



METS ENERGY S A L

| Model | MP65-S | | MP77@6-2-S | | | |
|---------------------------|-------------------------|---------|-------------------------|----------|-------------------------|----------|
| Frequency/Speed - Voltage | 50HZ/1500 RPM- 230/400V | | 60HZ/1800 RPM- 230/400V | | 60HZ/1800 RPM- 277/480V | |
| Prime Power | 65 KVA | 52 KW | 77 KVA | 61.5 KW | 77 KVA | 61.5 KW |
| Standby Power | 71.5 KVA | 57.2 KW | 84.7 KVA | 67.76 KW | 84.7 KVA | 67.76 KW |



Image for illustration purposes only.

Features

| | |
|---------------------------|--|
| Engine | Perkins , 1104A-44TG1 , Made in UK, in accordance to ISO3046 ,ISO8528,DIN6271 |
| Alternator | Stamford UC224F , 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 |
| Control Panel | 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 |
| Base Frame | Black steel with Anti-vibration pads, Built in fuel tank |
| Sound Proof Canopy | Modular SPC, Powder Coated, Extremely Durable, Designed to Reduce Sound Level with Maximum Service Accessibility and Minimum Foot Prints |
| Worldwide Support | Mets Energy Products are distributed through its PowerMets International Network For more information kindly check our website www.metsenergy.com |

Rating Definitions and Conditions

| | |
|-----------------------|---|
| Prime Rating | 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. |
| Standby Rating | 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. KVA Rating @ 0.8 P.F |

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

Rev0_MP65-SMP77@6-2-S_150213



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Engine Perkins, 1103A-33TG2, 4 Stroke Cycle, Diesel

| | | | |
|------------------------------------|---|---|--|
| Structure | Number of Cylinders | 4 | |
| | Engine Build | In line | |
| | Bore | 105 mm | |
| | Stroke | 127 mm | |
| | Displacement | 4.4 L | |
| | Compression Ratio | 17.25/1 | |
| | Aspiration | Turbocharged | |
| | Cooling | Water cooled | |
| Fuel | Fuel Tank | 1500 rpm Built in fuel tank 94 L for 6.6 hours operation @ full load | 1800 rpm Built in fuel tank 94 L for 6 hours operation @ full load |
| | Fuel System | Direct injection | |
| | Fuel Recommended | N°2 Diesel | |
| | Fuel System Make (ECM) | - | |
| | | 1500 rpm | 1800 rpm |
| | Delivery Flow Rate (l/hr) | | |
| | Fuel Consumption | | |
| | 100% Load (g/kWh-L/hr) | 208 (14.8) | 211 (17.7) |
| | 75% Load (g/kWh-L/hr) | 209 (11.2) | 214 (13.5) |
| | 50% Load (g/kWh-L/hr) | 224 (8) | 229 (9.6) |
| Cooling system | Engine Coolant Capacity | | 13L |
| | Air Flow-Radiator | 1483.3 l/s | 1850 l/s |
| | radiator with 50 degree ambient capability | | |
| | Cooling Package & Air Cleaner Kit Thermostatically-controlled system | | |
| Air Inlet | Air Intake Engine (Clean Filter/Dirty) | 5/8 kPa | |
| Exhaust System | Exhaust Gas Temperature (Prime) | 515 °C | 505 °C |
| | Exhaust Gas Flow (Prime) | 175 l/s | 225 l/s |
| | Maximum Exhaust System Back Pressure | 10 kPa | 10 kPa |
| | Muffler | residential (20→25 dB) | industrial(15→25 dB) |
| | Stainless Steel exhaust flex-fittings | | |
| DC System-Starting/Charging | Cranking Battery Voltage | 12 V | |
| | Battery Charging Alternator | 65 A | |
| | Dc Voltage Monitoring via control panel | | |
| Heat Rejection(prime) | Radiated Heat to Ambient (Prime) | 10 kW | 12 kW |
| | Heat Rejection to Coolant (Prime) | 37 kW | 43 kW |
| | Heat Rejection to Exhaust (Prime) | 41 kW | 53 kW |
| | Heat Rejection to intercooler (prime) | 0 | None |
| Lube System | Lubricating System Oil Capacity | 8 L | |
| Governor | Mechanical | | |

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Alternator Stamford, UC224F

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| Structure | Insulation System | Class H | |
| | Winding Pitch | 2/3 to minimize harmonics effects | |
| | Number of Poles | 4 | |
| | Number of Bearings | Single bearing | |
| | Winding Leads | 12 | |
| | Power Factor | 0.8 | |
| | Over Speed Capability (% of | 2250 Rpm (150%) | |
| | Wave Form Distortion | No load < 1.5% Non-Distorting balanced linear load < 5.0% | |
| | Telephone Interference | THF< 2% | |
| | IP Rating (Protection) | IP23 | |
| | AVR | Self excited | |
| | | Synchronous, 3 phase, Brushless & Self ventilated | |
| | | 1500 rpm | 1800 rpm |
| Power Switching | 3-P Circuit Breaker, MCCB | 100A | 125A |
| Temperature | Temperature Rise | 125/40 °C | |
| Control & Voltage Regulator | Control System (Standard) | Self excited | |
| | Voltage Regulator (AVR) | SX460 or AS440 | |
| | % Of Voltage Regulation | ± 1.0 % (for SX460 & AS440) | |
| Motor Starting Capacity@30% | if voltage 230/400V | TBA | |
| Voltage Dip | if voltage 277/480V | TBA | |

Standard Controller, M-DCM-317B

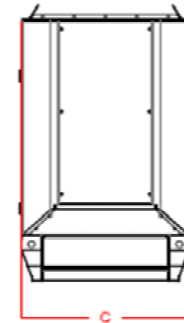
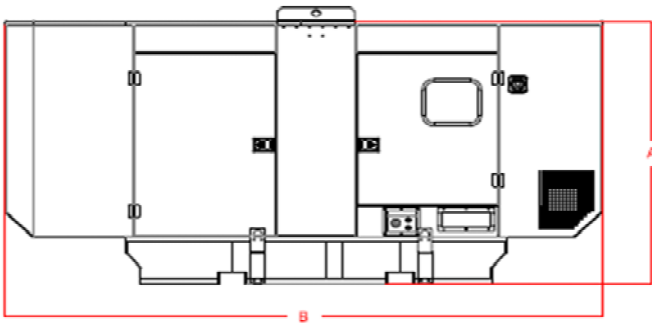
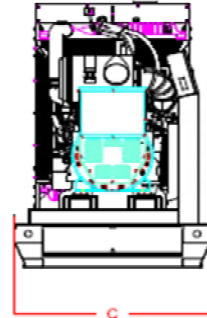
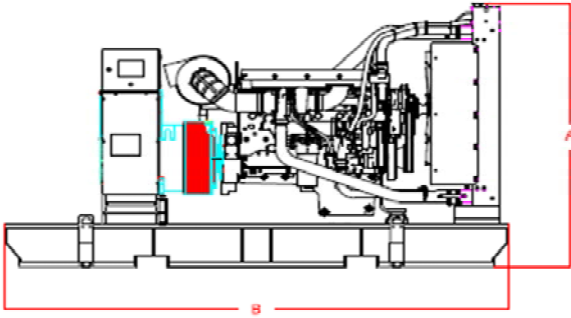
| | | |
|--------------------------------------|--|---|
| Control | Auto/Start/Stop Control Emergency Stop Pushbutton/ Alarm Acknowledge Engine Cool Down Timer Warm-up Timer Load Switching Timer Engine Cycle Crank |  |
| Indications | Operating Hours 3 Phase Generator Voltage Sensing & Monitoring Current Protection & Monitoring Power Measurement (kW, kVA, kVA _r , kWh, kVAh, kVA _r h, pf) Frequency Monitoring (Hz) Oil Pressure/Coolant Temperature/Fuel Level Monitoring Battery Voltage Monitoring (DC) Alarm Acknowledge | |
| Warning & Shutdown Alarms | Generator Over/Under Voltage & Frequency Crank Disconnect (Failure to Start) Under/Over Speed Over Current Low oil pressure High Water Temperature Low Fuel Level Low Water Level | |
| Features | IP 65 (if ordered with gasket) Basic Scheduler 8-35 VDC Supply Digital Inputs(4)- Outputs(4 MPU/ 6 CAN) Event Log (5 shutdowns) | |
| Optional Accessories | | |
| Alternator | AVR (3 phase Sensing) Reactive Droop Winding Temperature Detectors Anti- Condensation Heaters Excitation with auxiliary exciter (PMG) | |
| Power Switching | 4-P Circuit Breaker Special Brands (ABB- MG- Siemens...) Motorized Operation Shunt Trip Under Voltage Trip UVT Residual Current Protection Ground Fault Protection Earthing Kit Surge Arrestor | |

Optional Accessories (continues)

| | | |
|---------------|--------------------------------------|--|
| Engine | Fuel | Micro-Diesel Filter for Micro-Particles Filtration Automatic Fuel Refilling System Fuel Water Separator (2000/5) Mechanical Fuel Level Kit Oversize Fuel Tank Upon Custom Requirements Fuel Tanks-Pipes Heater Optional Built in fuel tank 180 L operation full load (Height will be increased by 100 mm and weight by 20 kg) |
| | Air Inlet | Sy-klone Air Cleaner Installed @ Air Intake System |
| | Exhaust | Muffler: Critical (25→30 dB) Hospital (35→40 dB) Elbow, Flanges, Expanders & Y Adaptors |
| | Cooling / Heating | Radiator with 35 °C or 60 °C Ambient Capability Jacket Water Heater |
| | Lube | Manual Sump Drain Pump Semi-Rotator Hand Pump |
| | DC System - Starting/Changing | 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 |
| | Control Panel | DSE 7310/7320/7410/7420-More Inputs & Outputs-Advanced Communications Features; 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), RS485 (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) | "C" | Height (mm) | Weight Dry |
|----------------------|-------------|------------|------|-------------|------------|
| Open set (NB) | 1700 | 1050 | 1040 | 952 | |
| SPC Type S | 2300 | 1050 | 1300 | 1327 | |



Drawings for illustration purposes only.

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