



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx UL 14.0027X** Page 1 of 4 Certificate history:
Status: **Current** Issue No: 6 Issue 5 (2016-04-18)
Date of Issue: 2021-03-08 Issue 4 (2015-01-15)
Applicant: **Dairyland Electrical Industries Inc.** Issue 3 (2014-12-19)
340 Business Park Circle Issue 2 (2014-10-08)
P.O. Box 187 Issue 1 (2014-09-25)
Stoughton, WI 53589 Issue 0 (2014-07-30)
United States of America
Equipment: **Polarization Cell Replacement Unit (PCRH), Over-Voltage Protector (OVP)**
Optional accessory:
Type of Protection: **Flameproof "db"**
Marking: PCRH:
Ex db IIB T6 Gb
-20°C to +60°C
OVP:
Ex db IIB+H2 T5 Gb
-45°C to +85°C

Approved for issue on behalf of the IECEx
Certification Body:

Katy A. Holdredge

Position:

Senior Staff Engineer

Signature:
(for printed version)

Date:

2021-03-08

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

UL LLC
333 Pfingsten Road
Northbrook IL 60062-2096
United States of America





IECEx Certificate of Conformity

Certificate No.: **IECEx UL 14.0027X**

Page 2 of 4

Date of issue: 2021-03-08

Issue No: 6

Manufacturer: **Dairyland Electrical Industries Inc.**
340 Business Park Circle
P.O. Box 187
Stoughton, WI 53589
United States of America

Additional manufacturing locations: **Dairyland Electrical Industries Inc.**
110 Memorial Drive
Pound, WI 54161
United States of America

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

US/UL/ExTR14.0041/00
US/UL/ExTR14.0041/03
US/UL/ExTR14.0045/02

US/UL/ExTR14.0041/01
US/UL/ExTR14.0045/00
US/UL/ExTR14.0045/03

US/UL/ExTR14.0041/02
US/UL/ExTR14.0045/01
US/UL/ExTR14.0045/04

Quality Assessment Report:

US/UL/QAR14.0006/04



IECEx Certificate of Conformity

Certificate No.: **IECEx UL 14.0027X**

Page 3 of 4

Date of issue: 2021-03-08

Issue No: 6

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Polarization Cell Replacement Unit (PCRH) is a solid-state DC isolation/AC grounding (or coupling) device designed for use in conjunction with cathodically protected equipment. It consists of an Ex certified enclosure with two feed thru assemblies that engage the sidewall of the enclosure and form a threaded joint. The feed thru assembly consists of a feed thru stud and feed thru insulating sleeve that are press fit into the feed thru shell engaging the enclosure to form a cylindrical joint. This feed thru provides the connection between the internal capacitor assembly and the external device being grounded/isolated.

The Over-Voltage Protector (OVP) is a solid-state device designed for use in conjunction with cathodically protected systems to provide over-voltage protection of insulated joints from lightning and AC faults and to provide AC grounding and simultaneous DC isolation of cathodically protected electrical equipment. It consists of an enclosure with a threaded cover and a feed thru assembly, both of which form threaded joints. The feed thru assembly consists of a feed thru stud and feed thru insulating sleeve that are press fit into the feed thru shell engaging the enclosure to form a cylindrical joint. This feed thru provides the connection between the internal assembly and the external device.

Please see Annex for additional information.

SPECIFIC CONDITIONS OF USE: YES as shown below:

Contact Dairyland Electrical Industries for information on the dimensions of the flameproof joints.



IECEx Certificate of Conformity

Certificate No.: **IECEx UL 14.0027X**

Page 4 of 4

Date of issue: 2021-03-08

Issue No: 6

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Issue 1: Evaluation of PCRH. Issue 1: Evaluation of OVP.

Issue 2: Addition of blocking threshold ratings that were omitted from the previous project.

Issue 3: Revised drawings were provided by the customer. All PCRH parts and assemblies that were affected by any changes to the multi-page document have been updated to completely agree with the master certified document.

Issue 4: Drawing revision with modifications to non-critical parts.

Issue 5: Changes made to Drawing No. 100023 and 100000 - Drawing No. 100023 revised installation instructions and Drawing No. 100000 specified instructions for end user in accordance with IEC 60079-0.

Issue 6: Evaluation to the most recent editions of the standards. Changes made to include alternate parts and revisions to general construction.

Annex:

[Annex to IECEx UL 14.0027X Issue 6.pdf](#)



IECEx Certificate of Conformity

Certificate No.:

IECEx UL 14.0027X

Issue No.: 6

Page 1 of 3

TYPE DESIGNATION

Nomenclature:

PCRH - 3.7kA - S - IECEx
I II III IV

I – PCRH – Basic Catalog Number

II – AC Fault Current

3.7kA - 3.7kA rating
5kA - 5kA rating
10kA - 10kA rating
15kA - 15kA rating

III – Blocking Threshold

-S - -2/+2 V rating
blank - -3/+1 V rating

IV – Designates Hazardous Locations Rating (Optional)

(Blank) – Designation not detailed

ATEX – ATEX certification

IECEX – IECEx certification

OVP - 2/2 - 3.7 - 100
I II III IV

I – OVP – Basic Catalog Number

II – Blocking Threshold

2/1 - -2/+1V rating
2/2 - -2/+2 V rating
3/1 - -3/+1 V rating
3/3 - -3/+3V rating
4/1 - -4/+1 V rating
4/2 - -4/+2V rating
4/4 - -4/+4 V rating

III - AC Fault Current

3.7 - 3.7kA rating
5.0 - 5.0kA rating

IV – Impulse Current

100 - 100kA rating, 8x20µs
waveform



IECEx Certificate of Conformity

Certificate No.: IECEx UL 14.0027X

Issue No.: 6

Page 2 of 3

PARAMETERS RELATING TO THE SAFETY

PCRH -

Maximum steady state current rating: 45 A
Impulse Current: 100 kA, 8x20µs

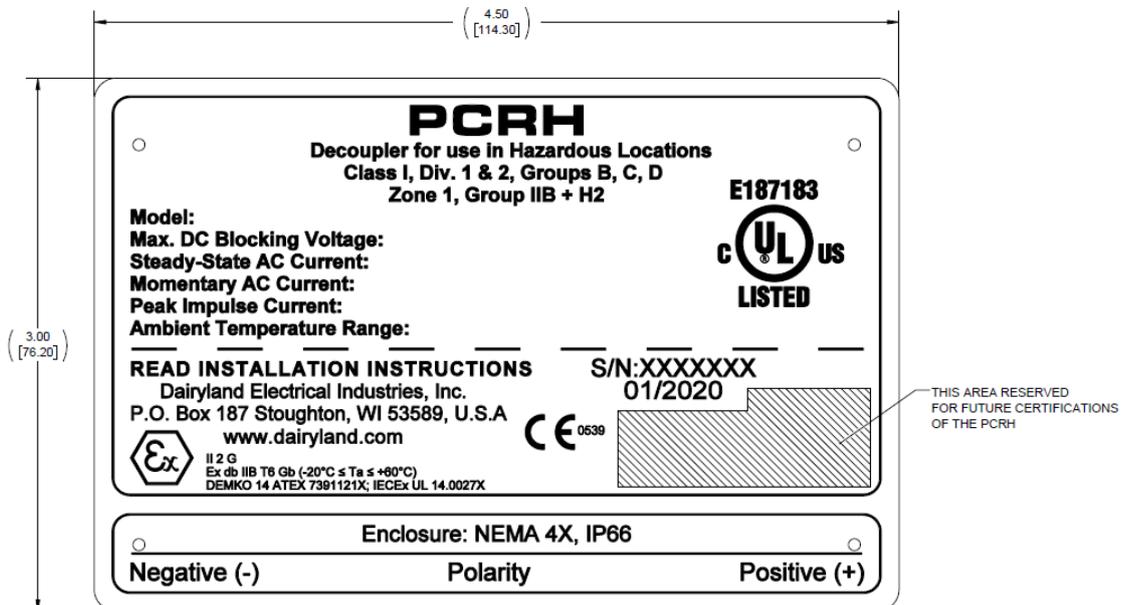
OVP -

Blocking Threshold: -2/+1V, -2/+2 V, -3/+1V, -3/+3V, -4/+1 V,
-4/+2V, -4/+4 V
AC Fault Current: 3.7 kA, 5.0 kA
Impulse Current: 100 kA 8x20µs waveform

MARKING

Marking has to be readable and indelible; it has to include the following indications:

PCRH -



MATERIAL: 316 STAINLESS STEEL
MARKINGS: LASER ETCHED OR PERMANENT INK

NOTE:

- THE FOLLOWING RATINGS ARE OPTIONAL ON THE NAMEPLATE
IF REMOVED FROM THE NAMEPLATE, THESE RATINGS MUST APPEAR IN THE INSTALLATION INSTRUCTIONS.
 - MAX DC BLOCKING VOLTAGE
 - STEADY-STATE AC CURRENT
 - MOMENTARY AC CURRENT
 - PEAK IMPULSE CURRENT
- WEBSITE INFORMATION IS OPTIONAL.



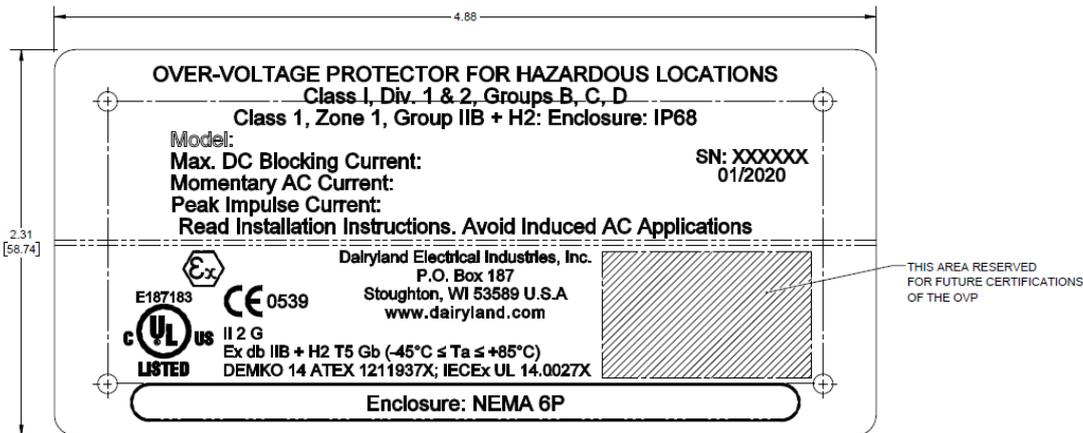
IECEx Certificate of Conformity

Certificate No.: IECEx UL 14.0027X

Issue No.: 6

Page 3 of 3

OVP -



MATERIAL: 316 STAINLESS STEEL
MARKINGS: LASER ETCHED OR PERMANENT INK

NOTE:

- THE FOLLOWING RATINGS ARE OPTIONAL ON THE NAMEPLATE. IF REMOVED FROM THE NAMEPLATE, THESE RATINGS MUST APPEAR IN THE INSTALLATION INSTRUCTIONS.
 - MAX DC BLOCKING VOLTAGE
 - MOMENTARY AC CURRENT
 - PEAK IMPULSE CURRENT
- WEBSITE INFORMATION IS OPTIONAL.

LIST OF CERTIFIED COMPONENTS

PCRH:

The following additional previous editions of Standards noted under the "Standards" section of this Certificate were applied to integral Components as itemized below. There are no significant safety related changes between these previous editions and the editions noted under the "Standards" section.

Product	Certificate Number	Standards
Ex Component Flameproof Enclosures, Models XCEX	IECEx UL 10.0046U	IEC 60079-0, 5th IEC 60079-1, 6th