



## TOWABLE 400HZ/270VDC GROUND POWER UNIT

# UFC SERIES COMBINATION AC/DC

## 120, 150, OR 180KVA AND 270VDC

The towable PwrKart® unit provides up to 180kVA with optional 72kW of 270VDC output power. This power unit is designed to service the largest commercial and military aircraft on the market today. The dual outputs provided can be single source controlled, be individually voltage regulated and line drop compensated.

### STANDARD FEATURES

- IP55
- CERTIFIED TO UL 1012
- ≤5% INPUT CURRENT DISTORTION AT MAX LOAD
- INDOOR / OUTDOOR (HANGAR / RAMP) USE
- 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), AND RS232
- EXTERNAL COMMUNICATION PORT - USB
- 15% AUTOMATIC LINE DROP COMPENSATION
- EMERGENCY POWER "OFF" SWITCH
- I/O VOLTAGE, CURRENT, AND FREQUENCY MONITORING
- ELAPSED TIME METER ACCESS
- FRONT PANEL VOLTAGE ADJUST
- TOUCH SCREEN FRONT PANEL
- 18 INCH HAZARD AREA CLEARANCE
- SLEEP MODE (IF ENABLED)
- FRONT PANEL SUMMARY FAULT INDICATORS
- INPUT HIGH VOLTAGE TRANSIENT PROTECTION
- MULTI-LANGUAGE DISPLAY (ENGLISH, FRENCH, GERMAN, ITALIAN, SPANISH, OTHERS AVAILABLE - SPECIFY)

### OPTIONS AVAILABLE

- ALTERNATE INPUT VOLTAGE AVAILABLE (SPECIFY)
- VARIOUS CONVENIENCE OUTLETS (SPECIFY VOLTAGE AND FREQUENCY)
- AC OUTPUT POWER CABLES WITH PLUGS (AVAILABLE IN 30 OR 60 FT LENGTHS)
- 270VDC OUTPUT POWER CABLES WITH PLUGS (AVAILABLE IN 63 OR 83 FT LENGTHS)
- 300% OVERLOAD FOR 6 SECONDS
- NON LINEAR LOAD
- CUSTOM PAINT AND DECALS (STANDARD COLOR - WHITE)
- GROUND FAULT MONITOR
- LOCKABLE FRONT DOOR
- CSA OR CE MARK CERTIFIED
- NO BREAK POWER TRANSFER COMPATIBLE (400HZ OUTPUT)
- NEUTRAL INTERRUPT PROTECTION
- UNIVERSAL AIRCRAFT SAFETY INTERLOCK (SINGLE OR DUAL)

### SPECIFICATIONS / STANDARDS

NFPA 70 (NEC 500)	DFS-400	ISO 6858
EN 60079-10	SAE ARP 5015	ISO 1540
EN 61000-6-2 AND -4**	UFGS 26 35 43	ISO 461-1/2
MIL-STD-1472	UFGS 26 35 44	2006/95/EC**
MIL-STD-704	LOCKHEED MARTIN F-35 GROUND ELECTRICAL POWER INTERFACE SPECIFICATION (DOCUMENT No. 2ZEU0004, REV-0007)	

\*\*DEFINED BASIS OF CE MARK CERTIFICATION

## AC INPUT

INPUT CURRENT DISTORTION	≤ 5%, TYPICALLY 3%
VOLTAGE	380-480V, +10%, -15%, 3Ø, 3 OR 4 WIRE PLUS GROUND (SPECIFY)
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

## AC OUTPUT

POWER RATING	120, 150, or 180 kWA
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
VOLTAGE ADJUST*	15%
VOLTAGE REGULATION	±1.0% UNDER ALL CONDITIONS OF LINE, BALANCED LOADS AND TEMPERATURE
VOLTAGE TRANSIENT	IAW MIL-STD-704F
FREQUENCY REGULATION	400HZ ±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/UNDER VOLTAGE, AND SAFETY DISCONNECT
AUTOMATIC LINE DROP COMPENSATION (ALDC)	15%

## ENERGY FACTORS

EFFICIENCY	94% TYPICAL AT FULL LOAD, 92 % TYPICAL AT HALF LOAD; (VARIES DEPENDING ON CONFIGURATION AND RATING)
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## 28VDC OUTPUT

OVERLOAD	100% CONTINUOUS; 150% FOR 10 SEC; 200% FOR 2 SEC; 250% FOR 100 MSEC
CURRENT RATING	15 AMPS CONTINUOUS
VOLTAGE	28 VDC, 2 WIRE, GROUNDED
VOLTAGE ADJUST	28 VDC ± 10%
VOLTAGE REGULATION	±0.5%
OUTPUT RIPPLE VOLTAGE	150 mV PK TO PK
PROTECTION	OVERLOAD, SHORT CIRCUIT, OVER VOLTAGE

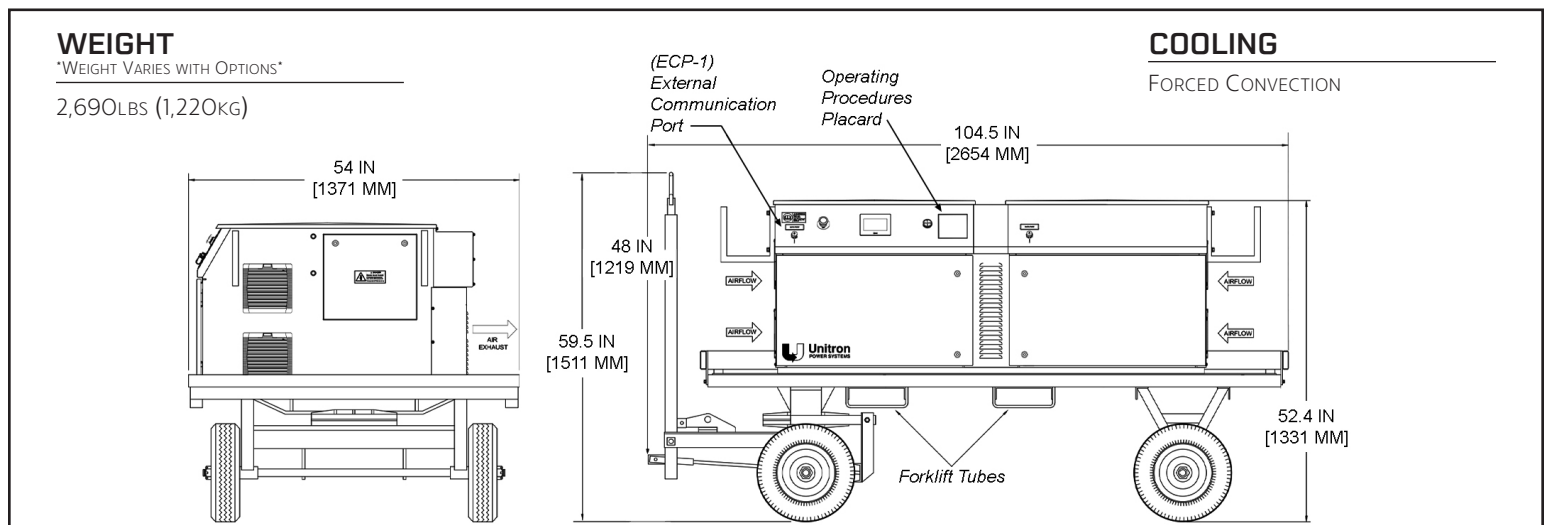
## 270VDC OUTPUT

POWER RATING	72 kW
OVERLOAD / TRANSIENT (IAW LMCO DOCUMENT No. 2ZEU00004, REV-0007)	100% CONTINUOUS; 150% FOR 10 SEC; 200% FOR 2 SEC; 250% FOR 100 MSEC
PULSE LOADS	IAW LMCO DOCUMENT No. 2ZEU00004, REV-0007
VOLTAGE	270 VDC, 2 WIRE, GROUNDED NEGATIVE
VOLTAGE ADJUST	270 VDC ± 10%
VOLTAGE REGULATION	<ul style="list-style-type: none"> <li>■ 100% CONTINUOUS RATED LOAD AND ± 10% INPUT VOLTAGE ±0.5%</li> <li>■ NO LOAD TO RATED LOAD WITH NOMINAL INPUT VOLTAGE ±0.5%</li> </ul>
OUTPUT RIPPLE VOLTAGE	3.0 VOLTS PK TO PK
TRANSIENT RESPONSE	IAW MIL-STD-704F, FIG. 16 AND LMCO DOC. No. 2ZEU00004, REV-0007
PROTECTION	OVERLOAD, SHORT CIRCUIT, OVER VOLTAGE, AND SAFETY DISCONNECT
AUTOMATIC LINE DROP COMPENSATION (ALDC)	10%

## ENVIRONMENTAL

ACOUSTICAL NOISE	<65 dBA MAXIMUM AT 5 FEET (1.5M)
TEMPERATURE RANGE	-40°C TO +55°C, NON-CONDENSING
ENCLOSURE	NEMA 250 - TYPE 3SX CORROSION RESISTANT
RELATIVE HUMIDITY	10 - 95%, NON-CONDENSING
INGRESS OF WATER	TYPE 3SX, IP55

NOTES - \*ALSO AVAILABLE 120/208 VAC, ADJUSTABLE ±10%



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

REV S

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



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