

UDC SERIES FlatPak™ 28VDC GROUND POWER UNIT



WALL MOUNT CONFIGURATION
(Shown with touch screen front 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
- Advanced Integrated Display (AID™) Console
- Input Frequency Monitoring
- Emergency Power "OFF" Switch
- 18-Inch Hazard Area Clearance
- I/O Voltage and Current Monitoring
- Elapsed Time Meter Access
- Front Panel Voltage Adjust
- Front Panel Summary Fault Indicators
- 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

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



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 FlatPak Series includes 115/200VAC, 28VDC and 400Hz converters designed for installation where space is limited. The units mount "flat" against a wall, and offer the smallest size to power-rating ratio in the industry.

Unitron's **28VDC FlatPak** provides 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. The FlatPak power system meets all National Electric Code (NEC) requirements for operation within a hangar environment.

In addition to fixed equipment, Unitron offers 400Hz, 28VDC and combination AC/DC units in mobile and towable configurations.

OPTIONS:

- Alternate 3Ø Input Voltage Range Available - 575-600VAC
- Various Convenience Outlets (Specify Voltage and Frequency)
- Bench Top Voltage Adjust
- Cable Saddle Accessory
- 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
- Output 28VDC Aircraft Safety Interlock Circuit Disconnect
- Single or Dual Output Safety Disconnect
- Dual 28VDC output (Contact Factory)
- ≤ 5% Input Current Distortion at Max Load
- Alternate Mounting Configurations Available
- Input Auto Ranging
- Lockable Front Door
- Custom Paint & Decals (Standard Color - White)
- CSA Certified
- CE Mark Certified
- UltraLite™ Upgrade Package

MECHANICAL SPECIFICATIONS:

Size:	See Figure 1
Weight:	240lbs. (109kg.)
Enclosure:	NEMA 50 - Type 3SX
Cooling:	Forced Convection

SPECIFICATIONS / STANDARDS:

NFPA 70 (NEC 500)	ISO 6858
MIL-STD-1472	ISO 461-1/2
MIL-STD-704F	ISO 6858
EN 60079-10	2006/95/EC**
EN 61000-6-2 and -4**	

**Defined Basis of CE Mark Certification

GENERAL SPECIFICATIONS

INPUT:

Voltage	208-240V and 380-480V, $\pm 10\%$, 3 \emptyset , 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
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Voltage	28 VDC, 2 wire, grounded negative
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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 $\pm 10\%$
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Current Limit Adjust	150A to full rated current
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Protection	Overload, short circuit, over voltage and safety disconnect
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Power Regulation	10%
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FIGURE 1

