# APD39MP-6

**88** Perkins

CENERATION



YOUR FUTURE 29.5 kVA / 29.5 kW

POWER

### **POWERED by PERKINS**

# **DIESEL GENERATING SET 220/110V-60 Hz**

MODEL			APD39MP-6
Power Pf. 1.0	Standby	kVA	29.5
		kW	29.5
	Prime	kVA	26.8
		kW	26.8

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.

 $\checkmark$  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.

# ENGINE

PERKINS				
Model		1103A-33G		
Engine Power Output	kWm	36.5		
at rated rpm	HP	48.95		
Aspiration and Cooling		Natural		
Total Displacement	Litre	3.3		
No. of Cylinders and Build		3 - Inline		
Engine Speed	rpm	1800		
Bore and Stroke	mmxmm	105x127		
Compression Ratio		19.25:1		
Governor		Mechanical		
Fuel Consumption at full load	L/hr	8.6		
Fuel Tank Capacity	Litre	100		
Oil Capacity	Litre	8.3		
Coolant Capacity	Litre	10.2		
Radiator Cooling Air	m³/min	70		
Air Intake – Engine	m³/min	2.6		
Exhaust Gas Flow	m³/min	6.6		

✓ Heavy duty Perkins diesel engine

✓ Four stroke, water cooled

✓ 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

✓ Starter battery (with lead acid) including Rack and Cables

✓ Flexible fuel connection hoses and manual oil sump drain valve

✓ Industrial capacity exhaust silencer and steel bellows

✓ Jacket water heater(at automatic models)

✓ 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.)

✓ Self-exciting and self-regulating

✓ Impregnation with tropicalised epoxy varnish

✓ Solid state Automatic Voltage Regulator

✓ 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 DSE6120 features:

- $\checkmark$  The module is used to monitor main supply and starts and stops of a standby generating set
- ✓ Micro-processor based design
- 1 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, 8 configurable digital inputs
- ✓ 6 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)
- 1
- Generator Frequency (Hz) 1
- Plant battery volts Engine hours run
- Mains Volts (Ph-Ph/Ph-N) ~



**DSE 6120** 

#### c) Alarms:

- Over and Under Speed
- 1 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
- 1 Mains 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

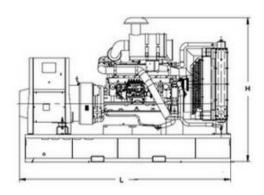
#### Panel

- ✓ 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

# **CHASSIS**

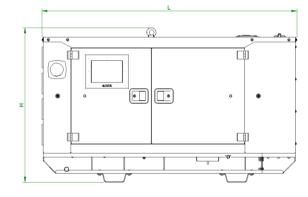


- $\checkmark$  The complete gen-set is mounted as whole on a heavy-duty fabricated, steel base frame
- $\checkmark$ Anti-vibration pads are fixed between the engine/ alternator feet and the base frame
- ✓ Base frame design incorporates an integral fuel tank (Up to 1000 kVA)
  ✓ The generating set can be lifted or carefully pushed / pulled by the base frame
- Dial type fuel gauge and drain plug on the fuel tank  $\checkmark$
- ✓ Forklift pockets within base frame (up to 500kVA)

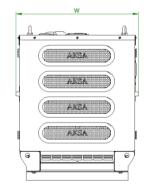
## DIMENSIONS

OPEN TYPE						
DIMENSIONS (LxWxH)	mm	1905x840x1206				
DRY WEIGHT	kg	630				
SOUN	D ATTENU	ATED TYPE				
SOUN DIMENSIONS (LxWxH)		ATED TYPE 2204x899x1307				

## CANOPY



- All canopy parts are designed with modular principles
- 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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