

PRO Rental Product Range

PRO500-2

(EUIIIa Compliant)

50/60Hz Switchable Rating

Prime Product

500 kVA / 400 kW



KEY FEATURES

Rental Ready Features

- Forklift pockets
- Fully certified dual point lifting
- 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 via terminal link
- 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 Engine
- EUIIIa emissions compliance offering

Single-Source Supplier

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

PowerWizard Control Panel

- Simple user friendly interface and navigation

Alternator

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

Integrated Voltage Regulator (IVR)

- Three-phase sensing
- Adjustable volts-per-hertz regulation
- Provides precise control, excellent block loading, and constant voltage in the normal operating range.

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

- EU3 emissions compliant (EU3 model)
- Dual wall base tank with 110% spill containment
- Bund Level alarm
- Exceptional noise performance Meets 93 LWA 50 Hz (EU3) Sound Power Limits (EU Machinery Directive)



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STANDARD EQUIPMENT

Air Inlet

- Air cleaner, two stage cyclonic/paper with dust cup and service indicator
- Turbocharger and air-to-air aftercooler

Alternator

- LL6114F frame, three-phase, random wound, 12-lead design, self-excited, 2/3 pitch
- Coastal insulation protection
- 230 VAC anti-condensation heater option

Charging System

- Charging alternator; 24V, heavy duty with integral regulator and belt guards

Control Panel

- PowerWizard 2.1+ genset mounted digital controller
- 50/60Hz frequency switch via terminal link
- Panel mounted Emergency stop switch
- Automatic set-point adjustment integrated with voltage and frequency changes
- Integrated Voltage Regulator with EM10 Excitation Module
- 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, 800A with 24V DC shunt trip wired to distribution door safety switch
- Two wire remote start/stop terminals and 230 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 side mounted dual point lifting frame
- Enclosure is protected by powder coated white paint

Engine

- Perkins 2506D heavy duty diesel engine
- Four-stroke diesel engine combines consistent performance and excellent fuel economy with minimum weight
- ECM electronic engine control (EU3 model)



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Exhaust System

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

Fuel System

- 280 gal (1061 L) double wall fuel tank, 11 hr runtime @ 75% prime rating, internal fuel fill
- Engine mounted primary fuel filter (10micron) with integral water separator and Water in Fuel sensor (EU3 model)
- Off engine mounted Racor fuel water separator (4 micron) with secondary engine mounted fuel water separator (Fuel Optimised model)
- 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.
- Configurable 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. Drain located on side of baseframe.
- 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, 24V
- 2x 12V 950CCA maintenance free batteries (wired in parallel), with single pole battery isolator switch.
- 230 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

- Synchronising control panel and motorised breakers
- Anti-condensation heater 230 VAC
- Coolant heater 230 VAC
- 24V battery charger
- 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	380/220 V	400 (500)
	400/230 V	400 (500)
	415/240 V	400 (500)
60 Hz	380/220 V	420 (525)
	440/254 V	420 (525)
	480/277 V	420 (525)
	220/127 V	420 (525)
	240/138 V	420 (525)

Weights & Dimensions

Length (mm)	5100
Width (mm)	1920
Height (mm)	2300
Weight - Lube Oil & Coolant (kg)	5977
Weight - Lube Oil, Coolant & Fuel (kg)	6879



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PRO500-2 Technical Data

Generator Set Technical Data

	UNITS	50 Hz	60 Hz
Power Rating	kW (kVA)	400 (500)	420 (525)
Oil pan capacity	L	53 (14.0)	53 (14.0)
Fuel consumption			
100% Load	L/hr	110.2 (29.1)	121 (32.0)
75% Load		86.8 (22.9)	99.7 (26.3)
50% Load		62 (16.4)	69.2 (18.3)
Fuel Tank Capacity	L	965 (255)	965 (255)
Running Time (75% Load)	Hrs	11	10
Ambeint Capability	°C	50	35
Engine & Radiator Coolant Capacity	L	48	48
Engine Coolant Capacity	L	9.5 (2.1)	9.5 (2.1)
Combustion Airflow	m3/min	10.2	10.2
Exhaust flow at rated – dry exhaust	m3/min	23.78	23.78
Exhaust temperature at rated kW	°C	484	484
Noise Rating			
Sound Power*		93	96
1m at 100% Load	dB(A)	78	82
7m at 100% Load		66	69
1m at 75% Load		77	82
7m at 75% Load		65	69

*Guaranteed sound power as per 2000/14/EC



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Perkins 1106A Engine Data (Fuel Optimised)

Engine	2506D-E15TAG2
Bore – mm (in)	137 mm (5.39 in)
Stroke – mm (in)	171 mm (6.73 in)
Displacement – L (cu in)	15.2 L (928 in ³)
Compression ratio	16.8:1
Engine RPM	1500 / 1800
Aspiration	Air-to-Air
Aftercooler type	ATAAC
Turbocharger	Single
Fuel system	MEUI
Governor Type	Electronic
Fuel	Class A2 Diesel or BS-EN590

Alternator Data

Frame Size	LL6114F
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	3 phase sensing with adjustable Volts-per-Hz
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.

FG Wilson manufactures product in the following locations:

Northern Ireland • Brazil • China • India • USA

With headquarters in Northern Ireland, FG Wilson operates through a Global Dealer Network.

To contact your local Sales Office please visit the FG Wilson website at www.FGWilson.com.

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