



WÄRTSILÄ 34SG BALANCER

Gas engine generating set

The Wärtsilä 34SG is a four-stroke, spark-ignited, lean-burn gas engine generating set. It is agile and flexible. Its high single cycle efficiency delivered over the entire load range and in any operating profile makes it an excellent choice for balancing renewable power generation, peak load, and for supporting the grid with a variety of ancillary services. It also offers unique fast-starting capability, which enables rapid response to fluctuations inherent to renewable generation.

The Wärtsilä 34SG is available in 20V cylinder configuration, with a power output ranging between 10.4 and 10.8 MW.

Wärtsilä helps customers unlock the value of the energy transition by optimising their energy systems and future-proofing their assets. We offer flexible power plants, energy storage and energy management systems,

as well as engineering, procurement and construction (EPC) deliveries and full lifecycle support that ensure guaranteed performance.

Key features

- Improved power density for balancing and peaking applications
- Very high open cycle efficiency
- Fast starting and loading capabilities: connects to the grid in 30 seconds and reaches full load in 2 minutes
- Runs on natural gas, biogas and is capable of hydrogen blending
- The genset is easily transported in one piece even to challenging locations
- Ready for unmanned standby, remote control and 24/7 data streaming
- Optimised performance and reliability supported by Wärtsilä Lifecycle solutions



**THE OPTIMAL
BALANCER FOR
RENEWABLES**



**BEST UP AND DOWN
RAMP RATES IN THE
INDUSTRY**



**UNMANNED STANDBY
AND REMOTE
CONTROL CAPABLE**



Main technical information of Wärtsilä 34SG Balancer

Engine generating set, 50 & 60 Hz	
Cylinder configurations	20V
Cylinder bore	340 mm
Piston stroke	400 mm
Engine speed	750 rpm (50 Hz), 720 rpm (60 Hz)
Mean piston speed	10 m/s (50 Hz), 9.6 m/s (60 Hz)

Rated electrical power (kW)

Genset type	50 Hz	60 Hz
20V34SG	10 777	10 368

Loading & unloading

		Connected to grid	Full load
Regular start time	min	< 2	< 5
Fast start time	min:sec	00:30	< 2:00
Stop time	min	1	

Maximum transportation dimensions (mm) and weights (tonnes)¹

Genset type	Length (A)	Width (B)	Height (C)	Dry weight
20V34SG	12 879	3 350	4 528	134.5

¹ There are a number of dismantling options available for transporting the generator set. These include different options for reduced weight and height. Please contact Wärtsilä for further information.

Minimum up- & down times

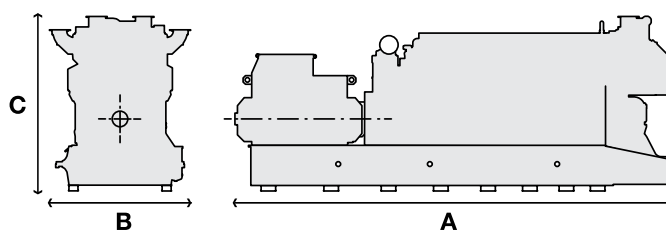
- Minimum up-time (time to operate after start, before stopping) 1 min
- Minimum down-time (before re-start is possible).....5 min

Performance

Ramp rate, hot, load /min >100%
 Minimum load Unit level 10%
 Plant level 1%

Emission related parameters

Typically the emission control system will reach its full abatement efficiency within 10-30 minutes from the start.



Disclaimer The information contained herein is provided for informational purposes only and may not be incorporated, in whole or in part, into any agreement or proposal. No representation of any kind is made in respect of any information contained herein and Wärtsilä expressly disclaims any responsibility for, and does not guarantee, the correctness or the completeness of the information. The calculations and assumptions included in the information do not necessarily take into account all the factors that could be relevant in a particular case. Information herein shall not be construed as a guarantee or warranty of the performance of any Wärtsilä technology, equipment or installation.

The information in this document is subject to change without notice and the given data does not carry any contractual value. Wärtsilä assumes no responsibility for any errors that may appear in this document. WÄRTSILÄ® is a registered trademark. Copyright © 2021 Wärtsilä Corporation.

[wartsila.com/energy](https://www.wartsila.com/energy)

