

# WPG700\*7

## DIESEL GENERATING SET

### GENERATING SET RATINGS

50Hz – 1500rpm @ 0.8p.f

Voltage	DCP		PRP		ESP	
	kVA	kWe	kVA	kWe	kVA	kWe
415/240	640	512	640	512	700	560
400/230	640	512	640	512	700	560
380/220	640	512	640	512	700	560

### PRODUCT FEATURES

#### Engine and block

- Vermicular graphite cast iron cylinder block and cylinder head
- Alloyed cast iron, wet cylinder liners with fire ring on the top
- Separate cylinder head with 4 valves, top-down cooling
- Hydraulic bolt for both the cylinder head and bearing cap
- Hardened steel forged crankshaft with induction hardened journals, crankpins and radius
- Monoblock piston with PCJ

#### Cooling System

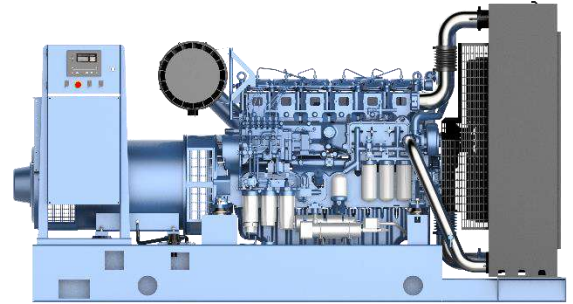
- Radiator and hoses supplied separately
- Two separate circuits
- High temperature circuit equipped with thermostatically-controlled system with one gear-driven coolant pump
- Low temperature circuit equipped with thermostatically-controlled system with one gear-driven coolant pump

#### Fuel System

- Super-high fuel supply system for more peak fire pressure
- Pre-filter and main filters with electric fuel pump

#### Lubrication System

- Fin oil cooler, 5 oil filters
- Bypass oil and oil thermostat to keep the oil temperature steady



- Electrical oil pre-lube pump to pre-lubricate the engine and ensure good starting ability

#### Air Intake

- 4 single-stage turbochargers
- Air filters with restriction indicator

#### Electrical System

- Each starting system comes with 2 x 24 Vdc electric starter motors and 1 x battery charging alternator
- LOP + HWT sensors

#### Exhaust System

- Exhaust manifold and turbocharger shield for heat isolating

#### Alternator

- Brushless, 4 Pole, IP23 drip-proof revolving field design built with Class H insulation and Class H 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

#### Control module

- DSE control module is ideal for a wide control range to manage, monitor, and diagnose quickly and easily.
- Display status message Provide protection Auto shutdown at fault detection

GENERATOR SET SPECIFICATIONS		
Governor and regulation class		In accordance to 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		≤ 0.5%
ENGINE		
Brand / Model		Baudouin / 6M33G715/5
Gross Power	kWm	ESP – 633 / PRP - 575
Cylinder / Type / Aspiration		6 / L- Type / Turbocharged and intercooled
Bore x Stroke	mm	150 x 185
Displacement	L	19.6
Compression ratio		15:1
Brake Mean Effective Pressure	kPa	ESP – 2584

COOLING SYSTEM		
Type of Coolant		Liquid( water + 50% antifreeze)
Total Cooling System Capacity (with Radiator)	L	159
Max coolant temperature – shutdown	°C	103
Cooling Fan Airflow	m3/min	783.3

LUBRICATION SYSTEM		
Operating Temperature range before Engine	°C	78 -105
Oil consumption	g/kW.hr	≤ 0.6
Total lub oil capacity (including filters)	L	64
Type of lub oil filter		Spin-on full flow filter

FUEL SYSTEM		
Type of fuel filter		Spin-on fuel flow filter
Min. internal diameter of the supply pipe	mm	14
Min. internal diameter of the return pipe	mm	14
Max fuel return restriction	Bar	0.5
Max. fuel inlet temperature	°C	50
Fuel supply flow	L/hr	326
Fuel Consumption (Tolerance +3%)		
Rating	gr/kWh	L/hr
100%ESP	203.4	153.3

100%PRP	199.1	136.3
75%PRP	194.7	100
50%PRP	196	67.1
25%PRP	221.3	37.9

## EXHAUST SYSTEM

Exhaust Gas temperature after the turbocharger	°C	550
Exhaust Gas flow	m3/min	ESP – 140.7 PRP – 131.8
Max Exhaust back pressure	mBar	75

## ALTERNATOR

Brand / Model	Leroy Somer / TAL A473 F
Rated Current	953A
Coupling / No. of Bearing	Direct / Single
Winding Pitch	2/3
Cooling type	Air
Voltage regulation method	AVR
Winding temperature sensor	/
Bearing temperature sensor	/
Anti-condensation heater voltage	AC230V
Insurance	Class H
Temperature rise	Class H
Protection Grade	IP23
Efficiency at 0.8p.f. @100% load	95.0%

## CONTROL MODULE

The control module is an easy to use multi-generator load Share system  
 DSE control module is ideal for a wide variety of demanding load share applications  
 Direct USB connection to PC.  
 All communication ports capable of being active at the same time  
 Sequential set start /Automatic hours run balancing.  
 Hours counter provides accurate information for monitoring and maintenance.



## Ratings definitions

Emergency standby power (ESP):

Emergency Standby Power 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 is 200 hours per year, with a 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.

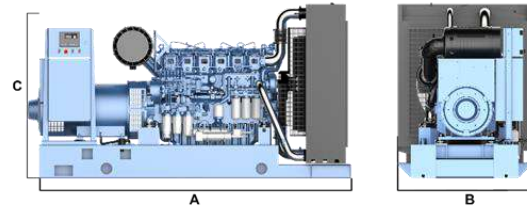
Prime power (PRP):

Prime Power 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, however, this is limited to 1 hour within every 12 hour period.

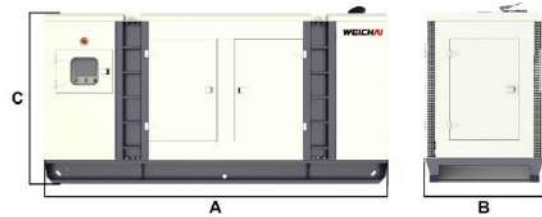
Data Center power (DCP):

Data Center Power is the maximum power which an engine is capable of delivering while supplying a variable or continuous load and during unlimited run hours.

### 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	WPG700F7	3750	1680	2210	5400
Silence	WPG700L7	5300	2180	2300	7800

\* Note: Weights represent a set with standard features. See outline drawings for weights of other configurations.

## 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.		

For more information contact your local Weichai distributor or visit [www.weichai.com](http://www.weichai.com)