siemens.com/industrialRB211-GT30

Industrial RB211-GT30 gas turbine for FPSO

Key facts Industrial RB211-GT30

- Lightweight, compact modular package
- Evolution of Industrial RB211, enhanced with proven components
- Optimized for hot climate performance
- No “hot lock out” periods, restart immediately following a shutdown
- Fast engine change to maximize uptime
- 50 or 60 Hertz electrical generation without gearbox
- 12 months from contract to shipment to reduce CAPEX exposure
- Designed for maintenance to maximize availability and reduce OPEX

The latest evolution of the Industrial RB211 gas turbine portfolio offers class-leading power density in electrical generation through a compact, lightweight and highly maintainable package optimized for offshore applications.

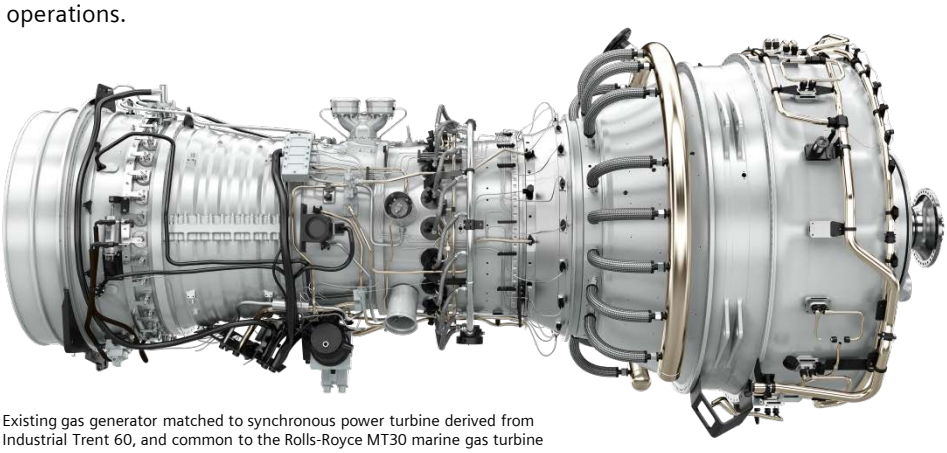
Compliant to FPSO requirements the package achieves a 30 percent reduction in weight and footprint from its predecessor while building on the reputation and experience of the Industrial RB211, which has accumulated more than 34 million operating hours in its 40 years-long legacy.

The gas turbine driver utilizes a free power turbine rotating at synchronous speed with a two-pole AC generator, to enable 60 or 50 Hertz electrical generation without the need for a reduction gearbox and its associated auxiliaries, with clear weight and footprint advantages. All rotating gas turbine components already have a well proven pedigree in challenging operations.

The gas turbine performance is optimized for hot climates delivering three percent more power at 30° C than its predecessor.

In order to reduce installation and commissioning activities, all auxiliary systems have been incorporated into the turbine skid and are pre-commissioned at the Siemens facilities. To ease maintenance and maximize up time all systems are easily accessible, and specific tooling has been built into the package itself to facilitate the gas turbine core removal and exchange even in challenging environmental conditions.

With more power, reduced weight and footprint and maintained reliability, the Industrial RB211-GT30 is a direct fit for FPSO vessels and a dependable choice for all power generation applications.



Existing gas generator matched to synchronous power turbine derived from Industrial Trent 60, and common to the Rolls-Royce MT30 marine gas turbine

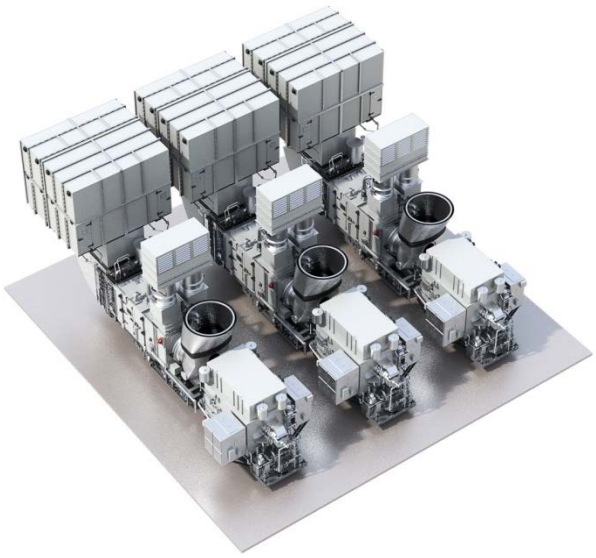
Specification

Power (ISO)	32.5 MW (60 Hz)*
Power (at 30°C)	29.0 MW (60 Hz)*
Power turbine speed	3,600 rpm
Thermal efficiency (ISO)	37.7%
Fuel type	Dual (gas and liquid)
DLE emissions	25ppm NOx at ISO on gas fuel
Footprint	16.0 m x 3.3 m
Generator height	5.4 m

Industrial RB211-GT30 package

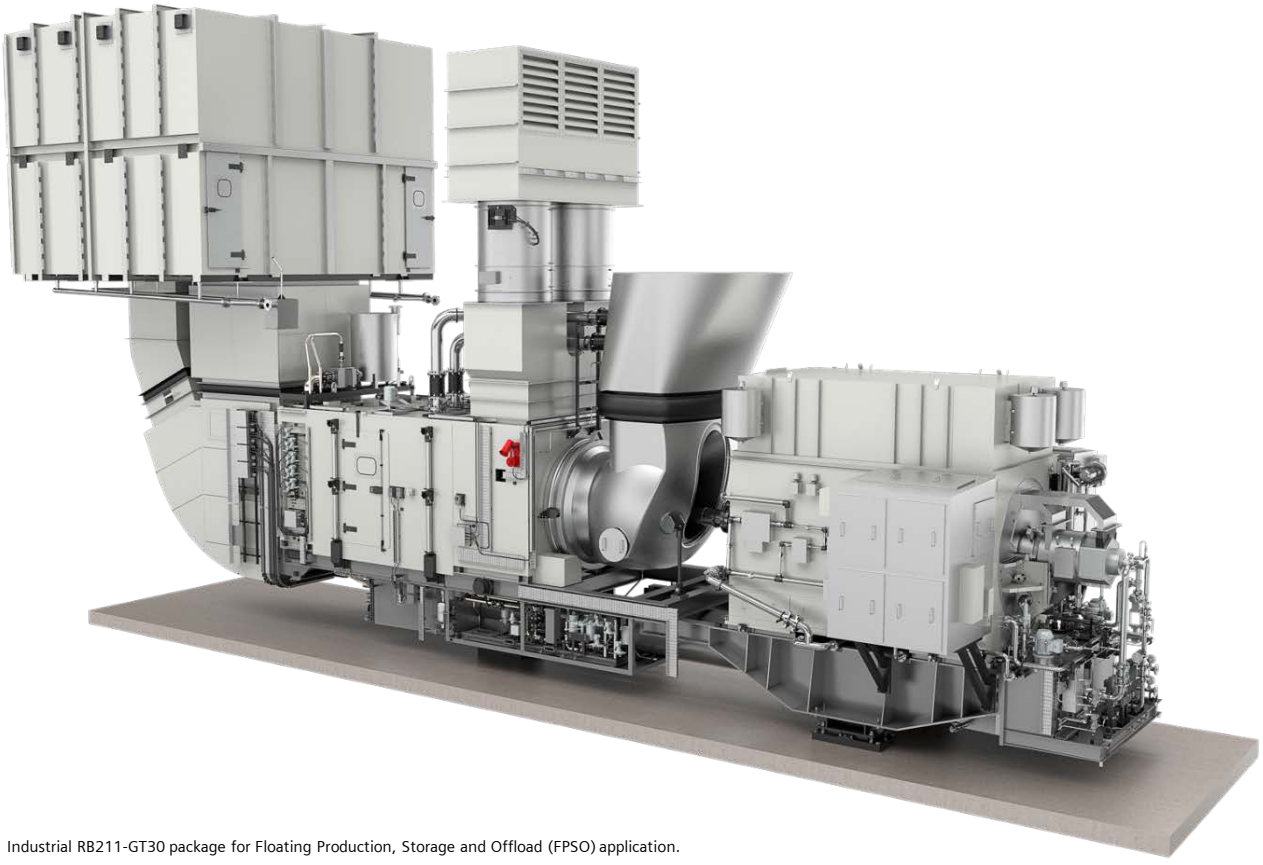
Gas generator (non-DLE)	2,800 kg
Power turbine	3,740 kg
Total package	< 150 tons

* Also available for 50 Hz



Three Industrial RB211-GT30 units can fit into an area of 25 by 25 meters

Industrial RB211-GT30: Compact, dependable power where it counts the most



Industrial RB211-GT30 package for Floating Production, Storage and Offload (FPSO) application.

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