# راد دیزل نمایندگی ژنراتور پرکینز انگلیس

### · 1-0147

## www.raddiesel.ir



# 400 Series 403A-15G1 ElectropaK

13.2 kWm / 17.6 hp @ 1500 rpm

The Perkins<sup>®</sup> 400 Series engine family continues to set new standards in the compact engine market. Developed alongside customers to fulfill their needs in the generator set, compressor, agricultural and general industrial markets.

These new ElectropaKs provide compact power, from a robust family of 3 and 4 cylinder diesel engines designed to provide economic and durable operation at prime and standby duties, hitting the key power nodes required by the power generation industry.

| Specification              |                                    |                      |  |
|----------------------------|------------------------------------|----------------------|--|
| Number of cylinders        | 3 vertical in-line                 |                      |  |
| Bore and stroke            | 84 x 90 mm 3.3 x 3.5 in            |                      |  |
| Displacement               | 1.496 litres                       | 91.3 in <sup>3</sup> |  |
| Aspiration                 | Naturally aspirated                |                      |  |
| Cycle                      | 4 stroke                           |                      |  |
| Combustion system          | Indirect injection                 |                      |  |
| Compression ratio          | 22.5:1                             |                      |  |
| Rotation                   | Anti-clockwise, viewed on flywheel |                      |  |
| Total lubricating capacity | 6.0 litres                         | 1.58 US gal          |  |
| Cooling system             | Water cooled                       |                      |  |
| Total coolant capacity     | 6.0 litres                         | 1.58 US gal          |  |



Photographs are for illustrative purposes only and may not reflect final specification. All information in this document is substantially correct at time of printing and may be altered subsequently. Final weight and dimensions will depend on completed specification.

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#### Features and benefits

#### Powered by your needs

• The 403A-15G1 ElectropaK is a powerful but quiet 1.5 litre naturally aspirated 3-cylinder compact package

#### Compact, clean, efficient power

• Design features on the 400D range of ElectropaKs ensures clean rapid starting in all conditions whilst delivering impressive performance with low operating costs in a small, efficient package size

#### Lower operating costs

- Approved for operation on biodiesel\* concentrations of up to 20%
- Oil and filter changes are 500 hours, dependent on load factor
- Engine durability and reliability, the warranty offering and ease of installation combine to drive down the cost of ownership
- Warranties and Service Contracts

<sup>W</sup>e provide one-year warranties for constant speed engines and two-year warranties for variable speed models, as standard. These are supported by multilevel Extended Service Contracts that can be bought additionally Discover more: www.perkins.esc

#### Product support

- With highly trained Perkins distributors in thousands of communities in over 180 countries, you are never far away from expert product knowledge, genuine parts and a range of advanced diagnostic technology for keeping your engine in peak condition
- To find your local distributor: www.perkins.com/distributor



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#### Technical information

#### Air inlet

• Mounted air filter

#### Fuel system

- Mechanically governed cassette type fuel injection pump
- Split element fuel filter

#### Lubrication system

- Wet steel sump with filler and dipstick
- Spin-on full-flow lub oil filter

#### Cooling system

- Thermostatically-controlled system with belt driven coolant pump and pusher fan
- Mounted radiator, piping and guards

#### Electrical equipment

- 12 volt starter motor and 12 volt 15 amp alternator with DC output
- Oil pressure and coolant temperature switches
- 12 volt shut-off solenoid energised to run
- Glow plug cold start aid and heater/starter switch

#### Flywheel and housing

- 1500 rpm
- High inertia flywheel to SAE J620 Size 190.5 mm (71/2 in) Heavy
- Flywheel housing SAE 4 Long

#### Mountings

• Front and rear engine mounting bracket

#### Optional equipment

Parts book

#### Option groups

A selection of optional items is available to enable you to prepare a specification precisely matched to your needs.



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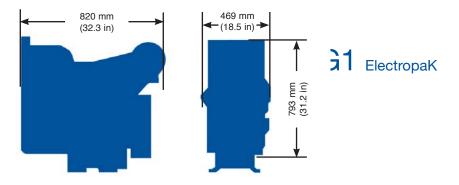
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| Engine package weights and dimensions |        |         |  |  |  |
|---------------------------------------|--------|---------|--|--|--|
| Length                                | 820 mm | 32.3 in |  |  |  |
| Width                                 | 469 mm | 18.5 in |  |  |  |
| Height                                | 793 mm | 31.2 in |  |  |  |
| Weight (dry)                          | 197 kg | 434 lb  |  |  |  |



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|              | Type of operation | Typical generator<br>output (Net) |      | Engine power |      |      |      |
|--------------|-------------------|-----------------------------------|------|--------------|------|------|------|
| Speed<br>rpm |                   |                                   |      | Gross        |      | Net  |      |
|              |                   | kVA                               | kWe  | kWm          | hp   | kWm  | hp   |
| 1500         | Prime power       | 13.0                              | 10.4 | 12.2         | 16.4 | 12.0 | 16.0 |
|              | Standby power     | 15.0                              | 11.4 | 13.5         | 18.1 | 13.2 | 17.6 |

The above ratings represent the engine performance capabilities to conditions specified in ISO 8528/1, ISO 3046/1:1986, BS 5514/1. Derating may be required for conditions outside these; consult Perkins Engines Company Limited.

Generator powers are typical and are based on typical alternator efficiencies and a power factor ( $\cos \theta$ ) of 0.8. Fuel specification: BS 2869: Part 2 1998 Class A2 or ASTM D975 D2.

Rating definitions: Prime power: Power available at variable load in lieu of a main power network. Overload of 10% is permitted for 1 hour in every 12 hours operation. Standby (maximum): Power available at variable load in the event of a main power network failure. No overload is permitted.

| Percent of prime power | Fuel consumption at 1500 rpm<br>g/kWh | Fuel consumption at 1500 rpm<br>I/hr |  |  |
|------------------------|---------------------------------------|--------------------------------------|--|--|
| Standby power          | 251                                   | 4.1                                  |  |  |
| Prime power            | 248                                   | 3.7                                  |  |  |
| 75%                    | 252                                   | 2.8                                  |  |  |
| 50%                    | 277                                   | 2.0                                  |  |  |



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