WEICHAI GEN-SETS DATASHEET

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)	$-10 \sim 40$ (If < -10 , oil and water heating; If > 40 , power correction)		
Altitude(m)	≤1000		
Fuel	Pipeline natural gas ; MN≥80		
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/50% increase)	+25%~-20%		
Voltage steady time(s)	6		
Steady-state frequency band	≤1.5%		
Transient frequency deviation from rated	100% sudden power decrease≤+12% ;		
frequency	50% sudden power increase≤-20%		
Frequency steady time(s)	5		

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 ◆Shock Absorber	
♦Oil Drain Valve	◆Forklift Groove		
♦ Color	Weichai blue (B)/beige canopy and black chassis (L)		
◆ Packaging	Packing case(B)/Wrapping sheet(L)		

Options

◇Voltage380V/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	
◇PMG/AREP			

Engine

- Well-designed air handling system with
 - Air cleaner
 - Replaceable paper element air cleaner with restriction indicator

Weichai **WP13NG** series, 6 cylinder, in-line 4 stroke, radiator cooled engine

- Optimized turbocharger for increased altitude capabilities
- High efficiency, large heat area intercooler, reduce the air temperature after the intercooler
- MG gas regulator
- MG 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

- ef 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

protection level



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	50			
Fuel consumption (kg/h)	54.21	44.40	29.50		
Engine high water heat quantity(kJ/s)	165.00	146.00	110.00		
Engine high water flow(m³/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 water120/0.5Mpa 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	н		
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 gas fuel with specific gravity of 0.726 kg/N m3and 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.

