APD10P







10KVA / 8KW POWERED by PERKINS

DIESEL GENERATING SET 400/230 V - 50 Hz

MODEL			APD10P
Power Pf. 0.8	Standby	kVA	10
		kW	8
	Prime	kVA	9
		kW	7.2

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











ENGINE

PERKINS						
Model		403A-11G1				
Engine Power Output	kWm	9.5				
at rated rpm	HP	13				
Aspiration and Cooling		Naturally				
Total Displacement	Litre	1-131				
No. of Cylinders and Build		3; Vertical in-line				
Engine Speed	rpm	1500				
Bore and Stroke	mmxmm	77×81				
Compression Ratio		23:1				
Governor		Mechanical				
Fuel Consumption at full load	L/hr	2.6				
Fuel Tank Capacity	Litre	32				
Oil Capacity	Litre	4.9				
Coolant Capacity	Litre	5.2				
Radiator Cooling Air	m³/min	40.2				
Air Intake – Engine	m³/min	0.7				
Exhaust Gas Flow	m³/min	1.8				

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

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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 (σ)

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:

- √ 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, 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)
- ✓ Generator Frequency (Hz)
- ✓ Plant battery volts
- ✓ Engine hours run
- ✓ Mains Volts (Ph-Ph/Ph-N)



DSE 6120

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 Gen-set Base Frame

OPTIONAL EQUIPMENTS

Diesel Engine

√Oil heater

Alternator

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

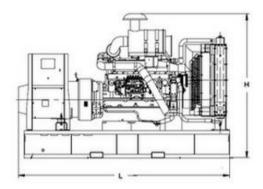
Panel

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

Accessories

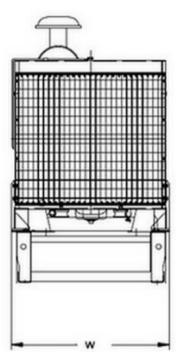
- ✓ Bulk fuel tank
- ✓ Automatic filling system
- ✓ Fuel-water separator filter
- ✓ Low fuel level alarm
- √ Residential silencer
- ✓ Enclosure or sound proof canopy
- ✓ Trailer
- ✓ Manual oil drain pump
- ✓ Tool kit for maintenance

CHASSIS



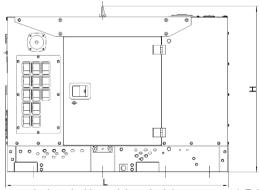
- ✓ The complete gen-set is mounted as whole on a heavy-duty fabricated, steel base frame
- ✓ Anti-vibration pads are fixed between the engine/ alternator feet and the base frame
- ✓ Base frame design incorporates an integral fuel tank (Up to 750 kVA)
 ✓ The generating set can be lifted or carefully 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)





OPEN TYPE						
DIMENSIONS (LxWxH)	mm	1400x760x923				
DRY WEIGHT	kg	307				
DIMENSIONS (LxWxH)	mm	1522X823X1127				
DRY WEIGHT	kg	430				

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