



RICH MOTOR COMPANY

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RMC Sells, Builds, & Operates
Power Generators
in Emerging markets



P 600 - 660

Data Sheet

Output Ratings

| | | |
|--------------------|---------------|---------------|
| Voltage, Frequency | Prime | Standby |
| 400V, 50HZ | 600KVA/480KWe | 660KVA/528KWe |
| 220/127, 60 HZ * | 625KVA/500KWe | 687KVA/550KWe |

*Not Applicable for TAL

Ratings and Performance Data

| | | | |
|---------------------------|------------------------|----------|----------|
| Engine Make & Model: | Perkins 2806A-E18TAG1A | | |
| Alternator Make and Model | OPTION A | OPTION B | OPTION C |
| | LSA 47.2 L9 | TAL047 F | - |

| | |
|----------------------------------|-----------------------------------|
| Control Panel | DSE6020MK2 |
| Base Frame | Heavy duty fabricated steel |
| Circuit breaker type | 3Pole MCCB LS-ABB-Schneider 1000A |
| Frequency | 50 OR 60 |
| Engine Speed | 1500 -1800 |
| Fuel Tank Capacity for open type | 600L |

| Exhaust System | 50hz | 60hz |
|----------------------------------|---------------------|------|
| Maximum Allowable Back Pressure: | | |
| kPa | 6.0 kPa | - |
| Exhaust Gas flow | m ³ /min | |
| | Prime | 109 |
| | Standby | 118 |
| Exhaust Gas temperature °C | | |
| | Prime | 481 |
| | Standby | 489 |

Prime Rating

Prime power: Variable load. Unlimited hours usage with an average load factor of 80% of the published prime power over each 24 hour period.

A 10% overload is available for 1 hour in every 12 hours of operation. Standby power: Variable load. Limited to 500 hours annual usage, up to 300 hours of which may be continuous running. No overload is permitted.

Standby Rating

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. The alternator on this model is peak continuous rated (as defined in ISO 8528-3).

Standard Reference Conditions Note:

Standard reference conditions 25°C (77°F) Air Inlet Temp, 100m (328 ft) A.S.L. 30% relative humidity. Fuel consumption data at full load with diesel fuel with specific gravity of 0.85 and conforming to BS2869: 1998, Class A 2 The above ratings represent the engine performance capabilities to conditions specified in ISO 8528/1, ISO 3046/1:1986, BS5514 and DIN 6271

Specification

| | |
|----------------------------|---|
| Number of cylinders | 6 vertical in-line |
| Bore and stroke | 145 x 183 mm 5.7 x 7.2 in |
| Displacement | 18.1 litres 1104 in3 |
| Aspiration | Turbocharged and air-to-air charge cooled |
| Cycle | 4 stroke |
| Combustion system | Indirect injection |
| Compression ratio | 14.5:1 |
| Rotation | Anti-clockwise, viewed on flywheel |
| Total lubricating capacity | 62 litres 16.4 US gal |
| Cooling system | Water cooled |
| Total coolant capacity | 61 litres 16.1 US gal |
| Power Factor | 0.8 |

Technical information

Air inlet

Mounted air filter and turbocharger

Fuel system

Mechanically actuated electronically controlled unit fuel injectors with full authority electronic control

Governing to ISO 8528-5 class G2 with isochronous capability

Replaceable 'Ecoplus' fuel filter elements with primary filter/water separator

Fuel cooler

Lubrication system

Wet full aluminium sump with filler and dipstick

Full-flow replaceable 'Ecoplus' filters /Oil cooler integral with filter header

Cooling system

Thermostatically-controlled system with gear-driven circulation pump and belt-driven pusher fan / Radiator supplied loose incorporating air-to-air charge cooler

-System designed for ambients up to 50°C

Electrical equipment

24 volt starter motor and 24 volt 70 amp alternator with DC output

Oil pressure and coolant temperature switches

12 volt shut-off solenoid energised to run

Electronic Control Module (ECM) mounted on engine with wiring looms and sensors

Flywheel and housing

1500/1800 rev/min

High inertia flywheel to SAE J620 size 14

Aluminium SAE ½ flywheel housing

Mountings

Front and rear engine mounting brackets

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Alternator Physical Data

The LSA 47.2 alternator conforms to the main international standards and regulations:
- IEC 60034, NEMA MG 1.32-33, ISO 8528-3, CSA / UL 1446 (UL 1004 on request), marine regulations, etc.

It can be integrated into a CE marked generator.

The LSA 47.2 is designed, manufactured and marketed in an ISO 9001 and ISO 14001 environment.

| Manufactured By Leroy Somer / linz | Europe | LSA ¹ | TAL ² | LINZ ³ |
|------------------------------------|--|------------------|------------------|-------------------|
| Model | | LSA 47.2 L9 | TAL047 F | - |
| No. of Bearings: | | 1 | 1 | - |
| Insulation Class | | H | H | - |
| Winding Pitch Code: | | 2/3 (wdg 6) | 2/3 (wdg 6S) | - |
| Wires: | | 12 | 6 | - |
| Ingress Protection Rating: | | IP23 | IP23 | - |
| Excitation System: | | SHUNT | SHUNT | - |
| AVR Model: | | R250 | R150 | - |
| Overspeed: rpm | | 2250 min-1 | 2250 min-1 | - |
| Voltage Regulation: (Steady state) | | ± 0.5% | ± 1% | - |
| Wave Form NEMA = TIF: | | < 50 | < 50 | - |
| Wave Form IEC = THF: | | < 2% | < 2% | - |
| Total Harmonic content LL/LN: | | < 2.5% | < 2.5% | - |
| Radio Interference: | R 791 interference suppression conforming to standard EN 61000-6-3, EN 61000-6-2, EN 55011 group 1 class B standard for EU | | | |
| Radiant Heat: kW (Btu/min) | | 29340 | 29340 | - |

| Alternator Performance Data | 50Hz | | 60 HZ |
|--------------------------------|-----------|------|-------|
| | Data Item | 400V | 480V |
| Motor Starting Capability* KVA | 1205 | 1307 | * |
| Short Circuit Capacity** % | * | * | * |
| Reactances: Per Unit | | | |
| Xd | 330 | 344 | |
| X'd | 16.5 | 17.2 | |
| X''d | 11.4 | 11.8 | |

*Reactances shown are applicable to prime ratings. *Based on 30% voltage dip at 0 power factor. Reactances shown are applicable to prime ratings. *Based on 30% voltage dip at 0.0 power factor and SHUNT excitation. **With optional permanent magnet generator or AREP excitation

Emissions

Certified against the requirements of EU 2007 (EU 97/68/EC Stage II) legislation for non-road mobile machinery, powered by constant speed engines.

Generator Set Standards The equipment meets the following standards: BS5000, ISO 8528, ISO 3046, IEC 60034, NEMA MG-1.22. RMC is a fully accredited ISO 9001 company.

Warranty

All prime equipment, limited to 2,000 running hours per year, has a one year manufacturer's warranty. Standby equipment, limited to 500 running hours per year, has a two year manufacturer's warranty. For details on warranty cover please contact Rich Motor, or visit our website: www.richmotor.com

| Fuel consumption | 1500rpm | 1800rpm |
|------------------|---------|---------|
| Standby power | 134L/H | 141L/H |
| Prime power | 123L/H | 127L/H |
| 75% | 90L/H | 95L/H |
| 50% | 61L/H | 66L/H |

Fuel Tank Capacity for open type 600L

Recommended fuel Type and oil Type

Fuel specification: Recommended fuel to conform to BS 2869 1998 CLASS A2 or BSEN590.

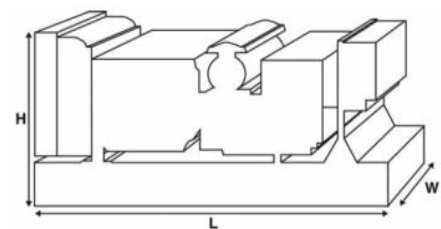
. Lubricating oil: 15W40 to API CG4.

Controller Technical specs

Make And Model **Deep Sea PLC 6020 MK2**
AUTO START AND AUTO MAINS FAILURE CONTROL MODULES

Key Feature:

- Efficient power save mode
- 3 phase generator sensing
- 3 phase mains (utility) sensing
- Generator/load power monitoring (kW, kV A, kV Ar, pf)
- Generator overload protection(kW)
- Generator/load current monitoring and protection
- Breaker control via fascia buttons
- Fuel and start outputs,
- 4 configurable DC outputs
- 4 configurable analogue/digital input
- 6 configurable digital inputs
- Support for 0-10 V & 4-20 mA oil pressure sensors
- Configurable staged loading outputs
- Configurable event log (50)
- LCD and LED alarm indicatio
- Comprehensive warning, electrical trip or shutdown protection upon fault conditio
- Engine speed protection
- Engine hours counter
- Engine pre-heat
- Engine run-time scheduler
- Engine idle control for starting & stopping
- Fuel pump control
- Real time cloc
- Battery voltage monitoring
- 3 engine maintenance alarms
- CAN, MPU and alternator speed sensing in one variant



Dimensions And Weights

| Length (L) | Width (W) | Height (H) in | Weight (Kg) |
|------------|------------|---------------|-------------|
| in mm 3750 | in mm 1540 | mm 2170 | 4760 |

RMC is the most trusted supplier of power and O&M services in UAE and The Middle East. We build, install, and service power solutions tailored to fit any need up to 2MW.





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Sound Proof P-600

Our compact design of the P-600 Kva Normal and Super enclosures ensure optimum performance in the harshest environments. Designed and Fabricated using the latest technology and high-tech equipments, RMC Enclosures are built to Last. Doors & access panels can be Opened 180 degrees to allow easy maintenace and service access. Extremely durable and robust, the enclosures are designed to resist corrosion and handling damage with the ability to withstand rough handling common on many construction sites. through the years RMC Specialist and Engineers have researched and developped the performace , looks and practticality of the enclosure. All our enclosure are weather Proof , corrosion resistant using only galvanized steel sheet, sound absorbant material with rockwool insulation covered with a layer of perforated galavanized steel sheet and a residential exhaust muffler . It offers durability and high sound suppression.

Excellent Access for Maintenance

- * 4 Access Doors for better service space
- * 2 acces doors on the front and back
- * Lube Oil and Coolant drainage valve
- * external fuel filling Gauge with Level indicator

Transportability

- *Central Lifting points ontop of the roof
- *Two Forklift pocket at the bottom of the Base frame facilitating handling

Fuel Tank

- *BuiltIn fuel tank - Extendable*
- *External bulk tank connection provision via ball valve mounted on the side of the enclosure

Optional Equipment :

- Electronic fuel level sensor
- Fuel Leak detector
- Double skin tank
- Manual/Automatic fuel filling pump

* kindly refere to one of our sales team to know more about the extra options

Robust Corrosion Free Enclosure

- *Galvanised steel protected by powder coat paint
- *Black finish stainless steel locks and hinges
- * Zinc plated / stainless steel fasteners

Security and Safety

- *Control panel viewing via large viewing window in lockable enclosure door
- * Emergency stop push button mounted on enclosure exterior & one on the control panel
- *Cooling fan and battery charging alternator fully guarded
- *Fuel fill and battery can only be reached via lockable access doors and gauges
- *Fully enclosed exhaust silencing system for operator safety

| Generator Set Model | | 50Hz | | | | | | 60Hz | | | | | |
|---------------------|---------|----------|-----------|----------|-----------|----------|-----------|----------|-----------|----------|-----------|----------|-----------|
| | | 15m | | 7m | | 1m | | 15m | | 7m | | 1m | |
| | | 75% Load | 100% Load | 75% Load | 100% Load | 75% Load | 100% Load | 75% Load | 100% Load | 75% Load | 100% Load | 75% Load | 100% Load |
| P-600 | Prime | 71.8 | 71.9 | 79.6 | 79.8 | 80.0 | 80.2 | 72.4 | 72.6 | 79.1 | 79.5 | 80.2 | 80.9 |
| | Standby | 71.8 | 71.9 | 79.6 | 79.8 | 80.0 | 80.2 | 72.4 | 72.6 | 79.1 | 79.5 | 80.2 | 80.9 |

Sound Pressure Levels (dBA) Super Silent Enclosure

| Generator Set Model | | 50Hz | | | | | | 60Hz | | | | | |
|---------------------|---------|----------|-----------|----------|-----------|----------|-----------|----------|-----------|----------|-----------|----------|-----------|
| | | 15m | | 7m | | 1m | | 15m | | 7m | | 1m | |
| | | 75% Load | 100% Load | 75% Load | 100% Load | 75% Load | 100% Load | 75% Load | 100% Load | 75% Load | 100% Load | 75% Load | 100% Load |
| P-600 | Prime | 69.2 | 69.5 | 73.9 | 74.2 | 77.2 | 77.6 | 69.5 | 69.8 | 74.2 | 74.6 | 77.2 | 77.8 |
| | Standby | 69.2 | 69.5 | 73.9 | 74.2 | 77.2 | 77.6 | 69.5 | 69.8 | 74.2 | 74.6 | 77.2 | 77.8 |

Dimensions and Weights

| Genset Model | L in mm | W in mm | H in mm | Weight in Kg | Fuel |
|--------------|------------|------------|------------|-----------------|-------|
| Normal | 4840 | 1950 | 2550 | 6700 | 930L |
| Super Silent | 5250 | 1700 | 2625 | 7200 | 1071L |

Images are the property of Rich Motor company FZE

The mentioned data in this sheet are subject to change without prior notice , Due to continuous research and development.



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