

The Sentinel UL 30A **Diesel Generator Set**

30A / 20

RATINGS / OPTIONS	WILDCAT DIESEL GENERATOR			
	20	30A	30B	30C
Kirloskar Engine	4R810NA1	4R810NA1	4R810NA1	4R810NA1
Engine Capacity / Induction System	3.24 L / natu- rally aspirated	3.24 L / natu- rally aspirated	3.24 L / natu- rally aspirated	3.24 L / natu- rally aspirated
Engine Rating HP @ RPM	48.7 @ 1,800	48.7 @ 1,800	48.7 @ 1,800	48.7 @ 1,800
Stamford Alternator UL1004 Listed	PI144H	PI144H	PI144H	PI144H
Rated kVA	20	37.5	37.5	37.5
Rated kWe	20	30	30	30
Number of Phases	1	3	3	3
Rating Power Factor	1	0.8	0.8	0.8
Rated Voltage V	120/240	120/208	277/480	120/240
Rated Current Amps	83	104	45	90
3-pole Circuit Breaker Size in Amps, UL Listed	Any UL Listed 3-pole breaker with rating of 100%–125% of rated current of the respective rating			
Controller Options UL Listed	Deep Sea	Deep Sea	Deep Sea	Deep Sea
Standard Diesel Tank Capacity	8 hours	8 hours	8 hours	8 hours
Length	102.3 in. (2,600 mm)	102.3 in. (2,600 mm)	102.3 in. (2,600 mm)	102.3 in. (2,600 mm)
Width	42.6 in. (1,083 mm)	42.6 in. (1,083 mm)	42.6 in. (1,083 mm)	42.6 in. (1,083 mm)
Height	61 in. (1,551 mm)	61 in. (1,551 mm)	61 in. (1,551 mm)	61 in. (1,551 mm)







The Sentinel UL 30A

Features and Specifications

Features

- · Extremely reliable
- Lower operating cost
- Easy maintenance higher uptime
- Sound attenuated enclosure is fully integrated and designed for all weather conditions – weatherproof
- · Smart battery charger
- · Isochronous electronic governor
- State-of-the-art generating set control system with high degree of accuracy and reliability
- Ideally suitable for critical industries like Construction, Manufacturing, Textile, Services, etc.
- Superior design standards that minimize power deration even at high ambient temperatures
- · Prompt and efficient after-sales service

CONTROL SYSTEM				
Manufacturer	Deep Sea			
Model	DSE 7310			
Digital Display Instrumentation	 Generator voltage Generator amps Generator frequency 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/overspeed Under/overvoltage Emergency stop Failed to reach loading voltage Failed to reach loading frequency Charge fail Overcurrent Low DC voltage warning Low coolant level 			

ENGINE TECHNICAL DATA		
Manufacturer	Kirloskar	
Model	4R810NA1	
Number of Cylinders	4	
Configuration	Inline	
Туре	Four-stroke	
Bore x Stroke (mm)	96 X 112	
Displacement	3.24 L	
Cooling	Water-cooled	
Induction System	Naturally aspirated	
Compression Ratio	17.5 : 1	
Starting Arrangement	12V electric	







ALTERNATOR TECHNICAL DATA		
Manufacturer	Stamford	
Туре	4-pole, rotating field	
Exciter Type	Brushless, wound field	
Leads Type/Quantity	Reconnectable, 12	
Voltage Regulator	Solid state, volts/Hz	
Insulation	NEMA MG1 - 32	
Insulation Material	Class H	
Insulation Temp. Increase	150°C, standby	
Bearing Type/Quantity	Sealed, 1	
Coupling	Flexible disc	
Voltage Regulation, No-load to Full-load	Controller-dependent	
One-step Load Acceptance	100% of rating	
Unbalanced Load Capability	100% of rated standby current	



The Sentinel UL 30A Technical Specifications

ENGINE MODEL	NO. 4R810NA1			
Gross Engine Power				
(Standby at 1,800 RPM)	35.8 kWm			
Mean Piston Speed	6.7 m/s			
Engine Coolant Flow	80 L/min			
Combustion Air Flow	200 kg/hr			
Exhaust Gas Flow Max.	210 kg/hr			
Exhaust Gas Temperature Max.	1,202°F (650°C)			
Cooling System				
Coolant Capacity with Radiator	14 L			
Exhaust System				
Max. Allowable Back Pressure of Exhaust System at Rated Power (at Exhaust Manifold Outlet)	50 mm Hg			
Exhaust Outlet Pipe Inner Diameter	66 mm			
Lubrication System				
Sump Max.	11.5 L			
Fuel Consu	umption*			
100%	9.8 L/hr			
75%	6.9 L/hr			
50%	4.7 L/hr			
25%	2.9 L/hr			
Electrical System				
Charging Alternator Output Current	35 amps			
Starter Motor Voltage	12 VDC			
Battery Capacity/ Requirement (CCA)	600 CCA @ 32°F (0°C)			

^{*} **NOTE:** Corresponding to gross power under NTP conditions after 50 hours of running in with reference fuel. Fuel consumption readings are based on diesel fuel with a specific gravity of 0.854 and confirming to BS 2869, Class A2 Production Tolerance: +5%.