

ATA Makes Life Brighter Generators & Switchgear Solutions

# **ATA Perkins**, 2806A-E18TAG1A, 600 KVA

| Speed<br>rpm | Type of<br>operation | Typical<br>generator<br>output (Net) |     | Engine power |     |     |     |
|--------------|----------------------|--------------------------------------|-----|--------------|-----|-----|-----|
|              |                      |                                      |     | Gross        |     | Net |     |
|              |                      | kVA                                  | kWe | kWm          | hp  | kWm | hp  |
| 1500         | Primepower           | 600                                  | 480 | 540          | 724 | 522 | 700 |
|              | Standby power        | 660                                  | 528 | 593          | 795 | 574 | 770 |

| Percent of prime power | Fuel consumption at 1500 rpm<br>g/kWh | Fuel consumption at 1500 rpm<br>I/hr |
|------------------------|---------------------------------------|--------------------------------------|
| Standby power          | 201                                   | 134                                  |
| Primepower             | 203                                   | 123                                  |
| Baseload power         | 199                                   | 90                                   |
| 75%                    | 199                                   | 90                                   |
| 50%                    | 203                                   | 61                                   |

| Engine package weights and dimensions |         |         |  |  |
|---------------------------------------|---------|---------|--|--|
| Length                                | 2545 mm | 100 in  |  |  |
| Width                                 | 1536 mm | 60.5 in |  |  |
| Height                                | 1808 mm | 71 in   |  |  |
| Weight (dry)                          | 2050 kg | 4519 lb |  |  |

| Specification              |   |              |  |  |
|----------------------------|---|--------------|--|--|
| Number of cylinders        | 6 vertical in-line                        |              |  |  |
| Bore and stroke            | 145 x 183 mm                              | 5.7 x 7.2 in |  |  |
| Displacement               | 18.1 litres 1104 in <sup>3</sup>          |              |  |  |
| Aspiration                 | Turbocharged and air-to-air charge cooled |              |  |  |
| Cycle                      | 4 stroke                                  |              |  |  |
| Combustion system          | Direct injection                          |              |  |  |
| Compression ratio          | 14.5:1                                    |              |  |  |
| Rotation                   | Anti-clockwise, viewed on flywheel        |              |  |  |
| Total lubricating capacity | 62 litres                                 | 16.4 US gal  |  |  |
| Cooling system             | Water-cooled                              |              |  |  |
| Total coolant capacity     | 61 litres                                 | 16.1 US gal  |  |  |

## Dimensions

| Туре   | Length (mm) | Width (mm) | Height (mm) | Fuel Tank(L) | Weight (KG) |
|--------|-------------|------------|-------------|--------------|-------------|
| Open   | 4175        | 1712.5     | 2375        | 1210         | 5785        |
| Closed | 5925        | 2305       | 2532.5      | 1210         | 8410        |

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## **Technical information**

## Air inlet

Mounted air filter

## Fuel system

- · Mechanically actuated electronically controlled unit fuel injectors with full authority electronic control
- Governing to ISO 8528-5 class G2 with isochronous capability
- Replaceable 'Ecoplus' fuel filter elements with primary filter/water separator
- Fuel cooler

## Lubrication system

- Wet sump with filler and dipstick
- Full-flow replaceable 'Ecoplus' filter
- Oil cooler integral with filter header

## Cooling system

- Gear-driven circulating pump
- Mounted belt-driven pusher fan
- Radiator incorporating air-to-air charge cooler, (supplied loose)
- System designed for ambients up to 50°C
- Low coolant level switch

## Electrical equipment

- 24 volt starter motor and 24 volt 70 amp alternator with DC output
- ECM mounted on engine with wiring looms and sensors
- 3 level engine protection system

## Flywheel and housing

- High inertia flywheel to SAE J620 size 18
- SAE '0' flywheel housing

## Mountings

• Front engine mounting bracket



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## ALTERNATOR SPECIFICATIONS

#### TAL 047 - 410 to 660 kVA - 50 Hz / 510 to 825 kVA - 60 Hz

| Insulation class               | н                   | Excitation system 6-wire                                   | SHUNT AREP |
|--------------------------------|---------------------|--|------------|
|                                |                     |  | / PMG      |
|                                | 2/3 (wind.6S - 6-   |  |            |
| Winding pitch                  | wire / wind.6 - 12- | AVR type   | R150 R180  |
|                                | wire)               |  |            |
| Number of wires                | 6-wire (12-wire     | Excitation system 12-wire                                  | SHUNT AREP |
|                                | option)             | (option)   | / PMG      |
| Protection                     | IP 23               | AVR type   | R250 R180  |
| Altitude                       | ≤ 1000 m            | Voltage regulation (*)                                     | ±1%        |
| Overspeed                      | 2250 R.P.M.         | Total Harmonic Distortion THD (**) in no-lo<br>< 1.5 %     |            |
| Air flow (m <sup>3</sup> /s)   | 0.9                 | Total Harmonic Distortion THD (**) in linear<br>load < 5 % |            |
| Air flow (m <sup>3</sup> /s)   | 1.1                 | Waveform: NEMA = TIF (**)                                  | < 50       |
| AREP Short-circuit cu<br>secon |                     | Waveform: I.E.C. = THF (**)                                | < 2%       |

#### Control Panel DSE7320 MKII

#### Auto Mains (Utility) Failure Control Module

The DSE7320 MKII is a powerful, new generation Auto Mains (Utility) Failure genset control module with a highly sophisticated level of new features and functions, presented in the usual DSE user-friendly format. Suitable for a wide variety of single, diesel or gas Gen-set applications.

#### OVERALL SIZE

245 mm x 184 mm x 51 mm (9.6" x 7.2" x 2.0")

#### PANEL CUTOUT SIZE

220 mm x 160 mm (8.7" x 6.3")

MAXIMUM PANEL THICKNESS

8.0 mm (0.3")

#### PRODUCT VARIANTS

7320-03 - 7320 MKII Auto Mains (Utility) Failure Control Module



## **Optional configurations:**

#### Engine accessories:

- Heavy-duty air filter
- Coolant heater
- Lubricant oil heater
- Fuel and Water Separator
- Lube oil rotary pump

#### Alternator And Accessories:

- Leroy somer/stamford
- Anti condensation heater
- □ PMG + AVR ◇ Double bearing
- alternator High voltagekV
  RTDs for Bearing and winding

#### Cooling System:

- □ 55 degree Radiator
- Remote Radiator

#### Control System:

- □ AMF
- □ Parallel
- Practical type in low temperature environment
- Control Screen Heater
- Remote Annunciators
- Other (ComP, DEIF)

#### **Circuit Breaker:**

- □ 3/4 poles
- □ Fixed/handcart type
- Electric mechanism

#### Automatic Transfer Switch (ATS):

- □ ATS cabinet
- Contractor type ATS
- □ Motorized changeover type ATS

#### Start Battery:

- Nickel-cadmium battery
- Maintenance-free battery
- Battery charger and selector switch
- Charging current meter

#### **External Fuel Tank:**

- □ Single /double wall fuel tank (500-5000 L)
- Fuel Transfer pump

#### Exhaust Muffler:

- □ Residential grade
- Critical grade
- □ Hospital grade
- Available for voltages :
- 400/230V, 480/277V, 380/220V, 440/254V,
  416/240V, 220/127V, 208/120V

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**Circuit Breaker:** 

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#### Prime Rating:

Unlimited hours usage, with an average load factor of 80% over each 24 hours period. 10% overload is available for 1 hour in every 12 hours operation. 0 overload is permitted on standby power.

**Radiator:** 

50°C, fan protective

#### **Standby Rating:**

Limited to 500 hours annual usage, with an average load factor of 80% of the published standby power rating over each 24 hours period. Up to 300 hours of annual usage may be run continuously. No over- load is permitted on standby

Fuel Tank:

Capacity of fuel tank

800 kVA

#### Engine:

Perkins, including air filters fuel filters,

oil filter, starting motor and charging alternator etc.

Alternator Type:

brushless AC

#### Warranty policy:

<u>ATA products have a Warranty for</u> 12 months or 1000 hours whichever occurs first against any manufacturing defects

Wearing parts (filters), incorrect man-made operation, maintenance failures are excluded from the warranty policy

#### Control system alarms:

Over and Under Speed

Low and High Battery Volt. Start and Stop Failure Over Current Under / Over Generator Voltage

Low Oil Pressure Emergency stop High engine temperature







Manufacturer reserves the right to make changes in model, technical specifications, color, equipment and accessories without prior notice. All photos are representative and may not reflect exact mode.

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