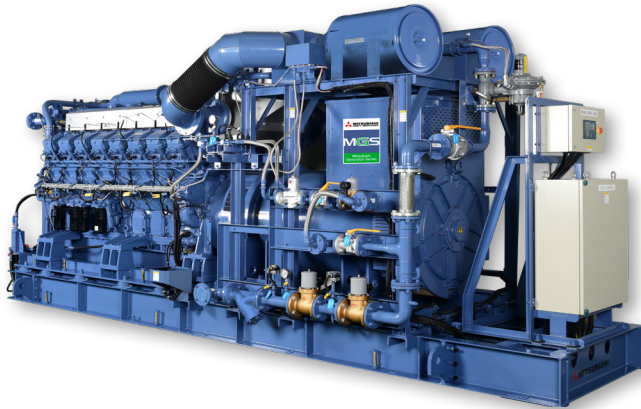


# MGS-G

## mitsubishi GAS GENERATOR SERIES



## PRODUCT PROFILE



### Why are we struggling to reduce CO<sub>2</sub>?

#### Trying to use PV to deal with low carbonization?

Challenge of huge installation area and unstable electric power became a bottleneck, yet the carbon reduction never enough.

#### Building battery banks to bank up power instability?

The investment and running cost is a big concern.

#### Hydrogen and ammonia engine?

Definitely it is a good solution, however It takes time to develop the infrastructure and establish realistic costs to all of us.



ECONOMICAL



RELIABLE



ECO-FRIENDLY



ROBUST  
PERFORMANCE



EASY  
MAINTENANCE

### MGS-G power the low carbon world.

In the fight against climate change, the world needs to reach net-zero emissions at least by 2050. There is no single path to achieve this but many of the technologies pioneered by Mitsubishi Heavy Industries (MHI) Group will play a significant part. These include building greener gas engine generator set, hydrogen generator set with solar, windmill and battery system in EBLOX the near future, and so on. Mitsubishi Generator Set - Gas series (MGS-G) is one of realistic solution to effectively help clients achieve carbon reduction stage by stage until the other renewable energy such as hydrogen engine generator set and their infrastructure has been set up and been widespread used. The creation of MGS-G helps businesses use energy effectively, reduce climate risk and eventually cut total costs for long run to sustain your business – helping all of us move faster towards net zero.

As part of the MHI Group we Mitsubishi Heavy Industries Engine System Asia Pte.Ltd. offers gas generator set which are compatible with both 50Hz and 60Hz, low voltage and high voltage, and support a wide range from 450kW to 5500kW by high and medium speed engine. With the latest engine controller developed by MHI Group, the complex control elements of gas engines, such as air-fuel ratio and ignition timing, can be optimally operated in a stable and highly efficient for the engine. Also, by using original generator control panel, it is easy to operate multiple units in parallel in island and to connect them to the grid. In addition, the system is equipped with a dedicated remote monitoring system developed by MHI Group, which allows real-time monitoring of the engine's operating status in Japan and provides daily support to ensure stable operation. By adopting the lean combustion method in prechamber, it has high combustion stability which gave a feature of the Mitsubishi Engine achieves both reliability and high efficiency performance at a high level.

		50Hz			60Hz	
Genset Model		MGS0500G	MGS1000G	MGS1500G	MGS0450G	MGS1200G
Output	kW	500	1000	1500	450	1200
Engine model		GS6R2-PTK	GS16R2-PTK	GS16R2-PTK	GS6R2-PTK	GS16R2-PTK
Speed	min <sup>-1</sup>	1500	1000	1500	1200	1200
Gen. Eff.	%	40.2	44.0	41.0	42.7	42.7
Hot water	%	19.6	13.5	12.7	20.4	11.7
Exhaust heat	%	21.3	19.6	21.0	20.3	21.5
Total Eff.	%	81.1	77.1	74.7	83.4	75.8
NOx emission at O <sub>2</sub> =0%	ppm	200	200 with de-Nox system	320	200	320
Generation efficiency is based on the following conditions as our standard. (1) Initial performance of the rated load (2) Generator power factor : 0.9 or higher (lagging) (3) Under standard atmospheric according to ISO 3046				(4) Tolerance: +5% (5) Methane number: 80 or higher, fuel gas lower heating value: 36.47 MJ/m <sup>3</sup> (6) Exhaust gas back pressure : 5.0kPa or lower (7) Heat output from exhaust: exhaust cooling to 120° C		

Mitsubishi Heavy Industries Engine System Asia Pte.Ltd. serves for the customers with improved products continually. Therefore specification and some materials will be changed without notice. The International System of units (SI) is used in this publication.

MGS-G\_2021\_11 AG