

500KVA Generator Set

Engine	Alternator	Powered by	CONTROLLER
WEICHAI WP13D510E311	LERROY-SOMER	WEICHAI	Deep Sea (DSE6120)
Frequency	Phase	Power Factor	Emissions
60Hz/1800rpm	3-Phase	Factor Cos = 0.8	N/A

Generator Set Specifications

Item	Parameter
Silent Box Size (L*W*H mm)	4000*1450*1900
Rated Power (KW)	400
Rated Current (A)	720
Starting Method	DC24V Electric Start
Base Fuel Tank Capacity (L)	270
Rated Voltage (V)	400/230
Speed Regulation Method	Electronic Speed Regulation

Engine Specifications

Item	Parameter
Model	WP13D510E311
Rated Power (KW)	450
Standby Power (KW)	510
Fuel Consumption (L/h)	40
Intake Method	Turbocharged & Inter-cooled
Type	Four-stroke, Inline 6-cylinder
Cooling Method	Water-cooled with built-in radiator

Alternator Specifications

Item	Parameter	Item	Parameter
Brand	Leroy-Somer	Voltage Stabilization Time (s)	4S
Model	TAL-A473-C	Frequency Fluctuation (%)	≤0.5%
Excitation Mode	Brushless Excitation	Frequency Stabilization Time (s)	3S
Winding Material	Pure Copper	Voltage Instantaneous Regulation (%)	+20% ~ -15%
Protection Grade	IP23	Steady-state Voltage Regulation (%)	≤±0.25%
Insulation Grade	H	Frequency Steady-state Regulation (%)	+10% ~ -7%
Voltage Fluctuation (%)	≤0.5%	Frequency Transient Regulation (%)	0~5% (Adjustable)

Key Features

- High-efficiency water-cooled diesel engine for reliable and consistent performance.
- Single bearing, brushless alternator with Class H insulation and AVR for stable power output.
- Advanced cooling system with radiator, pressure cap, and drain point.
- Fully guarded engine-driven fan for enhanced safety.
- Heavy-duty welded steel skid base, designed with lifting holes and forklift slots for easy handling.
- Integral fuel tank with filler cap and gauge (≤650kVA) for extended operation.
- Robust anti-vibration rubber mountings to minimize wear and ensure stability.
- 12V / 24V maintenance-free starter battery with cables, plus an engine-driven charging alternator.
- Easy maintenance design with spin-on oil and fuel filters and a dry-type air filter.
- Industrial silencer (up to 15dBA noise reduction) supplied loose for flexible installation.
- Auto-start control system with LCD display for efficient monitoring and operation.
- Integrated battery charger for reliable starting power.
- Main line 3P circuit breaker for safe and secure operation.
- Rigorous factory testing with IEC standard compliance to ensure quality.
- Supplied with Operation & Maintenance manual and wiring diagrams.
- Optional extra features available to meet different application needs.

Ratings

- Three-phase generator sets are rated at a 0.8 power factor.
- Single-phase generator sets are rated at 0.8 or 1.0 power factor depending on the application.

(1) PRP – Prime Power

Designed for continuous operation under variable load, serving as an alternative to commercially purchased power. Units can run unlimited hours per year in accordance with ISO 8528-1. An overload capacity of 10% is permitted for 1 hour in every 12 hours of operation as per ISO 3046-1.

(2) ESP – Emergency Standby Power

Intended for standby use in the event of a mains/utility power failure. Provides reliable backup under variable load conditions in compliance with ISO 8528-1.

(3) STD – Standard Alternator

Indicates the use of a standard alternator configuration for the generator set.

