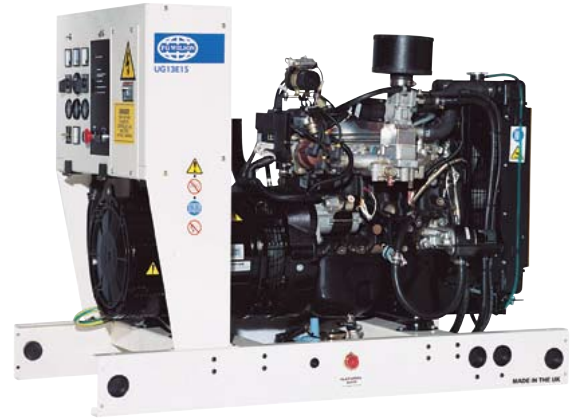




www.FGWilson.com

UHG30E1



Output Ratings

Generating Set Model	UHG30E1
LPG	Standby
380 – 415V, 50 Hz	30.0 kVA / 24.0 kW
220/127V, 60 Hz	31.3 kVA / 25.0 kW
Natural Gas	
380 – 415V, 50 Hz	30.0 kVA / 24.0 kW
220/127V, 60 Hz	31.3 kVA / 25.0 kW

Ratings at 0.8 pf

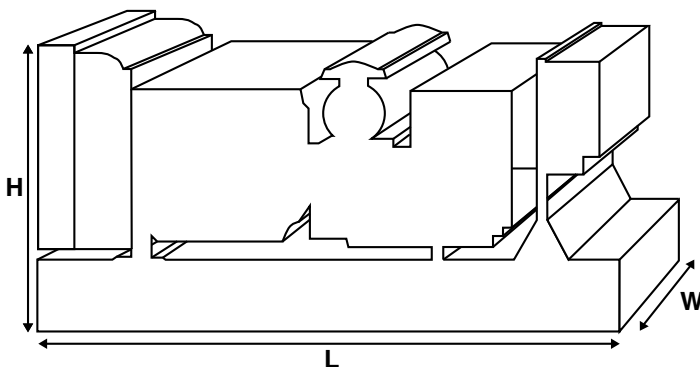
Definitions

Standby Rating

These ratings are applicable for supplying continuous electrical power (at variable load) in the event of a utility power failure. No overload is permitted on these ratings. The alternator on this model is peak continuous rated (as defined in ISO 8528-3).

Standard Reference Conditions

Ratings in accordance with ISO 8528. All engine performance data based on the above mentioned maximum continuous ratings. Fuel Consumption data assumes complete combustion of LPG fuel with a calorific value of 95MJ/m³ and of Natural gas with a calorific value of 34.4MJ/m³.



Ratings and Performance Data

Engine Make and Model	HM 1.8L	
Alternator manufacturer for FG Wilson by:	Leroy Somer	
Alternator Model:	LUA1012NX	
Control Panel:	PowerWizard 1.0	
Base Frame:	Heavy Duty Fabricated Steel	
Circuit Breaker Type/Rating:	3 Pole MCCB	
Frequency:	50 Hz	60 Hz
Engine Speed: RPM:	3000	3600
Fuel Consumption: LPG m ³ /hr (ft ³ /hr)	– Standby: 5.1 (180.1) 5.7 (201.3)	
Fuel Consumption: NG m ³ /hr (ft ³ /hr)	– Standby: 13.0 (459.1) 14.8 (522.7)	

Available Options

FG Wilson offer a range of optional features to tailor our generating sets to meet your power needs. Options include:

- Upgrade to CE Certification
- A wide range of Sound Attenuated Containers
- A variety of generating set control and synchronising panels
- Additional alarms and shutdowns
- A selection of exhaust silencer noise levels

For further information on all of the standard and optional features accompanying this product please contact your local Dealer or visit: www.FGWilson.com

Dimensions and Weights

Length (L) mm (in)	Width (W) mm (in)	Height (H) mm (in)	Dry kg (lb)	Wet kg (lb)
1350 (53.1)	715 (28.1)	1004 (39.5)	393 (866)	405 (893)

Dry = With Lube Oil Wet = With Lube Oil and Coolant

Ratings in accordance with ISO 8528, ISO 3046, IEC 60034, BS5000 and NEMA MG-1/22. Generating set pictured may include optional accessories.

FG Wilson has manufacturing facilities in the following locations:

Northern Ireland • Brazil • China • India • USA

With headquarters in Northern Ireland, FG Wilson operates through a Global Dealer Network. To contact your local Sales Office please visit the FG Wilson website at www.FGWilson.com

Engine Technical Data

No. of Cylinders/Alignment:	4 in Line
Cycle:	4 Stroke
Bore/Stroke: mm (in)	84.0 (3.3) / 82.0 (3.2)
Induction:	Naturally Aspirated
Cooling Method:	Water
Governing Type:	Electronic
Governing Class:	ISO 8528 G2
Compression Ratio:	8.5:1
Displacement: l (cu.in):	1.8 (111.1)
Engine Electrical System:	
-Voltage/Ground	12/Negative
-Battery Charger Amps	45
Weight (includes lube oil): kg (lb)	143 (315)

Performance

	50 Hz	60 Hz
Engine Speed: rpm	3000	3600
Gross Engine Power: kW (hp) – Standby:	33.0 (44)	36.4 (49)
BMEP: kPa (psi) – Standby:	1453 (210.7)	1335 (193.6)

Fuel Systems

Fuel Filter Type:	Replaceable Element			
Permitted Fuel:	LPG / Natural Gas			
Fuel Consumption LPG: m³/hr (cfh)				
	110%	100%	75%	50%
Standby	Load	Load	Load	Load
50 Hz	-	5.1 (180.1)	3.9 (137.7)	2.7 (95.4)
60 Hz	-	5.7 (201.3)	4.5 (158.9)	3.3 (116.5)
Fuel Consumption Natural Gas: m³/hr (cfh)				
	110%	100%	75%	50%
Standby	Load	Load	Load	Load
50 Hz	-	13.0 (459.1)	10.0 (353.2)	7.0 (247.2)
60 Hz	-	14.8 (522.7)	11.5 (406.1)	8.4 (296.6)

Air Systems

	50 Hz	60 Hz
Combustion Air Flow LPG: m ³ /min (cfm)		
– Standby:	2.6 (92)	3.2 (113)
Combustion Air Flow Natural Gas:		
m ³ /min (cfm) – Standby:	2.5 (88)	3 (106)
Max. Combustion Air Intake		
Restriction: kPa (in H ₂ O)	1.5 (6)	1.5 (6)
Radiator Cooling Airflow: m ³ /min (cfm)	102 (3602)	124 (4379)
External Restriction to Cooling Airflow:		
kPa (in H ₂ O)	247 (1.0)	247 (1.0)

Cooling System

	50 Hz	60 Hz
Cooling System Capacity: l (US gal)	6.1 (1.6)	6.1 (1.6)
Water Pump Type:	Centrifugal	
Heat Rejected to Water &		
Lube Oil: kW (Btu/min) – Standby:	28.4 (1616)	30.8 (1750)
Heat Radiation to Room: kW (Btu/min)		
– Standby:	15.0 (853)	16.3 (927)
Radiator Fan Load:	1.62 (2.17)	2.80 (3.75)

Lubrication System

Oil Filter Type:	Spin-On, Full Flow
Total Oil Capacity: l (US gal)	4.5 (1.2)
Oil Pan: l (US gal)	4.0 (1.1)
Oil Type:	API CF4 15W-40
Oil Cooling Method:	Water

Exhaust System

	50 Hz	60 Hz
Max. Allowable Back Pressure: kPa (in Hg)	17.3 (5.1)	17.3 (5.1)
Exhaust Gas Flow LPG: m ³ /min (cfm)		
– Standby:	8.3 (293)	10.4 (367)
Natural Gas: m ³ /min (cfm) – Standby:	8.4 (297)	10.5 (371)
Exhaust Gas Temperature LPG: °C (°F):		
– Standby:	625 (1157)	668 (1234)
Natural Gas °C (°F):		
– Standby:	635 (1175)	675 (1247)

Alternator Physical Data

Manufactured for FG Wilson by:	Leroy Somer
Model:	LUA1012NX
No. of Bearings:	Single
Insulation Class:	H
Winding Pitch Code:	2/3 (No 6)
Wires:	4
Ingress Protection Rating:	IP23
Excitation System:	SHUNT
AVR Model:	R250

Alternator Operating Data

Overspeed: RPM	4500
Voltage Regulation (steady state):	+/- 0.5%
Wave Form NEMA = TIF:	<50
Wave Form IEC = THF:	<2%
Total Harmonic Content LL/LN:	<4%
Radio Interference:	Suppression is in line with European Standard EN61000-6
Radiant Heat: kW (Btu/min)	50 Hz: 3.8 (216) 60 Hz: 4.0 (227)

Alternator Performance Data:

Data Item	50 Hz			60 Hz
	380/220	400/230	415/240	220/127
Motor Starting Capability* kVA	53	58	62	58
Reactances:				
Per Unit				
X_d	4.16	3.75	3.48	3.88
X'_d	0.11	0.10	0.09	0.10
X''_d	0.052	0.047	0.044	0.049

Reactances shown are applicable to prime ratings using LPG fuel

* Based on 30% voltage dip at 0.9 power factor and shunt excitation system

Voltage Technical Data

	50 Hz		60 Hz		
	UHG30E1 Standby		UHG30E1 Standby		
	kVA	kW	kVA	kW	
415/240	30.0	24.0	220/127	31.3	25.0
400/230	30.0	24.0			
380/220	30.0	24.0			

These ratings are based on generating set performance using LPG fuel.

Voltage Technical Data

	50 Hz		60 Hz		
	UHG30E1 Standby		UHG30E1 Standby		
	kVA	kW	kVA	kW	
415/240	30.0	24.0	220/127	31.3	25.0
400/230	30.0	24.0			
380/220	30.0	24.0			

These ratings are based on generating set performance using Natural Gas fuel.

General Information

Documentation

A full set of operation and maintenance manuals and circuit wiring diagrams.

Generating Set Standards

The equipment meets the following standards: BS5000, ISO 8528, ISO 3046, IEC 60034, NEMA MG-1.22.
FG Wilson is a fully accredited ISO 9001 company.

Warranty

All equipment carries full manufacturer's warranty. Extended warranty terms available. For details on warranty cover please contact your local dealer, or visit our website: www.FGWilson.com

Dealer Contact Details:

FG Wilson has manufacturing facilities in the following locations:

Northern Ireland • Brazil • China • India • USA

With headquarters in Northern Ireland, FG Wilson operates through a Global Dealer Network.
To contact your local Sales Office please visit the FG Wilson website at www.FGWilson.com