SINO-QNP

BHGT

Gas Turbine Generator Set

QGT-110

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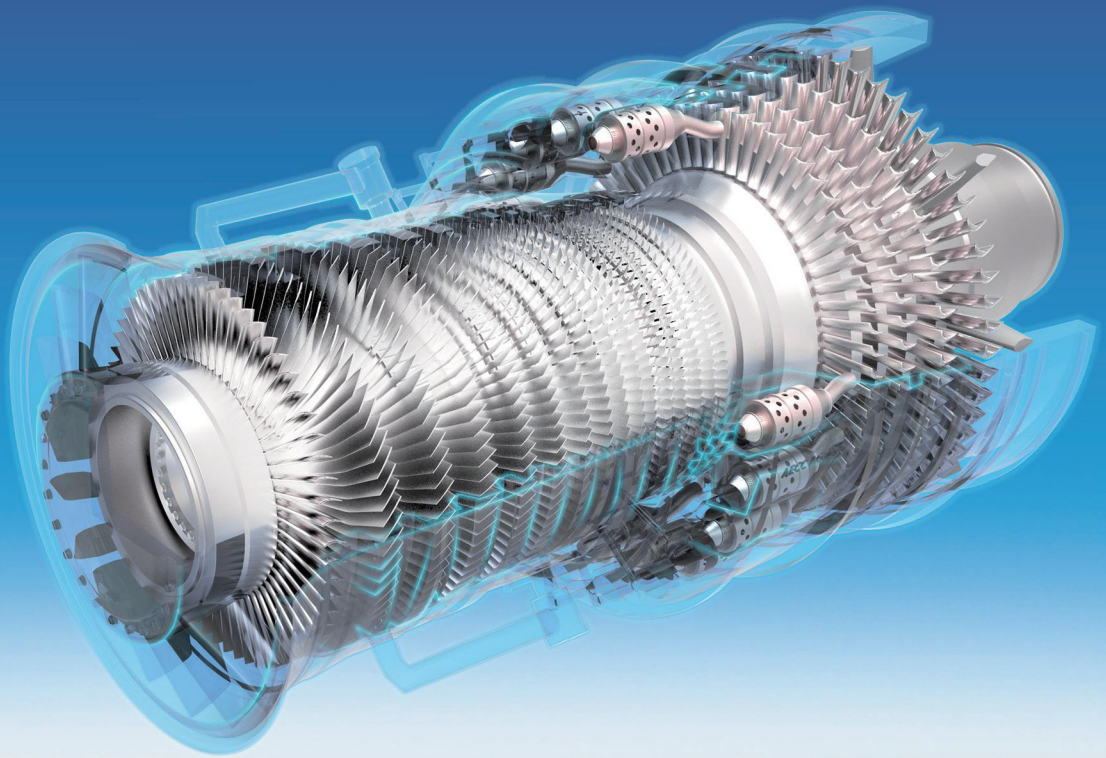
Suitable for: ※Ship power ※Cogeneration
※Natural gas peak regulation power station



■ QGT-110 Gas turbine introduction

QGT-110 is China's first class E plus heavy duty gas turbine with independent intellectual property rights. It is a major development project of the national "863" plan during the 10th and 11th five-year Plan period. It has the advantages of rapid start-up, high comprehensive thermal efficiency, easy to maintenance and so on. It can be widely used in ship power, cogeneration, natural gas peak regulation power station and other fields.

In ISO condition, nature gas as the fuel, the performance data of the gas turbine are as follows:

Item	Unit	Performance index
Power output	MW	112
Power generation efficiency	%	35.3
Heat rate	kJ/kWh	10198
PT speed	rpm	3000
Pressure ratio		14.82
Exhaust mass flow	kg/s	362
Exhaust temperature	℃	517

Generator set composition

Gas turbine	Generator	Auxiliary system	
> Industrial gas turbine, single shaft, output flange at the compressor end	> Two-pole, three-phase, stator winding Y-type wiring	> Gas turbine installation platform	> Gas fuel front module
> Compressor	> Brushless excitation	> Air cooling system	> Air inlet system
· 15-stage axial flow	> Cooling method: air-water cooling	> Lubricating oil and jacking oil system	> Exhaust system
· Pressure ratio 14.8	> Protection level: IP55	> Gas fuel regulating valve station	> Enclosure and ventilation system
· 1-stage IGV	> Class F insulation	> Fuel nozzle blowing system	> Compressed-air system
> Combustion chamber	> Voltage level: 10.5kV	> Ignition system	> MCC
· Counter current annular tube combustion chamber	> Frequency: 50Hz	> Bleeding system	> DC system
· Dry low-NOx design		> IGVservo system	> Lighting system
> Turbine		> Control oil system	> Fire extinguishing system
· 4-stage		> High voltage inverter for gas turbine starting	> Drain system
Coupling		> Control and protection system	> Water wash system
			> Exhaust gas three-way damper (optional)
			> Bypass stack (optional)

Generator set diagram