



Marine & Offshore

Certificate number: 75835/A0 BV

File number: MPA2301601

Product code: 4483H

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

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

MARINER SYSTEMS (UK) Ltd

Wokingham - UNITED KINGDOM

for the type of product

DISPLAY MONITORS / VIDEO SCREENS / TERMINALS

G5 Monitors - HP E22 G5 FHD, HP E24 G5 FHD, HP E27 G5 FHD

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships

EC Code : E31/41B

This certificate is issued to attest that Bureau Veritas Marine & Offshore 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: 22 Nov 2028

For Bureau Veritas Marine & Offshore,

At BV LONDON, on 22 Nov 2023,

Spencer Yule

This certificate was created electronically and is valid without signature



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 Marine & Offshore. 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 available on the internet site 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 Marine & Offshore 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.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

HP G5 Monitors :

Type	HP E22 G5 FHD	HP E24 G5 FHD	HP E27 G5 FHD
Model	6N4E8AA/E9	6N6E9AA/E9	6N4E2AA/E9
Display	21.5 inch IPS	23.8 inch IPS	27 inch IPS
Native Resolution	1920 x 1080	1920 x 1080	1920 x 1080
Power Supply	100 - 240 VAC 50/60 Hz	100 - 240 VAC 50/60 Hz	100 - 240 VAC 50/60 Hz
Operation Temperature	5°C to 35 °C	5°C to 35 °C	5°C to 35 °C

HP E22 G5 FHD 21.5-Inch Monitor completed with Mariner Systems Mounting Kits MS1710, MS1715 or MS1720

HP E24 G5 FHD 23.8-Inch Monitor completed with Mariner Systems Mounting Kits MS1730, MS1735 or MS1740

HP E27 G5 FHD 27-Inch Monitor completed with Mariner Systems Mounting Kits MS1750, MS1755 or MS1760

The HP G5 monitors must be used in conjunction with the appropriate Mariner Systems Kits:

MS1710, MS1730, MS1750 - Desk mounted

MS1715, MS1735, MS1755 - Wall mounted

MS1720, MS1740, MS1760 - Console mounted

2. DOCUMENTS AND DRAWINGS :

Mariner Systems (UK) Ltd.:

- HP E22 G5 FHD Monitor QuickSpecs No.: c08392792 - DA17154 Version 2, dated 12-04-2023.
- HP E24 G5 FHD Monitor QuickSpecs No.: c08392793 - DA17155 Version 3, dated 12-04-2023.
- HP E27 G5 FHD Monitor QuickSpecs No.: c08392796 - DA17158 Version 3, dated 12-04-2023.
- Assembly drawing MS1710_A Issue 1, dated 26-09-2023.
- Assembly drawing MS1730_A Issue 1, dated 26-09-2023.
- Assembly drawing MS1750_A Issue 1, dated 26-09-2023.
- Assembly drawing MS1715_A Issue 1, dated 26-09-2023.
- Assembly drawing MS1735_A Issue 1, dated 26-09-2023.
- Assembly drawing MS1755_A Issue 1, dated 26-09-2023.
- Assembly drawing MS1720_A Issue 1, dated 04-09-2023.
- Assembly drawing MS1740_A Issue 1, dated 04-09-2023.
- Assembly drawing MS1760_A Issue 1, dated 21-08-2023.
- Mariner Systems Marine Test Requirements Issue 17, dated Jun 2023.

3. TEST REPORTS :

MS Testing:

- Test report No.TL23061, dated 31-07-2023.
- Test report No.TL23062, dated 31-07-2023.
- Test report No.TL23063, dated 31-07-2023.

4. APPLICATION / LIMITATION :

4.1 - BUREAU VERITAS Rules 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: 31/41B.**

4.4 - The equipment fulfils the EMC requirements for installation on the Bridge and Deck Zone.

4.5 - For use in Navigation, Control, Loading Instrument & General Purpose Applications.

4.6 - The minimum safe distance at which the equipment may be mounted from a standard or a steering magnetic compass is:

	HP E22 G5 FHD	HP E24 G5 FHD	HP E27 G5 FHD
1 Degree Deflection	800 mm	1100 mm	900 mm
0.3 Degree Deflection	1200 mm	1600 mm	1100 mm

4.7 - Equipment covered by this Type Approval certificate has been tested according to requirements of IACS UR E10 rev 8.

5. PRODUCTION SURVEY REQUIREMENTS :

5.1 - The above products are to be supplied by **MARINER SYSTEMS (UK) Ltd.** in compliance with the type described in this certificate.

5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.

5.3 - **MARINER SYSTEMS (UK) Ltd.** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products

5.4 - For information, **MARINER SYSTEMS (UK) Ltd.** has declared to Bureau Veritas the following production site :

MARINER SYSTEMS (UK) Ltd.

Oaklands Park

RG41 2FD Wokingham

Berkshire

UNITED KINGDOM

6. MARKING OF PRODUCT :

- Maker's name or trade mark.
- Serial number of the unit.
- Equipment type or model identification under which it was type-tested.

7. OTHERS:

It is **MARINER SYSTEMS (UK) Ltd.**'s responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

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