

# 400 Series 403F-15TG Electro unit

18.4 kWm (24.7 hp) @ 1800 rpm

Building on our proven reputation within the power generation industry, the newly introduced Perkins® 400F range of Electro units is an evolution of the highly successful 400D range.

The 400F range of power generation engines has been designed to fully comply with the latest EPA Tier 4 Final emissions legislation in North America.

For customers, these Electro units provide compact power from a robust family of 3 and 4 cylinder diesel engines, optimised to provide economic, durable and quiet operation demanded by the power generation industry.

## Powered by your needs

- The 403F-15TG Electro unit is a powerful but quiet 1.5 litre turbocharged 3-cylinder compact package

## Reliable, Quiet, and Durable Power

- World-class manufacturing capability and processes coupled with proven core engine designs assure reliability, quiet operation and many hours of productive life

## Compact, clean and efficient power

- A simple, cost effective solution to meet highest regulated emissions
- Design features on our range of ElectropaKs and Electro Units ensure clean rapid starting in all conditions whilst delivering impressive performance with low operating costs in a small, efficient package size

## Low cost of ownership

- 50% reduced oil consumption
- Easy maintenance and serviceability
- Fuel efficient
- 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
- Approved for operation on biodiesel\* concentrations of up to 20%

## 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

## Warranties and Service Contracts

We 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

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[www.perkins.com/esc](http://www.perkins.com/esc)

[www.perkins.com/distributor](http://www.perkins.com/distributor)

To find your local distributor



Engine speed	Type of Operation	Typical Generator Output (Net)		Engine Power			
		kVA	kWe	Gross		Net	
				kWm	hp	kWm	hp
1800	Prime power	19.5	15.6	18.4	24.7	18.1	24.3
	Standby power	19.5	15.6	18.4	24.7	18.1	24.3

\*Subject to conformance with ASTM D6751 and EN14214.

Power output for a run-in engine after 60 hours.

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  $\phi$ ) 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. Zero overload capacity.

Standby (maximum): Power available at variable load in the event of a main power network failure. No overload is permitted.

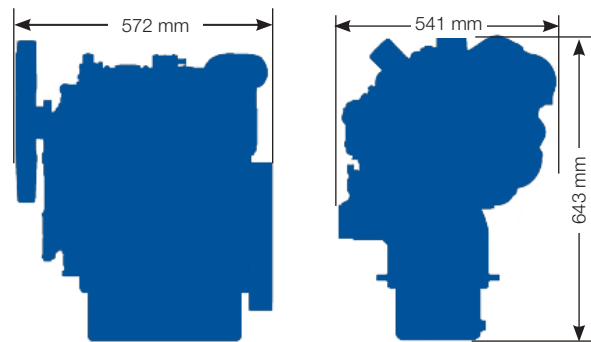
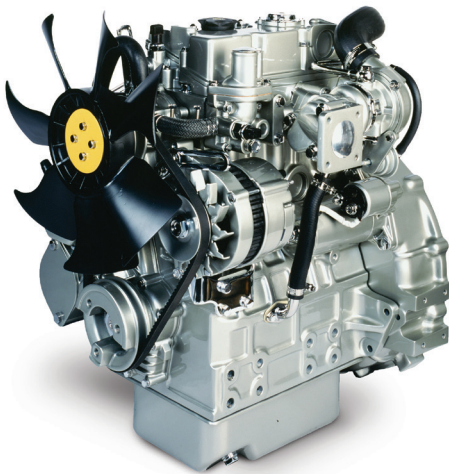
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## Standard electro unit specification

### 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

### Electrical equipment

- 12 volt starter motor and 12 volt 40 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

- High inertia flywheel to SAE J620 Size 7½ Heavy
- Flywheel housing SAE 4 Long

### Optional equipment

- Parts book

## General Data

Number of cylinders .....	3
Cylinder arrangement .....	Vertical in-line
Cycle.....	4 stroke
Aspiration .....	Turbocharged
Combustion system.....	Indirect injection
Compression ratio .....	22.5:1
Bore and Stroke .....	84 x 90 mm (3.3 x 3.5 in)
Displacement .....	1.496 litres (91.3 cubic in)
Direction of rotation .....	Clockwise viewed from front
Cooling system.....	Water cooled
Total coolant capacity.....	2.6 litres (0.7 US gals)
Total lubrication system capacity .....	6.0 litres (1.6 US gals)
Dimensions	
Length .....	572 mm (22.5 in)
Width.....	541 mm (21.3 in)
Height.....	643 mm (25.3 in)
Total weight (dry).....	156.5 kg (345 lb)

Final weight and dimensions will depend on completed specification.

Engine speed	Fuel Consumption	
	1800 rpm	
	g/kWh	l/hr
100% prime power	257	5.70

## Option groups

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

## Emissions statement

Constant Speed engines for use in Industrial, IOPU and ElectropaK applications: Certified against the requirements of US EPA Tier 4 Final (40 CFR Part 60 for stationary applications and 40 CFR Part 1039 for mobile applications). Less than 19 kW EC certification not required.

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