



CERTIFICATE NUMBER
15-VC1400804-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 CF Frame: FD, HFD, FDC, EHD, FDB, ED, EDB, EDS, EDH, EDC, FI, FDMP, HFDMP, FDE, HFDE, FDCE, FW, FWF, HFW, HFWK, FD--K, HFD--K, EHD--K, HMCP & HMCPS.**


This Product Design Assessment (PDA) Certificate 15-VC1400804-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

Product: Molded Case Circuit Breaker

Model: Series CF Frame: FD, HFD, FDC, EHD, FDB, ED, EDB, EDS, EDH, EDC, FI, FDMP, HFDMP, FDE, HFDE, FDCE, FW, FWF, HFW, HFWK, FD-K, HFD-K, EHD-K, HMCP & HMCPS.

Intended Service:

Marine & Offshore Application - Low Voltage Distribution Systems

Description:

Molded Case Circuit Breaker 1, 2, 3 & 4 Pole. Motor Circuit Protectors & Molded Case Switches available with Thermal Magnetic & Electronic Trip Units.

Rating:

Ampere Ratings : 15A to 225A

Voltage: 240, 277, 347, 480 & 600 VAC; 125, 250 VDC

Interrupting, Short Time Rating see details as per attached Data Sheets.

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:

Series C Molded Case Circuit Breakers, F Frame: 10-225 Amp.

File E-7819 Vol. FD, issued: 1994-08-17, 2008-08-19

File E-7819 Vol. FD, Section 1, and Report issued: 1995-07-08, 2008-07-17

File E-7819 Vol. MCP, Section 1, and Report issued: 1994-08-17, Revised 2008-08-19.

File E-7819 Vol. MCP, Section 2, page: 12-16-86, Revised 4-25-96.

File E-59918 Vol. 1, Section 7 and Report, issued: 1987-12-10, Revised: 2009-05-19

Eaton Cutler- Hammer Publication No.PA01200006E/26946

Series C, Molded Case Circuit Breakers 12-85- 10-25

Table 1, Series C, F Frame Circuit Breaker, UL 489 Ratings.

Eaton Memo to ABS, dated 5/20/10

Catalogue Eaton No. CA01200002E Molded Case Circuit Breakers/F Frame

KEMA Certificate No. 2012668.06 (Circuit BreakersType/Models FW and FWF) issued June 20 2001.

KEMA Certificate No. 2012668.07 (Circuit BreakersType/Models CH and HFN) issued

KEMA Certificate No. 2025423.02 (Circuit BreakersType/Models (HFWK) issued April 9 2003.

Terms of Validity:

This Product Design Assessment (PDA) Certificate 15-VC1400804-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).

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

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.

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;

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, ABS Mobile Offshore Drilling Units 6-1-7/13.1.1;

National:

UL 489 10th Edition 2002, (UL File E7819 - Vol. FD, Issued 17 August 1994, Revised 19 August 2008 and Vol. MCP, Issued 17 August 1994, Revised 19 August 2008; UL File E59918 - Vol.1, Issued 17 August 1997, Revised 05 October 2008).

International:

IEC 60947-2 Edition 2.1:1998 (Kema Certificate 2012668.06 and 2012668.07 dated 20 June 2001) - For Model Nos. FW, FWF and HFW only
IEC 60947-2:1995 Edition 2.2: 2001 (Kema Certificate 2025423.02 9 April 2003) - For Model No. HFWK only

Government:

NA

EUMED:

NA

OTHERS:

NA



CERTIFICATE NUMBER
15-VC1400804-PDA-DUP

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

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 CF Frame: FD, HFD, FDC, EHD, FDB, ED, EDB, EDS, EDH, EDC, FI, FDMP, HFDMP, FDE, HFDE, FDCE, FW, FWF, HFW, HFWK, FD--K, HFD--K, EHD--K, HMCP & HMCPS.**


This Product Design Assessment (PDA) Certificate 15-VC1400804-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).

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-A/3.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010).

EATON
CARRETERA SANCHEZ KM 18.5
PARQUE INDUSTRIAL ITABO, S.A. (PIISA)
HAINA, SAN CRISTOBAL
Dominican Republic 11116
Telephone:
Fax:
Email:
Web: www.eaton.com

Tier: 3 - Type Approved, unit certification not required

Product: Molded Case Circuit Breaker

Model: Series CF Frame: FD, HFD, FDC, EHD, FDB, ED, EDB, EDS, EDH, EDC, FI, FDMP, HFDMP, FDE, HFDE, FDCE, FW, FWF, HFW, HFWK, FD-K, HFD-K, EHD-K, HMCP & HMCPS.

Intended Service:

Marine & Offshore Application - Low Voltage Distribution Systems

Description:

Molded Case Circuit Breaker 1, 2, 3 & 4 Pole. Motor Circuit Protectors & Molded Case Switches available with Thermal Magnetic & Electronic Trip Units.

Rating:

Ampere Ratings : 15A to 225A
Voltage: 240, 277, 347, 480 & 600 VAC; 125, 250 VDC
Interrupting, Short Time Rating see details as per attached Data Sheets.

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:

Series C Molded Case Circuit Breakers, F Frame: 10-225 Amp.
File E-7819 Vol. FD, issued: 1994-08-17, 2008-08-19
File E-7819 Vol. FD, Section 1, and Report issued: 1995-07-08, 2008-07-17
File E-7819 Vol. MCP, Section 1, and Report issued: 1994-08-17, Revised 2008-08-19.
File E-7819 Vol. MCP, Section 2, page: 12-16-86, Revised 4-25-96.
File E-59918 Vol. 1, Section 7 and Report, issued: 1987-12-10, Revised: 2009-05-19
Eaton Cutler- Hammer Publication No. PA01200006E/26946
Series C, Molded Case Circuit Breakers 12-85- 10-25
Table 1, Series C, F Frame Circuit Breaker, UL 489 Ratings.
Eaton Memo to ABS, dated 5/20/10
Catalogue Eaton No. CA01200002E Molded Case Circuit Breakers/F Frame
KEMA Certificate No. 2012668.06 (Circuit Breakers Type/Models FW and FWF) issued June 20 2001.
KEMA Certificate No. 2012668.07 (Circuit Breakers Type/Models CH and HFN) issued
KEMA Certificate No. 2025423.02 (Circuit Breakers Type/Models (HFWK) issued April 9 2003.

Terms of Validity:

This Product Design Assessment (PDA) Certificate 15-VC1400804-PDA-DUP, dated 21/Aug/2015 remains valid

EATON
CARRETERA SANCHEZ KM 18.5
PARQUE INDUSTRIAL ITABO, S.A. (PIISA)
HAINA, SAN CRISTOBAL
Dominican Republic 11116
Telephone:
Fax:
Email:
Web: www.eaton.com

Tier: 3 - Type Approved, unit certification not required

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.

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;

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, ABS Mobile Offshore Drilling Units 6-1-7/13.1.1;

National:

UL 489 10th Edition 2002, (UL File E7819 - Vol. FD, Issued 17 August 1994, Revised 19 August 2008 and Vol. MCP, Issued 17 August 1994, Revised 19 August 2008; UL File E59918 - Vol.1, Issued 17 August 1997, Revised 05 October 2008).

International:

IEC 60947-2 Edition 2.1:1998 (Kema Certificate 2012668.06 and 2012668.07 dated 20 June 2001) - For Model Nos. FW ,FWF and HFW only
IEC 60947-2:1995 Edition 2.2: 2001 (Kema Certificate 2025423.02 9 April 2003) - For Model No. HFWK only

Government:

NA

EUMED:

NA

OTHERS:

NA