



Certificate No. TA10235M

NIPPON KAIJI KYOKAI

Certificate

OF APPROVAL

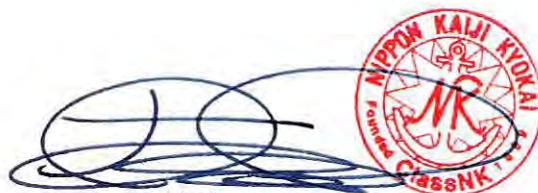
FOR AUTOMATIC DEVICES AND EQUIPMENT

Manufacturer: Kawai Electronic Innovation System Co., Ltd
Place of manufacturing: 1-1-5 Ikuno-nishi, Ikuno-ku Osaka, Japan
Product description: KEI Generator Control Unit
Model: KGCU
Approval No.: 92A103
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 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 is valid until 5 February 2015.

Issued at Tokyo on 6 February 2010.



T. Narisawa
General Manager
Machinery Department

Note: The manufacturer, if desired, is requested to apply to the Society for renewal prior to the expiration date.

NIPPON KAIJI KYOKAI

Attached sheet - 1 / 2 to Certificate No. TA10235M

Specification & documents :

1. Equipment

Electrical Power Management System (KGCU)	:	KGCUD11, KGCUD01
Module for KGCU	:	BTB-PW1, BTB-834/12, BTB-DI, BTB-D01/03, BTB-AVI, BTB-SYC/01, BTB-SYC-02, BTB-SIO
Rack for KGCU	:	KRP-014

2. Power Supply:

DC 24 V

3. Documentation:

KEI-KGCUD11-101, KEI-KGCUD01-101A, BTB-D01/03A-701A, BTB-SYC/01A-701,
BTB-SYC/02A-701

4. Test Report:

NK-KGCU-533 (March 2010)

-- To be continued --

NIPPON KAJI KYOKAI

Attached sheet - 1/2 to Certificate No. TA10235M

Test items: Applied test items are marked with X.

ENVIRONMENTAL TESTS	Mark
External examination	X
Operation test and performance test	X
Electric power supply failure test	X
Electric power supply fluctuation test	X
Power supply fluctuation test	--
Insulation resistance test	X
High voltage test	X
Pressure test	--
Dry heat test (Temperature 70°C × 2.0 hours)	X
Damp heat test (Temperature 55°C, Humidity 95%, 16 hours, 2 cycles)	X
Vibration test (Acceleration ±0.7G × 2.0 hours)	X
Inclination test	X
Cold test	X
Salt mist test	--
Electrostatic discharge immunity test	X
Radiated radio frequency immunity test	X
Conducted low frequency immunity test	X
Conducted high frequency immunity test	X
Burst/Fast transient immunity test	X
Surge immunity test	X
Radiated emission test	X
Conducted emission test	X

-- The end --