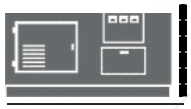
UPG-P135

50 Hz

Genset Model	UPG-P135
Engine Model	Perkins 1106A-70TG1
Alternator Model	TAL 044 H
Controller Model	DSE 6120



POWERED BY

Perkins Diesel Power | LEROY SOMER | DSE

Three phase

water cooled

DIESEL

Battery Charging Alternator

Ratings @ 0.8 PF

VOLTAGE	FREQENCY	PRIME RATING		STAND-BY RATING	
230/400	50 Hz	135.0 kva	108.0 kw	150.0 kva	120.0 kw

Prime

These ratings are applicable for supplying continuous electrical power (at variable load). There is no annual hours limitation and this genset can supply 10% overload for 1 hour in 12 hours

Stand by

These ratings are applicable for supplying continuous electrical power(at variable load) in the case of emergency power supply. No overload is permitted on the ratings.
The alternator on this model is peak continuous rates(as defined in ISO 8528-5)

Some of the specifications are not standard on all Genset models.

Genset Standard Specification	
Model	UPG-P135
Base frame	Heavy duty fabricated steel 3mm
Circuit breaker	ABB 3 pole MCCB.(4 pole is optional)
Engine speed	1500 RPM(50HZ)
Fuel tank capacity	261 L- open / 255 L-closed
Air inlet	Mounted air filter
Fuel system	Fuel injection pump
Fuel filter	Split element
Lubrication system	Wet steel sump with filler and dipstic
cooling system	liquid
Electric Equipment	12 v starter motor and 12 v DC alternator, 12 v shut off slelenoid

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Dimension

Closed type(mm)		Open type(mm)	
Length	3200	Length	2500
Width	1100	Width	775
Height	1650	Height	1425
Weight(kg)	1750	Weight(kg)	1390

Engine Data

Model	Perkins 1106A-70TG1
No of cylinder & arrangement	6 vertical in-line
Compression ratio	18.2:1
Aspiration	Turbo charged
Bore and stoke(mm)	105*135
Rotation	Anti-clockwise, viewed on flywheel
Governing class	ISO 3046-1 Part 4 class A1
Radiator cooling air flow(m^3/sec)	0.04

	50 Hz	
	Prime	Stand by
Gross engine power kw(hp)	122.7(164.5)	135.8(182.0)
at 50% Load(l/hr)	15.9	-
at 75% Load(l/hr)	22.7	-
at 100% Load(l/hr)	30.2	33.8
Total lubricating oil capacity(L)	18.0	18.0
Total Coolant capacity(L)	21.0	21.0

Alternator Data

Make	Leroy Somer
Model	Leroy Somer TAL / Equivalent
Insulation class	H
No of wires	6 (12 option)
No of bearing	1
Total harmonic content	at no load<2%%,on load<5%
Winding pitch	2/3
Ingress Protection	IP23
Altitude	≤1000m
Overspeed	2250 R.P.M
AVR Model	R120
Excitation system	SHUNT
Voltage regulation(steady)	±1%
AREP or PMG Excitation System Available as Optional	

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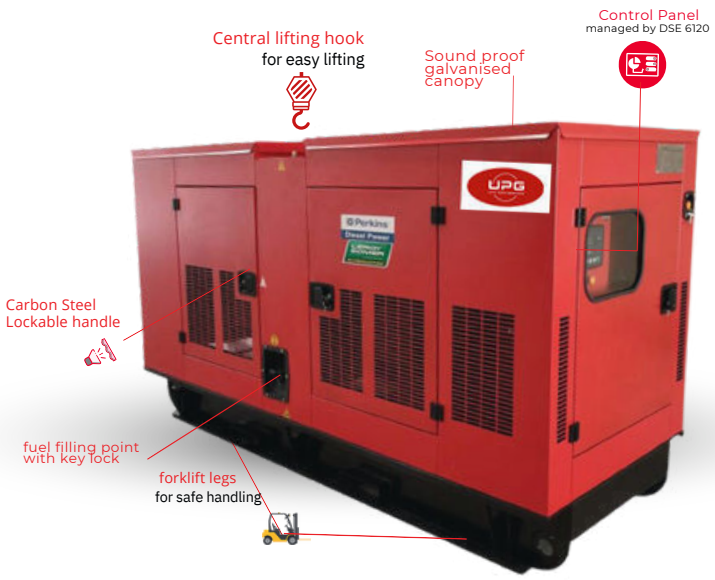

Enclosure

SILENT FEATURES:

- Lockable external fuel filling point
- Internal /External fuel connection
- External oil drainage
- External coolant drainage
- Air inlet /outlet louvers
- Sound splitters at radiator side (only for 1000 KVA and above) (For 725-880 KVA vertical air discharge)
- Common earth connection
- powder coated galvanized canopy
- Cooling fan and battery charging alternator fully guarded
- Engine, radiator, fuel fill and battery can only be reached via lockable access doors

HIGLY CORROSION RESISITANCE CONSTRUCTION

- Carbon steel locks and hinges
- Body made from galvanized steel components
- treated with polyester powder coating

TRANSPORTABILITY

- Tested and certified single point lifting facility
- Forklift legs available

SOUND PRESSURE LEVEL

- 80 - 85 dBA at 3 meters (standard)

SECURITY AND SAFETY:

- Control panel viewing window in a lockable access door
- Emergency stop push button (red) fixed externally for quick access
- Cooling fan and battery charging alternator fully guarded
- Fuel fill and battery can only be reached via lockable access doors
- Exhaust silencing system totally enclosed for operator safety

Control Panel Data	
Make	Deep Sea
Model	DSE 6120 MKII

Controller key features

The DSE 6120 is an Auto Start Control Module for single genset applications. It includes a backlit LCD display which clearly shows the status of the engine all the times. This module can either be programmed using the front panel or by using the DSE configuration suite PC software.

Metering and Alarm indications:

· Generator frequency
· Underspeed, Overspeed
· Generator volts (L-L, L-N)
· Generator current
· Engine oil pressure
· Engine coolant temperature
· Fuel level (Warning or shutdown) - Optional
· Hours run counter
· Battery volts
· Fail to start/stop
· Emergency stop
· Failed to reach loading voltage/frequency
· Charge fail
· Loss of magnetic pick-up signal - Optional
· Low DC voltage
· CAN diagnostics and CAN fail/error

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FUEL SYSTEM

On Generating Sets up to 650 KVA, the baseframe design is incorporated with an integral fuel tank with a capacity of approx. 8 hours running at Full Load. The tank is supplied complete with fill cap breather, fuel feed and return lines to the Engine and drain plug.

Max allowable pressure	50 Hz
Kpa	10
Exhaust gas flow m³/sec	50 Hz
Prime	20.75
Standby	22.66
Exhaust gas temperature °C	50 Hz
Prime	576
Stand by	576

AUTOMATIC VOLTAGE REGULATOR (AVR)

The fully sealed Automatic Voltage Regulator maintains the Voltage Regulation at ±1%. Nominal adjustment by means of a trim pot incorporated on the AVR.

MOTOR STARTING

An overload capacity equivalent to 300% of the Full Load impedance at zero Power Factor can be sustained for 10 seconds, when PMG option is fitted.

COUPLING

The Engine and Alternator are directly coupled by means of an SAE flange. The Engine flywheel is flexibly coupled to the Alternator rotor.

ANTI-VIBRATION MOUNTING PADS

Anti-Vibration pads are affixed between the Engine / Alternator feet and the Baseframe thus ensuring complete vibration isolation of the rotating assembly.

SAFETY GUARDS

The Fan & Fan Drive along with the Battery Charging Alternator are Safety Guard protected for personnel protection.

FACTORY TESTS

The Generating set is load tested before dispatch All protective devices control functions and site load conditions are simulated. The generator and it's systems are checked before dispatch.

DOCUMENTATIONS

Operation & Maintenance manual, Circuit wiring diagrams and Commissioning / Fault Finding accompanied with the Generator.

QUALITY STANDARDS

Following standards: BS4999, BS5000, BS5514 IEC 60034, VDE0530, NEMA MG 1.22 and ISO 8528.

WARRANTY

All of the Generating Sets are covered under a warranty policy for a period of 12 months. Warranty of the equipment is in line with manufacturers warranty terms & conditions.

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