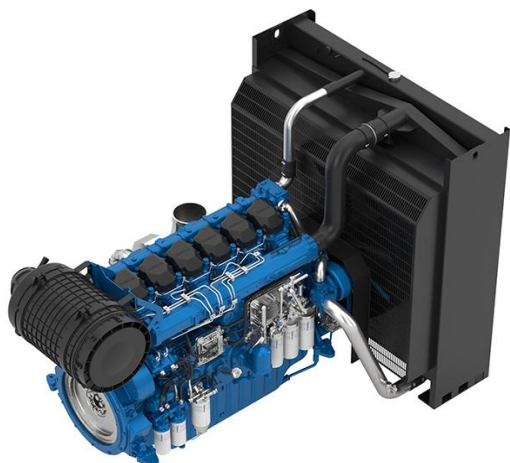


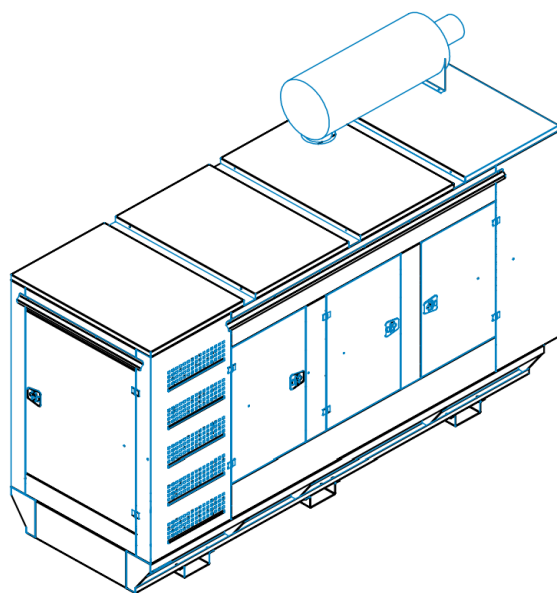
ABATO® Motoren

Innovation in Power Generation®



AB650-OPEN

| | |
|----------------------|-----------------------|
| Dimensions L x W x H | 4100 x 1790 x 2000 mm |
| Weight | 4700 kg |



AB650-CANOPY

| | |
|----------------------|-----------------------|
| Dimensions L x W x H | 4200 x 1440 x 2960 mm |
| Weight | 7227 kg |

General information

| | |
|------------------|---------|
| Genset power PRP | 650 kVA |
| Genset power ESP | 715 kVA |

| | |
|--------------------|--------|
| Engine power (PRP) | 520 kW |
| Rated current | 936 A |

Engine

| | |
|-------------------------|----------|
| Fuel | Diesel |
| Fuel tank capacity | 1000 L |
| Autonomy with 100% load | 7,3 h |
| Engine speed | 1500 rpm |

Alternator

| | |
|--------------------|-------|
| Voltage | 400 V |
| Frequency | 50 Hz |
| Rated power factor | 0,8 |
| Efficiency | 95,0% |

Prime Power (PRP)

Prime Power is the maximum power available for unlimited hours of usage in a variable load application. The average load factor should not exceed 70% of the engine's PRP power rating during any 24 hour period. An overload capability of 10% is available, however, this is limited to 1 hour within every 12 hour period.

Emergency Standby Power (ESP)

Emergency Standby Power is the maximum power available for a varying load for the duration of a main power network failure. The average load factor over 24 hours of operation should not exceed 70% of the engine's ESP power rating. Typical operational hours of the engine is 200 hours per year, with a maximum usage of 500 hours per year. This includes an annual maximum of 25 hours per year at the ESP power rating. No overload capability is allowed. The engine is not to be used for sustained utility paralleling applications.

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Engine specifications

General information

| | |
|--------------------------|------------------------------|
| Engine manufacturer | Baudouin |
| Engine model | 6M33G715/5 |
| Engine speed | 1500 rpm |
| N° of Cylinders / Valves | 6 / 24 |
| Cylinders arrangement | In line |
| Bore x Stroke | 150 x 185 mm |
| Displacement | 19,6 L |
| Thermodynamic Cycle | Diesel 4 stroke |
| Compression ratio | 15 : 1 |
| Injection System | Direct |
| Fuel System | Mechanical Pump |
| Aspiration | Turbocharged and aftercooled |

Noise

| | |
|---------------------|-----------|
| Diesel engine noise | 120 dB(A) |
|---------------------|-----------|

Lubrication system

| | |
|---|-------------|
| Oil capacity Low / High | 36 / 61 L |
| Oil pressure under normal conditions | 4 - 6,5 Bar |
| Max. oil temp | 105 °C |
| Oil fuel consumption ratio | ≤ 0.3 % |
| Total system capacity including filters | 64,0 L |

Electrical system

| | |
|---------------------------|------|
| Electrical system voltage | 24 V |
| Starter power | 9 kW |
| Dynamo charger current | 55 A |

Air intake

| | |
|-------------------------------------|-------------|
| Air intake temperature rise | ≤ 5 °C |
| Air intake restriction clean filter | ≤ 30 mbar |
| Air intake restriction dirty filter | ≤ 65 mbar |
| Recommended air flow PRP | 40,0 m³/min |
| Recommended air flow ESP | 44,0 m³/min |
| Min. diameter of intake pipe | 140 mm |

Exhaust system

| | |
|---------------------------------------|--------------|
| Max. exhaust back pressure | 75 mBar |
| Max. exhaust temp before turbocharger | 750 °C |
| Max. exhaust temp after turbocharger | 550 °C |
| Exhaust flow @ PRP | 131,8 m³/min |
| Exhaust flow @ ESP | 140,7 m³/min |
| Min. diameter of exhaust pipe | 200 mm |

Cooling system

| | |
|--|--------------------|
| Max. ambient temp up to | 50 °C |
| Radiator type | Mechanical |
| Fan type | Belt driven pusher |
| Coolant capacity of radiator and pipes | 50 L |
| Thermostat opening temp | 80 °C |
| Thermostat full open temp | 92 °C |
| Coolant capacity of the engine | 44 L |
| Cooling fan airflow | 720 m³/min |

Aftercooling system

| | |
|---------------------------------|------------|
| Aftercooler system type | Air to air |
| Max. intake temp @ 25°C ambient | 55 °C |
| Max. diff intake / ambient temp | 30 °C |
| Max. pressure drop aftercooler | 150 mBar |

Fuel system

| | |
|-----------------------------|------------|
| Governor | Electronic |
| Max. pressure at fuel inlet | 1,3 Bar |
| Max. fuel inlet temp | 50 °C |
| Fuel supply flow | 326 L/h |

Fuel consumption

| | |
|----------------------------|-----------|
| Consumption at 100% ESP | 153,3 L/h |
| Consumption at 100% PRP | 136,3 L/h |
| Consumption at 75% PRP | 100,0 L/h |
| Consumption at 50% PRP | 67,1 L/h |
| Consumption at 25% PRP | 37,9 L/h |
| Fuel consumption tolerance | ± 3% |

*All ratings are based on operating conditions under ISO 8528-1, ISO 3046, DIN6271 Performance tolerance of ±5%.

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Alternator specifications

General information

| | |
|-------------------------|----------------|
| Alternator manufacturer | XINGNUO or eq. |
| Alternator model | XN5F or eq. |
| Voltage | 400 V |
| Frequency | 50 Hz |
| Rated power factor | 0,8 |
| Technology | Brushless, AVR |
| Voltage measurement | 3-phase |
| Efficiency | 95,0% |

Cooling

| | |
|-------------------|--------------|
| Cooling air | 1.035 m³/sec |
| Temp rise cont. H | 125/40 °C |

Protection and distortion

| | |
|--|---------|
| Insulation system | H |
| Protection | IP23 |
| Telephone interference | THF <2% |
| Waveform distortion without load | < 1.5% |
| Waveform distortion with a linear load | < 5.0% |

Internal assembly

| | |
|--|------------------|
| Maximum overspeed | 2250 Rev/Min |
| Stator winding | Double layer lap |
| Winding pitch | 2/3 |
| Winding leads | 12 |
| Bearing amount | 1 |
| Stator wdg. Resistance per phase at 22°C | 0.0037 Ohms |
| Rotor wdg. Resistance at 22°C | 2.16 Ohms |

Alternator highlights

Low telephone interference (THF) as defined by IEC 60034-1
 High efficiency and motor startup capability
 Rigid assembly, effectively reduces the vibration during running
 All rotors are dynamically balanced to conform with BS6861
 Non-maintenance sealed-for-life ball bearing
 Suitable for environment with 95% relative humidity

*Used alternator meets the requirements of BS5000, VDE0530, UTE5100, NEMA MGt-22, CEMA, IEC34-1, CSAC22.2-100 and AS1359

ComAp IntelliLite AMF 25



The following features are included in the used model:

- Standby and Prime power applications
- Flexible event based history with up to 350 events
- 3 Phase generator current measurement
- Generator and Mains phase voltage measurement
- Active/reactive power measurement
- Active and reactive energy counter
- Battery charging alternator circuit connection
- Comprehensive gen-set protections
- CAN and USB on board
- Internet access using Ethernet, GPRS or 4G module
- Support for Modbus and SNMP protocols
- Cloud-based monitoring and control via WebSupervisor
- Active SMS or e-mails (module required)
- Geofencing and tracking via WebSupervisor
- 2x 10 A binary outputs for cranking and fuel solenoid
- Option for up to 16 additional binary inputs/outputs
- Operating temperature -20 + 70°C
- IP65 operator interface protection