

WEICHAI GEN-SETS DATASHEET



International Land Based Genset– WPG312*8NG

Gen-set specifications

Model	WPG312B (L) 8NG
Prime Rating kVA/kWe	312/250
Continual Rating kVA/kWe	250/200
Voltage V	400/230
Frequency Hz	50
Power Factor	0.8(lagging)
No. of Phases	3
Sound@7m (dB(A))	Open: ≤99 dB (A); Silence: ≤85 dB (A)
Ambient temp (°C)	-10~40 (If < -10, oil and water heating; If >40, power correction)
Altitude(m)	≤1000
Fuel	Pipeline natural gas: MN≥85
Gas supply pressure(kPa)	Max. inlet 50 (Special pressure, contact with company)
Steady-state voltage deviation	≤±2.5%
Transient voltage deviation (100% sudden power decrease/increase)	+25% ~ -20%
Voltage steady time(s)	2
Steady-state frequency band	≤1.5%
Transient frequency deviation from rated frequency (100% sudden power decrease/increase)	±18%
Frequency steady time(s)	15

Standard Features

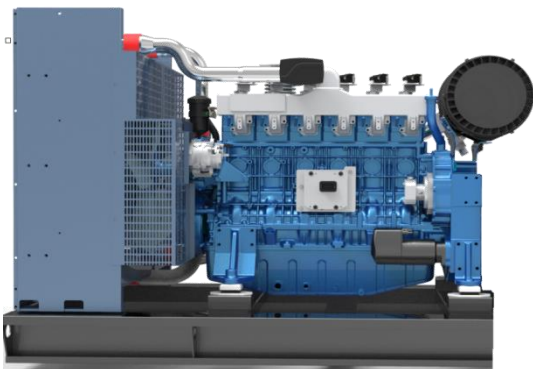
◆ ECU	◆DC24 Electric starter	◆ DSE6120MKIII
◆ Closed water-cooled	◆ IP23	◆H type insulation
◆ Air filter	◆ Muffler	◆ Circuit Breaker
◆Starting batteries	◆ with connective wires	◆ Radiator
◆Oil Drain Valve	◆Forklift Groove	◆Shock Absorber
◆ Color	Weichai blue (B)/beige canopy and black chassis (L)	
◆ Packaging	Packing case(B)/Wrapping sheet(L)	

Options

◇ Voltage 380V/400V	◇ Voltage 415V/440V	◇ Voltage 6.3kV/10.5kV /13.8kV
◇ Single Voltage 220V/230V/240V	◇ Automatic Transfer Switch	◇ Automatic Parallel system
◇ Engine Heater (water)	◇ Engine Heater (oil)	◇ Alternator heater

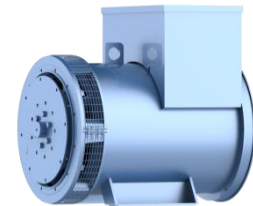
Engine

- Weichai **WP13NG** series, 6 cylinder, in-line 4 stroke, radiator cooled engine
- Well-designed air handling system with
 - Air cleaner
 - Replaceable paper element air cleaner with restriction indicator
 - Optimized turbocharger for increased altitude capabilities
 - High efficiency, large heat area intercooler, reduce the air temperature after the intercooler
- First fill of lube oil and coolant
- NG gas regulator
- NG gas filter
- Standard integral set-mounted radiator system, designed and tested for 40°C ambient temperature
- Electrical starter motor with soft start engagement feature
- Intelligent fuel injection technology to start fast guarantee
- Battery charging alternator
- 24 V DC batteries



Alternator

- Brushless type, Screen protected, Revolving field, Self excited alternator conforming to IS/IEC 60034-1
- Best in class efficiency
- Steel casing
- Compact design with sealed bearings for longer life and lesser maintenance
- IP23 standard protection level
- Impregnation on all wound components for better mechanical strength



Control Module Specifications

The DSE6120MKIII is an Auto Mains Failure Control Module

- Back-lit LCD display
- 3 Phase generator and 3 Phase Mains monitoring
- Monitoring speed, frequency, voltage, current, oil pressure, coolant temperature
- Display warning, shutdown and engine status information
- Hours counter provides accurate information for monitoring and maintenance



Engine specifications			
Make	WEICHAI		
Mode	WP13D317E300NG		
Rated Speed r/min	1500		
Prime Power kW	288		
Cooling	Close Liquid cooled		
Governor	ECU		
Aspiration	Turbocharged, Inter-cooled		
No. of cylinders	6, in-line		
Bore (mm) x Stroke (mm)	127x165		
Displacement (L)	12.54		
Starting system	24VDC Electrical		
Total coolant capacity engine/tank (L)	25/19.5		
Radiator design temperature (°C)	40		
Lubrication system capacity (L)	36		
Load rate (%)	100	75	50
Fuel consumption (kg/h)	54.21	44.40	29.50
Fuel consumption (MJ/h)	2602	2131	1416
Fuel consumption (m ³ /h) 8000 Kcal	77.67	63.62	42.27
Engine high water heat quantity(kJ/s)	165.00	146.00	110.00
Engine high water flow(m ³ /h)	22.3	/	/
Engine high water inlet/outlet Tem. (°C)	82.58/88.0	/	/
Engine high water inlet/outlet Pre. (kPa)	20.6/45.5	/	/
Exhaust gas heat quantity(kJ/s)	231.34	198.00	129.24
Exhaust gas flow (kg/h)	1458.91	1180.40	738.50
Exhaust Temperature (°C)	536	542	550
Exhaust back pressure (mbar)	75		
Exhaust Temperature after recycle(°C)	Heating water 120/0.5Mpa steam 190/1MPa steam 220		

Alternator specifications	
Make	WEICHAI or LERYSOMER
Alternator Frame	WHA-312.5-4/0.4 or TAL A46 G
Exciter Type	Self-excitation
Enclosure	IP23
Voltage regulation	≤ ±1%
Class of Insulation	H

Winding Pitch	2/3
Rotor	Single bearing

Remarks

Prime Rating (PRP) :

Prime power is defined as being the maximum power which a generating set is capable of delivering continuously while supplying a available electrical load when operated for an unlimited number of hours per year under the agreed operating conditions with the maintenance intervals and procedures being carried out as prescribed.

Continual Rating (COP):

These ratings are applicable for supplying continuous electrical power (at 100% load) in the event of a utility power failure. There is no limitation to the annual hours of operation under the agreed operating conditions with the maintenance intervals and procedures being carried out as prescribed.

Standard Reference Conditions

Standard operating environment: ambient temperature is $-10^{\circ}\text{C}\sim 40^{\circ}\text{C}$, the altitude is less than 1000m, the relative humidity is less than 90%(25 $^{\circ}\text{C}$) and there is no dust\stand dust\salt fog\mold\condensation environment, etc.

Fuel consumption data at full load with diesel fuel with specific gravity of 0.726 kg/N m³ and low calorific value of 47.9 MJ/kg.

If the operating environment exceeds the above requirements, please contact with the factory.

Typical Genset Dimensions

Genset Model	Length A(mm)	Width B(mm)	Height C(mm)	Wet Weight (kg)	Note
WPG312B8NG	3200	1345	4885	2960	
WPG312L8NG	4450	1280	2200	3773	

Note: This size cannot be used for design, for design, please contact with company.

Open genset

Silence genset

