

WEICHAI GEN-SETS DATASHEET



Land Based Genset-WPG55*1

Gen-set specifications

Model	WPG55*1
Standby Rating kVA/kWe	55/44
Prime Rating kVA/kWe	50/40
Voltage V	400/230
Frequency Hz	50
Power Factor	0.8(lagging)
No. of Phases	3
Sound@1m (dB(A))	Open≤105 dB (A) ; Silence ≤85 dB (A)
Ambient temp (℃)	-10~45
Gen-set regulation class	ISO8528-5 G2
Steady-state voltage deviation	≤±2.5%; ≤±5%
Transient voltage deviation (100% sudden power decrease/increase)	+25%; -20%
Steady-state frequency band	≤1.5%
Transient frequency deviation from rated frequency (100% sudden power decrease/increase)	+12%; -10%
Fuel consumption@25% / 50% / 75%(L/h)	3.2 / 6 / 8
Fuel consumption@100% (L/h)	10.9

Standard Features

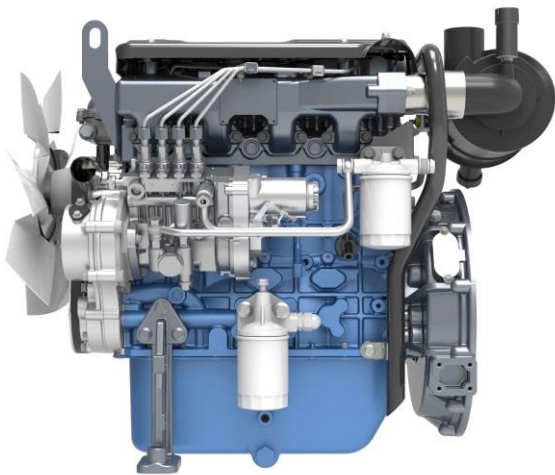
◆ ECU	◆ DC12 Electric starter	◆ Deep-sea DSE 6120 MKIII
◆ Closed water-cooled	◆ IP23	◆ H type insulation
◆ Air filter	◆ Muffler	◆ Circuit Breaker
◆ Starting batteries	◆ with connective wires	◆ Radiator
◆ Oil Drain Valve	◆ Forklift Groove	◆ Shock Absorber
◆ Color	Weichai blue (F)/beige canopy and black chassis (L)	
◆ Packaging	packing case(B,F)	

Options

◇ Voltage 380V/415V	◇ Voltage 440V/480V	◇ External fuel tank (1000L/1500L)
◇ Single Voltage 220V/230V	◇ Automatic Transfer Switch	◇ Alternator heater
◇ Engine Heater (water)	◇ Auxiliary winding	

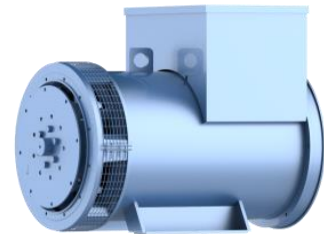
Engine

- Weichai **WP2.3** series, 4 cylinder, in-line 4 stroke, radiator cooled engine
- Well-designed air handling system with
 - Dry type, Replaceable paper element air cleaner with restriction indicator
 - Air to air after cooling
 - Optimized turbocharger for increased altitude capabilities
 - High efficiency, large heat area intercooler, reduce the air temperature after the intercooler
- Fuel system with A1 class electronic governing
- Electrical starter motor with soft start engagement feature
- Intelligent fuel injection technology to start fast guarantee
- Battery charging alternator
- 1 x 12 V DC batteries



Alternator

- Brushless type, Screen protected, Revolving field, Self excited alternator conforming to 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 Deep-sea DSE 6120 MKIII 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 and fuel level
- Display warning, shutdown and engine status information
- Hours counter provides accurate information for monitoring and maintenance



Engine specifications	
Make	WEICHAI
Mode	WP2.3D53E210
Rated Speed r/min	1500
Prime Power kW	48
Cooling	Liquid cooled
Governor	ECU
Aspiration	TA
No. of cylinders	4,in-line
Bore (mm) x Stroke (mm)	89x92
Displacement (L)	2.3
Starting system	12VDC Electrical
Total lubrication system capacity (L)	7.35
Total coolant capacity (L)	8.4
Cooling fan airflow (m³/min)	102
Exhaust Temperature (°C)	≤700
Recommended air flow @ PRP (m³/min)	2.6
Exhaust back pressure (mBar)	≤80
Radiator design temperature(°C)	50

Alternator specifications	
Make	WEICHAI ; LEROY-SOMER
Alternator Frame	WHA-50-4/0.4 ; TAL A42 G
Exciter Type	Self-excitation
Enclosure	IP23
Voltage regulation	≤±1%
Class of Insulation	H
Winding Pitch	2/3
Rotor	Single bearing

Remarks

Prime power(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 by the manufactures.

The permissible average power output, over 24h of operation shall not exceed 70% of the PRP unless otherwise agreed by the RIC engine manufacturer.

Emergency standby power(ESP)

Emergency standby power is defined as the maximum power available during a available electrical power sequence, under the stated operating conditions, for which a generating set is capable of delivering in the event of a utility power outage or under test conditions for up to 200h of operation per year with the with the maintenance intervals and procedures being carried out as prescribed by the manufactures.

The permissible average power output, over 24h of operation shall not exceed 70% of the ESP unless otherwise agreed by the RIC engine manufacturer.

Standard Conditions

Standard operating environment: ambient temperature is 5°C~40°C,the altitude is less than 1000m,the relative humidity is less than 90%(25°C),and there is no dust, sand dust, salt fog, mold, condensation environment, etc.

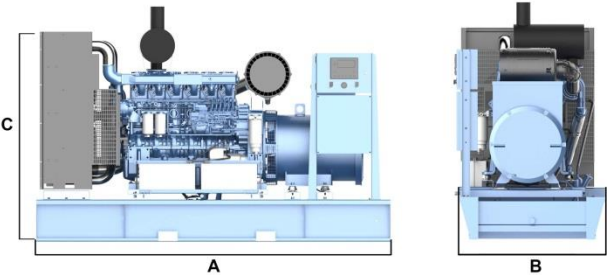
If the operating environment exceeds the above requirements, please contact the factory and consult.

Typical Enclosed Genset Dimensions

Genset Model	Prime Rating (kVA)	Length A(mm)	Width B(mm)	Height C(mm)	Wet Weight* (kg)	Standard Fuel tank Capacity (L)
WPG55F1	55	1600	807	1118	750	55
WPG55L1	55	2250	850	1100	1050	74

*:Include coolant and oil.

Open genset



Enclosed genset

