





Serkins





DIESEL GENERATING SET 400/230 V - 50 Hz

MODEL			APD66P
Power Pf. 0.8	Standby	kVA	66
		kW	52.8
	Prime	kVA	60
		kW	48

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 programme which includes full load testing and checking and providing 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













ENGINE

Perkins

PERKINS					
Model	1	1103A-33TG2			
Engine Power Output	kWm	59.3			
at rated rpm	HP	79.5213			
Aspiration and Cooling	1	Turbocharged			
Total Displacement	Litre	3.3			
No. of Cylinders and Build		3- Inline			
Engine Speed	rpm	1500			
Bore and Stroke	mmxmm	105x127			
Compression Ratio	1	17.25:1			
Governor	1	Mechanical			
Fuel Consumption at full load	L/hr	13.9			
Fuel Tank Capacity	Litre	82			
Oil Capacity	Litre	8.3			
Coolant Capacity	Litre	10.2			
Radiator Cooling Air	m³/min	89			
Air Intake – Engine	m³/min	3.8			
Exhaust Gas Flow	m³/min	10.1			

- ✓ Heavy duty Perkins diesel engine
- ✓ Four stroke, water cooled, turbocharged
- ✓ 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	A (U), B (V), C (W)
Alternator Cooling	Direct drive centrifugal blower fan
AC Waveform Total Harmonic Distortion	No load < 1.5%. Non distorting balanced
AC Waveloriii Total Harrionic Distortion	inear 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

Self-exciting and self-regulating

- ✓ Standard degree of protection IP21 (*IP22/IP23 is availab.) ✓ Stator winding with 2/3 pitch for improved harmonics
- √ Impregnation with tropicalised epoxy varnish
- ✓ Solid state Automatic Voltage Regulator



CONTROL SYSTEM

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

1. Auto Mains Failure Control Panel

Panel equipments:

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

a) Generating set control module DSE 6020 features:

- ✓ 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
- ✓ CAN and magnetic pick-up versions(specify on ordering)
- √ 4 digital inputs/3 analogue inputs
- ✓ 6 outputs(4 configurable on Magnetic Pick-up, 6 configurable on CANbus version)

Generator kVA

Generator kW

Generator Cos (σ)

✓ Easy push button control STOP/RESET - MANUAL - AUTO - TEST – START

b) Metering via LED display:

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

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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
- ✓ Mains on load
- ✓ Generator on load

2. Power Outlet Terminal Board Mounted on the Genset Base frame

OPTIONAL EQUIPMENTS

Diesel Engine

✓ Oil heater

Altemator

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

Panel

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

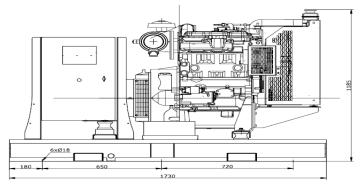
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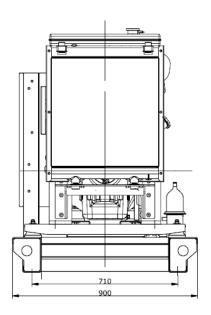
Accessories

- ✓ 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
- ✓ Antivibration 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)	ı mm	1730x900x1185				
DRY WEIGHT	kg	830				
SOUND ATTENUATED TYPE						
DIMENSIONS (LxWxH)) mm	2255x969x1275				
DRY WEIGHT	l kg	1020				

Section 153 1730 371.5 2254.5

969

- ✓ 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

Aksa Power Generation

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