



CERTIFICATE NUMBER

15-VC1400802-PDA

DATE

21 Aug 2015

ABS TECHNICAL OFFICE

TIV-MEX-Veracruz Engineering

Services

# CERTIFICATE OF DESIGN ASSESSMENT

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

## **EATON ELECTRICAL GROUP**

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: **Molded Case Circuit Breaker**

Model: **Series C K Frame - KD, KDB, CKD, CKDB, HKD, HKDB, CHKD, CHKDB, KDC, KDCB, CKDC, CKDCB, HKD-DC, DK, KG, KI, KW, HKW, HKWK, KD--K, KDB--K, HKD--K, HKDB--K, DK--K, HMCP400**

This Product Design Assessment (PDA) Certificate 15-VC1400802-PDA, dated 21/Aug/2015 remains valid until 20/Aug/2020 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.

AMERICAN BUREAU OF SHIPPING

  
Tim Kimble  
Engineer

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 the terms and conditions as contained in ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010).

**EATON ELECTRICAL GROUP**  
1000 CHERRINGTON PARKWAY  
Moon Township PA  
United States 15108  
Telephone: 412-893-3792  
Fax: 412-893-5937  
Email: louisfgrahor@eaton.com  
Web: WWW.EATON.COM

**Tier: 2 - PDA Issued**

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**Product:** Molded Case Circuit Breaker

**Model:** Series C K Frame - KD, KDB, CKD, CKDB, HKD, HKDB, CHKD, CHKDB, KDC, KDCB, CKDC, CKDCB, HKD-DC, DK, KG, KI, KW, HKW, HKWK, KD-K, KDB-K, HKD-K, HKDB-K, DK-K, HMCP400

**Intended Service:**

Marine & Offshore Applications - Low Voltage Power Circuit Breakers for use in Electrical Distribution Systems.

**Description:**

2, 3 & 4 Pole Molded Case Circuit Breakers, Motor Circuit Protectors & Molded Case Switches available with Thermal Magnetic & Electronic Trip Units.

**Rating:**

Ampere Rating : 63 to 400 Amps;  
Voltage Rating : 600 Vac, 480 Vac, 240 Vac, 250Vdc  
See attached "pdf" for Rating Details

**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.

- (1) For ship applications relative to removable mounting see 4-8-3/5.3.3 (c) of the SV Rules.
- (2) Where used in locations with ambient temperatures greater than 40 °C the ratings (both normal and interrupting) are to be recalibrated/derated as appropriate.
- (3) For Marine use please note that the rated Ultimate Short-circuit Breaking Capacity (Icu) is to be the same as (and not higher than) the rated Short-circuit Service Breaking Capacity (Ics).

**Comments:**

Cutler Hammer Industrial Ltd - SAN CRISTOBAL, DOMINICAN REPUBLIC

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

**Notes/Drawing/Documentation:**

Dwg. 1492D63 Rev. 12 , Sheet 1 of 3 - AB DE ION Circuit Breaker Type ND Outline Drawing.  
Dwg. 1492D63 Rev. 12 , Sheet 2 of 3 - AB DE ION Circuit Breaker Type ND Outline Drawing  
Dwg. 1492D63 Rev. 12 , Sheet 3 of 3 - AB DE ION Circuit Breaker Type ND Outline Drawing  
Dwg. 1492D64 Rev. 2 , Sheet 1 of 1 - AB DE ION Circuit Breaker Type KD 4 Pole Outline Dwg.  
UL File 7819 Vol. KD, issued: 1994-08-17, Revised: 2008-08-19  
UL File 7819 Vol. KD, section 1 and Report, issued: 1986-03-14, Revised: 2005-12-05  
UL File 7819 Vol. KD, section 5 and Report, issued: 3-10-86, Revised: 4-13-90  
UL File 7819 Vol. KD, section 9 and Report, issued: 1994-08-05, Revised: 2002-11-27  
UL File 7819 Vol. KD, section 10 and Report, issued: Revised: 2005-12-05  
UL File 7819 Vol. MCP, issued: 1994-08-17, Revised: 2008-08-19  
UL File 7819 Vol. MCP, Section 6 and Report. issued: 2-6-87.  
UL File, E59918 Vol. 1, issued: 1994-08-17, Revised: 2008-04-05  
UL File, E59918 Vol. 1, Section 9 and Report, issued: 1987-12-14, Revised: 2010-01-07  
KEMA Certificate No. 2025423.04 for Circuit Breakers Type HKWK, issued April 2009  
KEMA Certificate No. 2085698.01, for Moded Case Circuit Breakers, Type KW and HKW, issued Oct. 17, 2005  
Table 1 K Frame Circuit Breaker, UL Interrupting Ratings  
EATON memo to ABS dated 4-21-10  
EATON Catalogue No.CA08101001E, Oct. 17 2005.

**EATON ELECTRICAL GROUP**  
1000 CHERRINGTON PARKWAY  
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United States 15108  
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Fax: 412-893-5937  
Email: louisfgrahor@eaton.com  
Web: WWW.EATON.COM

**Tier: 2 - PDA Issued**

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**Terms of Validity:**

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**STANDARDS**

**ABS Rules:**

Rules for Conditions of Classification, Part 1 2015 Steel Vessels Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:

2015 Steel Vessel 4-8-3/5.3.3;

2015 ABS Rules for Conditions of Classification, Part 1 – 2015 Offshore Units and Structures 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:

2015 Mobile Offshore Drilling Units 6-1-7/13.1.1

**National:**

UL 489 (UL File E7819 - Vol. KD, Issued 17 August 1994, Revised 16 July 2009 and Vol. MCP, Issued 17 August 1994, Revised 19 August 2008; UL File E59918 - Vol.1, Issued 17 August 1997, Revised 07 January 2010).

**International:**

IEC 60947-2:1995 Edition 2.1:1998-3 (Kema Certificate 2085698.01 17 Oct 05) - For Model Nos. KW and HKW only

IEC 60947-2:1995 Edition 2.2: 2001 (Kema Certificate 2025423.04 9 April 2003) - For Model No. HKWK only.

**Government:**

NA

**EUMED:**

NA

**OTHERS:**

NA



CERTIFICATE NUMBER  
15-VC1400802-PDA-DUP

DATE  
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This Product Design Assessment (PDA) Certificate 15-VC1400802-PDA-DUP, dated 21/Aug/2015 remains valid until 20/Aug/2020 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

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Fax:  
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Web: www.eaton.com

**Tier: 3 - Type Approved, unit certification not required**

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Email:  
Web: www.eaton.com

**Tier: 3 - Type Approved, unit certification not required**

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EATON Catalogue No.CA08101001E, Oct. 17 2005.

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**Government:**

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**EUMED:**

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**OTHERS:**

NA