



### Generator Specification

Service	PRP(1)	ESP(2)
Power (KVA)	13	15
Power (KW)	10	12
Rated speed (r.p.m)	1500	
Standard voltage (V)	400/230 V	
Rated at power factor (cos Phi)	0,8	

#### (1) PRP (Prime Power):

According to ISO8528-1, prime power is the maximum power available during a variable power sequence, which may be run for an unlimited number of hours per year, between stated maintenance intervals. The permissible average power output during at 24 hours period shall not exceed 80% of the prime power. 10% overload available for governing purposes only.

#### (2) ESP (Standby Power):

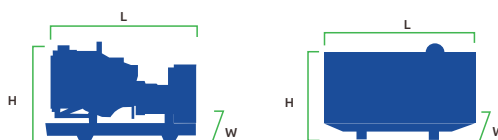
According to ISO 8528-1, It is defined as the maximum power available, under the agreed operating conditions, for which the generating set is capable of delivering for up to 500 hours of operation per year (of which no more than 300 hours for continuative use) with the maintenance intervals and procedures being carried out as prescribed by the manufacturers. No overload capability is available.

Power Voltage	ESP		PRP		Standby Amps
	KVA	KW	KVA	KW	
415/240	15	12	13	10	20.9
400/230	15	12	13	6.4	21.7
380/220	15	12	13	6.4	22.8

Performance Data		
Model	DY15P-S1	
Engine	Perkins	
Engine model	403A-15G1	
Speed control type	Mechanical	
Phase	3	
Control sytem	Digital	
Starter motor voltage	12V	
Frequency	50Hz	
Engine speed (RPM)	1500	
Fuel Consumption (L/H)	100% standby power	4.1
	100% prime power	3.7
	75% prime power	2.8
	50% prime power	2

#### Standard reference Conditions

Note: Standard reference condition 25 °C[77 °F] air inlet temp, 1000m(328ft) A.S.L 30% relative humidity. Fuel consumption dat with diesel fuel with specific gravity of 0.85 and conforming to BS 2869: 1998 Class A2



#### Dimension and Weight

Dimension	Open	Silent
Length (L)	1450 mm	1870 mm
Width (W)	550 mm	730 mm
Height (H)	1190 mm	1226 mm
Net Weight	-	650 KG
Fuel Tank (L)	75	100L

## Engine Specification : 403A 15G1

### Basic technical data

No. of cylinders	3
Cylinder arrangement	In-line
Cycle	4 stroke
Induction system	Naturally aspirated
Compression ratio	22.5:1
Bore	84mm
Stroke	90mm
Displacement	1.496L
All ratings certified to within	± 5%
Estimated total weight	197kg
Sound Level	79 dB(A)@1m - 65 dB(A)@7m

### Cooling system

Total coolant capacity -with radiator	6.0L
-without radiator	2.6L
Maximum top tank temp	112°C
Thermostat operation range	82-95°C
Radiator face area	0.147m <sup>2</sup>
Rows and material	2 rows aluminium
Pressure cap setting	90kPa
Fan diameter	320,0mm
Drive ratio	1.15 : 1
Number of blades	6

### Fuel system

Injection system	Indirect
Fuel injection pump	Cassette type
Fuel atomiser	Pintle nozzle
Nozzel opening pressure	14,7 MPa
Fuel lift pump type	Mechanical
-flow/hour	63 l/h
-pressure	10 kPa
Maximum suction head: -1500 rev/min	3m

### Induction system

Clean filter	3.0kpa
Dirty filter	6.4kpa
Air filter type	Dry

### Lubrication system

Maximum sump capacity	6.0L
Minimum sump capacity	4.5L
Total system	-
Maximum engine operating angles - front up, front down, right side or left side	35°C
Lubricating oil pressure - Re-lief valve opens	262-359 kPa
Normal oil temperature	125°C
oil flow at rated speed	10.9 litres/min.

### Electrical system Type

Type	Negative ground
Alternator voltage	12 volts
Alternator output	15 amps
Starter motor voltage	12 volts
Starter motor power	1.1KW

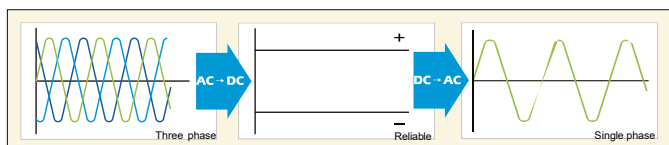
### General installation

General installation	Prime power
Gross engine power	12.2kW
Brake mean effective pressure	650kPa
Combustion air flow	1.1m <sup>3</sup> /min
Exhaust gas temperature outlet	445 °C
Energy to coolant	11.6kW
Energy to exhaust	9.3kW

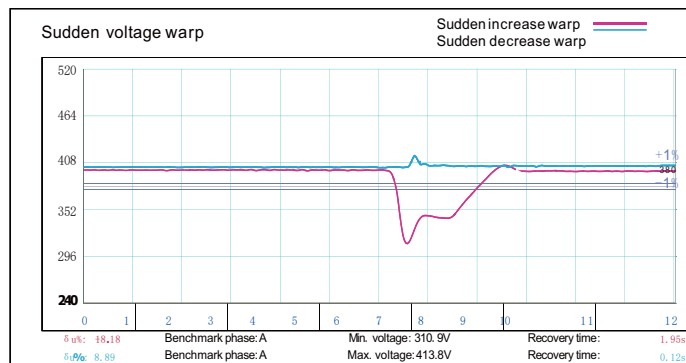
## ALTERNATOR SPECIFICATION : LEROY SOMER TAL-A40-F

### Alternator

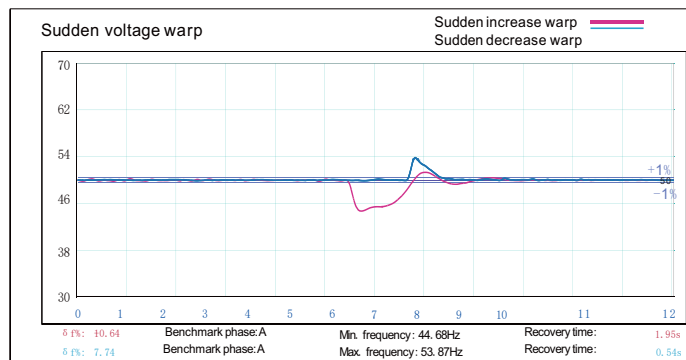
Number of phase	1
Power factor (Cos Phi)	0.8
Poles	4
Winding Connections (standard)	Star-serie
Terminals	12
Insulation type	H class
Winding Pitch	2/3
IP rating	IP23
Excitation system	Self excited
Bearing	Single bearing
Coating	Vacuum impregnation
Voltage regulator	A.V.R
Coupling	Flexible disc



Emergency voltage curve



Emergency frequency curve



## OPTIONS

Engine	Alternator	Generator Sets	Fuel System
<ul style="list-style-type: none"> <li>Water Jacket Pre heater</li> <li>Fuel heater</li> </ul>	<ul style="list-style-type: none"> <li>Winding Temp measuring Instrument</li> <li>Alternator Pre heater</li> <li>PMG</li> <li>Anti-damp and anti corrosion treatment</li> <li>Anti-condensation heater</li> <li>Winding and bearing RTD</li> </ul>	<ul style="list-style-type: none"> <li>Tools with the machine</li> <li>Extended range fuel tank</li> <li>Bunded fuel tank</li> </ul>	<ul style="list-style-type: none"> <li>Low fuel level alarm</li> <li>Automatic fuel feeding system</li> <li>Fuel T-valves</li> </ul>
Canopy	Lub Oil System	Cooling System	Control Panel
<ul style="list-style-type: none"> <li>Rental type Canopy</li> <li>Trailer</li> </ul>	<ul style="list-style-type: none"> <li>Oil Pre-heater</li> <li>Oil temp sensor</li> </ul>	<ul style="list-style-type: none"> <li>Front heat protection</li> </ul>	<ul style="list-style-type: none"> <li>Remote control panel</li> <li>ATS</li> <li>Synchronizing controller</li> <li>Adjustable earth leakage relay</li> </ul>

## Control Panel: DEEPSEA 6120MKII

### Configuration

- Emergency stop button
- Protection MCB
- Battery charger
- Integrated aviation plug
- ATS connection
- Digital control module

### Features

- 3 phase generator set monitoring
- Support of engines equipped with electronic control unit  
Comprehensive diagnostic message
- Automatic or manual start/ stop of the gensets
- Push buttons for simple control, lamp test
- Graphic back lit. LCD display
- Parameters adjustable via keyboard or PC
- Mains measurements ( 50HZ/ 60HZ)
- Generator measurements ( 50HZ/ 60HZ)
- Comprehensive shutdown or warning on fault condition
- 3 phase Generator protections
  - Over/under voltage
  - Over-/under frequency
  - Current voltage asymmetry
  - Over current/ overload
- 3 phase AMF function
  - Over-/under frequency
  - Over-/under voltage
  - Voltage asymmetry
- Configurable analog inputs
- Battery voltage, engine speed (pick-up) measureme
- Configurable programmable binary inputs and outputs
- Warm-up and cooling functions
- Generator C.B. and Mains C.B. control with feedback and re-  
turn timer
- RS232 interface
- Modem communication support
- Hours counter
- Sealed to Ip65
- Event log

### Benefits

- Less wiring and components
- Integrated solution
- Less engineering and programming
- User friendly set up and button layout
- Module can be configured to suit individual applications
- PC software for simplified configuration
- Wide range of communication capabilities

### Operation conditions

- Operation temp: -20 °C to + 70 °C
- Storage temp: -30 °C to + 80 °C
- Operating humidity: 95% w/o condensation
- Vibration: 5-25Hz ,+/- 1.6 mm  
5-100 Hz, a = 4g
- Shocks: a = 500m/s<sup>2</sup>

### Options

- Ethernet interface (Remote monitoring and control)
- GSM modem/wireless internet (Remote monitoring and control)
- RS232-RS485 Dual port interface
- Synchronizing control panel
- Distribution board with sockets kit and power busbar
- Battery trickle charge ammeter
- Earth leakage protection
- Earth fault protection
- Low fuel level alarm
- Low fuel level shutdown
- High fuel level alarm
- Fuel transfer system control
- Low coolant level shutdown
- High lube oil temp shutdown
- Overload via alarm switch on breaker
- Engine coolant heater controls
- Control panel heater
- Speed adjust switch
- Oil temp displayed on LCD screen
- Additional 8 inputs and outputs