

# PRO Rental Product Range

## PRO100-2

(R96 EUIIIa Equivalent)

50/60 Hz Switchable Rating

Prime Product

100 kVA / 80 kWe



## KEY FEATURES

### Rental Ready Features

- Forklift pockets
- Fully certified single point lifting eye
- Integrated heavy duty drag bar with robust skid plate
- Coolant & oil drains piped to baseframe
- EMC certified
- Fully certified spark arresting silencer
- 50/60 Hz switchable frequency
- Optimized cable entry for easy hook-up
- Sound isolated control panel with integrated power distribution access
- Robust hook-up point for lugged cable connection
- AC protected by limit switch on distribution door
- Emergency stop on control panel and enclosure
- Inboard mounted 3 way fuel valve connection for external fuel connection

### Engine

- Perkins four-stroke diesel engine
- EMC electronic engine control
- R96 EUIIIa equivalent

### Single-Source Supplier

- Factory designed and fully prototype tested with certified torsion vibration analysis available
- ISO 9001:2000 compliant facility

### DSE7320 Control Panel

- Simple user friendly interface and navigation

### Alternator

- Leroy Somer Alternator
- Coastal insulation protection
- Self (SHUNT) excitation

### Enclosure

- Galvanized sheet steel construction with two coat polyester powder-coated finish
- Six lockable (padlock / keylock) access doors for ease of maintenance
- Safety glass control panel viewing window with key lock

### Reduced Environmental Impact

- R96 EUIIIa equivalent
- Dual wall base tank with 110% spill containment
- CE labelling
- Bund Level alarm
- Exceptional noise performance Meets 94 LWA 50 Hz (EUIIIa) Sound Power Limits (EU Machinery Directive)



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## STANDARD EQUIPMENT

### Air Inlet

- Air cleaner with dust cup and service indicator
- Turbocharger and air-to-air aftercooler

### Alternator

- LL3114F frame, three-phase, random wound, 12-lead design, self-excited, 2/3 pitch
- Coastal insulation protection

### Charging System

- Charging alternator; 12V, heavy duty with integral regulator and belt guards

### Control Panel

- DeepSea 7320 genset mounted digital controller
- Panel mounted Emergency stop switch
- Fully featured power metering, protective relaying and engine/generator control and monitoring

### Cooling System

- Cooling package mounted radiator with high ambient capability
- Pusher fan with guards
- Coolant drain line with internal brass ball control valve piped to base-frame
- Low coolant level shutdown
- 50% coolant antifreeze with corrosion inhibitor

### Distribution System

- Robust steel enclosure, separate hinged, lockable door with rust resistant pinned hinges
- Main circuit breaker 4-pole, 200A with 12V DC shunt trip wired to distribution door safety switch
- Two wire remote start/stop terminals and 120-240 VAC auxiliary power connection for rapid starting
- Cable support

### Enclosure

- Sound attenuating, galvanized sheet metal enclosure with exceptional noise performance
- External emergency stop switch on enclosure
- Modular panel construction with a welded roof design
- Interior walls, ceilings and ducts insulated with precision cut noise insulating materials
- Sealed quarter turn compression door latches with key and padlock capabilities
- Front and rear access provided through hinged doors
- External single point lifting
- Enclosure is protected by powder coated white paint

### Engine

- Perkins 1104D heavy duty diesel engine
- Four-stroke diesel engine combines consistent performance and excellent fuel economy with minimum weight
- ECM electronic engine control



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## Exhaust System

- Integrated spark arresting silencer with flexible connectors, in separate compartment

## Fuel System

- 108 gal (410L) double wall fuel tank, internal fuel fill
- Engine mounted primary fuel filter (10micron) with integral water separator and Water in Fuel sensor
- Manual Push Button priming pump
- Auxiliary connections for customer supplied fuel transfer with 3 way fuel transfer system, internally mounted within the bunded area
- Mechanical fuel gauge
- Electronic Fuel gauge with control panel display. Low level fuel warning & shutdown
- Bund level sensor. Low level warning & high level warning / shutdown

## Lube System

- On engine primary & secondary oil filters, filler and dipstick
- Open crankcase breather with a fumes disposal container
- Oil drain piped to edge of baseframe with internally mounted ball valve
- 500 hour oil change intervals

## Mounting System

- Generator set soft mounted using captive vibration mounts
- Heavy duty steel base frame contains integral fuel tank
- Provides 110% spill containment of all engine fluids
- Forklift pockets and heavy duty drag bar with skid plates

## Starting System

- Single electric starting motor, 12V
- 12V 950CCA maintenance free battery, with single pole battery isolator switch
- 120/240 Volt single phase jacket water heater with thermostat and shut off valves

## General

- Factory testing of standard generator set
- Full manufacturer's warranty, O&M manuals

## AVAILABLE OPTIONS

- CE socket box with integrated MCB and RCBO protection
- Clipsal socket box with integrated MCB and RCBO protection
- Anti-condensation heater 110 or 230 VAC
- Coolant heater 110 or 230 VAC
- 12V battery charger
- UL/CSA listed 120 V, 20 Amp battery charger, shock mounted and enclosed in dust proof housing
- Permanent Magnet Generator (PMG)
- Earth Leakage
- CE labelling
- Lube oil sump pump

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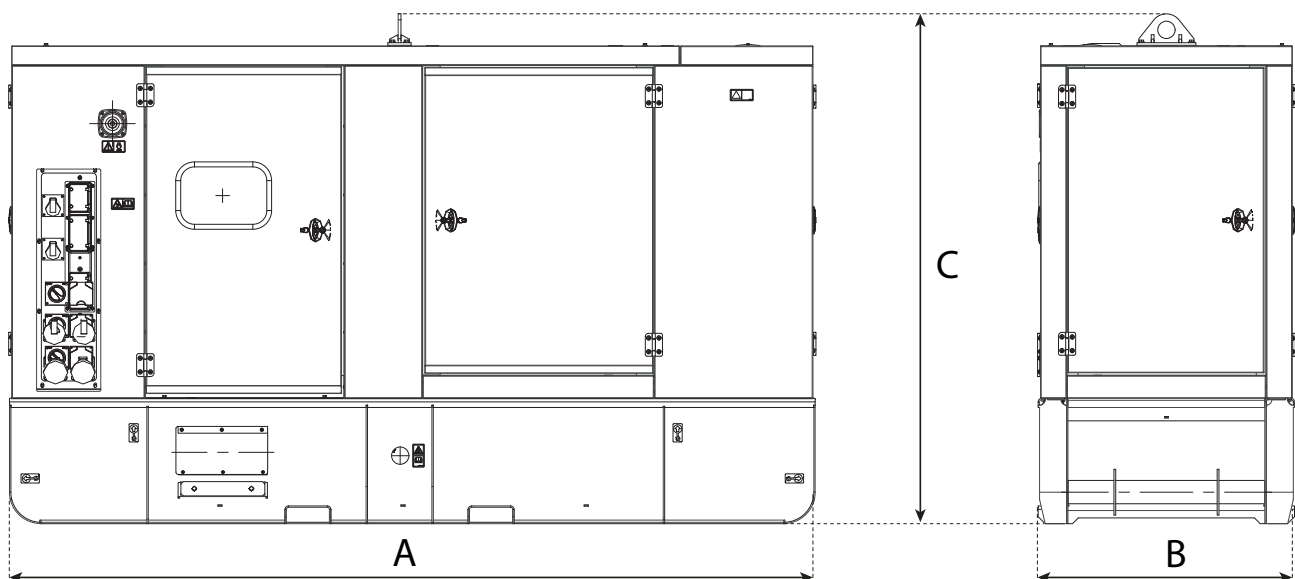
## Power Ratings

Frequency	Voltage	Prime kW (kVA)
50 Hz	380/220V	80 (100)
	400/230V	80 (100)
	415/240V	80 (100)
60 Hz	380/220V	80 (100)
	440/254V	80 (100)
	480/277V	80 (100)
	220/127V	80 (100)
	240/138V	80 (100)

Ratings at 0.8 power factor.

Prime Rating: These ratings are applicable for supplying continuous electrical power (at variable load) in lieu of commercially purchased power. There is no limitation to the annual hours of operation and this model can supply 10% overload power for 1 hour in 12 hours.

Power available at variable load with a load factor not exceeding 80% of the prime power rating in a 24 hour period.



## Weights & Dimensions

Length - A (mm)	2770
Width - B (mm)	1120
Height - C (mm)	1846.5
Weight - Lube Oil & Coolant (kg)	2027
Weight - Lube Oil, Coolant & Fuel (kg)	2456



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## PRO100-2 Technical Data

### Generator Set Technical Data

	UNITS	50 Hz	60 Hz
Power rating	kW (kVA)	80 (100)	80 (100)
Oil pan capacity	L	7.0	7.0
Fuel consumption			
100% load	L/hr	23.5	27.7
75% load		20.4	22.2
50% load		14.6	15.9
Fuel tank capacity	L	410	410
Running time (75% load)	Hrs	20.2	18.5
Ambient capability	°C	44	50
Engine & radiator coolant capacity	L	17	17
Engine coolant capacity	L	7.0	7.0
Combustion airflow	m <sup>3</sup> /min	6.42	8.64
Exhaust flow at rated – dry exhaust	m <sup>3</sup> /min	16.41	19.48
Exhaust temperature at rated kW	°C	657	634
Noise rating			
Sound power*		94	96
1m at 100% load	dB(A)	77.8	80.2
7m at 100% load		67.2	70.1
1m at 75% load		77.5	79.5
7m at 75% load		66.8	69.6

\*Guaranteed sound power as per 2000/14/EC



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## Perkins 1104D Engine Data

Engine	1104D-E44TAG2
Bore – mm (in)	105 mm (4.13 in)
Stroke – mm (in)	127 mm (5.00 in)
Displacement – L (cu in)	4.4 L (268 in3)
Compression ratio	16.7:1
Engine RPM	1500 / 1800
Aspiration	Turbocharged, Air-To-Air Charge Cooled
Aftercooler type	ATAAC
Turbocharger	Single
Fuel system	Direct Injection Commonrail
Governor type	Electronic ECM Controlled
Fuel	Class A2 Diesel or BS-EN590

## Alternator Data

Frame Size	LL3114F
Pitch	2/3
No of Poles	4
Excitation	Static regulated, brushless, self-excited
No of Bearings	Single bearing, close coupled
Insulation Class	H
Temperature rise	125/40°C
Enclosure IP Rating	IP23
Overspeed Capability (% of rated)	25%
Voltage regulator	Single phase sensing
Voltage regulation	Less than $\pm 0.5\%$
Telephone Harmonic Factor (THF)	Less than 2%
Harmonic Distortion (THD)	Less than 2%

\* Materials and specifications are subject to change without notice.

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