



# PureCell® Model 400

## PURECELL SYSTEM BENEFITS

### Energy Security

Proven PAFC fuel cell technology that is setting durability records

### Energy Productivity

Increased efficiency and continuous on-site generation reduces energy costs

### Energy Responsibility

Ultra-low emissions equals sustainability

## PURECELL SYSTEM COMPETITIVE ADVANTAGES

### Long Life

Industry leading 10-year cell stack life assures high availability and low service cost

### Modular & Scalable

Solutions for multi-megawatt applications to meet growing energy demand

### Experience

Most knowledgeable and experienced team in the industry

### High Efficiency

Up to 90% total CHP Efficiency

### Grid-Independence

Proven performance delivering power when the utility grid fails

### Load Following

Capable of dispatching power to match building needs

### Small Footprint

Highest power density among clean generation technologies

### Flexible Siting

Indoor, outdoor, rooftop, multi-unit

## RATED POWER OUTPUT: 440KW, 480VAC/60HZ

Characteristic	Units	Operating Mode	
		Maximum Power <sup>1</sup>	Baseload Power <sup>1</sup>
Electric Power Output <sup>1</sup>	kW/kVA	440/440	400/471
Electrical Efficiency	%, LHV	41%	42%
Peak Overall Efficiency	%, LHV	90%	90%
Gas Consumption	MMBtu/h, HHV (kW)	4.06 (1,190)	3.60 (1,056)
Gas Consumption <sup>2</sup>	SCFH (Nm <sup>3</sup> /h)	3,961 (106.1)	3,515 (94.2)
High Grade Heat Output @ up to 250°F <sup>1</sup>	MMBtu/h (kW)	0.76 (223)	0.64 (188)
Low Grade Heat Output @ up to 140°F <sup>1</sup>	MMBtu/h (kW)	0.99 (290)	0.88 (258)

## FUEL

Supply..... Natural Gas  
Inlet Pressure ..... 10 to 14 in. water (2.5 - 3.5 mbar)

## EMISSIONS<sup>3,4</sup>

NOx ..... 0.01 lbs/MWh (0.006 kg/MWh)  
CO ..... 0.02 lbs/MWh (0.009 kg/MWh)  
VOC ..... 0.02 lbs/MWh (0.009 kg/MWh)  
SO<sub>2</sub>..... Negligible  
Particulate Matter..... Negligible  
CO<sub>2</sub><sup>1</sup> (electric only) ..... 1049 lbs/MWh (476 kg/MWh)  
(with full heat recovery) ..... 495 lbs/MWh<sup>5</sup> (225 kg/MWh)

## OTHER

Ambient Operating Temp ..... -20°F to 104°F (-29°C to 40°C)  
Sound Level ..... <65 dBA @ 33 ft. (10m)  
Water Consumption ..... None (up to 86°F (30°C) Ambient Temp.)  
Water Discharge ..... None (Normal Operating Conditions)

## CODES AND STANDARDS

ANSI/CSA FC1-2014: Stationary Fuel Cell Power Systems  
UL1741-2010: Inverters for Use With Distributed Energy Resources

## NOTES

1. Average performance during 1st year of operation.
2. Based on natural gas higher heating value of 1025 Btu/SCF (40.4 MJ/Nm<sup>3</sup>)
3. Emissions based on 440 kW operation.
4. Fuel cells are exempt from air permitting in many U.S. states.
5. Includes CO<sub>2</sub> emissions savings due to reduced on-site boiler gas consumption



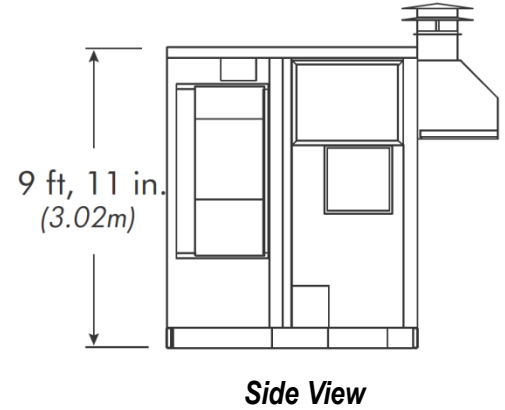
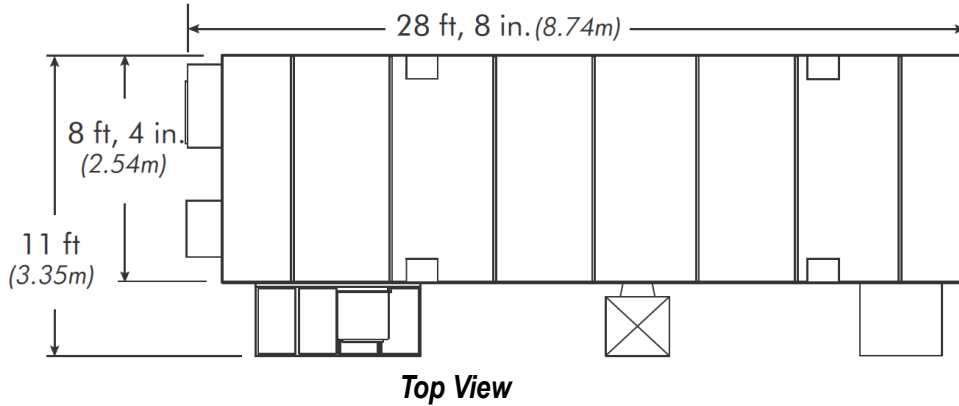
**Doosan Fuel Cell America, Inc.**  
Corporate Headquarters  
195 Governor's Highway  
South Windsor, CT 06074  
860.727.2253  
www.doosanfuelcell.com



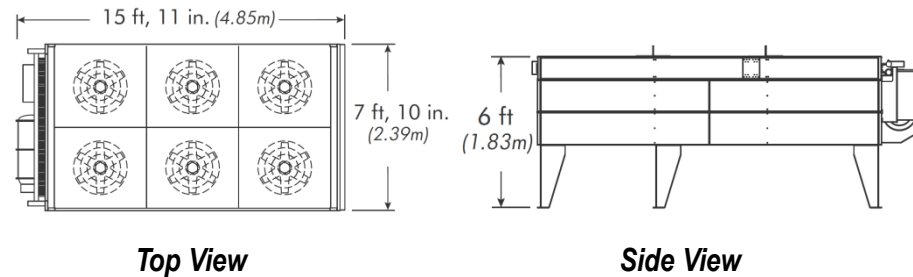
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## SYSTEM DIMENSIONS

### Power Module



### Cooling Module



## PHYSICAL SPECIFICATIONS

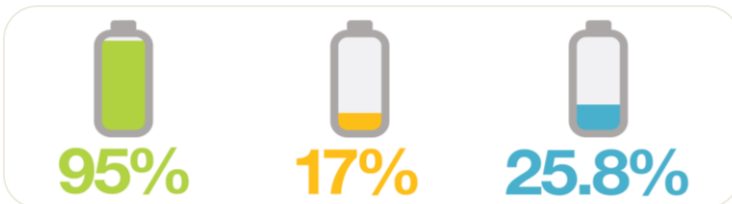
	Power Module	Cooling Module
Length	28' 11" (8.74m)	15' 11" (4.85m)
Width	8' 4" (2.54m)	7' 10" (2.39m)
Height	9' 11" (3.02m)	6' 0" (1.83m)
Weight	57,000 lb (27,216 kg)	3,190lb (1,447 kg)

## PURECELL ADVANTAGE

### OFFSET 3x MORE CO<sub>2</sub>



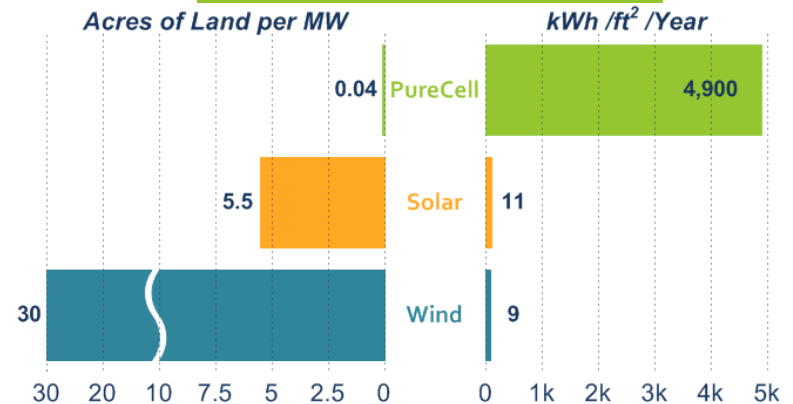
### CAPACITY FACTOR



### CO<sub>2</sub> OFFSET



### USE LESS LAND



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South Windsor, CT 06074  
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www.doosanfuelcell.com

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