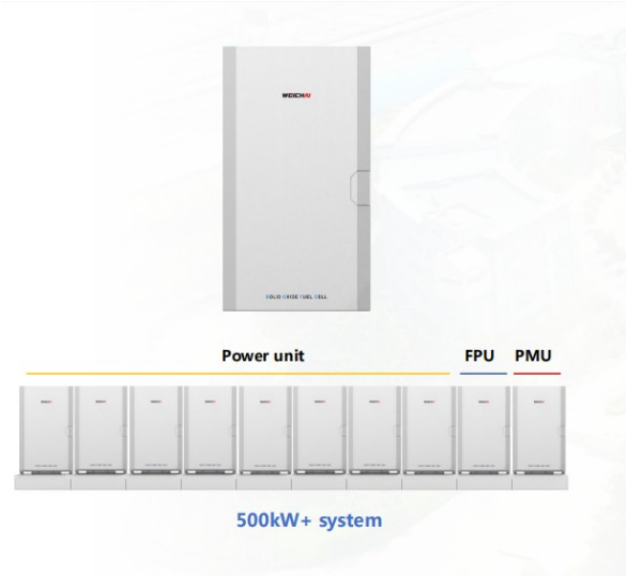
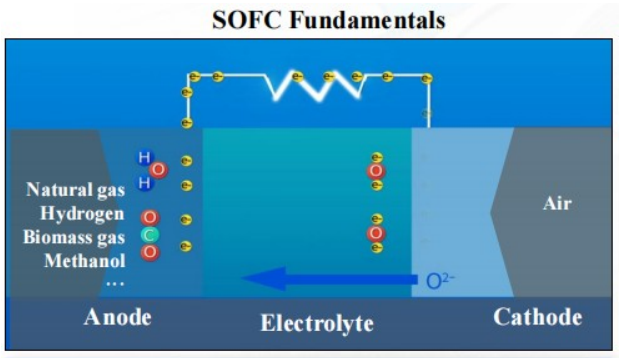
3.3 SOFC 固体氧化物燃料电池

Principles of Solid Oxide Fuel Cells

• SOFC is a power generation device that converts chemical energy into electrical energy.

• Characterized by multi-fuel capability, high efficiency, low emissions, and low noise and so on.





Advantages	• The most energy-efficient new technology route • Fuel diversification • Non-precious metal use
Disadvantages	• Low volume power density • The startup time is long

Item	Parameter	Parameter
Rated power generation	Power unit	Power system
	>65kW	>500kw
Size (width*depth*height)	1150mm×1800mm×2100mm	12000mm×1800mm×2100mm
Floors pace	2.07m²	21.6m²
Gas consumption rate	>11Nm³/h	>84Nm³/h
Output voltage	380VAC50/60Hz	
Scalable power generation capacity	Megawatt - class	
power generation efficiency	BOL>62%,EOL>52% (@Net power)	
Rated CHP efficiency	>90%	
Fuel	Natural gas	
Gas pressure	1~4bar	
CO² emission	~330g/KWh	
Operating environment temperature	-20~45℃	
Design lifetime	10years	
Noise	<70 dB(A) @1m	
Ingress Protection rating	IP34,Install outdoors	
Grid-connected and off-grid Operation modes	Grid-connected mode	



