

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Switchboard wire**with type designation(s)
0.6/1kV SKHF-XPSW

Issued to

Shinki Cable Co., Ltd.
Jeonju-si Jeollabuk-do, Republic of Korea

is found to comply with

DNV GL rules for classification – Ships, offshore units, and high speed and light craft**Application :****Switchboard wire for power circuits inside cabinets. Halogen free. Low smoke.****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**Issued at **Busan** on **2017-09-18**This Certificate is valid until **2022-09-17**.for **DNV GL**DNV GL local station: **Mokpo**Approval Engineer: **Dong Ho Park**

Michael Jost Auf der Stroth
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.



Job Id: **262.1-026173-1**
Certificate No: **TAE0000299**

Product description

Type : 0.6/1kV SKHF-XPSW
Conductor: Stranded, tinned annealed copper, IEC60228 Class 5
Core insulation: HF90

Number of cores x conductor cross-section mm ²	1 x 1.5	1 x 25
1 x 0.75	1 x 2.5	1 x 35
1 x 1.0	1 x 4	1 x 50
	1 x 6	1 x 70
	1 x 10	1 x 95
	1 x 16	

Application/Limitation

Switchboard wires for 0,6/1 kV power circuits inside cabinets.

Type Approval documentation

Tests carried out

Standard	Release	General description	Limitation
IEC 60092-350	2014-08	General construction and test methods of power, control and instrumentation cables for shipboard and offshore applications	
IEC 60092-353	2016-09	Power cables for rated voltages 1kV and 3kV	
IEC 60092-360	2014-04	Insulating and sheathing materials for shipboard and offshore units, power, control, instrumentation, telecommunication cables	
IEC 60332-1	2004-07	Test for vertical flame propagation for a single insulated wire or cable	
IEC 60754-1	2011	Test on gases evolved during combustion of materials from cables – Determination of the amount of halogen acid gas	Low Halogen <0,5%
IEC 60754-2	2011	Test on gases evolved during combustion of materials from cables – Determination of the degree of acidity of gases evolved during the combustion of materials taken from electric cables by measuring pH and conductivity	Halogen free ≥4,3pH, ≤10μS/mm
IEC 60684-2	2011	Flexible insulating sleeving – Part 2: Methods of test.	Fluorine content <0.1%
IEC 61034-1/2	2013-06	Measurement of smoke density of cables burning under defined conditions – Test apparatus, procedure and requirements	Low smoke >60%

Marking of product

0.6/1kV - SKHF-XPSW - Cable size - SHINKI - Year of manufacture

Periodical assessment

The scope of the retention/renewal survey is to verify that the conditions stipulated for the Type Approval Certificate are complied with and that no alterations are made to the design and/or the material of product.

The main elements of the survey are :



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- Inspection on factory samples, selected at random from the production line(where practicable)
- Results from Production Sample Tests(PST) and Routines(RT) checked(if not available tests according to PST and 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.

Survey to be performed at least every second year and at renewal of this certificate.

END OF CERTIFICATE