



# TECHNICAL DATA

## MODEL: KP-M-500

DIESEL GENERATING SET

**KPS POWER VIETNAM**

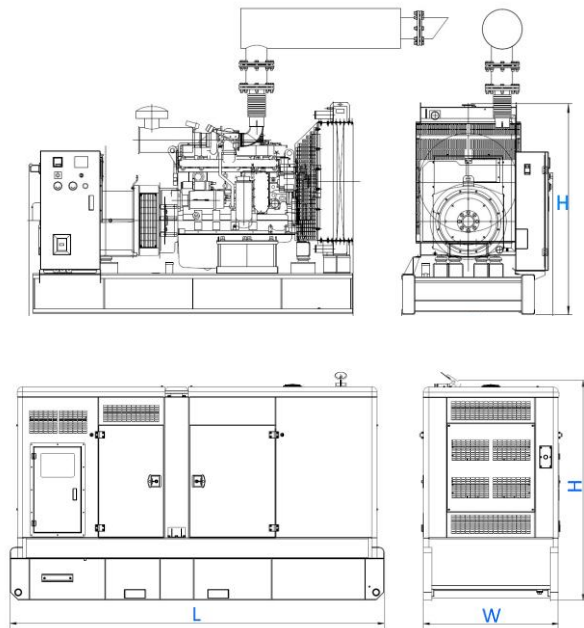
**50HZ**

# KP-M500-OE/KP-M500-SR

## Features

- Compact structure high-strength chassis
- Easy operation and maintenance, Low cost
- Good performance damping system
- Compliance with international electrical safety standards of electrical system
- High-performance maintenance-free batteries with isolation switch
- 50°C radiator
- Top lifting, Forklift bottom hole design, easy to transport
- Industrial type muffler
- Noise reduction structure, Low overall noise
- Convenient power output interface and ATS Interface
- IP56 (control system)
- The personalized design for user
- Structure type genset Optional: Open (KP-M500-OE/ KP-M500-SR)

Reference images, the actual shall prevail



### Genset Technical Data

Output frequency	50 HZ
Rated speed	1500 rpm
Prime power	500KVA
Standby power	550KVA
Rated voltage	400 V
Phase	3
Noise dB(A) @7m	90
Engine model	S6R2-PTA-C
Alternator model	HCI544D
Fuel consumption of 100% load	115 Litres/h
Fuel consumption of 110% load	127 Litres/h
Voltage regulation rate	≤±1%
Random voltage variation	≤±1%
Frequency regulation rate	≤±5%
Random frequency variation	≤±0.5%

### Dimension and Weight

Generating set model	KP-M500-OE	KP-M500-SR
Length(L) (mm)	3800	4600
Width(W) (mm)	1388	1622
Height(H) (mm)	2115	2615
Dry weight (k g)	4700	5800
Tank capacity ( L )	1300	1300

#### Prime Power

This rating is for the supply of continuous electrical power (at variable load). There is no limit on the annual hours of operation and 10% overload power can be supplied for 1 hour in 12.

#### Standby power

This rating is for the supply of continuous electrical power (at variable load) in the event of a utility power failure. No overload is permitted.

#### Rated voltage

Available with customer requirements.

Engine Specifications			
Engine model	S6R2-PTA-C		
Engine manufacturer	MITSUBISHI		
Number of cylinders	6		
Cylinder arrangement	Inline Type		
Cycle	Four stroke		
Aspiration	Turbocharged		
Bore x Stroke (mm x mm)	170×220		
Displacement (Liter)	29.960		
Compression Ratio	14:1		
Prime power/speed (kW/RPM)	575 KW / 1500rpm		
Standby power/speed (kW/RPM)	635 KW / 1500rpm		
Speed governor	Electrical		
Cooling system	Forced Water Cooling Cycle		
Steady speed droop (%)	≤1%		
Total lubrication system capacity (L)	80L		
Coolant capacity (L)	80L		
Fuel consumption at 100% load (g/kWh)	200g/kwh		
Starter motor	DC24V		
Alternator	DC24V		
Alternator Specifications			
Rated frequency	50 Hz		
Rated speed	1500 rpm		
Alternator model	HCI544D (Stamford Assembly in China)		
Rated output prime power	500KVA		
Efficiency (%)	96%		
Phase	3		
Rated voltage	400 V		
Exciter type	Self excited, Brushless		
Power factor	0.8		
Voltage adjust range	≥5.0%		
Voltage regulation NL-FL	≤±1.0%		
Insulation grade	H		
Protection grade	IP23		
Xd DIR. AXIS SYNCHRONOUS	1.50		
X'd DIR. AXIS TRANSIENT	0.15		
X''d DIR. AXIS SUBTRANSIENT	0.10		
Xq QUAD. AXIS REACTANCE	0.72		
X''q QUAD. AXIS SUBTRANSIENT	0.16		
<b>Optional</b>			
Optional Alternator brand	MECC	KPS	
Optional Alternator model	ECO40-3S4A	KP354C	
Exciter type	Self excited	Self excited	
Rated output prime power	500KVA	500KVA	

## Control System

### NSM-160-3110 (Standard)

All KPS Gensets have a control cabinet (the Deepsea control module DSE3110 as standard) mounted on isolated support.

#### Main Features

- Manual and automatic mode
- Parameter configuration via USB interface
- Remote control automatic start/shutdown
- Optional ECU control
- Optional CAN engines
- Optional speed sensor access
- Operating temperature: -30°C to 70°C
- IP56 Rating
- Back-lit icon LCD display
- Power Save mode
- CAN and Magnetic Pick-up/Alt. versions available (specify on ordering)
- PC configurable
- 6 Digital inputs
- 4 Outputs (2 configurable on Magnetic Pick up/Alt., 4 configurable on CAN version)

#### The control module display

- Generator voltage
- Generator frequency
- Battery voltage
- Engine speed
- Load current (Panel Meter)
- Engine run-time Hours
- Engine oil pressure (Panel Meter)
- Engine coolant temperature (Panel Meter)



#### Protecting Functions

- Over frequency / under frequency
- Over voltage / under voltage
- Over speed / under speed
- Over current
- Emergency stop
- Low oil pressure
- High water temperature
- Failure to start / Failure to stop
- Battery charger failure
- Comprehensive shutdown or warning on fault condition

## Control System

### NSM-160-7320 (Optional)

NSM-30-7320 is an advanced control module based on micro-processor, It is an Auto Mains (Utility) Failure Control Module(AMF), have been designed to start and stop generating sets that include electronic And non-electronic engines. Include the additional capability of being able to monitor a mains (utility) supply. when main is not available, It can automatically start the engine and close generating sets breaker automatically, Accurately measure various operational parameters and display all values and alarms information on the LCD. In additional, it can automatically open breaker, and shutdown the engine after the main supply recovers.

#### Main Features

- AMF and ATS and communication and expansion function
- Designed to work with electronic or non-electronic or gas engine simultaneously. (support many kinds of engines ECU).
- Manual, Automatic, Test and remote control mode selectable.
- Monitoring and measuring operational parameters of the mains supply and genset.
- Indicating operation status, fault conditions, all parameters and alarms
- Multiple protections and multiple parameters display.
- Includes 12 inputs and 8 outputs. 8 inputs are configurable and 6 outputs are configurable.
- Can be programmed using the front panel or by using the PC software.
- Support twelve languages. The language was edited by customer.
- Graded protection: pre-alarm, shutdown and electrical trip, flexible setting.
- The module can be pre-set for four operating modes and protecting parameters.
- Add DSE890 module, internet network monitoring can be realized.
- The firmware can be updated automatically, so customer can have the latest version.



#### The control module display

- Generator voltage
- Generator frequency
- Battery voltage
- Engine speed
- Load current
- Generator KVA, KW, PF
- Engine run-time Hours
- Engine oil pressure
- Engine coolant temperature
- Real time clock for time and date, overall runtime

## Optional

### Engine

- Water Jacket Preheater
- Fuel-water separator
- Oil pump
- Oil preheater
- Battery preheater

### Alternator

- PMG excitation
- Space heater
- Winding Temperature Measuring

### Generator Set

- Tools with the machine
- Coolant (-30°C)

### Control System

- AMF function
- ATS control cabinet
- Double-frequency and double voltage
- Single phase
- ABB MCCB

### Fuel System

- 12 / 24 hour base tank (single wall)
- Dual wall base fuel tank
- Outside fuel tank
- Automatic fuel feeding
- Fuel level indicate

### Canopy

- Hired type
- Economy Oil heater
- Trailer

## Contact Us

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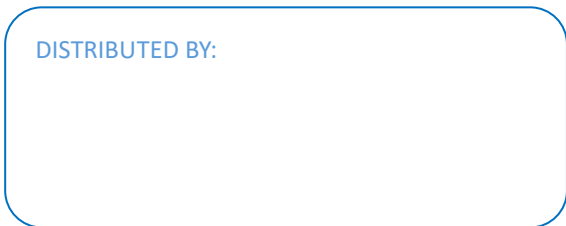
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KPS reserves the right to make changes in model, technical specification, color, configuration and accessories without prior notice. Please contact the salesman before ordering.

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