UFC SERIES
Super Flight Line Electrical Distribution System (SFLEDS)

45kVA to 90kVA
(Shown with standard dual obstruction lights and touch screen front panel)

STANDARD FEATURES:

- IP55
- MIL-STD-704F, ARP 5015, DFS 400 and ISO 6858 Compliant
- Certified to UL 1012
- First 480V, 100A, 4 pole power outlet IAW MS90553C44150S
- First Duplex Outlet – 20A, 115V 60Hz with GFCI
- 3 Phase, 380-480VAC input
- ETL Listed to ANSI/ UL Standard 1012
- Indoor/Outdoor (Hangar/Ramp) Use
- Output Voltage and Current Monitoring
- Elapsed Time Meter
- Front Panel Voltage Adjust
- Front Panel Summary Fault Indicators
- Two, red LED, steady-burning, obstruction lights IAW FAA AC 150/5345-43F, Type L-810 with commercial grade photoelectric cell
- Aluminum Fork Lift Tubes
- ≤ 5% Input Current Distortion at max load
- Automatic Input Line Monitoring
- Advanced Integrated Display (AID™) Console
- 8000 Event Log / Diagnostics
- TCP/IP/Ethernet interface (Modbus)
- Internal Communication Ports - USB, RJ45 (ETHERNET), RS485 (Modbus), & RS232
- External Communication Port – USB
- 15% Automatic Line Drop Compensation
- Emergency Power "OFF" Switch
- I/O Voltage, Current, & Frequency Monitoring
- Input High Voltage Transient Protection
- Multi Language Display - Arabic, Asian, English, French, German, Italian, Portuguese, Russian and Spanish, Others - Specify

MECHANICAL SPECIFICATIONS:

Size:	See Figure 1
Weight:	See Figure 1
Enclosure:	NEMA 250 - Type 3SX
Cooling:	Forced Convection

APPLICATION:

Since its beginning in 1960, Unitron has specialized in the design and development of reliable solid-state power systems. Through innovative design, use of advanced self-diagnostic systems (BITE) and modular construction, Unitron products assure maximum power availability and minimal repair time.

Since the 1990's Unitron has been involved in developing superior solutions for the Super Flight Line Electrical Distribution System (SFLEDS) programs. In an effort to achieve military-established goals of decreasing pollution from exhaust emissions and hazardous waste, increasing operational efficiency, reducing costs and increasing worker safety, Unitron has developed a product line to support the SFLEDS program. The standard UFC Series SFLEDS includes 400Hz converters, power distribution units (PDUs), 400Hz aircraft power cables and obstruction lights designed specifically to support the U.S. military in replacing diesel powered Mobile Electric Power Plants (MEPPs). Each unit will support an aircraft power service point providing aircraft ground power for "low profile" applications, such as found on flight lines and ramps, where low clearances are required for both rotary and fixed-wing aircraft.

Output power ratings for these 400Hz SLFEDS GPUs range from 20kVA to 90kVA. Larger power ratings are available upon request.

In addition to 400Hz SFLEDS, Unitron offers 28VDC, 270VDC and combination AC/DC systems.

OPTIONS:

- 28VDC or 270VDC output
- Second 28VDC output
- Second 400Hz AC output
- Various Convenience Outlets (Specify Voltage and Frequency)
- AC or DC Output Power Cables with Plug (Specify Required Lengths - Available in 30 or 60 foot standard lengths)
- Option Cable Storage (4ea. attached side hangers or freestanding saddle hangar)
- Output Universal Aircraft Safety Interlock Circuit Disconnect (Single or Dual)
- External Communication Port - Ethernet
- Output Safety Disconnect
- Alternate 60 & 400Hz utility receptacles (Specify Type and Qty - limit two)
- Two additional obstruction lights of type specified
- Two red LED, steady-burning obstruction lights IAW FAA AC 150/5345-43F, Type L-810, EB# 67B, with commercial grade photoelectric cell
- Second Duplex Outlet – 20A, 115V 60Hz with GFCI
- Second 480V, 100A, 4 pole power outlet IAW MS90555C44150S
- No Break Power Transfer Compatible
- Bench Top Voltage Adjust
- Custom Paint & Decals (Standard Color - White)
- 300% overload for 6 seconds or 425% overload for 1 second* (Specify)
- CSA Certified
- CE Mark Certified
- Ground Fault Monitor (Single or Dual)
- Stainless Steel Forklift Tubes
- Neutral Interrupt Protection
- Universal Safety Interlock

*IAW MIL-STD-704F and ISO 6858: 2017

SPECIFICATIONS / STANDARDS (Meets of Exceeds):

NFPA 70 (NEC 500)	SAE ARP 5015
EN 60079-10	MIL-STD-1472
DFS-400	MIL-STD-704F
ISO 461-1/2	UFGS 26 35 43
ISO 1540	EN 61000-6-2 and -4**
ISO 6858	2006/95/EC**

**Defined Basis of CE Mark Certification

This product was manufactured in a plant whose quality management system is registered to ISO 9001:2015.

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GENERAL SPECIFICATIONS

INPUT:

Input Current Distortion	≤ 5%, typically 3%
Voltage	380 - 480 volts, +10%, -15%, 3Ø, 3 or 4 wire plus ground (Alternate Voltages Available)
Frequency	60 Hz ± 10%
Phase Rotation	AB - BC - CA
Protection	Over/undervoltage, loss of phase, overcurrent, short circuit. Voltage transient protection IAW IEEE C62.41.1, Location Cat. B/C
Inrush Current	No greater than 100% of full load current

ENVIRONMENTAL:

Acoustical Noise	< 65 dBA maximum at 5 feet (1.5m)
Temperature Range	-40°C to +55°C
Relative Humidity	10 - 95%, Non-Condensing
Ingress of Water	Type 3SX, IP55

ENERGY FACTORS:

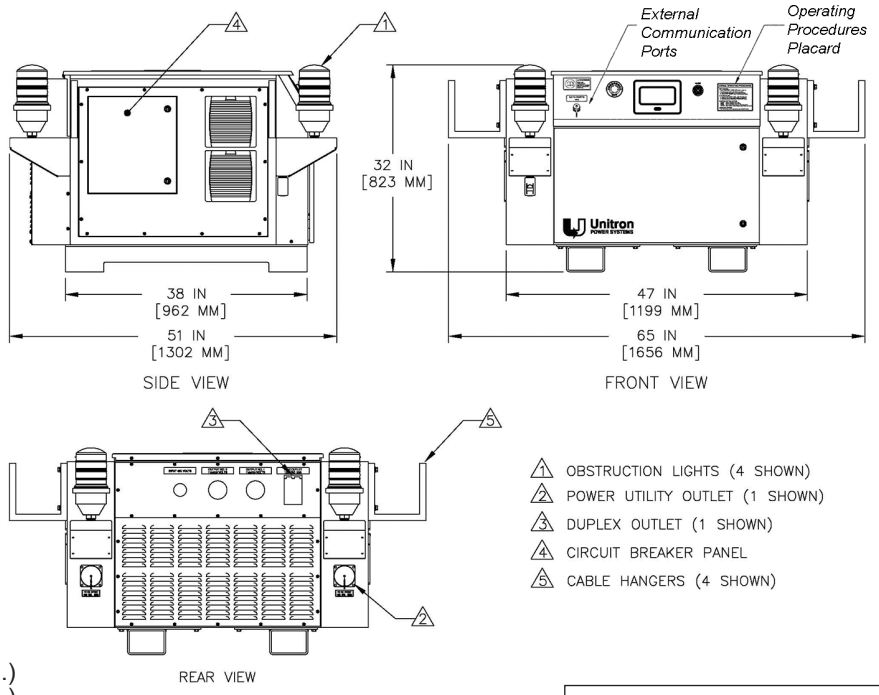
Efficiency	94% typical at full load; 92% typical at half load; varies depending on configuration
Energy Efficiency Ratio	20.0 typical

OUTPUT:

Power Rating	45, 60, 75, or 90 kVA (Specify)
Power Factor Range	0.5 lagging to 0.8 leading
Overload	100% continuous 110% for 60 min 125% for 10 min 150% for 2 min 200% for 20 sec
Voltage*	115/200 volts, 3Ø, 4 wire, grounded neutral
Crest Factor	1.414 ± 3%
Voltage Adjust*	± 15%
Voltage Regulation	± 1.0% under all conditions of line, balanced loads and temperature
Voltage Transients	IAW MIL-STD-704F
Frequency Regulation	400 Hz ± 0.01% under all conditions of line, load and temperature
Frequency Transients	None
Phase Angle Regulation	± 1° for balanced loads; ± 2° for unbalanced loads
Harmonic Distortion	2.0% maximum
Protection	Overload, short circuit, over/undervoltage and safety disconnect
Automatic Line Drop Compensation (ALDC)	15%

*Also available 120/208 VAC, adjustable ±10%

FIGURE 1



MECHANICAL SPECIFICATIONS:

Weight: 45.0kVA = 1,088lbs. (493kg.)
75.0kVA = 1,344lbs. (610kg.)
60.0kVA = 1,225lbs. (556kg.)
90.0kVA = 1,464lbs. (664kg.)

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SFLEDS