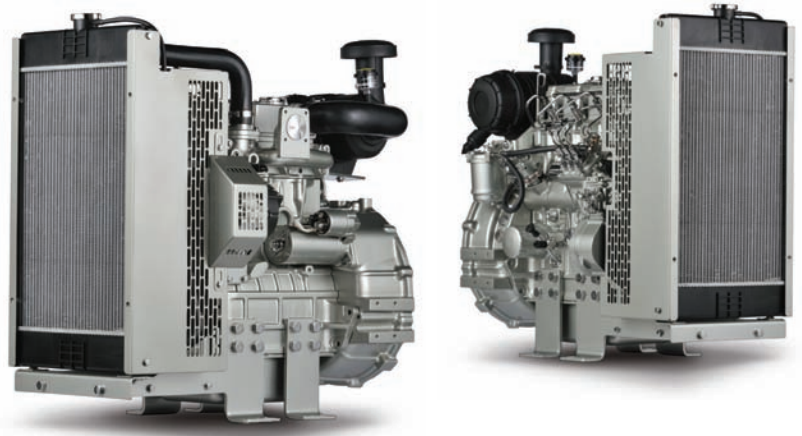


# 400 Series 403D-11

## Industrial Open Power Unit

17.9 kW / 24.0 bhp @ 3000 rpm



The Perkins 400D range has been developed in consultation with our marketplace. This 1.1 litre, 3 cylinder engine complete with radiator cooled unit, compliments the exciting 400 Series product line-up, offering customers a choice of ultra-compact, lightweight power units whilst maintaining all the customer benefits they can experience from other products in the range.

The 400 Series engine family continues to set new standards in the compact engine market. Developed alongside customers to fulfil their needs in the construction, materials handling, agricultural/turf, genset and compressor markets, it is another class-leading diesel range from Perkins.

Built to the most demanding standards, the 400D engines meet all the requirements of the off-highway EU and EPA emissions legislation (see 'Perkins Emissions Statement' on page 2). Perkins IOPUs offer the advantages of an industrial engine, with the convenience of a cost effective cooling and filtration solution. This minimises machine development time and costs, and enables applications to be powered with ease.

The 403D-11 IOPU is a powerful but quiet 1.1 litre packaged unit. It delivers impressive performance with low operating costs in a small, efficient package ideal for a range of industrial applications.

### Ultra-compact power

- Up to 17.9 kW from an engine envelope of 0.25m<sup>3</sup>.
- Easy installation.

### Clean and quiet

- Noise levels have been kept to a minimum.
- Subjective harshness has also been controlled, making the engine sound even quieter.

### Durable and reliable

- Product design and process improvements enhance both engine reliability and durability.
- A new improved (advanced) governor, valve seat inserts, and new compliance testing deliver reliability of 6,000 hours.
- A standard 2-year warranty demonstrates our confidence in durability and reliability of our engines.

### Low 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.

### Product support

- Perkins actively pursues product support excellence by ensuring our distribution network invest in their territory - strengthening relationships and providing more value to you, our customer.
- Through an experienced global network of distributors and dealers, fully trained engine experts deliver total service support around the clock, 365 days a year. They have a comprehensive suite of web based tools at their fingertips covering technical information, parts identification and ordering systems, all dedicated to maximising the productivity of your engine.
- Throughout the entire life of a Perkins engine, we provide access to genuine OE specification parts and service. We give 100% reassurance that you receive the very best in terms of quality for lowest possible cost... wherever your Perkins powered machine is operating in the world.

Performance Data	Maximum Power			Speed (rev/min)		
	Speed rpm	kW	bhp	Nm	lbf.ft	Speed rpm
Net Intermittent	3000	18.1	24.3	64.6	47.6	2100
Net Continuous	3000	15.8	21.2	56.2	41.5	2100
Net Intermittent	2800	17.3	23.2	64.6	47.6	2100
Net Continuous	2800	15.1	20.2	56.2	41.5	2100

\*Subject to conformance with ASTM D6751 and EN14214.

# 400 Series - 403D-11

## Industrial Open Power Unit

17.9 kW / 24.0 bhp @ 3000 rpm

### Engine Specification

- Cast iron engine block
- SAE flywheel size 61/2
- SAE 5 flywheel housing
- Fuel injection pump
- Fuel filter
- Glow plug starting aid
- Lub oil sump
- Spin on lub oil filter
- Inlet manifold
- Cast iron exhaust manifold – side outlet
- Coolant pump belt driven
- Mounted radiator and fan
- Mounted air cleaner
- Starter motor 12 volt
- Alternator 12 volt 15 amp
- ESOS (Electric shut-off solenoid)
- Lub oil pressure switch
- Coolant temperature switch

### Option groups

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

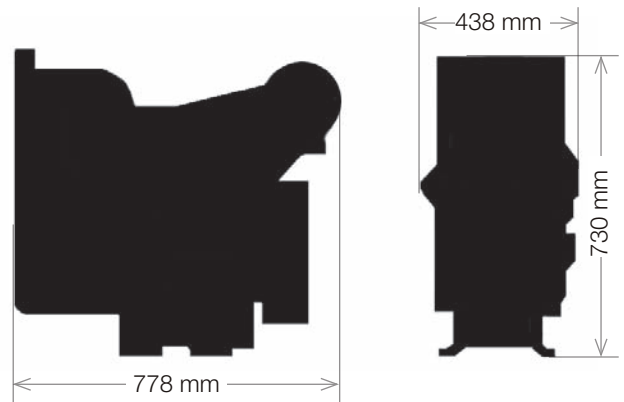
### Emissions statement

- Variable Speed: Industrial and IOPU engines: Certified against the requirements of EU Stage IIIB (Directives 97/68/EC, as last amended, and 2005/26/EC, as last amended); and US EPA Tier 4 Interim (40CFR Parts 1039. (NOTE Tier 4 Final will start in 2013 model year for 19-56 kW engines).
- Constant Speed Engines for use in Industrial, IOPU and ElectropaK applications: Certified against the requirements of EU Stage IIIA (Directives 97/68/EC, as last amended, for mobile applications); and US EPA Tier 4 Interim (40CFR Parts 60 for stationary applications and 40CFR Part 1039 for mobile applications).

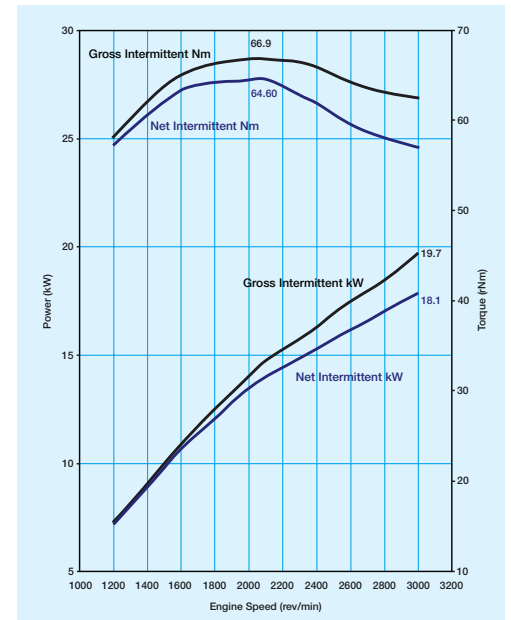
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Lower speed ratings cannot be read from this curve.



### Engine data

Number of cylinders .....	3 in-line
Bore and stroke.....	77 x 81 mm
Displacement .....	1.13 litres
Aspiration .....	Naturally aspirated
Cycle.....	4 stroke
Combustion system.....	Indirect injection
Compression ratio .....	23.0:1
Rotation.....	Anti-clockwise viewed on flywheel
Cooling system.....	Liquid
Total lubrication capacity .....	4.9 litres
Total coolant capacity .....	5.21 litres
Dimensions	
Length .....	778 mm
Width.....	438 mm
Height.....	730 mm
Dry weight .....	129 kg

Final weight and dimensions will depend on completed specification

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