



# TYPE APPROVAL CERTIFICATE

Certificate No:  
**TAE0000454**  
Revision No:  
**1**

## This is to certify:

**That the Enclosure for Electrical Equipment**

with type designation(s)  
**GEOS**

Issued to

**Günther Spelsberg GmbH + Co. KG**  
**Schalksmühle, Germany**

is found to comply with

**DNV rules for classification – Ships, offshore units, and high speed and light craft**

## Application :

**Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.**

**Degree of protection** IP 66/67  
**Vibration class** B

Issued at **Hamburg** on **2021-09-03**

for **DNV**

This Certificate is valid until **2025-12-14**.

DNV local station: **Essen**

Approval Engineer: **Harald Amberger**

**Arne Schaarmann**  
**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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



## Product description

### Empty enclosures and cabinet type GEOS

Type code designation / example for complete enclosures with cover + frame

	I	II	III
	Design	Dimension	Base/Cover/Door
GEOS-	L	3030-18	to

Design	I	L S	Enclosure with cover, glass fibre reinforced polycarbonate Enclosure with door, glass fibre reinforced polycarbonate		
Dimension [mm]	II		Width	Length	Height
		3030-18	300	300	180
		3030-22	300	300	220
		3040-18	300	400	180
		3040-22	300	400	220
		4030-18 <sup>1</sup>	400	300	180
		4030-22 <sup>1</sup>	400	300	220
		4050-22	400	500	220
		5040-22 <sup>1</sup>	500	400	220
Base/Cover/Door	III	o o/sw to tzo/sw	Grey base and cover / Grey base and door cabinet lock Black base and cover Grey base and transparent cover / Grey base and transparent door cabinet lock Black base and black-transparent cover		
<sup>1</sup> Only GEOS-S Design					

Halogen-free  
 Rated insulation voltage AC 1000 V  
 Rated insulation voltage DC 1500 V

## Application/Limitation

Location Classes:  
 Temperature: A, Humidity: A, Vibration: B

Operating instruction of the manufacturer to be observed

## Type Approval documentation

As per tech.-docs. in NPS 262.1-034220-1/2

## Tests carried out

IEC 62208, damp heat, vibration, flame retardancy V-2 acc. UL-94

## Marking of product

Spelsberg - Type designation - Main data.



Job Id: **262.1-034220-2**  
Certificate No: **TAE0000454**  
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## Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval are complied with and that no alterations are made to the product design or choice of materials.

The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routine Tests (RT) checked (if not available tests according to RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE