



# APD 4500

## 4.5 kVA Generator Set

230 to 250 V AC, single phase, 50 Hz



*Highly regarded by the Australian Defence Forces*



**Durability.** Constructed for rugged conditions and developed to stringent military requirements for the Australian Army, the APD4500 has undergone comprehensive testing and survived extremes in temperature, high humidity, salt laden atmospheres, vibration, and drop tests.

**Power Output.** The APD 4500 is a portable field deployable diesel generator capable of delivering 4.5 kVA for any application in the harshest of environmental conditions. There are three easily accessible 15 A single-phase outlets. The APD 4500 has exceptional motor-starting capability, being able to start motors of rated horsepower per generator kilowatt.

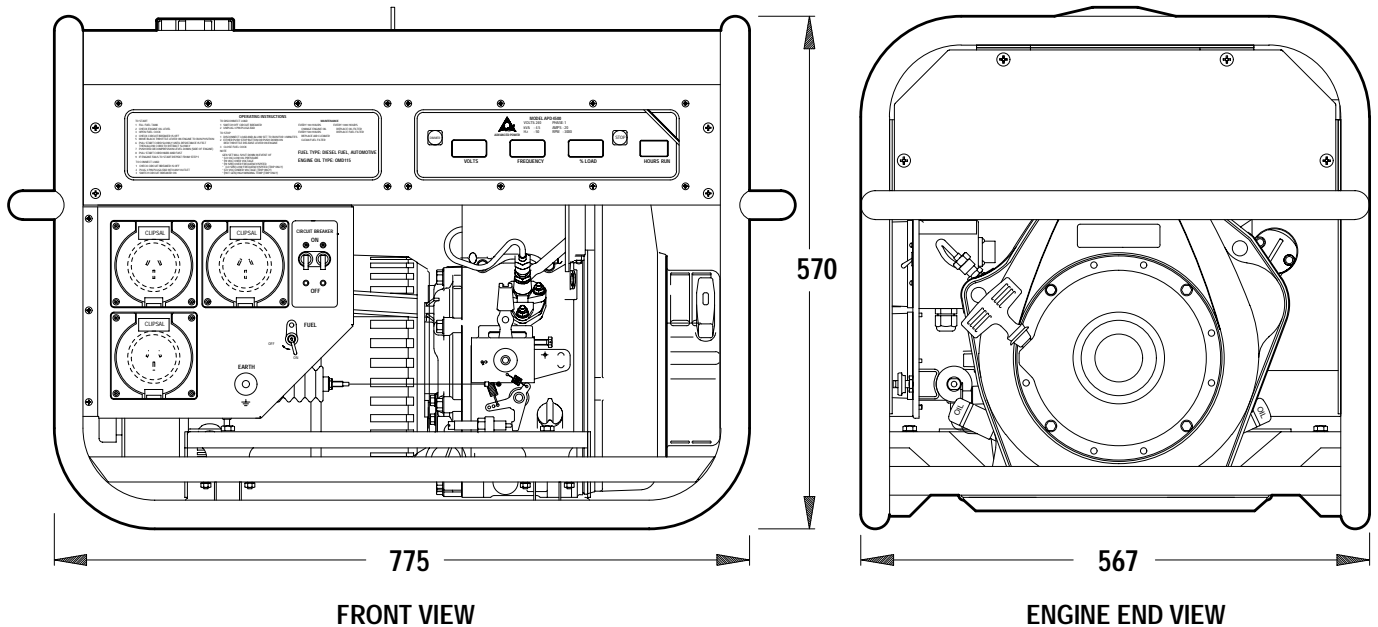
**Power Quality.** It provides exceptional power quality which exceeds the military requirements of QSTAG299 under all load conditions. Low harmonics make it ideal to supply power to sensitive electronic equipment such as radios and computers. Precise voltage regulation is achieved using digital technology and real RMS sensing to maintain the output voltage to within 1.0% of its preset value.

**Portability.** Compact design with convenient lifting eye and tube construction provides easy handling.

**Reliability.** The microprocessor based control system has proven to be a most reliable method of regulating the output voltage, displaying power values and monitoring all areas of the generator. If a fault occurs the equipment is shut down before any damage is caused. A diagnostic message appears on the control panel indicating what fault caused the shutdown. A dependable diesel engine provides the highest efficiency and effortless starting.

**Easy to Use.** The APD 4500 has electric and manual recoil start. The digital instrument panel displays voltage, frequency and load. Designed so that non technical operators can perform all minor preventative and scheduled maintenance using only the tools supplied in the accessory box which also contains spare fuel and air filters, oil strainer, and the user manual.

**Maintenance.** Modular design allows for rapid fault diagnosis and repair in the field by module replacement. Minimal servicing is required with scheduled maintenance only once every 100 hours. A complete workshop manual and spare parts book written to comply with DEF(AUST) 5629A is also available.



## Data Summary - APD 4500, 4.5 kVA Generator Set

### Dimensions and Mass

Frame length.....	775 mm
Length overall.....	877 mm
Width overall.....	567 mm
Height overall.....	570 mm
Weight with oil.....	162 kg

### Engine

Manufacturer.....	Yanmar
Model.....	L100 AE-DEGTM
Type.....	4 stroke diesel
Cooling system.....	Forced air by fan
Combustion system.....	Naturally aspirated direct injection
Starting system.....	Recoil starter, or 12 V electric start facility
Displacement.....	406 cc
Number of cylinders.....	One
Bore x stroke.....	86 x 70 mm
Output (@ ISO 3046/1) at 3000 rpm.....	5.7 kW cont. 6.5 kW maximum
Effective fuel tank capacity.....	16 litres
Fuel type.....	Automotive diesel
Fuel consumption at full load.....	1.8 L/h
Oil capacity.....	1.65 litres

### Electrical

Alternator:	
Make.....	Advanced Power
Type.....	Model FB3P-130/2
Voltage output.....	230 to 250 VAC +/-1%
Current output (100%).....	18.75 A
Output frequency.....	50 Hz +/-2%
Outlets.....	3 by 15 A (IP66)
Overload circuit breaker.....	20 A

### Environment

Noise level.....	83 dB(A) at 7 m
EMC suppression.....	To MIL STD 461C
Maximum ambient temp... 44°C with solar (1150 W/m <sup>2</sup> )	
Altitude rating.....	4.5 kVA at 1500 m at 38°C

### Protection

Over-voltage.....	>275 V for 1 sec
Low-voltage.....	<218 V for 3 sec
Over-speed.....	53 Hz for 2 sec
Under-speed.....	45 Hz for 2 sec
Low oil pressure.....	cut-off after 3 sec
Over-current.....	20 A circuit breaker
Alternator over-temp.....	cut-off after 3 sec



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