IRISS CAP-CT-PDS Series

Large Format Rectangular Infrared and Ultrasound Inspection Windows

Overview

The industrial-grade reinforced CAP-CT-PDS is a revolutionary inspection window. It combines the power of Thermal Imaging, Visual, UV, Ultrasound and Partial Discharge inspections. Industrial applications require solutions that meet numerous criteria where safety and performance are of the utmost importance. The exclusive pharmaceutical-grade reinforced polymer system allows any thermography camera to monitor completely undisturbed assets inside energized electrical equipment in the visual, UV and shortwave, midwave and longwave IR spectrums.

Key Features

Unparalleled Field of View

Over 6x the FOV of a 4-inch diameter round window, giving the thermographer the ability of infinite viewing angles inside the switchgear.

Embedded 40KHz Ultrasonic Transducer

Quickly and safely perform closed panel airborne ultrasound inspections of electrical equipment.

Fixed & Stable Transmission

The polymer IR window systems will maintain fixed and stable transmission (FAST) for the life of the installation.

Patented Poly-View Optic

Our exclusive polymer technology is unaffected by environmental stresses, and enables visual, IR, and UV inspections.

UL Listed

Having passed rigorous standards and testing, our inspection windows are UL Listed (E 491496).

Unconditional Lifetime Warranty

The IRISS unconditional lifetime warranty is unique in the IR industry applying to both the IR window housing and optic.

Specifications

Model	CAP-CT-4-PDS	CAP-CT-6-PDS	CAP-CT-12-PDS	CAP-CT-18-PDS	CAP-CT-24-PDS
General Specifications					
Overall Height	15.24 cm (6.00 in)	21.74 cm (8.56 in)	20.55 cm (8.09 in)	21.74 cm (8.56 in)	21.74 cm (8.56 in)
Overall Width	15.24 cm (6.00 in)	16.00 cm (6.30 in)	30.48 cm (12.00 in)	45.72 cm (18.00 in)	60.96 cm (24.00 in)
IP/ NEMA Environment Rating	IP65 / NEMA 4				
Operating Temperature	-40°C (-40°F) to 110°C (230°F)				
Body Material	Powder Coated 5052 Aluminum				
Gasket Material	UL 94 5VA TPE; -40°C (-40°F) to 273°C (523°F)				
Hardware Material	316 Stainless Steel				
Voltage Range	Any				
Automatically Grounded	Yes				
Optic Specifications					
Viewing Aperture Height	9.78 cm (3.85 in)	16.15 cm (6.36 in)	14.02 cm (5.52 in)	14.02 cm (5.52 in)	14.02 cm (5.52 in)
Viewing Aperture Width	9.68 cm (3.81 in)	9.68 cm (3.81 in)	23.19 cm (9.13 in)	39.14 cm (15.41 in)	53.85 cm (21.20 in)
Optic Material	Poly-View™ UL 746 compliant, visual, UV and IR transmissive polymer; -40°C (-40°F) to 110°C (230°F)				
Optic Reinforcing Grill Material	Aluminum Reinforcing Grill (IP22/ IP2x Standard)				
Ultrasonic Receiver Specifications					
Center Frequency	40.0± 1.0KHz				
Bandwidth (-6dB)	2.5KHz				
Capacitance at 1KHz ±20%	2400 pF				
Max. Driving Voltage (cont.)	20 Vrms				
Total Beam Angle -6dB	50° typical				
Receiver Housing Material	Aluminum				
Inspection Capabilities and Applications					
Midwave IR and Longwave IR; Ultraviolet (UV); Ultrasound; Visual Inspection; Medium/High Voltage Applications					
Certifications					
UL Listed (E491496)					
Certified by UL (USA) & cUL (Canada) to the following standards: 50V, 50E, 756C: Impact and Flammability, 746C & 746A-2012, 1558: Impact and Load Resistance, 508A: ANSI 508A					
CSA C22.2 No. 14-13, C22.2 No. 14-10, C22.2 No. 94-M91, C22.2 No.94.1-07, C22.2 No. 94.2-07					
Lloyds of London Type Approval					
American Bureau of Shipping (ABS)					
DNV (Det Norske Veritas) P261.1E Maritime, Vessel and Offshore Applications					
IEEE C37 20.7 Type 2B, C37 20.2.a.3.6: Impact and Load					
IEEE 60980-344:2020 Seismic Qualification					
IEC 62271-200, 60262271-200,60298 Appendix A, 60068-2-6:2007, 60068-2-3, 60068-2-78:2012					
Other					
Warranty	Unconditional Lifetime Warranty				

*Caution: These dimensions are not installation dimensions. Do NOT cut prior to receiving your IRISS IR window and installation template.

Specifications are subject to change without notice. For the most up-to-date specs, go to www.iriss.com

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