

# APD 016

## 16kVA Generator Set

230/400 V to 250/433, 3 Phase, 50Hz



### **Durability**

Constructed for rugged conditions and developed to stringent military requirements for the Australian Army, the APD 016 has undergone comprehensive testing and survived extremes in temperature, humidity, salt laden atmospheres, vibration, and drop tests.

### **Power Output**

The APD 016 is a skid-mounted field deployable diesel generator capable of delivering 16kVA for any application in the harshest of environmental conditions. With exceptional motor-starting capability, the APD 016 is able to start 3-phase motors up to 12 kW DOL and will also provide up to 8 kVA on any single-phase.

### **Power Quality**

The APD 016 provides exceptional power quality which exceeds the military requirements of QSTAG299 under all load conditions. Low harmonics make it ideal to for supplying 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**

The APD 016 is compact in design with convenient lifting eye, forklift pockets, and the tube frame construction providing easy handling.

### **Reliability**

The microprocessor based control system has proven to be a most reliable method of regulating 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.

### **Silent Operation**

The Hatz 4-cylinder silent pack diesel engine's noise proof capsule further reduces the engine noise levels down to 68 dB9(A) at 7 m.

### **Easy to Use**

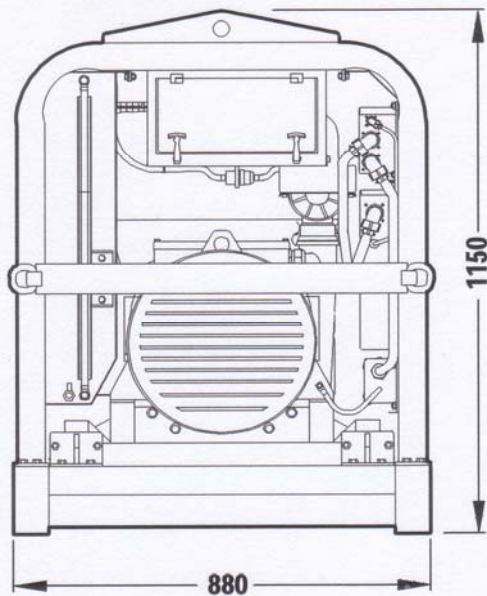
The APD 016 has electric start and an automatic refueling system that tops up the on-board tank from an external bulk supply. The digital instrument panel displays voltage, frequency and load for each phase, and engine temperature, oil pressure and battery volts.

### **Maintenance**

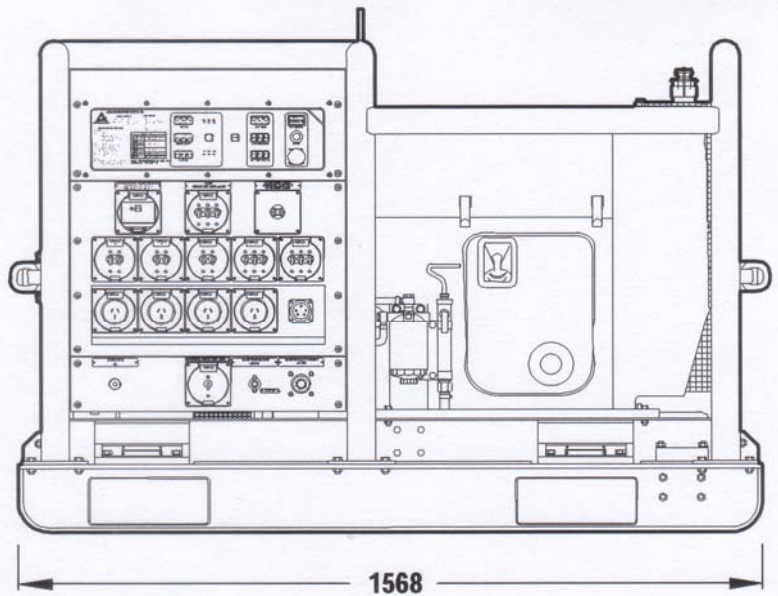
Modular design allows for rapid fault diagnosis and repair in the field by module replacement. Minimal servicing is required with scheduled maintenance only once every 500 hours. Non technical operators can perform all minor preventative and scheduled maintenance using only the tools supplied in the accessory box which also contains spare fuel and air filters, oil strainer, and the user manual. A complete workshop manual and spare parts book written to comply with DEF(AUST) 5629A is also available.

## **Advanced Power**

An Australian company highly experienced in the design and manufacture of military power equipment to any requirement.



ALTERNATOR END VIEW



FRONT VIEW

**Data Summary - APD 016, 16 kVA Generator Set**

Dimensions and Mass		Electrical	
Length	1568mm	<b>Alternator:</b>	
Width	880mm	Make	Advanced Power
Height	1150mm	Type	Model SM 31T-C/4
Mass:		Voltage output (nominal)	230/400 V to 450/433 V AC 3 phase, 4 wire
Dry	895kg	Output frequency	50 Hz
Wet	945kg	Output current (100%)	22 A per phase Total current available from all outlets is 66A
Engine		Outlets:	
Manufacturer	Hatz Diesel	3-Phase	1 x 20 A Clipsal IP66 & 1 x 40 A Cannon
Model	4L41C-1097-1044-ENG	1-phase	3 x 15 A Clipsal IP66
Type	4 stroke diesel	Environment	
Cooling system	Forced air by fan	Noise level	68 dB (A) at 7 m
Combustion system	Naturally aspirated direct injection	EMC suppression	To MIL STD 461C
Starting system	Electric start onboard 24 V battery	Maximum amb temp	44°C with solar (1150 W/m <sup>2</sup> )
Displacement	3432cc	Altitude rating	16 kVA at 1500 m at 38°C
Number of cylinders	4 in-line	Protective Shutdowns	
Bore x stroke	102 x 105mm	<b>Engine oil over temperature:</b>	
Output at 1500 rpm	25.8 kW (DIN 6271B)	- Low oil pressure	
Oil capacity	13 litres	- High output voltage	
Oil consumption		- High output frequency	
Integral tank capacity	42.6 litres	- Blocked engine combustion air filter	
Fuel type	Automotive diesel	<b>Circuit breaker tips:</b>	
Fuel consumption at full load	5.3L/h	- Low output voltage	
Automatic refill	From bulk container by onboard electric pump	- Low output frequency	
Manual refill	Through filler cap	- Outlet current rating exceeded	



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