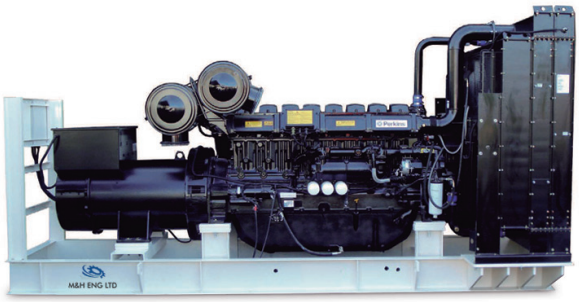
M&H ENG LTD
SPARE PARTS DEPARTMENT

Perkins

IPG1100

GENERATING SET MODEL		
Output Ratings	**Prime**	**Standby**
380-415 V, 3 ph, 50 Hz, 1500 rpm	1125 KVA	1250 KVA
	900 KW	1000 KW

Ratings at 0.8 Power Factor



The set picture may include optional accessories

ENGINE / TECHNICAL DATA		
Engine Make	Perkins	
Engine Model	4008 - 30TAG3	
Governing Type	Electronic	
Number of Cylinders	8	
Cylinder Arrangement	In line	
Bore and Stroke mm	160 x 190	
Displacement / Cubic Capacity litres	30.561	
Induction System	Turbocharged and air to air charge cooled	
Cycle	4 stroke	
Combustion System	Direct Injection	
Compression Ratio	13:1	
Rotation	Anti-clockwise, viewed from flywheel end	
Cooling System	Water - cooled	
Frequency and Engine Speed	**50Hz & 1500rpm**	
	Prime	**Standby**
Gross Engine Power kW (hp)	997 (1336)	1105 (481)
Fuel Consumption @ 50% load L/hr	120	-
@ 75% load L/hr	188	-
@ 100% load L/hr	244	269
Total Lubrication System Capacity litres	153	153
Total Coolant Capacity litres	140	140
Exhaust Temperature: °C	473	482
Radiator Cooling Air Flow (Min): m^3/sec	19	19
Combustion Air Flow: m^3/min	84	96
Exhaust Gas Flow: m^3/min	203	240
Fuel Tank Capacity: litres	N/A	N/A
Boost Pressure Ratio	3.86	4.20

DIMENSIONS AND WEIGHT			
Length cm	**Width** cm	**Height** cm	**Weight*** kg (wet)
535	220	215	7800

* For skid mounted genset without enclosure

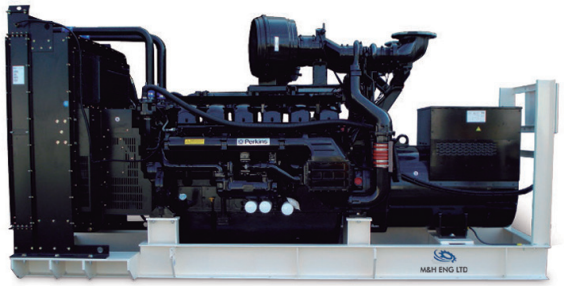
wet weight = with lube oil and coolant

ALTERNATOR DATA	
Make	Leroy Somer
Model	LSA50.2M6
No. of bearings	1
Insulation class	H
Total Harmonic Content	<3.5%
Wires	6
Ingress Protection	IP23
Excitation System	AREP
Winding Pitch	2/3 (n° 6S)
AVR Model	R450
Overspeed	2250 mn^{-1}
Voltage Regulation (steady)	± 0.5%
Short Circuit Capacity	300% (3 In):10s

PMG Excitation System Available as Optional.

LEROY SOMER

IPG1100



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CONTROL PANEL

Make	**Deep Sea**
Model	DSE7320

DSE7320 is an Auto Mains (Utility) Failure Control Module. It is operated via the START, STOP, AUTO and MANUAL soft touch membrane buttons on the front panel. DSE7320 can be controlled remotely using either a GSM Modem, Ethernet via DSE860/865 or via RS485.

Protection:

- Fail to start
- Low oil pressure
- High engine temperature
- U/O Voltage shutdown
- U/O Frequency shutdown
- Underspeed, Overspeed
- Loss of engine speed detection
- High/Low battery voltage
- kW overload
- Unbalanced load
- Low fuel alarm (if fitted)
- Battery charger failure (if fitted)

RATINGS DEFINITION

Prime Power

These ratings are applicable for supplying continuous electrical power (at variable load) in lieu of commercially purchased power. 10% overload power is available for 1 hour in 12 hours continuous operation.

Standby Power

These ratings are applicable for supplying continuous electrical power (at variable load) in the event of a utility power failure. No overload is permitted on these ratings.

STANDARD REFERENCE CONDITIONS

Output ratings are presented at 25°C air inlet temperature, barometric pressure 100 kPa, relative humidity 30%. This generating set is designed to operate at high ambient temperatures (up to 55°C), humidity (up to 99%) and higher altitudes. De-ration may apply, please consult your dealer for specific site ratings.

Some of the specifications are not standard on all Genset models.

AVAILABLE OPTIONS & ACCESSORIES

We offer a range of optional features and accessories to tailor our generating sets to meet your power needs.

OPTIONS

- A variety of generating set control and synchronizing panels
- Additional protection alarms and shutdowns
- Water fuel seperator
- Water jacket heater
- Battery charger

ACCESSORIES

- Genuine spare parts
- Load banks
- Auxiliary fuel tanks
- Manual & automatic transfer switches

STANDARD SPECIFICATIONS

1. ENGINE

Perkins four stroke heavy duty high performance industrial type diesel engine.

2. ENGINE FILTRATION SYSTEM

- Two Cartridge type dry air filters.
- Cartridge type fuel filter.
- Six Full flow lube oil filters.

All filters have replaceable elements.

3. TROPICAL COOLING RADIATOR

Radiator and cooling fan, complete with safety guards, designed to cool the engine at high ambient temperatures (consult your dealer for de-ration factors).

IPG1100

STANDARD SPECIFICATIONS

4. EXHAUST SYSTEM

Heavy duty Industrial Exhaust Silencer.

Silencer noise reduction level	10 (dB)
Maximum allowable back pressure	5.0 (kPa)

5. CIRCUIT BREAKER TYPE

ABB 3 pole ACB (supplied disconnected and without cables)*. (4 pole is optional)

6. FUEL SYSTEM

On Generating Sets up to 700 KVA, the baseframe design is incorporated with an integral fuel tank with a capacity of approx. 8 hours running at Full Load. The tank is supplied complete with fill cap breather, fuel feed and return lines to the Engine and drain plug.

7. ALTERNATOR

7.1 INSULATION SYSTEM

- The insulation system is Class H.
- All windings are impregnated in either a triple dip thermosetting liquid, oil and acid resisting polyester varnish or vacuum pressure impregnated with a special polyester resin.
- Heavy coat of antitracking varnish additional protection against moisture or condensation.

7.2 AUTOMATIC VOLTAGE REGULATOR (AVR)

The fully sealed Automatic Voltage Regulator maintains the Voltage Regulation at ±0.5%. Nominal adjustment by means of a trim pot incorporated on the AVR.

7.3 MOTOR STARTING

An overload capacity equivalent to 300% of the Full Load impedance at zero Power Factor can be sustained for 10 seconds.

8. MOUNTING ARRANGEMENT

8.1 BASE FRAME

The complete Generating Set is mounted as a whole on a heavy duty fabricated steel Baseframe.

8.2 COUPLING

The Engine and Alternator are directly coupled by means of an SAE flange. The Engine flywheel is flexibly coupled to the Alternator rotor.

8.3 ANTI-VIBRATION MOUNTING PADS

Anti-Vibration pads are affixed between the Engine / Alternator feet and the Baseframe thus ensuring complete vibration isolation of the rotating assembly.

8.4 SAFETY GUARDS

The Fan & Fan Drive along with the Battery Charging Alternator are Safety Guard protected for personnel
protection.

9. FACTORY TESTS

- The Generating set is load tested before dispatch
- All protective devices control functions and site load conditions are simulated. The generator and it's systems are checked before dispatch.

10. EQUIPMENT FINISHING

All mild steel components are fully degreased and painted with powder coated paint to ensure maximum scuff resistance and durability.

11. DOCUMENTATIONS

Operation & Maintenance manual, Circuit wiring diagrams and Commissioning / Fault Finding instruction leaflets are accompanied with the Generator.

12. QUALITY STANDARDS

The equipment meets the following standards: BS4999, BS5000, BS5514 IEC 60034, VDE0530, NEMA MG 1.22 and ISO 8528.

13. WARRANTY

All of the Generating Sets are covered under a warranty policy for a period of 12 months. Warranty of the equipment is in line with manufacturers warranty terms & conditions.

DISTRIBUTED AND SERVICED BY:

M&H ENG LTD
SPARE PARTS DEPARTMENT

M&H ENGINEERING LTD

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