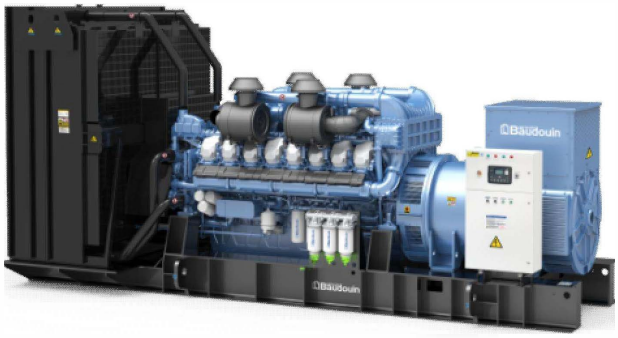
WPG2250*7

DIESEL GENERATOR SET

50 Hz – Non Emission



GENERATING SET RATINGS
50Hz – 1500rpm @ 0.8p.f

NET	DCP		PRP		ESP	
Voltage	**kVA**	kWe	**kVA**	kWe	**kVA**	kWe
415/240	**2000**	1600	**2000**	1600	**2250**	1800
400/230	**2000**	1600	**2000**	1600	**2250**	1800
380/220	**2000**	1600	**2000**	1600	**2250**	1800

PRODUCT STANDARD FEATURES

Engine and Block
- Cast iron cylinder block with inspection door per cylinder
- Cast iron cylinder liners, wet type and replaceable valves guides and seats
- Separate cast iron cylinder heads with 4 valves
- Hardened steel forged crankshaft with induction hardened journals, crankpins and radius

Cooling System
- Two separate circuits
- High temperature circuit equipped with thermostatically-controlled system with two gear driven coolant pumps
- Low temperature circuit equipped with belt driven coolant pump

Fuel System
- Super-high pressure common-rail fuel system for more peak fire pressure
- Pre-filter and main filters with electric fuel pump

Lubrication System
- Full flow screw able oil filters
- Lube oil purifier with replaceable cartridge
- Water cooled lube oil cooler

Electrical System
- Standard starting system comes with 2 x 24 Vdc electric starter motors and 1 x battery charging alternator
- Redundant dual starting system available as an option.

Air Intake and Exhaust System
- 4 single-stage turbochargers
- Silencer available as an option
- Exhaust manifold and turbocharger shield for heat isolating

Alternator
- High Effieciency Brushless, 4 Pole, IP23 drip-proof revolving field design built with Class H insulation/Class F Temperature rise
- Low reactance with 2/3 pitch windings on the stator
- Direct-coupled by high-elasticated coupling
- Sustained overcurrent >300% in 10 sec
- Direct drive centrifugal blower fan cooling
- Excitation by PMG

Genset Controller
- Baudouin's Genset controller is ideal for a wide range of applications
- Display status message Provide protection Auto shutdown at fault detection
- See individual spec sheet for detailed specifications

1) All ratings are based on operating conditions under ISO 8528-1, ISO 3046, DIN6271. Performance tolerance of ±5%.
2) Test conditions: 100 kPa, 25°C air inlet temperature, relative humidity of 30%, with fuel density 0.84 kg/L. Derating may be required for conditions outside these; please contact the factory for details.
3) Power output curves are based on the engine operating with a fuel system, water pump, and lubricating oil pump; not included are the battery charging alternator, fan, and optional equipment.

GENERATOR SET SPECIFICATIONS		
Governor and regulation class		In accordance with ISO 8528-5 Class G3 performance
Phase number and connection		3 phase, 4 wires, Y-type
Cooling method		Closed looped water-cooled
Starting method		DC 24V Electric starter
Steady-state voltage deviation		≤± 1%
Steady-state frequency band		≤ 0.25%

ENGINE		
Brand / Model		Baudouin / 16M33G2250/5
Gross Power	kWm	ESP – 1980 / PRP - 1800
Cylinder / Type / Aspiration		16 / Vee Type, Turbocharged and intercooled
Bore x Stroke	mm	150 x 185
Displacement	L	52.3
Compression ratio		14:1
Brake Mean Effective Pressure	kPa	ESP – 3029
** See engine data sheet for detailed specification		

ALTERNATOR	
Coupling / No. of Bearing	Direct / Single
Winding Pitch	2/3
Type of Excitation	PMG
Cooling type	Air
Voltage regulation method	AVR
Winding temperature sensor	PT100
Bearing temperature sensor	PT100
Anti-condensation heater voltage	AC230V
Insulation	Class H
Protection Grade	IP23
** See alternator data sheet for detailed specification	

COOLING SYSTEM		
Type of Coolant		Liquid(water + 50% antifreeze)
Max coolant temperature – shutdown	°C	103
Cooling Fan Airflow	m3/min	3480
** Seee engine data sheet for detailed specification		

EXHAUST SYSTEM		
Exhaust Gas temperature after the turbocharger	°C	550
Exhaust Gas flow	m3/min	ESP – 440.6 PRP – 400.5
Max Exhaust back pressure	mBar	75

FUEL CONSUMPTION (Tolerance +3%)		
100% ESP	L/hr	484.6
100% PRP	L/hr	428.6
75% PRP	L/hr	311.3
50% PRP	L/hr	208.8
25% PRP	L/hr	112.7

GENSET CONTROLLER

Baudouin's Genset controller is designed for manual/auto parallel systems.
The controller is an easy to use Synchronising Auto Mains (Utility) Failure Control Module suitable for paralleling single gensets (diesel or gas) with the mains (utility).

Key Benefits

- Real-time clock provides accurate event logging
- Ethernet communication, provides built in advanced remote monitoring.
- Can be integrated into building management systems (BMS) and programmable logic control (PLC)

OPTIONS

Engine

- □ Coolant heater
- □ Fuel / Water separator
- □ Remote radiator / heat exchanger
- □ Redundant dual starting system
- □ Exhaust ~25dBA reduction muffler
- □ Exhaust Y-connection pipe
- □ Lube oil automatic replenishment system

Alternator

- □ Class H or B temperature rise
- □ Oversized terminal box
- □ Mounting differentiates CT
- □ Infrared view port
- □ Winding protections for harsh environments and relative humidity greater than 95%

Ratings definitions

Emergency standby power (ESP):

ESP is the maximum power available for a varying load for the duration of a main power network failure. The average load factor over 24 hours of operation should not exceed 70% of the engine's ESP power rating.

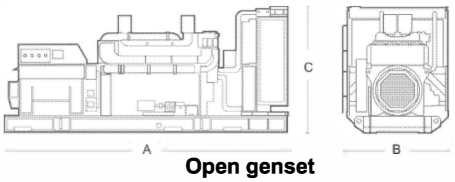
Typical operational hours of the engine are 200 hours per year, with maximum usage of 500 hours per year. This includes an annual maximum of 25 hours per year at the ESP power rating. No overload capability is allowed. The engine is not to be used for sustained utility paralleling applications.

Prime power (PRP):

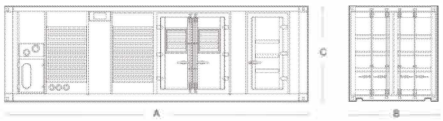
PRP is the maximum power available for unlimited hours of usage in a variable load application. The average load factor should not exceed 70% of the engine's PRP power rating during any 24-hour period. An overload capability of 10% is available for 1 hour within every 12-hour period.

Data Center power (DCP):

DCP is the maximum power that an engine is capable of delivering while supplying a variable or continuous load and during unlimited run hours. An overload capability of 10% is available for 1 hour within every 12-hour period



Open genset



Silence genset

This outline drawing is to provide representative configuration details for Model series only.
See respective model data sheet for specific model outline drawing number.

Do not use for installation design

Dimension and Weight

Structure	Model	Dim "A" mm	Dim "B" mm	Dim "C" mm	Dry wt. kg
Open	WPG2250B7	5900	2756	3058	13500
Silence	WPG2250C7		TBD		

* Note: Sizes and weights represent a set with standard 400V features. See the outline drawings for the detailed configurations of sizes and weights.

Codes and standards

ISO 9001	This generator set is designed and manufactured in facilities certified to ISO 9001.	ISO 8528	This generator set has been designed to comply with ISO 8528 regulation.
CE	The CE marking is only valid when equipment is used in a fixed installation application. Material compliance declaration is available upon request.	NFPA 110	The genset can comply to a single step in accordance with NFPA 110

The generator set is designed and manufactured in facilities certified to standards ISO9001:2015 and ISO14001:2015. The generator set is prototype-tested, factory-built and production tested and is in compliance with the relevant standards:

- ISO 8528-13, ISO 3046, DIN627
- EN 60034-1, EN 60204-1
- Machinery Directive 2006/42/EC/LVD 2014/35/EU

Data and specifications are subject to change without notice.