



CERTIFICATE NUMBER 19-SQ1928742-PDA

EFFECTIVE DATE 14 Nov. 2019

EXPIRATION DATE 13 Nov. 2024

ABS TECHNICAL OFFICE Shanghai Engineering Department

## CERTIFICATE OF Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

**EATON ELECTRICAL LTD**

Located at

**2 LOUYANG ROAD, SUZHOU, CHINA**

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

**Product** Circuit Breaker

**Model** Eaton IZM97 and IZM99 Series Air Circuit Breaker

This Product Design Assessment (PDA) Certificate remains valid until 13 Nov. 2024 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau of Shipping

  
Bin-Hong Wang  
Manager

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

**EATON ELECTRICAL LTD**

2 LOUYANG ROAD

SUZHOU JIANGSU

China

Telephone: +86 0512 62554121

Fax: +86 0512 62554286

Email: xingyangwang@eaton.com

Web: www.eaton.com

**Tier: 2 - PDA Issued**

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**Product:** Circuit Breaker

**Model:** Eaton IZM97 and IZM99 Series Air Circuit Breaker.

**Intended Service:**

Circuit Breakers for installation in electrical switchboards and panels for marine and offshore installations.

**Description:**

Low Voltage Air Circuit Breakers with electronic and thermal-magnetic release.

**Rating:**

Rated Service Voltage: AC 440V and AC 690V;

Rated Frequency :50 - 60 Hz;

Rated Current :800A - 6300A;

(Refer to the attachment for details about breaking and marking capacities).

**Service Restriction:**

Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

**Comments:**

The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

**Notes/Drawing/Documentation:**

Drawing No. CB2019CQC-087846\_I ZM99 Test Report(2019-10-11) Shanghai Testing & Inspection Institute for Electrical Equipment Co.,Ltd(STIEE), Revision: 0, Pages: 1

Drawing No. CN48621\_I ZM99 CB Test Certificate,Revision: 0, Pages: 1

Drawing No. CB2019CQC-087845\_I ZM97 Test Report(2019-10-11) Shanghai Testing & Inspection Institute for Electrical Equipment Co.,Ltd (STIEE), Revision: 0, Pages: 1

Drawing No. CN48622\_I ZM97 CB Test Certificate, Revision: 0, Pages: 1

**Terms of Validity:**

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Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

## **STANDARDS**

**ABS Rules:**

2019 Rules for Conditions of Classification, 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:

2019 Steel Vessels Rules, 4-8-3/5.3.3

2019 Offshore Support Vessels Rules, 4-8-3/5.3.3

2019 Steel Vessels Under 90 Meters (295 Feet) in Length Rules, 4-6-4/11.1

2019 Marine Vessels Rules, 4-8-3/5.3.3

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2019 Rules for Conditions of Classification – Offshore Units and Structures 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:  
2019 Mobile Offshore Drilling Unit Rules, 6-1-7/13.1  
2019 Facilities on Offshore Installations Rules, 3-6/11.3.3  
2019 Mobile Offshore Unit Rules, 6-1-7/13.1

**National:**  
NA

**International:**  
IEC 60947-2 Ed.5.0 (2016-06)

**Government:**  
NA

**EUMED:**  
NA

**OTHERS:**  
NA



**Design Assessment (DA) Certification  
Attachment for Listing**

DA Cert. No.: 19-SQ1928742-PDA

**DA Certificate No.:** 19-SQ1928742-PDA  
**Entry Date:** 14 Nov. 2019  
**Expire Date:** 13 Nov. 2024  
 (subject to the condition stated on the DA Certificate)  
**Name of Manufacturer:** EATON ELECTRICAL LTD.  
**Address:** 2 Lou Yang Road, Su Zhou, China,215000  
**Country:** P. R. China  
**Telephone:** 0512-62554121  
**Fax:** 0512-62554286  
**Email:** [xingyangwang@eaton.com](mailto:xingyangwang@eaton.com)  
**Contact Person:** Mr. Wang, Xing Yang  
**Product:** AIR CIRCUIT BREAKER  
**Model:** Eaton IZM97 and IZM99 Series Air Circuit Breaker  
**Test Facility:** Shanghai Testing & Inspection Institute for Electrical Equipment (STIEE)

**Product List**

<b>Type</b>		IZM97	
<b>Utilization category</b>		Type B	
<b>Rated voltage (V)</b>		AC440V	AC690V
<b>Rated current(A)</b>		800,1000,1250,1600,2000,2500,3000,3200,4000A	
<b>Rated freq.(Hz)</b>		50/60Hz	
<b>Breaking capacity Icu/Ics(kA)</b>	Ue	AC440V	AC690V
	B	65/65kA	65/65kA
	N	85/85kA	85/85kA
	H	100/100kA	85/85kA
<b>Number of Poles</b>		3P,4P	
<b>Method of installation</b>		Fixed/Withdrawable	
<b>Type of releases</b>		ETU	

<b>Type</b>		IZM99	
<b>Utilization category</b>		Type B	
<b>Rated voltage (V)</b>		AC440V	AC690V
<b>Rated current(A)</b>		4000,5000,6300A	
<b>Rated freq.(Hz)</b>		50/60Hz	
<b>Breaking capacity Icu/Ics(kA)</b>	Ue	AC440V	AC690V
	N	85/85kA	85/85kA
	H	100/100kA	100/100kA
<b>Number of Poles</b>		3P,4P	
<b>Method of installation</b>		Fixed/Withdrawable	
<b>Type of releases</b>		ETU	