

[1]

TYPE EXAMINATION CERTIFICATE



[2]

**Equipment or Protective System intended for use
in Potentially Explosive Atmospheres
Directive 2014/34/EU**

[3]

Type Examination Certificate Number: **UL 21 ATEX 2542X 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 equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8]

UL International Demko A/S 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 Annex II to Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.

The examination and test results are recorded in confidential report no. **US/UL/ExTR21.0034/01**.

[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 item 18 of the Schedule.

[10]

If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

[11]

This Type examination certificate relates only to the design of the specified product, and not to specific items of product subsequently manufactured.

[12]

The marking of the product shall include the following:

II 3 G Ex ec IIC T4 Gc

Certification Manager

Jan-Erik Storgaard

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 ATEX 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: 2021-06-11

Re-issued: 2022-03-07

Certification Body

UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark
Tel. +45 44 85 65 65, info.dk@ul.com, www.ul.com



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[14]

Schedule TYPE EXAMINATION CERTIFICATE No. UL 21 ATEX 2542X 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 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

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 50/60 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



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[14]

Schedule
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UL 21 ATEX 2542X Rev. 1

Routine tests:

None

[16]

Descriptive Documents

The scheduled drawings are listed in the report no. provided under item no. [8] on page 1 of this Type Examination Certificate.

[17]

Special Conditions of Use:

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

[18]

Essential Health and Safety Requirements

The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.

Additional information

The PCRX series has in addition passed the tests for Ingress Protection to IP 66 in accordance with EN60529:1991+A1:2000+A2:2013.

