# AP750-6

## **B Perkins**

Sa POWER GENERATION





750KVA / 600KW POWERED by PERKINS

## DIESEL GENERATING SET 480/277 V,440/254V,380/220V,220/127V - 60 Hz

	MODEL		AP750-6
Power Pf. 0.8	Standby	kVA	750
		kW	600.0
	Prime	kVA	681.25
		kW	545.0

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



# ENGINE

PERKINS				
Model		2806A-E18TAG3		
Engine Power Output	kWm	678.2		
at rated rpm	HP	909		
Aspiration and Cooling		Turbocharged, air to air charge cooling		
Total Displacement	Litre	18.13		
No. of Cylinders and Build		6 ; In-line		
Engine Speed	rpm	1800		
Bore and Stroke	mmxmm	145×183		
Compression Ratio		14.5:1		
Governor		Electronic		
Fuel Consumption at full load	L/hr	145		
Fuel Tank Capacity	Litre	1150		
Oil Capacity	Litre	62		
Coolant Capacity	Litre	61		
Radiator Cooling Air	m³/min	852		
Air Intake – Engine	m³/min	50.5		
Exhaust Gas Flow	m³/min	135.7		

✓ Heavy duty Perkins diesel engine

✓ Four stroke, water cooled, turbocharged and air charge cooled

✓ Direct injection fuel system

✓ Electronic 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	105 - 130°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 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 7320 features:

- The module is used to monitor a mains supply and starts and stops a standby generating set
- ✓ Micro-processor based design
- ✓ Automatic control of mains and generator contactors
- ✓ Monitors engine performance and AC power output
- ✓ LED alarm indication
- ✓ Front panel configuration of timers and alarm trip points
- ✓ Easy push button control STOP/RESET - MANUAL -TEST- AUTO - MUTE ALARM - 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)
- ✓ Plant battery volts
- ✓ Engine hours run
- ✓ Mains Volts (Ph-Ph/Ph-N)
- ✓ Generator kVA, kWh
- ✓ Generator kW as % of rated kW setting
- ✓ Generator Cos ( $\sigma$ )

## 2. Power Outlet Terminal Board Mounted on the Genset Base Frame

## **OPTIONAL EQUIPMENTS**

## **Diesel Engine**

✓ Oil heater

#### Alternator

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

## Panel

- ✓ Charge ammeter
- ✓ Transfer Switch 3 Pole
- ✓ 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
- ✓ kW overload
- ✓ Unbalanced load
- ✓ Independent earth fault trip

#### d) LED indications

Four configurable LED's like:

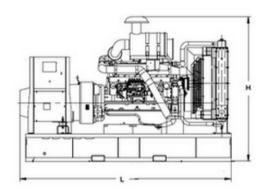
- ✓ Mains available
- ✓ Generator available
- ✓ Mains on load
- ✓ Generator on load

www.aksapowergen.com





# **CHASSIS**

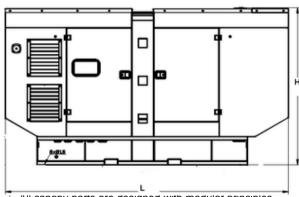


- $\checkmark$  The complete gen-set is mounted as whole on a heavy-duty fabricated, steel base frame
- ✓ Anti-vibration pads are fixed between the engine/ alternator feet and the base frame
- ✓ Base frame design incorporates an integral fuel tank (Up to 750 kVA)
- ✓ The generating set can be lifted or carefully pushed / pulled by the base frame
- Dial type fuel gauge and drain plug on the fuel tank  $\checkmark$
- ✓ Forklift pockets within base frame (up to 500kVA)

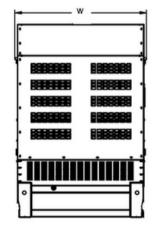
# DIMENSIONS

OPEN TYPE						
DIMENSIONS (LxWxH)	mm	3450*1800*2178				
DRY WEIGHT	kg	4500				
		4000				
		ATED TYPE				

# 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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