DNV·GL

Certificate No:
TAE00001YX

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Contactor

with type designation(s)
Vacuum Contactor / UVC64

Issued to
Hyundai Electric & Energy Systems Co., Ltd.
ULSAN, Republic of Korea

is found to comply with
DNV GL 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 GL.

Rated voltage (V)	**6600**
Rated current (A)	**400**
Frequency (Hz)	**50/60**

Issued at **Busan** on **2017-07-10**
This Certificate is valid until **2022-07-09**.
DNV GL local station: **Ulsan**

Approval Engineer: **Baeg Soon Choi**

for **DNV GL**

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.

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Product description

Contactor type		**UVC 64**
Rated insulation voltage	kV	7.2
Rated operation voltage	kV	6.6
Rated Frequency	Hz	50/60
Rated thermal current	A	400
Control voltage	V	AC/DC 100 – 125V, AC/DC 200 – 230V
Impulse withstand voltage	kV	60
Short-time current	kA	6.3 (1 sec) / 3 (30 sec)
Utilization category		AC 4
Auxiliary contact		3NO + 2NC

Application/Limitation

Environmental categories: Vibration A, Temperature A, EMC A

Type Approval documentation

Tests carried out

Type tests according to IEC 62271-106 (2011-08),
Environmental tests in accordance with "IACS UR E10 (2014)": Power supply variations, Inclination test, Vibration test, Insulation resistance test, Damp heat test, Dry heat test, Low temperature test and high voltage test.
EMC test in accordance with IACS UR E10 (2014).

Marking of product

Manufacturer name – Type designation – Rated voltage – Breaking capacity.

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.

Assessment to be performed at least every two(2) years and at renewal of this certificate.

END OF CERTIFICATE