

Type Approval Certificate



This is to certify that the undernoted product(s) has/have been tested in accordance with the relevant requirements of the GL Type Approval System.

Certificate No. 47 860 - 03 HH

Company SELCO A/S
Betonvej 10
4000 Roskilde

Product Description Protection and Control System

Type SIGMA S6000; SIGMA S6100; SIGMA S6500, SIGMA S6610

Environmental Category C, EMC2

Technical Data / SIGMA S6000

Range of Application Input/Output & Protection Module (I/O/P Module)

SIGMA S6100

Synchronization & Load Sharing Module (S/LS Module)

SIGMA S6500

User Interface Module (UI Module)

SIGMA S6610

Power Manager Module (PM Module)

Mandatory short circuit back-up protection. DB IN and DB OUT terminals on each and every S6100 must be connected to a common connection point.

FOR FURTHER TECHNICAL DETAILS PLEASE REFER TO PAGE 2 OF THIS CERTIFICATE

Test Standard Guidelines for the Performance of Type Approvals (2003); Regulations for the Use of Computer and Computer Systems 1994

Documents Test report: DELTA DANAK-197219/ Proj. No.: E501273-1
DELTA DANAK-198449/ Proj.No.: A503163-1.
Software Questionary Requirement Class 3, dated 2004-01-07 / 2005-05-12.
SELCO Test report title "SIGMA GL approval", dated 2004-02-27

Remarks None

Valid until 2015-08-17

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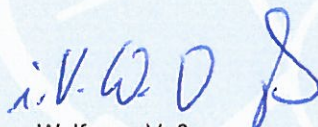
Type Approval Symbol

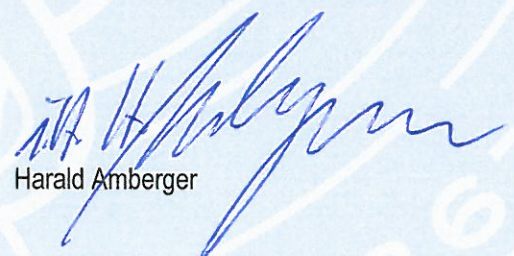


File No. I.L.01

Hamburg, 2010-08-18

Germanischer Lloyd


Wolfgang Voß


Harald Amberger

This certificate is issued on the basis of "Guidelines for the Performance of Type Approvals Part 1, Procedure".



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SIGMA S6000 Input/Output & Protection Module (IO/P Module)

Voltage range: 63 to 690V AC (nominal), Current range: 1 or 5A (nominal)
Protection and monitoring functions: Short circuit, over current, reverse power, overload, excitation loss, voltage established, Non essential load trips with two individual levels
System response time for short circuit: 50msec-100msec
Aux. Voltage: Primary Supply +24VDC; Backup Supply +24VDC
Communication Ports: RS232, RS 485, CAN BUS
Software Version: 3-2-XX

SIGMA S6100 Synchronization & Load Sharing Module (S/LS Module)

Voltage range: 63 to 690V AC (nominal),
Control and monitoring functions: Frequency Stabilization, Voltage Stabilization, Voltage Matching, Auto-Synchronization, Active Load Sharing, Reactive Load sharing, Governor/ Frequency Control
Aux. Voltage: Primary Supply +24VDC; Backup Supply +24VDC
Communication Ports: RS232, RS 485, CAN BUS
Software Version: 3-5-XX

SIGMA S6500 User Interface (UI Module)

Function Description: Configuration and display module for SIGMA S6100 S/LS and SIGMA 6000 IO/P
4x20 Characters display (backlit)
IP54 at front (flush mount installation)
Aux. Voltage: Primary Supply +24VDC; Backup Supply +24VDC
Communication Ports: RS232, CAN BUS
Software Version: 1-4-XX

SIGMA S6610 Power Manager Module (PM Module)

Function Description: Configuration and display module for SIGMA S6100 S/LS and SIGMA 6000 IO/P and Load Depending Start/Stop and Large Consumer Request for SIGMA S6100 S/LS , SIGMA 6000 IO/P and Engine Controller
4x20 Characters display (backlit)
IP54 at front (flush mount installation)
Aux. Voltage: Primary Supply +24VDC; Backup Supply +24VDC
Communication Ports: RS232, CAN BUS
Software Version: 1-0-XX

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