



## Uninterruptible Power Systems & Power Conversion Products

# ED Series™ UVS PLUS® *3kVA to 5kVA* *4U Rackmount* Frequency Converters with Battery Back Up

- True Double Conversion Design
- Precision Output Voltage & Frequency
- Pure Sinewave Output <3% THD
- 50, 60 & 400Hz Frequency Conversion
- Superior Brownout, Surge and Transient Protection
- Internal Battery Backup
- Small and Lightweight Rackmount Design



### Technology Breakthrough

Falcon® Electric's ED Series™ UVS Plus® is more than a frequency converter, voltage regulator, or line conditioner. Its unique features will significantly improve your equipment's reliability, virtually eliminating power-related downtime and dramatically increasing productivity. Its small size and lightweight construction makes it ideal for integrated applications.

### Unique Frequency Converter & UPS Capability

The ED Series provides unique flexibility in a small footprint. The ED Series can be factory configured as a pure frequency converter accepting a 50, 60 and 400Hz input and yielding a fixed 50 or 60Hz output. The ED is an ideal solution for those tough applications requiring voltage regulation and frequency conversion. A battery system is included providing true Regenerative On-line UPS functionality.

### Superior Voltage/Frequency Regulation & Extended Brownout Protection

Since the ED Series is a solid-state generator, it prevents daily power disturbances from reaching your equipment. Constant voltage transformers, line conditioners and other devices are not designed to prevent damage from these problems.

The ED continually regenerates new, clean AC power in pure sinewave form for superior protection. Even with wide input variations in voltage and frequency, the ED Series UVS Plus's output steadfastly remains at its designed voltage and frequency. It also allows your system to continuously operate during extended brownouts to 88 VAC.

### Enhanced Surge Start-up Capability

Falcon Electric's ED Series is designed to start-up loads that exhibit high inrush when started from the utility. This gives the ED the ability to start tough loads such as motors, multiple computers or incandescent lighting.

### Converts Generator Output Into Computer-Grade Power

Due to its Regenerative On-line design, the ED Series regenerates new, clean computer-grade power with tightly regulated voltage and frequency, independent of generator voltage and frequency drift.

### Ideal for applications such as:

- Military & Aerospace
- Aircraft Frequency Conversion
- Off Shore Platforms
- Shipboard Systems
- Robotics
- Automated Manufacturing
- Test Equipment Benches
- Precision Motor Speed Application
- Mobile Office/Labs
- Communications/Microwave

## ED Series Model -1 Rackmount - Frequency Converters with Battery Back Up (120V Input/Output)

Model Number	ED-3000RM-1	ED-4000RM-1	ED-5000RM-1
Nominal VA	3000	4000	5000

### Electrical Input

AC Voltage, +10% -20%	120Vac		
Current-Amps	29	39	48
Frequency Range	47 – 450Hz		

### Electrical Output

AC Voltage, ± 3%	120Vac		
Watts @ 50 or 60 Hz	2100	2800	3500
Current-Amps @ 50/60 Hz	25	33	42
Current-Amps @ 400 Hz	19	26	35
50/60 Hz Non – Linear Repetitive Peak (Amps)	60	80	100
400 Hz Non – Linear Repetitive Peak (Amps)	42.5	56.1	71.8
Total Harmonic Distortion	< 3% @ 100% Linear Load, < 5% @ 100% Non – Linear Load		
Overload	200% for 0.5 Seconds, 120% for 30 Seconds		
Dynamic Response	± 5% RMS for 100% Step Load Change, 1ms Recovery Time		
Output Protection	Short Circuit and Overload		

### Battery

Type	Sealed Lead Acid Maintenance -Free		
Back Up Time @ Full Load	2.5 Minutes	2 Minutes	1.5 Minutes
@ ½ Load	10.5 Minutes	8 Minutes	4.5 Minutes

### Electrical Connections

Input	Hardwire
Output	Hardwire

### Environmental

Operating Temperature	0° C to 40° C (32° C to 104° F)
Humidity	10% to 95% Non – Condensing
Altitude	10,000 Feet
Cooling	Low Velocity Forced Air Fans
Audible Noise @ 1.5 Meters	54dBA

### Controls and Indicators

Sequenced LEDs	Load Level
Single LED	Utility Present, Summary Alarm, Inverter On
Audible Alarms	Utility Interrupt, Inverter Failure, Overload
Communications	Dry Contact Closures on Utility Loss via 9 Pin "D" Connector
Interconnection Cables	(1) DC Power (Anderson) (1) 7 Pin Power (Amp CPC) (1) 28 Pin Signal (Amp CPC) (1) 3 Pin Control (Amp CPC)

### Mechanical

Dimensions Inches (mm)	Cabinet A – 3.5 x 16.25 x 22.7 ( 88.9 x 158.8 x 576.6) Cabinet B – 3.5 x 16.25 x 21.7 (88.9 x 158.8 x 551.2)		
Weight Cabinet A lb . (kg)	60 (27.3)	60 (27.3)	70 (31.8)
Cabinet B	34 (15.9)	35 (15.9)	35 (15.9)
Agency Listing	FCC Class A, Meets UL 1778 Standard		

Standard models shown. Custom configurations available; Consult Factory.

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