Model	MP20-S		MP25@6-S			
Frequency/Speed - Voltage	50HZ/1500 RPM-230/400V		60HZ/1800 RPM-230V/400V		60HZ/1800 RPM-227V/480V	
Prime Power	20 KVA	16 KW	21 KVA	16.8 KW	25 KVA	20 KW
Standby Power	23 KVA	18.4 KW	23.1 KVA	18.48 KW	27.5 KVA	22 KW

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Features

Engine	Perkins , 404-22G1 , Made in UK, in accordance to ISO3046 ,ISO8528,DIN6271
Alternator	Stamford PI144D , 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-317 ,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.

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Engine Perkins, 404-22G, 4 Stroke Cycle, Diesel

Structure	**Number of Cylinders**	4	
	Engine Build	In line	
	Bore	84 mm	
	Stroke	100 mm	
	Displacement	2.216 L.	
	Compression Ratio	23.3/1	
	Aspiration	Natural	
	Cooling	Water cooled	
Fuel	**Fuel Tank**	**1500 RPM** Built in fuel tank 27 L for 5 hours operation @ full load	**1800 RPM** Built in fuel tank 27 L for 5 hours operation @ full load
	Fuel System	Direct injection	
	Fuel Recommended	N°2 Diesel	
	Fuel System Make (ECM)	-	
		1500 rpm	**1800 RPM**
	Delivery Flow Rate (lr/hr)		
	Fuel Consumption		
	100% Load (g/kWh-L/hr)	237 (5.3)	233 (6.2)
	75% Load (g/kWh-L/hr)	240 (4.8)	247 (4.8)
	50% Load (g/kWh-L/hr)	258 (2.9)	262 (3.5)
Cooling system	**Engine Coolant Capacity**	7L	
	Air Flow-Radiator	490 l/s	790 L/S
	radiator with 50 degree		
	Cooling Package & Air Cleaner		
	Thermostatically-controled		
Air Inlet	**Air Intake Engine(Clean Filter/Dirty)**	3 / 6.4 KPa	
Exhaust System	**Exhaust Gas Temperature**	445 °C	440 °C
	Exhaust Gas Flow (Prime)	60.6 l/s	72.33 l/s
	Maximum Exhaust System Back Pressure	10.2 kPa	10.2 kPa
	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**	3.5 kW	3.8 KW
	Heat Rejection to Coolant	17 kW	19.9 kW
	Heat Rejection to Exhaust	14 kW	16.6 kW
	Heat Rejection to intercooler	0	None
Lube System	**Lubricating System Oil Capacity**	10.6 L	
Governor	Mechanical		

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Alternator Stamford , PI144D

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	THD(Total Harmonic Distortion)@ No load < 5.0%		
	Telephone Interference	TIF < 2%		
	IP Rating (Protection)	IP23		
	AVR	Excitation with auxiliary coil		
	Synchronous, 3 phase, Brushless & Self ventilated			
			3 phase	**NA**
Power Switching	3-P Circuit Breaker, MCB		32A	32A
Temperature	**Temperature Rise**		125/40 °C	
Control & Voltage Regulator	**Control System (Standard)**	Self excited		
	Voltage Regulator (AVR)	AS480		
	% Of Voltage Regulation	± 1.0 %		
Motor Starting Capacity@30% Voltage Dip		if voltage 230/400V	TBA	
		if voltage 277/480V	TBA	

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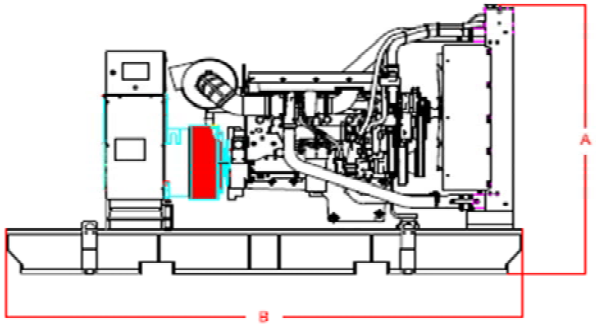
Standard Controller, M-DCM-317	
Control	Auto/Start/Stop Control Emergency Stop Pushbutton/ Alarm Acknowledge Engine Cool Down Timer Warm-up Timer Load Switching Timer Engine Cycle Crank
Indications	Operating Hours 3 Phase Generator Voltage Sensing & Monitoring Current Protection & Monitoring Power Measurement (kW, kVA, kVAr, kWh, kVAh, kVArh, 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 Anti- Condensation Heaters Excitation with auxiliary
Power Switching	4-P Circuit Breaker Special Brands (ABB- MG- Motorized Operation Shunt Trip Under Voltage Trip UVT Residual Current Protection Ground Fault Protection Earthing Kit Surge Arrestor

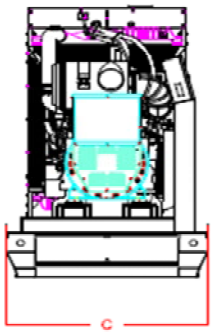
Optional Accessories (continues)

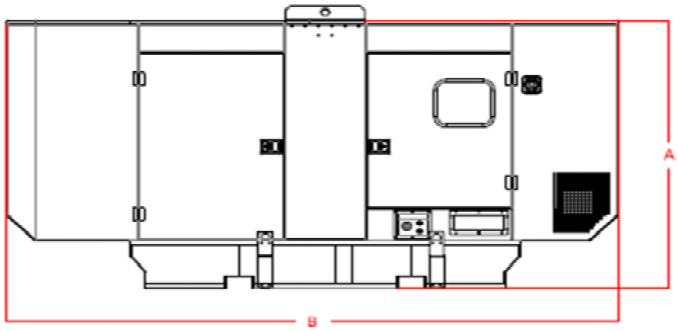
Engine	**Fuel**	Micro-Diesel Filter for Micro-Particles Filtration Automatic Fuel Refilling System Fuel Water Separator **(2000/5)** Mechanical Fuel Level Kit Oversize Fuel Tank Upon Custom Requirements Fuel Tanks-Pipes Heater Optional Built in fuel tank 62 L operation full load (Height will be increased by 100 mm and weight
	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 Disconnector Switch DC/AC Current Monitoring (Ammeter) Oversize Battery
Control Panel	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;	

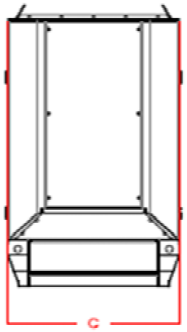
Dimensions & Weights

	Length (mm)	Width (mm)	Height (mm)	Weight Dry
Open set (NB)	1500	760	1070	575
SPC Type S	2200	950	1300	800









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