



Confirmation of Product Type Approval

Please refer to the "Service Restrictions" shown below to determine if Unit Certification is required for this product. This certificate reflects the information on the product in the ABS Records as of the date and time the certificate is printed.

Pursuant to the Rules of the American Bureau of Shipping (ABS), the manufacturer of the below listed product held a valid Manufacturing Assessment (MA) with expiration date of 18-OCT-2022. The continued validity of the Manufacturing Assessment is dependent on completion of satisfactory audits as required by the ABS Rules.

And; a Product Design Assessment (PDA) valid until subject to continued compliance with the Rules or standards used in the evaluation of the product.

The above entitle the product to be called Product Type Approved.

The Product Design Assessment is valid for products intended for use on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product.

ABS makes no representations regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

Product Name: Programmable Logic Controller
Model Name(s): FC6A series and FC6B series

Presented to:

IDEC IZUMI TAIWAN CORPORATION
NO. 87 SWI KUAN ROAD
CHU HOU VILLAGE
REN WU DISTRICT
81465
Taiwan, R.O.C.

Intended Service:	Programmable Logic Controllers (PLC) for controlling and monitoring of industrial processes.
Description:	FC6A series and FC6B series are modular type systems consisted of various types of module components such as CPU Modules, Input and Output Modules, and other special function modules. System can be flexibly configured by selecting the required modules in accordance with the application.
Tier:	5
Ratings:	Power Supply : 5V/12V/24V dc, 100V-240V ac 50/60 Hz. Ambient Temperature: 0-55 degree C Detailed module names listed in the attached component list.
Service Restrictions:	1) Unit Certification is required for this product. The tests in the presence of the Surveyor are required in accordance with 4-9-8/Table 2 of the Rules "Performance Tests" where it is used for control, monitoring and safety systems of propulsion machinery, propulsion boilers, vital auxiliary pumps and electrical generating plants. The performance tests are to be carried out at the assembled plant before installation on-board or after installation on-board. 2) Environmental temperature of where this equipment is installed is not to be more than 55°C.
Comments:	1) The Manufacturer has provided a declaration about the control of, or the lack of

Asbestos in this product. 2) The following is applicable to the computer-based system in accordance with 4-9-3 of the Steel Vessel Rules; (a) The system is assigned as Category III (b) The required evidence is to be kept by the manufacturer in accordance with 4-9-3/Table 2 of the Steel Vessel Rules 3) The required evidence for the application software in accordance with 4-9-3/Table 2 to be submitted by manufacturer/vender assembling the unit. 4) Unless specially directed by Administration, this approval is not to be construed as a substitute for flag Administration's approval for the purpose of SOLAS (Consolidated Edition 2014), as amended.

Notes / Documentation:

This DA Certificate is based on the following documents: Drawing No. PWB No.A, PWB No.A001-A018, Drawing No. PWB No.C, PWB No.C001-C032, Drawing No. PWB No.D, PWB No.D001-D040, Dated 29 March 2013, Drawing No. PWB No.M, PWB No.M001-M018, Dated 18 June 2013, Drawing No. PWB No.P, PWB No.P001-P007, Drawing No. Schematics No.A, Circuit Diagram, Dated 27 Dec. 2013, Drawing No. Schematics No.C, Circuit Diagram, Drawing No. Schematics No.D, Circuit Diagram, Dated 7 Aug. 2012, Drawing No. Schematics No.M, Circuit Diagram, Dated 1 Apr. 2013, Drawing No. Schematics No.P, Circuit Diagram, Dated 8 Jan. 2014, Test Report No.KL80140627, FC6A Test Report, Japan Quality Assurance Organization (JQA) dated 22 Jan. 2015, Drawing No. 16-306-019, List of drawings and documents, dated 8 Mar. 2016 Drawing No. 16-306-020, Product Covered and Ratings, dated 1 Mar. 2016, Drawing No. 16-306-033, External Configuration, dated 7 Mar. 2016, Drawing No. 16-306-034, General construction & Plastic Material List, dated 7 Mar. 2016, Drawing No. X0090-0L01H, Product specification, dated 16 Feb. 2015, Drawing No. Y1513-0L20E ~ Y1513-0L19C, Product specification, Drawing No. 16-306-038, Block diagram, dated 9 Mar. 2016, Drawing No. 16-306-048, Block diagram, dated 9 Mar. 2016, Drawing No. 10-391-162, Software development manual, dated 14 Jan. 2011, Test Report No.KL80160235, FC6A Additional Models Test Report for ABS, dated 25 Aug. 2016, ABS Surveyor Report No.KO2787917 dated 13 Feb. 2015, ABS Surveyor Report No.KO3166960 dated 25 July 2016. Drawing No. Test Report for ABS, Test_Report_for_Additional_Circuit_FC6A_Series_Analog_Modules, dated 15 June 2017

Term of Validity:

This Product Design Assessment (PDA) Certificate 17-YO1672390-PDA-DUP, dated 19/Oct/2017 remains valid until 18/Oct/2022 or until the Rules or specifications used in the assessment are revised (whichever occurs first). This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product. Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA. Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

ABS Rules:

2017 Steel Vessel Rules 1-1-4/7.7, 1-1-A3 & A4, 4-8-3/5, 4-9-3 (Cat III) and 4-9-8/13, 2017 Mobile Offshore Drilling Units Rules 1-1-4/9.7, 1-1-A2 & A3, 4-3-3/3.13 and 4-3-4/5, 2017 Steel Vessels Under 90 Meters in Length 1-1-4/7.7, 1-1-A3 & A4, 4-6-3/3.13 and 4-7-4/3, 2017 Offshore Support Vessels 1-1-4/7.7, 1-1-A3 & A4, 4-8-3/5, 4-9-3 (Cat III) and 4-9-8/13, 2017 High-Speed Craft 1-1-4/11.9, 1-1-A2 & A3, 4-6-3/13, 4-7-8 (Cat III) and 4-7-9/15

National Standards:
International Standards:
Government Authority:
EUMED:
Others:

IACS UR E10 (Rev.6 Oct 2014) and E22 (Rev.1 Sep 2010)

Model Certificate	Model Certificate No	Issue Date	Expiry Date
PDA-DUP	17-YO1672390-PDA-DUP	19-OCT-2017	18-OCT-2022



ABS Programs

ABS has used due diligence in the preparation of this certificate and it represents the information on the product in the ABS Records as of the date and time the certificate was printed. Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. Limited circumstances may allow only Prototype Testing to satisfy Type Approval. The approvals of Drawings and Products remain valid as long as the ABS Rule, to which they were assessed, remains valid. ABS cautions manufacturers to review and maintain compliance with all other specifications to which the product may have been assessed. Further, unless it is specifically indicated in the description of the product; Type Approval does not necessarily waive witnessed inspection or survey procedures (where otherwise required) for products to be used in a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS. Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.