



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 21.0033X** Page 1 of 4 [Certificate history:](#)
Issue 0 (2021-06-11)

Status: **Current** Issue No: 1

Date of Issue: 2022-03-07

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

Equipment: **Decoupler, PCRX Series, PCRX-3.7kA, PCRX-5kA, PCRS-10kA, PCRX-15kA**

Optional accessory:

Type of Protection: **Increased Safety "ec"**

Marking: **Ex ec IIC T4 Gc**
-40 °C to +50 °C

Approved for issue on behalf of the IECEx
Certification Body:

Katy A. Holdredge

Position:

Senior Staff Engineer

Signature:
(for printed version)

Date:
(for printed version)

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





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Date of issue: 2022-03-07

Issue No: 1

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

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 60079-7:2017](#) Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

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/ExTR21.0034/00](#)

[US/UL/ExTR21.0034/01](#)

Quality Assessment Report:

[US/UL/QAR14.0006/05](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The PCRX series of decouplers are intended to be used to provide AC grounding and low voltage DC blocking for cathodic protection of pipelines and similar installations in Zone 2 hazardous locations.

The PCRX prevents the flow of direct current while simultaneously providing a low impedance grounding path for steady state induced alternating current, if present. Steady state AC current of up to 45A rms can flow through the device with DC voltage applied within the operating voltage threshold. The PCRX also provides over-voltage protection for both impulse and AC fault current conditions.

Please see Annex for additional information.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The PCRX cover should not be removed.
- Connections to the PCRX should be made only when area is non-hazardous.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Issue 1: Addition of new model number suffixes corresponding to revised diode stack configurations.

Annex:

[Annex to UL 21.0033X Issue 1_1.pdf](#)



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TYPE DESIGNATION

Nomenclature for PCRX Series:

PCRX – 5kA – 3.0/0.5

I II III

I – Model Series

PCRX – PCRX Decouplers

II – Momentary AC Current

3.7kA – Rated for 3.7kA

5kA – Rated for 5kA

10kA – Rated for 10kA

15kA – Rated for 15kA

III – Maximum DC Blocking Voltage

3.0/0.5 – 3V in the negative direction, 0.5 in the positive direction

3.5/0.5 – 3.5V in the negative direction, 0.5 in the positive direction

4.5/0.5 – 4.5V in the negative direction, 0.5 in the positive direction

6.0/2.0 – 6.0V in the negative direction, 2.0 in the positive direction

5.5/2.5 – 5.5V in the negative direction, 2.5 in the positive direction

5.0/3.0 – 5.0V in the negative direction, 3.0 in the positive direction

4.5/3.5 – 4.5V in the negative direction, 3.5 in the positive direction

4.0/4.0 – 4.0V in the negative direction, 4.0 in the positive direction

5.5/2.0 – 5.5V in the negative direction, 2.0 in the positive direction

5.0/2.5 – 5.0V in the negative direction, 2.5 in the positive direction

4.5/3.0 – 4.5V in the negative direction, 3.0 in the positive direction

4.0/3.5 - 4.0V in the negative direction, 3.5 in the positive direction

5.0/2.0 – 5.0V in the negative direction, 2.0 in the positive direction

4.5/2.5 – 4.5V in the negative direction, 2.5 in the positive direction

4.0/3.0 – 4.0V in the negative direction, 3.0 in the positive direction

3.5/3.5 – 3.5V in the negative direction, 3.5 in the positive direction

4.5/2.0 – 4.5V in the negative direction, 2.0 in the positive direction

4.0/2.5 – 4.0V in the negative direction, 2.5 in the positive direction

3.5/3.0 – 3.5V in the negative direction, 3.0 in the positive direction

PARAMETERS RELATING TO THE SAFETY

Maximum AC Steady State Current Rating: 45 A r.m.s

AC Fault Current Ratings:

PCRX-3.7kA:

Maximum 50/60 Hz AC Fault Current (A)	Number of Cycles
5,000	3
4,200	10
3,700	30



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PCRX-5kA:

Maximum 50/60 Hz AC Fault Current (A)	Number of Cycles
6,800	3
5,700	10
5,000	30

PCRX-10kA:

Maximum 50/60 Hz AC Fault Current (A)	Number of Cycles
15,000	3
12,000	10
10,000	30

PCRX-15kA:

Maximum 50/60 Hz AC Fault Current (A)	Number of Cycles
27,000	3
21,000	10
15,000	30

MARKING

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

PCRX

Decoupler for use in Hazardous Locations

Class I, Div. 2, Groups A, B, C, D & Zone 2, Group IIC

Model: E187183

Max. DC Blocking Voltage:

Steady-State AC Current:

Momentary AC Current:

Peak Impulse Current:

Ambient Temperature Range:

READ INSTALLATION INSTRUCTIONS

Dairyland Electrical Industries, Inc.

P.O. Box 187 Stoughton, WI 53589, U.S.A

www.dairyland.com

S/N:XXXXXXXX

01/2020

UK
CA

II 3 G
Ex ec IIC T4 Gc
UL 21 ATEX 2542 X; IECEx UL 21.0033 X
UL21UKEX2247X

Enclosure: NEMA 4X; IP66

Negative (-) Polarity Positive (+)

Populated for each model according to page 6 of drawing 100128.