

| RATINGS 400 V - 50 Hz | | |
|-----------------------|-----|-------|
| Standby | kVA | 25 |
| | kWe | 20 |
| Prime | kVA | 23 |
| | kWe | 18.40 |



Benefits & features

KOHLER premium quality

- KOHLER provides one source responsibility for the generating set and accessories
- The generator set, its components and a wide range of options have been fully developed, prototype tested, factory built, and production tested
- The generator sets are designed in accordance to ISO8528

KOHLER premium performances

Engines

- High reliability enhanced through a simple design for optimal functional performances
- High performances turbochargers providing high engine performances under all loads
- Easy operation and maintenance

Alternator

- Provide industry leading motor starting capability
- Excitation system to permit sustained overcurrent > 270% In, during 5 sec
- Built with a class H insulation and IP23

Cooling

- A compact and complete solution using a mechanical radiator fan
- High temperature and altitude product capacity available

Control Panel

- The KOHLER wide controller range provides the reliability and performances you expect from your equipment. You can program, manage and diagnose it easily and in an efficient way

GENERAL SPECIFICATIONS

| | |
|-------------------------------------|-------------------------------|
| Engine brand | BAUDOQUIN |
| Alternator commercial brand | KOHLER |
| Voltage (V) | 400/230 |
| Standard Control Panel | APM303 |
| Consumption @ 100% load ESP (L/h) * | 7 |
| Consumption @ 100% load PRP (L/h) * | 6 |
| Emission level | Fuel consumption optimization |
| Type of Cooling | Mechanical driven fan |
| Performance class | G2 |

GENERATOR SETS RATINGS

| | Voltage | PH | Hz | Standby Rating | | | Prime Rating | |
|-----|---------|----|----|----------------|-----|------|--------------|-----|
| | | | | kWe | kVA | Amps | kWe | kVA |
| B25 | 415/240 | 3 | 50 | 20 | 25 | 35 | 18.40 | 23 |
| | 400/230 | 3 | 50 | 20 | 25 | 36 | 18.40 | 23 |
| | 380/220 | 3 | 50 | 20 | 25 | 38 | 18.40 | 23 |

DIMENSIONS COMPACT VERSION

| | |
|-------------------|------|
| Length (mm) | 1700 |
| Width (mm) | 896 |
| Height (mm) | 1085 |
| Tank capacity (L) | 100 |
| Dry weight (kg) | 537 |

DIMENSIONS SOUNDPROOFED VERSION

| | |
|---|--------|
| Type soundproofing | M137-B |
| Length (mm) | 2100 |
| Width (mm) | 938 |
| Height (mm) | 1267 |
| Tank capacity (L) | 100 |
| Dry weight (kg) | 787 |
| Acoustic pressure level @1m in dB(A) 50Hz (75% PRP) | 73 |
| Acoustic pressure level @7m in dB(A) 50Hz (75% PRP) | 63 |

Reference Conditions: 25°C Air Inlet Temperature, 40°C Fuel Inlet Temperature, 100 kPa Barometric Pressure; 10.7 g/kg of dry air Humidity. Intake Restriction set to maximum allowable limit for clean filter; Exhaust Back pressure set to maximum allowable limit; Fuel density at 0.85 kg/L.

Data was taken from a single engine test according to the test methods, fuel specification and reference conditions stated above and is subjected to instrumentation and engine-to-engine variability. Test conducted with alternate test methods, instrumentation, fuel or reference conditions can yield different results. Data and specifications subject to change without notice.

Engine

General

| | |
|--|-------------------------------|
| Engine brand | BAUDOUIIN |
| Engine ref. | 4M06G25_5 * |
| Air inlet system | Atmo |
| Fuel | Diesel Fuel/HVO |
| Emission level | Fuel consumption optimization |
| Cylinder configuration | L |
| Number of cylinders | 4 |
| Displacement (l) | 2.29 |
| Bore (mm) * Stroke (mm) | 89 * 92 |
| Compression ratio | 17.5 : 1 |
| Speed 50Hz (RPM) | 1500 |
| Maximum stand-by power at rated RPM (kW) | 20 |
| Piston type & material | Not defined |
| Charge Air coolant | Air/Water |
| Frequency regulation, steady state (%) | +/- 0.5% |
| Injection Type | Direct |
| Governor type | Electronic |
| Air cleaner type, models | Dry |

Fuel system

| | |
|---|-------|
| Maximum fuel pump flow (l/h) | 40.20 |
| Fuel Inlet Minimum recommended size (mm) | 10 |
| Fuel Outlet Minimum recommended size (mm) | 10 |
| Max head on fuel return line (m fuel) | 5.90 |
| Maximum allowed inlet fuel temperature (°C) | 70 |

Consumption with cooling system

| | |
|--|--------|
| Specific consumption @ ESP Max Power (g/kW.h) | 238.90 |
| Specific consumption @ PRP Max Power (g/kW.h) | 224.20 |
| Specific consumption @ 75% of PRP Power (g/kW.h) | 218.50 |
| Specific consumption @ 50% of PRP Power (g/kW.h) | 230.70 |

Emissions

| | |
|-----------------------|-------|
| Emission PM (g/kW.h) | 0.15 |
| Emission CO (g/kW.h) | 2.93 |
| Emission NOx (g/kW.h) | 12.30 |
| Emission HC (g/kW.h) | 0.54 |

* Engine reference may be partially modified depending on genset application, options selected by the customer and lead time required.

Lubrication System

| | |
|---|--------|
| Oil system capacity including filters (l) | 11.50 |
| Min. oil pressure (bar) | 1 |
| Max. oil pressure (bar) | 6 |
| Oil sump capacity (l) | 7.10 |
| Oil consumption 100% ESP 50Hz (l/h) | 0.0280 |

Air Intake system

| | |
|----------------------------------|-----|
| Max. intake restriction (mm H2O) | 600 |
| Combustion air flow (l/s) | 24 |

Exhaust system

| | PRP | ESP |
|-------------------------------------|-----|-----|
| Exhaust gas flow (L/s) | 81 | 89 |
| Exhaust gas temperature @ ESP (°C) | 630 | |
| Max. exhaust back pressure (mm H2O) | 816 | |

Cooling system

| | |
|--|---------|
| Radiator & Engine capacity (l) | 8.20 |
| Fan power 50Hz (kW) | 0.50 |
| Fan air flow w/o restriction (m3/s) | 0.80 |
| Available restriction on air flow (mm H2O) | 20 |
| Type of coolant | Gencool |
| Radiated heat to ambient (kW) | 3 |
| Coolant capacity HT, engine only (l) | 5 |
| Max coolant temperature, Shutdown (°C) | 105 |
| Thermostat begin of opening HT (°C) | 72 |
| Thermostat end of opening HT (°C) | 82 |

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Alternator Specifications

| | |
|--|----------------|
| Alternator commercial brand | KOHLER |
| Kohler Alternator description | KH00442T |
| Number of pole | 4 |
| Number of bearing | Single Bearing |
| Technology | Brushless |
| Indication of protection | IP23 |
| Insulation class | H |
| Number of wires | 06 |
| AVR Regulation | Yes |
| Coupling | Direct |
| Capacity for maintaining short circuit at 2.7 In for 5 s | Yes |

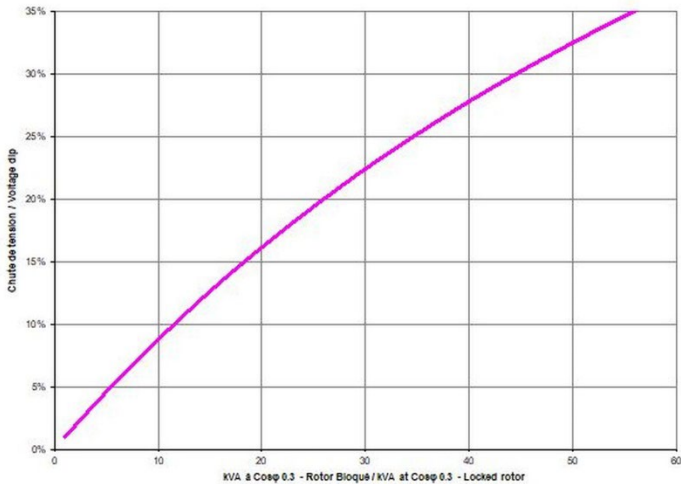
Application data

| | |
|---|------|
| Overspeed (rpm) | 2250 |
| Power factor (Cos Phi) | 0.80 |
| Voltage regulation at established rating (+/- %) | 0.50 |
| Wave form : NEMA=TIF | <50 |
| Wave form : CEI=FHT | <2 |
| Total Harmonic Distortion in no-load DHT (%) | <3.5 |
| Total Harmonic Distortion, on linear load DHT (%) | <5 |
| Recovery time (Delta U = 20% transient) (ms) | 500 |

Performance datas

| | |
|--------------------------------------|-----|
| Continuous Nominal Rating 40°C (kVA) | 23 |
| Unbalanced load acceptance ratio (%) | 100 |

Peak motor starting (kVA) based on x% voltage dip power factor at 0.3



Alternator Standard Features

- All models are brushless, rotating-field alternators
- NEMA MG1, IEEE, and ANSI standards compliance for temperature rise and motor starting
- The AVR voltage regulator provides superior short circuit capability
- Self-ventilated and dip proof construction
- Sustained short-circuit current of up to 300% of the rated current for up to 10 seconds
- Superior voltage waveform

Note: See Alternator Data Sheets for alternator application data and ratings, efficiency curves, voltage dip with motor starting curves, and short circuit decrement curves.

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Dimensions compact version

| | |
|--|-------------------|
| Length (mm) * Width (mm) * Height (mm) | 1700 * 896 * 1085 |
| Dry weight (kg) | 537 |
| Tank capacity (L) | 100 |

**M137-B - Dimensions soundproofed version**

| | |
|---|-------------------|
| Length (mm) * Width (mm) * Height (mm) | 2100 * 938 * 1267 |
| Dry weight (kg) | 787 |
| Tank capacity (L) | 100 |
| Acoustic pressure level @1m in dB(A) 50Hz (75% PRP) | 73 |
| Sound power level guaranteed (Lwa) 50Hz (75% PRP) | 89 |
| Acoustic pressure level @7m in dB(A) 50Hz (75% PRP) | 63 |

* dimensions and weight without options



Reference Conditions: 25°C Air Inlet Temperature, 40°C Fuel Inlet Temperature, 100 kPa Barometric Pressure; 10.7 g/kg of dry air Humidity. Intake Restriction set to maximum allowable limit for clean filter; Exhaust Back pressure set to maximum allowable limit; Fuel density at 0.85 kg/L.

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APM303

The APM303 is a versatile unit which can be operated in manual or automatic mode. It offers the following features:

- Measurements: phase-to-neutral and phase-to-phase voltages, fuel level (In option : active power currents, effective power, power factors, Kw/h energy meter, oil pressure and coolant temperature levels)
- Supervision: Modbus RTU communication on RS485
- Reports: (In option : 2 configurable reports)
- Safety features: Overspeed, oil pressure, coolant temperatures, minimum and maximum voltage, minimum and maximum frequency (Maximum active power P<66kVA)
- Traceability: Stack of 12 stored events

For further information, please refer to the data sheet for the APM303

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STANDARD DELIVERY

All our gensets are fitted with:

- Industrial water-cooled DIESEL engine
- Electric starter & charge alternator
- Standard air filter
- Electric circuit breaker, adapted to the short-circuit current of the generating set
- Single bearing alternator IP 23 T° rise/ insulation to class H/H
- Welded steel base frame with 85% vibration attenuation mounts
- frame height optimized to allow it to be moved safely by forklift
- enclosure made of new high-quality European steel with enhanced corrosion resistance
- enclosures and base frames tested and analyzed by the French Corrosion Institut
- 100% of tanks tested for permeability
- Personal protection ensured by protective grilles on hot and rotating parts
- Separate 9 dB(A) silencer
- Fuel tank welded inside the genset frame
- Retention bund included for gensets up to 250 kVA ESP
- Emergency stop button on the outside
- Flexible fuel lines & lub oil drain cock
- Exhaust outlet with flexible and flanges
- User's manual (1 copy)
- Packing under plastic film

Excluded from supply :

- For Baudouin XPRESS products, from 25 to 165kVA : batteries

CODES AND STANDARDS

Engine-generators set is designed and manufactured in facilities certified to standards ISO9001:2015 & ISO14001:2015. The generator sets and its components are prototype-tested, factory built and production tested and are in compliance with the relevant standards:

- Machinery Directive 2006/42/EC of May 17th 2006
- EMC Directive 2014/30/UE
- Safety objectives set out in the Low Voltage Directive 2014/35/UE
- EN ISO 8528-13, EN 60034-1, EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 55011, EN 1679-1 et EN 60204-1

POWER RATINGS DEFINITION according to ISO8528-1 (2018-02 edition) and ISO-3046-1

Emergency Standby Power (ESP): The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. Average load factor per 24 hours of operation is <70%.

Prime Power (PRP): At varying load, the number of generator set operating hours is unlimited. A 10% overload capacity is available for one hour within 12 hour of operation. Average load factor per 24 hours of operation is <70%.

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TERMS OF USE

According to the standard, the nominal power assigned by the genset is given for 25°C Air Inlet Temperature, of a barometric pressure of 100 kPA (100 m A.S.L), and 30% relative humidity. For particular conditions in your installation, refer to the derating table.

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