

## Model No: BGR 200



Soundproofed genset Image for illustration purposes only

### Features / Benefits

- CE compliant for stationary application
- Model available in openskid and soundproofed with galvanized rustproofed canopy.
- Designed, engineered and manufactured for an optimal performance
- External access to control and power panel
- Easy operation, maintenance and service.
- Wide range of options.

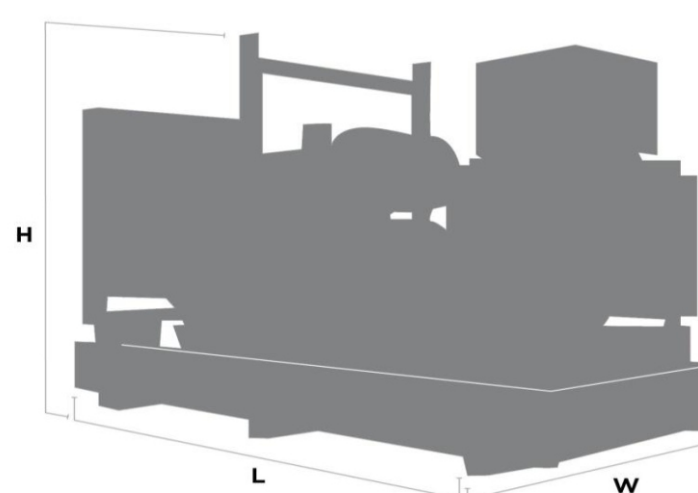
Technical data	50 Hz	60 Hz
Engine	R6113ZLD1-1	R6113ZLD1-1
Exhaust emission Level	EU2	EPA2
Performance class	G3	

• Performance class in accordance with ISO 8528/5 (2005) taking into account the behaviour of the generator set in a permanent mode of operation with different load levels, as well as in a temporary mode of operation due to step loads.

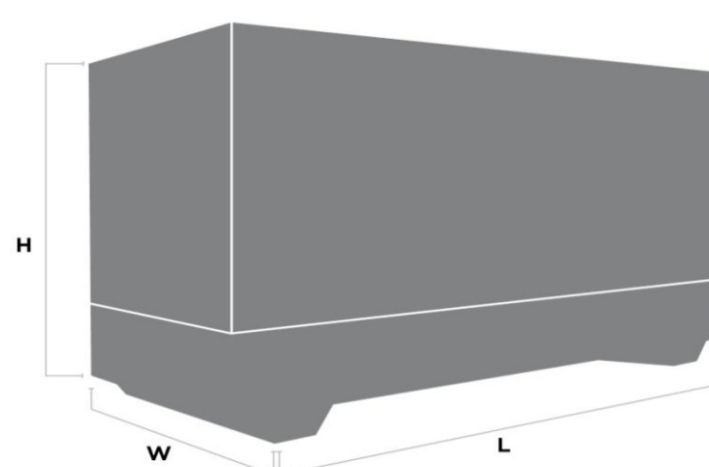
Mechanical structure	Openskid	canopy
Length (L) mm	3020	3675
Width (A) mm	1150	1400
Height (H) mm	2060	2065
Weight (kg)	2265	3085
Fuel tank capacity (l)	415	405
Acoustic pressure [LpA] (dBA @7m)	-	71
Acoustic power (dB(A))	-	97

### Dimensions (mm)

#### Openskid



#### canopy



Note: These drawings are provided for illustration purposes only.

### Ratings

Power according to the dedicated alternator

50 Hz	Prime Power	Prime Power	Standby Power	Standby Power
	kVA	kW	kVA	kW
380/220 V	200	160	223	178
<b>400/230 V</b>	<b>200</b>	<b>160</b>	<b>223</b>	<b>178</b>
415/240 V	200	160	223	178
60 Hz	Prime Power	Prime Power	Standby Power	Standby Power
	kVA	kW	kVA	kW
208/120 V	223	179	249	199
220/127 V	223	179	249	199
380/220 V	223	179	249	199
400/230 V	223	179	249	199
440/277 V	223	179	249	199
480/277 V	223	179	249	199

### Single-phase

50 Hz	Prime Power	Prime Power	Standby Power	Standby Power
	kVA	kW	kVA	kW
220 V	-	-	-	-
<b>230 V</b>	-	-	-	-
240 V	-	-	-	-
60 Hz	Prime Power	Prime Power	Standby Power	Standby Power
	kVA	kW	kVA	kW
220/110 V	-	-	-	-
230/115 V	-	-	-	-
<b>240/120 V</b>	-	-	-	-

### Prime Rating

PRIME POWER: Electrical power data available at a variable load without limits of hours per year. An overload of 10 % is allowed for 1 hour of every 12. In accordance with ISO 8528/1 (2005) – PRP

### Standby Power

STANDBY POWER: Electrical power data at variable load in an emergency in accordance with standard ISO 8528/1 (2005) – ESP. Overloads of emergency power are not allowed.

### Standard reference conditions

25 °C, 100 kPa and 30% relative humidity

## Engine

General	50 Hz	60 Hz
Engine Brand	RICARDO	
Model	R6113ZLD1-1	R6113ZLD1-1
R.P.M.	1500	1800
Net power (kWm)	195	214
Fuel	Diesel	
No. of cylinders	6	
Engine Capacity (c.c)	7150	
Bore (mm)	108	
Stroke (mm)	130	
Compression ratio	18,1:1	
Regulation class	ELECTRONIC	
Exhaust emission Level	EU2	EPA2
TA-Luft compliant	TA-Luft 1	
50/60 Hz Switchable engine	*	

Cooling System	50 Hz	60 Hz
Fan air flow (m3/min)	234	342
Loss of radiator admissible load (Pa)	-	-
Cooling type	WATER	
Coolant capacity (l)	29	
Design temperature radiator	55°C	55°C
Maximum working Temp.	-	-

Engine heating system			
Coolant heater power (W)	1 x 750W		

Lubrication System			
Oil capacity (l)	34		
Maximum oil consumption (% fuel consumption)	0,09		

Air intake system	50 Hz	60 Hz
Combustion air flow (m3/min)	12,43	15,76
Air filter	Medium	

	Exhaust System			
	Openskid		canopy	
	50 Hz	60 Hz	50 Hz	60 Hz
T exhaust gas (°C)	530	530	530	530
Gas flow (m3/min)	37,2	44,4	37,2	44,4
Maxi. exhaust back pressure (kPa)	2,3	2,3	1	0,5
Number of exhaust	1		1	
Input diameter (")	4	4	4	4
Output diameter (")	4	4	5,5	5,5
Atenuation (dB(A))	11		26	

Start system	
Voltage (V)	24
Battery type	2 x 12V 44Ah - 730A

## Fuel consumption table

Load level	PRIME 50 Hz			STAND-BY 50 Hz			PRIME 60 Hz			STAND-BY 60 Hz		
	(L/h)	Aut. (h) Openskid	Aut. (h) canopy	(L/h)	Aut. (h) Openskid	Aut. (h) canopy	(L/h)	Aut. (h) Openskid	Aut. (h) canopy	(L/h)	Aut. (h) Openskid	Aut. (h) canopy
25%	12,1	34,3	33,5	13,4	31,0	30,2	14,6	28,4	27,7	15,7	26,4	25,8
50%	23,0	18,0	17,6	25,4	16,3	15,9	26,4	15,7	15,3	29,2	14,2	13,9
75%	34,0	12,2	11,9	37,9	10,9	10,7	39,2	10,6	10,3	43,7	9,5	9,3
100%	45,7	9,1	8,9	51,5	8,1	7,9	52,8	7,9	7,7	60,3	6,9	6,7
110%	51,5	8,1	7,9	-	-	-	60,3	6,9	6,7	-	-	-

NOTE: range according to the standard configuration.

## Electric Panel

- Grounding system TN quick change and emergency shutdown pushbutton.

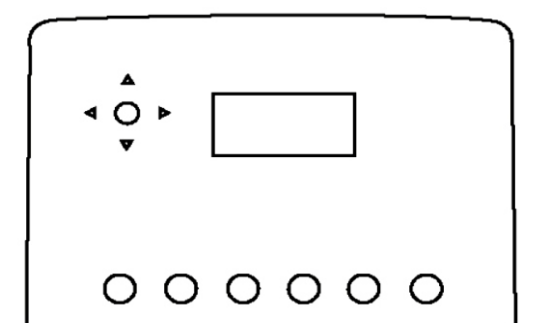
Voltage (V)	400/230V	480/277V	208/120V	220/127V
Frequency	50 Hz	60 Hz	60 Hz	60 Hz
Genset Circuit breaker	3P 400A R	3P 400A R	3P 800A R	3P 630A R

Battery electronic charger DK309 - 24V 5A

## Control Panel

- Grid monitor
- Independent operational mode buttons
- Alarms and status indicating LEDs
- Communications via USB, RS232, RS485, as well as DSEnet® for system upgrade
- Completely configurable using a PC in Windows environment and free Scada type software in real time
- Operating modes: START-UP, SHUTDOWN, AUTO, MANUAL AND TEST.
- Events history log up to 250 events and programming of alarms, events, start-ups and shutdowns.
- Possibility of Ethernet connection (requires a separate module)
- Reading and displaying of parameters with RMS values, real time clock
- MODBUS protocol available for client software
- 32bit microprocessor.

- 132x64 pixel LCD lighting
- 5 navigation menubuttons



Specifications may change without Notice



## Alternator

- 4 pole alternator
- Lifetime lasting eased bearing
- H class insulation
- Brushless
- 2/3 pitch
- AVR
- Incorporates electromagnetic emissions suppressor in accordance with CE legislation
- Joining of engine and alternator through flexible disc coupling

### Regulations:

- IEC 60034
- ISO 8528/3

### Low wave distortion:

- THD < 4%
- THF (IEC) < 2%
- TIF (NEMA) < 50

For models with AREP or MAUX excitation system

Excitation system with auxiliary winding

Overload capacity 3 times the nominal current for at least 10 s

Model	BGR	BGR	BGR	BGR	BGR
Manufacturer					
Voltage (V)	400/230	400/230	480/277	208/120	220/127
Frequency	50Hz	50Hz	60Hz	60Hz	60Hz
Alternator power (kVA)	223	220	262	295	245
Power ratings	(SB 27)	(SB 27)	(SB 40)	(SB 40)	(SB 40)
Number of wires	12	12	12	12	12
Winding	6		6	6	6
IP alternator	IP 23	IP 21	IP 23	IP 23	IP 23
Excitation system	AREP	MAUX	AREP	AREP	AREP
AVR model	R 450	DSR	R 450	R 450	R 450
Voltage Regulation	±0,5%	±1%	±0,5%	±0,5%	±0,5%
Performance at 75% p.f. 0.8 (%)	93	93	93	93	93
Performance at 100% p.f. 0.8 (%)	92	93	93	93	93
Direct sub. reactance X"d (p.u.)	8,8	5,9	9,2		
Subt. time constant (T"d) (ms)	10	12	10		
Zero sequence reactance (Xo) (ms)	0,8	2,5	0,5		
Short-circuit ratio (Kcc)	0,45	0,46	0,49		

## Commercial references and ratings

Family:	BGR 200	50 Hz		60 Hz				
	Alternator model	Voltage	BGR	BGR	Voltage	BGR	BGR	BGR
Prime/Standby Power rating (kVA) for alternative voltage configuration		415/240 V	200/223	200/220	480/277 V	223/249	223/249	223/249
		400/230 V	200/223	200/220	440/254 V	223/245	223/249	223/245
		380/220 V	200/223		400/230 V	212/227	223/249	212/227
					380/220 V	205/219	223/249	205/219
					208/120 V	219/235	223/249	219/235
					220/127 V	223/245	223/249	223/245
		230 V						
					240/120 V			

## Regulations:

The generator set has a CE Marking that includes the following directives:

- 2006/42/CE Machine Safety.
- 2006/95/CEE Low Voltage.
- 2004/108/CE Electromagnetic compatibility.
- 97/68/CE Gases and contaminating particles emissions.
- 2005/88/CE Noise emissions of machines outdoors in soundproof generator sets.

Applicable international regulations:

- ISO 8528
- ISO 3046
- BS 5000
- IEC 60034

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# Options

## Mechanical

- Galvanised Retention Bund (For soundproofed Units)
- Integrated Retention Bund in baseframe
- Fuel tank 24H
- Fuel tank 48H
- Auxiliary Double Walled Fuel Tanks
- Connection to external fuel tank
- Automatic Fuel Systems
- Standard or different color (for gensets soundproofed)
- Mounts-Shock Absorbers
- Earth Leakage Protection

## Control panel

- DK309 - Remote display
- DK309 - Volt free signal
- DK309- Inputs module
- DK309 - LED module
- GSM modem (RS232 port required)
- DK309 - TCP/IP module
- DK309 Webnet Gateway (Ethernet, GPRS and GPS)
- DK309 Ethernet Gateway
- DK309 SNMP Gateway
- DK309 Battery charger 24V, 10A
- Earth Leakage Protection
- Analogue meters
- Insulation protection

## ATS panel

ATS panel with integrated mechanical and electrical interlocking device.  
High number of operations

	400/230 50Hz	480/277 60Hz	208/120 60Hz	220/127 60Hz
<b>ATS panel</b>	3P 330A	3P 630A	3P 800A	3P 630A

## ATS options

- DK309 installed in ATS panel
- DK309 installed in ATS panel

## Engine

- Electronic Governor
- High Performance Fuel filter water Separator
- Residential Exhaust -35 dB(A) (Open-Skid Gensets)
- Oil Sump Pump

## Alternator

- Alternator excitation type: AREP, PMI or PMG
- Anti condensation heaters
- Protection System 2 or 4
- Special AVR

## AMF Synchronizing control panel

- IG-NT (SPtM)
- IG-NT (MINT)
- DK309
- DK309

## Island Synchronizing control panel

- DSE 8610
- IG-NT (MINT)

## Maintenance kits (\*)

- Pak 500h
- Pak 1000h
- Pak 2000h
- Start-up kit

\* Please consult our After-sales department for description

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