



DAIRYLAND ELECTRICAL INDUSTRIES

ISOLATE. GROUND. PROTECT.

PCR DATA SHEET

The PCR is a solid-state device designed to simultaneously provide DC decoupling and AC continuity/grounding when used with cathodically protected structures, such as pipelines, tanks, grounding systems, and cable casings. By decoupling the cathodic protection system from grounding systems and other structures, the CP requirements can be minimized, while maintaining an effective ground or bond rated for AC faults and lightning current. All DEI devices are maintenance-free, with no requirements for periodic service or testing.

Features:

- Fail-safe design assures bonding/grounding
- Certified for hazardous locations, electrical grounding
- Higher blocking voltage than polarization cells
- Inherent over-voltage protection provided to structure
- No maintenance or testing required

Typical Applications:

- Insulated Joint Protection
- AC Voltage Mitigation
- Decoupling Electric Equipment Grounding Systems
- Decoupling From Utility Grounding Systems

Why Fault Current Is Important:

Fault current exposure for the product relates to the ampacity, proximity and mode of current transfer from a faulting source (power transmission line, motor circuit, induction from overhead lines, etc.). Select a product rating that has reasonable margin above the site conditions. Contact DEI for any assistance with selection of appropriate ratings.

| AC Fault Current Ratings (Amps AC-RMS Symmetrical) | | |
|---|---------------------|--------|
| PCR Model | Rating at 30 Cycles | |
| | 60Hz | 50Hz |
| PCR-3.7KA | 3,700 | 3,500 |
| PCR-5KA | 5,000 | 5,000 |
| PCR-10KA | 10,000 | 9,000 |
| PCR-15KA | 15,000 | 14,000 |
| Note: 60 Hz models shown. For other models and options available, please visit www.dairyland.com | | |

Other Ratings and Certifications:

Threshold Voltage (absolute)

| | |
|-------------------|-------------------|
| -3/+1V (standard) | -4/+1V (optional) |
| -2/+2V (optional) | -6/+1V (optional) |

AC Steady-State Current (amperes - rms) 50/60Hz
45A (standard) 80A (optional)

Lightning Surge Current
100kA crest (8 x 20 μ s waveform)

Environmental rating:

| | |
|-----------------------------------|------------------------------------|
| NEMA 4X: Rain-proof (Standard) | NEMA 6P: Submersible (Optional) |
|-----------------------------------|------------------------------------|

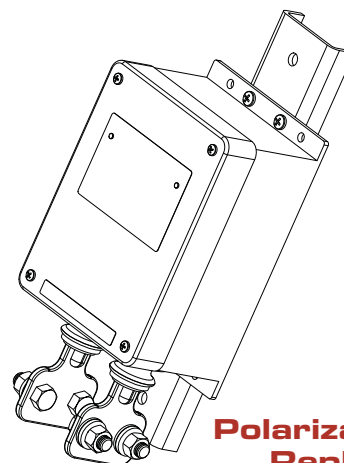
Hazardous Location Certifications:

| Rating | Certification Agency |
|--|----------------------|
| Class I, Division 2, Groups A, B, C, D Temp Code T5 | UL, C-UL |
| Zone 2 - ATEX Directive, Groups II Temp Code T5 | Demko/UL |

Certification Agencies:

Underwriter's Laboratories (UL, C-UL)
Demko, CE Mark

For model numbers, options and accessories, see full technical literature at www.dairyland.com



PCR
Polarization Cell
Replacement