### APD200P-RP

### **B**Perkins



POWER YOUR FUTURE 200kVA / 160 kW

# POWERED by PERKINS

# DIESEL GENERATING SET 400/230 V - 50 Hz

MODEL			APD200P-RP
Power Pf. 0.8	Standby	kVA	200
		kW	160
	Prime	kVA	180
		kW	144

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.

### ENGINE

PERKINNS					
Model		1106A-70TAG3			
Engine Power Output	kWm	179.8			
at rated rpm	HP	241			
Aspiration and Cooling		Turbocharged and air charge cooled			
Total Displacement	Litre	7.01			
No. of Cylinders and Build		6 - Inline			
Engine Speed	rpm	1500			
Bore and Stroke	mmxmm	105x135			
Compression Ratio		16:1			
Governor		Mechanical			
Fuel Consumption at full load	L/hr	41.6			
Fuel Tank Capacity	Litre	Canopy: 1100			
Oil Capacity	Litre	16.5			
Coolant Capacity	Litre	21			
Radiator Cooling Air	m³/min	252			
Air Intake – Engine	m³/min	13.87			
Exhaust Gas Flow	m³/min	33.85			
Sound Level(1M)	dBA	80			
Sound Level(7M)	dBA	67			

✓ Heavy duty Perkins diesel engine

✓ Four stroke, water cooled, turbocharged & intercooled

✓ 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  $\checkmark$
- 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

### **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)
- ✓ 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) 1
- √ Generator Frequency (Hz)
- Plant battery volts ~

**Diesel Engine** 

✓Oil heater

Alternator

- 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

## 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
- 1 Mains on load
- ✓ Generator on load

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



**DSE 6020** 

Generator kVA Generator kW

- Generator Cos (o)

**OPTIONAL EQUIPMENTS** 

3/4 Pole Output Circuit Breaker

✓ Anti-condensation Heater

- Engine hours run
- ✓ Mains Volts (Ph-Ph/Ph-N)

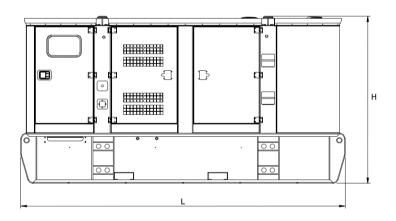
### **CHASSIS**

- $\checkmark\,$  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 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)

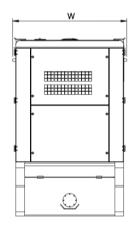
### DIMENSIONS

OPEN TYPE							
DIMENSIONS (LxWxH)	mm	N/A					
DRY WEIGHT	kg	N/A					
CANOPY TYPE							
DIMENSIONS (LxWxH)	mm	3600X1363X2103					
DRY WEIGHT	kg	3000					

### 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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