DNV·GL

Certificate No:
TAA00001EN

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Programmable Electronic System

with type designation(s)
SYSMAC CJ-Series

Issued to
Omron Corporation IAB Company
Kusatsu-City Shiga Pref, Japan

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

Application :

Location classes:

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

Temperature	**A**
Humidity	**B**
Vibration	**A**
EMC	**A**
Enclosure	**Required protection according to DNV Rules shall be provided upon installation on board**

Issued at **Busan** on **2017-09-27**
This Certificate is valid until **2022-06-30**.
DNV GL local station: **Kobe**

for **DNV GL**

Approval Engineer: **Eun Jin Lee**

Michael Jost Auf der Stroth
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.

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Job Id: **262.1-006592-6**
Certificate No: **TAA00001EN**

Product description

Programmable electronic system SYSMAC CJ Series, consisting of:

ITEM	TYPE
CPU unit	CJ1*-CPU***, CJ2H-CPU**, CJ2H-CPU**-EIP, CJ2M-CPU**
Interface Unit	CJ1W-II10*
Control Unit	CJ1W-IC10*
Power supply Unit	CJ1W-PA205R/202, -PD025
End Cover	CJ1W-TER01
Input Unit	CJ1W-ID211/231/232/261/262, -IA111/201
Interrupt Input Units	CJ1W-INT01
Transistor Output Units	CJ1W-OD211/212/231/232/261/201/202/233/263
Relay Output Units	CJ1W-OC201/211
A/D Unit	CJ1W-AD081/041,CJ1W-AD04U, CJ1W-AD04U(SL)
D/A Unit	CJ1W-DA041/021
Mixed I/O Unit	CJ1W-MD231, CJ1W-MD261
Ethernet Unit	CJ1W-ETN11, CJ1W-EIP21
Controller Link Unit	CJ1W-CLK21, CJ1W-CLK23
Serial Communication Unit	CJ1W-SCU41/21, CJ1W-SCU31
Device Net Unit	CJ1W-DRM21
CompoBus/S Unit	CJ1W-SRM21
Temperature Control Unit	CJ1W-TC001/002/003/004/101/102/103/104
High-speed Input Unit	CJ1W-IDP01
Triac Output Unit	CJ1W-OA201
High-speed Counter Unit	CJ1W-CT021
RS-422A Converter	CJ1W-CIF11
Input and Output Units	CJ2M-MD211, CJ2M-MD212
Analog I/O Units	CJ1W-DA08V, CJ1W-DA08C

Note 1: Type name may be followed by additional letter(s) and/or number(s).
Note 2: Letter(s) and/or number(s) are entered as "*" in the type name

Production factory

Japan
Omron Corporation company, 2-2-1, Nishikusatsu, Kusatsu-Shi, Siga, 525-0035, Japan
China
UMC ELECTRONICS MANUFACTURING(DONGGUAN)CO.,LTD
No.20, Yanhe Industrial Zone, Liwu Village, Qiaotou Town, Dongguan City, Guangdong Province
Omron(Shanghai)Co., LTD
No.1600 Jinsui Road, Jinqiao Export Processing Zone, Pudong, Shanghai
Netherland
Omron manufacturing of the Netherlands B.V.
Zilverenberg 2, 5243GM's-HERTOGENBOSCH, The Netherlands

Application/Limitation

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV, 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 DNV Rules for Ships Pt.4 Ch.9 Control and Monitoring Systems.

Product certificate
Each delivery of the application system is to be certified according to Pt.4 Ch.9 Sec.1. The certification test is to be performed at the manufacturer of the application system according to an approved test

program before the system is shipped to the yard. After the certification the clause for application software control will be put into force.

Type Approval documentation

Tests carried out

According to DNVGL Class Guideline DNVGL-CG-0339 Nov.2016

Marking of product

Periodical assessment

The scope of the retention/renewal survey 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 survey 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

Retention survey is to be performed at least every second year and at renewal of this certificate.
END OF CERTIFICATE