

# B500S

## Diesel Generator Set, Powered by Baudouin

### Main technical data

Rated voltage		380	400	415	440	
Prime power	kVA/kW	500 / 400	500 / 400	500 / 400	500 / 400	
Standby power	kVA/kW	550 / 440	550 / 440	550 / 440	550 / 440	
Ampere	A	760	722	696	656	
Frequency	Hz	50				
Rotate speed	RPM	1500				
Phase	P	3				
Power factor	cosφ	0.8				
Structure		Soundproof type				
Model		B500S				
Tank capacity	L	1600				
Dimensions	mm	4586 x 1564 x 2556				
Dry weight	kg	5430				
Noise Level	dBA@7m	77.5				
Load		25%	50%	75%	100%	110%
Fuel consumption	L/h	27.8	51.0	75.3	109.5	123.1

## Main Specification

### Advantage

- Low fuel consumption
- Optimized system
- High reliability
- High availability
- Long maintenance cycle

### Design standards

- Conformance Europe (CE)
- ISO8528-5:2005
- GB/T2820.5-2009

### Environmental operating conditions

- Installation place: indoor (well ventilated)
- Ambient temperature: -25°C to 50°C (the coolant heater is needed when the temperature is below 5°C)
- Humidity: Less than 90%
- Altitude: Below one thousand (1000) meters.

### Performance guarantee

- Product design, manufacturing and performance integrity verified by standards
- Generator set passed transient response test according to ISO8528-5
- Both engine and alternator are prototype and factory tested

### Service support

- Provide global product service support

### Factory inspection

- Protection devices working test
- Starting ability in normal temperature
- 50% rated power load moment capability
- Voltage deviation and speed variation: 0, 25%, 50%, 75%, 100%, 110%

## Power System

### Engine

Manufacturer	Baudouin	Intake system	Turbocharged
Model	6M21G550/5	Intake resistance: kPa	≤7.0
Cylinders and arrangement	6L	Back power: kPa	≤12
Bore: mm	127	Oil capacity: L	34
Stroke: mm	165	Coolant capacity: L	62
Displacement: L	12.54	Battery voltage: V	24
Compression ratio	15.2	Dimensions: mm	2032×1232×1490
Rotate speed: RPM	1500	Dry weight: kg	1190
Prime power: kWm	450		
Standby power: kWm	490		
Rotate speed governor	ECU		
Type of injection	Direct		

### Alternator

Manufacturer	PowerLink	Insulation class	H
Model	PL5M	Temperature rising class	H
Exciter	PMG	Drip proof	IP23
AVR model	MX321	Overspeed: RPM	2250
Windings	100% copper	Voltage regulation	±0.5%
Winding pitch	2/3	Telephone harmonic factor THF	<2%
Number of poles	4	Telephone interference factor TIF	<50
Terminals	12		

## Control System

Manufacturer	POWERLINK
Model	PLC7420

### General functions

- Automatic start/stop control
- Manual/remote start control
- Automatically start when mains is abnormal (AMF)
- Real time monitoring and display of multiple parameters
- RS232, RS485 port and ethernet can be used
- CAN and Modbus communication
- Provide complete control solutions

### Monitoring and protection

Oil pressure	Overload
Water temperature	Overcurrent
Rotate speed	Overvoltage
Start	Undervoltage
Running time	Overfrequency
Battery voltage	Underfrequency
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## Product Configuration

### Standard Configuration

Engine	Alternator	Control switchgear	Canopy (soundproof)	Base frame
Electrical start motor	Insulation class H	PLC control system	Electrogalvanized sheet	Steel base frame
Battery system	Temp. rising class H	GCB, 3P	Anti-corrosion coating	Engine bracket
Speed control system	Drip proof class IP23	Breaker cabinet	Access door	Alternator bracket
Turbocharger	AVR	Communi. connector	Stainless steel hinge	Radiator bracket
Lockable isolator switch		ATS connector	Sound absorbing cotton	Vibration isolators
Battery charger		Mains floating charger		

  

Fuel system	Lubrication system	Cooling system	Intake/exhaust system	Documents
Base frame fuel tank	Oil pressure sensor	50°C radiator	Air filter	Installation and operation manual
Fuel level sensor	Oil temp. sensor	Coolant level sensor	Muffler	Test report
Flexible pipe	Oil filter	Jacket water pipe	Exhaust bellows	Wiring diagram
Fuel filter	Manual drain pump	Intercooling pipe	Exhaust pipe and flange	Warranty manual
Fuel inlet	Oil drain ball valve		High temperature protective sleeve	Engine manual
				Standard package

### Optional Configuration

Engine	Alternator	Control system	Fuel system	Lubrication system
Jacket water preheater	PMG	GCB, 4P	Fuel-water separator	Electric drain pump
Oil preheater	Anti-condensation heater	ATS cabinet	Fuel three-way valve	
	Treatments against humidity & corrosion	Paralleling control	Daily fuel tank	

### Power Class Definition

- Prime Power (PRP): the genset runs continuously with variable load, the number of operating hours is not limited, and 1h overload 10% operation is allowed per 12h, and the average load factor is less than 80% per 24h.
- Standby Power (ESP): operating time does not exceed 500h per year, continuous operating time does not exceed 300h, the average load factor is less than 80% per 24h. Overload operation is not allowed.

### Product Statement

- The data of specifications is based on the following standard environmental conditions test
  - Ambient temperature 25°C
  - Altitude 100m
  - Relative temperature 30%
- Dimensions, weight and other parameters are for reference only, please refer to the final design drawing.