

Model 5 FUEL CELL SYSTEM

PURECELL SYSTEM COMPETITIVE ADVANTAGE

PURECELL® SYSTEM BENEFITS

Energy security

proven, continuous generation that is setting durability records

Energy productivity

increased efficiency that is reducing energy costs

Energy responsibility

clean operation that is driving greener customer facilities

Continuous power

triple-redundant power architecture™ for continuous power to critical loads

High efficiency

combined heat and power system with up to 90% overall efficiency

Modular and scalable

systems can be clustered to meet growing energy demands

Experience

most knowledgeable and experienced team in the industry

World-class reliability

unparalleled cell stack life and fleet availability, leading to the lowest overall O&M costs

Proactive Service

24/7 remote monitoring and proactive maintenance based on real-time system analysis

Small footprint

high power density takes less space on site

Grid-independence

proven performance in providing power when the utility grid fails

Flexible siting

indoor, outdoor, rooftop, multi-unit

RATED POWER OUTPUT: 5 KW, 120/240 VAC, 50/60 HZ

Characteristic	Performance ¹
Electric Power Output	5 kW
Electrical Efficiency	40%, LHV
Peak Overall Efficiency	90%, LHV
Gas Consumption	47,400 Btu/h, HHV (13.9 kW)
Gas Consumption ²	46.2 SCFH (1.24 Nm ³ /h)
Heat Output @ 130°F	21,000 Btu/h (6.2 kW)
Heat Temp Rise @ 2 gpm flow	21°F (12°C)

NOTES

1. Average performance during 1st year of operation.
2. Based on natural gas higher heating value of 1025 Btu/SCF (40.4 MJ/Nm³).
3. Fuel cells are exempt from air permitting in many U.S. states.
4. Includes CO₂ emissions savings due to reduced on-site boiler gas consumption.

FUEL

Supply Natural Gas
Inlet Pressure 7 to 14 in. water (1.7 - 3.5 kPa)

EMISSIONS ³

NO_x <3 ppm
CO <10 ppm
VOC <1.3 ppm
SO₂ Negligible
Particulate Matter Negligible
CO₂ (electric only) 1,100 lbs/MWh (500 kg/MWh)
(with full heat recovery ⁴) 492 lbs/MWh (224 kg/MWh)

OTHER

Ambient Operating Temp -40°F to 122°F (-40°C to 50°C)
Sound Level 60 dBA @ 3 ft. (1 m)
Water Consumption/Discharge ... None (normal operating conditions)
Seismic Design Category E, Site Class D

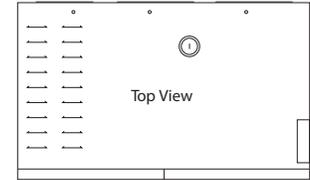
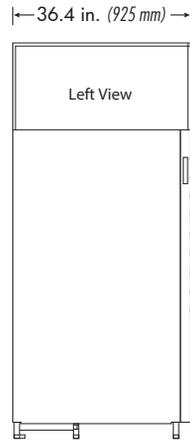
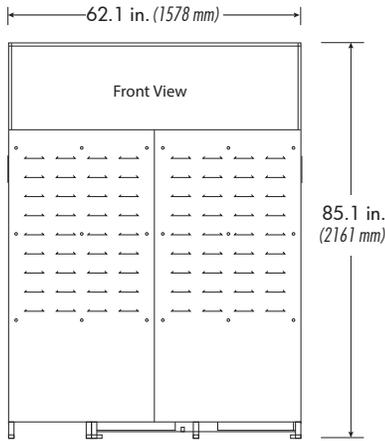
CODES AND STANDARDS

ANSI/CSA FC1-2004: Stationary Fuel Cell Power Systems
UL1741: Inverters for Use With Distributed Energy Resources

DS0101 092613

SYSTEM DIMENSIONS

Shown with integrated cooling unit.



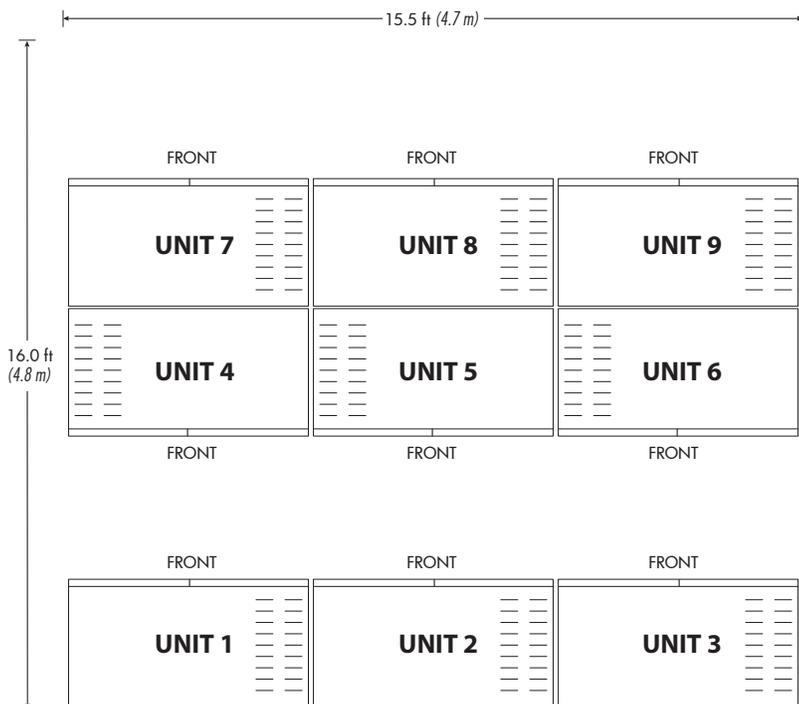
Weight: 2,800 lbs (1,270 kg)

MULTI-UNIT CAPABILITY

For increased energy output, individual power plants can be arranged side-to-side and back-to-back to minimize site footprint. The nine-unit layout below represents one option.

No. of Units	Electric Output	Heat Recovery	Fuel Consumption	Site Area
	kW	Btu/h (kW)	Btu/h, HHV (kW)	ft ² (m ²)
2	10.0	42,000 (12.3)	94,800 (27.8)	70 (6.5)
3	15.0	63,000 (18.5)	142,200 (41.7)	100 (9.3)
4	20.0	84,000 (24.6)	189,600 (55.6)	100 (9.3)
5	25.0	105,000 (30.8)	237,000 (69.4)	130 (12.1)
6	30.0	126,000 (36.9)	284,400 (83.3)	150 (13.9)

9-Unit System Layout



The manufacturer reserves the right to change or modify, without notice, the design or equipment specifications without incurring any obligation either with respect to equipment previously sold or in the process of construction. The manufacturer does not warrant the data on this document. Warranted specifications are documented separately.

ClearEdge Power, Inc.
 Corporate Headquarters
 920 Thompson Place, Suite 100
 Sunnyvale, CA 94085

clearedgepower.com

Copyright © 2013 by ClearEdge Power. All rights reserved. This document contains no technical information subject to U.S. Export Regulations.