

**UDC SERIES FlatPak™
270VDC POWER SUPPLY
36kW thru 72kW**



FIXED
CONFIGURATION
(Shown with standard
digital panel and paint)

STANDARD FEATURES:

- IP55
- Certified to UL 1012
- 3 Phase, 380-480VAC input
- ≤ 5% Input Current Distortion
- 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 Ports - RJ45 (Ethernet) & USB
- 10% Power Regulation
- Emergency Power "OFF" Switch
- I/O Voltage, Current, & Frequency Monitoring
- Elapsed Time Meter
- Front Panel Summary Fault Indicators
- Forklift Tubes - 4 Inch
- Input High Voltage Transient Protection
- Multi Language (Romanization) Display - English, French, German, Italian, Portuguese, Russian and Spanish, Others - Specify

MECHANICAL SPECIFICATIONS:

Size: See Figure 1
 Weight: 36kW = 740lbs. (336kgs.)
 48kW = 825lbs. (374kgs.)
 60kW = 895lbs. (406kgs.)
 72kW = 950lbs. (431kgs.)
 Enclosure: NEMA 3RX Corrosion Resistant
 Cooling: Forced Convection

APPLICATION:

Since its beginning in 1960, Unitron has specialized in the design and development of reliable solid-state power systems for military applications. Through an innovative design, Built-In Test Equipment (BITE) and modular construction, Unitron products assure maximum power availability and minimal repair time for the latest military aircraft including the F-22A Raptor and the JSF F-35A.

The FlatPak™ Series includes 400Hz, 28VDC and 270VDC GPUs designed to provide aircraft ground power in "fixed installation" applications, such as in maintenance hangars, or on production lines. This GPU reduces operating and maintenance costs, and saves valuable space wherever installed.

In addition to fixed 270VDC power systems, Unitron offers 400Hz and 28VDC units and combination AC/DC units in towable, mobile and bridge-mounted configurations.

OPTIONS:

- Alternate Input Voltages Available (specify)
- Input Frequency 50Hz
- Output Universal Aircraft Safety Interlock Circuit Disconnect (Single or Dual)
- 400Hz Output (Combination Units)
- Output Safety Disconnect
- Indoor Touch Screen Panel, Analog Panel
- Input/Output Contactor
- Second 28VDC output
- No Break Power Transfer Compatible
- 28VDC alternate output voltage of varying ampere ratings from 10 amps through 425 amps (specify)
- Colors: White - Standard, FED-STD-595 - Optional (Specify)
- Input/Output Contactor
- Auto Restart
- Parallelable, N+1, Hot Swap (contact factory for details)
- Custom Paint & Decals (Standard Color - White)
- CSA Certified
- CE Mark Certified
- Alternate Mounting Configurations Available (overhead, freestanding/legs and stainless steel forklift tubes)
- Universal Safety Interlock

SPECIFICATIONS / STANDARDS:

2ZEU00004, Rev-0007	F-35 Ground Electrical Power Interface Document
EN 61000-6-2*	Electromagnetic compatibility
	Immunity standard for industrial environments
EN 61000-6-4*	Electromagnetic compatibility
	Emission standard for industrial environments
2006/95/EC*	Low Voltage Directive
ISO 1540	Characteristics of aircraft electrical system
ISO 6858	Aircraft ground support electrical supplies
SAE ARP 5015	Ground equipment 400Hz ground power performance requirement
MIL-STD-704F	Aircraft electric power characteristics
MIL-STD-1472	Human Engineering Design Criteria

*Defined Basis of CE Mark Certification



This product was manufactured in a plant whose quality management system is registered to ISO 9001:2008.

GENERAL SPECIFICATIONS

INPUT:

Input Current Distortion	≤ 5%, typically 3%
Voltage	380 to 480 volts, +10%, -15%, 3Ø, 3 or 4 wire plus ground (Alternate voltages - specify)
Frequency	50 - 60 Hz ± 10%
Phase Rotation	Any
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

28VDC OUTPUT:

Overload	100% continuous 150% for 5 sec 200% for 1 sec 250% for 50 msec
Current Rating	15 Amps continuous
Voltage	28 VDC, 2 wire, grounded
Voltage Regulation	± 0.5%
Output Ripple Voltage	150 mV pk to pk
Protection	Overload, short circuit, overvoltage

ENVIRONMENTAL:

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

270VDC OUTPUT:

Power Rating	36, 48, 60, or 72 kW
Overload	100% continuous 150% for 5 sec. 200% for 1 sec 250% for 50 msec.
Pulse Loads	IAW LMCO Drawing No. 2ZEU00004, Rev-0007
Voltage	270 VDC, 2 wire, grounded negative
Voltage Regulation	<ul style="list-style-type: none"> ■ 100% continuous rated load and ± 10% input voltage ± 0.5% ■ No load to rated load with nominal input voltage ± 1.5%
Voltage Adjust	270 VDC ± 5%
Output Ripple Voltage	3.0 VAC pk to pk
Transient Response	(25% load changes) IAW MIL-STD-704F
Protection	Overload, short circuit, overvoltage and safety disconnect
Power Regulation	10%

ENERGY FACTORS:

Efficiency	93% typical at full load, 91% typical at half load; varies depending on configuration
Energy Efficiency Ratio	20.0 typical

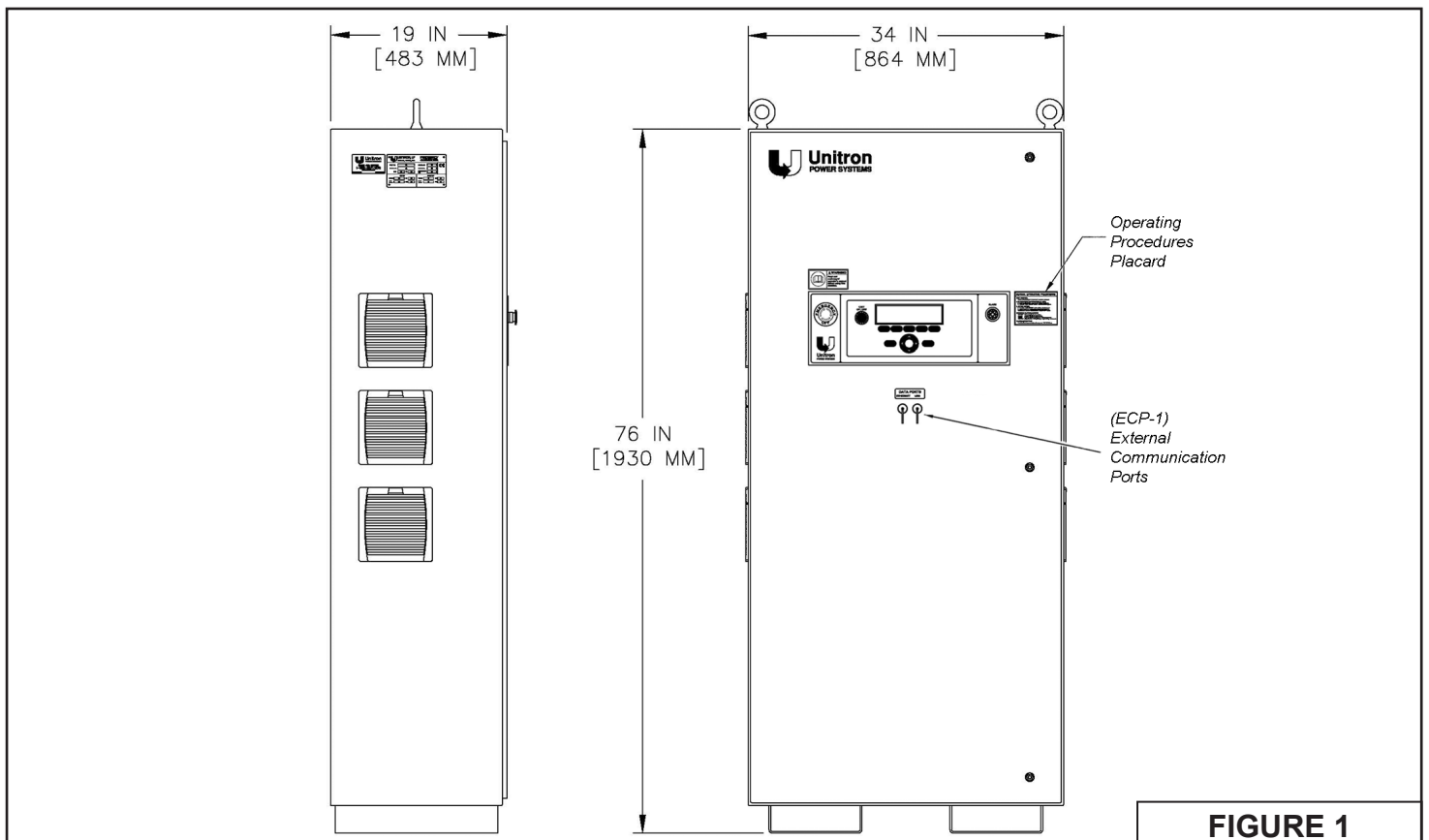


FIGURE 1