



WÄRTSILÄ 34SG-LPG ENGINE GENERATING SET

The Wärtsilä 34SG-LPG is a four-stroke, spark-ignited, lean-burn gas engine generating set. It has been specifically designed to operate on propane gas fuel and provides an excellent fit for flexible baseload and industrial applications.

It is based on proven Wärtsilä 34SG technology designed for natural gas operation, with more than 1300 units having been delivered during the past 20 years. The Wärtsilä 34SG-LPG features a wide power output range from 4.2 to 7.4 MW, as it is available in 12V, 16V and 20V cylinder configurations.

We help our customers in decarbonisation by developing market-leading technologies such as flexible power plants that can be delivered as engineering, procurement and construction (EPC). With our full lifecycle support we ensure guaranteed performance of the plant.

Key benefits

- Runs on both propane and natural gas
- Has the flexibility to run on natural gas if it is available, and can switch fuels while operating
- Outstanding simple cycle efficiency with propane fuel
- Turbocharged gas engine technology offers the highest possible simple cycle efficiency
- High operational flexibility including fast starting and loading capabilities
- Optimised performance and efficiency supported by Wärtsilä Lifecycle solutions

30
sec
Power to grid

7,3
MWe
Output

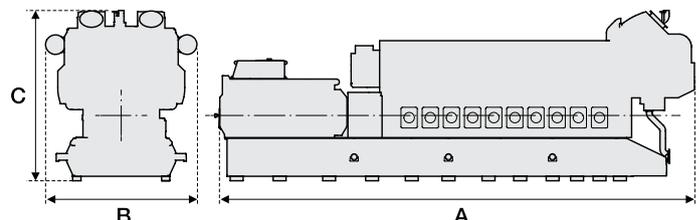
45,8
% Electrical efficiency

Engine generating set			
Cylinder configurations	12, 16, 20V		
Cylinder bore	340 mm		
Piston stroke	400 mm		
Engine speed	750 rpm (50 Hz), 720 rpm (60 Hz)		
Performance ¹			
	20V34SG-LPG	16V34SG-LPG	12V34SG-LPG
Rated electrical power (kW)	7 346 (50 Hz) 7 041 (60 Hz)	5 873 (50 Hz) 5 618 (60 Hz)	4 380 (50 Hz) 4 185 (60 Hz)
Electrical efficiency (%)	45.8 (50 Hz) 45.7 (60 Hz)	45.8 (50 Hz) 45.6 (60 Hz)	45.5 (50 Hz) 45.3 (60 Hz)
Heat rate at generator terminals (kJ/kWh)	7 862 (50 Hz) 7 875 (60 Hz)	7 867 (50 Hz) 7 899 (60 Hz)	7 906 (50 Hz) 7 944 (60 Hz)
Loading and unloading			
	Connected to grid	Full load	
Regular start time (min:sec)	00:30	< 5	
Stop time (min)	1		
Ramp rate (hot, load /min)	> 100%		
Minimum load			
Unit level	10%		
Plant level	1%		

Maximum transportation dimensions (mm) and weights (tonnes) ²				
Genset type	Length (A)	Width (B)	Height (C)	Dry weight
12V34SG-LPG	10 454	3 350	4 511	102
16V34SG-LPG	11 456	3 350	4 511	125
20V34SG-LPG	13 142	3 350	4 573	136

¹ Rated electrical power and electrical efficiencies are given at generator terminals at 100kPa ambient pressure, 25°C suction air temperature and 30% relative humidity, and without engine driven pumps. Power factor 1.0 (site). NO_x emission level 90ppm-v @15% O₂ dry (for LPG versions <36). Electrical efficiency with 5% tolerance. Gas LHV >28MJ/Nm³. Gas methane number >80 (for LPG versions MN >30). Site conditions, fuel and applicable emission limits may have an impact on performance figures. Please contact Wärtsilä for project-specific performance data.

² There are a number of dismantling options available for transportation of the generator set. These include different options for reduced weight and height. Please contact Wärtsilä for further information.



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