

SIEMENS

Ingenuity for life

SGT-A35 (GT30) gas turbine

Formerly Industrial RB211-GT30

The SGT-A35 (GT30) continues the Industrial RB211 gas turbine legacy, introducing its latest evolution packaged with Dresser-Rand's oil and gas expertise. With a power output of up to 38 MW, the SGT-A35 (GT30) offers best-in-class power density in an offshore package that is easy to maintain.

Important features

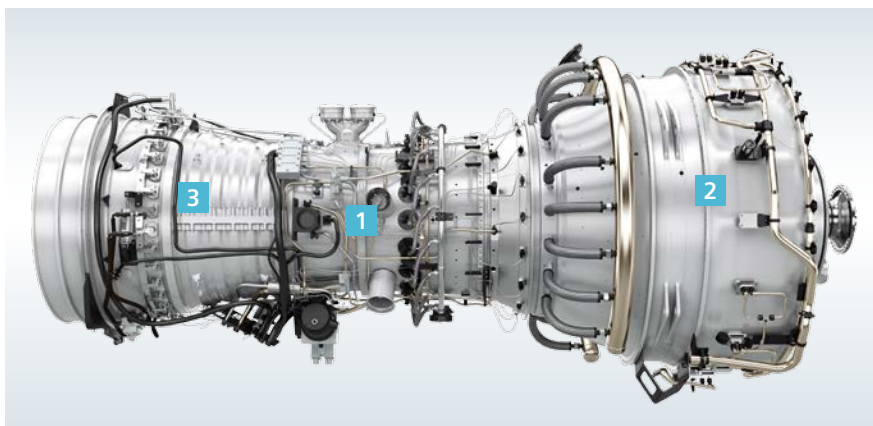
- 34 MW or 38 MW power output
- Lightweight gas turbine integrated with the compact Dresser-Rand package
- Compact package minimizes footprint and topside weight to lower capital investment
- Compliant with oil and gas application requirements, including those of Floating Production, Storage and Offloading (FPSO) vessels

Customer service and maintenance

- Ease of maintenance and maximum uptime through optimal access to key systems
- Fast core engine exchange
- Regional service support, 24/7 global help desk

Key benefits

- Highest power density in its class, with up to 38 MW output
- Lightweight, compact modular package
- Evolution of trusted Industrial RB211, enhanced with proven components
- Optimized for hot climate performance
- No "hot lockout" by inherent design, restart immediately following a shutdown
- Fast engine change to maximize uptime
- Mechanical drive or 60/50 Hz electrical generation without gearbox
- Designed for maximum availability and lower OPEX



Lightweight architecture of the SGT-A35 (GT30) gas turbine

1 Core engine

Two gas generator variants are matched to a lightweight, aeroderivative free power turbine.

2 Power turbine

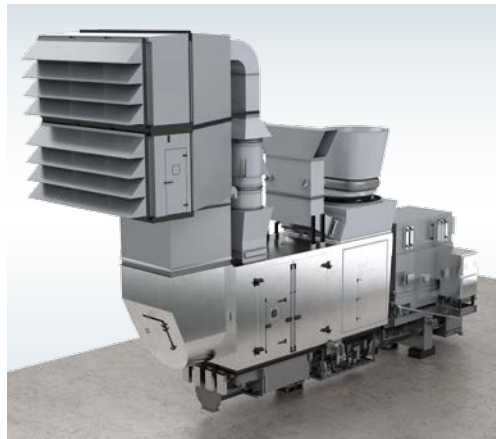
The free power turbine can direct-drive a 2-pole A/C generator at 60 Hz or 50 Hz without gearbox. It can also operate in mechanical drive.

3 More power via cold-end upgrade

The 38 MW variant utilizes a compressor zero-stage to increase the power output with the same firing temperature.



Power generation package for flexible, efficient offshore power



Offshore package with single-lift capability and high availability

50 Hz	SGT5-9000HL	567 MW
	SGT5-8000HL	481 MW
	SGT5-8000H	450 MW
	SGT5-4000F	329 MW
	SGT5-2000E	187 MW
60 Hz	SGT6-9000HL	388 MW
	SGT6-8000H	310 MW
	SGT6-5000F	250 MW
	SGT6-2000E	117 MW
50 or 60 Hz	SGT-A65	53 to 70 / 58 to 62 MW
	SGT-800	48 to 57 MW
	SGT-A45	41 to 44 MW
	SGT-750	40 / 41 MW
	SGT-700	33 / 34 MW
	SGT-A35	27 to 38 MW
	SGT-600	24 / 25 MW
	SGT-400	13 to 14 / 13 to 15 MW
	SGT-300	8 / 8 to 9 MW
	SGT-100	5 / 6 MW4
SGT-A05	4 to 7 MW	

Gas turbines from 4 to 567 MW

Power generation

The SGT-A35 (GT30) can drive a 2-pole (no gearbox) or 4-pole A/C generator. Its aeroderivative architecture and free power turbine is designed for operational agility and fast, stable response to large load variations.

- Single-lift package
- Compact footprint
- No "hot lockout"

Mechanical drive

The SGT-A35 (GT30) delivers a shaft output of up to 38.1 MW in mechanical drive. The drive shaft design speed is 3,429 rpm.

- Single-lift package
- High starting torque
- Variable output speed, up to 105% for continuous operation
- Configured to order with pre-engineered features

Trusted technology, game-changing performance

- Evolved from the reliable Industrial RB211 gas turbine, proven in over 800 units and 38 million hours of service
- Packaged with Dresser-Rand's oil and gas expertise from more than 1,000 aeroderivative packages
- 10% more power than its predecessors
- Over 90% of ISO power output retained at 30° C
- Lightweight free power turbine with Trent components proven in flight, marine and industrial service
- 38 MW with compressor zero-stage, same firing temperature

Nominal rating	34 MW		38 MW	
	15° C	30° C	15° C	30° C
Mechanical drive (3,429 rpm)				
Shaft power output	33.7 MW	30.8 MW	38.1 MW	33.3 MW
Shaft thermal efficiency	39.1%	38.3%	40.3%	39.1%
60 Hz electrical generation				
Power output A/C	33.2 MW	30.3 MW	37.4 MW	32.6 MW
Simple cycle efficiency	38.5%	37.8%	39.7%	38.4%
50 Hz electrical generation				
Power output A/C	32.2 MW	29.7 MW	36.6 MW	32.4 MW
Simple cycle efficiency	37.5%	36.8%	38.7%	37.6%
Power turbine speed	3,000 – 3,600 rpm			
Fuel type	Dual (gas & liquid)			

Published by
Siemens AG 2018

Power and Gas Division
Distributed Generation
Freyeslebenstrasse 1
91058 Erlangen, Germany

Article No. PGDG-T10036-02-7600
Printed in Germany
Dispo 34806
TH 566-180084 FS 0218

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Note: Nominal performance shown.
Performance guarantees are only provided in individual project proposals based on specifications given. Nominal performance shown referred to sea level, 60% relative humidity, natural gas fuel, zero installation losses. Power generation data includes the A/C generator. Mechanical drive data excludes the driven equipment.