



INFRARED WINDOWS



Overview

Thermographic inspection has been used for several years to inspect electrical equipment and components. Thermal abnormalities are detected and associated with electrical failures, which could potentially lead to hazardous situations, equipments damage, production outages, and, worst of all, serious personal injury to inspection personnel.

Of major concern are the safety measures designed to prevent arc-flashes or other explosive events during an inspection when opening panels or other electrical enclosures. Advancements in thermographic technologies are increasingly recognized as critical assets in the prevention of potentially tragic workplace injuries and accidents.

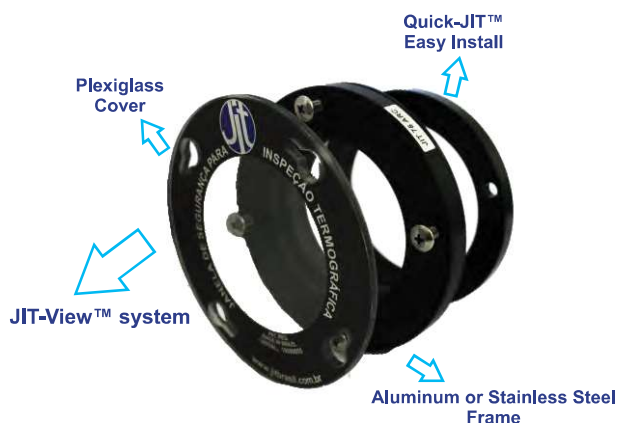
One of the proven methods of performing safe thermal inspections is with the use of JIT®'s infrared windows. Thermographers are now able to safely view and record the thermal images and related events during an inspection without the need to open the door, panel covers, transformers, or an engine connection box.

JIT™ FLIP

JIT™ View



JIT-View™ system



JIT-FLIP™ System



JIT™ Applications

Electric Panels

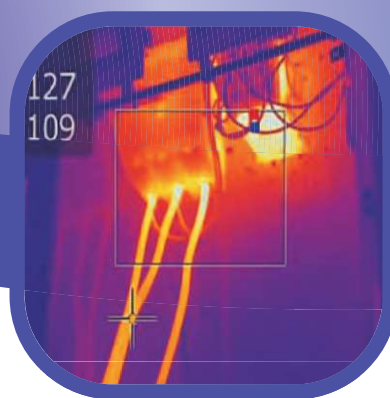
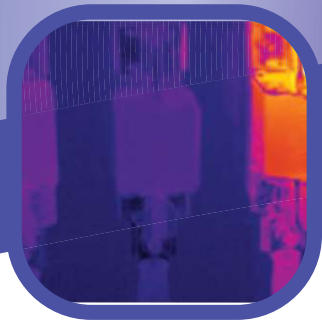


Motor Junction Boxes



Transformers





Choose your Window Type

Features	Best-Selling Products		
	JIT50	JIT75	JIT100
JIT™ Series	JIT50	JIT75	JIT100
Dimensions	2" (50mm)	3" (75mm)	4" (100mm)
Frame Materials	Aluminum or Stainless Steel	Aluminum or Stainless Steel	Aluminum or Stainless Steel
Cover Types	Aluminum, Stainless Steel or Plexiglass	Aluminum, Stainless Steel or Plexiglass	Aluminum, Stainless Steel or Plexiglass
Lens Series	CaF2 Crystal, IR Polymer	CaF2 Crystal, IR Polymer IR Polymer w/ Aluminum grid	CaF2 Crystal, IR Polymer IR Polymer w/ aluminum grid
Single-hole Installation	Yes (Quick-JIT™)	Yes (Quick-JIT™)	Yes (Quick-JIT™)
NEMA Environment	Type 4/12 (external / internal)	Type 4/12 (external / internal)	Type 4/12 (external / internal)
Visible Light Spectrum	Yes (for CaF2 Crystal)	Yes (for CaF2 Crystal)	Yes (for CaF2 Crystal)
Compatible with all Thermographic cameras	Yes Short, Mid, & Longwave	Yes Short, Mid, & Longwave	Yes Short, Mid, & Longwave

Tested and approved



Arc Flash Testing for



Technical Specification

JIT® Specifications		INFRARED INSPECTION WINDOW	
Series	JIT 50 (2")	JIT 75 (3")	JIT 100 (4")
NEMA Environment Type	Type 4/12 (external / internal)	Type 4/12 (external / internal)	Type 4/12 (external / internal)
Voltage Range	Any	Any	Any
Automatic Grounding	Yes	Yes	Yes
Maximum Operating Temperature	500°F/260°C	500°F/260°C	500°F/260°C
Body Material	Aluminum or Stainless Steel	Aluminum or Stainless Steel	Aluminum or Stainless Steel
Screw Material	Stainless Steel	Stainless Steel	Stainless Steel
Gasket Material	Silicone	Silicone	Silicone
Compatible with all Thermographic cameras	Yes	Yes	Yes
Installation System	Single hole install (Quick-JIT)	Single hole install (Quick-JIT)	Single hole install (Quick-JIT)
Fixed Cover or with Hinge	Yes (JIT-FLIP™ system)	Yes (JIT-FLIP™ system)	Yes (JIT-FLIP™ system)
Plexiglass Cover (visual inspection)	Yes (for JIT-View™ system)	Yes (for JIT-View™ system)	Yes (for JIT-View™ system)
Single-hole Installation	Yes (Quick-JIT™)	Yes (Quick-JIT™)	Yes (Quick-JIT™)
Broadband IR -- Short, Mid, & Longwave	Yes	Yes	Yes
Visible Light Spectrum	Yes (for CaF2 Crystal lenses)	Yes (for CaF2 Crystal lenses)	Yes (for CaF2 Crystal lenses)
Ultraviolet Spectrum	Yes (for CaF2 Crystal lenses)	Yes (for CaF2 Crystal lenses)	Yes (for CaF2 Crystal lenses)
Picture-in-Picture & Fusion Image Blending	Yes (for CaF2 Crystal Lenses)	Yes (for CaF2 Crystal Lenses)	Yes (for CaF2 Crystal Lenses)
Size specifications			
Required Hole Diameter (Nominal)	55 mm	80 mm	100 mm
Optic Specifications			
Crystal Insert Diameter	50mm (1.97")	75mm (2.95")	95mm (3.74")
Types of Available Lenses	IR Polymer, Aluminum grid with Polymer IR Lense, CaF2 Crystal		
Diameter of the Inspection Window	50mm (1.97")	75mm (2.95")	89 mm (3.14")
Viewing Aperture Area	1,963.43 mm2 (3.04 in2)	4,417.73 mm2 (6.85 in2)	7,088 mm2 (11 in2)
Maximum optical temperature	2471°F (1355.6°C)	2471°F (1355.6°C)	2471°F (1355.6°C)
Ratings & Testing			
Component Recognition	Yes	Yes	Yes
NEMA Environmental Class	Type 4/12 (outdoor/indoor)	Type 4/12 (Outdoor/Indoor)	Type 4/12 (outdoor/indoor)
UL Component Recognition (UL 50V)	Yes		
"Arc Flash" test, IEC 62271-200 [SVEPPI - ITALY]	Arc Flash Test Standard: 5kV, 63kA for 30 cycles at 60Hz		
TUV (IEC 60529)	Protective enclosure IP67 (against dust and water entry)		
TUV (IEC 60068-2-6)	100 m/s^2 Vibration Resistance		
TUV (IEC 60068-2-3)	15-Day Extreme Humidity Resistance		
TUV (ANSI/IEEE C37.20.2 section A3.6)	Impact Resistant Cover		
Maximum Pullout Strength	657 kg (1450 lbs)	1655 kg (3650 lbs)	1678 kg (3700 lbs)
Finite Element Testing	Yes	Yes	Yes
Warranty	Unconditional Lifetime Warranty		

Ordering information

Size	Material	Install Type	Lens
2" (50)	A - Aluminum	L - Screws (Plate thickness over 0.23 inches)	C - CaF2 Crystal
3" (75)			
4" (100)	I - Stainless steel	R - Quick-JIT™ (Single hole install)	P - Polymer IR
Optional accessory - add letter at the end of the code.			
D – Cover w/ hinge			
G – Aluminum grid - (only for polymer lens)			
V – Polycarbonate cover (Only for CaF2 Crystal)			
JIT® Series:			
JIT50, 75 or 100: ARC, ARP, ALC, ALP, IRC, IRP, ILC, ILP			
Code Description (e.g): JIT75-IRC-V			
(JIT) Infrared Windows JIT, (3" = 75) Diameter area in inches, (I) Stainless steel frame, (R) Quick-JIT install, (C) CaF2 Crystal lens, (V) Polycarbonate cover			

