

Model:70EPTV

190V-440V3P4W

## RPM1500 50Hz

### Rating Range

<b>Emergency:</b>	kW	76
	Kva	95
<b>prime:</b>	kW	70
	Kva	88



## STANDARD FEATURES AND CHARACTERISTICS

### QUALITY STANDARDS

All generators comply with international design and quality standards, such as ISO8528 (GB/T2820-97), ISO3046, BS.EN60034, Bs5000, IEC34-1, Gb755, VDE0530, CSA22-2, AS1359, as well as the requirements of ISO 9001 and ISO14001.

CE certificate for diesel engine and alternator.

Diesel engine and alternator OEM authorization certificate and their quality assurance. Other standards and certifications can be considered on request.

### ASSEMBLY

The engine and alternator are close coupled by means of an SAE flange . A full torsional analysis has been carried out to guarantee no harmful vibration will occur.

Anti-vibration pads are affixed between engine alternator feet and the base frame. Thus ensuring complete vibration isolation of the rotating assemblies and enabling the machine to be placed on an uneven surface without any detrimental effects.

For durability and corrosion resistance, all iron and steel surfaces of canopy fabrications have been treated for coating by grit blast cleaning. Then covered by special three layers painting which provides an excellent corrosion resistant surface.

### CONTROL SYSTEM AND PROTECTIO

Controllers are available for all applications. It contains Deep Sea, Delf, Comap or other famous brands. According to their different functions, the control systems can be specified into key start controller model, automatic start control model and PCRC three remote control systems. See controller features inside.

### WARRANTY

Hangzhou Perfect Total Machinery Co.,Ltd.provides one-source responsibility for the generator set and accessories. Eachgenerator has been got through 1 hour Load test for running 0%,25%,50%,75%,100% and 110% load, all protective devices and control function are simulated and checked before despatch.

Engine and Alternator are guaranteed for a period of 12months from the date of commissioning or 18 months from shipping, whichever occurs first.

Convenience for operation and maintenance, backed by LOVOL global service network.

#### Prime power(P)

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% over-load power for 1 hour in 12 hours.

#### Emergency power(E)

There ratings are applicable for supplying continuous electrical power in the event of a utility power failure, up to a maximum of 200 hours per year. No overload is permitted on these ratings. Exceeding 200 hours operation per year may result in a reduced product life.



# DIESEL ENGINE

## Engine Model 1006TG1A

### BASIC TECHNICAL DATA

Manufacturer Number	LOVOL
of cylinders Cylinder	6
arrangement	Vertical in-line
Cycle	4 stroke
Induction system	Turbo charged
Compressionratio	17.5:1
Bore(mm)	100
Stroke(mm)	127
Cubic capacity(L)	5.99
Estimated total weight(dry)(kg)	710

### GENERAL INSTALLATION

Engine rated speed(rpm)	1500
Gross engine power-prime(kW)	84.3
Gross engine power-Standby(kW)	92.7
Brake mean effective pressure(kPa)	
Mean piston speed(m/s)	6.35
Engine coolant flow(L/min)	
Combustion air flow(m <sup>3</sup> /min)	2150
Exhaust gas flow (max)(m <sup>3</sup> /min)	15.56
Exhaust gas temperature outlet (max)(°C)	545

### LUBRICATION SYSTEM

Lubricating oil capacity	
Maximum sump capacity(L)	19
Total system(L)	16
Minimum(L)	/
Maximum engine operating angles	
-front up/front down/right side or left side	25°
Lubricating oil pressure	300-340
Minimum oil pressure(kPa)	
Normal oil temperature( °C)	105
oil flow at rated speed(L/min)	330

### FUEL SYSTEM

Type of injection	Indirect injection
Fuel injection pump	CASSETTE pump
Nozzle opening pressure(MPa)	95
Maximum particle size	25 microns

### FUEL LIFT PUMP

Type	Merchanical
Flow/hour(L/h)	55
Pressure(kPa)	9
Maximum suction head(m)	108
Maximum static pressure head(m)	3
Governor type	Merchanical

### FUEL CONSUMPTION

Power rating	
Standby power(L/h)	19.5
100% prime power(L/h)	18.2
75% prime power(L/h)	13.5
50% prime power(L/h)	9.3

### EXHAUST SYSTEM

Maximum back pressure(kPa)	6
Exhaust outlet size-horizontal/vertical(mm)	35/41

### COOLING SYSTEM

Radiator	
Face area	33.27
Rows and materials(m <sup>2</sup> )	2 rows, Aluminium
Matrix density and material	14.5 FPI Aluminium
Pressure cap setting(kPa)	75
Fan	
Diameter(mm)	
Drive ratio	508
Number of blades	10
Material	Plastic
Type	Pusher

### Coolant

Total system capacity(with radiator)(L)	27.7
Maximum top tank temperature(°C)	103
Max static pressure head on pump(kPa)	35
Thermostat operation range(°C)	82-88

### ELECTRICAL SYSTEM

Alternator	12/24v
Starter motor	12/24v

### NOTE:

All data is based on:

- 1.Engine operating with fuel system, water pump, lubricating oil pump, air cleaner and exhaust silencer; not included are battery charging alternator, fan, and optional driven components.
  - 2.Engine operating with fuel corresponding to grade No.2-D per ASTM D975.
  - 3.ISO3046, Part 1, Standard Reference Conditions of:  
Barometric Pressure: 100kPa (29.53 inHg)  
Air Temperature: 25(77°F)  
Altitude: 110m (361 ft)  
Relative Humidity: 30% Air Intake Restriction: 254mmHO (10 in H<sub>2</sub>O)  
Exhaust Restriction: 51mmHg (2 in Hg)
- N/A: Not Available  
TBD: To Be Determined CP: Continuous power FSP: Fuel stop power

Altitude: Derate 2.0% per 300m(984 ft.) elevation above 1000m(3279 ft.) up to a maximum elevation of 2450m(8000 ft.).

More than 2450m(8000ft), please contact with us or our dealer seek the help.

Temperature: Derate 6.0% per 11 °C(20°F) temperature above 40°C(104°F).

# ALTERNATOR

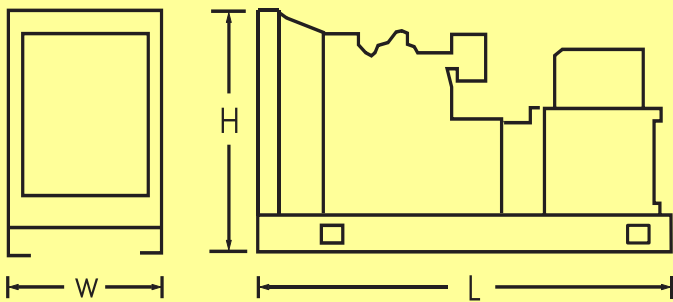
	LEROY SOMER	STAMFORD
Alternator Model	LSA44.2VS3	UCI224G
FrequencyandSpeed	50Hz/1500rpm	50Hz/1500rpm
Voltage(V)	400/230	400/230
Primecapacity(kVA)	90	85
Primepower(kW)	72	68
Powerefficiency(%)	91.4	90.2
Inputpower(kW)	78.8	75.4
Voltageregulation	0.5%	1.0%
Ratedpowerfactor	0.8	0.8
Statorwinding	2/3	2/3
Maximumoverspeed	2250min-1	2250min <sup>-1</sup>
Sustainedshortcircuit	400Amps	390Amps
CoolingAir(m <sup>3</sup> /sec)	0.37	0.216

Alternators meet the requirement of BS EN 60034 and the relevant section of other international standards such as BS5000, VDE 0530, NEMA MG1-32, IEC34, CSAC22.2-100, As1359, and other standards and certifications can be considered on request. The 2/3 pitch design avoids excessive neutral currents. With the 2/3 pitch and carefully selected pole and tooth designs, ensures very low waveform distortion. Brushless alternator with brushless pilot exciter for excellent load response. The insulation system is class H, easy paralleling with mains or other generators, standard 2/3 pitch stator windings avoid excessive neutral currents. Backed by worldwide service network.

## Dimensions and Weights

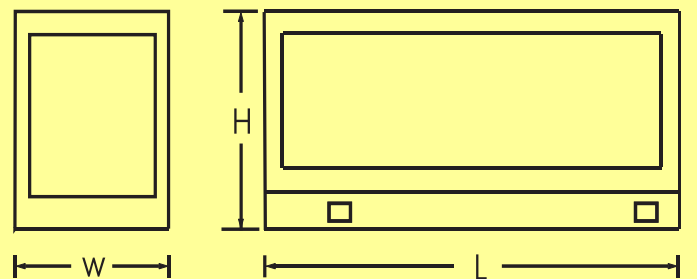
### Open Style

OverallSize , L W H mm	2450	950	1500
Weight(radiator model),net,kg	1100kg		



### Soundproof Style

OverallSize , L W H mm	3000	1100	1750
Weight(radiator model),net,kg	1600kg		



# DEEPSEA CONTROL SYSTEM

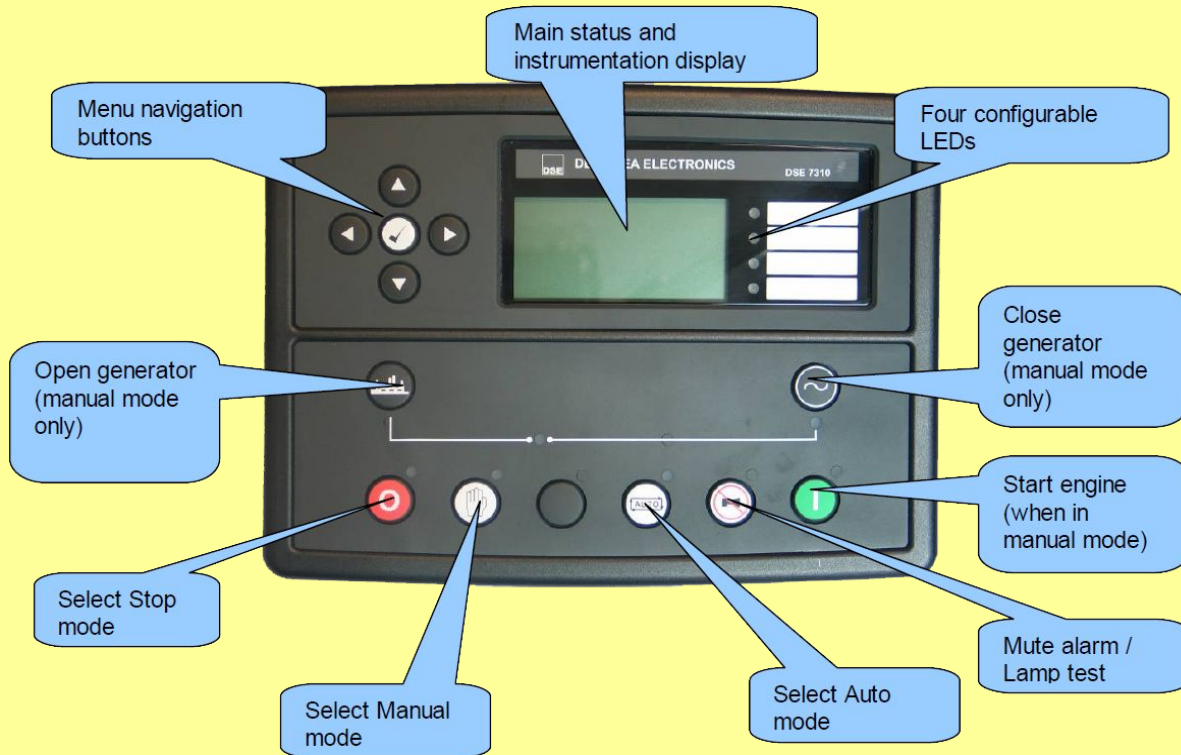
Controlled by Model DSE7220



The Gen-set Controller DSE7220 is a microprocessor based control unit containing all necessary functions for protection and control of a diesel engine. Further more, it contains a three-phase AC voltage measuring circuit. The unit is equipped with an LCD display presenting all values and alarms. DSE7220 is a compact all-in-one unit designed for the following applications:

1. Automatic engine start/stop
2. Engine protection
3. Breaker control
4. Generator protection

## Description For Module DSE7220



Standard functions	Shutdown	Warning
EngineControl	Loss of Speed Signal	Alternator Under/Over Voltage
GeneratorMonitoring	Alternator Under/Over Voltage	Alternator Under/Over Frequency
GeneratorProtection	Alternator Under/Over Frequency	Mains Under/Over Voltage
EngineMonitoring	Mains Under/Over Voltage	Mains Under/Over Frequency
ClearTextDisplay	Mains Under/Over Frequency	Under/Over Speed
	Under/Over Speed	Low Oil Pressure Pre-Alarm
	Low Oil Pressure	High Engine Temperature Pre-Alarm
	High Engine Temperature	High/Low Battery Voltage
	Phase Sequence Electrical (Option)	Over-current
	Earth Fault (Option)	Periodic maintenance













