





DFC®400 EU MCFC-Fuel Cell Power Plant

400 kW; 400 V; 50 Hz

Key Features

Minimal environmental impact with almost "no NOx, no SOx".

- ✓ High Efficiency
- ✓ Low Environmental Impact
- ✓ Fuel Flexibility
- ✓ High Reliability
- Quiet Operation

Advantages

DFC®400 EU – For indoor and outdoor (with housing) installation with low space requirement.

The DFC®400 EU stationary fuel cell power plant from FuelCell Energy Solutions provides high-quality, ultra-clean electrical power with 47 % efficiency around-the-clock. Designed for commercial and industrial applications, the system offers easy transport, quiet and reliable operation, easy site planning and regulatory approval.

The DFC®400 EU is ideal for stationary application sites as wastewater treatment plants, manufacturing facilities, food and beverage processing facilities, universities and office campuses.

Power Output

Power at Plant Rating	400 kW
Standard Output AC Voltage	400 V
Standard Frequency	50 Hz
Optional Output AC Voltages	by request
Optional Output Frequency	60 Hz

Efficiency

LHV	47 +/- 2 %

Available Heat

Exhaust Temperature	400 - 450 °C
Exhaust Flow	2,500 kg/h
Allowable Backpressure	15 mbar
Heat Energy Available	245 kW (to120 °C)
for Recovery	360 kW (to 50 °C)

Fuel Consumtion

Natural Gas (9.63 kWh/m³)	90 Nm³/h
Biogas (60 % Methane)	147 Nm³/h

Water Consumption

Water Discharge		
Average	0.15 m³/h	
Peak during WTS Backflush	0.25 m³/h	

0.3 m³/h

CO₂ Emissions

CO ₂	445 g/kWh
with the Use of Exhaust Heat	236 - 309 g/kWh



Layout

Flexibly adaptable to given space by modular design.



FuelCell Energy Solutions GmbH is your partner for innovative CCHP solutions with fuel cells in the extended European area. For more information please visit our website at www.fces.de

Dimensions

Fuel Cell Module and	total length:	9.48 m
Mechanical	wideness:	3.06 m
Balance of Plant	height:	3.90 m
Electrical Balance of Plant	total length: wideness:	5.40 m 0.85 m

Weights

Mechanical Balance of Plant	6.5 t
Electrical Balance of Plant	5.7 t
Fuel Cell Module	22 t

Sound Level at 3.0 m

Standard	81 dB(A)
Optional	66 dB(A)

Experiences and practical orientation

Innovative energy producers appreciate our long-term full-service.

Direct FuelCell® power plants are generating ultra-clean, efficient and reliable power at more than 50 locations worldwide. With over 300 megawatts of power generation capacity installed or in backlog, FuelCell Energy Solitions GmbH/FuelCell Energy, Inc. is a global leader in providing ultra-clean baseload distributed generation to utilities, industrial operations, universities, municipal water treatment facilities, government installations and other customers around the world.

The company's power plants have generated more than 3.8 billion kilowatt hours of ultra-clean power using a variety of fuels including renewable biogas from wastewater treatment and food processing as well as clean natural gas.



university



public building



office complex

The fleet of Direct FuelCell power plants of FuelCell Energy Solutions GmbH/ FuelCell Energy, Inc. are certified to or comply with a variety of commercial and industrial standards: ANSI/CSA America FC-1, UL 1741, CARB 2007, OSHA 29 CFR Part 1910, IEEE 1547, NFPA 70, NFPA 853, and California Rule 21.

This brochure provides a general overview of FuelCell Energy Solutions GmbH/ FuelCell Energ, Inc. products and services. This brochure is provided for informational purposes only. Warranties for FuelCell Energy Solutions GmbH/ FuelCell Energ, Inc. products and services are provided only by individual sales and service contracts, and not by this brochure. This brochure is not an offer to sell any FuelCell Energy Solutions GmbH/ FuelCell Energ, Inc. products and services. Contact FuelCell Energy Solutions GmbH for detailed product information suitable for your specific application. FuelCell Energy Solutions GmbH/ FuelCell Energ, Inc. reserves the right to modify its products, services, and related information at any time without prior notice.

related information at any time without prior notice.

FuelCell Energy with the corresponding logo is a registered trademark of FuelCell Energy, Inc. "Direct FuelCell,"

"DFC" and "DFC/T" are registered trademarks of FuelCell Energy, Inc. © FuelCell Energy, Inc. 2012. All rights reserved.



FuelCell Energy Solutions
Ultra-Clean, Efficient, Reliable Power

FuelCell Energy Solutions GmbH Winterbergstr. 28 01277 Dresden, Germany +49 351 25 53 73 90 info@fces.de www.fces.de