



Power Systems

500 - 550 KVA / 400 - 440 KW
PERKINS Powered
GENERATING SETS

DESIGN SPECIFICATIONS

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 all control and safety shut down functions testing.
 Fully engineered with a wide range of options and accessories, Canopy, soundproof canopy and mobile units.



400 / 230 V - 50Hz			AP 500	AP 550	
Power Factor 0.8	Standby	kVA	500	550	
	Prime	kVA	450	500	

Standby: Continuous running at variable load for an Emergency. No overload is permitted on these ratings. In accordance with BS 5514, 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.

ENGINE

PERKINS heavy duty diesel engine
 Four cycle, water cooled, turbo charged and after cooled.
 Direct injection fuel system.
 Electronic governor control system.
 24 V.D.C.starter and charge alternator.
 Replaceable dry element air filter,fuel filter and oil filter.
 Cooling radiator and fan.
 Flexible fuel connection hoses and manual sump oil drain valve.
 Industrial capacity exhaust silencer and steel bellows.
 Starter battery (with lead acid) including rack and cables.
 Jacket water heater (at automatic models).
 Manual and circuit diagram documents.

ALTERNATOR

Newage Stamford brushless single bearing system, 4 Pole.
 Insulation class H.
 Standard degree of protection IP21 .
 Self-exciting and self-regulating.
 Solid state automatic voltage regulator.
 Impregnation with tropicalized epoxy varnished.
 Stator winding with 2/3 pitch for improved harmonics.

CHASSIS

The complete generating set is mounted as a 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.
 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.
 Solid state automatic voltage regulator

CANOPY

All canopy parts are designed with modular principles.
 Without welding assembly.
 All metal canopy parts are painted by electrostatic polyester powder paint.
 Exhaust silencer manufactured from aluminium plated steel .
 Emergency stop push button is installed outside of canopy .
 Easy maintenance and operation.
 Easy lifting and moving.
 Thermally insulated engine exhaust system.

QUALITY STANDARDS

The equipment meets the following standards: IEC 34-1, ISO 3046, VDE 0530, BS 4999, BS 5000, IEC 34-1. The generating set is manufactured by a full accredited ISO 9001 NQA

CONTROL SYSTEMS

Deep Sea Control, Supervision and Protection Panel Mounted on genset base frame. The control panel is equipped as follows;
Control Modules Common Features
 Automatic controls generating set, start and shutdown
 Front panel programming of the module settings
 Remote communication via RS232 port or RS485 "modbus" output.
 Scrolling Digital LCD Panel.
 Event logging of shutdown alarms

Metering via LCD Display

- Generator Volt (F-F / F-N).
- Generator Ampere (L1, L2,
- Generator Frequency (Hz).
- Generator KVA
- Generator KW
- Engine oil pressure (PSI & Bar).
- Engine Temperature (°C & °F)
- Engine speed RPM.
- Engine hours run
- Plant battery volts

Alarms

- Under / Over generator volt
- Under / Over generator frequency
- Over Current
- Low oil pressure.
- High Engine temperature
- Under/Over speed.
- Low coolant level
- Fail to start
- Fail to stop
- Emergency stop.
- Charge fail
- Low/high battery volts

Auto Mains Failure Control System P2020

Control with DSE model 5220 module
 Static battery charger
 Emergency stop button control
Additional Features, DSE model 5220
 Monitoring AC mains supply
 Provides signal to change over switch gear
 Easy push button control
 Stop/Reset - Auto - Manual - Test - Start

Additional Metering

- Mains volts (F-F / F-N)
- Mains Frequency (Hz)

Additional Alarms

- Under / over mains volts
- Under / over mains frequency
- Can data fail
- Can ECU fail

Auto Start Control System P 2010

Control with DSE model 5010 module
 Emergency stop push button
Additional Features, DSE model 5210
 Provides signal to load transfer
 Easy push button control
 Stop / Reset - Auto - Manual - Test - Start



DSE 720

TECHNICAL DATA**DIESEL GENERATING SETS 400 / 230 V - 50Hz**

MODEL		AP500			AP550			
Power Pf. 0.8	Standby	kVA	500		550			
		Kw	400		440			
	Prime	Kva	450		500			
		Kw	360		400			
Engine Make		Perkins			Perkins			
Model		2806 C - E 16 TAG 1			2806 C - E 16 TAG 2			
Gross Engine Power Output		kWm	445		483			
(at rated rpm)		hp	596		647			
Aspiration and Cooling		Turbo Charged and Charge air Cooled			Turbo Charged and Charge air Cooled			
Cubic Capacity		Litre	15.8		15.8			
Cylinders and Build		6 - In Line			6 - In Line			
Engine Rated Speed		rpm	1500		1500			
Compression Ratio		15.8:1			15.8:1			
Bore and Stroke		mm x mm	140 x 171		140 x 171			
Governor Type		Electronic			Electronic			
Fuel Consumption		Load	1/2	3/4	Full	1/2	3/4	Full
		L/h.	49.4	71.6	95	54.2	79.2	104.9
Fuel Tank Capacity		Litre	650		650			
Total Oil Capacity		Litre	68		68			
Coolant capacity (Engine and Radiat		Litre	50		50			
Air Intake Engine		m3 / min.	34.6		34.6			
Exhaust Gas Flow		m3 / min.	75.2		75.2			
Exhaust Gas Temperature		0°C	453		457			
Alternator Voltage regulation		Plus / Minus %1			Plus / Minus %1			

All Sets Come With Battery Charger and Engine Heater as Standard.

OPEN TYPES

Dimensions (Length x width x height)	m.	3600 x 1230 x 2110	3600 x 1230 x 2110
Dry Weight	kg.	4150	4150

SOUND ATTENUATED TYPES

		AS 710		AS 710	
Dimensions (Length x width x height)	m.	5540 x 1660 x 2590		5540 x 1660 x 2590	
Dry Weight	kg.	5750		5750	

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

OPTIONAL EQUIPMENTS**Engine**

Electronic Governor

Remote Radiator

Alternator

3 Pole Output Circuit Breaker

Oversized Alternator

Anti-Condensation Heater

Panel

Transfer Switch

Auto Mains Failure

Earth Fault



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