



DEM 90P

DEMMANS
DIESEL GENERATING SET
TECHNICAL SPECIFICATIONS











ELECTRICAL			
FREQUENCY	VOLTAGE	PRIME	STAND-BY
50 Hz	400/230 V	80 kVA / 64 kW	88 kVA / 70 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	950	1200

<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



Perkins®

ENGINE			
		50 Hz	
Output Rating	kW	80,7	
Manufacturer and Model		Perkins 1104A-44TG2	
Fuel		Diesel	
Injection		Direct	
Aspiration		Turbocharged	
Cylinders		4	
Bore and Stroke	mm	105 x 127	
Displacement	lt	4,4	
Cooling		Water	
Engine Oil Specification		SAE 15W40	
Compression Ratio		17,25:1	
Engine Oil Capacity	lt	8	
Coolant Capacity (incl.radiator)	lt	13	
Governor		Mechanical	
Air Filter		Dry element	
Fuel Consumption		50 Hz	
100 % Load	lt/h	18,7	
75 % Load	lt/h	14,0	
50 % Load	lt/h	9,7	
ALTERNATOR			

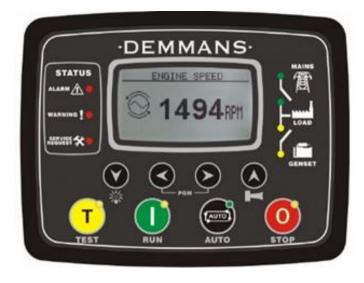
50 % Load	lt/h	9,7	
ALTERNATOR			
Poles		4 pole	
Winding Connections		Star	
Insulation		Class H	
Enclosure		IP23	
Exciter System		Self regulating Brushless	
Voltage Regulator		AVR	
Steady State Voltage Regulation		± 1 %	
Bearing		Single bearing sealed	
Coupling		Flexible disc	
Cooling		Direct drive centrifugal blower fan	



EXHAUST SYSTEM			
Maximum Temperature	°C	580	
Exhaust Gas Flow	m³/min	13,3	
Maximum Allowed Back Pressure	kPA	10	
Exhaust Flange Size (Internal Dia.)	mm	64	
AIR SYSTEM			
Intake Air Flow	m³/min	5,14	
Total Cooling Air Flow	m³/min	89	
STARTING SYSTEM			
Starter Motor	kW	3	
Battery Capacity	Ah	75	
Auxiliary Voltage	V	12	
FUEL SYSTEM			
Diesel Specification		EN590	
Fuel Tank Capacity	It	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.

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	J1939-CANBUS for electrocially governed		
and communication	engines		



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

GENERATOR FEATURES	STANDARD		OPTIONAL
ENGINE	MANUAL	AUTOMATIC	
ELECTRICS			
Alternator		•	X
Circuit Breaker - 3 poles		X	•
Circuit Breaker - 4 poles		X	•
Battery Isolator	Х		•
Earth Fault Protection	Х		•
Anti condensation Heater	Х		•
Optional Voltages	X		•
Class F insulation	X		•
External Stop Button - Canopy	•		Х
GSM SMS message sending on fault	X		•
Battery Charger	Х	•	• (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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