

CERTIFICATE NUMBER 15-VC1400805-PDA DATE 21 Aug 2015

**C**ERTIFICATE OF

ABS TECHNICAL OFFICE
TIV-MEX-Verazcruz Engineering
Services

# **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

Series C (G Frame) GHB, GHC, GD, GDB, GI, HGHB, HGHC, GHB-HID, GD--

K & GMCP

Model:

This Product Design Assessment (PDA) Certificate 15-VC1400805-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

I III KIMDIE

Engineer I

## **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 C (G Frame) GHB, GHC, GD, GDB, GI, HGHB, HGHC, GHB-HID, GD-K &

**GMCP** 

**Intended Service:** 

Marine & Offshore Application - Low Voltage Distribution Systems

**Description:** 

Molded Case Circuit Breaker 1, 2 & 3 Pole. Motor Circuit Protectors & Molded Case Switches available with Thermal Magnetic Tripping Systems.

Rating:

Ampere Ratings: 15 A to 100 A @ 40°C Ambient Voltage: 120, 240, 277 & 480 Vac; 125 & 250 Vdc

Interrupting, Short Time Rating see details as per attached "pdf" 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.

 For ship applications relative to removable mounting see 4-8-3/5.3.3 (c) of the Steel Vessels Rules.
 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 Capcity (Icu) is to be the same as (and not higher than) the rated Short-circuit Service Breaking Capacity (Isc).

## **Comments:**

Duplicate PDA resides with Cutler-Hammer S A Parque Industrial Itabo - Dominican Republic.

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

**Notes/Drawing/Documentation:** 

Dwg. 1370D84 Rev.4 Sheet 1 of 1 - AB DE ION CB Type GB-GHB, 3 Pole, Outline. Dwg. 1372D97 Rev.5 Sheet 1 of 1 - AB DE ION CB Type GB-GHB, 1 Pole, Outline

Dwg. 1374D14 Rev.5 Sheet 1 of 1 - AB DE ION CB TYPE GC-GHC,1 Pole, Outline

Dwg. 1374D15 Rev.3 Sheet 1 of 1- AB DE ION CB TYPE GC-GHC, 2 Pole, Outline Dwg. 1374D16 Rev.6 Sheet 1 of 1- AB DE ION CB TYPE GC-GHC, 3 Pole, Outline File E59918 Vol 1 Auth page File E59918 Vol 1 Sec 14 Report File E7818 Vol MCP Sec 8 File E7819 Vol B Auth page File E7819 Vol B Sec 4 Report E7819 Vol MCP Auth page GD ratings

Terms of Validity:

This Product Design Assessment (PDA) Certificate 15-VC1400805-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, 4-8-2/9.3;

ABS Rules for Conditions of Classifications, Part1, 2015 Offshore Unit 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 10th Edition: 2002, UL File E59918 (5 September 2008) and UL File E7819 (19 August 2008)

## International:

IEC 60947-2:1995 Ed. 2.1: 1998-3, EN 60947-2:1996.

## Government:

NA

## **EUMED:**

NA

## **OTHERS:**

NA



CERTIFICATE NUMBER 15-VC1400805-PDA-DUP DATE 21 Aug 2015

**CERTIFICATE OF** 

ABS TECHNICAL OFFICE
TIV-MEX-Verazcruz Engineering
Services

# 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 C (G Frame) GHB, GHC, GD, GDB, GI, HGHB, HGHC, GHB-HID, GD--

K & GMCP

This Product Design Assessment (PDA) Certificate 15-VC1400805-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 Kimbie

Engineer

#### **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 C (G Frame) GHB, GHC, GD, GDB, GI, HGHB, HGHC, GHB-HID, GD-K &

**GMCP** 

## **Intended Service:**

Marine & Offshore Application - Low Voltage Distribution Systems

Description:

Molded Case Circuit Breaker 1, 2 & 3 Pole. Motor Circuit Protectors & Molded Case Switches available with Thermal Magnetic Tripping Systems.

Rating

Ampere Ratings: 15 A to 100 A @ 40°C Ambient Voltage: 120, 240, 277 & 480 Vac; 125 & 250 Vdc

Interrupting, Short Time Rating see details as per attached "pdf" 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 Steel Vessels 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 Capcity (Icu) is to be the same as (and not higher than) the rated Short-circuit Service Breaking Capacity (Isc).

#### Comments:

Duplicate PDA resides with Cutler-Hammer S A Parque Industrial Itabo - Dominican Republic.

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

Notes/Drawing/Documentation:

Dwg. 1370D84 Rev.4 Sheet 1 of 1 - AB DE ION CB Type GB-GHB, 3 Pole, Outline. Dwg. 1372D97 Rev.5 Sheet 1 of 1 - AB DE ION CB Type GB-GHB, 1 Pole, Outline

Dwg. 1374D14 Rev.5 Sheet 1 of 1 - AB DE ION CB TYPE GC-GHC,1 Pole, Outline

Dwg. 1374D15 Rev.3 Sheet 1 of 1- AB DE ION CB TYPE GC-GHC, 2 Pole, Outline Dwg. 1374D16 Rev.6 Sheet 1 of 1- AB DE ION CB TYPE GC-GHC, 3 Pole, Outline File E59918 Vol 1 Auth page

File E59918 Vol 1 Sec 14 Report File E7818 Vol MCP Sec 8 File E7819 Vol B Auth page File E7819 Vol B Sec 4 Report E7819 Vol MCP Auth page

GD ratings

Terms of Validity:

This Product Design Assessment (PDA) Certificate 15-VC1400805-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).

## **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

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, 4-8-2/9.3;

ABS Rules for Conditions of Classifications, Part1, 2015 Offshore Unit 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 10th Edition: 2002, UL File E59918 (5 September 2008) and UL File E7819 (19 August 2008)

## International:

IEC 60947-2:1995 Ed. 2.1: 1998-3, EN 60947-2:1996.

## **Government:**

NA

# **EUMED:**

NA

## **OTHERS:**

NA