### APD13MP-6

**88** Perkins





#### 8.1kVA / 8.1 kW POWERED by PERKINS

### **DIESEL GENERATING SET 220V- 60 Hz-1 Phase**

	MODEL		APD13MP-6
Power Pf. 1.0	Standby	kVA	8.1
		kW	8.1
	Prime	kVA	7.4
		kW	7.4

Standby: Continuous running at variable load for duration of an emergency. No overload is permitted on these ratings. In accordance with ISO 3046 . Prime: Continuous running at variable load for unlimited periods with 10% overload available for 1 hour in any 12 hour period. In accordance with ISO 8528,ISO 3046.

✓ High quality, reliable and complete power unit

✓ Compact design

✓ Easy start and maintenance possibility

✓ Every generating set is subject to a comprehensive test program which includes full load testing, checking and provision of all

control and safety shut down functions testing

✓ Fully engineered with a wide range of options and accessories: Canopy, sound proof canopy and on-road trailer





Manufacturer reserves the right to make changes in model, technical specifications, color, equipment and accessories without prior notice.

PERKINS				
Model		403D-11G		
Engine Power Output	kWm	11.8		
at rated rpm	HP	15.8		
Aspiration and Cooling		Natural		
Total Displacement	Litre	1.131		
No. of Cylinders and Build		3-inline		
Engine Speed	rpm	1800		
Bore and Stroke	mmxmm	77x81		
Compression Ratio		23:1		
Governor		Mechanical		
Fuel Consumption at full load	L/hr	3.1		
Fuel Tank Capacity	Litre	Open: 32/Canopy: 32		
Oil Capacity	Litre	4.9		
Coolant Capacity	Litre	5.2		
Radiator Cooling Air	m³/min	45		
Air Intake – Engine	m³/min	0.9		
Exhaust Gas Flow	m³/min	2.4		

✓ Heavy duty Perkins diesel engine

✓ Four stroke, water cooled, Natural

✓ Direct injection fuel system

✓ Mechanical Governor system

- ✓ 12/24 V D.C. starter and charge alternator
- ✓ Replaceable fuel filter, oil filter and dry element air filter
- Cooling radiator and fan  $\checkmark$

Starter battery (with lead acid) including Rack and Cables  $\checkmark$ 

 $\checkmark$ Flexible fuel connection hoses and manual oil sump drain valve

Industrial capacity exhaust silencer and steel bellows  $\checkmark$ 

Jacket water heater(at automatic models)  $\checkmark$ 

 $\checkmark$ Operation manuals and circuit diagram documents

## **ALTERNATOR**

Design	Brushless single bearing, revolving field
Stator	2/3 pitch
Rotor	Single bearing, flexible disc
Insulation System	Class H
Standard Temperature Rise	125 - 163°C Continuous
Exciter Type	Self Excited
Phase Rotation	B (V), C (W)
Alternator Cooling	Direct drive centrifugal blower fan
AC Waveform Total Harmonic Distortion	No load < 1.5%. Non distorting balanced linear load < 5%
Telephone Influence Factor (TIF)	<50 per NEMA MG1-22.43
Telephone Harmonic Factor (THF)	<2%

✓ Brushless, single bearing system, flexible disc, 4 poles

✓ Insulation class H

✓ Standard degree of protection IP21 (\*IP22/IP23 is available.)

- Impregnation with tropicalised epoxy varnish
  Solid state Automatic Voltage Regulator

✓ Self-exciting and self-regulating

✓ Stator winding with 2/3 pitch for improved harmonics

### **CONTROL SYSTEM**

Control supervision and protection panel is mounted on the genset base frame. The control panel is equipped as follows:

Generator kVA

Generator kW

Generator Cos ( $\sigma$ )

#### 1. Auto Mains Failure Control Panel

- Panel equipments:
- ✓ Control with AMF module
- ✓ Static battery charger
- ✓ Emergency stop push button

#### a) Generating set control module DSE6020 features:

- $\checkmark$  The module is used to monitor main supply and
- starts and stops of a standby generating set ✓ Micro-processor based design
- ✓ Automatic control of main and generator contactors
- Monitors engine performance and AC power output LED alarm indication
- ✓ Front panel configuration of timers and alarm trip points
- ✓ 4 configurable analogue/digital inputs, 6 configurable digital inputs
- ✓ 4 configurable DC outputs
- ✓ Easy push button control
- STOP/RESET MANUAL AUTO TEST START

#### b) Metering via LCD display:

- Generator Volts (L-L / L-N)
- ✓ Engine oil pressure (PSI-Bar)
- ✓ Generator Ampere (L1,L2,L3)
  ✓ Engine temperature (° C&° F)
- ✓ Generator Frequency (Hz)
- ✓ Plant battery volts
- ✓ Plant battery volts✓ Engine hours run
- ✓ Mains Volts (Ph-Ph/Ph-N)



DSE 6020

#### c) Alarms:

- ✓ Over and Under Speed
- ✓ Low and High Battery Volt.
- ✓ Start and Stop Failure
- ✓ Charge fail
- ✓ Over Current
- Under / Over Generator Voltage
- ✓ Low Oil Pressure
- ✓ Emergency stop
- ✓ High engine temperature
- d) LED indications
- ✓ Mains available
  ✓ Generator available
- ✓ Generator available
  ✓ Mains on load
- ✓ Mains on load
  ✓ Generator on load
- Generator on load

# 2. Power Outlet Terminal Board Mounted on the Gen-set Base Frame

### **OPTIONAL EQUIPMENTS**

#### **Diesel Engine**

#### ✓Oil heater

#### Alternator

- ✓ 3/4 Pole Output Circuit Breaker
- ✓ Anti-condensation Heater

#### Panel

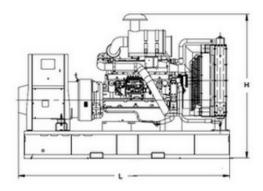
- ✓ Charge ammeter
- ✓ Transfer Switch 3Pole
- ✓ Transfer Switch 4 Pole
- ✓ Earth Fault ,single set

#### Accessories

- ✓ Bulk fuel tank
- ✓ Automatic filling system
- ✓ Fuel-water separator filter
- ✓ Low fuel level alarm
- ✓ Residential silencer
- ✓ Enclosure or sound proof canopy
- ✓ Trailer
- ✓ Manual oil drain pump
- ✓ Tool kit for maintenance

### POWER YOUR FUTURE

### **CHASSIS**

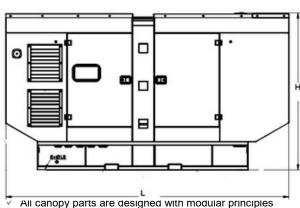


- ✓ The complete gen-set is mounted as whole on a heavy-duty fabricated, steel base frame
- ✓ Anti-vibration pads are fixed between the engine/ alternator feet and the base frame
- ✓ Base frame design incorporates an integral fuel tank (Up to 750 kVA)
- The generating set can be lifted or carefully pushed / pulled by the base frame
- ✓ Dial type fuel gauge and drain plug on the fuel tank
- ✓ Forklift pockets within base frame (up to 500kVA)

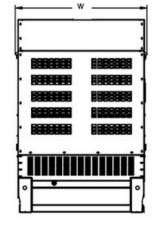
### DIMENSIONS

OPEN TYPE						
DIMENSIONS (LxWxH)	mm	1400x760x923				
DRY WEIGHT	kg	307				
	-					
SOUN	D ATTENU	ATED TYPE				
SOUN DIMENSIONS (LxWxH)		ATED TYPE 1522X823X1127				

### CANOPY



- Without welding assembly
- Doors on each side
- All metal canopy parts are painted by electrostatic polyester powder paint



- Exhaust silencer is protected against environment influences
- Thermally insulated engine exhaust system √
- ✓ Emergency stop push button is installed outside of the canopy
- √ Easy lifting and moving
- ✓ Easy maintenance and operation

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