

PRO Rental Product Range

PRO150-1

(Fuel Optimised)

PRO150-2

(EUIIIa Compliant)

50/60 Hz Switchable Rating

Prime Product

150 kVA / 120 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 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
- Fuel Optimised / 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 92 LWA 50 Hz (EU3) 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

- LL3114J 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

- PowerWizard 2.1+ genset mounted digital controller
- 50/60 Hz 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, 250A 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 1106A / 1106D heavy duty diesel engine
- Four-stroke diesel engine combines consistent performance and excellent fuel economy with minimum weight
- ECM electronic engine control (EU3 model)
- Electronic Governed Engine (Fuel Optimised model)



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Exhaust System

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

Fuel System

- 156 gal (590L) double wall fuel tank, 24 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 (30 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, 12V
- 2x 12V 950CCA maintenance free batteries (wired in parallel), 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
- Air cleaner, two stage cyclonic/paper with dust cup and service indicator
- 12V battery charger
- UL/CSA listed 120V, 20 Amp battery charger, shock mounted and enclosed in dust proof housing
- Permanent Magnet Generator (PMG)
- Earth Leakage
- CE labelling (also available for BSFC)



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- Lube oil sump pump

Power Ratings

Frequency	Voltage	Prime kW (kVA)
50 Hz PRO150-1 & PRO150-2	380/220V	120 (150)
	400/230V	120 (150)
	415/240V	120 (150)
60 Hz PRO150-1	380/220V	128 (160)
	440/254V	137 (172)
	480/277V	137 (172)
	220/127V	137 (172)
60 Hz PRO150-2	240/138V	137 (172)
	380/220V	128 (160)
	440/254V	145 (181)
	480/277V	145 (181)
PRO150-2	220/127V	148 (185)
	240/138V	148 (185)

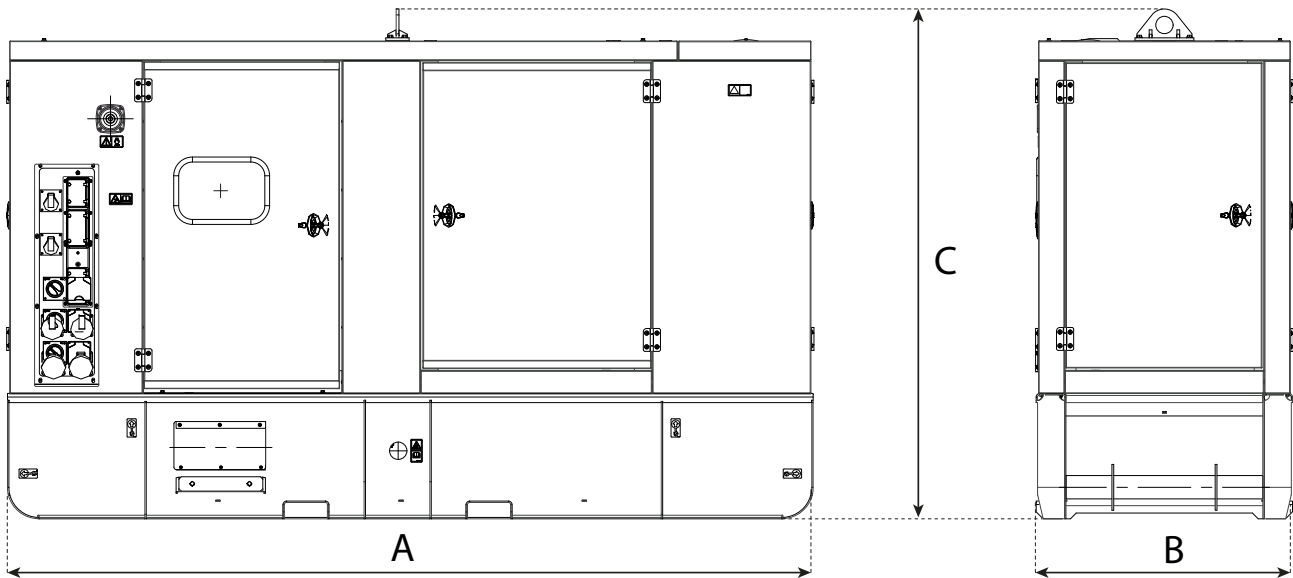
Ratings at 0.8 power factor.

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.

Sockets	Output (A)	Busbars	Breaker 4P (A)	15A	16A	32A	50A	63A	125A
Clipsal	238	3p+N+E M12	250	1	-	-	2	-	-
Sockets (CEE Form)	238	3p+N+E M12	250	-	2x 1ph+N+E	2x 3ph+N+E	-	1 x 1ph+N+E	1x 1ph+N+E

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Weights & Dimensions

Length - A (mm)	3520
Width - B (mm)	1120
Height - C (mm)	2226
Weight - Lube Oil & Coolant (kg)	2547
Weight - Lube Oil, Coolant & Fuel (kg)	3124



PRO Rental Product Range

PRO150-1 Technical Data

Generator Set Technical Data (Fuel Optimised)

	UNITS	50 Hz	60 Hz
Power rating	kW (kVA)	120 (150)	137 (172)
Oil pan capacity	L (gal)	12.4 (2.7)	12.4 (2.7)
Fuel consumption			
100% load	L/hr (gal/hr)	33.4 (7.34)	38.2 (8.4)
75% load		24.7 (5.43)	29.1 (6.4)
50% load		16.4 (3.6)	19.1 (4.2)
Fuel tank capacity	L (gal)	590 (130)	590 (130)
Running time (75% load)	Hrs	24	24
Ambient capability	°C	51	49
Engine & radiator coolant capacity	L (gal)	21 (4.6)	21 (4.6)
Engine coolant capacity	L (gal)	9.5 (2.1)	9.5 (2.1)
Combustion airflow	m ³ /min	10.2	10.2
Exhaust flow at rated – dry exhaust	m ³ /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	1106A-70TAG2
Bore – mm (in)	105 mm (4.13 in)
Stroke – mm (in)	135 mm (5.31 in)
Displacement – L (cu in)	7.01 L (427 in3)
Compression ratio	18.2:1
Engine RPM	1500 / 1800
Aspiration	TA
Aftercooler type	ATAAC
Turbocharger	Single
Fuel system	DP210
Governor type	A4:E2
Fuel	Class A2 Diesel or BS-EN590

Alternator Data

Frame Size	LL3114J
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.



PRO Rental Product Range

PRO150-2 Technical Data

Generator Set Technical Data (EUIIIa)

	UNITS	50 Hz	60 Hz
Power rating	kW (kVA)	120 (150)	145 (181)
Oil pan capacity	L (gal)	12.4 (2.7)	12.4 (2.7)
Fuel consumption			
100% load	L/hr (gal/hr)	37.5 (8.24)	42.3 (9.3)
75% load		29.6 (6.51)	34.7 (7.63)
50% load		20.3 (4.46)	23.8 (5.23)
Fuel tank capacity	L (gal)	590 (130)	590 (130)
Running time (75% load)	Hrs	24	24
Ambient capability	°C	46	46
Engine & radiator coolant capacity	L (gal)	22 (4.6)	22 (4.6)
Engine coolant capacity	L (gal)	9.5 (2.1)	9.5 (2.1)
Combustion airflow	m ³ /min	11.4	14.88
Exhaust flow at rated – dry exhaust	m ³ /min	26.4	30.57
Exhaust temperature at rated kW	°C	491	440
Noise rating			
Sound power*		91	95
1m at 100% load	dB(A)	77	81
7m at 100% load		65	68
1m at 75% load		77	81
7m at 75% load		64	67



PRO Rental Product Range

Perkins 1106D Engine Data (EUIIIa)

Engine	1106D-E70TAG3
Bore – mm (in)	105 mm (4.13 in)
Stroke – mm (in)	135 mm (5.31 in)
Displacement – L (cu in)	7.01 L (427 in3)
Compression ratio	16.8:1
Engine RPM	1500 / 1800
Aspiration	TA
Aftercooler type	ATAAC
Turbocharger	Single
Fuel system	Electronic CRIN2
Governor type	A4:E2
Fuel	Class A2 Diesel or BS-EN590

Alternator Data

Frame size	LL3114J
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%

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