



NIPPON KAIJI KYOKAI

TYPE APPROVAL CERTIFICATE FOR AUTOMATIC DEVICES AND EQUIPMENT

Certificate No. TA22696M

This is to certify that the undernoted product(s) has/have been approved in accordance with the requirements specified in Chapter 1, Part 7 of "Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use" and the relevant Society's Rules.

This certificate is issued to

Applicant:	IDEC CORPORATION
Manufacturer 1:	IDEC IZUMI TAIWAN CORPORATION
Place of Manufacturing:	No.87, Swi Kuan Road, Chu Hou Village, Jen Wu Country, Kaohsiung, Hsien 814 Taiwan, R.O.C.
Manufacturer 2:	SHINKO TECHNOS CO., LTD. SANDA FACTORY
Place of Manufacturing:	501-19 Fukushima, Sanda, Hyogo-Ken, 669-1313 Japan
Product description:	Programmable Controller
Model:	FC6A and FC6B Series
Approval No.:	15A017
Valid until:	8 July 2025

This certificate is subject to the conditions specified in the attached sheet(s).

Issued at Tokyo on 12 December 2022.



S.Oishi
General Manager
Machinery Department

Note: 1. This certificate has been issued due to the deletion of a place of manufacturing.

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

Specification & documents:

1. Particulars: Power supply: AC100-240V(50/60Hz), DC24V, DC12V

2. Components and reference drawings:

Table1. Products manufactured by “IDEC IZUMI TAIWAN CORPORATION”

Component	Type	Description
CPU Modules	FC6A-M16R1	DC Power Supply, 8-DC Input, 8-Relay Output
	FC6A-M16R4	DC Power Supply, 8-DC Input, 8-Relay Output
	FC6A-M16R1E	DC Power Supply, 8-DC Input, 8-Relay Output
	FC6A-M16R4E	DC Power Supply, 8-DC Input, 8-Relay Output
	FC6A-M16P1	DC Power Supply, 8-DC Input, 8-Transistor Source Output
	FC6A-M16P4	DC Power Supply, 8-DC Input, 8-Transistor Source Output
	FC6A-M16P1E	DC Power Supply, 8-DC Input, 8-Transistor Source Output
	FC6A-M16P4E	DC Power Supply, 8-DC Input, 8-Transistor Source Output
	FC6A-M32P3	DC Power Supply, 16-DC Input, 16-Transistor Source Output
	FC6A-M32P3E	DC Power Supply, 16-DC Input, 16-Transistor Source Output
	FC6A-C16R1A	AC Power Supply, 9-DC Input, 7-Relay Output
	FC6A-C16R1AE	AC Power Supply, 9-DC Input, 7-Relay Output
	FC6A-C16R1CE	DC Power Supply, 9-DC Input, 7-Relay Output
	FC6A-C24R1A	AC Power Supply, 14-DC Input, 10-Relay Output
	FC6A-C24R1AE	AC Power Supply, 14-DC Input, 10-Relay Output
	FC6A-C24R1CE	DC Power Supply, 14-DC Input, 10-Relay Output
	FC6A-C40R1A	AC Power Supply, 24-DC Input, 16-Relay Output
	FC6A-C40R1AE	AC Power Supply, 24-DC Input, 16-Relay Output
	FC6A-C40R1CE	DC Power Supply, 24-DC Input, 16-Relay Output
	FC6A-C40R1DE	DC Power Supply, 24-DC Input, 16-Relay Output
	FC6A-C16P1C	DC Power Supply, 9-DC Input, 7-Transistor Source Output
	FC6A-C16P1CE	DC Power Supply, 9-DC Input, 7-Transistor Source Output
	FC6A-C24P1C	DC Power Supply, 14-DC Input, 10-Transistor Source Output
	FC6A-C24P1CE	DC Power Supply, 14-DC Input, 10-Transistor Source Output
	FC6A-C40P1C	DC Power Supply, 24-DC Input, 16-Transistor Source Output
	FC6A-C40P1CE	DC Power Supply, 24-DC Input, 16-Transistor Source Output
	FC6A-C40P1DE	DC Power Supply, 24-DC Input, 16-Transistor Source Output
	FC6A-C16K1C	DC Power Supply, 9-DC Input, 7-Transistor Sink Output
	FC6A-C16K1CE	DC Power Supply, 9-DC Input, 7-Transistor Sink Output
	FC6A-C24K1C	DC Power Supply, 14-DC Input, 10-Transistor Sink Output
	FC6A-C24K1CE	DC Power Supply, 14-DC Input, 10-Transistor Sink Output
	FC6A-C40K1C	DC Power Supply, 24-DC Input, 16-Transistor Sink Output
FC6A-C40K1CE	DC Power Supply, 24-DC Input, 16-Transistor Sink Output	
FC6A-C40K1DE	DC Power Supply, 24-DC Input, 16-Transistor Sink Output	

Component	Type	Description
CPU Modules Brick CAN bus Types	FC6A-C40R1AEJ	AC Power Supply, 24-DC Input, 16-Relay Output
	FC6A-C40R1CEJ	DC Power Supply, 24-DC Input, 16-Relay Output
	FC6A-C40R1DEJ	DC Power Supply, 24-DC Input, 16-Relay Output
	FC6A-C40P1CEJ	DC Power Supply, 24-DC Input, 16-Transistor Source Output
	FC6A-C40P1DEJ	DC Power Supply, 24-DC Input, 16-Transistor Source Output
	FC6A-C40K1CEJ	DC Power Supply, 24-DC Input, 16-Transistor Sink Output
	FC6A-C40K1DEJ	DC Power Supply, 24-DC Input, 16-Transistor Sink Output
CPU Modules Book Types	FC6A-D16R1CEE	DC Power Supply, 8-DC Input, 8-Relay Output
	FC6A-D16P1CEE	DC Power Supply, 8-DC Input, 8-Transistor Source Output
	FC6A-D32P3CEE	DC Power Supply, 16-DC Input, 16-Transistor Source Output
	FC6A-D16K1CEE	DC Power Supply, 8-DC Input, 8-Transistor Sink Output
	FC6A-D32K3CEE	DC Power Supply, 16-DC Input, 16-Transistor Sink Output
	FC6A-D16R4CEE	DC Power Supply, 8-DC Input, 8-Relay Output
	FC6A-D16P4CEE	DC Power Supply, 8-DC Input, 8-Transistor Source Output
	FC6A-D16K4CEE	DC Power Supply, 8-DC Input, 8-Transistor Sink Output
	FC6A-D32P4CEE	DC Power Supply, 16-DC Input, 16-Transistor Source Output
	FC6A-D32K4CEE	DC Power Supply, 16-DC Input, 16-Transistor Sink Output
Input Modules	FC6A-N08B1	DC Power Supply (Internal), 8-DC Input
	FC6A-N08B4	DC Power Supply (Internal), 8-DC Input
	FC6A-N16B1	DC Power Supply (Internal), 16-DC Input
	FC6A-N16B4	DC Power Supply (Internal), 16-DC Input
	FC6A-N16B3	DC Power Supply (Internal), 16-DC Input
	FC6A-N32B3	DC Power Supply (Internal), 32-DC Input
	FC6A-N08A11	DC Power Supply (Internal), 8-AC Input
	FC6A-N08A14	DC Power Supply (Internal), 8-AC Input
Output Modules	FC6A-R081	DC Power Supply (Internal), 8-Relay Output
	FC6A-R084	DC Power Supply (Internal), 8-Relay Output
	FC6A-R161	DC Power Supply (Internal), 16-Relay Output
	FC6A-R164	DC Power Supply (Internal), 16-Relay Output
	FC6A-T08P1	DC Power Supply (Internal), 8-Transistor Source Output
	FC6A-T08P4	DC Power Supply (Internal), 8-Transistor Source Output
	FC6A-T16P1	DC Power Supply (Internal), 16-Transistor Source Output
	FC6A-T16P4	DC Power Supply (Internal), 16-Transistor Source Output
	FC6A-T16P3	DC Power Supply (Internal), 16-Transistor Source Output
	FC6A-T32P3	DC Power Supply (Internal), 32-Transistor Source Output
	FC6A-T08K1	DC Power Supply (Internal), 8-Transistor Sink Output
	FC6A-T08K4	DC Power Supply (Internal), 8-Transistor Sink Output
	FC6A-T16K1	DC Power Supply (Internal), 16-Transistor Sink Output

- To be continued -

Component	Type	Description
Output Modules	FC6A-T16K4	DC Power Supply (Internal), 16-Transistor Sink Output
	FC6A-T16K3	DC Power Supply (Internal), 16-Transistor Sink Output
	FC6A-T32K3	DC Power Supply (Internal), 32-Transistor Sink Output
Cartridge Base Module	FC6A-HPH1	Cartridge Base Module
I/O Mixture Modules	FC6A-M08BR1	DC Power Supply (Internal), 4-DC Input, 4-Relay Output
	FC6A-M08BR4	DC Power Supply (Internal), 4-DC Input, 4-Relay Output
	FC6A-M24BR1	DC Power Supply (Internal), 16-DC Input, 8-Relay Output
	FC6A-M24BR4	DC Power Supply (Internal), 16-DC Input, 8-Relay Output
	FC6A-TYS4	DC Power Supply (Internal), 12-DC Input, 8-Transistor source Output
Option Modules	FC6A-PC1	2-Serial Communications (RS232C/RS485)
	FC6A-PC2	2-Serial Communications (RS232C/RS485)
	FC6A-PC3	1-Serial Communication (RS485)
	FC6A-PC4	Bluetooth Communication
	FC6A-PC99	Cartridge Module, 1-Serial Communication (RS485)
	FC6A-PTS4	Cartridge Module, DC Power Supply (Internal), 4- Transistor Source Output
	FC6A-PTK4	Cartridge Module, DC Power Supply (Internal), 4- Transistor Sink Output
	FC6A-PN4	Cartridge Module, DC Power Supply (Internal), 4- DC Input
Expansion Interface Modules	FC6A-EXM2	DC Power Supply
	FC6A-EXM1M	DC Power Supply (Internal)
	FC6A-EXM1S	DC Power Supply
	FC6A-EXM24	DC Power Supply
	FC6A-EXM1S4	DC Power Supply
Communication Modules	FC6A-SIF52	DC Power Supply (Internal)
	FC6A-SIF524	DC Power Supply (Internal)
CPU Modules Brick Low-end Types	FC6B-C16R1A	AC Power Supply, 9-DC Input, 7-Relay Output
	FC6B-C16R1C	DC Power Supply, 9-DC Input, 7-Relay Output
	FC6B-C24R1A	AC Power Supply, 14-DC Input, 10-Relay Output
	FC6B-C24R1C	DC Power Supply, 14-DC Input, 10-Relay Output
	FC6B-C40R1A	AC Power Supply, 24-DC Input, 16-Relay Output
	FC6B-C40R1C	DC Power Supply, 24-DC Input, 16-Relay Output
	FC6B-C16P1C	DC Power Supply, 9-DC Input, 7-Transistor Source Output
	FC6B-C24P1C	DC Power Supply, 14-DC Input, 10-Transistor Source Output
	FC6B-C40P1C	DC Power Supply, 24-DC Input, 16-Transistor Source Output
	FC6B-C16K1C	DC Power Supply, 9-DC Input, 7-Transistor Sink Output
	FC6B-C24K1C	DC Power Supply, 14-DC Input, 10-Transistor Sink Output
	FC6B-C40K1C	DC Power Supply, 24-DC Input, 16-Transistor Sink Output

Component	Type	Description
CPU Modules Brick Low-end Types	FC6B-D16R1C	Power Supply, 8-DC Input, 8-Relay Output
	FC6B-D16P1C	DC Power Supply, 8-DC Input, 8-Transistor Source Output
	FC6B-D16K1C	DC Power Supply, 8-DC Input, 8-Transistor DC Sink Output
	FC6B-D32P3C	DC Power Supply, 16-DC Input, 16-Transistor Source Output
	FC6B-D32K3C	DC Power Supply, 16-DC Input, 16-Transistor Sink Output
	FC6B-D16R4C	DC Power Supply, 8-DC Input, 8-Relay Output
	FC6B-D16P4C	DC Power Supply, 8-DC Input, 8-Transistor Source Output
	FC6B-D16K4C	DC Power Supply, 8-DC Input, 8-Transistor Sink Output
	FC6B-D32P4C	DC Power Supply, 16-DC Input, 16-Transistor Source Output
	FC6B-D32K4C	DC Power Supply, 16-DC Input, 16-Transistor Sink Output

Table2. Products manufactured by "SHINKO TECHNOS CO., LTD. SANDA FACTORY"

Component	Type	Description
Analog Modules	FC6A-J2C1	2-Analog Input
	FC6A-J2C4	2-Analog Input
	FC6A-J4A1	4-Analog Input
	FC6A-J4A4	4-Analog Input
	FC6A-J8A1	8-Analog Input
	FC6A-J8A4	8-Analog Input
	FC6A-K2A1	2-Analog Output
	FC6A-K2A4	2-Analog Output
	FC6A-K4A1	4-Analog Output
	FC6A-K4A4	4-Analog Output
	FC6A-L06A1	4-Analog Input, 2-Analog Output
	FC6A-L06A4	4-Analog Input, 2-Analog Output
	FC6A-L03CN1	2-Analog Input, 1-Analog Output
	FC6A-L03CN4	2-Analog Input, 1-Analog Output
	FC6A-J4CN1	4-Analog Input
	FC6A-J4CN4	4-Analog Input
	FC6A-J8CU1	8-Analog Input
	FC6A-J8CU4	8-Analog Input
	FC6A-F2MR1	2-Analog Input, 2-Relay Output
	FC6A-F2MR4	2-Analog Input, 2-Relay Output
	FC6A-F2M1	2-Analog Input, 2-Analog Output or 2-Transistor Output
	FC6A-F2M4	2-Analog Input, 2-Analog Output or 2-Transistor Output
	FC6A-J4CH1Y	4-Analog Input
FC6A-J4CH4Y	4-Analog Input	
Option Modules	FC6A-PJ2A	2-Analog Input
	FC6A-PK2AV	2-Analog Output
	FC6A-PK2AW	2-Analog Output
	FC6A-PJ2CP	2-Analog Input

- To be continued -

Attached sheet -5/6 to the Certificate No. TA22696M

Table3. Products manufactured by “KAYBRIGHT ELECTRICITY (HUIZHOU) CO., LTD.”

Component	Type	Description
HMI Module	FC6A-PH1	DC Power Supply (internal)

3. Documentation and Test Reports:

- Test Specifications
- Materials Index
- Electrical Component List
- Printed Wiring Board Drawing List
- Schematic Drawing List
- TEST REPORT for ClassNK No. 15-306-006N (February 18, 2015)
- TEST REPORT JQA File No.: KL80140627 (January 22, 2015)
- Software development procedure 10-391-162 (14 Jan. 2011)
- Document of flame retardant: E45329
- Document for Quality Control Procedure: S05-PLC02, S06-PLC01,
SSV-QEMS-OP-001-04
- Test Specifications No. 16-306-040 (March 8, 2016)
- User's Manual No. B1722(1)
- Brock Diagram No. 16-306-038 (March 9, 2016)
- External Configuration No. 16-306-033 (March 7, 2016)
- Test Report for Class NK (August 25, 2016)
- TEST REPORT JQA File No.: KL80160235 (July 15, 2016)
- TEST REPORT for ClassNK (June 15, 2017)
- WITNESS TEST REPORT for Class NK No. 18-306-002N (January 22, 2018)
- Test Report No. 18-306-011N (March 19, 2018)
- TEST REPORT JQA File No.: KL80170776 (March 1, 2018)
- Test Specifications No. 18-306-037N (September 11, 2018)
- Test Report No. 18-306-039N (October 10, 2018)
- TEST REPORT JQA File No.: KL80180398 (October 10, 2018)
- Test Specifications No. 20-306-007 (June 11, 2020)
- TEST REPORT for ClassNK No. 20-306-017N (July 13, 2020)
- TEST REPORT JQA File No.: KL80200166 (July 2, 2020)

- To be continued -

Test items & approval conditions:

1. Test items:

(Applied testing items are marked with X.)

ENVIRONMENTAL TESTS (IACS UR E10 Rev.8 basis)		Mark
External examination		X
Operation test and performance test		X
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 × 16 hours)		X
Damp heat test		X
Vibration test (Acceleration ±0.7g × 1.5 hours)		X
Inclination test		X
Cold test (Temperature 0°C × 16 hours) (Note)		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
Flame retardant test		--

Note : Cold test of 5°C × 16 hours was carried out for FC6A-D32P3CEE, FC6A-D32K3CEE, Input Modules, Output Modules and I/O Mixture Modules.

2. Approval condition:

This product is not allowed to be installed in the bridge and on open decks.

- The End -