DEM 450P

DEMMANS
DIESEL GENERATING SET
TECHNICAL SPECIFICATIONS
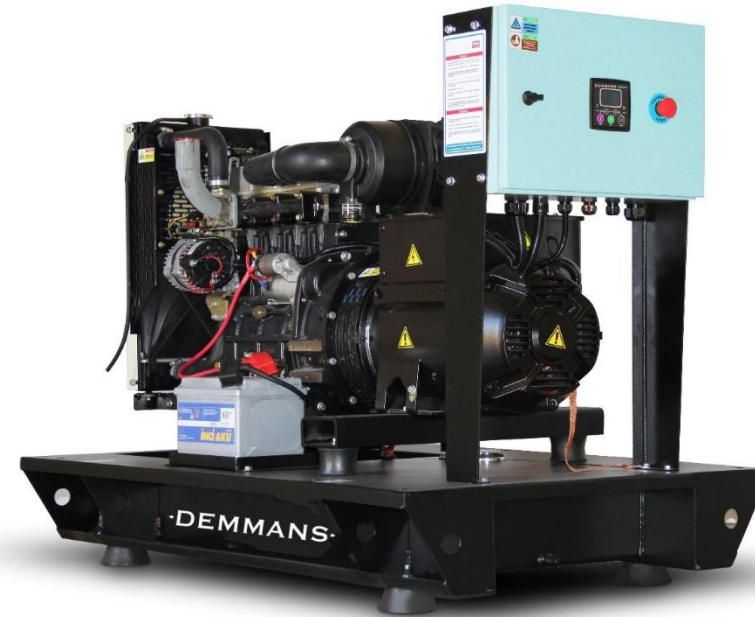
ELECTRICAL

FREQUENCY	VOLTAGE	PRIME	STAND-BY
50 Hz	400/230 V	405 kVA / 324 kW	450 kVA / 360 kW
Rated Speed	1500 RPM		
Phase	3		
Power Factor	0,8		

WEIGHT AND DIMENSIONS

		OPEN	CANOPY
Length	mm	3250	4350
Width	mm	1650	1650
Height	mm	2050	2250
Weight	kg	3170	3950

Prime : This rating is for the supply of continuous electrical power at variable load.
There is no limitation on the annual hours in operation and 10% overload power can be supplied for 1 hour in 12.

Stand-by : This rating is for the supply of continuous electrical power at variable load , in the event of utility power failure. No overload is permitted

ENGINE			
Output Rating	kW		412,5
Manufacturer and Model			Perkins 2206A-E13TAG3
Fuel			Diesel
Injection			Direct
Aspiration			Turbocharged & Intercooled
Cylinders			6
Bore and Stroke	mm		130 x 157
Displacement	lt		12,5
Cooling			Water
Engine Oil Specification			SAE 15W40
Compression Ratio			16,3:1
Engine Oil Capacity	lt		40
Coolant Capacity (incl.radiator)	lt		51,4
Governor			Electrical
Air Filter			Dry element
Fuel Consumption			50 Hz
100 % Load	lt/h		89,0
75 % Load	lt/h		81,0
50 % Load	lt/h		62,0

ALTERNATOR			
Poles			4 pole
Winding Connections			Star
Insulation			Class H
Enclosure			IP23
Exciter System			Self regulating Brushless
Voltage Regulator			AVR
Steady State Voltage Regulation			± 1 %
Bearing			Single bearing sealed
Coupling			Flexible disc
Cooling			Direct drive centrifugal blower fan

EXHAUST SYSTEM		
Maximum Temperature	°C	630
Exhaust Gas Flow	m³/min	72,5
Maximum Allowed Back Pressure	kPA	10
Exhaust Flange Size (Internal Dia.)	mm	123
AIR SYSTEM		
Intake Air Flow	m³/min	26,4
Total Cooling Air Flow	m³/min	654
STARTING SYSTEM		
Starter Motor	kW	7,8
Battery Capacity	Ah	2x105
Auxiliary Voltage	V	24
FUEL SYSTEM		
Diesel Specification		EN590
Fuel Tank Capacity	lt	515

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CONTROL PANEL - DMP500
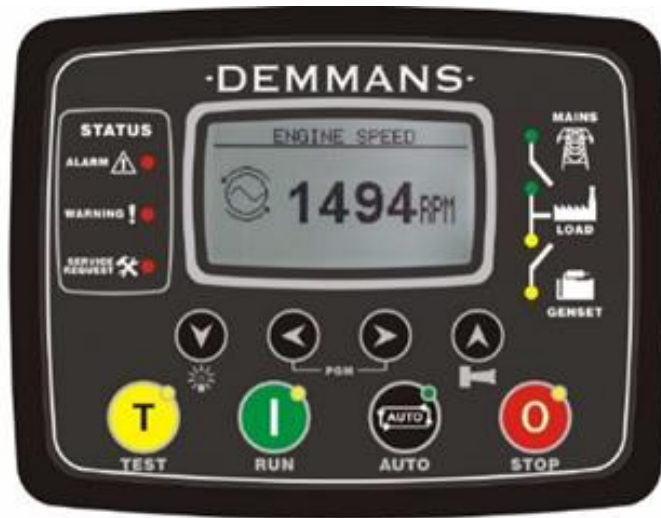
The DMP500 is next generation genset control unit combining multi-functionality and wide communication possibilities together with a reliable and low cost design.

The unit complies and mostly exceeds world's tightest safety, EMC, vibration and environmental standards for the industrial category.

Software features are complete with easy firmware upgrade process through USB port. The Windows based PC software allows monitoring and programming through USB, serial and GPRS.

CONTROL PANEL FEATURES	
Alarm and Shutdown functions	
High Coolant Temperature	Alarm & Shutdown
Low Oil Pressure	Alarm & Shutdown
Battery High / Low Voltage	Alarm
Battery Charger Alternator Failure	Alarm
Overspeed / Underspeed	Alarm & Shutdown
Failure to Start	Alarm & Shutdown
Low Coolant Level	Alarm & Shutdown
Stop Fault	Alarm & Shutdown
Low Fuel Level	Alarm
Service Required	Alarm
Generator High / Low Voltage	Alarm & Shutdown
Generator High / Low Frequency	Alarm & Shutdown
Symmetry between Phases	Alarm & Shutdown
Over Current	Alarm & Shutdown
Recitifer Fail	Alarm
ECU failure	Alarm
Measure and Monitor functions	
Total Run Hour	Coolant Temperature
kW meter - Generator	Oil Pressure
Service Indicator	Fuel Level
Phase to Phase Voltage - Mains	Battery Voltage
Phase to Neutral Voltage - Mains	Engine RPM
Phase to Phase Voltage - Generator	Battery Charge Alternator Voltage
Phase to Neutral Voltage - Gen.	Frequency - Generator & Mains
Phase current - Generator	Power Factor - Generator
Other functions	
Events History	Programmable Timer
External Start Capability	Multi Lingual
Start Restriction Program	Lamp test
Mains Failure Start	Remote Monitoring
Test Run Start (On load & off Load)	Manual Override
Allows SMS controls	Remote Programming
Fuel consumption counter	Magnetic Pick Up Input
Waveform display of voltage & current	Total Harmonic Distortion view
Programmable as an ATS controller	Manual "speed fine adjust" on selected ECUs
Standardized USB port for programming and communication	J1939-CANBUS for electrocially governed engines

GENERATOR FEATURES	STANDARD		OPTIONAL
ENGINE	MANUAL	AUTOMATIC	
Engine	●		X
Cooling Pack	●		X
Tropical Radiator	X		●
Heavy Duty Air Filter	X		●
Electronic Governor	●		X
High Coolant Temperature Sender	●		X
Low Oil Pressure Sender	●		X
Low Coolant Level Sender	●		X
Radiator Guards	●		X
Hot Component Guards	●		X
Manual Oil Drain Pump	X		●
Fuel Prefilter	X		●
Water Jacket Heater	X	●	● (Manual)
Industrial Silencer - Open Set	●		X
Residential Silencer - Open Set	X		●
Residential Silencer - Canopy	●		X
Cold start aid	X		●
Remote Radiator	X		●
Trailer	X		●

GENERATOR FEATURES	STANDARD		OPTIONAL
ENGINE	MANUAL	AUTOMATIC	
ELECTRICS			
Alternator	●		X
Circuit Breaker - 3 poles	X		●
Circuit Breaker - 4 poles	X		●
Battery Isolator	X		●
Earth Fault Protection	X		●
Anti condensation Heater	X		●
Optional Voltages	X		●
Class F insulation	X		●
External Stop Button - Canopy	●		X
GSM SMS message sending on fault	X		●
Battery Charger	X	●	● (Manual)
ATS Panel - 3 Poles	X	●	X
ATS Panel - 4 Poles	X	X	● (Automatic)
Synchronisation Panel	X	X	● (Automatic)
	● - Available X - Not Available		

DEMMANS Generating Sets are CE certified and conform to the following standards ;
- **Power according to ISO 3046 and ISO 8528**
- **EN 12100 , EN 13857 , EN 60204**
- **2006/42/CE Machinery Safety**
- **2006/95/EC Low Voltage**
- **2004/108/CE EMC**
- **Ambient reference conditions 1000 mbar, 25 °C, 30 % relative humidity ISO8528**

All the information in this leaflet is intended for general purposes only.DEMMANS reserves the right to change the specifiacations without notice.