



**611 - 555 kW  
POWERED by PERKINS**

**APD-EPAP611**

**POWER YOUR  
FUTURE!**



**DIESEL GENERATING SET 480/277 V, 208/120V - 60 Hz**

MODEL			APD-EPAP611
Power Pf. 0.8	Standby	kVA	763.75
		kW	611
	Prime	kVA	693.75
		kW	555

**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**

- Heavy duty Perkins diesel engine
- Four stroke, water cooled, Turbo charged
- Direct injection fuel system
- ECM governor system
- 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**

- Brushless, single bearing system, flexible disc, 4 poles
- Insulation class H
- Standard degree of protection IP21 (\*IP22/IP23 is avail.)
- Self-exciting and self-regulating

- Impregnation with tropicalised epoxy varnish
- Solid state Automatic Voltage Regulator
- Stator winding with 2/3 pitch for improved harmonics



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

## ENGINE



PERKINS		
Model		2806C-E18TAG3
EPA Certification		TIER 2
Engine Power Output at rated rpm	BHP	874.3
	kWm	652
	HP	887
Aspiration and Cooling		Turbo charged
Total Displacement	Cu.in.	1116.7
	Litre	18.13
No. of Cylinders and Build		6-Inline
Engine Speed	rpm	1800
Bore and Stroke	inches	5.70x7.20
	mmxmm	145x183
Compression Ratio		14.5:1
Governor		ECM
Starter Motor Voltage		24 V
Fuel Consumption @ 100 % load	gal/hr	38.28
Fuel Consumption @ 75% load		29.57
Fuel Consumption @ 50% load		20.86
Fuel Consumption @ 25% load		N/A
Fuel Tank Capacity	gal. Litre	N/A
Oil Capacity	gal.	16.3
	Litre	62
Coolant Capacity	gal.	16.1
	Litre	61
Radiator Cooling Air	cfm	30088.09
	m <sup>3</sup> /min	852
Air Intake – Engine	cfm	1730.4
	m <sup>3</sup> /min	49
Exhaust Gas Flow	cfm	4590.9
	m <sup>3</sup> /min	130
Standard operating temp degree of radiator	°C	40
Sound Level @1 meter / @ 7 meter	dB	TBD

## ALTERNATOR

Model	Marathon-480-4
Size(mm)	1308x780x1090
Design	Brushless single bearing, revolving field
Stator	2/3 pitch
Rotor	Single bearing, flexible disc
Insulation System	Class H
Standard Temperature Rise	125 °C Prime / 150 °C Stand by
Exciter Type	Self Excited(PMG excitation is optional)
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%



## 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 7320 features:

- The module is used to monitor mains 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
- 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 ( $\sigma$ )



DSE 7320

#### 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

### 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

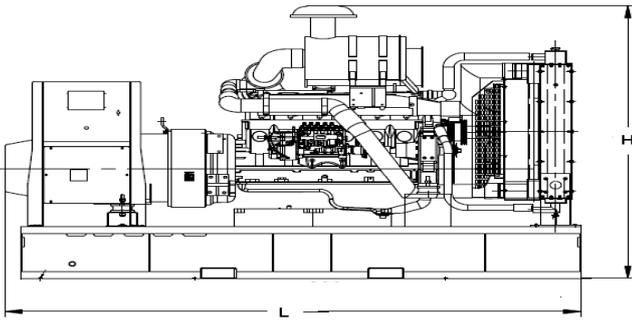
#### Panel

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

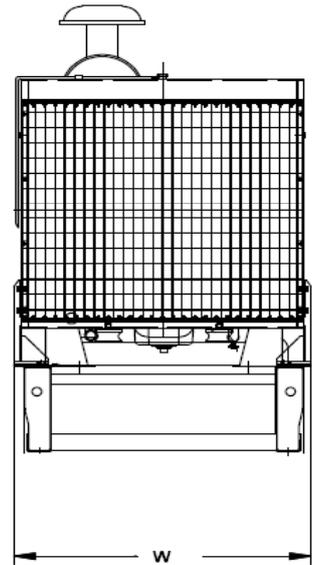
#### Accessories

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

## 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
- The generating set can be lifted or carefully pushed/ pulled by the base frame
- Forklift pockets within base frame (up to 500kVA)



## DIMENSIONS

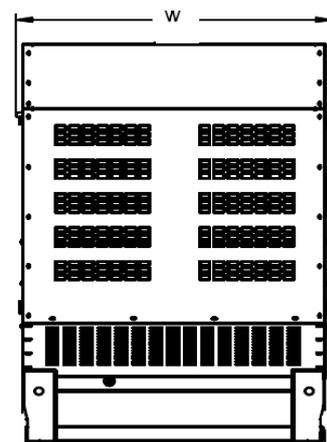
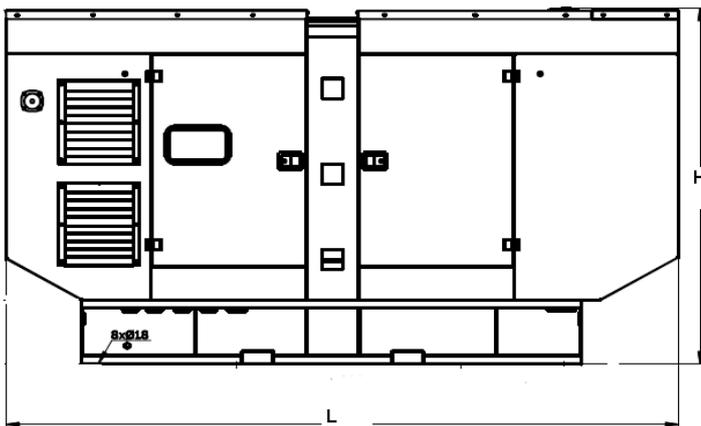
### OPEN TYPE

DIMENSIONS (LxWxH)	inches mm	<i>114.8x52.5x70.1</i> <i>3500x1600x2138</i>
DRY WEIGHT	Lb. Kg	<i>9039</i> <i>4100</i>

### SOUND ATTENUATED TYPE

DIMENSIONS (LxWxH)	inches mm	<i>202.8x69.8x96.5</i> <i>5151x1773x2452</i>
DRY WEIGHT	Lb. Kg	<i>11880</i> <i>5389</i>

## 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

AKSA USA

Tel:+1 318 855 8377 Fax:+1 318 855 8381

E-mail: [sales@aksausa.com](mailto:sales@aksausa.com) [techsupport@aksausa.com](mailto:techsupport@aksausa.com)

[www.aksausa.com](http://www.aksausa.com)

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