



MOBILE PWRKART® GROUND POWER UNIT

UDC SERIES 28VDC 425 OR 600 AMP

The UDC PwrKart Series mobile aircraft ground power units are ideal for applications in commercial, general aviation, and military hangars and ramp areas world-wide. With one of the smallest weight-to-power ratios in the GSE market, the mobile ground power units are easily maneuvered (pushed) by a single person. The UDC Series can also be supplied in different mounting configurations; such as fixed to the floor or to the wall.

The UDC PwrKart Series provides industry standard ratings of either 425A or 600A continuously with starting currents up to 2,000A peak while being powered by 208 to 480 VAC, 50/60 Hz, thus making the unit universally accepted.

STANDARD FEATURES

- IP55
- CERTIFIED TO UL 1012 AND CSA
- INDOOR/OUTDOOR USE (HANGAR/RAMP)
- AUTOMATIC INPUT LINE MONITORING
- 8000 EVENT LOG / DIAGNOSTICS
- TCP/IP/ETHERNET INTERFACE (MODBUS)
- 10% AUTOMATIC LINE DROP COMPENSATION
- INTERNAL COMMUNICATION PORTS - USB, RJ45 (ETHERNET), RS485 (MODBUS), AND RS232
- EXTERNAL COMMUNICATION PORT - USB
- EMERGENCY POWER "OFF" SWITCH
- 18-INCH HAZARD AREA CLEARANCE
- 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
- INPUT AND OUTPUT CABLE HANDLE
- MAINTENANCE FREE WHEELS
- INPUT HIGH VOLTAGE TRANSIENT PROTECTION
- OUTPUT CURRENT LIMIT ADJUST FROM 150 TO FULL RATED CURRENT
- MULTI-LANGUAGE DISPLAY (ENGLISH, FRENCH, GERMAN, ITALIAN, SPANISH, OTHERS AVAILABLE - SPECIFY)

OPTIONS AVAILABLE

- ALTERNATE 3Ø INPUT VOLTAGE RANGE AVAILABLE - 575-600VAC
- VARIOUS CONVENIENCE OUTLETS (SPECIFY VOLTAGE AND FREQUENCY)
- 50 OR 100 FOOT INPUT POWER CABLE (Plug READY)
- 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 CONTACTOR
- BENCH TOP VOLTAGE ADJUST
- UNIVERSAL INPUT AUTO RANGING
- ≤ 5% INPUT CURRENT DISTORTION AT MAX LOAD
- SECOND 28VDC OUTPUT (CONTACT FACTORY)
- TRAILER MOUNTING CONFIGURATIONS AVAILABLE
- CUSTOM PAINT AND DECALS (STANDARD COLOR - WHITE)
- LOCKABLE FRONT DOOR
- CE MARK CERTIFIED
- PNEUMATIC RAMP TIRES OR SOLID CORE CASTERS

SPECIFICATIONS / STANDARDS (MEETS OR EXCEEDS)

NFPA 70 (NEC 500)	ISO 6858
MIL-STD-1472	ISO 1540
MIL-STD-704F	ISO 461-1/2

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



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INPUT

VOLTAGE	208-240V AND 380-480V, ±10%, 3Ø, 3 OR 4 WIRE PLUS GROUND (SPECIFY MANUAL TAP POSITION AT TIME OF ORDER)
FREQUENCY	50 - 60 Hz ±10%
PHASE ROTATION	ANY
PROTECTION	OVER/UNDER VOLTAGE, LOSS OF PHASE, OVER CURRENT, 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
ENCLOSURE	NEMA 250 - TYPE 3SX
RELATIVE HUMIDITY	10 - 95%, NON-CONDENSING
INGRESS OF WATER	TYPE 3SX, IP55

OUTPUT

MODEL 420	
FULL LOAD RATING OVERLOAD (10% DUTY CYCLE)	425 AMPS CONTINUOUS 600 AMPS FOR 1 HOUR 1000 AMPS FOR 1 MINUTE
ENGINE START CAPACITY (10% DUTY CYCLE)	ADJUSTABLE UP TO 1600A FOR 30 SEC OR 2000A FOR 10 SEC
MODEL 620	
FULL LOAD RATING OVERLOAD (10% DUTY CYCLE)	600 AMPS CONTINUOUS 1000 AMPS FOR 1 MINUTE
ENGINE START CAPACITY (10% DUTY CYCLE)	ADJUSTABLE UP TO 2000A FOR 30 SEC
VOLTAGE	28VDC, 2 WIRE, GROUNDED NEGATIVE
VOLTAGE REGULATION	
• 100% CONTINUOUS RATED LOAD AND ±10% INPUT VOLTAGE	±0.5%
• NO LOAD TO RATED LOAD WITH NOMINAL INPUT VOLTAGE	±0.5%
VOLTAGE ADJUST	28VDC ±10%
CURRENT LIMIT ADJUST	150A TO FULL RATED CURRENT
PROTECTION	OVERLOAD, SHORT CIRCUIT, OVER VOLTAGE, AND TRANSIENT DISCONNECT
Automatic Line Drop Compensation (ALDC)	10%

38 IN [959 MM]

35 IN [897 MM]

(ECP-1) EXTERNAL COMM PORTS

38 IN [963 MM]

18 IN [448 MM]

Unitron POWER SYSTEMS

OPERATING PROCEDURES PLACARD

COOLING

FORCED CONVECTION

WEIGHT

"WEIGHT VARIES WITH OPTIONS"

340LBS (154kg)

1. SAFETY CLEARANCE IAW ARTICLE 513-10(A) OF THE NATIONAL ELECTRICAL CODE (NEC)-REFERENCE NFPA 70-1996 AND EN60079-10