

Superior Engine Generation Drive a Better World



Ettes Power is the leading manufacturer and supplier for diesel & gas generators from 20kW upto 4500kW. We use world top engines (Cummins, MAN, CAT-MWM, CNPC 190 Series and Low speed 300 Series etc.) to ASSEMBLE into complete-generator-set and CHP units. Ettes gensets enjoy hot markets in more than 70 countries all over the world including Latin America, Africa, Middle East, Europe and Asia markets.

190 Series gas engines are developed by cooperation with AVL from Germany and Austria. The engine assembling plant is affiliated to CNPC (China National Petroleum & Oil Corporation), those engines work extensively in 90% of China oil fields and coal mines, and enjoy hot markets in global.

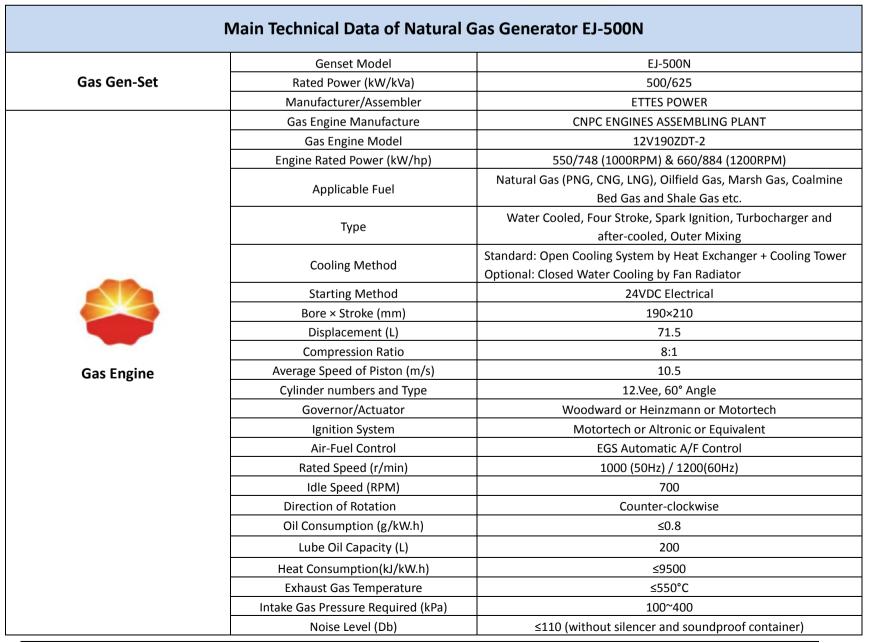
Benefits of ETTES-CNPC 190 Series gas engines & Genset

- ◆ The engine performance is "Leading China" and "First class Global"
- ◆ Long history: produced by engines plant under control by CNPC (China National Petroleum & Oil Corporation), it is the first and the largest engine manufacture in China since 1953.
- ◆ Proven Technology: widely used in 90% of China Oil & Gas Fields, Coalmines, Vessels and other areas under severe working conditions.
- Fuel flexibility: designed for operation on a wide range of methane based gases including natural gas, biogas, oilfield gas, coal mine methane and shale gas and other special gas.
- Designed for intensive use (continuous duty)
- ◆ Capable of working with variable loads.
- ♦ Advanced technology of close-loop control, lean-burn and Mixing before turbo.
- Adopting highly intelligent gas control system of Woodward EGS or Motortech, the air fuel ratio can be automatically adjusted as per fluctuation of gas components.
- ◆ Adopting intelligent & digital ignition system from Motortech or Altronic.
- Adopting super-turbocharged technology from ABB.
- Heat Recovery system to realize CHP, Cogeneration and Distribution Energy.
- Integrated & modularized unit to facilitate easy transport and quick setup.
- ◆ Easy Maintenance in Low Cost.
- ◆ Ensured annually continuous working over 8000 hours.
- ♦ Longer life span of 15~20 years.









		Alternator Brar	nd		Siemens or Equiv	alent		
		Alternator Mod	1FC6 Series					
		Frequency (Hz		50/60				
	_	, (,	400/230(50Hz), 480/270(60Hz)				
SIEMEN	5	Rated Voltage (V)		Other Special Low Voltages and				
				High Voltage of 6.3kV, 6.6kV, 10.5kV, 13.8kV are available				
Alternator		Power Factor (Co	osφ)	0.8				
		Туре		Insulation Class IP23, Protection Class H				
		Excitation Meth	od	Self-excited, Brushless				
		Voltage Regulati	ion	AVR				
	Standa	Standard Control System: advanced SIVAC control panel by Siemens Technology, adopting control module of						
	ComAp	ComAp Intelilite Series, with functions including manual keys, alarms, protections, auto start and shut dow						
Control System	showir	showing running parameters in LCD Display.						
control system	Engine	Engine SCADA System, Communications protocol RS485						
	Option	Options: Auto parallel synchronization control panel, Remote control system etc.						
		Net Weight (KC	12000					
Size and Weight		Dimension (L×W×H	, mm)	4790×2040×2212 (based on open cooling system)				
		Main Ele	ctronic Performar	nce Data				
Voltage				Frequency				
Stabilized Regulation	Instantaneous regulation	Recovery Time	Fluctuation	Stabilized Regulation	Instantaneous regulation	Recovery Time	Fluctuatio	
≤ ±2%	≤ ±5%	1 s	≤ 0.5%	≤ 0.5%	≤ ±10%	<5s	≤ 0.5%	

 $\bigstar \text{Above values are provided for information purpose only and are non-binding. The data given in official offer is decisive.}$



Knowing it is Ettes Power-The Key Supplier for Complete Power Generating System-

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