KOHLER.

Industrial Diesel Generator Set - B1250

RATINGS 400 V - 50 Hz		
Standby	kVA	1250
	kWe	1000
Prime	kVA	1136
	kWe	909

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: 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 or an electrical radiator fan (depending of genset type)
- 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

demented of echications	
Engine brand	BAUDOUIN
Alternator commercial brand	KOHLER
Voltage (V)	400/230
Standard Control Panel	APM403
Consumption @ 100% load ESP (L/h)	253
Consumption @ 100% load PRP (L/h)	228
Type of Cooling	Mechanical driven fan
Performance class	G2
One step load acceptance (out of ISO criteria)	100%

GENERATOR SETS RATINGS

				Standby Rating Pr		Prime	Prime Rating	
B1250	Voltage	PH	Hz	kWe	kVA	Amps	kWe	kVA
B1230	400/230	3	50	1000	1250	1804	909	1136
DIMENSIONS	COMPACT	VERS	ION					
Length (mm)						4800		
Width (mm)						2200		
Height (mm)						2500		
Tank capacity	/ (L)					500		
Dry weight (k	(g)					8850		
DIMENSIONS SOUNDPROOFED VERSION								
Type soundp	roofing					ISO20 Si		_
Length (mm)						6060		
Width (mm)						2440		
Height (mm)						2900		
Tank capacity	/ (L)					500		
Dry weight (k	:g)					14640		
Acoustic pres (75% PRP)	sure level @	1m iı	n dB(A) 50Hz		91		
Acoustic pres (75% PRP)	sure level @	7m iı	n dB(A) 50Hz		82		

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.

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Engine

General	
Engine brand	BAUDOUIN
Engine ref.	12M33G1250_5 *
Air inlet system	Turbo
Fuel	Diesel Fuel
Cylinders configuration	V
Number of cylinders	12
Displacement (I)	39.23
Bore (mm) * Stroke (mm)	150 * 185
Compression ratio	15 : 1
Speed (RPM)	1500
Maximum stand-by power at rated RPM (kW)	1108
Charge Air coolant	Air/Air
Injection Type	Direct
Governor type	Electronic
Air cleaner type, models	Dry
Fuel system	
Maximum fuel pump flow (l/h)	1070
Fuel Inlet Minimum recommended size (mm)	14
Fuel Outlet Minimum recommended size (mm)	14
Max head on fuel return line (m)	5.9
Maximum allowed inlet fuel temperature (°C)	70
Consumption with cooling system	
Specific consumption 100% ESP load (g/kW.h)	199.1
Specific consumption 100% PRP load (g/kW.h)	197
Specific consumption 75% PRP load (g/kW.h)	194.6
Specific consumption 50% PRP load (g/kW.h)	199.3

Lubrication System			
Oil system capacity including filters (I) 160			
Min. oil pressure (bar) 2			
Max. oil pressure (bar) 7			
Oil sump capacity (I)	155		
Oil consumption 100% ESP 50Hz (l/h)	00% ESP 50Hz (l/h) 0.72		
Air Intake system			
Max. intake restriction (mm H2O)	663		
Intake air flow (I/s)	1275		
Exhaust system			
	PRP	ESP	
Exhaust gas temperature (°C)	550	550	
Exhaust gas flow (L/s)	3167	3533	
Max. exhaust back pressure (mm H2O)	765		
Cooling system			
Radiator & Engine capacity (I)	240		
Fan power 50Hz (kW)	33		
Fan air flow w/o restriction (m3/s)	25		
Available restriction on air flow (mm H2O)	20		
Type of coolant	Gencool		
Coolant capacity HT, engine only (I)	240		
Max coolant temperature, Shutdown (°C)	C) 103		
Thermostat begin of opening HT (°C)	77		
Thermostat end of opening HT (°C)	87		

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.

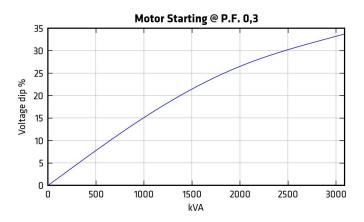
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Industrial Diesel Generator Set - B1250

Alternator Specifications

Alternator Specifications	
Alternator commercial brand	KOHLER
Alternator ref.	KH04070T
Number of pole	4
Number of bearing	Single Bearing
Technology	Brushless
Indication of protection	IP23
Insulation class	Н
Number of wires	12
Capacity for maintaining short circuit at 3 In for 10 s	Yes
AVR Regulation	Yes
Coupling	Direct
Application data	
Overspeed (rpm)	2250
Power factor (Cos Phi)	0.8
Voltage regulation at established rating (+/- %)	0.50
Wave form : NEMA=TIF	<40
Wave form : CEI=FHT	<2
Total Harmonic Distortion in no-load DHT (%)	2,1
Total Harmonic Distortion, on linear load DHT (%)	1,5
Recovery time (Delta U = 20% transcient) (ms)	200
Performance datas	
Continuous Nominal Rating 40°C (kVA)	1150
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 with baseframe fuel tank

Length (mm) * Width (mm) * Height (mm)	4800 * 2200 * 2500
Dry weight (kg)	8850
Tank capacity (L)	500

Container dimensions ISO20 soundproofed version

ISO20 Si	
Length (mm) * Width (mm) * Height (mm)	6060 * 2440 * 2900
Dry weight (kg)	14640
Tank capacity (L)	500
Acoustic pressure level @1m in dB(A) 50Hz (75% PRP)	91
Measured acoustic power level (Lwa) 50Hz (75% PRP)	112
Acoustic pressure level @7m in dB(A) 50Hz (75% PRP)	82

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.



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, Startup 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

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.



STANDARD DELIVERY

All our electrical generating sets (compact version) are equipped with:

- Water-cooled DIESEL engine
- Electronic control device and mechanical injection
- High filtration air filter
- Radiator without coolant
- Electric starter & 24 VDC charging alternator
- Single-bearing alternator, IP 23, H/H Class Insulation/Temp
- Welded steel base frame with vibration damping supports
- Flexible fuel lines and lubrication oil drainage pump
- Primary filter
- Exhaust outlet with hose and clamps
 - Included in your preconfigured pack:
 - o Starter batteries
 - \circ \quad Automatic start-up pack including a battery charger and a preheating kit
 - o APM403 control/command (P or S) depending on configuration
 - o 4-pole circuit breakers, manual or motorized depending on configuration
- User documentation (1 copy)
- Packaged in film
- Supplied without oil
- Supplied without coolant

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

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%.

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.



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
 - \circ 30 months from the date the Product leaves the plant
 - \circ 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),
 - \circ 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".

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.