



**METS ENERGY** S A L

Model	MP13-L		MP15@6-L			
Frequency/Speed - Voltage	50HZ/1500 RPM- 230/400V		60HZ/1800 RPM- 230V/400V		60HZ/1800 RPM- 277V/480V	
Prime Power	12.5 KVA	10 KW	13 KVA	10.4 KW	15 KVA	12 KW
Standby Power	13.75 KVA	11 KW	14.3 KVA	11.44 KW	16.5 KVA	13.2 KW



Image for illustration purposes only.

### Features

<b>Engine</b>	Perkins , 403-15G1 , Made in UK, in accordance to ISO3046 ,ISO8528,DIN6271
<b>Alternator</b>	LeRoySomer ,TAL040C , Made in France, complying to the norms: IEC 60034, NEMA MG 1.22, ISO 8528/3, CSA, UL 1446, UL 1004B
<b>Control Panel</b>	Deep sea, M-DCM-317 ,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.

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

Rev0\_MP13-L,MP15@6-L\_150226



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**Engine Perkins, 403-15G1, 4 Stroke Cycle, Diesel**

Structure	Number of Cylinders	3	
	Engine Build	In line	
	Bore	84 mm	
	Stroke	90 mm	
	Displacement	1.496 L	
	Compression Ratio	22.5/1	
	Aspiration	Natural	
	Cooling	Water cooled	
Fuel	Fuel Tank	<b>1500 RPM</b> Built in fuel tank 27 L for 7 hours operation @ full load	<b>1800 RPM</b> Built in fuel tank 27 L for 7 hours operation @ full load
	Fuel System		Direct injection
	Fuel Recommended		N°2 Diesel
	Fuel System Make (ECM)		-
		<b>1500 rpm</b>	<b>1800 RPM</b>
	Delivery Flow Rate (l/hr)		
	Fuel Consumption		
	100% Load (g/kWh-L/hr)	248(3.7)	TBA
	75% Load (g/kWh-L/hr)	252 (2.8)	TBA
	50% Load (g/kWh-L/hr)	277 (2)	TBA
Cooling system	Engine Coolant Capacity		6L
	Air Flow-Radiator	420 l/s	TBA
	radiator with 50 degree ambient Cooling Package & Air Cleaner Thermostatically-controlled		
	Air Inlet	Air Intake Engine(Clean Filter/Dirty)	3 / 6.4 KPa
Exhaust System	Exhaust Gas Temperature	445 °C	TBA
	Exhaust Gas Flow (Prime)	45.3 l/s	TBA
	Maximum Exhaust System Back Pressure	10.2 kPa	TBA
	Muffler	residential (20→25 dB)	industrial(15→25 dB)
	Stainless Steel exhaust flex-		
DC System-Starting/Charging	Cranking Battery Voltage		12 V
	Battery Charging Alternator		65 A
	Dc Voltage Monitoring via		
Heat Rejection(prime)	Radiated Heat to Ambient	3.2 KW	TBA
	Heat Rejection to Coolant	11.6 KW	TBA
	Heat Rejection to Exhaust	9.3 KW	TBA
	Heat Rejection to intercooler	0	TBA
Lube System	Lubricating System Oil Capacity		6 L
Governor	Mechanical		

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**Alternator, LSA TAL040C**

<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 < 3% - on load < 2%	
	<b>Telephone Interference</b>	TIF< 50	
	<b>IP Rating (Protection)</b>	IP23	
	<b>AVR</b>	SHUNT (12 wire)	
		Synchronous, 3 phase, Brushless & Self ventilated	
		<b>1500</b>	<b>1800</b>
<b>Power Switching</b>	3-P/2-P Circuit Breaker, mcb	20A	20A
<b>Temperature</b>	<b>Temperature Rise</b>	125/40 °C	
<b>Control &amp; Voltage Regulator</b>	<b>Control System (Standard)</b>	SHUNT (12 wire)	
	<b>Voltage Regulator (AVR)</b>	R 220	
	<b>% Of Voltage Regulation</b>	± 0,5 %	
<b>Motor Starting Capacity@30%</b>	if voltage 230/400V	TBA	
<b>Voltage Dip</b>	if voltage 277/480V	TBA	

**Standard Controller, M-DCM-317**

<b>Control</b>	<ul style="list-style-type: none"> <li>Fuel tank monitoring</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, kVAh, 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**

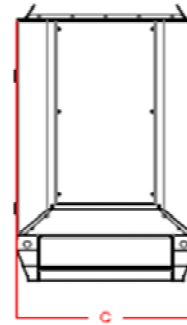
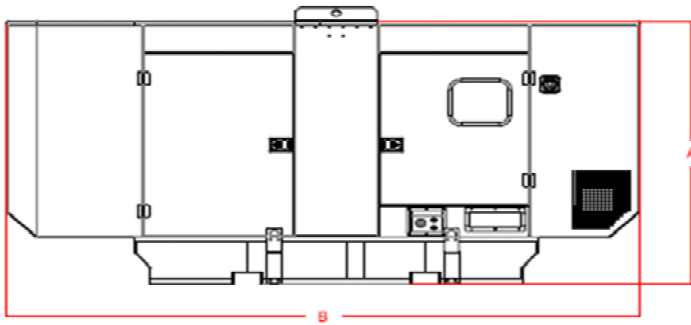
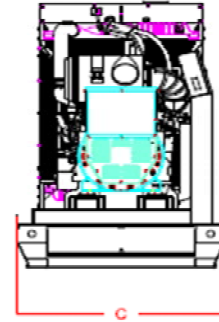
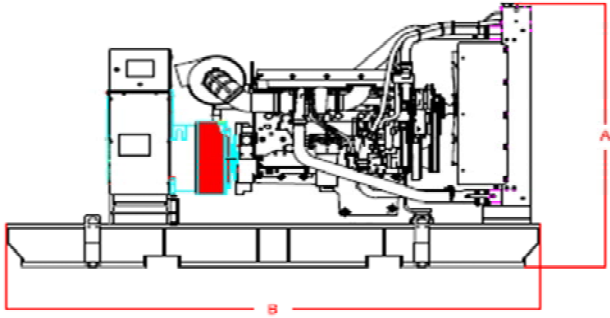
<b>Alternator</b>	<ul style="list-style-type: none"> <li>AVR (3 phase Sensing)</li> <li>Reactive Droop</li> <li>Winding Temperature Detectors</li> <li>Anti- Condensation Heaters</li> <li>Excitation with auxiliary exciter</li> </ul>
<b>Power Switching</b>	<ul style="list-style-type: none"> <li>4-P Circuit Breaker</li> <li>Special Brands (ABB- MG-</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)

<b>Engine</b>	<b>Fuel</b>	Micro-Diesel Filter for Micro-Particles Filtration Automatic Fuel Refilling System Fuel Water Separator <b>(2000/5)</b> Mechanical Fuel Level Kit Oversize Fuel Tank Upon Custom Requirements Fuel Tanks-Pipes Heater Optional Built in fuel tank 62 L operation full load (Height will be increased by 100 mm and weight by	
	<b>Air Inlet</b>	Sy-klone Air Cleaner Installed @ Air Intake System	
	<b>Exhaust</b>	Muffler: Critical (25→30 dB) Hospital (35→40 dB) Elbow, Flanges, Expanders & Y Adaptors	
	<b>Cooling / Heating</b>	Radiator with 35 °C or 60 °C Ambient Capability Jacket Water Heater	
	<b>Lube</b>	Manual Sump Drain Pump Semi-Rotator Hand Pump	
	<b>DC System - Starting/Changing</b>	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	
	<b>Control Panel</b>	DSE 7310/7320/7410/7420-More Inputs & Outputs-Advanced Communications	
		DSE 8610/8710/8810- Load Share Module;	
Digital & Analogues Inputs Module DSE 2130 (for 7000 Series & Above);			
Analogue Inputs advanced Module DSE 2131-2133(for 7410 &Above);			
Digital relay Outputs Module DSE 2157 (for 7000 Series &Above);			
Analogue Outputs Module DSE 2152 (for 7410 & Above);			
Local & Remote enunciator Module DSE 2548 (for 7000 Series & Above);			
Display Modules DSE 2510/2520 (with 7310-7320);			
Remote Monitoring via: Web Interface (All Series), GSM (for 7000 Series & Above),			
Dry Contacts Alarm Indication for Customer Use			
Audible Alarm (Option for 6010/20; Standard for 7000 Series & Above);			
Voltage Adjust Potentiometer;			
Speed Adjust Potentiometer;			

**Dimensions & Weights**

	Length (mm)	Width (mm)	Height (mm)	Weight Dry
<b>Open set (NB)</b>	1500	760	1070	475
<b>SPC Type S</b>	2200	950	1300	750



Drawings for illustration purposes only.

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