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# TECHNICAL DATA

DIESEL GENERATING SET

MPMC POWERTECH CORP.

60HZ

MDS Series

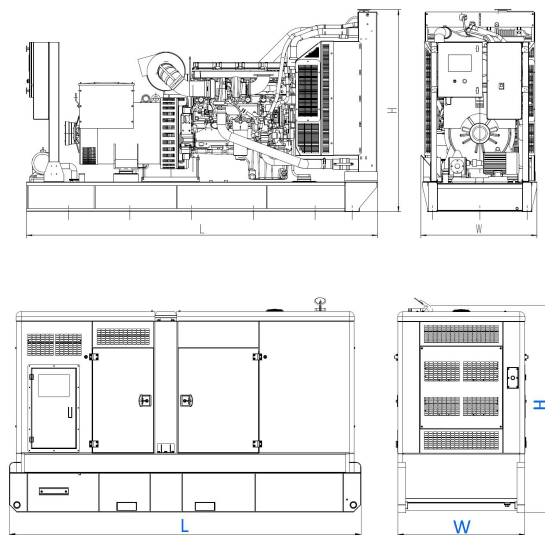
MDSS220S-2 / MDSS220-2

## MDSS220S-2 / MDSS220-2

### Features

- Compact structure with high-strength chassis;
- Easy operation and maintenance, Low cost;
- Excellent performance damping system;
- Compliance with international electrical safety standards of electrical system;
- 6-8 hours base tank;
- High-performance maintenance-free batteries with isolation switch
- Tropical Radiator(DOOSAN Original);
- Top lifting, Forklift bottom hole design, easy to transport;
- Industrial muffler;
- Noise reduction structure, Low noise;
- Convenient power output interface;
- IP56 (control system)
- Customized design for user
- Structure optional: Open (MDSS220-2)  
Sound-proof (MDSS220S-2)

Reference images, the actual shall prevail



### Dimension and Weight

Generating set model	MDSS220S-2	MDSS220-2
Length(L) (mm)	4000	3057
Width(W) (mm)	1330	1045
Height(H) (mm)	2175	1973
Dry weight (k g)	2500	1970
Tank capacity ( L )	647	420

### Genset Technical Data

Output frequency	60 HZ
Rated speed	1800 rpm
Prime power	200KW
Standby power	220 KW
Rated voltage	440 V
Phase	3
Noise dB(A) @7m Soundproof	69dB
Engine model	DP086LA
Alternator model	UCDI 274J
Fuel consumption of 100% load	56.0 Litres/h
Fuel consumption of 75% load	41.5Litres/h
Voltage regulation rate	≤±1%
Random voltage variation	≤±1%
Frequency regulation rate	≤±5%
Random frequency variation	≤±0.5%

Engine Specifications			
Engine model	DP086LA		
Engine manufacturer	DOOSAN (KOREA)		
Number of cylinders	6		
Cylinder arrangement	In-line		
Cycle	Four stroke		
Aspiration	Turbo charged		
Bore x Stroke (mm x mm)	111x 139		
Displacement (Liter)	8.071		
Compression Ratio	16.4:1		
Prime power/speed (NET)	220KW /1800		
Standby power/speed (NET)	245KW /1800		
Speed governor	RSV		
Cooling system	Forced Water Cooling Cycle		
Steady speed droop (%)	≤5%		
Total lubrication system capacity (L)	15.5		
Coolant capacity (L)	14		
Starter motor	DC 24V		
Alternator	AC 24V		
Alternator Specifications			
Alternator model	UCI 274J		
Manufacturer	STAMFORD		
Rated output prime power	240 KW		
Efficiency (%)	92.6%		
Rated speed	1800 RPM		
Rated frequency	60 Hz		
Phase	3		
Rated voltage	440 V		
Exciter type	Self excitation, Brushless		
Power factor	0.8		
Voltage adjust range	≥5%		
Voltage regulation	≤±1%		
Insulation grade	H		
Protection grade	IP23		
Xd DIR. AXIS SYNCHRONOUS	2.367		
X'd DIR. AXIS TRANSIENT	0.190		
X''d DIR. AXIS SUBTRANSIENT	0.075		
Xq QUAD. AXIS REACTANCE	1.633		
X''q QUAD. AXIS SUBTRANSIENT	0.331		
Optional			
Optional Alternator brand	Leroy Somer	MECC ALTE	MPMC
Optional Alternator model	LSA 46.2 M5	ECO38-3SN/4	LYG274G
Exciter type	Self-excited	Self-excited	Self-excited

## Control System

### NSM-3110 (Standard)

All MPMC Gensets have a control cabinet (the Deepsea control module DSE3110 as standard) mounted on gensets with earthing protection.

### 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-7320 (Optional)

NSM-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

### MPMC POWERTECH CORP.

Add: No. 111 Luda Rd., Luyuan Industrial Zone, Pudong Shanghai China

Tel: +86 21 60970158 Fax: +86 21 60970155

E mail : [sales@mpmc-china.com](mailto:sales@mpmc-china.com)

Web site : [www.mpmc-china.com](http://www.mpmc-china.com)



MPMC 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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