



[1]

UNITED KINGDOM CONFORMITY ASSESSMENT  
**TYPE EXAMINATION CERTIFICATE**

[2]

**Product or Protective System Intended for use in Potentially Explosive Atmospheres  
UKSI 2016:1107 (as amended by UKSI 2019:696) – Schedule 3A, Part 1**

[3] Type Examination Certificate No.: **UL21UKEX2247X Rev.1**  
[4] Product: **Decoupler, PCRX Series**  
[5] Manufacturer: **Dairyland Electrical Industries Inc.**  
[6] Address: **340 Business Park Circle, PO Box 187, Stoughton, WI 53589 USA**

[7] This product and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

[8] UL International (UK) Ltd certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Schedule 1 of the Regulations. The examination and test results are recorded in the confidential report **UKRCC-4790268319.4**

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

**EN IEC 60079-0:2018 EN IEC 60079-7: 2015 +A1:2018**

Except in respect of those requirements listed at section 19 of the schedule to this certificate.

[10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to specific conditions of use specified in the schedule to this certificate.

[11] This TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Regulations apply to the manufacturing process and supply of this product. These are not covered by this certificate.

[12] The marking of the product shall include the following:

 **II 3 G Ex ec IIC T4 Gc**

**Certification Manager**  
Andrew Moffat

This is to certify that the sample(s) of the Product described herein ("Certified Product") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the UKEx Product Certification Program Requirements. This certificate and test results obtained apply only to the product sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured product. UL has not established Follow-Up Service or other surveillance of the product. The Manufacturer is solely and fully responsible for conformity of all product to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

**Date of issue:** 2021-11-25

**Re-issued:** 2022-04-21

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# Schedule

## TYPE EXAMINATION CERTIFICATE No.

### UL21UKEX2247X Rev. 1

[15] Description of Product

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.

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 Operating 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

Temperature range

The ambient temperature range is -40 °C to +50 °C.

Electrical data

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

PCRX-5kA:

Maximum 50/60Hz 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



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27,000	3
21,000	10
15,000	30

Routine tests

None

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Test Report No. (associated with this certificate issue)  
US/UL/ExTR21.0034/01.

[17]

Specific conditions of use:

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

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Conditions of certification:

None

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Essential Health and Safety Requirements (Regulations Schedule 1)

In addition to the Essential Health and Safety Requirements covered by the standards listed at item 9, all other requirements are demonstrated in the relevant reports.

Additional information

The [Product] has in addition passed the tests for Ingress Protection to IP66 in accordance with EN60529:1991+A1:2000+A2:2013.

The manufacturer shall inform the certificate issuer concerning all modifications to the technical documentation as described in Section [20] Drawings and Documents of this document.



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[20] Drawings and Documents

Title:	Drawing No.:	Rev. Level:	Date:
PCRX ATEX/IECEX Certified Drawing Package, (63 total pages including the following addendums: Drawing numbers 4241, 4213, 4242, 4214, 4243, 4215, 4216, 4188, 4490, 3689, 3701, 3720, 3727, 3729, 3731, 3752, 4219, 4220, 4221, 4222, 4223, 4224, 4225, 4231, 4232, 4251, 4252, 4460, 4461, 4463, 4254, 4255, 4256, 3890, 4244, 4248, 4501, 4538, 4123, 4124, 100129, 2668, 4122, 4125, 4465, 4466, 4467, 4468, 4469, 4500, 4502, and PCRX PCB Connectors. All drawings are as specifically illustrated in this drawing package)	100128, including all addendums	B	01/19/2022

