2006 )

<Note> Software Version X-Y-Z

X: Major changes, Y: Medium changes, Z: Minor changes

3. Type Approval Test Report etc. :

DELTA Test report : DANAK-197219, P/J No.E501273-1 (16 Oct., 2003)

DELTA Test report : DANAK-198449, P/J No.A503163-1 (28 July, 2006)

Function test report for S6000 IO/P Module ( Rev. 10.04.2006 )

Function test report for S6100 S/LS Module ( Rev. 10.04.2006 )

Function test report for S6610 PM Module ( Rev. 08.01.2007 )

Description of SIGMA production ( Rev. 17.09.2006 )

**Testing items** : Applied testing items are marked with X.

ENVIRONMENTAL TESTS		Mark
External examination		X
Operation test and performance test		X
Electric power supply failure test		X
Power supply fluctuation test	Electric	X
	Pneumatic and Hydraulic	--
Insulation resistance test		X
High voltage test		X
Pressure test (Pneumatic and Hydraulic)		--
Dry heat test		X
Damp heat test		X
Vibration test		X
Inclination test		--
Cold test		X
Salt mist test		--
Electrostatic discharge immunity test		X
Radiated radio frequency immunity test		X
Conducted low frequency immunity test		X
Conducted high frequency immunity test		X
Burst/Fast transient immunity test		X
Surge immunity test		X
Radiated emission test		X
Conducted emission test		X