



Marine & Offshore  
Division

Certificate number: 40183/A0 BV

File number: ACE6/846/1

Product code: 2592I

*This certificate is not valid when presented without the full attached schedule composed of 7 sections*

www.veristar.com

## TYPE APPROVAL CERTIFICATE

*This certificate is issued to*

**LSIS CO., LTD. (CHEONAN PLANT)**

CHEONAN - KOREA (REPUBLIC OF)

*for the type of product*

**FREQUENCY CONVERTERS**

SV-IS7 series.

**Requirements:**

Bureau Veritas Rules for the Classification of Steel Ships.

EC Code: 31

*This certificate is issued to attest that BUREAU VERITAS did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.*

**This certificate will expire on: 20 Mar 2020**

**For BUREAU VERITAS,**

At BV PUSAN, on 20 Mar 2015,

Hwan Geuk Choi



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with BUREAU VERITAS. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of BUREAU VERITAS Marine & Offshore Division available on the internet site [www.veristar.com](http://www.veristar.com). Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against BUREAU VERITAS for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

The electronic version is available at: <http://www.veristarp.com/veristarnb/jsp/viewPublicPdfTypec.jsp?id=asqjft64lp>

BV Mod. Ad.E 530 October 2014

This certificate consists of 3 page(s)

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION :

The SV-IS7 series products are variable frequency drives for AC motors used in Marine and Offshore applications.

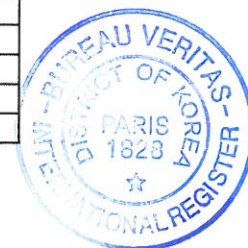
#### 1.1 - Specifications:

Rated input voltage:	200 - 480V
Rated frequency:	50/60Hz
Degree of protection:	Up to IP21

#### 1.2 - Approval's range:

Type	Rated supply (V)	Number of phases	Rated output (kW)
SV0008IS7	200 - 230	3	0.75
SV0015IS7	200 - 230	3	1.5
SV0022IS7	200 - 230	3	2.2
SV0037IS7	200 - 230	3	3.7
SV0055IS7	200 - 230	3	5.5
SV0075IS7	200 - 230	3	7.5
SV0110IS7	200 - 230	3	11
SV0150IS7	200 - 230	3	15
SV0185IS7	200 - 230	3	18.5
SV0220IS7	200 - 230	3	22
SV0300IS7	200 - 230	3	30
SV0370IS7	200 - 230	3	37
SV0450IS7	200 - 230	3	45
SV0550IS7	200 - 230	3	55
SV0750IS7	200 - 230	3	75

Type	Rated supply (V)	Number of phases	Rated output (kW)
SV0008IS7	380 - 480	3	0.75
SV0015IS7	380 - 480	3	1.5
SV0022 IS7	380 - 480	3	2.2
SV0037IS7	380 - 480	3	3.7
SV0055IS7	380 - 480	3	5.5
SV0075IS7	380 - 480	3	7.5
SV0110IS7	380 - 480	3	11
SV0150IS7	380 - 480	3	15
SV0185IS7	380 - 480	3	18.5
SV0220IS7	380 - 480	3	22
SV0300IS7	380 - 480	3	30
SV0370IS7	380 - 480	3	37
SV0450IS7	380 - 480	3	45
SV0550IS7	380 - 480	3	55
SV0750IS7	380 - 480	3	75
SV0900IS7	380 - 480	3	90
SV1100IS7	380 - 480	3	110
SV1320IS7	380 - 480	3	132
SV1600IS7	380 - 480	3	160
SV1850IS7	380 - 480	3	185
SV2200IS7	380 - 480	3	220
SV2800IS7	380 - 480	3	280
SV3150IS7	380 - 480	3	315
SV3750IS7	380 - 480	3	375



### 2. DOCUMENTS AND DRAWINGS :

Product catalogue, dated Aug.2014.

User manual No. 10310000882, dated May.2014.

**3. TEST REPORTS :****LSIS CO., LTD:**

- Test report dated 23.Jan.2015.
- Tests report No. DS632-DNV205.2, dated 27.Apr.2012.

**UL Korea, Ltd:**

- Tests report No. 13-10054989-1/2/3-BV, dated 8.Nov.2013.

**4. APPLICATION / LIMITATION :**

- 4.1 - BUREAU VERITAS Rules and Regulations for the Classification of Steel Ships.
- 4.2 - Approval valid for ships intended to be granted with the following additional class notations: **AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS.**
- 4.3 - BUREAU VERITAS Environmental Category, **EC Code: 31**
- 4.4 - The equipment fulfils the EMC requirements for installation in General Power Distribution Zones.

**5. PRODUCTION SURVEY REQUIREMENTS :**

- 5.1 - The **SV-IS7 series products** are to be supplied by **LSIS CO., LTD.** in compliance with the type and the requirements described in this certificate.
- 5.2 - This type of product is within the category IBV of Bureau Veritas Rule Note NR320.
- 5.3 - BV product certificate is required.

**6. MARKING OF PRODUCT :**

- 6.1 - Trade name.
- 6.2 - Date of manufacture and serial number.
- 6.3 - Equipment type or model identification under which it was type-tested
- 6.4 - \ or @ conformity marking, as relevant.

**7. OTHERS :**

This approval is given on the understanding that the Society reserves the right to require check tests to be carried out on the units at any time and that **LSIS CO., LTD.**, will accept full responsibility for informing shipbuilders, shipowners or their sub-contractors of the proper methods of use and general maintenance of the units and the conditions of this approval.

\*\*\* END OF CERTIFICATE \*\*\*

