

# TYPE APPROVAL CERTIFICATE

**This is to certify:**

**That the DC Power Supply**

with type designation(s)  
**PS6R Series DIN Rail Switching Power Supplies**

Issued to

**IDEC Corporation**  
**Osaka City, Osaka Pref., Japan**

is found to comply with  
**DNV GL rules for classification – Ships, offshore units, and high speed and light craft**

**Application :**

**Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**

<b>Temperature</b>	<b>B</b>
<b>Humidity</b>	<b>B</b>
<b>Vibration</b>	<b>A</b>
<b>EMC</b>	<b>A</b>
<b>Enclosure</b>	<b>Required protection according to relevant rules shall be provided upon installation on board</b>

Issued at **Busan** on **2020-02-12**

This Certificate is valid until **2025-02-08**.

DNV GL local station: **Kobe**

Approval Engineer: **Baeg Soon Choi**



for **DNV GL**

Digitally Signed By: Andreas Kristoffersen  
Location: DNV GL Busan, Korea

**Andreas Kristoffersen**  
**Head of Section**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



## Product description

Power Supply, PS6R Series

PS6R-F24,  
Input Voltage: 100-240 VAC, 50/60Hz; Output Voltage 21.6...26.4 VDC, 120W

PS6R-G24,  
Input Voltage: 100-240 VAC, 50/60Hz; Output Voltage 21.6...26.4 VDC, 240W

PS6R-J24,  
Input Voltage: 100-240 VAC, 50/60Hz; Output Voltage 21.6...26.4 VDC, 480W  
(Noise Filter Schaffner FN2070-10-06 or equivalent required for Input).

Optional Accessory Units (DC/DC converter, side mounted):

PS9Z-6RM1: Output 5 VDC, 2.0A

PS9Z-6RM2: Output 12 VDC, 1.0A

PS9Z-6RM3: Output -5/+5VDC, 1.0A/1.0A

PS9Z-6RM4: Output -15/15 VDC, 0.4A/0.4A

PS9Z-6RM5: Output 5/12VDC, 1.0A/0.5A

PS9Z-6RM6: Output -12/12VDC, 0.5A/0.5A

PS9Z-6RS1: Output 24 VDC, 10A.

(Ferrite Cores RFC-13MA or equivalent required for accessory outputs,  
PS9Z-6RM3,-6RM4,-6RM6 in combination with PS6R-F24,-G24).

Relay RY1 type No.: GJ-SH-112LMF, GQ-SH-112LM1F & 307HN-1AH-F-S 12VDC

## Place of manufacturer

IDEC IZUMI Taiwan Corporation  
No.87, Shuiguan Road, Renwu District, Kaohsiung, 81465, Taiwan

## Application/Limitation

The Type Approval covers hardware listed under Product description. When the system is used in applications to be classed by DNVGL, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNVGL Rules for Ships Pt.4 Ch.9 Control and Monitoring Systems.

## Type Approval documentation

Test reports : NSH-14006-19, dated 2014-09-08; JQA KL80140141, dated 2014-08-21; JQA KL80140142, dated 2014-08-21; JQA KL80140143, dated 2014-08-21. Data sheet, Instruction sheet B-1521(1).

List of drawings and documents No. NSH-19026-04-01, NSH-19026-04-02 & NSH-19026-04-03 dated 2019-09-27

Test specification No. NSH-19026-05-01 dated 2019-12-06

Test configuration No. NSH-19026-06 dated 2019-10-01

Performance criteria No. NSH-14006-14 dated 2014-05-29

Test exemption request No. NSH-19026-09 dated 2020-01-20

Type test report No. KL80190394 dated 2019-12-05

Type Approval Assessment Report dated 2020-01-02



Job Id: **262.1-032938-1**  
Certificate No: **TAA00002MH**

## Tests carried out

Applicable tests according to DNVGL-CG-0339 November 2016.  
Applicable tests according to IACS Unified Requirements E10, Rev.7.

## Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of this certificate.

END OF CERTIFICATE