



Medium-speed power generation

B36:45V NATURAL GAS

600 kW per cylinder in a compact design, with world class efficiency and low life-cycle costs.

Defined by our customers

Close dialogue with our customers and the service organisation has given valuable input to the development of more efficient solutions – both for assembly and maintenance. The result is a robust and powerful engine, delivering up to 600kW per cylinder, with world class efficiency and reduced life-cycle costs.

Our latest engine series is built on more than 70 years of experience. Our legacy, with all its valuable knowledge and experience, has been an important foundation for the development and testing of new technologies. The B36:45 gas engine is a medium-speed, spark-ignited lean-burn unit designed to produce up to 12 MW of mechanical power with optimised combustion technology and excellent load responsiveness. The design has been driven by

stringent requirements for lower exhaust emissions, highest possible electrical and heat recovery efficiency, coupled with extreme reliability.

Your benefits

- World class efficiencies
- 600 kW mechanical output per cylinder
- World class fuel consumption
- Exceptionally low emissions
- Simple, modular and robust design
- Low lifecycle costs
- Excellent load responsiveness
- Convertible to liquid fuel operation

B36:45V AG

50 Hz



Main dimensions - cylinder diameter 360 mm, piston stroke 450 mm

Weight and dimensions	Weight kg	Length	Width	Height
B36:45V12 AG	100000	11716	3280	4980
B36:45V16 AG	150000	12996	3783	4980
B36:45V20 AG	170000	14276	3783	4980
Technical data	Unit	B36:45V12AG	B36:45V16AG	B36:45V20AG
Number of cylinders		12	16	20
Engine speed	r/min	750	750	750
Electrical output	kW	7090	9470	11830
Charge air cooler HT	kW	1600	2140	2715
Charge air cooler LT	kW	350	470	625
Lube oil cooler	kW	840	1120	1135
Jacket water cooler	kW	1000	1320	1260
Exhaust mass	kg/h	38500	51400	62400
Exhaust gas temperature	°C	375	375	375
Nom. el. efficiency	%	49	49.5	50

General conditions

- Depending on type of generator the weight, performance and dimensions may change
- All technical data is valid at 100% load, with no engine driven pumps
- Engine power definition and fuel gas consumption are according to ISO 3046-1 (ICFN)
- Generator standard IEC 60034-1, power factor 1
- Reference fuel is natural gas with a lower heating value of 36MJ/nm³, methane number >80
- Minimum fuel gas pressure to the gas regulating module: 5.3 barg
- The information herein is subject to change without notice and the given data does not carry any contractual value. Rolls-Royce assumes no responsibility for any errors that may appear

B36:45V AG

60 Hz



Main dimensions - cylinder diameter 360 mm, piston stroke 450 mm

Weight and dimentions	Weight kg	Length	Width	Height
B36:45V12 AG	100000	11716	3280	4980
B36:45V16 AG	150000	12996	3783	4980
B36:45V20 AG	170000	14276	3783	4980
Technical data	Unit	B36:45V12AG	B36:45V16AG	B36:45V20AG
Number of cylinders		12	16	20
Engine speed	r/min	720	720	720
Electrical output	kW	6800	9070	11340
Charge air cooler HT	kW	1540	2050	2620
Charge air cooler LT	kW	340	450	500
Lube oil cooler	kW	810	1070	1330
Jacket water cooler	kW	950	1260	1580
Exhaust mass	kg/h	36900	49200	61500
Exhaust gas temperature	°C	375	375	375
Nom. el. efficiency	%	48.9	49.4	49.9

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