ED-M Frequency / Phase Converters & Optional UPS

Military 3kVA to 5kVA, Three-Phase Input

Key Advantages:

- **Unique Power Conversion**
  The ED-M Frequency / Phase Converter family provides reliable power conversion from 3-phase 208/120V WYE generator input to single phase 120V at 50 Hz, 60 Hz or optional 400 Hz output. It is specifically designed to provide reliable power for critical military applications.
- **Rugged Design & Construction**
  The ED-M's rugged design provides protection against shock and vibration. Optional conformal coating for electronics and component staking provides superior protection.
- **Compact Size**
  Requiring only 4U of rack space, the ED-M's form factor allows simple installation for ground-based or mobile applications.
- **Online Double Conversion Topology**
  The double-conversion approach eliminates voltage transients, sags, surges and frequency stability problems encountered in many generator applications.
- **Flexibility**
  Whether your application only requires frequency / phase conversion or UPS battery backup, Falcon's ED-M can provide both with its optional battery bank.
- **Optional Battery Bank**
  If battery backup is required, an optional battery bank can be added to provide power when the utility power is not present. This allows a seamless transition from utility power to battery backup while providing reliable, stable power to the critical equipment.

Falcon Electric, Inc. - 5116 Azusa Canyon Rd. - Irwindale, CA 91706 - 800-842-6940 Fax 626-962-6850
www.FalconUPS.com

ED-M Frequency / Phase Converters — Rackmount 3kVA to 5kVA

Model Numbers	ED4-3000RM-3/1-4-M ED4-3000RM-3/1-5-M ED4-3000RM-3/1-6-M	ED4-4000RM-3/1-4-M ED4-4000RM-3/1-5-M ED4-4000RM-3/1-6-M	ED4-5000RM-3/1-4-M ED4-5000RM-3/1-5-M ED4-5000RM-3/1-6-M
Nominal VA	3000	4000	5000
Electrical Input			
AC Voltage	115/200Vac or 120/208Vac 3Ø Wye, ±10%, Four Wire Plus Ground		
Current-Amps (total)	9.6A per phase	12.8A per phase	16A per phase
Frequency Range	47 Hz - 450 Hz		
Electrical Output			
AC Voltage	120 Vac, ± 3%, Single-Phase		
Frequency	-4 = 400 Hz, -5 = 50 Hz, -6 = 60 Hz (±2%)		
Watts	2100	2800	3500
Current-Amps, 50/60 Hz (0.7pf Load)	25	33	42
Non–Linear Repetitive Peak (Amps)	60	80	100
Total Harmonic Distortion	< 3% @ 100% Linear Load, < 5% @ 100% Non–Linear Load		
Overload	120% for 30 Seconds		
Dynamic Response	± 5% RMS for 100% Step Load Change, 1ms Recovery Time		
Output Protection	Short Circuit, Over-temperature and Overload		
Optional Battery Bank (Limit one per unit)			
Battery Type	Maintenance-Free, Sealed VRLA Batteries, 12Vdc, 23Ah		
Bus Voltage	72Vdc		
Charge Time	8 hours to 90%		
Electrical Connections			
Input	(1) MS3452W24-10P (Located on the front panel)		
Output	(1) MS3452W22-22S (Located on the front panel)		
Optional Battery	(1) MS3102A18-11P (Located on the front panel)		
Environmental			
Operating Temperature	-20°C to +50°C		
Storage Temperature	-20°C to +60°C		
Humidity	10% to 95% Non – Condensing		
Operating Altitude	10,000 Feet		
Cooling	200CFM Fan		
Air Flow	Front to Back		
Audible Noise	60dBA @ 1.5 Meters		
Controls and Indicators			
LEDs	Utility Present, Summary Alarm, Inverter On		
Audible Alarms	Utility Interrupt, Inverter Failure, Overload		
Communications	(2) RS-232 Ports (RX, TX & Gnd. Signal line only, Falcon Protocol) Supports connection of the Falcon external USHA SNMP/HTTP Agent		
Mechanical			
Converter Dimensions H x W x D Inches (mm)	6.9 x 16.9 x 21.2 (175.3 x 429.3 x 538.5) 4U Rackmount		
Converter Weight lb. (kg)	85 (38.6)		
Battery Bank Dimensions H x W x D Inches (mm)	3.5 x 16.8 x 20.9 (88.9 x 426.7 x 530) 2U Rackmount		
Battery Bank Weight lb. (kg)	102 (46.3)		
Mounting	Rackmount Front Panel & Slide Rail Mounting Holes		

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