



# Type Approval Certificate

[ Frequency Converter ]

**Initial Approval** 27 February 2018  
**Manufacturer** Yaskawa Electric Corporation  
 13-1 Nishimiyaichi 2 Chome, Yukuhashi, Fukuoka 824-8511, Japan  
**Product Description** Matrix Converter (Type : U1000 Series)

“ See Appendix 1 ”

**Approval Condition** “ See Appendix 1 ”

**THIS IS TO CERTIFY** that the above-mentioned product has been approved in accordance with the relevant requirement of this Society's Rules and / or of the recognized standards as follows.

Pt. 6, Ch. 2, Art. 301 of the Rules for Classification, Steel Ships.

This Certificate is valid until 26 February 2028

Issued at Tokyo, Japan on 18 January 2023



This certificate is signed electronically in accordance with IMO FAL.5/Circ.39/Rev.2. Validation and authentication of the certificate can be confirmed from "<http://e-cert.krs.co.kr>" by using the tracking No(ME23002454187) and certificate No.(TKY38568-AC001).



**KOREAN REGISTER**

*Matsumoto*

*General Manager of  
Tokyo Branch Office*

- Note :**
1. This certificate will be valid subject to complying with the approval conditions described on the certificate and/or on the Rules of this Society.
  2. This certificate will be invalid from the expiry date aforementioned unless the extension or renewal has been granted to the applicant or the manufacturer.
  3. Any significant modifications or changes in design or construction to the above product without approval from this Society will render this certificate invalid.
  4. Should the specified rules, regulations or standards be amended during the validity of this certificate, the product is to be re-approved by this Society in accordance with the requirements as amended.

## Product Description and/or Approval Condition

Date of Issue : 18 January 2023

### A. Product Description

#### 1. Product Specification

- 1) Power supply : 3-phase AC 400V class  
 3-phase 380-500VAC, 50/60Hz for standard model  
 3-phase 380-480VAC, 50/60Hz for internal EMC-filter model

- 2) Models determined by following designation :

CIMR- U  4     A    
 --I-- II III IV V ---VI--- VII VIII IX

Item Category and Description

I General Purpose Inverter

II Basic Name of Inverter Series

U : U1000 Series

III Regional specification for initial software setting

A : Japan Spec.

B : China Spec.

C : Europe Spec.

D : India Spec.

U : USA Spec.

T : Asia Spec.

IV Rated Voltage

4 : 3-phase AC 400V class

3-phase 380-500VAC, 50/60Hz for standard model

3-phase 380-480VAC, 50/60Hz for internal EMC-filter model

V Customer specification

A : Standard model (\*1)

E : Internal EMC-filter model

(\*1) Be sure to use a designated stand-alone EMC filter for  
 Customer Specification A, standard model.

VI Rated Output

Model	ND (Normal duty use) Rated current [A]	HD (Heavy duty use) Rated current [A]	Customer Specification
0011	11	9.6	A and E
0014	14	11	A and E
0021	21	14	A and E
0027	27	21	A and E
0034	34	27	A and E
0040	40	34	A and E
0052	52	40	A and E
0065	65	52	A and E
0077	77	65	A and E
0096	96	77	A and E
0124	124	96	A and E
0156	156	124	A and E
0180	180	156	A and E
0216	216	180	A and E
0240	240	216	A and E
0302	302	240	A and E
0361	361	302	A and E
0414	414	361	A and E
0477	477	414	A
0590	590	477	A
0720	720	590	A
0900	900	720	A
0930	930	900	A

VII Enclosure

A : IP00

VIII Countermeasure for Environment Resistance

A : Standard

B to Z : Codes correspond to the combination of additional countermeasures  
 such as moisture resistant, dustproof, vibration proof, gas resistant,  
 humidity resistant, oil resistant.

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- IX Yaskawa internal design version  
Put any alphabet for a design version

### Harmonic Filter Modules

Model No. (*2)	Combination with the converter (*3)
EUJ71180y	CIMR-UX4A0720
EUJ71181y	CIMR-UX4A0900
EUJ71182y	CIMR-UX4A0930
EUJ71183y	CIMR-UC4A0720
EUJ71184y	CIMR-UC4A0900
EUJ71185y	CIMR-UC4A0930
EUJ71186y	CIMR-UB4A0720
EUJ71187y	CIMR-UB4A0900
EUJ71188y	CIMR-UB4A0930

- (\*2) "y" is 0 through 9 of design version that maybe followed by a dot with an alphanumeric code of countermeasure for environment resistance.  
(For example: EUJ711800.M)

- (\*3) "X" is A, D, U or T of Regional Specification digit.

## 2. Approved Drawings and Documents

- Application Model List No. VGI-Q1701-11 dated 2017.11.15
- Drawing No. EZZ902450 Rev. 2, EZZ902458 Rev. 2, EZZ902479 Rev. 1, EZZ902451 Rev. 3, EZZ902459 Rev. 2, EZZ902480 Rev. 1, EZZ902452 Rev. 3, EZZ902460 Rev. 2, EZZ902481 Rev. 1, EZZ902453 Rev. 2, EZZ902461 Rev. 2, EZZ902482 Rev. 1, EZZ902454 Rev. 3, EZZ902462 Rev. 2, EZZ902483 Rev. 2, EZZ902455 Rev. 2, EZZ902463 Rev. 1, EZZ902484 Rev. 1, EZZ902456 Rev. 1, EZZ902464 Rev. 1, EZZ902485 Rev. 1, EZZ902516 Rev. 0, EZZ902518 Rev. 0, EZZ902524 Rev. 0, EZZ902517 Rev. 0, EZZ902519 Rev. 0, EZZ902525 Rev. 0, EZZ902538 Rev. 1, DACT36931 Rev. 7, DACT37326 Rev. 2, DACT37113 Rev. 5, DACT37327 Rev. 3, DACT37553 Rev. 2, DACT37554 Rev. 2, DACT37017 Rev. 5, DACT37311 Rev. 2, DACT37085 Rev. 6, DACT37328 Rev. 2, DACT37219 Rev. 6, DACT37343 Rev. 4, DACT37364 Rev. 5, DACT37367 Rev. 4, DACT37363 Rev. 5, DACT37366 Rev. 4, DACT37086 Rev. 5, DACT37365 Rev. 4, DACT37838 Rev. 1, DACT37839 Rev. 1, DACT37600 Rev. 4

## 3. Test Reports, etc.

- Yaskawa Test Report No. VGI-T1710-04 dated 2017.10.10
- TUV Rheinland Test Report No. 50089828-001 dated 2017.09.20
- Test Records No. VGI-T1709-07, -23, -25, -26
- KEC Test Report No. A-241-16-E, A-242-16-E, A-243-16-E dated 2017.08.30
- iPS Test Report No. EMC17082 dated 2017.08.31
- Test Records No. 2021-018 dated 2021.11.18
- Test Records No. 2021-019 dated 2021.11.18
- Test Records No. VGI-T2108-13 dated 2021.09.14
- Test Records No. VGI-T2108-15 dated 2021.09.15
- Test Records No. VGI-T2108-16 dated 2021.11.04

## B. Approval Condition

### 1. Application & Limitation

- This approval is granted on the basis of the test reports and approved documentation.
- This product is to have the appropriate IP grade according to Pt. 6, Ch. 1, Sec. 201 of the Rules for Classification, Steel Ships.

### 2. Individual Product Cert. and Drawing Approval Requirement

- If the converters are used as parts of the motor controller which drive essential auxiliaries specified in KR Rule Pt. 5, Ch. 1, 102 and exceed the output 7.5 kW, Individual Product Certification is required for the motor controller.

## Product Description and/or Approval Condition

Date of Issue : 18 January 2023

### 3. Marking

- 1) The product or packing is to be marked with the manufacturer's name and type designation on a suitable position.

### 4. Others

- 1) Installation condition (IACS UR E10 Rev.8 basis)

Approved Testing	Approved Condition	Remark
EMC	All Locations excluding the bridge and deck zone	-
Temperature	+5 ~ +55°C	-
Vibration	Acceleration $\pm 0.7g$	-

< End of certificate >

