

Ratings Definition:

Emergency Standby Power (ESP) :

Emergency standby power is defined as the maximum power available during a variable electrical power sequence, under the stated operating conditions, for which a generating set is capable of delivering in the event of utility power outage. The permissible average power output over 24hours of operation shall not exceed 70% of the ESP. No overload is permitted above ESP rating.


Prime Rated Power (PRP) :

These ratings are applicable for supplying continuous electrical power (at variable load) in lieu of commercial 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.

Continuous Rated Power :

These ratings are applicable for supplying power continuously to a constant load upto the full output rating for unlimited hours. No sustained overload capability is available for this rating.

GENERATING SET SPECIFICATIONS	
Model - Open Type	KG225W
Model - SAE Type	KG225WS
Line Voltage (Volts)	220V 380V
Phase Voltage (Volts)	127V 220V
Frequency (Hz)	60
Power Factor	0.8
Phase	Three phase
Fuel Tank Capacity (Liters)	Open – 310
	SAE – 310
Fuel consumption at 100% load (lit/hr) +5% tolerance	55.0
Fuel consumption at 75% load (lit/hr) +5% tolerance	43.0
Sound level at 7 m for Silent Generating set dB	70
Overall dimensions (cms)	Open – 309x147x179
	SAE – 457 x 177 x 197
Weight (kgs)	Open Type – TBA
	SAE Type – 4600

CONTROL SYSTEM	
	
Controller Make	Deepsea
Controller Model	DSE 6120 MKII
Digital display instrumentation	Generator Voltage Generator Amps Generator Frequency Generator kW, kVA, kVAr Generator kWh Generator power factor Mains Voltage Battery Voltage Engine hours Run Oil Pressure Gauge Engine Temperature Gauge Fuel Level
Shutdowns/Safeties	Fail to Stop Low Oil pressure High Engine Temperature Under/Over-speed Under/Over voltage Emergency Stop Failed to reach loading voltage Failed to reach loading frequency Charge Fail Over Current Low DC Voltage warning Low coolant level
Automatic Starting & AMF facility	Available

Engine Technical Data



Physical Data	
Engine Make	Kirloskar
Engine Model	6SL1500TA
Cylinders / Configuration	6 / Inline
Type	Four stroke
Bore x Stroke (mm)	118 x 135
Displacement (Ltr)	8.86
Cooling	Water cooled
Aspiration	Turbo charged after cooled
Compression Ratio	17.5 : 1
hp Prime @ 1800rpm	279
hp Standby @ 1800rpm	307

Fuel System	
Type of fuel filter	Two stage spin on type
Governor Type	Electronic
Class of Governing	ISO 8528-5, Class G2
Fuel pump type	Inline
Fuel pump make	Motorpal
Recommended Fuel	Class A2, High speed diesel
Fuel consumption at 100% load (lit/hr) +5% tolerance	55.0
Fuel consumption at 75% load (lit/hr) +5% tolerance	43.0
Fuel consumption readings are based on diesel fuel with a specific gravity of 0.85 and confirming to BS 2869, Class A2)	

Air System	
Air Filter Type	Dry type replaceable element
Air Volume required for Ventilation (m ³ /hr)	16605
Combustion air flow (m ³ /hr)	900
Total Air Flow required for ventilation (m ³ /hr)	17541
Total Fresh air required (m ³ /hr)	TBA

Lubrication System	
Type of lube oil filter	Full flow spin on type
Oil to be used	SAE 15W-40 API : CI4
Oil pump type	Through G-rotor gear pump
Lub oil sump capacity (lit)	24
Lube oil consumption	0.3% of fuel consumption

Cooling System	
Cooling system capacity (lit)	43
Water pump type	Centrifugal
Radiator fan load (hp)	12

Electrical System	
Starting Arrangement	24V Electric
Starter	24V Electric
Starter Battery Rating	180Ah x 2 Nos
Battery charging alternator	Engine mounted 24V battery charger
Battery charger amps	45



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Alternator Technical Data



Physical Data		
Line Voltage (Volts)	220V	380V
Manufacturer	Stamford	
Model	UCI274H1	UCI274H1
Number of bearings	1	
Insulation class	H	
Winding pitch	2/3	
Wires	12	
Ingress Protection Rating	IP 23	
AVR Model	SX 460	

Operating Data		
Line Voltage (Volts)	220V	380V
Over speed (RPM)	2250	
Excitation	Self excited	
Efficiency (%)	93.2	93.0
THD at full linear balanced load AC waveform	≤ 5%	
Voltage Regulation (%)	± 1.0	
Reactance per unit (Xd)	2.31	2.50
Reactance per unit (X'd)	0.19	0.21
Reactance per unit (X''d)	0.13	0.14

Sound Attenuating Enclosure (Canopy)

Sound Level	70 dB at 7 meter as per ISO 8528
Construction	<ul style="list-style-type: none"> Fully Integrated, metal construction for ALL WEATHER USE (weather proof). Black zinc die cast, Aluminium hinges or Stainless steel hinges tested to withstand corrosive environment conditions. Fuel filling spout with lock. Emergency stop button on canopy exterior. Provision of glass window for viewing control panel Provision for lifting canopy
Maintenance	Easy access through lockable doors for operation/maintenance and repair works (including access for radiator service)
Protection Standard	IP 23

General Data

Documents	<ul style="list-style-type: none"> A full set of Illustrated spare parts catalogue Operation & Maintenance manual Circuit Diagrams
Quality Standards	ISO 8528, ISO 3046, IS 100002, BS5514, DIN 6271, ISO 9001, ISO 14001



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