

B80SE3

Diesel Generator Set, Powered by Baudouin



Main technical data

| Rated voltage | | 380 | 400 | 415 | 440 | |
|------------------|--------|-----------------|---------|---------|---------|------|
| Prime power | kVA/kW | 80 / 64 | 80 / 64 | 80 / 64 | 80 / 64 | |
| Standby power | kVA/kW | 88 / 70 | 88 / 70 | 88 / 70 | 88 / 70 | |
| Ampere | A | 122 | 116 | 111 | 105 | |
| Frequency | Hz | 50 | | | | |
| Rotate speed | RPM | 1500 | | | | |
| Phase | P | 3 | | | | |
| Power factor | cosφ | 0.8 | | | | |
| Structure | | Soundproof type | | | | |
| Model | | B80SE3 | | | | |
| Tank capacity | L | 530 | | | | |
| Dimensions | mm | 2788x1165x1900 | | | | |
| Dry weight | kg | 1831 | | | | |
| Noise Level | dBA@7m | 69 | | | | |
| Load | | 25% | 50% | 75% | 100% | 110% |
| Fuel consumption | L/h | 5.2 | 9.1 | 13.5 | 18.8 | 21.3 |

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 | Turbocharged |
| Model | 4M10G4D3/5 | Intake resistance: kPa | ≤6 |
| Cylinders and arrangement | 4L | Back power: kPa | ≤5 |
| Bore: mm | 105 | Oil capacity: L | 14 |
| Stroke: mm | 118 | Coolant capacity: L | 9.4 |
| Displacement: L | 4.088 | Battery voltage: V | 24 |
| Compression ratio | 17.5 | Dimensions: mm | 892x683x873 |
| Rotate speed: RPM | 1500 | Dry weight: kg | 400 |
| Prime power: kWm | 74.5 | | |
| Standby power: kWm | 84 | | |
| Rotate speed governor | ECU | | |
| Type of injection | Direct | | |

Alternator

| | | | |
|-----------------|-------------|-----------------------------------|-------|
| Manufacturer | PowerLink | Insulation class | H |
| Model | PL2D | 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 |
| | |

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.