



TYPE APPROVAL CERTIFICATE

Certificate No. : PTD25585-AC005 **Initial Approval** : 3rd August, 2020
Product : Touch Screen Control Panel
Manufacturer : LS Electric Co., Ltd. - Cheonan Plant
56, Samseong4-Gil, Mokcheon-eup, Dongnam-gu, Cheonan-si,
Chungcheongnam-do, 31226 Rep. of Korea
Product Description : Type : iXP2-0800D,MR, iXP2-1000D,MR, iXP2-1200D,MR, iXP2-1500D,MR

" See Appendix 1 "

* Manufacturing place : AMS
340-44, Yeonamulgum-ro, Eumbong-myeon, Asan-si,
Chungcheongnamdo, Republic of Korea

Approval Condition : " See Appendix 1 "

THIS IS TO CERTIFY that the above-mentioned product has been approved in accordance with the relevant requirement of this Society's Rules and / or of the recognized standards as follows.

Pt. 6, Ch. 2, Art. 301 of the Rules for Classification, Steel Ships.

This Certificate is valid until 2nd August, 2025

Issued at Busan, Korea on 3rd August, 2020



This certificate is signed electronically in accordance with IMO FAL.5/Circ.39/Rev.2. Validation and authentication of the certificate can be confirmed from "http://e-cert.krs.co.kr" by using the tracking No (ME20027528974) and certificate No.(PTD25585-AC005).



KOREAN REGISTER

*General Manager of
Marine & Ocean Equipment Team*

Note : 1. This certificate will be valid subject to complying with the approval conditions described on the certificate and/or on the Rules of this Society.
2. This certificate will be invalid from the expiry date aforementioned unless the extension or renewal has been granted to the applicant or the manufacturer.
3. Any significant modifications or changes in design or construction to the above product without approval from this Society will render this certificate invalid.
4. Should the specified rules, regulations or standards be amended during the validity of this certificate, the product is to be re-approved by this Society in accordance with the requirements as amended.

Appendix 1

Product Description and/or Approval Condition

Certificate No : PTD25585-AC005

Date of Issue : 3rd August, 2020

A. Product Description

1. Product Specification

- 1) Supply voltage : DC 24V
- 2) Specification

Item	iXP2-0800D,MR	iXP2-1000D,MR	iXP2-1200D,MR	iXP2-1500D,MR
Display	TFT color LCD			
Screen size	8.4"	10.4"	12.1"	15"
Touch panel	Capacitive Touch			
Processor	1GHz, Dual core			
Protection	IP66 (Front)			
Dimension(mm)	240 x 180 x 60	271 x 212 x 60	313 x 239 x 60	395 x 294 x 66

2. Approved Drawings and Documents

- 1) Drawing No. 2019-KD007-630-005.01 Ver.1.2, 2019-KD007-630-005.02 Ver.1.2, 2019-KD007-630-005.03 Ver.1.2, 2019-KD007-630-005.04 Ver.1.2
- 2) Document No. 2019-KD007-630-0003 Ver.1.3
- 3) Type test program No. 2019-KD007-630-0004 Ver.1.5, 2019-KD007-630-008 Ver.1.2

3. Test Reports, etc.

- 1) Test report No. DREETC2007-0099 dated 2020-07-16, DREETC2007-0100 dated 2020-07-16, DRCREL2007-0563 dated 2020-07-15, DRCREL2007-0566 dated 2020-07-15
- 2) Software quality management No. 2019-KD007-630-016 Ver.1.1
- 3) Software version history No. 2019-KD007-630-015 Ver.1.1
- 4) Test sample list No. 2019-KD007-630-0002 Ver.1.3
- 5) Manual for iXP2 Series (2020.04)

B. Approval Condition

1. Application & Limitation

- 1) This approval is granted on the basis of the test reports and the approved documentation.
- 2) This certificate covers the hardware listed under Product Specification.
- 3) Degree of protection shall be complied with Rule Pt.6 Ch.1 Sec.2 201.2.(5).
- 4) The manufacturer should inform this Society of all kinds of revisions of the equipment. If the changes are recognized to affect functionality of the approved equipment, type test to confirm the reliability of the revised equipment may be performed in the presence of our surveyor.
- 5) The product shall not be installed in the bridge or on open decks.

2. Individual Product Cert. and Drawing Approval Requirement

- 1) Individual product certification is not required.

3. Marking

- 1) The product or packing is to be marked with manufacturer name and type designation on a suitable position.

4. Others

- 1) Test condition

Test	Condition	Remark
EMC	All locations excluding the bridge and deck zone	Up to 6GHz
Temperature	+5℃ ~ +70℃	-

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Test	Condition	Remark
Vibration	Acceleration $\pm 0.7g$	-
Degree of protection	IP66 (front)	-

< End of Certificate >

