ENERGIN® PPT Power Plants

Multi-Engine Power up to 25 MW

R SCHMITT® ENERTEC
Committed to Performance

ENERGIN® PPT are power plants based on the parallel installation of 4-50 Generator Sets type ENERGIN® M12 GEN G500. Thereby a rated power of 2-25 MW is available. The use of this highly standardized Generator Sets offers many advantages over plants with less, but larger engines.

Highly flexible power supply

To adjust the power output, single engines can be stopped, while the others can run at full rating with highest efficiency.

Highest availability

The probability that one single 2 MW engine fails is 1,000,000 times higher than the possibility that four 500 kW engines have a failure at the same time.

Fast and easy installation

The GEN G500 units are fully pre-packaged. Pre-manufactured piping of radiators can be supplied with the units.
The handling can be done even by manual forklifts. Therefore the installation of multiple small engines is faster and cheaper than the installation of large single engines.

Reduced spare parts cost

The spare parts cost per produced kWh, are about 20-40 % less with ENERGIN GEN units compared to large engines of different brands.

Overhaul downtimes

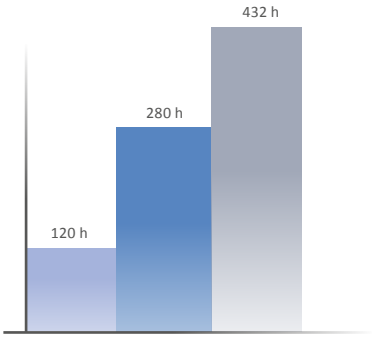
The ENERGIN GEN units are easy to maintain and overhaul with limited demand for special tools. The engine downtime at a minor overhaul is only half compared to large engines.

Space demand

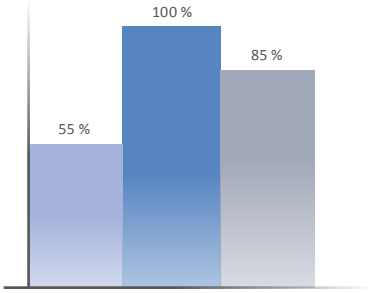
Compared with an installation of 2 MW engines an installation of four 500 kW units needs about 10 % more area but due to the lower height around 20 % less of space. In addition no overhead cranes are needed and no extra foundation is necessary.

Technical Data ENERGIN® M12 GEN G500	
Engine model	M12-GM2D21
Generator model	RSG 355 WL
Voltage / frequency	400 / 50 Hz
Electric power	500 kW
Auxiliary consumption Gen Set with remote radiators	8,35 kW
Gas consumption (LHV)	1.267 kW
Lube oil consumption	0,25 g/kWh
Electric efficiency	39,5 %
Dimensions L x W x H	4,20 x 1,57 x 2,60 m
Space for 25 MW power plant with 50 Gen Set	69 x 15 x 4 m
Operating weight per unit	5,8 t

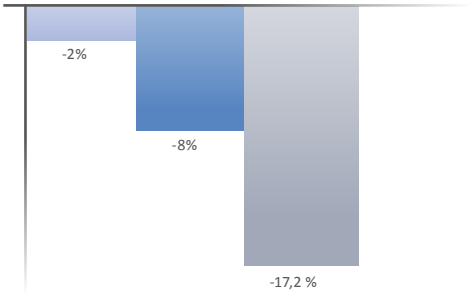
Advantages of multiple engines



Downtime at major overhaul



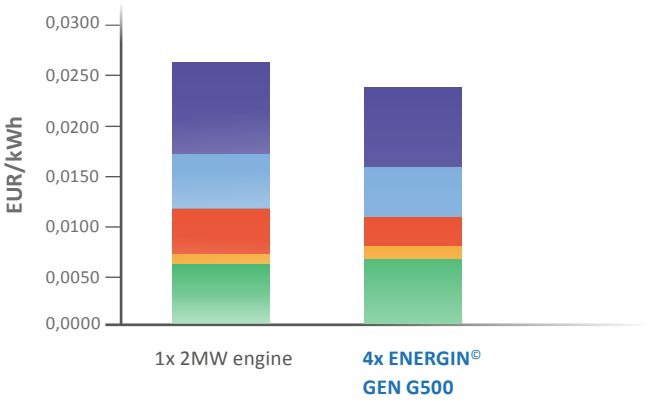
Specific spare parts cost per produced kWh for preventive and corrective maintenance and overhaul



Reduced power output of a 25 MW plant with one engine out of service

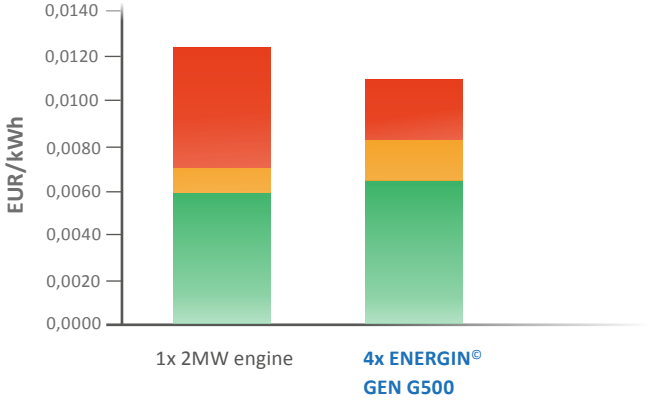
- ENERGIN GEN G500
- 2 MW competitor
- 4,3 MW competitor

Operational and financial cost comparison

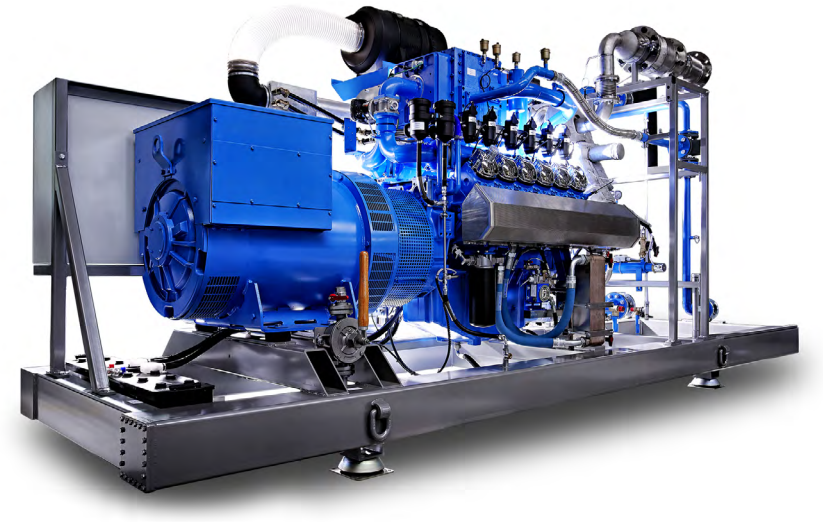


- Interest 8 year loan
- Depreciation over 8 years
- Total spare parts cost
- Lube oil cost
- Gas cost

Operational cost comparison



- Total spare parts cost
- Lube oil cost
- Gas cost



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