



GENERATING SET MODEL (KC2000)

| Output Ratings | Prime | Standby |
|----------------------------------|---------------------|---------------------|
| 380-415 V, 3 ph, 50 Hz, 1500 rpm | 2000 KVA 1600 KW | 2250 KVA 1800 KW |

ENGINE / TECHNICAL DATA

| | | |
|--|--|----------------|
| Engine Make | Perkins | |
| Engine Model | 4016TAG2A | |
| Governing Type | Electronic | |
| Number of Cylinders | 16 | |
| Cylinder Arrangement | 60° Vee | |
| Bore and Stroke mm | 160 x 190 | |
| Displacement / Cubic Capacity litres | 61.123 | |
| Induction System | Turbocharged | |
| Cycle | 4 stroke, compression ignition | |
| Combustion System | Direct Injection | |
| Compression Ratio | 13.6:1 nominal | |
| Rotation | Anti-clockwise, viewed on flywheel end | |
| Cooling System | Water | |
| Frequency and Engine Speed | 50Hz & 1500rpm | |
| | Prime | Standby |
| Gross Engine Power kWb | 1766 | 1937 |
| Fuel Consumption @ 50% load L/hr | 210 | - |
| @ 75% load L/hr | 316 | - |
| @ 100% load L/hr | 434 | 483 |
| Total Lubrication System Capacity litres | 214 | 214 |
| Total Coolant Capacity litres | 316 | 316 |
| Boost Pressure Ratio | 3.49 | 3.80 |
| Exhaust Temperature: °C | 493 | 493 |
| Radiator Cooling Air Flow (Min): m ³ /sec | 40.5 | 40.5 |
| Combustion Air Flow: m ³ /min | 137 | 145 |
| Exhaust Gas Flow: m ³ /min | 387 | 387 |
| Fuel Tank Capacity: litres | N/A | N/A |

DIMENSIONS AND WEIGHT

| Length cm | Width cm | Height cm | Weight* kg (wet) |
|-----------|----------|-----------|------------------|
| 587 | 290 | 355 | 12700 |

* For skid mounted genset with enclosure

wet weight = with lube oil and coolant

STANDARD SPECIFICATIONS

| 1. ENGINE | 2. ENGINE FILTRATION SYSTEM | 3. COOLING RADIATOR | 4. EXHAUST SYSTEM | 5. CIRCUIT BREAKER TYPE | | | | |
|--|--|---|--|--------------------------------|---|---------------------------------|-----------|--|
| Perkins four stroke heavy duty high performance diesel engine industrial type. | <ul style="list-style-type: none"> Two Cartridge type dry air filters. Cartridge type fuel filter. Six Full flow lube oil filters. All filters have replaceable elements. | Radiator and cooling fan, complete with safety guards, designed to cool the engine at high ambient temperatures (consult your dealer for de-ration factors) | Heavy duty Industrial Exhaust Silencer <table border="1" style="margin-top: 10px;"> <tbody> <tr> <td>Silencer noise reduction level</td> <td>-</td> </tr> <tr> <td>Maximum allowable back pressure</td> <td>6.6 (kPa)</td> </tr> </tbody> </table> | Silencer noise reduction level | - | Maximum allowable back pressure | 6.6 (kPa) | ABB 3 pole ACB (supplied disconnected and without or Schneider (4 pole is optional)) |
| Silencer noise reduction level | - | | | | | | | |
| Maximum allowable back pressure | 6.6 (kPa) | | | | | | | |
| | | | | (contd.) | | | | |

ALTERNATOR DATA (Leroy Somer OR Stamford)

| | |
|-----------------------------|-----------------------|
| Make | Leroy Somer |
| Model | LSA51.2M60 |
| 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.

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-rating 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 separator
- Water jacket heater
- Battery charger

ACCESSORIES

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

GET IN TOUCH

Phone Number :

+ 961 (3) 059 995

Fax :

+961 (1) 311 737

Email Address :

support@img-lb.com
houssam@img-lb.com

Address Location :

IMG Bldg. Mazraa Area - Beirut - Lebanon
P.O Box: 14-5311 Beirut - Lebanon



IMG2000

STANDARD SPECIFICATIONS

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 $\pm 0.5\%$. 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, when AREP option is fitted.

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 its 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

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.

(check warranty statement for more details, as it may vary for different countries)

In line with continuous product development, we reserve the right to change specifications without notice.

