



# NIPPON KAIJI KYOKAI

## *Certificate* **OF** **TYPE APPROVAL**

**Manufacturer:** Mariner Systems (UK) Ltd.

**Place of manufacturing:** Oaklands Park, Workingham, Berkshire, RG41 2FD, UK

**Product description:** HP ProCurve Switches 1400 and 1700 series

**Model:** 1400-8G and 1700-8 used with Mariner Kit MS650  
1400-24G and 1700-24 used with Mariner Kit MS660

**Approval No.:** 08A021

**Specification & documents:** As shown on the attached sheet (-1/2)

**Test items & approval conditions:** As shown on the attached sheet (-2/2)

THIS IS TO CERTIFY that the above mentioned model of the product has been type approved with **Approval No. 08A021** by the NIPPON KAIJI KYOKAI in accordance with the requirements specified in Chapter1, Part 7 of Guidance for the approval and type approval of materials and equipment for marine use and relevant Society's Rules.

This certificate will remain in force until the 13th May 2014.

Issued at Tokyo on the 14th May 2008.

  
S. Ogawa  
General Manager,  
Machinery Department



**Specification & documents :**

1. Ratings: AC 100-127/200-240V, 50/60Hz

2. Component and reference drawing:

Component	Drawing
HP ProCurve Switches 1400-8G and 1700-8 used with Mariner Kit MS650	DA-12733 Ver.2, DA-12734 Ver.2, MS650_A
HP ProCurve Switches 1400-24G and 1700-24 used with Mariner Kit MS660	DA-12733 Ver.2, DA-12734 Ver.2, MS660_A

3. Test report :

Environmental Test File No. TL1200 ( 25 March 2008 )

**Test items :** Applied testing items are marked with X in accordance with the Guidance for the Approval and Approval of Materials and Equipment for Marine Use (2007 Amendment No.3 as amended by IACS UR E10 and UR E22) as applicable.

ENVIRONMENTAL TESTS		Mark
External examination		X
Operation test and performance test	Hardware Verification	X
	Software Verification	--
Electric power supply failure test		X
Power supply fluctuation test	Electric	X
	Pneumatic and Hydraulic	--
Insulation resistance test		X
High voltage test		X
Pressure test (Pneumatic and Hydraulic)		--
Dry heat test (Temperature : 70°C x 16hours)		X
Damp heat tes		X
Vibration test		X
Inclination test		X
Cold test (Temperature : -25°C x 16hours)		X
Salt mist test		--
Electrostatic discharge immunity test		X
Radiated radio frequency immunity test (Frequency : 30kHz~2GHz)		X
Conducted low frequency immunity test		X
Conducted high frequency immunity test (Frequency : 10kHz~80MHz)		X
Burst/Fast transient immunity test		X
Surge immunity test		X
Radiated emission test (Frequency : 10kHz~2GHz)		X
Conducted emission test		X
Flame retardant test (Done by Hewlett Packard in accordance with 4.7.3.1 and 4.7.3.3 of EN 60950-1:2006)		--