Industrial Diesel Generator Set – B1100
50 Hz

RATINGS 400 V - 50 Hz		
Standby	kVA	1125
	kWe	900
Prime	kVA	1023
	kWe	818

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
- Approved for use with HVO (Hydrotreated Vegetable Oil) according to EN15940

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: accessories requiring daily maintenance are conveniently located on the same side of the engine

Alternator

- Provide industry leading motor starting capability
- Excitation system to permit sustained overcurrent > 300% In, during 10 sec
- Built with a class H insulation and IP23

Cooling

- A compact and complete solution using a mechanical driven fan radiator
- 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

KOHLER worldwide support

- A standard two-year or 1000-hours limited warranty for standby applications.
- A standard one-year or 2500 hours limited warranty for prime power applications.
- A worldwide product support

GENERAL SPECIFICATIONS	
Engine brand	BAUDOUIN
Alternator commercial brand	KOHLER
Voltage (V)	400/230
Standard Control Panel	APM403
Consumption @ 100% load ESP (L/h) *	226
Consumption @ 100% load PRP (L/h) *	204
Emission level	Fuel consumption optimization
Type of Cooling	Mechanical driven fan
Performance class	G2

GENERATOR SETS RATINGS

				Standby Rating			Prime Rating	
	Voltage	PH	Hz	kWe	kVA	Amps	kWe	kVA
B1100	415/240	3	50	900	1125	1565	818	1023
	400/230	3	50	900	1125	1624	818	1023
	380/220	3	50	830	1038	1577	755	944

DIMENSIONS COMPACT VERSION	
Length (mm)	4417
Width (mm)	1740
Height (mm)	2384
Tank capacity (L)	500
Dry weight (kg)	7880

DIMENSIONS SOUNDPROOFED VERSION	
Type soundproofing	NOT AVAILABLE
Length (mm)	6413
Width (mm)	2160
Height (mm)	2753
Tank capacity (L)	1035
Dry weight (kg)	10100
Acoustic pressure level @1m in dB(A) 50Hz (75% PRP)	86
Acoustic pressure level @7m in dB(A) 50Hz (75% PRP)	77

* Volumetric Fuel consumption is up to 4% higher when using HVO than Diesel Fuel

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.

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Engine

General	
Engine brand	BAUDOUIN
Engine ref.	12M26G1100_5 *
Air inlet system	Turbo
Fuel	Diesel Fuel/HVO
Emission level	Fuel consumption optimization
Cylinder configuration	V
Number of cylinders	12
Displacement (l)	31,81
Bore (mm) * Stroke (mm)	150 * 150
Compression ratio	15.7 : 1
Speed 50Hz (RPM)	1500
Maximum stand-by power at rated RPM (kW)	973
Charge Air coolant	Air/Air
Injection Type	Direct
Governor type	Electronic
Air cleaner type, models	Dry

Fuel system	
Maximum fuel pump flow (l/h)	595
Fuel Inlet Minimum recommended size (mm)	14
Fuel Outlet Minimum recommended size (mm)	14
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)	196,90
Specific consumption @ PRP Max Power (g/kW.h)	195,70
Specific consumption @ 75% of PRP Power (g/kW.h)	195,70
Specific consumption @ 50% of PRP Power (g/kW.h)	201,40

Emissions

* 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)	114
Min. oil pressure (bar)	2
Max. oil pressure (bar)	7
Oil sump capacity (l)	109
Oil consumption 100% ESP 50Hz (l/h)	0,67

Air Intake system	
Max. intake restriction (mm H2O)	663
Combustion air flow (l/s)	1148

Exhaust system

	PRP	ESP
Exhaust gas temperature (°C)	550	550
Exhaust gas flow (L/s)	3037	3337
Max. exhaust back pressure (mm H2O)	765	

Cooling system	
Radiator & Engine capacity (l)	108
Fan power 50Hz (kW)	30
Fan air flow w/o restriction (m3/s)	24
Available restriction on air flow (mm H2O)	20
Type of coolant	Gencool
Coolant capacity HT, engine only (l)	191
Max coolant temperature, Shutdown (°C)	103
Thermostat begin of opening HT (°C)	77
Thermostat end of opening HT (°C)	87

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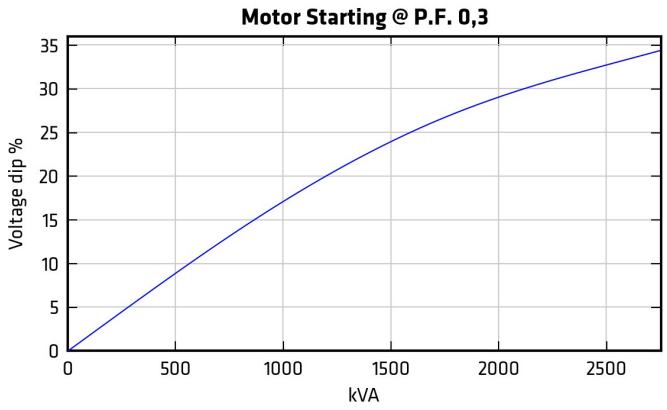
Alternator Specifications	
Alternator commercial brand	KOHLER
Kohler Alternator description	KH03860T
Number of pole	4
Number of bearing	Single Bearing
Technology	Brushless
Indication of protection	IP23
Insulation class	H
Number of wires	12
AVR Regulation	Yes
Coupling	Direct
Capacity for maintaining short circuit at 3 In for 10 s	Yes
Application data	
Overspeed (rpm)	2250
Power factor (Cos Phi)	0,80
Voltage regulation at established rating (+/- %)	0,50
Wave form : NEMA=TIF	<40
Wave form : CEI=FHT	<2
Total Harmonic Distortion in no-load DHT (%)	2,5
Total Harmonic Distortion, on linear load DHT (%)	1,9
Recovery time (Delta U = 20% transcient) (ms)	200
Performance datas	
Continuous Nominal Rating 40°C (kVA)	1025
Unbalanced load acceptance ratio (%)	8

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 with baseframe fuel tank

Length (mm) * Width (mm) * Height (mm)	4417 * 1740 * 2384
Dry weight (kg)	7880
Tank capacity (L)	500

M427 - Dimensions soundproofed version

Length (mm) * Width (mm) * Height (mm)	6413 * 2160 * 2753
Dry weight (kg)	10100
Tank capacity (L)	1035
Acoustic pressure level @1m in dB(A) 50Hz (75% PRP)	86
Sound power level guaranteed (Lwa) 50Hz (75% PRP)	107
Acoustic pressure level @7m in dB(A) 50Hz (75% PRP)	77

* dimensions and weight without options

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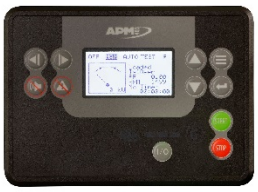
APM403



BASIC GENERATING SET AND POWER PLANT CONTROL

The APM403 is a versatile control unit which allows operation in manual or automatic mode

- Measurements : voltage and current
- kW/kWh/kVA power meters
- Standard specifications: Voltmeter, Frequency meter.
- Optional : Battery ammeter.
- J1939 CAN ECU engine control
- Alarms and faults: Oil pressure, Coolant temperature, Overspeed, Start-up failure, alternator min/max, Emergency stop button.
- Engine parameters: Fuel level, hour counter, battery voltage.
- Optional (standard at 24V): Oil pressure, water temperature.
- Event log/ Management of the last 300 genset events.
- Mains and genset protection
- Clock management
- USB connections, USB Host and PC,
- Communications : RS485 INTERFACE
- ModBUS protocol /SNMP
- Optional : Ethernet, GPRS, remote control, 3G, 4G,
- Websupervisor, SMS, E-mails

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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
- Charged DC starting battery with electrolyte
- 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
- Delivered with oil and antifreeze liquid

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 Directive2014/30/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

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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TERMS OF USE

According to the standard, the nominal power assigned by the genset is given for 25°C Air Intlet 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.

WARRANTY INFORMATIONS

Standard Warranty Period:

- for Products in "back-up" service
    - 30 months from the date the Product leaves the plant
    - 24 months from the Product's commissioning date
    - 1,000 running hours

  The warranty expires when one of the above conditions is met.

- for Products in "prime" or "continuous" service (continuous supply of electricity, either in the absence of any normal electricity grid or to complement the grid),
    - 18 months from the date the Product leaves the plant
    - 12 months from the Product's commissioning date
    - 2,500 running hours

  The warranty expires when one of the above conditions is met.

For more details regarding conditions of application and scope of the warranty please refer to our General "terms & conditions of sales".