



DEM 110P

DEMMANS
DIESEL GENERATING SET
TECHNICAL SPECIFICATIONS











ELECTRICAL			
FREQUENCY	VOLTAGE	PRIME	STAND-BY
50 Hz	400/230 V	100 kVA / 80kW	110 kVA / 88 kW
Rated Speed		1500 RPM - 50 Hz	
Phase		3	
Power Factor	0.8		

WEIGHT AND DIMENSIONS			
		OPEN	CANOPY
Length	mm	1950	2700
Width	mm	1000	1000
Height	mm	1350	1700
Weight	kg	1070	1320

<u>**Prime**</u>: 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.

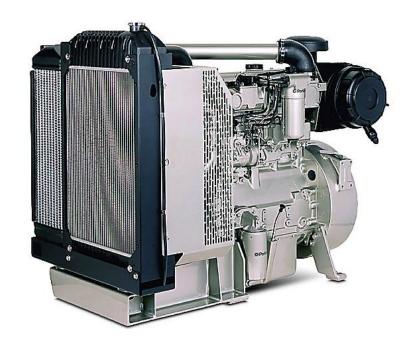
Stand-by: This rating is for the supply of continuous electrical power at variable load, in the event of utility power failure. No overload is permitted





ENGINE			
		50 Hz	
Output Rating	kW	103	
Manufacturer and Model		Perkins 1104C-44TAG2	
Fuel		Di es el	
Injection		Direct	
Aspiration		Turbocharged & Intercooled	
Cylinders		4	
Bore and Stroke	mm	105 x 127	
Displacement	lt	4,4	
Cooling		Water	
Engine Oil Specification		SAE 15W40	
Compression Ratio		18,23:1	
Engine Oil Capacity	lt	8	
Coolant Capacity (incl.radiator)	lt	12,6	
Governor		Electrical	
Air Filter		Dry element	
Fuel Consumption		50 Hz	
100 % Load	lt/h	20,3	
75 % Load	lt/h	15,4	
50 % Load	lt/h	10,6	

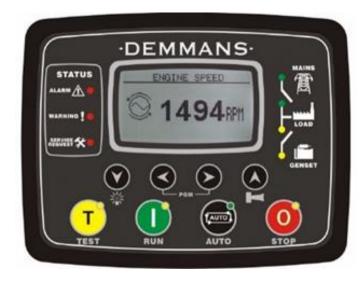
ALTERNATOR	
Poles	4 pole
Winding Connections	Star
Insulation	Class H
Enclosure	IP23
Exciter System	Self regulating Brushless
Voltage Regulator	AVR
Steady State Voltage Regulation	± 1 %
Bearing	Single bearing sealed
Coupling	Flexible disc
Cooling	Direct drive centrifugal blower fan



EXHAUST SYSTEM				
Maximum Temperature	°C	°C 543		
Exhaust Gas Flow	m³/min	16,3		
Maximum Allowed Back Pressure	kPA	15		
Exhaust Flange Size (Internal Dia.)	mm	64		
AIR SYSTEM	AIR SYSTEM			
Intake Air Flow	m³/min	6,27		
Total Cooling Air Flow	m³/min	165,6		
STARTING SYSTEM				
Starter Motor	kW	3		
Battery Capacity	Ah	75		
Auxiliary Voltage	V	12		
FUEL SYSTEM				
Diesel Specification		EN590		
Fuel Tank Capacity	lt	145		



CONTROL PANEL - DMP500



The DMP500 is next generation genset control unit combining multifunctionality 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.

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



GENERATOR FEATURES	STANDARD		OPTIONAL
ENGINE	MANUAL	AUTOMATIC	
Engine		•	X
Cooling Pack		•	X
Tropical Radiator	2	X	•
Heavy Duty Air Filter		X	•
Electronic Governor		•	Χ
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	Χ	•	(Manual)
Industrial Silencer - Open Set		•	Χ
Residential Silencer - Open Set		X	•
Residential Silencer - Canopy		•	X
Cold start aid		X	•
Remote Radiator		X	•
Trailer	2	X	•

GENERATOR FEATURES	STANDARD		OPTIONAL
ENGINE	MANUAL	AUTOMATIC	
ELECTRICS			
Alternator		•	X
Circuit Breaker - 3 poles	>	(•
Circuit Breaker - 4 poles	>	(•
Battery Isolator	Х		•
Earth Fault Protection	Х		•
Anti condensation Heater	Х		•
Optional Voltages	X		•
Class Finsulation	X		•
External Stop Button - Canopy	•		Х
GSM SMS message sending on fault	X		•
Battery Charger	X	•	• (Manual)
ATS Panel - 3 Poles	Х	•	Х
ATS Panel - 4 Poles	Х	Х	• (Automatic)
Synchronisation Panel	Х	Х	• (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 specifications without notice.

DEMMANS

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