

# SynQor<sup>®</sup>

Advancing the Power Curve<sup>®</sup>



## AC-DC Power Supplies & DC-DC Converters *Medical*



Products for the  
Global Medical Environment



ACuQor<sup>®</sup>

CFQor



# Medical Grade, Highly Efficient AC-DC Power Supplies with PFC

## Product Features

### GENERAL SPECIFICATIONS

- High efficiency up to 93% at full rated load current
- Delivers up to 1400W of output power (1800W transient)
- Semi-regulated output — G-Series & E-Series
- Universal 85-264V AC Input Voltage (47-63Hz)
- Single output voltages: 12V, 15V, 24V, 28V, 36V, 48V
- 5V "Always On" standby power output
- Active PFC; EN61000-3-2 compliant
- Low leakage; EN60601-1 compliant
- Low noise; EN55011 / EN55022 Class B compliant
- Medical EMI Compatibility: IEC 60601-1-2 ed 4.0 compliant
- Operating ambient temperature 0-70°C

### PROTECTION/CONTROL

- Over-current, over-voltage, and over-temp protection
- DC Power Good and AC Power Good signals
- Remote enable input

### SAFETY

- Type B, BF, CF & Defibrillator proof variants available
- UL 60601-1
- Can/CSA-C22.2 No. 60601-1-M90
- EN 60601-1
- IEC 60601-1
- ANSI/AAMI ES60601-1
- EN55011, 55022 AND 61000
- CE Marked



G-Series



E-Series

Output Voltage	Power Rating		
<b>G-Series (Single Output)</b> (4.75" x 7.00" x 1.63" Encased Package) 12V, 15V, 24V, 28V, 48V (includes 5V@50mA standby)	800W (1000W Transient)	1100W (1300W Transient)	1400W (1800W Transient)
<b>E-Series (Single Output)</b> (3.00" x 5.00" x 1.46" Open Frame Package) (3.50" x 5.25" x 1.63" Encased Package) 12V, 24V, 36V or 48V (includes 5V@50mA standby)	300W (400W Transient)	400W (500W Transient)	500W (700W Transient)
<b>E-Series (Triple Output)</b> (3.00" x 5.00" x 1.46" Open Frame Package) (3.50" x 5.25" x 1.63" Encased Package) 12V, 24V, 36V or 48V (includes 5V@2A and 12V@4.2A)	300W (400W Transient)	400W (500W Transient)	500W (700W Transient)

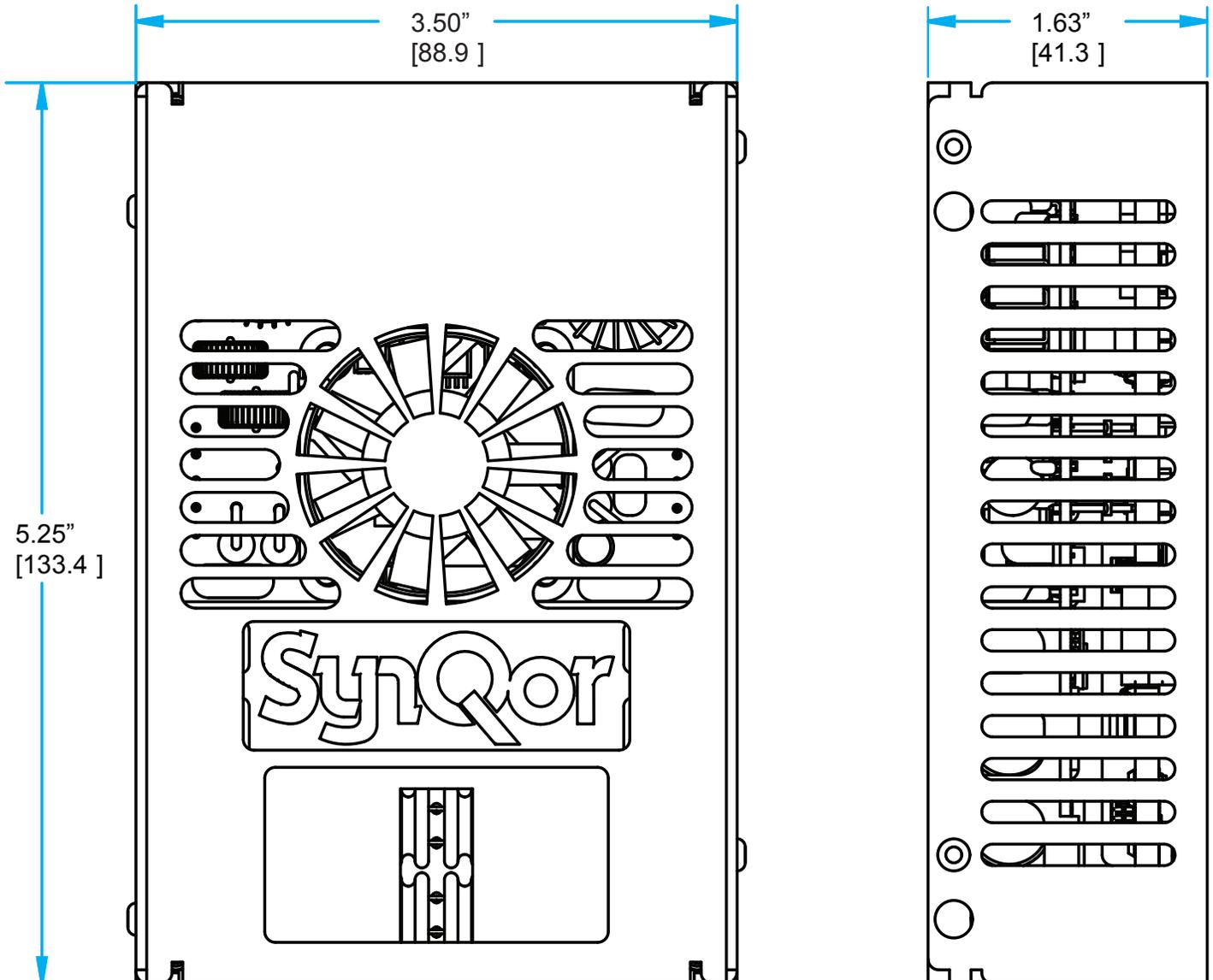
# E-Series

## CONFIGURATIONS

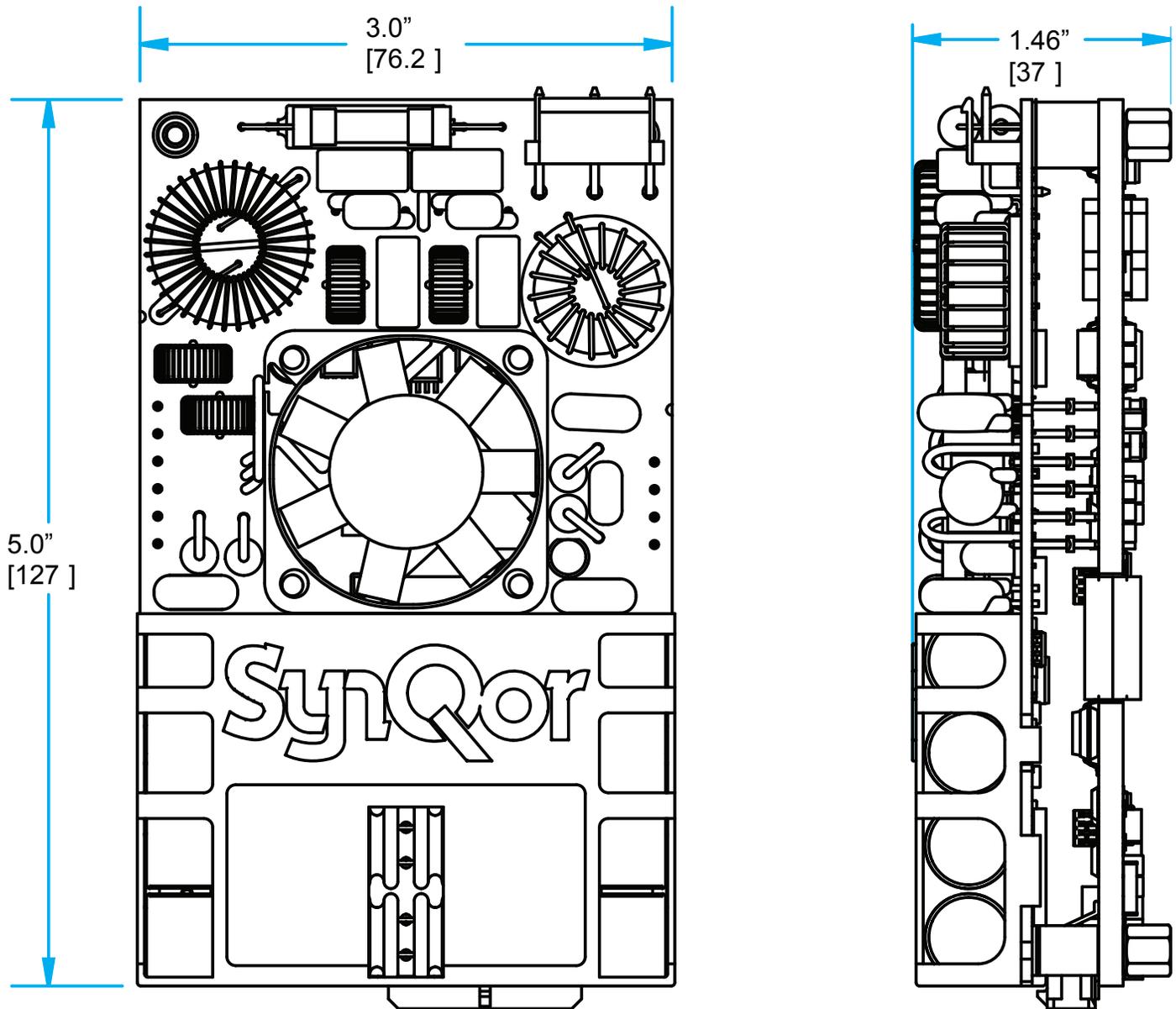
*E-Series ACuQor products are available open framed or encased.*



### E-Series Encased converter



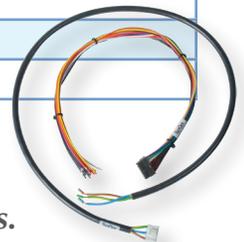
## E-Series Open frame converter



### ACuQor Cables

The following documents are the mechanical drawings for a series of assemblies that SynQor offers for the customer's convenience.

ACuQor Cables	E-Series	G-Series
Input mating cable with pre-stripped wire ends (36")	AQ-CBL-INPUT1C	AQ-CBL-INPUT1CG
Output mating cable with pre-stripped wire ends (18")	AQ-CBL-OUT1C	AQ-CBL-OUT1CDG
Same as AQ-CBL-OUT1C with additional 8 pin connector (18")	AQ-CBL-OUT2C	
Output mating cable with connectors on both ends & additional 8 pin connector (18")	AQ-CBL-OUT2CD	
Single module bottom-side Mylar insulator for open frame mounting	AQ-INSUL1M	



\*Accessories including input and output cables are also available for all models and series.

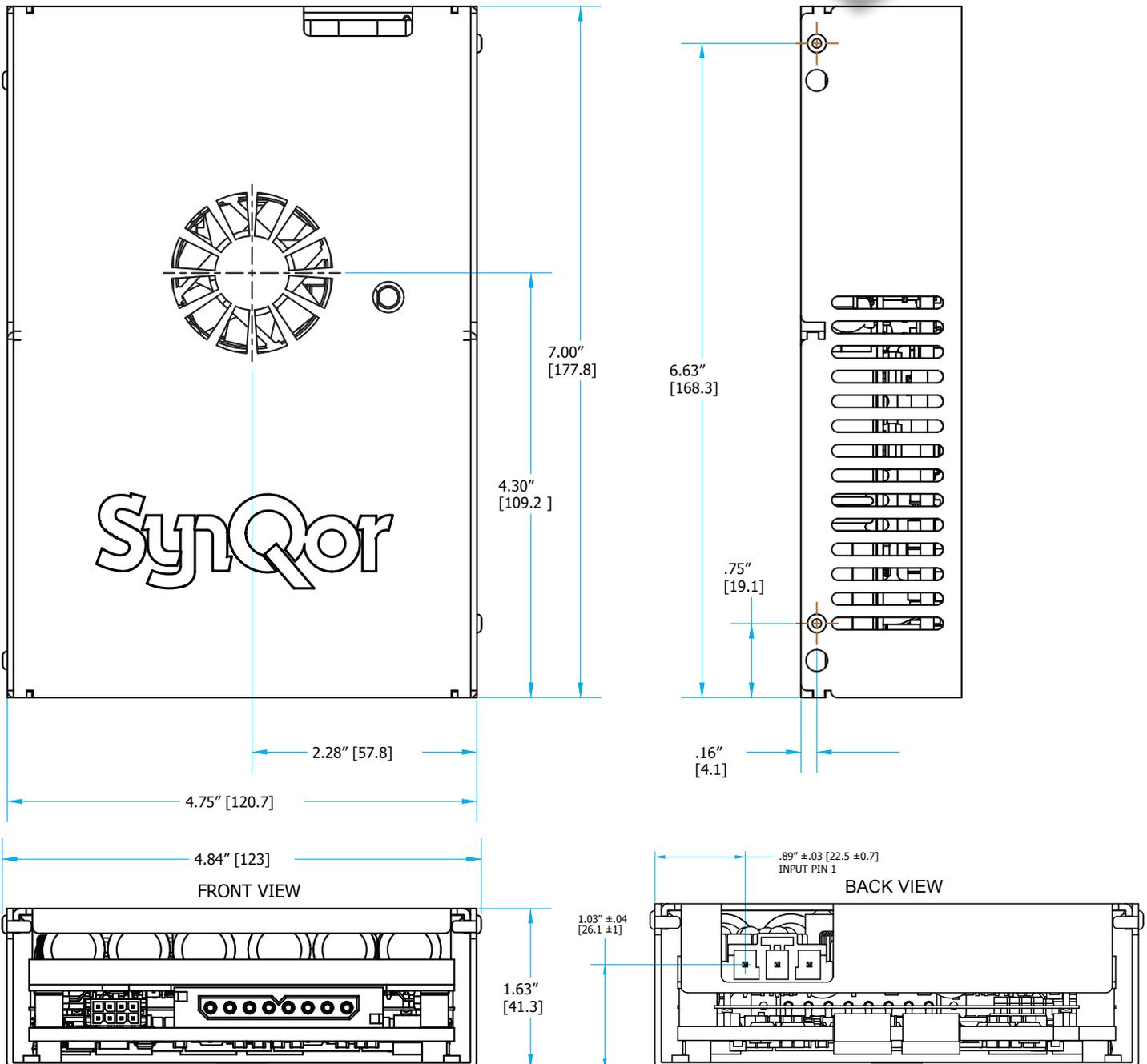
# G-Series

## P A C K A G E

G-Series ACuQor products are available as encased product only. \*



### G-Series converter





## Medical Grade DC-DC Converters Rated for CF Patient Contact and Defibrillation Proof

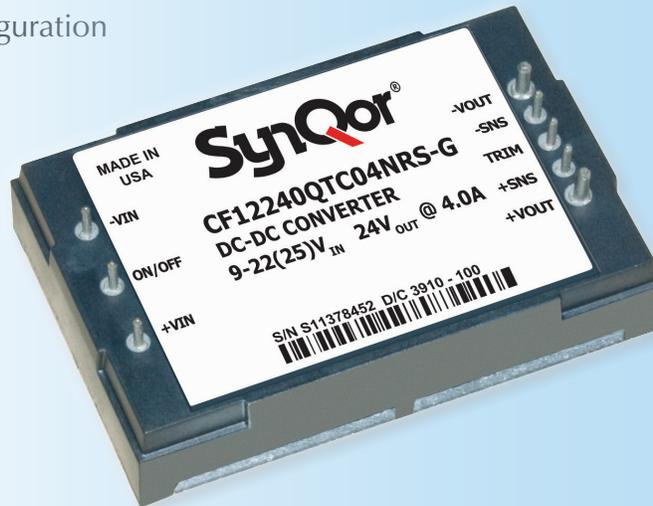
### Product Features

#### GENERAL SPECIFICATIONS

- High Efficiency, up to 93% at full rated load current
- Industrial standard quarter-brick pin-out configuration
- Low leakage; EN60601-1 compliant
- 4250 V, 100 mΩ input-to-output

#### SAFETY

- Reinforced Insulation
- UL 60601-1
- Can/CSA-C22.2 No. 60601-1
- EN 60601-1
- IEC 60601-1
- ANSI/AAMI ES60601-1
- CF Patient Contact
- Defibrillation Proof



*Defibrillator proof  
Type CF equipment*

		Output Voltage			
CFQor	Series	5V	12V	15V	24V
<b>12Vdc Nominal Input (9-22V Continuous Input Range; 9-25V transient)</b>					
Quarter Brick	CF12	20A 100W	8A 96W	7A 105W	4A 96W
<b>24Vdc Nominal Input (18-36V Continuous Input Range; 18-50V transient)</b>					
Quarter Brick	CF24	24A 120W	10A 120W	8A 120W	5A 120W
<b>48Vdc Nominal Input (34-75V Continuous Input Range; 34-100V transient)</b>					
Quarter Brick	CF48	25A 125W	12A 144W	10A 150W	6A 144W



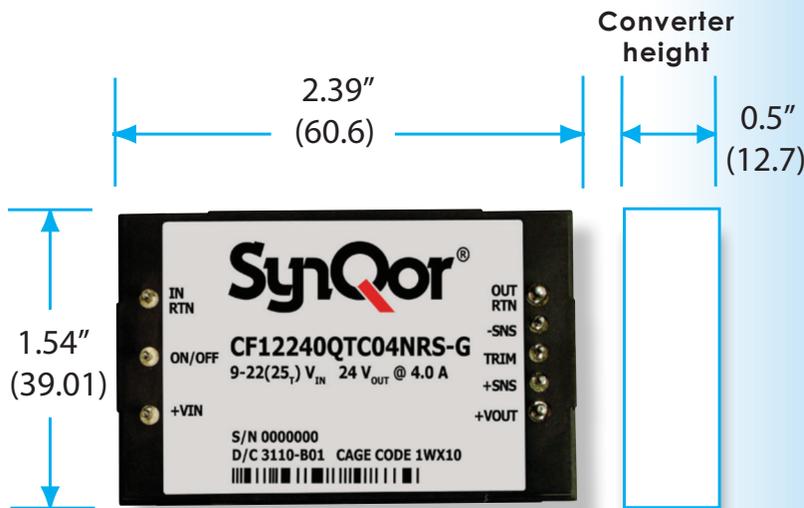
**P A C K A G E S**

The CFQor series of Quarter-Brick DC-DC converters is designed for medical applications that require isolation and leakage current levels that comply with IEC60601-1 for CF patient contact & are also defibrillation proof.

They are high efficiency, fixed switching frequency converters based on SynQor's well proven and reliable industrial grade products. CFQor products are fully encased for additional environmental protection.



**Quarter Brick**



**Flanged Quarter Brick**



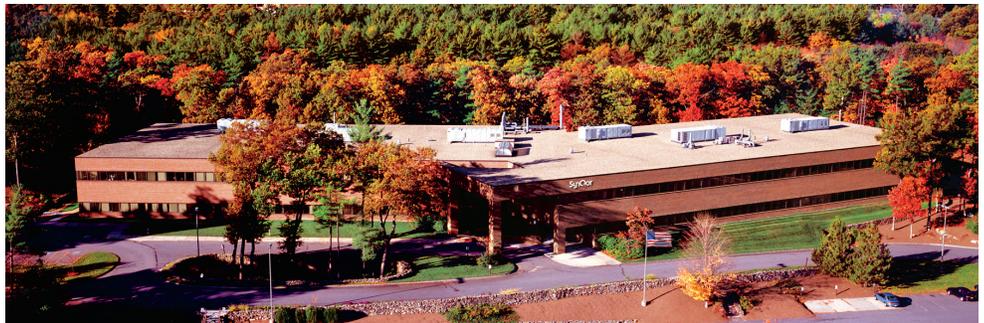
Defibrillator proof  
Type CF equipment

# SynQor® *Advancing The Power Curve®*

Founded in 1997, SynQor® quickly became the technology, quality and service leader for high efficiency DC-DC converters for the telecom/datacom marketplace. The PowerQor®, BusQor®, DualQor®, iQor™, and NiQor® product lines, combined with SynQor's unmatched lead-times, flexibility, design support and lowest total cost of ownership are the benchmark sought by SynQor's worldwide customers.

In 2004, SynQor began its successful entry into the industrial, railway, medical and military market segments with the InQor®, RailQor®, ACuQor®, MilQor® and UPS product lines. These new technology leading dc-dc and ac-dc product lines have enabled customers to realize vast savings in space, weight and overall system costs while dramatically increasing power densities and end-system performance. Equally important is the service and support advantage SynQor has brought to customers in these market segments.

SynQor operates on a global scale from its 100,000 sq. ft. corporate headquarters in Boxborough, MA. Its manufacturing facility is AS9100 and ISO9001 certified and offers an exceptional illustration of U.S.-based manufacturing that incorporates state of the art automation technology and quality control. SynQor's broad product line now includes thousands of part numbers, which serve a variety of diverse industries and applications.



## **SynQor Headquarters**

155 Swanson Road Boxborough, MA 01719-1316

Phone: 978-849-0600 Fax: 978-849-0602

E-mail: [mqnbfae@synqor.com](mailto:mqnbfae@synqor.com)

[www.SynQor.com](http://www.SynQor.com)

