Industrial Diesel Generator Set – B165
50 Hz

GENERAL SPECIFICATIONS	
Engine brand	BAUDOUIN
Alternator commercial brand	KOHLER
Voltage (V)	400/230
Standard Control Panel	APM303
Consumption @ 100% load ESP (L/h)	35
Consumption @ 100% load PRP (L/h)	31
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
B165	415/240	3	50	132	165	230	120	150
	400/230	3	50	132	165	238	120	150
	380/220	3	50	132	165	251	120	150

DIMENSIONS COMPACT VERSION	
Length (mm)	2497
Width (mm)	1103
Height (mm)	1434
Tank capacity (L)	334
Dry weight (kg)	1513

DIMENSIONS SOUNDPROOFED VERSION	
Type soundproofing	M139-B
Length (mm)	3590
Width (mm)	1145
Height (mm)	1899
Tank capacity (L)	334
Dry weight (kg)	2139
Acoustic pressure level @1m in dB(A) 50Hz (75% PRP)	78
Acoustic pressure level @7m in dB(A) 50Hz (75% PRP)	68

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.

KOHLER

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Engine

General	
Engine brand	BAUDOUIN
Engine ref.	6M11G165_5 *
Air inlet system	Turbo
Fuel	Diesel Fuel/HVO
Emission level	Fuel consumption optimization
Cylinder configuration	L
Number of cylinders	6
Displacement (l)	6,75
Bore (mm) * Stroke (mm)	105 * 130
Compression ratio	18 : 1
Speed 50Hz (RPM)	1500
Maximum stand-by power at rated RPM (kW)	132
Piston type & material	Forged Steel
Charge Air coolant	Air/Air
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)	92
Fuel Inlet Minimum recommended size (mm)	12
Fuel Outlet Minimum recommended size (mm)	12
Max head on fuel return line (m fuel)	1,40
Maximum allowed inlet fuel temperature (°C)	50

Lubrication System	
Oil system capacity including filters (l)	19
Min. oil pressure (bar)	1
Max. oil pressure (bar)	7
Oil sump capacity (l)	18
Oil consumption 100% ESP 50Hz (l/h)	0,07

Air Intake system	
Max. intake restriction (mm H2O)	612
Combustion air flow (l/s)	152

Exhaust system	PRP	ESP
Exhaust gas temperature (°C)	550	550
Exhaust gas flow (L/s)	363	400
Max. exhaust back pressure (mm H2O)	612	

Cooling system	
Radiator & Engine capacity (l)	20
Fan power 50Hz (kW)	3,90
Fan air flow w/o restriction (m3/s)	5,08
Available restriction on air flow (mm H2O)	20
Type of coolant	Gencool
Radiated heat to ambiant (kW)	19
Coolant capacity HT, engine only (l)	8
Outlet coolant temperature (°C)	0
Max coolant temperature, Shutdown (°C)	105
Thermostat begin of opening HT (°C)	76
Thermostat end of opening HT (°C)	90

Cooling system and charge air cooler	
Radiator & Engine capacity (l)	20
Fan power 50Hz (kW)	3,90
Fan air flow w/o restriction (m3/s)	5,08
Available restriction on air flow (mm H2O)	20
Type of coolant	Gencool
Radiated heat to ambiant (kW)	19
Coolant capacity HT, engine only (l)	8
Outlet coolant temperature (°C)	0
Max coolant temperature, Shutdown (°C)	105
Max. pressure at inlet of HT water pump (mbar)	
Thermostat begin of opening HT (°C)	76
Thermostat end of opening HT (°C)	90
CAC Heat Rejection (kW)	

Cooling system (HT/LT)	
Radiator & Engine capacity (l)	20
Fan power 50Hz (kW)	3,90
Fan air flow w/o restriction (m3/s)	5,08
Available restriction on air flow (mm H2O)	20

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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Type of coolant	Gencool
Radiated heat to ambiant (kW)	19
Coolant capacity HT, engine only (l)	8
Outlet coolant temperature (°C)	0
Max coolant temperature, Shutdown (°C)	105
Max. pressure at inlet of HT water pump (mbar)	
Thermostat begin of opening HT (°C)	76
Thermostat end of opening HT (°C)	90
Heat rejection to coolant LT (kW)	
LT circuit flow rate (l/min)	
Coolant capacity LT, engine only (l)	0

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

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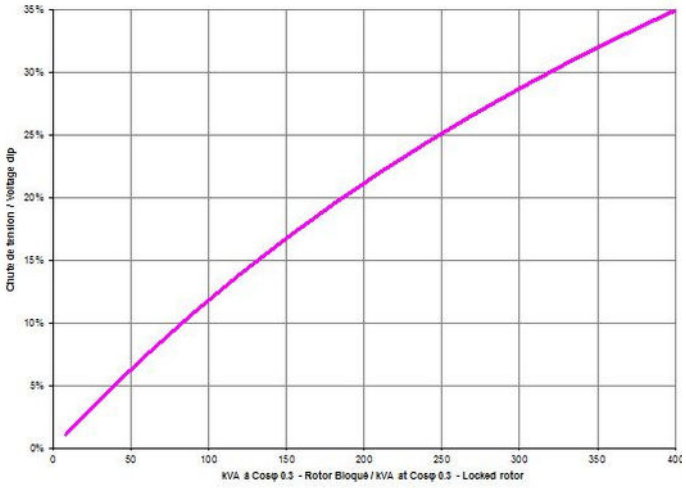
Alternator Specifications	
Alternator commercial brand	KOHLER
Kohler Alternator description	KH01192TO4N
Number of pole	4
Number of bearing	Single Bearing
Technology	Brushless
Indication of protection	IP23
Insulation class	H
Number of wires	06
AVR Regulation	Yes
Coupling	Direct

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% transcient) (ms)	500

Performance datas	
Continuous Nominal Rating 40°C (kVA)	150
Unbalanced load acceptance ratio (%)	100

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



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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Dimensions compact version

Length (mm) * Width (mm) * Height (mm)	2497 * 1103 * 1434
Dry weight (kg)	1513
Tank capacity (L)	334

M139-B - Dimensions soundproofed version

Length (mm) * Width (mm) * Height (mm)	3590 * 1145 * 1899
Dry weight (kg)	2139
Tank capacity (L)	334
Acoustic pressure level @1m in dB(A) 50Hz (75% PRP)	78
Sound power level guaranteed (Lwa) 50Hz (75% PRP)	95
Acoustic pressure level @7m in dB(A) 50Hz (75% PRP)	68

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.

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

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

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".