

A large industrial mobile power unit, the Siemens SGT-A45 TR, is shown in a desert landscape. The unit is a long, white, rectangular structure with multiple sections, each featuring large, dark, rectangular grilles. A blue semi-truck is parked in front of the unit. In the background, there are mountains and a power line tower under a blue sky with scattered clouds.

SIEMENS

Ingenuity for life

SGT-A45 TR mobile unit

Immediate power to the grid –
highest power density, trusted technology

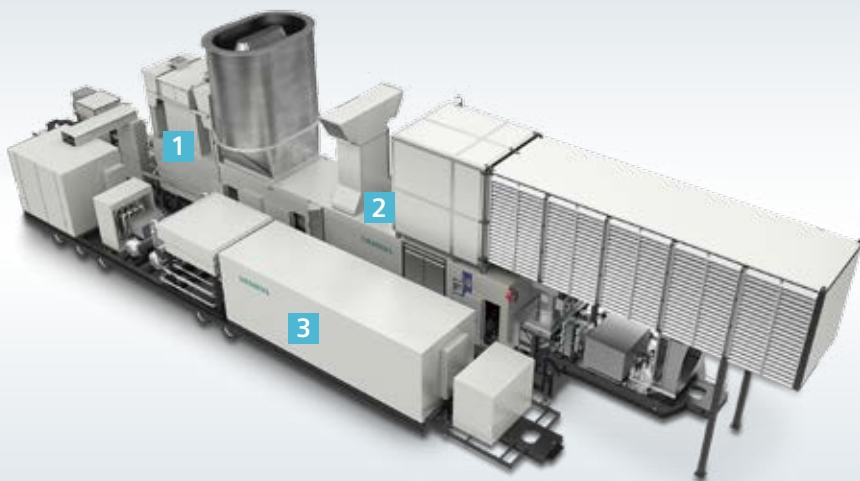
Based on proven aeroderivative gas turbine technology, the SGT-A45 TR mobile unit is an outstanding solution for fast power. With up to 44 MW of electrical output, it offers significantly more power and higher efficiency than any other mobile gas turbine.

Features

- The most powerful mobile generator on the market with up to 44 MW(e)
- Fast deployment solution for urgent power needs
- Few and fast connections between trailers
- Each unit pre-commissioned at the factory
- Industrial Trent 60 core engine components matched to proven, free power turbine
- Proven, highly efficient aeroderivative turbomachinery
- Compact footprint
- Uses liquid or gas fuel, with ability to start up and change over during operation on either fuel
- Optional water injection for low NO_x and instant power boost
- Dual-frequency package with simple configuration change
- Designed for integration in complete power solution
- Transportable by road, air, or sea

Benefits

- Mobile solution up to 44 MW(e), with outstanding power density
- Fast, flexible power on delivery with fewer units and lower \$/kW
- Site installation and commissioning in only 2 weeks
- Fast start (9 minutes or less) and flexible operation
- Easy transport to site and relocation
- High fuel efficiency
- Performance optimized for hot climates
- Dual-fuel flexibility (liquid and gas)
- Low-NO_x option
- Layout and installation optimized for full power plant solution
- Low maintenance, only one planned annual inspection
- Restart at any time – no “hot lockout” or “hot standby”



Scope of supply

Trailer 1

- A/C generator
- Generator lubrication and cooling systems

Trailer 2

- Gas turbine
- Gas turbine ancillary systems (fuel, lube oil, etc.)

Trailer 3

- Unit control system
- Motor control center
- Switchgear

Air inlet and filter and exhaust stack designed for simple and quick installation on unit at site.

Mobile unit

- Up to 44 MW(e) (ISO)
- 50 Hz or 60 Hz
- Liquid and gas fuel
- Emissions to < 25 vppm NO_x
- Mounted on trailers
- Highly standardized

Optional balance of plant scope

- Generator step-up transformers
- Liquid fuel storage and treatment
- Water demineralization plant
- Natural gas compressors and filters

Siemens can supply the required scope of Balance of Plant (BoP) equipment, integration services, or complete power solution. Financing options available.

Specification	50 Hz		60 Hz	
	15° C	30° C	15° C	30° C
Electrical power (ISO, dry)	41.0 MW(e)	39.3 MW(e)	44.0 MW(e)	39.6 MW(e)
Electrical efficiency (ISO, dry)	39.0%	38.4%	40.4%	39.5%
Fuel type	Dual (gas & liquid)			
Low emissions option	Water injection			
Low emissions – gas fuel	25 vppm NO _x			
Low emissions – liquid fuel	42 vppm NO _x			
Turbine speed	3,000 rpm		3,600 rpm	
Pressure ratio	27.7 : 1	26.7 : 1	27.9 : 1	25.8 : 1
Exhaust gas flow	127 kg/s	120 kg/s	126 kg/s	116 kg/s
Exhaust gas temperature	477° C	501° C	483° C	498° C

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Subject to changes and errors.
The information given in this document only contains general descriptions and/or performance features which may not always specifically reflect those described, or which may undergo modification in the course of further development of the products.

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.



45-MW class core engine derived from the Industrial Trent 60