



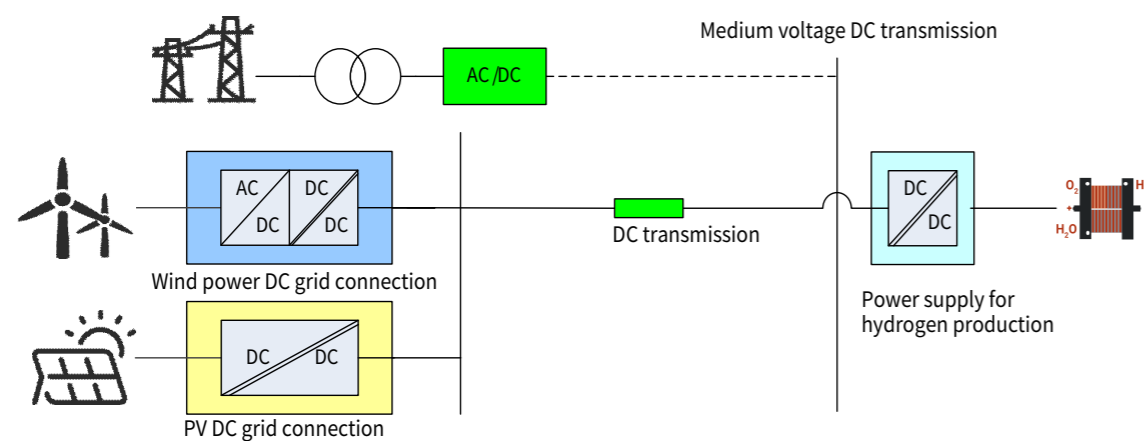
±10kV Medium Voltage DC Coupled Power Supply for Hydrogen Production

[Definition]

A power supply unit that converts its DC electric energy to that required by electrolyzers for hydrogen production in a water electrolysis system for hydrogen production with photovoltaic or wind power boosted to a 10-50kV medium voltage DC power grid by DC.

[Product Characteristics]

- Application scenarios: New energy off-grid hydrogen production scenarios for long-distance transmission;
- Providing a complete solution of new energy power grid boosting power supply and load-side buck power supply for hydrogen production;
- High-frequency energy transmission for safe isolation of the grid side and the load side;
- Ensuring precise and fast regulation and control of power, voltage and current across wide load range of hydrogen production;
- High protection class, direct outdoor arrangement, and easy on-site installation.



Medium Voltage DC Coupled Power Supply System for Hydrogen Production

Parameter Table of Medium Voltage DC Coupled Power Supply for Hydrogen Production

Item	Isolated Model: H1000DI-M
AC input parameters	
Input voltage	DC ±10kV (or 20kV) ±10%
DC output parameters	
Max. power output	6MW
DC output voltage	0~DC 1500V
DC output current	0~8000A
Output voltage ripple	≤ 1 %-V _{pp}
Output current ripple	≤ 1 %-I _{pp}
Accuracy of output current	≤ 0.2% max. output current in constant current state
Accuracy of output voltage	≤ 0.2% max. output voltage in constant voltage state
Load response time	≤ 0.1s
System characteristics	
Topology	ISOP DC/DC
Max. efficiency	0.985
Cooling method	Water-cooled
Dimension	10000*3200*3300
Protection level	IP54
Noise	≤ 75dB (A)
Essential capabilities	Grid-side isolation, wide adaptability to grid-voltage loads, and fast load discharge, etc.
Protection	Short circuit protection, over-voltage/under-voltage protection, output over-current protection, over-temperature protection, cooling system failure protection, communication fault protection
Communication interface	CAN, 485, Ethernet (Modbus RTU, Modbus TCP)
Human Machine Interface	Industrial model HMI (optional)
Method of wire inlet and outlet	Lower inlet and upper outlet (customizable)

