CIMC ENRIC 中集安瑞科

CIMC AM AMETHYST SERIES LOW-CARBON ENERGY STATION

The AM Amethyst Series Low-Carbon Energy Station is a low-carbon combined heat and power (CHP) product that uses natural gas as fuel. It can be widely used in scenarios such as hotels, schools, hospitals, bathhouses, central heating, electroplating, drying, etc. It represents a sophisticated and intelligent solution for comprehensive energy supply, characterized by its remarkable attributes of ultra-low-cost, green and low-carbon, high efficiency, energy-saving, and reliability.

ULTRA-LOW COST

ULTRA-HIGH EFFICIENCY

ULTRA-HIGH INTELLIGENCE

ULTRA-LOW EMISSION

COMPACT SIZE & HIGH CAPACITYE

GREEN AND LOW CARBON

FLEXIBLE INSTALLATION

EMERGENCY POWER SUPPLY

PERFORMANCE PARAMETERS

Item	Unit	AM20(Basic)	AM20PLUS(Plus)
Rated Heating Power	kW	45±1	165±3
Rated Electrical Power	kW	22±1	
Fuel Consumption	m^3	7	19
Primary Energy Ratio (PER) (LHV/HHV)	%	105%±3% / 95%±3%	
Outlet Temperature Range	℃	≤85	
Fuel Type/Pressure (Equipment Inlet)	kPa	Natural Gas / 3~5kPa	
NOx / CO	mg/m^3	≤30	
Noise (Open Space 1m Distance)	dB(A)	70	

APPLICATION SCENARIO


Hotel


School


Hospital

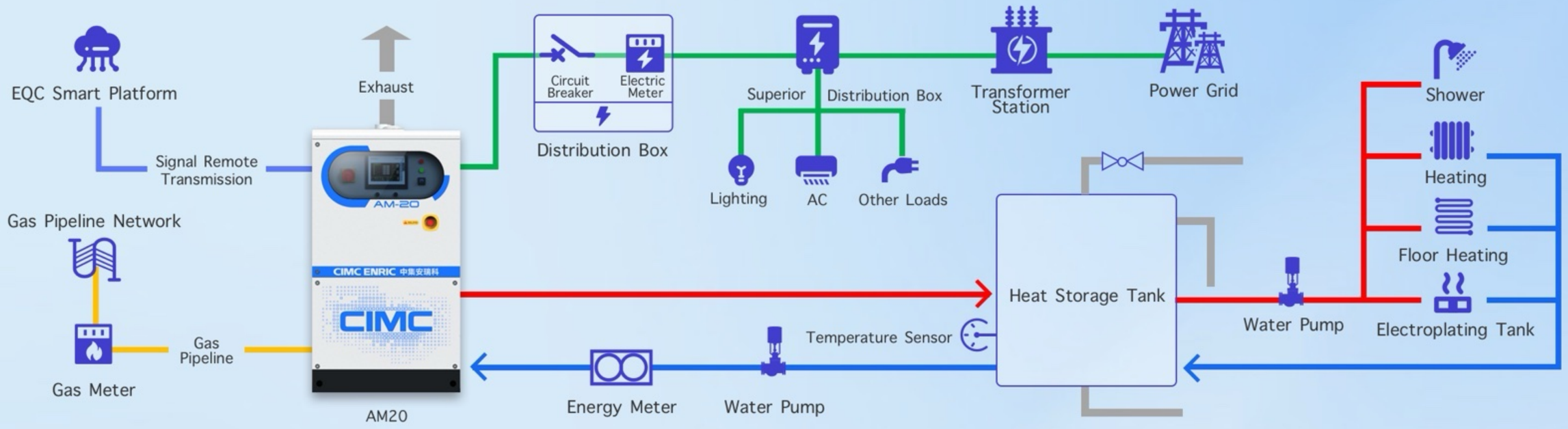

Central Heating


Electroplating Factory

OPERATION ECONOMY

Taking a hotel with 160 beds as an example, it requires 20t hot water of 55°C per day (assuming the temperature of cold water is 15°C)					
Heating Equipment	Solar Water Heater	Gas Water Heater	Electric Water Heater	Air Source Heat Pump Water Heater	AM20
Input Energy	Solar + Electric	Natural Gas	Electricity	Electricity	Natural Gas
Energy Conversion Efficiency	1/3 of the time using electric heating	88%	99%	3	105%
Energy Price	0.8 CNY/kWh	3 CNY/Nm³	0.8 CNY/kWh	0.8 CNY/kWh	3 CYN/Nm³
Energy Consumption per Ton of Hot Water	15.5kWh	5.4Nm³	46.9kWh	15.5kWh	7Nm³
Cost per Ton of Water (CNY/ton)	12.4	16.2	37.0	12.4	3.4
Daily Cost (CNY)	248	324	739	248	68
Annual Cost (CNY)	90412	118260	269808	90520	24820
Annual Standard Coal Consumption(tons)	34	47	103	34	13
Annual CO_2 Emissions (tons)	47	76	144	47	32

SYSTEM APPLICATIONS



CIMC EQC SMART ENERGY MANAGEMENT PLATFORM

The EQC platform is a digital platform developed by CIMC Low-Carbon Energy Technology Research Department for the management of energy (Energy), quality (Quality), and carbon assets (Carbon) in comprehensive energy systems. It is capable of seamlessly integrating with AM Energy Stations to enable real-time operation data monitoring and storage, fault information query, operation report delivery, and after-sales service management. Different permission accounts are granted to end-users, project operators, maintenance service personnel, and market sales to meet the specific requirements of various roles.

- Global Monitoring and Quantitative Carbon Process Management
- AI Smart Diagnosis for High-Quality Operation Management
- Digital Twinning and Data Visualization Management
- Intelligent Operation and Maintenance with Planned Maintenance

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