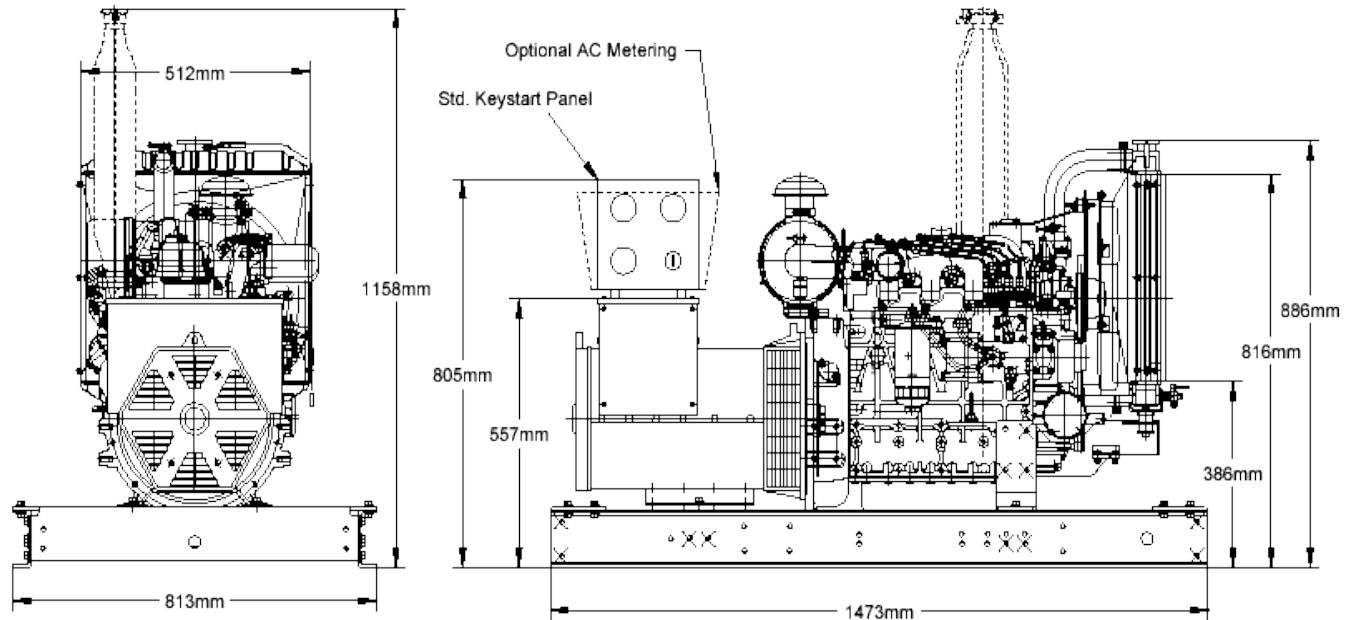


# POWERLINE<sup>®</sup>

## GENERATORS

Model KS2300 – 23 kWe\*

**Frontier**  
POWER PRODUCTS  
[www.frontierpower.com](http://www.frontierpower.com)



Approx dry weight without battery:  
- 404 kg (889 lbs)

*This drawing is for general information only – not for installation purposes.  
Specifications, dimensions or ratings may be changed without notice.*

### General Information\*

- The generator set rating is 20.5 kilowatts prime power output and 23 kilowatts intermittent power output. These ratings are based upon standard rating conditions. It may be necessary to derate the output for altitudes above 1000' (300 meters) or for ambient temperatures above 104°F (40°C). Please contact Frontier Power Products for details on ratings criteria for the engine and generator or for derate information.
- The engine and brushless four pole AC generator are directly coupled and mounted on a rugged steel base frame. All components are suitable for prime or intermittent usage.
- The entire set is thoroughly load tested prior to shipment.

### Standard Engine

- Kubota diesel model V2003TBG. In-line, turbocharged, four cylinder engine with full flow, replaceable lube oil, fuel and air filters. Mechanical speed governing provides +/- 3 to 5% speed regulation, no load to full load.

- Liquid cooled with industrial grade radiator and belt driven blower fan.
- SAE housing and flywheel directly connected to the single bearing generator.

### Standard Generator

- Newage Stamford brushless, four pole (1800 rpm) generator.
- Solid state, +/- 1½% automatic voltage regulation.
- CSA approved construction.

### Standard Controls and Accessories

- Key start panel with oil pressure, coolant temperature, hour meter and glow plug indicator, resettable DC breaker protection
- Manual safety shutdown over-ride, fuse protection.
- Automatic safety shutdowns, energized-to-run, for low oil pressure/high coolant temperature.
- Four anti-vibration mounts between generator set and base frame.
- Electric fuel transfer and priming pump (12 VDC).
- Battery rack and cables (no battery) for 12 VDC starting system. (Optional battery available)

## POWERLINE KS2300 Specifications

### Engine Technical Information

Manufacturer	Kubota
Model	V2003TBG
Cylinders	Four
Bore X Stroke	83mm X 92.4mm (3.27" X 3.64")
Displacement	2.0 litres (122 c.i.d.)
Output, intermittent	27.1 kWm (36.8 HP)
Output, continuous	24.5 kWm (33.3 HP)
Comp. ratio	22:1
Engine weight	187 kg (411 lbs.) dry

### Fuel System

Fuel type	#2 Diesel
Injection pump	Bosch K type
Injectors	Throttle type
Transfer pump	Electric, 12VDC
Fuel lift	1 meter (3.3 ft.)
Suction fitting	5/16" push-on
Return fitting	3/16" push-on
Fuel use @ 100%	7.5 litre/hr. @ 23 kW
Fuel use @ 75%	5.9 litre/hr. @ 17.3 kW
Fuel use @ 50%	4.2 litre/hr. @ 11.5 kW

*Actual fuel consumption varies with site conditions and fuel energy content.*

### Lube Oil System

Grade	API "CD/CE"
> 25°C (77°F)	SAE30, SAE10W-30 or SAE10W-40
0°-25°C(32°-77°F)	SAE20, SAE10W-30 or SAE10W-40
< 0°C (32°F)	SAE10W, SAE10W-30 or SAE10W-40
Capacity	7.9 liters (2.1 US gal.)
Filter	Full flow, spin-on

### Air Intake System

Filter	Replaceable element
Combustion air @1800 rpm	2.2 m <sup>3</sup> /min. (78 cfm)
Restriction	500mm (20") max.(H <sub>2</sub> O)

### DC Electrical System

Starter	12V, 1.4 kW
Alternator	12V, 360 W
Glow plug	QGS type
Battery required	12V 700 CCA @ 0°C min.
Run solenoid	12V, ETR

### Cooling System

Radiator	Finned tube type
Material	Copper core, soldered tanks
Pressure	88 kPa (12.9 psi) max
Fan type	Blower, Nylon
Water pump	Gear case mounted
Type	Centrifugal, belt drive
Thermostat	Wax pellet type
Stat. cracking temp.	71°C (160°F)

### Cooling System, cont'd.

Fully open stat. temp.	85°C (185°F)
Recommended coolant	50/50*
<i>*Use low silicate ethylene glycol and high quality water. Consult manufacturer for details.</i>	
Air-to-boil @ 23 kW	50°C (122°F)
Cooling air required	53 m <sup>3</sup> /min (1,875 ft <sup>3</sup> /min)

### Exhaust System

Muffler type	Industrial grade
Mounting	Vertical with rain cap
Restriction	38 mm (1.5") Hg max.

### Noise Level @ 1 m (3.3')

*Levels are with industrial grade muffler and open (no enclosure) configuration.*

Full load, inter.	85.5 dB(A)
Full load, prime	86.5 dB(A)
No load	85.4 dB(A)

### Generator Technical Information

Manufacturer	Newage/Stamford
Model	BC1184
Construction	Four pole, brushless Open drip-proof (IP23) Single bearing
Weight	156 kg (265 lbs.)
Cooling air flow	7.1 m <sup>3</sup> /min (250 cfm)
Leads	4 or 12, application dependent

### 60 Hz. voltages and ratings (prime/intermittent)

- 20/23 kW, 20/23 kVA @ 115/230 1 phase
- 20/23 kW, 25/29 kVA @ 120/208 3 phase
- 20/23 kW, 25/29 kVA @ 277/480 3 phase

*Other voltages and 50 Hz ratings are available.*

Power Factor	1 phase ratings @ 1.0 PF 3 phase. ratings @ 0.8 PF
Voltage regulation	SX460 solid state +/- 1½% no load to full load
Temperature rise	105°C rise Prime (40°C ambient) 125°C rise Intermit. (40°C)
Telephone. interference	TIF < 50
Winding pitch	Two thirds
Control system	Self excited
Inrush examples	77 kVA @ 480V @ 30% dip 62 kVA @ 208V @ 30% dip

### Ancillary Equipment

Mounting	Steel base with mounting holes
Isolators	Four composite mounts
<i>Please see the comprehensive option list.</i>	



CSA approved construction

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