

# 400 Series 403D-11 Industrial Open Power Unit

18.1 kW / 24.3 hp @ 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 emissions legislation.

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.



## Emissions statement

**Industrial and IOPU Engines:** Certified against the requirements of EU Stage IIIA (Directives 97/68/EC, as last amended, and 2005/26/EC, as last amended).

**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).

Specification		
Number of cylinders	3 in-line	
Bore and stroke	77 x 81 mm	3.0 x 3.2 in
Displacement	1.13 litres	69 in <sup>3</sup>
Aspiration	Naturally aspirated	
Cycle	4 stroke	
Combustion system	Indirect injection	
Compression ratio	22.7:1	
Rotation	Anti-clockwise, viewed on flywheel	
Total lubricating capacity	4.9 litres	1.3 US gal
Cooling system	Liquid	
Total coolant capacity	5.21 litres	1.4 US gal

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

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THE HEART OF EVERY GREAT MACHINE

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## Features and benefits

### Ultra-compact power

- Up to 17.9 kW (24 bhp) from an engine envelope of 0.25 m<sup>3</sup> (8.8 ft<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 two-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
- **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: [www.perkins.esc](http://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](http://www.perkins.com/distributor)

\*Subject to conformance with ASTM D6751 and EN14214

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## Technical information

- Cast iron engine block
- SAE flywheel size 165.1 mm (6½ in)
- 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.

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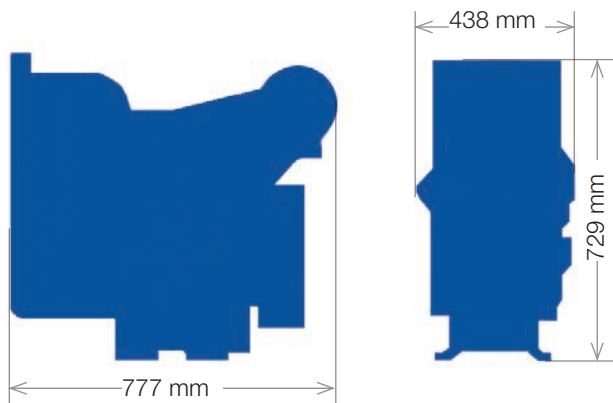
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Engine package weights and dimensions		
Length	777 mm	30.6 in
Width	438 mm	17.2 in
Height	729 mm	28.7 in
Weight (dry)	129 kg	284.4 lb

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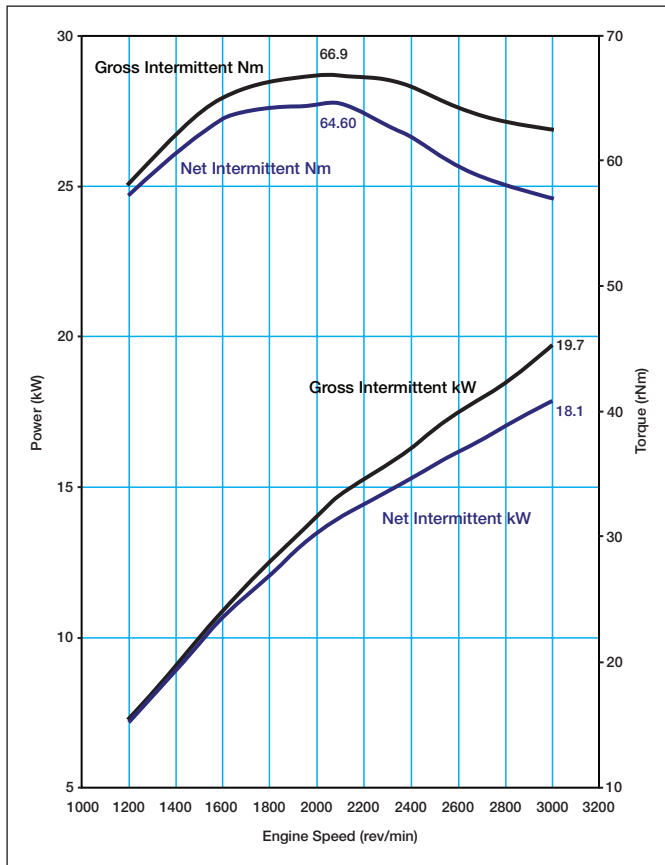
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Lower speed ratings cannot be read from this curve

Performance data	Speed rpm	Power kW	Power hp	Speed rpm	Torque Nm	Torque lbf-ft
Net intermittent	3000	18.1	24.3	2100	64.6	47.6
Net continuous	3000	15.8	21.2	2100	56.2	41.5
Net intermittent	2800	17.3	23.2	2100	64.6	47.6
Net continuous	2800	15.1	20.2	2100	56.2	41.5

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