

## MODEL: MDS690(S)-1

Powered by Doosan



### Applicable Standards

- ISO 8528-5:2018
- GB/T2820.5-2009
- CE

General Information		Prime power	Standby power
Rated Power (kVA)		690	760
Power Rating (kW)		552	608
Frequency (Hz)		50	
Engine Model		DP222LB	
Engine Speed (RPM)		1500	
Phase		3	
PF		0.8	
Control System		Digital	
Rated voltage (V)		400/230 (According to customer requirements)	
Fuel tank capacity operating time		≥ 8h @ 75% load	
Fuel Consumption (L/h)	110% load	161.8	
	100% load	147.1	
	75% load	110.3	
	50% load	73.6	

### Environmental Conditions

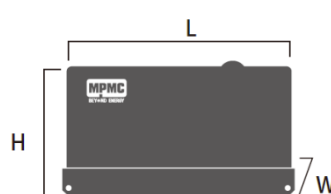
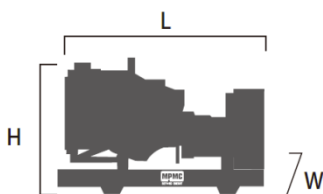
- Ambient temperature: +5°C~+40°C
  - Altitude: ≤1000m
- Remark: If your conditions are different from the above, please contact our sales.

### Factory Inspection

- Complete design and quality inspection
- 0%, 25%, 50%, 75%, 100%, 110% load test.
- Function test.
- Protection test

### Painting Process

- MPMC has the most advanced automatic spraying / powder coating production line, and is equipped with various sandblasting equipment to ensure higher quality.
- Canopy painting: Henkel pretreatment process and world famous brand AkzoNobel powder.
- Base Frame painting: Sandblasting process and AkzoNobel powder (Hempel paint is optional).



### Dimension and Weight

Model	MDS690-1 Open type	MDS690S-1 Silent type
Length (L) mm	3890	5000
Width (W) mm	1650	2022
Height (H) mm	2276	2541
Dry weight (kg)	4330	7640
Tank capacity (L)	/	1500
The loading capacity (40'HC)	3 units	2 units

Note: Specifications and illustrations are subject to revision without notice.



ISO9001:2015  
Quality system certified



ISO14001  
System certification



OHSAS18001  
System certification



CE certificate

## Engine Specifications

Engine model & manufacturer		DP222LB(Doosan)
Emission Certification		—
Number of cylinders		12
Cylinder arrangement		V-type
Cycle		Four stroke
Aspiration		Turbocharger
Bore x Stroke		128 x 142 mm
Displacement		21.927 L
Compression ratio		15:1
Prime power /speed		604 kW/1500 rpm
Standby power /speed		664 kW/1500 rpm
Speed governor		Electric
Cooling system		Forced Water Cooling Cycle
Frequency droop		≤ 5%
Total lubrication system capacity		40 L
Coolant capacity (engine only)		23 L
Fuel consumption	100% load	207 g/kWh @1500 rpm
Starter motor		DC 24V
Charge alternator		DC 24V

- Heavy duty diesel engine
- Anti-vibration mount
- Replaceable fuel filter, oil filter & air filter
- Cooling radiator and fan
- Starter battery (with lead acid) including rack and cables
- Flexible fuel connection hoses
- Exhaust silencer and bellows
- Operation manuals and circuit diagram documents

## Alternator Specifications

Alternator	
Number of phase	3
Power factor (Cos Phi)	0.8
Poles	4
Insulation type	H class
Winding Pitch	2/3
IP rating	IP23
Bearing	Single bearing
Voltage regulator	A.V.R
Coupling	Flexible disc

## Control Panel

### DSE 4520 MKII

Auto start and auto mains failure control module  
(Alternator frequency & can speed sensing)



#### Key benefits

- Ultimate size to feature ratio.
- Automatically transfers between mains (utility) and generator.
- Hours counter provides accurate information for monitoring and maintenance periods.
- User-friendly set-up and button layout for ease of use.
- Multiple parameters are monitored simultaneously which are clearly displayed on the largest back-lit icon display in its class.
- The module can be configured to suit a wide range of applications.
- Compatible with a wide range of CAN engines including Tier 4.
- IP65 rating (with optional gasket) offers increased resistance to water ingress.

#### Key features

- Auto Start and AMF mode in one module.
- J1939-75 support and CAN alarm ignore function.
- Alternator frequency & CAN speed sensing in one variant.
- Largest back-lit icon display in its class.
- Heated display option.
- Real time clock provides accurate event logging.
- Fully configurable via the fascia or PC using USB communication.
- Extremely efficient power save mode.
- 3 phase generator sensing.
- 3 phase mains (utility) sensing
- Compatible with 600 V ph to ph nominal systems.
- Generator/load power monitoring (kW, kVA, kVar, PF).
- Accumulated power monitoring (kWh, kVAh, kVarh).
- Generator overload protection.
- Generator/load current monitoring and protection.
- Fuel and start outputs (configurable when using CAN).
- 4 configurable DC outputs.
- 3 configurable analogue/digital inputs
- 4 configurable digital inputs.
- Configurable staged loading outputs.
- 3 engine maintenance alarms.
- Engine speed protection.
- Engine hours counter.
- Engine pre-heat.
- Engine run-time scheduler.
- Engine idle control for starting & stopping.
- Tier 4 engine instrumentation screens.
- Battery voltage monitoring.
- Start on low battery voltage.
- Configurable remote start input.
- 1 alternative configuration.
- Comprehensive warning, electrical trip or shutdown protection upon fault condition.
- LCD alarm indication.
- Event log (50)

## Options

Engine	Alternator	Fuel System	Generating Set
<input type="checkbox"/> Water Jacket Preheater <input type="checkbox"/> Oil Preheater <input type="checkbox"/> Oil manual pump	<input type="checkbox"/> PMG excitation <input type="checkbox"/> Space heater <input type="checkbox"/> Winding temperature measuring	<input type="checkbox"/> 12 / 24 hour base tank <input type="checkbox"/> Bunded fuel tank <input type="checkbox"/> External fuel tank <input type="checkbox"/> Automatic fuel feeding <input type="checkbox"/> Switch between external tank and base tank (three-way valve)	<input type="checkbox"/> Deepsea, ComAp, Smartgen etc. controller <input type="checkbox"/> Trailer <input type="checkbox"/> Tools with the machine



MPMC USA



MPMC UK



MPMC UAE



MPMC PA



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