DNV·GL

Certificate No:
TAE00003C5

TYPE APPROVAL CERTIFICATE

This is to certify:

That the High Voltage Switchgear and Control Gear Assemblies

with type designation(s)
SSMV - 7S

Issued to
Samsung Heavy Industries Co., Ltd.
Hwaseong-si, Gyeonggi-do, Republic of Korea

is found to comply with
DNV GL rules for classification – Ships, offshore units, and high speed and light craft

Application :

Products approved by this certificate are accepted for installation on all vessels classed by DNV GL.

Type approval covers system design principle

Rated voltage (V)	**7,2 kV**
Rated current (A)	**up to 1600**
Rated frequency (Hz)	**50 / 60**
Degree of protection	**IP42**

Issued at **Høvik** on **2019-02-25**
This Certificate is valid until **2024-02-24**.
DNV GL local station: **Seoul**

Approval Engineer: **Nicolay Horn**

for **DNV GL**

Marta Alonso Pontes
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

Medium voltage switchboard of partitioned type with 3 separate compartments for high voltage (bus bar & outgoing circuit) and 1 separate compartment for control/ auxiliary devices. Equipped with pressure relief panels.

Technical data for SSMV-7S:

Rated voltage [kV]			7,2
Rated Insulation level [kV]	Lighting impulse	Common value	60
		Across the isolating distance	70
	Power frequency	Common value	20
		Across the isolating distance	23
Rated current [A]			1200 / 1600
Rated short-time withstand current 1 s. [kA]			25
Rated peak withstand current 1 s. [kA]			65
Arc test 1 s. [kA]			25
IP rating:			42

Cubicle dimensions:

Height:	2300 mm (without: Base seat, with: gas exhaust duct)
Width:	1000 or 600 mm
Depth:	1500 mm

Application/Limitation

Medium voltage switchboard systems of partly partitioned type for use onboard ships and offshore units.

Final design and selection of equipment and components to be made in accordance with the applicable Rules for the actual case. Equipment as circuit breakers etc. is not covered by this type approval.

Medium voltage switchboard with IP 42 cubicle must only be used in protected access areas accessible for qualified personnel only.

The type approval covers system design principle in accordance with IEC 62271-200.

This type approval certificate does not replace the requirement for a DNV GL product certificate. Documents and drawings for the actual application as stated in the DNV GL Rules Pt.4, Ch.8, Sec. 1, Table 2 except E150 & E160, shall be submitted for approval in each case by the end manufacturer.

Tests carried out

Type Testing according to IEC 62271-1 and IEC 62271-200: Temperature rise test, internal arc test, dielectric test, short time withstand test, short circuit test, mechanical operation test, vibration test and IP 4X testing.

Marking of product

Makers name plate with type and key data in accordance with the DNV GL Rules Pt.4, Ch.8, Sec.4, item 1.1.7.

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval is 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 Routines (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.

Assessment to be performed at 2 and 3.5 year and at renewal.

END OF CERTIFICATE