

## UDC SERIES Low ProFile™ 28VDC GROUND POWER UNIT



HORIZONTAL CONFIGURATION  
(Shown with standard 4 inch leg kit  
and touch screen panel)

### STANDARD FEATURES:

- IP55
- Certified to UL 1012
- Indoor/Outdoor (Hangar/Ramp) Use
- Automatic Input Line Monitoring
- 8000 Event Log / Diagnostics
- TCP/IP/Ethernet interface (Modbus)
- Internal Communication Ports - USB, RJ45 (ETHERNET), RS485 (Modbus), & RS232
- External Communication Port – USB
- 10% Power Regulation
- Emergency Power “OFF” Switch
- Advanced Integrated Display (AID™) Console
- Input Frequency Monitoring
- I/O Voltage and Current Monitoring
- Elapsed Time Meter Access
- Front Panel Voltage Adjust
- Front Panel Summary Fault Indicators
- 4 Inch Leg Kit
- Input High Voltage Transient Protection
- Output Current Limit Adjust from 150 to full rated current
- Multi Language Display - Arabic, Asian, English, French, German, Italian, Portuguese, Russian and Spanish, Others - Specify

### APPLICATION:

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

The Low ProFile Series includes lightweight 115/200VAC, 400Hz, 28VDC, and 270VDC converters for aircraft ground power applications in the hangar or ramp area.

Unitron's **28VDC fixed Low ProFile** GPUs are rated to provide either 425 or 600 amps continuous output power, with starting currents from 2000 amps and is capable of running off of 50 or 60Hz sources. In addition, Unitron offers a combination AC/DC GPU, which provides simultaneous 115/200VAC, 400Hz with 28VDC power from a single unit.

### OPTIONS:

- Alternate 3Ø Input Voltage Range Available - 575-600VAC
- Various Convenience Outlets (Specify Voltage and Frequency)
- 9 or 12 Inch Top Cable Storage Rack
- DC Output Power Cable with Plug (Up to 65' Feet)
- Output Universal Aircraft Safety Interlock Circuit Disconnect (Single Output Only)
- External Communication Port - Ethernet
- Output Safety Disconnect
- Dual 28VDC output (Contact Factory)
- Alternate Mounting Configurations Available
- Bench Top Voltage Adjust
- Input Auto Ranging
- Lockable Front Door
- ≤ 5% Input Current Distortion at Max Load
- Custom Paint & Decals (Standard Color - White. Also available in Mango Color for No Extra Charge)
- Leg Kit - 12 or 18 Inch\*
- Stand - 4, 12 or 18 Inch\*
- Forklift Tubes - 4 Inch
- CSA Certified
- CE Mark Certified
- UltraLite™ Upgrade Package

\* IAW NFPA 70, Article 513.10 (c) (1) - 18 Inch Rule (18" Leg Kit & Stand only)

### MECHANICAL SPECIFICATIONS:

Size:	See Figure 1
Weight:	240lbs. (109kg.)
Enclosure:	NEMA 250 - Type 3SX
Cooling:	Forced Convection

### SPECIFICATIONS / STANDARDS (Meets or Exceeds):

NFPA 70 (NEC 500)	ISO 6858
EN 60079-10	ISO 461-1/2
MIL-STD-1472	ISO 1540
MIL-STD-704F	UFGS 26 35 43

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



## GENERAL SPECIFICATIONS

### INPUT:

Voltage	208-240V and 380-480V, $\pm 10\%$ , 3 $\phi$ , 3 or 4 wire plus ground (Specify manual tap position at time of order)
Frequency	50 - 60 Hz $\pm 10\%$
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

### ENVIRONMENTAL:

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

### OUTPUT:

#### Model 420

Full Load Rating	425 amps continuous
Overload (10% duty cycle)	600 amps for 1 hour 1000 amps for 1 minute

#### Model 620

Full Load Rating	600 amps continuous
Overload (10% duty cycle)	1000 amps for 1 minute

#### Model 420/620

Engine Start Capacity (10% duty cycle)	Adjustable up to 1600 amps for 35 seconds or 2000 amps for 30 seconds
Voltage	28 VDC, 2 wire, grounded negative
Voltage Regulation	
• 100% continuous rated load and $\pm 10\%$ input voltage	$\pm 0.5\%$
• No load to rated load with nominal input voltage	$\pm 0.5\%$
• Overload with nominal input voltage	See start mode curves
Voltage Adjust	28 VDC $\pm 10\%$
Current Limit Adjust	150A to full rated current
Protection	Overload, short circuit, over voltage and safety disconnect
Power Regulation	10%

FIGURE 1

