

## FAULT ISOLATION UNIT

**The Fault Isolation Unit (FIU) protects critical power distribution against high-current faults and overloads to ensure mission success.**

L3Harris' FIU is a unique and innovative device designed to protect critical 400 Hz power distribution systems by providing a controlled maximum allowable current draw in each individual circuit connected to the distribution system. Controlling the maximum current draw of each load minimizes the effects of faults and over current conditions.

Electronically monitoring each phase of the load, the FIU operates a high-speed electronic switch to insert a high-impedance current limiting device into the circuit, preventing low voltages due to excessive current draw and possible over current damage to the power generating system.

- > High-speed, three-phase, solid-state electronic switch operates within 25  $\mu$ sec of over current sensing
- > Limits excessive current draw to levels sustainable by the power system bus without excessive voltage drop, which could affect other critical systems
- > Lightweight, all-electronic design supports a broad range of applications for virtually any military and/or government power system installation: land, sea or air

### FEATURES

- > Continuous monitoring of sources
- > Bulkhead mounted
- > Fast 25  $\mu$ sec response time
- > Built-in self-test feature for rapid diagnostics
- > Fan-cooled
- > External circuit breaker shunt trip to remove non-correctable faults from the critical bus
- > Solid-state
- > High reliability / low maintenance design requires no operator intervention



### APPLICATIONS

- > Naval ships and submarines
- > Data and communication centers
- > Hospitals
- > Industrial / maintenance facilities
- > Airports and military bases
- > Critical power installations

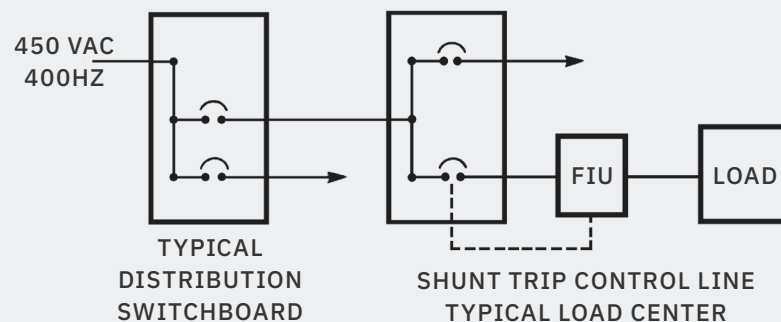
## ENVIRONMENTAL CHARACTERISTICS

- > Input voltage: 440  $\pm$ 20% Vrms according to MIL-STD-1399, Section 300
- > Current: 125 A continuous max low impedance mode
- > Frequency: 400 Hz,  $\pm$ 40 Hz
- > Operating temperature range: 0-to-50 °C
- > Storage temperature range: -62-to-75 °C
- > Humidity: 0-to-95% RH noncondensing
- > Weight: 74 lbs/35 kg
- > Dimensions: 25.5" height x 10.5" width x 10.5" depth (648 mm height x 267 mm width x 267 mm depth)
- > Mounting provision bulkhead
- > Let through current 200-to-800 A (designed to meet customer specifications)
- > Current trip point: 125 A max (factory adjustable)
- > Trip response: 25  $\mu$ s to high impedance 1.5 ms return to low impedance after decrease to below 100 A trip point current (factory adjustable)
- > Voltage drop 6 V max per phase @125 A
- > Auxiliary output (for circuit breaker shunt trip circuit): 6 A, 120 V AC/DC max
- > Self-test function one-sixth cycle transfer to high-impedance state and return to low impedance (accomplished via front-panel switch)

### Status indicators, including:

- > Resettable trip memory
- > Switch open - impedance high/closed - impedance low
- > Over-temp
- > Fuse open
- > Self-test pass/fail

SIMPLIFIED DISTRIBUTION SYSTEM DIAGRAM  
SHOWING TYPICAL FIU PLACEMENT



### L3Harris\_SellSheet\_MPES FIU\_Rev A

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L3Harris Technologies is an agile global aerospace and defense technology innovator, delivering end-to-end solutions that meet customers' mission-critical needs. The company provides advanced defense and commercial technologies across air, land, sea, space and cyber domains.



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