



# ULTIMATE POWER SOLUTION (FZC)

The world's best dealer on Diesel Power Generation, Control Systems & Power Solution

POWERED BY



CERTIFIED BY



**450 KVA**  
3 PHASE

**50 Hz**

## GENERATING SET MODEL ( UPS P 450P )

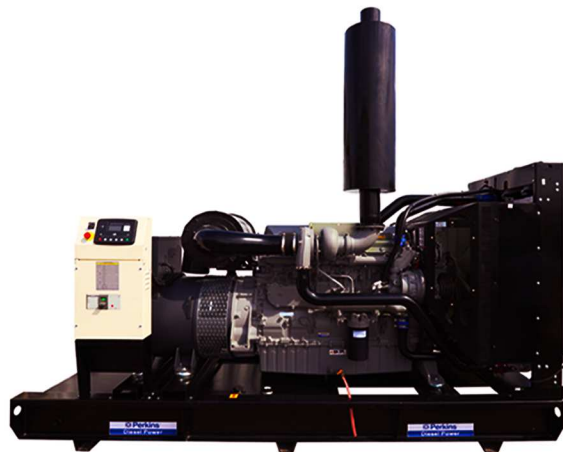
Output Ratings	Prime	Standby
380-415 V, 3 ph, 50 Hz, 1500 rpm	450 KVA 364 KW	500 KVA 400 KW
380-415 V, 3 ph, 60 Hz, 1800 rpm	500 KVA 400 KW	563 KVA 450 KW

## ENGINE / TECHNICAL DATA

Ratings at 0.8 Power Factor

Engine Make	Perkins	
Engine Model	2506A-E15TAG1	
Governing Type	Electronic	
Number of Cylinders	6	
Cylinder Arrangement	Vertical in line	
Bore and Stroke mm	137 x 171	
Displacement / Cubic Capacity litres	12.5	
Induction System	Turbocharged and air to air charge cooled	
Cycle	4 stroke	
Combustion System	Direct Injection	
Compression Ratio	16:1	
Rotation	Anti-clockwise, viewed on flywheel	
Cooling System	Water - cooled	
Frequency and Engine Speed	50Hz & 1500rpm	60Hz & 1800rpm
Gross Engine Power kW (hp)	451 (605)	495 (664)
Fuel Consumption @ 50% load L/hr	42	43
@ 75% load L/hr	62	62
@ 100% load L/hr	81	81
Total Lubrication System Capacity litres	40	40
Total Coolant Capacity litres	51.4	51.4
Exhaust Temperature: °C	630	660

Image for illustrative purposes only



**500 KVA**  
3 PHASE

**60 Hz**

## ALTERNATOR DATA

Make	UPS / Leroy Somer
Model	UPS354D/LSA (TAL) 047B
No. of bearings	1
Insulation class	H
Wires	6/12
Ingress Protection	IP23
Excitation System	SHUNT
Winding Pitch	2/3

Overspeed	2250 mn <sup>-1</sup>
Voltage Regulation (steady)	± 1%

## CONTROL PANEL

Make	Deep Sea
Model	4000 SERIES

The DSE 4000 Series is an Auto Start Control for single genset applications. It includes a LCD display which clearly shows the status of engine all the times. This module can either 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
- Hours run counter
- Battery volts
- Fail to start/stop
- Emergency stop
- Failed to reach loading voltage/frequency
- Charge fail
- Low DC voltage
- CAN diagnostics and CAN fail/error

**1. ENGINE**

Perkins four stroke heavy duty high performance industrial type diesel engine.

**2. ENGINE FILTRATION SYSTEM**

- Cartridge type dry air filter.
  - Two Cartridge type fuel filters.
  - Full flow lube oil filter.
- All filters have replaceable elements.

**3. COOLING RADIATOR**

Radiator and cooling fan, complete with safety guards, designed to cool the engine at high ambient temperatures (consult your dealer for de-ration factors)

**4. EXHAUST SYSTEM**

Exhaust gas flow	98 m <sup>3</sup> /min
Maximum allowable back pressure	6.80 (kPa)

**5. CIRCUIT BREAKER TYPE**

3 pole MCCB. (4 pole is optional)

**6. FUEL SYSTEM**

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.

**7. ALTERNATOR**

**7.1 INSULATION SYSTEM**

- The insulation system is Class H.
- All windings are impregnated in either a triple dip thermosetting liquid, oil and acid resisting polyester varnish or vacuum pressure impregnated with a special polyester resin.
- Heavy coat of antitracking varnish additional protection against moisture or condensation.

**7.2 AUTOMATIC VOLTAGE REGULATOR (AVR)**

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

**8. MOUNTING ARRANGEMENT**

**8.1 COUPLING**

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

**8.2 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.

**8.3 SAFETY GUARDS**

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

**9. FACTORY TEST**

- 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.

**10. EQUIPMENT FINISHING**

All mild steel components are fully degreased and painted with powder coated paint to ensure maximum scuff resistance and durability.

**11. DOCUMENTATION**

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

**12. QUALITY STANDARDS**

The equipment meets the following standards: BS4999, BS5000, BS5514 IEC 60034, VDE0530, NEMA MG 1.22 and ISO 8528.

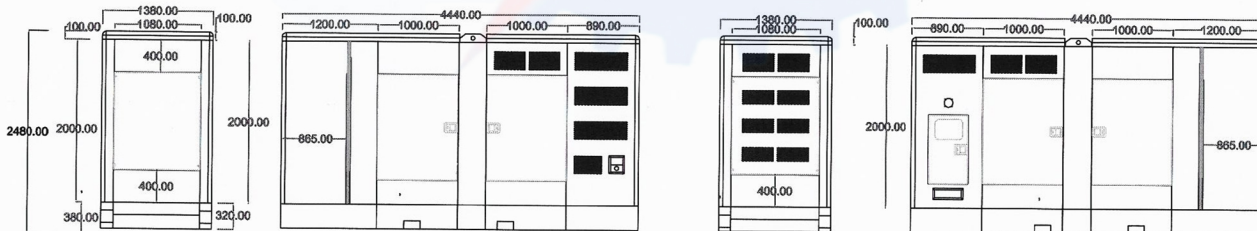
**13. WARRANTY**

All of the Generating Sets are covered under a warranty policy for a period of 12 months or 1000 working hours. Warranty of the equipment is in line with manufacturers warranty terms & conditions. (check warranty statement for more details, as it may vary for different countries)

In line with continuous product development, we reserve the right to change specifications without notice.

**STANDARD GENERATOR DIMENSION AND WEIGHT**

**Silent Type (with Soundproof Canopy)**



**Open Type (without Soundproof Canopy)**

