



**METS ENERGY** S A L

| Model                     | MP2-250-M                  |        | MP2-295@6-M                |        |                            |          |
|---------------------------|----------------------------|--------|----------------------------|--------|----------------------------|----------|
| Frequency/Speed - Voltage | 50HZ/1500 RPM-<br>230/400V |        | 60HZ/1800 RPM-<br>230/400V |        | 60HZ/1800 RPM-<br>277/480V |          |
| Prime Power               | 250 KVA                    | 200 KW | 270 KVA                    | 216 KW | 295 KVA                    | 236 KW   |
| Standby Power             | 275 KVA                    | 220 KW | 297 KVA                    | 237 KW | 324.5 KVA                  | 259.6 KW |



Image for illustration purposes only.

### Features

|                           |  |
|---------------------------|--|
| <b>Engine</b>             | Perkins ,1506A-E88TAG3, Made in UK, in accordance to ISO3046 ,ISO8528,DIN6271  |
| <b>Alternator</b>         | Meccalte, ECO38 -1LN/4 , Made in UK, complying to the following norms:CEE/ CEI2-3/ EN60034-1/ IEC34-1/ VDE/ BS/ CAN/ CSA   |
| <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<br>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>  |

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Rev0\_MP2-250-M/MP2-295@6-M\_150213

**Engine Perkins, 1506A-E88TAG3, 4 Stroke Cycle, Diesel**

|                                    |   |  |  |
|------------------------------------|---|--|--|
| <b>Structure</b>                   | <b>Number of Cylinders</b>  | 6  |  |
|                                    | <b>Engine Build</b>   | In line  |  |
|                                    | <b>Bore</b>   | 112 mm   |  |
|                                    | <b>Stroke</b>   | 149 mm   |  |
|                                    | <b>Displacement</b>   | 8.8 L  |  |
|                                    | <b>Compression Ratio</b>  | 16.1:1   |  |
|                                    | <b>Aspiration</b>   | Turbocharged   |  |
|                                    | <b>Cooling</b>  | A /A   |  |
| <b>Fuel</b>                        | <b>Fuel Tank</b>  | <b>1500 rpm</b><br>Built in fuel tank<br>445 for 9 hours<br>operation @ full<br>load | <b>1800 rpm</b><br>Built in fuel tank<br>445 L for 8 hours<br>operation @ full<br>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>100% Load (g/kWh-L/hr)</b>   | 199 (56)   | 199 (63)   |
|                                    | <b>75% Load (g/kWh-L/hr)</b>  | 199 (42)   | 199 (48)   |
|                                    | <b>50% Load (g/kWh-L/hr)</b>  | 208 (29)   | 208 (33)   |
| <b>Cooling system</b>              | <b>Engine Coolant Capacity</b>  |  | TBA  |
|                                    | <b>Air Flow-Radiator</b>  | TBA  | TBA  |
|                                    | radiator with 50 degree ambient capability<br>Cooling Package & Air Cleaner Kit<br>Thermostatically-controlled system |  |  |
| <b>Air Inlet</b>                   | <b>Air Intake Engine</b> (Clean Filter/Dirty)   | TBA  |  |
| <b>Exhaust System</b>              | <b>Exhaust Gas Temperature (Prime)</b>  | TBA  | TBA  |
|                                    | <b>Exhaust Gas Flow (Prime)</b>   | TBA  | TBA  |
|                                    | <b>Maximum Exhaust System Back Pressure</b>   | TBA  | TBA  |
|                                    | <b>Muffler</b> residential (20→25 dB) industrial(15→25 dB)<br>Stainless Steel exhaust flex-fittings                   |  |  |
| <b>DC System-Starting/Charging</b> | <b>Cranking Battery Voltage</b>   | TBA  |  |
|                                    | <b>Battery Charging Alternator</b>  | TBA  |  |
|                                    | Dc Voltage Monitoring via control panel   |  |  |
| <b>Heat Rejection(prime)</b>       | <b>Radiated Heat to Ambient (Prime)</b>   | TBA  | TBA  |
|                                    | <b>Heat Rejection to Coolant (Prime)</b>  | TBA  | TBA  |
|                                    | <b>Heat Rejection to Exhaust (Prime)</b>  | TBA  | TBA  |
|                                    | <b>Heat Rejection to intercooler (prime)</b>  | TBA  | TBA  |
| <b>Lube System</b>                 | <b>Lubricating System Oil Capacity</b>  | 41 L   |  |
| <b>Governor</b>                    | Mechanical  |  |  |



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**Alternator Meccalte, ECO38 -1LN/4**

|  |  |  |                 |
|--|--|--|-----------------|
| <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>                                      | 2.3/2 % @ full Load , 2.6/2.6% @ no Load                         |                 |
|  | <b>Telephone Interference</b>                                    | THF< 2%  |                 |
|  | <b>IP Rating (Protection)</b>                                    | IP21(other Protection on request)                                |                 |
| <b>AVR</b>                             | DSR (1-phase sensing/ additional equipment for 3-phase sensing ) |  |                 |
|  | Synchronous, 3 phase, Brushless & Self ventilated                |  |                 |
|  |  | <b>1500 rpm</b>  | <b>1800 rpm</b> |
| <b>Power Switching</b>                 | 3-P Circuit Breaker, MCCB  | 400A   | 630A            |
| <b>Temperature</b>                     | <b>Temperature Rise</b>  | 125/40 °C  |                 |
| <b>Control &amp; Voltage Regulator</b> | <b>Control System (Standard)</b>                                 | MAUX excitation  |                 |
|  | <b>Voltage Regulator (AVR)</b>                                   | DSR (1-phase sensing/ additional equipment for 3-phase sensing ) |                 |
|  | <b>% Of Voltage Regulation</b>                                   | ± 1.0 %  |                 |
| <b>Motor Starting Capacity@30%</b>     | if voltage 230/400V  | TBA  |                 |
| <b>Voltage Dip</b>                     | if voltage 277/480V  | TBA  |                 |

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

|                                      |  |   |
|--------------------------------------|--|---|
| <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, 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)

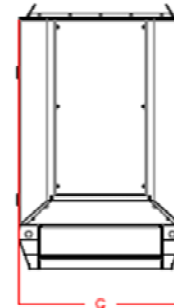
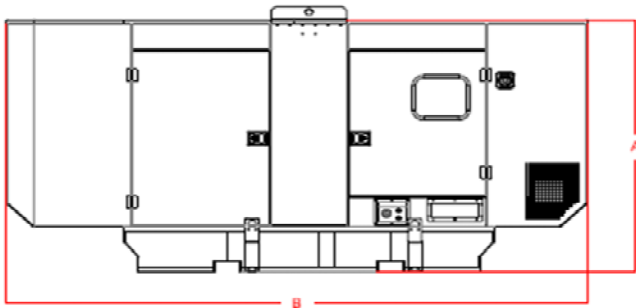
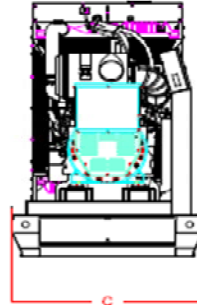
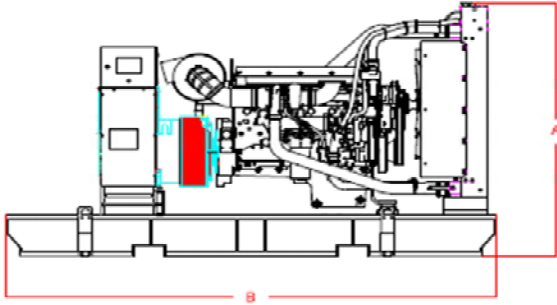
|                      |  |
|----------------------|--|
|                      | <p>Micro-Diesel Filter for Micro-Particles Filtration<br/>Automatic Fuel Refilling System<br/>Fuel Water Separator <b>(2000/10)</b><br/>Mechanical Fuel Level Kit<br/>Oversize Fuel Tank Upon Custom Requirements<br/>Fuel Tanks-Pipes 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><b>DC System - Starting/Changing</b></p>  |
| <b>Control Panel</b> | <p>DSE 7310/7320/7410/7420-More Inputs &amp; Outputs-Advanced Communications Features;<br/>DSE 8610/8710/8810- Load Share Module;<br/>Digital &amp; Analogues Inputs Module DSE 2130 (for 7000 Series &amp; Above);<br/>Analogue Inputs advanced Module DSE 2131-2133(for 7410 &amp;Above);<br/>Digital relay Outputs Module DSE 2157 (for 7000 Series &amp;Above);<br/>Analogue Outputs Module DSE 2152 (for 7410 &amp; Above);<br/>Local &amp; Remote enunciator Module DSE 2548 (for 7000 Series &amp; Above);<br/>Display Modules DSE 2510/2520 (with 7310-7320);<br/>Remote Monitoring via: Web Interface (All Series), GSM (for 7000 Series &amp; Above), RS485 (for 7000<br/>Dry Contacts Alarm Indication for Customer Use<br/>Audible Alarm (Option for 6010/20; Standard for 7000 Series &amp; Above);<br/>Voltage Adjust Potentiometer;<br/>Speed Adjust Potentiometer;</p> |



**METS ENERGY** S.p.A.

### Dimensions & Weights

|               | Length (mm) | Width (mm) | 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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