

# MITSUBISHI GENERATOR SERIES MGS-R SERIES



### **MITSUBISHI GENERATOR SERIES**

Mitsubishi Generator Series are renowned for their reliability, efficiency, and robust performance in providing power solutions for various industries and applications. We are a global leader in engineering and manufacturing, brings its expertise to the design and production of generator sets that deliver consistent and high-quality power supply.

With a strong focus on innovation and advanced technology, Mitsubishi Generator Series are engineered to meet the demanding requirements of diverse sectors, including industrial, commercial, construction, and emergency backup power needs. These generator sets are built to withstand the rigors of continuous operation, ensuring uninterrupted power supply in critical situations. We offer a wide range of power outputs to suit varying needs and applications. From compact models to larger capacity units, they are designed to provide stable and consistent power across different load requirements. Additionally, these generator sets can be customized to meet specific power demands, ensuring optimal performance and efficiency in any given setting.



## **MGS-R SERIES**

One of the key strengths of Mitsubishi Generator Series is the utilization of Mitsubishi Heavy Industries' renowned diesel engines. These engines are designed for superior performance, fuel efficiency, and reduced emissions, ensuring both cost-effectiveness and environmental sustainability. The combination of reliable engines and efficient power generation systems makes Mitsubishi Generator Series a trusted choice for businesses and organizations worldwide.



SPACE SAVING & RELIABLE



DAVR FOR BETTER PERFORMANCE



NFPA 110 COMPLIANT



MITSUBISHI ORIGINAL DESIGN

**EASY** 

**MAINTENANCE** 



ROBUST PERFOMANCE



**QUICK START** 



# DEPENDABILITY & DURABILITY IN POWER GENERATION

Mitsubishi Diesel Generator "MGS-R" Series is designed and built with all top-notch capabilities in one model, the "All-In-One" Series. All MGS-R lineup comprises a power output from 385kVA to 3025kVA. Constructed with well-known and reliable Mitsubishi Engines, Mitsubishi Turbochargers, advanced control systems, and a top-quality brand of alternators, making them remarkably reliable and excellent in performance to supply power during an emergency and acts as a backup for critical operation.



#### **MITSUBISHI DIESEL ENGINE**



The Mitsubishi Diesel Engine is equipped with a range of standard features that exemplify its exceptional quality and performance. At its core, the engine boasts a robust construction and advanced engineering, ensuring durability and reliability in even the most demanding applications. With precision fuel injection systems, the engine delivers optimal fuel efficiency and reduced emissions, contributing to a greener and more sustainable operation. Additionally, integrated cooling systems effectively manage the engine's temperature, ensuring optimal performance in various operating conditions.

#### **CONTROL PANEL**

The Mitsubishi Generator Series standard 7310 features a programmable microprocessor control that serves as an automatic start/stop panel, complete with generator breaker control. This effectively indicates operational status and detects any fault conditions, while the LCD display and LEDs on the front panel promptly indicate engine failure and automatically initiate shutdown. The electrical design meets the standards of BS EN 60950 Low Voltage Directive, BS EN 61006-2, and 61006-4 EMC Directive, and optional interfaces provide real-time diagnostic capabilities.



#### **AC GENERATOR**



#### **Fully Sealed**

3 phase RMS sensing DAVR with built-in protection against sustained over-excitation

#### Voltage regulation:

Less than +/- 0.5% from no load to full load at any power factor between 0.8 lagging and 1.0.

Allowing for a 4% engine speed variation

ISO 8528-3, IEC60034-1 / BS EN60034-1, BS5000 Part 3, VDE0530, NEMA MG1-32, CSA22-2-100, AS1359 and UL1446



Powering the Future with HVO Fuel Compatibility

At Mitsubishi Heavy Industries, we are constantly striving to develop cutting-edge solutions that promote sustainable energy and reduce environmental impact. We are proud to introduce the MGS-R, a revolutionary Mitsubishi Diesel Generator designed with compatibility for HVO (Hydrotreated Vegetable Oil). Powered by HVO fuel, your organization can embrace sustainability, reduce carbon emissions, and contribute to a cleaner and more sustainable future. Experience the power of innovation and eco-consciousness with Mitsubishi Heavy Industries.

SVM	NAME OF RATING	OVERLOAD OPERATION (RACK SET)	DEFINITION	LOAD/ OPERATING HOUR			
				AVG. LOAD FACTOR / 24 HR	AVG. LOAD FACTOR/YR	OPERATING HR/YR	
ESP	Standby	Not Available		1. Maximum 80% 2. 100% in emergency	Maximum 70%	Maximum 500 hours	
СР	Critical Power	Not Available	For continuous operation usage in Data Center	1. Maximum 100%	Maximum 100%	Unlimited	
PRP	Prime	+10% Overload		1. Maximum 80% 2. Overload operation (≤110%) is limited to a maximum of 1 hour per 12 hours 3. Over 90% load operation limited to a maximum of 3 hours/24 hours	Maximum 70%	Unlimited	
DCCP	Data Center Continuous Power	+10% Overload	For continuous operation usage in Data Center	1. Maximum 100% 2. Overload operation (≤110%) is limited to a maximum of 1 hour per 12 hours	Maximum 100%	Unlimited	
СОР	Continuous	Not Available		1. Maximum 100%	Maximum 100%	Unlimited	

- \* Average load factor (per 24Hr or year) shall be calculated as per the formula in ISO 8528-1:2018 'average power output (Ppp)'.
- \* UPTIME compliant: Both CP and DCCP rating meets the requirement of a Tier III and Tier IV data center site with no runtime limitation when the operation is loaded to 'N' demand for the engine generator set.
- \* 10% overload is not recognized by Uptime for Tier Certification. Agreement between manufacturer and customer when use in tier system.
- \* DCCP rating does not have +10% overload defined in ISO 8528-1:2018.

# **SPECIFICATIONS**

50Hz (1500rpm)								
MGS MODEL	ENGINE MODEL	VOLTAGE	OUTPUT (KVA)					
MGS MODEL			ESP CP	PRP DCCP	СОР			
MGS3100R	S16R2-PTAWT-CR	380-415V	3025	2750				
MGS2500R	S16R2-PTA	380-415V	2500	2250	1900			
MGS2300R	S16R-PTA3	380-415V	2250	2050	1745			
MGS2000R	S16R-PTAR	380-415V	2000	1800	1550			
MGS1700R	S12R-PTA3	380-415V	1650	1500	1110			
MGS1500R	S12R-PTAR1	380-415V	1500	1380				
MGS0900R	S6R2-PTA2	380-415V	880	800	680			
MGS0800R	S6R2-PTAR	380-415V	780	700	550			
MGS0700R	S6R-PTAR	380-415V	690	625	500			
MGS0600R	S6A3-PTAA	380-415V	555	555 505				
MGS0500R	S6A3-PTAR	380-415V	505	460	385			

60Hz (1800rpm)							
MGS MODEL	ENGINE MODEL	VOLTAGE	OUTPUT (KW)				
MOS MODEL			ESP	СР	PRP	DCCP	СОР
MGS2500R	S16R-PTA3	380V/480V	2012		1810		
MGS2400R	S16R-PTA3	380V/480V	1900		1730		
MGS2200R	S16R-PTAR	380V/480V	1700		1550		
MGS1900R	S12R-PTA3	380V/480V	1500		1350		
MGS1600R	S12R-PTAR	380V/480V	1270		1150		
MGS1300R	S12R-PTAR1	380V/480V	1000		900		
MGS1100R	S12A2-PTA2	380V/480V	870		790		600
MGS0800R	S6R-PTAR	380V/480V	630		570		
MGS0700R	S6A3-PTAA	380V/480V	465		430		
MGS0600R	S6A3-PTAR	380V/480V	455		410		350

<sup>\*</sup>Please approach our authorized dealer/distributor for other voltage ratings (i.e. Medium/High Voltage) and output rating when using HVO.

ESP: Standby CP: Critical Power PRP: Prime

DCCP: Data Center Continuous Power

COP: Continuous

- $1.\ Generator\ is\ 3\ Phase\ 4\ wire\ (star\ connection),\ Class\ H\ insulation\ and\ temperature\ rise\ 125^{\circ}C\ (DCCP/PRP)/\ 150\ ^{\circ}C\ (CP/ESP).$
- 2. Genset operating conditions is assumed 40 °C ambient temperature and altitude is 1000 meters ASL (Above Sea Level).
- 3. Rated Power factor is 0.8 Lagging.

Mitsubishi Heavy Industries Engine System Asia Pte. Ltd. Serves customers with products that are continually improved. Therefore, specifications and some materials may be changed without notice. The International System of units (SI) is used in this publication. MGS-R.2023.Ver 1.0

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