



RICH MOTOR COMPANY

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



P 9 - 9.9 Data Sheet

Output Ratings		
Voltage, Frequency	Prime	Standby
400V, 50HZ	9.0KVA/7.2KWe	9.9KVA/7.9KWe
220/127, 60 HZ	11.2KVA/8.96KWe	12.4KVA/9.92KWe

Ratings and Performance Data			
Engine Make & Model:	Perkins 403A-11G or 403D-11G (60hz)		
Alternator Make and Model	OPTION A	OPTION B	OPTION C
	LSA 40VS1	TAL040D	LINZE1X13SC/4

Control Panel	DSE6020MK2	
Base Frame	Heavy duty fabricated steel	
Circuit breaker type	3Pole MCB LS-ABB-Schneider	20A
Frequency	50-60 Hz	
Engine Speed	1500-1800rpm	
Fuel Tank Capacity	60L	
Exhaust System	50hz	60hz
Maximum Allowable Back Pressure:		
kPa (in Hg)	6.5 (1.9)	6.5 (1.9)
Exhaust Gas flow m ³ /min (cfm)		
Prime	2.4 (85)	3.0 (107)
Standby	2.4 (85)	3.0 (107)
Exhaust Gas temperature °C (°F)		
Prime	515 (959)	520 (968)
Standby	515 (959)	520 (968)

Prime Rating

These ratings are applicable for supplying continuous electrical power (at variable load) in lieu of commercially purchased power. There is no limitation to the annual hours of operation and this model can supply 10% overload power for 1 hour in 12 hours.

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

Specification

Number of cylinders	3 vertical in-line	
Bore and stroke	77 x 81 mm	3.0 x 3.2 in
Displacement	1.131 litres	69 in3
Aspiration	Naturally aspirated	
Cycle	4 stroke	
Combustion system	Indirect injection	
Compression ratio	23:01	
Rotation	Anti-clockwise, viewed on flywheel	
Total lubricating capacity	4.9 litres	1.29 US gal
Cooling system	Water cooled	
Total coolant capacity	5.2 litres	1.37 US gal
Power Factor	0.8	
Governor	Mechanical	

Technical information

Air inlet

-Mounted air filter

Fuel system

-Mechanically governed cassette type fuel injection pump

-Split element fuel filter

Lubrication system

Wet steel sump with filler and dipstick

Spin-on full-flow lub oil filter

Cooling system

Thermostatically-controlled system with belt driven coolant pump and pusher fan. Mounted radiator, piping and guards

Electrical equipment

12 volt starter motor and 12 volt 15 amp alternator with DC output

Oil pressure and coolant temperature switches

12 volt shut-off solenoid energised to run

Glow plug cold start aid and heater/starter switch

Flywheel and housing

1500/1800 rev/min

High inertia flywheel to SAE J620 Size 165.1 mm (6½ in) Heavy

Flywheel housing SAE 5 Long

Mountings

Front and rear engine mounting brackets

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Alternator Physical Data

Specially adapted to applications

The LSA 40 alternator is designed to be suitable for typical generator applications, such as: backup, marine applications, rental, telecommunications, etc.

Compliant with international standards

The LSA 40 alternator conforms to the main international standards and regulations:

- IEC 60034, NEMA MG 1.32-33, ISO 8528-3, CSA C22.2 n°100-14, UL 1446 (UL 1004 on request), marine regulations, etc. It can be integrated into a CE marked generator.

The LSA 40 is designed, manufactured and marketed in an ISO 9001 environment and ISO 14001.

Manufactured By Leroy Somer / linz	LSA ¹	TAL ²	LINZ ³
Model	LSA40VS1	TAL040D	E1X13SC/4
No. of Bearings:	1	1	1
Insulation Class	H	H	H
Winding Pitch Code:	2/3 (wdg 6)	2/3 (wdg 6S)	1.43
Wires:	12	6	12

Ingress Protection Rating:	IP23	IP23	IP23
Excitation System:	SHUNT	SHUNT	SHUNT
AVR Model:	R220	R120	HVR11

Alternator Operating Data

Overspeed: rpm	2250 min-1	2250 min-1	2250 min-1
Voltage Regulation: (Steady state)	± 1%	± 1%	± 1%
Wave Form NEMA = TIF:	< 50	< 50	< 50
Wave Form IEC = THF:	< 3%	< 3%	< 3%
Total Harmonic content LL/LN:	< 5%	< 5%	< 5%
Radio Interference:	*	*	*
Radiant Heat: kW (Btu/min)	1610-1880	1610-1880	1610-1880

Alternator Performance Data	50Hz			60 HZ
	Data Item	415/240V	400/230V	380/220V
Motor Starting Capability KVA	14	13	12	13
Short Circuit Capacity %	*	*	*	*
Reactances: Per Unit				
Xd	174	167		
X'd	17.9	17.2		
X''d	16.7	8.6		

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 years manufacturer's warranty. For details on warranty cover please contact Rich Motor , or visit our website: www.richmotor.com.

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.

Fuel consumption	1500rpm	1800rpm
Standby power	3.6L/H	3.6L/H
Prime power	3.0L/H	3.0L/H
75%	2.3L/H	2.3L/H
50%	1.7L/H	1.7L/H

Built-in Fuel Tank Capacity: 60L

Recommended fuel Type and oil Type

Diesel fuel is according to BS2869 Cclass A2 or equivalent Lubricating Oil is according to API CH4 (15W/40)

Controller Technical specs

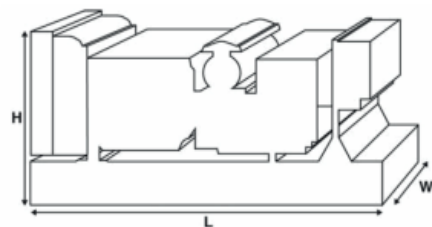
Make And Model **Deep Sea PLC 6020 MK2**

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 For Open Type

Length (L)	Width (W)	Height (H)	Weight (Kg)
in mm	in mm	in mm	
1500	610	990	300





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Sound Proof P9-P-13 P-15 Kva

Our compact design of the P9-P13-P15 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 maintenancance 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 developed the performance , looks and pratcticality 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

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

Transportability

- * Compact Size
- * Central Lifting points on top of the roof
- * Two Forklift pocket at the bottom of the Base frame facilitating handling
- * Towing provision on 4 sides of the skid

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 referre 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

Sound Pressure Levels (dBA) Normal 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	
P9	Prime	57.2	58.6	63.2	64.6	75.4	76.3	59.3	60.1	65.3	66.1	78.1	78.6
	Standby	57.7	59.3	63.7	65.3	75.7	76.7	59.5	60.4	65.5	66.4	78.2	78.8
P13	Prime	57.2	58.6	63.2	64.6	75.4	76.3	59.3	60.1	65.3	66.1	78.1	78.6
	StandBy	57.7	59.3	63.7	65.3	75.7	76.7	59.5	60.4	65.5	66.4	78.2	78.8
P15	Prime	59.8	60.5	65.8	66.5	77.0	77.7	61.9	63.1	67.9	69.1	78.9	79.9
	Standby	60.0	60.8	66.0	66.8	77.2	78.0	62.3	63.6	68.3	69.6	79.2	80.4

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	
P9	Prime	54.1	55.3	56.2	57.0	59.3	60.2	54.1	55.3	56.2	57.0	59.3	60.2
	Standby	54.7	55.9	57.2	57.8	60.1	6.8	54.7	55.9	57.2	57.8	60.1	60.8
P13	Prime	54.1	55.3	56.2	57.0	59.3	6.2	54.1	55.3	56.2	57.0	59.3	60.2
	StandBy	54.7	55.9	57.2	57.8	60.1	6.8	54.7	55.9	57.2	57.8	60.1	60.8
P15	Prime	56.3	56.7	57.1	57.4	59.2	59.2	56.3	56.7	57.1	57.4	59.9	60.4
	Standby	56.3	56.7	57.1	57.4	59.2	59.2	56.3	56.7	57.1	57.4	59.9	60.4

Dimensions and Weights

Genset Model	L in mm	W in mm	H in mm	Weight in Kg	Fuel Tank Capacity in L
Normal	1850	750	1240	550	60L
Super Silent	2000	1000	1280	630	78L

Images are the property of Rich Motor company FZC

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



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