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IND-SFC-3P-90KVA-480D-60HZ-270VDC.200Y.115-400HZ-N3R

90 KVA Solid-State Aircraft Frequency Converter - 480V 3PH 60 Hz to 200Y/115V AC 3PH 4W 400 Hz x 270V DC - NEMA 3R Indoor/Outdoor

Product ID: 344361



Image: IND-SFC-3P-90KVA-480D-60HZ-270VDC.200Y.115-400HZ-N3R

Larson Electronics LLC manufactures a wide variety of products, including custom built to spec designs. The pictures displayed for this unit are a general representation of form factor for the product line and may not accurately represent this exact configuration in every detail due to custom builds and changes between similar products in our standard catalog. The specifics for this configuration are listed in the specification table and supporting documentation (CAD files, Dimensional Drawing, Name Plate Diagram, Wiring Diagram, etc.). This means that specific details (receptacles, plugs, wires, connections, mounting brackets, external finishes, etc.) may not be accurately represented in images vs specifications. Please review specifications and do not order based solely on images.

IND-SFC-3P-90KVA-480D-60HZ-270VDC.200Y.115-400HZ-N3R Aircraft Frequency Converter

Unit Type: Solid-state Aircraft Frequency Converter
Dimensions: Not to Exceed 51.18" W x 47.24" H x 55.12" D
Weight: Not to Exceed 1200 lbs
Input Voltage: 480V rms 3PH +/- 5% 3P3W+G
Input Frequency: 60 Hz +/- 5%
Capacity: 90 KVA Continuous Duty
Output Voltage: 270V DC (2-wire, grounded negative) x 200Y/115 3PH +/- 2% 3P4W+G (Grounded Wye)
DC Output Voltage Adjustment: Adjustable ± 10% of nominal (243–297 VDC)
AC Output Voltage Adjustment: Adjustable, front-panel selectable
Output Frequency: 400 Hz +/- 0.01% (crystal/DSP-controlled reference)
Continuous AC Current: 261 A per phase
Peak AC Current: 565 A (surge/starting current capability)
AC Overload Capability: 200% of rated current for 20 seconds (engine-start surge support)
DC Overload Capability: 200% of rated current for 2 seconds
Automatic Line Drop Compensation (ALDC): 15%, automatically applied to output regulation

Features/Ratings

NRTL Listed to UL 508A
Advanced Microprocessor Control
True Online Double Conversion
Input Breaker Included
Digital Metering & Control Interface (Factory Tested)
Solid-State IGBT Rectification
Output Contactor Included
Manufactured in USA or Service/Parts Accessible
Compliant with ISO 6858 Aircraft Ground Support Electrical Supplies
Compliant with ISO 1540 Aircraft Electrical System Characteristics
Compliant with SAE ARP5015 Ground Power Unit Performance (400 Hz)
Compliant with MIL-STD-704F Aircraft Electrical Power Characteristics
Compliant with MIL-STD-1472 Human Engineering Design Criteria
Compliant with DFS-400 400 Hz Aircraft Power Specification

Voltage/Frequency Regulation: Closed-loop digital control; steady-state and transient regulation compliant with MIL-STD-704F
Rectification: IGBT
Efficiency Ratio: Up to 95%
Load Stabilization Rate: < +/- 1%
Frequency Stability: < +/- 0.01%
Harmonic Distortion: Pure Sine Wave < 2%
Input Monitoring: Automatic input line monitoring with under/over-voltage and phase-loss detection
Input Transient Protection: High-voltage transient/surge protection at input, rated for lightning-induced transients, with preventative-maintenance annunciation on protectiondevice degradation
AC Input Cable: One (1) 100 ft input power cable, terminated with BHP10485D plug
AC Output Cable: One (1) 60 ft AC output power cable, aircraft-interlock-equipped connector
DC Output Cable: One (1) 60 ft DC output power cable, aircraft-interlock-equipped connector
Cable Storage: Dedicated input and output cable racks integrated into the chassis for organized stowage and transport
Output Safety Interlock: Universal Aircraft Safety Interlock Circuit disconnect — output is inhibited unless the aircraft ground receptacle interlock circuit is satisfied
Protection: Overload, Short Circuit, Over Temp, Overvoltage, Safety Disconnect, Emergency Power Off (EPO), Fault Indication, Instant Power Failure Protection, Alarm
I/O Monitoring & Display: Continuous monitoring and digital display of input/output voltage, current, and frequency
Multifunction Display: Digital multifunction display panel for real-time electrical parameters and system status
Elapsed Time Meter: Integrated elapsed-time (hour) meter for maintenance interval tracking
Data/Event Extraction: USB port for on-board event log and fault-history extraction
Communication Protocol: JBus/Modbus (RTU) protocol supported for remote monitoring/data integration
Operating Temp: 0-40°C
Humidity: 0-90% (Non-condensation)
Mobility/Installation: Mounted Wheels Capable of Locking and Braking
Color: Tan

Special Orders - Special Requirements

Contact us for special requirements
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E-mail: sales@larsonelectronics.com

The Larson Electronics IND-SFC-3P-90KVA-480D-60HZ-270VDC.200Y.115-400HZ-N3R Solid-State Aircraft Frequency Converter is designed for voltage and frequency conversion in industrial and government facilities. The 90 KVA converter comes with an input voltage/frequency of 480V three-phase 60 Hz and an output voltage/frequency of 270V DC x 200Y/115V AC three-phase 4-wire 400 Hz. This unit is housed in a NEMA 3R rated indoor/outdoor enclosure.

The IND-SFC-3P-90KVA-480D-60HZ-270VDC.200Y.115-400HZ-N3R can be used to accurately convert voltages and frequencies in controlled industrial environments. This 90 KVA unit offers 480V three-phase 60 Hz on the input side and 270V DC x 200Y/115V AC three-phase 400 Hz on the output side. During operation, rectification is completed via solid-state IGBT technology (non-rotary design). The frequency converter provides advanced microprocessor control, true online double conversion and low input harmonic distortion for stable, clean output power suitable for sensitive equipment.

This solid-state frequency converter is equipped with several protective features, including overload, short circuit, over temperature, instant power failure protection and alarm notification. For efficient operation, the unit features digital metering and diagnostic monitoring. Available meter components include digital frequency meter, digital voltage meter, digital

ammeter and digital watt meter. The system includes an input breaker, output contactor and is factory tested prior to shipment. Total unit weight does not exceed 1000 lbs.

Mounting: The IND-SFC-3P-90KVA-480D-60HZ-270VDC.200Y.115-400HZ-N3R is secured inside a fixed, floor-mounted NEMA 3R enclosure designed for indoor installations. The unit includes an 18-inch base module to facilitate bottom conduit entry.

Applications: Industrial facilities, laboratories, air compressor testing, power supply testing, motor equipment testing, quality assurance, lighting systems and more.

At Larson Electronics, we do more than meet your lighting needs. We also provide replacement, retrofit, and upgrade parts as well as industrial grade power accessories. Our craftsmen can custom build any lighting system and/or accessories to fit the unique demands of your operation. A commitment to honesty, quality, and dependability has made Larson Electronics a leader in the lighting and electronics business since 1973. Contact us today at 800-369-6671 or message sales@larsonelectronics.com for more information about our custom options tailored to meet your specific industry needs.

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Frequently Asked Questions (FAQ)

There are no Faqs