



**METS ENERGY** S A L

Model	MP230-S		MP245@6-2-S			
Frequency/Speed - Voltage	50HZ/1500 RPM- 230/400V		60HZ/1800 RPM- 230/400V		60HZ/1800 RPM- 277/480V	
Prime Power	228 KVA	182.4 KW	245 KVA	196 KW	245 KVA	196 KW
Standby Power	250.8 KVA	200.64 KW	269.5 KVA	215.6 KW	269.5 KVA	215.6 KW



Image for illustration purposes only.

## Features

<b>Engine</b>	Perkins ,1306A-E87TAG4 , Made in UK, in accordance to ISO3046 ,ISO8528,DIN6271
<b>Alternator</b>	Stamford UCI274J , Made in UK, complying to the norms: BS EN60034/ BS 5000/ VDE 0530/ NEMA MG 1-32/ IEC 34/ CSA C22.2-100/ AS 1359
<b>Control Panel</b>	Deep sea, M-DCM-317B ,Made in UK, complying to the norms: comply to the norms BS EN 61000, BS EN 60950, BS EN 60068
<b>Base Frame</b>	Black steel with Anti-vibration pads, Built in fuel tank
<b>Sound Proof Canopy</b>	Modular SPC, Powder Coated, Extremely Durable, Designed to Reduce Sound Level with Maximum Service Accessibility and Minimum Foot Prints
<b>Worldwide Support</b>	Mets Energy Products are distributed through its PowerMets International Network For more information kindly check our website <a href="http://www.metsenergy.com">www.metsenergy.com</a>

## Rating Definitions and Conditions

<b>Prime Rating</b>	The power available for an unlimited hour usage with an average load factor of 80% of the published prime power over each 24 hours period. A 10 % overload is available for 1Hr every 12 hours.
<b>Standby Rating</b>	The power limited to 500 hours annual usage with an average load factor of 80% of the published standby power rating over each 24-hour period. Up to 300 hours of annual usage may be run continuously. No overload is permitted on standby power.
	<b>KVA Rating @ 0.8 P.F</b>

Due to continuous product development, we reserve the right to change specifications at any time without prior notice.

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**Engine Perkins, 1306A-E87TAG4, 4 Stroke Cycle, Diesel**

<b>Structure</b>	<b>Number of Cylinders</b>	6		
	<b>Engine Build</b>	In line		
	<b>Bore</b>	116.6 mm		
	<b>Stroke</b>	135.9 mm		
	<b>Displacement</b>	8.7 L		
	<b>Compression Ratio</b>	16.9 /1		
	<b>Aspiration</b>	Turbocharged		
	<b>Cooling</b>	A /A		
<b>Fuel</b>	<b>Fuel Tank</b>	<b>1500 rpm</b> Built in fuel tank 445 for 9 hours operation @ full load	<b>1800 rpm</b> Built in fuel tank 445 L for 8 hours operation @ full load	
	<b>Fuel System</b>	Direct injection		
	<b>Fuel Recommended</b>	N°2 Diesel		
	<b>Fuel System Make (ECM)</b>	-		
		<b>1500 rpm</b>	<b>1800 rpm</b>	
	<b>Delivery Flow Rate (l/hr)</b>	TBA		TBA
	<b>Fuel Consumption</b>	<b>ECM 1300</b>		
	<b>100% Load (g/kWh-L/hr)</b>	201 (48.5)		210 (54.5)
	<b>75% Load (g/kWh-L/hr)</b>	207 (37.5)		208 (40.3)
	<b>50% Load (g/kWh-L/hr)</b>	216 (26.1)		216 (27.9)
<b>Cooling system</b>	<b>Engine Coolant Capacity</b>		37.2L	
	<b>Air Flow-Radiator</b>	6250 l/s	8000 l/s	
	radiator with 50 degree ambient capability Cooling Package & Air Cleaner Kit Thermostatically-controlled system			
<b>Air Inlet</b>	<b>Air Intake Engine</b> (Clean Filter/Dirty)	2.5/ 6.22 Kpa		
<b>Exhaust System</b>	<b>Exhaust Gas Temperature (Prime)</b>	TBA	NA	
	<b>Exhaust Gas Flow (Prime)</b>	TBA	NA	
	<b>Maximum Exhaust System Back Pressure</b>	10.7 kPa	10.7 kPa	
	<b>Muffler</b>	residential (20→25 dB)	industrial(15→25 dB)	
<b>DC System-Starting/Charging</b>	Stainless Steel exhaust flex-fittings			
	<b>Cranking Battery Voltage</b>	24 V		
	<b>Battery Charging Alternator</b>	45 A		
<b>Heat Rejection(prime)</b>	Dc Voltage Monitoring via control panel			
	<b>Radiated Heat to Ambient (Prime)</b>	37 kW	40 kW	
	<b>Heat Rejection to Coolant (Prime)</b>	95 kW	104 kW	
	<b>Heat Rejection to Exhaust (Prime)</b>	116 kW	124 kW	
<b>Lube System</b>	<b>Heat Rejection to intercooler (prime)</b>	31 kW	124 kW	
	<b>Lubricating System Oil Capacity</b>	26.4 L		
<b>Governor</b>	Mechanical			




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**Alternator Stamford, UCI274J**

<b>Structure</b>	<b>Insulation System</b>	Class H	
	<b>Winding Pitch</b>	2/3 to minimize harmonics effects	
	<b>Number of Poles</b>	4	
	<b>Number of Bearings</b>	Single bearing	
	<b>Winding Leads</b>	12	
	<b>Power Factor</b>	0.8	
	<b>Over Speed Capability (% of</b>	2250 Rpm (150%)	
	<b>Wave Form Distortion</b>	No load < 1.5% Non-Distorting balanced linear load < 5.0%	
	<b>Telephone Interference</b>	THF< 2%	
	<b>IP Rating (Protection)</b>	IP23	
	<b>AVR</b>	Self excited	
	Synchronous, 3 phase, Brushless & Self ventilated		
		<b>1500 rpm</b>	<b>1800 rpm</b>
<b>Power Switching</b>	3-P Circuit Breaker, MCCB	350A	400A
<b>Temperature</b>	<b>Temperature Rise</b>	125/40 °C	
<b>Control &amp; Voltage Regulator</b>	<b>Control System (Standard)</b>	Self excited	
	<b>Voltage Regulator (AVR)</b>	SX460 or AS440	
	<b>% Of Voltage Regulation</b>	± 1.0 % ( for SX460 & AS440)	
<b>Motor Starting Capacity@30%</b>	if voltage 230/400V	TBA	
<b>Voltage Dip</b>	if voltage 277/480V	TBA	

**Standard Controller, M-DCM-317D(CAN)**

<b>Control</b>	<ul style="list-style-type: none"> <li>Auto/Start/Stop Control</li> <li>Emergency Stop Pushbutton/ Alarm Acknowledge</li> <li>Engine Cool Down Timer</li> <li>Warm-up Timer</li> <li>Load Switching Timer</li> <li>Engine Cycle Crank</li> </ul>	
<b>Indications</b>	<ul style="list-style-type: none"> <li>Operating Hours</li> <li>3 Phase Generator Voltage Sensing &amp; Monitoring</li> <li>Current Protection &amp; Monitoring</li> <li>Power Measurement (kW, kVA, kVAR, kWh, kVAh, kVArh, pf)</li> <li>Frequency Monitoring (Hz)</li> <li>Oil Pressure/Coolant Temperature/Fuel Level Monitoring</li> <li>Battery Voltage Monitoring (DC)</li> <li>Alarm Acknowledge</li> </ul>	
<b>Warning &amp; Shutdown Alarms</b>	<ul style="list-style-type: none"> <li>Generator Over/Under Voltage &amp; Frequency</li> <li>Crank Disconnect (Failure to Start)</li> <li>Under/Over Speed</li> <li>Over Current</li> <li>Low oil pressure</li> <li>High Water Temperature</li> <li>Low Fuel Level</li> <li>Low Water Level</li> </ul>	
<b>Features</b>	<ul style="list-style-type: none"> <li>IP 65 (if ordered with gasket)</li> <li>Basic Scheduler</li> <li>8-35 VDC Supply</li> <li>Digital Inputs(4)- Outputs(4 MPU/ 6 CAN)</li> <li>Event Log (5 shutdowns)</li> </ul>	

**Optional Accessories**

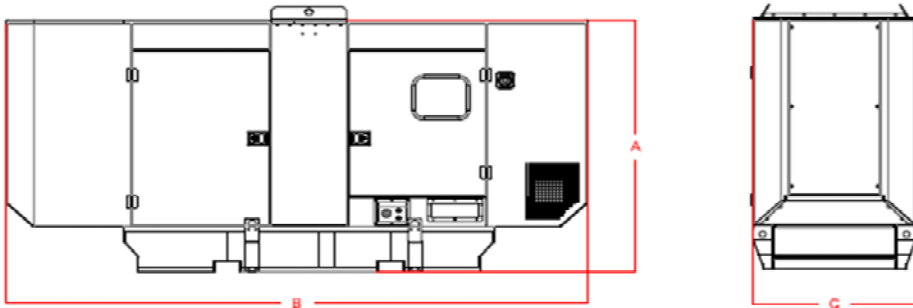
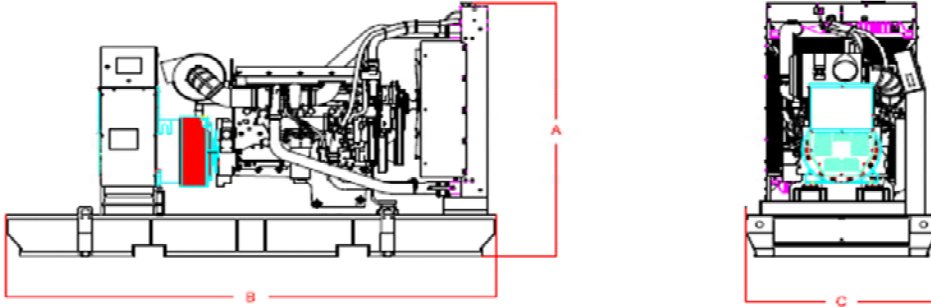
<b>Alternator</b>	<ul style="list-style-type: none"> <li>AVR (3 phase Sensing)</li> <li>Reactive Droop</li> <li>Winding Temperature Detectors</li> <li>Anti- Condensation Heaters</li> <li>Excitation with auxiliary exciter (PMG)</li> </ul>
<b>Power Switching</b>	<ul style="list-style-type: none"> <li>4-P Circuit Breaker</li> <li>Special Brands (ABB- MG- Siemens...)</li> <li>Motorized Operation</li> <li>Shunt Trip</li> <li>Under Voltage Trip UVT</li> <li>Residual Current Protection</li> <li>Ground Fault Protection</li> <li>Earthing Kit</li> <li>Surge Arrestor</li> </ul>

**Optional Accessories** (continues)

	<p>Micro-Diesel Filter for Micro-Particles Filtration Automatic Fuel Refilling System Fuel Water Separator <b>(2000/10)</b> Mechanical Fuel Level Kit Oversize Fuel Tank Upon Custom Requirements Fuel Tanks-Pipes Heater</p>
<b>Engine</b>	<p><b>Fuel</b></p>
	<p><b>Air Inlet</b></p>
	<p><b>Exhaust</b></p>
	<p><b>Cooling / Heating</b></p>
	<p><b>Lube</b></p>
	<p>Mains Battery Charger 24 V DC-5A Battery Charger 10A-20A on Request Automatic Battery Charger on Request Battery Disconnect Switch DC/AC Current Monitoring (Ammeter) Oversize Battery</p>
	<p>DSE 7310/7320/7410/7420-More Inputs &amp; Outputs-Advanced Communications Features; DSE 8610/8710/8810- Load Share Module; Digital &amp; Analogues Inputs Module DSE 2130 (for 7000 Series &amp; Above); Analogue Inputs advanced Module DSE 2131-2133(for 7410 &amp;Above); Digital relay Outputs Module DSE 2157 (for 7000 Series &amp;Above); Analogue Outputs Module DSE 2152 (for 7410 &amp; Above); Local &amp; Remote enunciator Module DSE 2548 (for 7000 Series &amp; Above); Display Modules DSE 2510/2520 (with 7310-7320); Remote Monitoring via: Web Interface (All Series), GSM (for 7000 Series &amp; Above), RS485 (for 7000 Dry Contacts Alarm Indication for Customer Use Audible Alarm (Option for 6010/20; Standard for 7000 Series &amp; Above); Voltage Adjust Potentiometer; Speed Adjust Potentiometer;</p>
<b>Control Panel</b>	

**Dimensions & Weights**

	Length (mm)	Width (mm)	"C"	Height (mm)	Weight Dry
Open set (NB)	2720	1210		1794	1852
SPC Type S	4280	1210		2136	2675



Drawings for illustration purposes only.

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