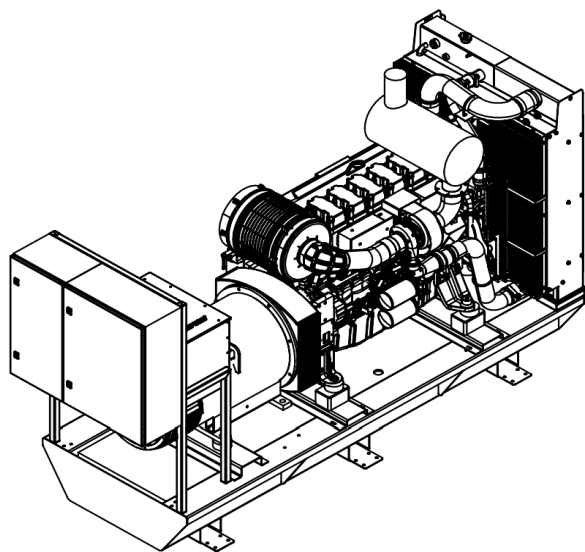


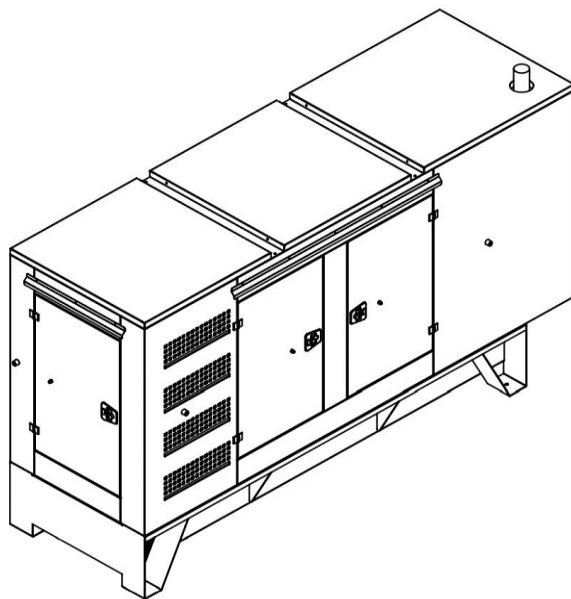
# ABATO® Motoren

*Innovation in Power Generation®*



**AB450-OPEN**

Dimensions L x W x H      3320 x 1090 x 1850 mm  
Weight      4100 kg



**AB450-CANOPY**

Dimensions L x W x H      3850 x 1200 x 2215 mm  
Weight      5425 kg

## General information

Genset power PRP      450 kVA  
Genset power ESP      500 kVA

### Engine

Fuel      Diesel  
Fuel tank capacity      800 L  
Autonomy with 100% load      8,3 h  
Engine speed      1500 rpm

Engine power (PRP)      360 kW  
Rated current      648 A

### Alternator

Voltage      400 V  
Frequency      50 Hz  
Rated power factor      0,8  
Efficiency      93,8%

## 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	6M21G500/5
Engine speed	1500 rpm
N° of Cylinders / Valves	6 / 24
Cylinders arrangement	In line
Bore x Stroke	127 x 165 mm
Displacement	12,5 L
Thermodynamic Cycle	Diesel 4 stroke
Compression ratio	16 : 1
Injection System	Direct
Fuel System	Common rail
Aspiration	Turbocharged and aftercooled

### Noise

Diesel engine noise	112 dB(A)
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### Lubrication system

Oil capacity Low / High	30 / 34 L
Oil pressure under normal conditions	3,5 - 5,5 Bar
Max. oil temp	105 °C
Oil fuel consumption ratio	≤ 0.2 %
Total system capacity including filters	40,0 L

### Electrical system

Electrical system voltage	24 V
Starter power	9 kW
Dynamo charger current	70 A

### Air intake

Air intake temperature rise	≤ 15 °C
Air intake restriction clean filter	≤ 35 mbar
Air intake restriction dirty filter	≤ 70 mbar
Recommended air flow PRP	27,5 m³/min
Recommended air flow ESP	28,8 m³/min
Min. diameter of intake pipe	100 mm

### Exhaust system

Max. exhaust back pressure	120 mBar
Max. exhaust temp before turbocharger	740 °C
Max. exhaust temp after turbocharger	580 °C
Exhaust flow @ PRP	87,0 m³/min
Exhaust flow @ ESP	99,0 m³/min
Min. diameter of exhaust pipe	100 mm

### Cooling system

Max. ambient temp up to	50 °C
Radiator type	Mechanical
Fan type	Belt driven pusher
Coolant capacity of radiator and pipes	22 L
Thermostat opening temp	76 °C
Thermostat full open temp	88 °C
Coolant capacity of the engine	25 L
Cooling fan airflow	550 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	120 mBar

### Fuel system

Governor	ECU
Max. pressure at fuel inlet	1,3 Bar
Max. fuel inlet temp	50 °C
Fuel supply flow	400 L/h

### Fuel consumption

Consumption at 100% ESP	110,1 L/h
Consumption at 100% PRP	95,9 L/h
Consumption at 75% PRP	69,6 L/h
Consumption at 50% PRP	46,6 L/h
Consumption at 25% PRP	26,4 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	XN5C or eq.
Voltage	400 V
Frequency	50 Hz
Rated power factor	0,8
Technology	Brushless, AVR
Voltage measurement	3-phase
Efficiency	93,8%

### 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	0.0065 Ohms
Rotor wdg. Resistance at 22°C	1.55 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