

## B20SE3

### Diesel Generator Set, Powered by Baudouin



#### Main technical data

Rated voltage		380	400	415	440
Prime power	kVA/kW	20 / 16	20 / 16	20 / 16	20 / 16
Standby power	kVA/kW	23 / 18	23 / 18	23 / 18	23 / 18
Ampere	A	30	29	28	26
Frequency	Hz	50			
Rotate speed	RPM	1500			
Phase	P	3			
Power factor	cosφ	0.8			
Structure		Soundproof type			
Model		B20SE3			
Tank capacity	L	140			
Dimensions	mm	2300 x 830 x 1358			
Dry weight	kg	1050			
Noise Level	dBA@7m	67			
Load		50%	75%	100%	
Fuel consumption	L/h	2.9	4.0	5.3	

## Main Specification

### Advantage

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

### Design standards

- Conformance Europeene 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	Natural
Model	4M08G4D3/5	Intake resistance: kPa	≤6.2
Cylinders and arrangement	4L	Back power: kPa	≤11
Bore: mm	98	Oil capacity: L	9
Stroke: mm	105	Coolant capacity: L	5
Displacement: L	3.2	Battery voltage: V	24
Compression ratio	17.2	Dimensions: mm	896×644×878
Rotate speed: RPM	1500	Dry weight: kg	300
Prime power: kWm	25		
Standby power: kWm	27.5		
Rotate speed governor	ECU		
Type of injection	Direct		

### Alternator

Manufacturer	PowerLink	Insulation class	H
Model	PL1F	Temperature rising class	H
Exciter	SELF EXCITED	Drip proof	IP23
AVR model	SX460	Overspeed: RPM	2250
Windings	100% copper	Voltage regulation	±1.0%
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	PLC920

### 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
Lockable isolator switch	AVR	Communi. connector	Stainless steel hinge	Radiator bracket
Battery charger		ATS connector	Sound absorbing cotton	Vibration isolators
		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	Daily fuel tank
	Treatments against humidity & corrosion	Paralleling control		

### 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.