

# **DIESEL GENERATOR SETS**



# **OVERALL SPECIFICATION**

Frequency:	50 Hz
Voltage:	
Engine Speed:	1500RPM
Fuel Tank Capacity:	/ L
Oil Capacity:	177.6L
<ul> <li>Gross Engine Power Output:</li> </ul>	1483HP(1106KW)
<ul> <li>Sound Level (Full Load ):</li> </ul>	75 dB(A) / 7m
Weight: (Open)	
(Canopy)	
• Dime nsion: (Open)5600 x	2200 x 2500 (mm)
(Canopy)12230 x	2438 x 2895 (mm)

# ENGINE

•	Engine Model:	4012-4 <mark>6TWG2A</mark>
•	Number of Cylinders:	
•	Bore x Stroke:	160 x 190 (mm)
•	Displacement:	
•	Aspiration:	Natural
•	Combustion System:	Direct Injection
•	Compression Ratio:	
•	Cooling System:	Water - cooling
•	Lubrication Capacity:	177.6 (Ľ)
•	Coolant Capacity:	
•	Consumption :	211(g/Kw.h)

# ALTERNATOR

<ul> <li>Altenator M</li> </ul>	lodel:	LSA50.2M6
<ul> <li>Voltage Re</li> </ul>	gulation:	+/- 0.5%
<ul> <li>Control System</li> </ul>	stem:	Self Excited
<ul> <li>Windings: .</li> </ul>		Double Layer Lap
<ul> <li>Winding Pit</li> </ul>	tch:	Two Thirds
<ul> <li>Winding Le</li> </ul>	ads:	
<ul> <li>Insulation (</li> </ul>	Class:	Class H
Protection:		IP23
<ul> <li>Altitute:</li> </ul>		≤ 1000 (m)
Bearing:		Single
<ul> <li>Weight:</li> </ul>		

# RP1250E5 / RP1250B5

TEMPERATURE	PRIME	STANDBY
40°C	1000KW	1100KW
40°C	1250KVA	1375KVA

# SAFETY PROTECTION:

- □ Water Temp.
- Oil Pressure
- Emergency Stop Button
- Battery Disconnect
- □ Lockable Voltage Selection
- Generator Output Protection.

# **PERKINS ENGINE**

#### FEATURES

- Genuine PERKINS diesel engine
- Low in fuel consumption
- Low exhaust emissions

# EMISSION

High-tech injection and charging system with low internal losses contributes to excellent combustion and low fuel consumption.

### DURABILITY AND LOW NOISE

Critical parts are designed with high tolerance ratio up to at least 30%, resulting in long lasting and reliable performance under almost all operation conditions. Reduced total number of parts has lead to lower maintenance and operation costs to almost 50%, comparing to some engines with traditional designs.

STARTING SYSTEM

24 VDC negative earthed starter, battery charging alternator.

# FILTERING SYSTEM

Air cleaner with dry element and restriction indicator; spin-on full flow and by-pass lube oil filter and corrosion resistor coolant filter.

# LEROY SOMER ALTERNATOR

# APPLICATIONS

Alternators are designed to be suitable for typical generator applications, such as: backup,standard production, co-generation, rental. telecommunications. etc.



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### STANDARD OF COMPLIANCE

Alternators conform to the main international standards and regulations: IEC60034, NEMA MG1.22, ISO 8528, CSA, CSA/UL, etc.Alternators are designed, manufactured and marketed in an ISO 9001 environment.

### TOP OF THE RANGE ELECTRICAL PERFORMANCE

- Class H insulation
- Standard 12-wire re-connectable winding, 2/3 pitch, type number 6
- High efficiency and motor starting capacity.
- Total harmonic content <2.5%

# CONDITIONS AND DEFINITIONS

### Prime Power Rating:

Prime power rating is applicable for unlimited number of operation hour per year in variable load condition. Variable load should not exceed 70% of Prime Power in average of total operation. A 10% overload is allowed for 1 hour in every 12 hour of consecutive operation.

#### Standby Power Rating:

Continuous running at variable load for emergency power. No overload is allowed. **Sound Level:** 

Sound level is measured at 7 m.



The canopies are made of high quality steel and powder coated. The paint is highly endurable against erosion and scratch, and strstrongly ongly rustproof.







**CONFIGURATION** 

**RLP** offer range of Standard and Optional features to our generator to meet your power needs as following:

RLP

Notes:	means standard	featu	re 🕒	stands optional features	
	4 stroke Water-cooled Diesel Engine		FUEL SYSTEM	Base Fuel Tank	
	Industrial Silencer			Fuel Tank Breather	
ENGINE	Oil Sump Pump	0		External Fuel Fill Access	
	Coolant Heater 220/240 V	0		2/3 Ways Fuel Valbe (Internal / External Supply)	
	Air Filter			Low Level Fuel Switch	
	Permanent Magnet Generator (PMG)			Fuel Level Sender	0
	MX341 AVR		FUEL SYSTEM	Base Fuel Tank	
ALERNATOR	Winding Temperature Sensor	0		Fuel Tank Breather	
	IP23 Single Bearing, Class H insulation			External Fuel Fill Access	
	Anti-condensation heater 220/240V	Q		2/3 Ways Fuel Valbe (Internal / External Supply)	
	Radiator for 40 C Ambient Temp.			Low Level Fuel Switch	
	Low Coolant Level Protection			Fuel Level Sender	Ο
SYSTEM	Engine Driven Cooling Fan			Base Fuel Tank	
	Charge Air Intercooler			Fuel Tank Breather	
	Lockable Battery Isolator			External Fuel Fill Access	
STARTING SYSTEM	Battery Cables			2/3 Ways Fuel Valbe (Internal / External Supply)	
	2x12V Starting Battery			Low Level Fuel Switch	
	Static Battery Charger (220/240V)	0		Fuel Level Sender	Ο
	Battery Charging Alternator			Fuel Level Sender	0
	Jump Start Receptacle	0		Parts Manual	
CONTROL SYSTEM	Deepsea 7310 Controller		DOCUMENTS SYSTEM	Warranty Manual	
	Compact Paralleling Controller	0		CE	
	Communication Card	0		Other	0

# CONTROL SYSTEM CE OD CONTROL SYSTEM



# **Controled by DEEPSEA 7310**



The DSE7310 is an Auto Start Control Module. Monitoring an extensive number of engine parameters, the modules will display warnings, shutdown and engine status information on the back-lit LCD screen, illuminated LEDs, remote PC and via SMS text alerts (with external modem).

The module includs USB, RS232 port as well as dedicated DSENet® terminals for expansion device connectivity.

The module is simple to operate and feature a user-friendly menu layout for improved clarity. Enhanced features include a real time clock for enhanced event and performance monitoring, ethernet communications for low cost monitoring, mutual standby

(DSE7310 only) to reduce engine wear and tear and preventative maintenance features to detect engine part faults prior to a major problem occurring.

# **FEATURES**

- Backed up real time clock
- 132 x 64 pixel LCD display
- Configurable display languages
- Five-key menu navigation Fully configurable via PC software
- LED and LCD alarm indication
- Engine exercise mode
- Configurable start & fuel outputs kWh monitoring
- Automatic load transfer
- Eight configurable digital inputs
- Six configurable outputs
- Configurable timers and alarms
- Modbus RTU
- Magnetic pick-up
- Selected front panel programming Multiple date and time exercise
- scheduler SMS messaging (additional
- external modem required) Power save mode
- User selectable RS232 communications
- DSENet<sup>®</sup> compatible
- Ethernet communications via **DSE860**
- Multiple date and time maintenance scheduler
- Configurable display pages Programmable load
- shedding/acceptance
- Preventative maintenance
- kW overload protection
- Unbalanced load protection
- Flexible sender input
- Configurable SCADA output page True dual mutual standby with load
- balancing timer (DSE7310 only)
- Fan control for additional cooling
- 'Protections Disabled' facility
- Fuel usage monitoring and low
  - fuel alarm Support for up to three remote display units

- Automatic sleep mode
- Easy access, configurable diagnostics page shows summary of output states
- Improved programmable event log (250) showing date and time
- Manual fuel pump control
- 3 alternative configurations
- Multiple date and time scheduler 3 Programmable Maintenance
- alarms with comms alert
- Customisable status screens
- Low fuel level alarm delay
- Charge alternator fail warning and shutdown alarms with user programmable delay
- Independent Earth fault trip Sleep mode
- Load switching (Load shedding
- and dummy load outputs) Manual speed trim (on CAN
- engines that support this feature) Additional display screens to help
- with modem diagnostics Security levels - PC software has password system to control access to PC software features
- Operator configurable virtual LEDs visible in SCADA

# **NEW FEATURES**

- Additional programmable logic
- Improved modem diagnostics •
- Remote control sources (10) can be accessed via SCADA
- Additional electrical trip options
- Additional start delay functions
- Oil pressure values from additional engines
- Front panel editing of scheduler Displays kW as % of rated kW settina

#### **OPERATION**

The module is operated via the START, STOP, AUTO and MANUAL soft touch membrane buttons on the front panel. And the module includes load switch buttons. The main menu system is accessed using the five navigation buttons to the left of the LCD display.

### CONFIGURATION

The module can be configured using the front panel buttons or by using the DSE Configuration Suite PC software and a USB lead.

# **COMMUNICATIONS**

The DSE7310 have a number of different communication capabilities.

# **INPUTS & OUTPUTS**

Analogue inputs are provided for oil pressure, coolant temperature and fuel level. These connect to conventional engine mounted resistive sensor units to provide accurate monitoring and protection facilities. They can also be configured to interface with digital switch type inputs for low oil pressure and high coolant temperature shutdowns. Eight user configurable digitalinputs are also included plus one flexible sender.

Outputs are provided for fuel solenoid, start solenoid and six additional configurable outputs. On these configurable outputs a range of different functions, conditions or alarms can be selected.

# **INSTRUMENTATION**

The module provides advanced metering facilities, displaying the information on the LCD display. The information can be accessed using the five-key menu navigation to the left of the display.

