Siemens new 44-megawatt aeroderivative gas turbine for mobile power generation

- Most powerful mobile unit on the market
- Immediate power to the grid using proven technology
- Easy transport by air, land or sea
- Fast delivery and installation for customers who need power quickly

A product has been added to the Siemens gas turbine portfolio: The SGT-A45 TR mobile unit addresses the growing market for fast power. With an electrical generating capacity of up to 44 megawatts, this aeroderivative gas turbine is packaged for rapid deployment and can be installed in less than two weeks. Its design features outstanding power density, high fuel efficiency and excellent operational flexibility. This makes it particularly beneficial for customers with urgent power needs or in regions with less developed infrastructures.

This innovative mobile power generation unit from Siemens provides significantly more electrical output than comparable models currently on the market. This means that in most cases fewer turbine units are required to produce the total desired plant output. The SGT-A45 TR design is based on proven Siemens products and Rolls-Royce Aero-Engine technology. The gas turbine core utilizes components from the Siemens Industrial Trent 60 that have been adapted to a proven free power turbine. This design leverages the know-how and experience gained from millions of operating hours accumulated in flight, industrial and marine service.

The standardization and modular design of the package enable rapid deployment and installation. Each unit is fully assembled and tested at the factory in order to verify operation and performance and minimize the scope of commissioning work needed at site.
Transport of the gas turbine is facilitated by its compact design and relatively low weight. When required, the unit can be flown as air cargo to its installation site. The SGT-A45 TR gas turbine can run on gas or liquid fuels, and transition smoothly between both fuel types while in operation. This provides greater flexibility and ensures continued operation in case the main fuel supply becomes unavailable. Low NO\textsubscript{x} emissions can be achieved with optional water injection, which also boosts the unit’s power output particularly in warm climates.

The mobile unit is an ideal choice for critical power needs. The package is built with durable industrial components capable of prolonged operation and demanding duties. The aeroderivative gas turbine can generate full power in less than 9 minutes from start without need for auxiliary systems to maintain the unit in an operationally ready standby mode. In the event of a shutdown, the unit can be restarted at any time to restore power quickly, as it has no “hot lockout” restrictions.

“This innovative Siemens gas turbine will provide flexible and rapid supply of electricity, enabling it to quickly support critical power needs,” states Nick Muntz, CEO of Siemens’ Distributed Generation business unit. “The compact design of the SGT-A45 TR is especially well-suited for mobile power, for example in Africa or Southeast Asia, allowing us to capture a quickly growing market segment.”

The SGT-A45 TR gas turbine for mobile applications is part of Siemens’ overall fast power concept: a range of power solutions designed for fast deployment to satisfy the needs and demands of each customer, particularly in fast-growth regions and places where infrastructure has not yet been fully developed. These standardized solutions are put through extensive testing after manufacture and, though relatively small and lightweight, deliver a high level of electrical output. These features facilitate transport to the destination by air, land or sea and enable very short installation times.
Siemens’ new aeroderivative Model SGT-A45 TR gas turbine: The compact SGT-A45 TR gas turbine utilizes proven aeroderivative technology to deliver excellent performance, high efficiency and operational flexibility. The picture shows a SGT-A45 TR unit at the manufacturing plant in Montréal, Canada.

This press release and press pictures are available at:
www.siemens.com/press/PR2017030234PGEN

For further information on our fast power concept, please go to:
www.siemens.com/press/fast-power

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