4000 Series 4006-E23TRS3 Spark Ignited Gas Engine

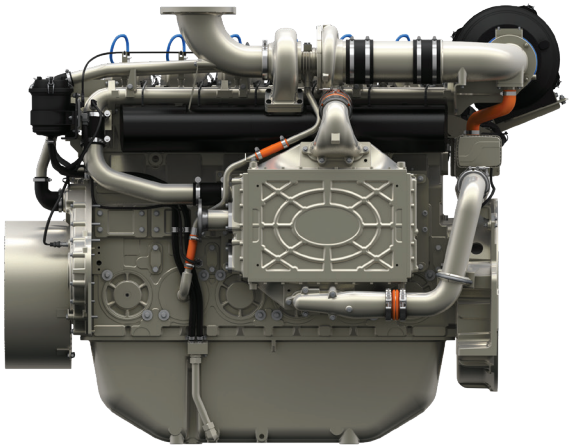
322 kWm @ 1500 rpm

Developed from a proven engine range that offers superior performance and reliability, the 4006-E23TRS is designed to meet the future demands of the power generation industry for clean, efficient gas fuelled engines.

The 4006-E23TRS 6-cylinder spark ignition gas engine offers high performance, dependability and reliability whilst meeting the market's increasingly stringent emission requirements.

The 4006-E23TRS is a turbocharged, air to water charge cooled, 6 cylinder inline engine, designed for operation on a wide range of methane based gases.

Its premium features and design provide economic and durable operation as well as exceptional mechanical efficiency and power-to-weight ratio, whilst offering improved emissions. The overall performance and reliability characteristics make this the prime choice for today's power generation industry.



Specification		
Number of cylinders	6 vertical in-line	
Bore and stroke	160 x 190 mm	6.3 x 7.5 in
Displacement	22.92 litres	1399 in^3
Aspiration	Turbocharged and air-to-water charge cooled	
Cycle	4 stroke	
Combustion system	Spark ignition	
Compression ratio	14.0:1	
Rotation	Anti-clockwise, viewed on flywheel	
Total lubricating capacity	122.7 litres	32.4 US gal
Cooling system	Water cooled	
Total coolant capacity	36 litres	9.5 US gal

www.perkins.com

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.

Publication No. PN3186/04/18 Produced in England

Perkins®

THE HEART OF EVERY GREAT MACHINE

4000 Series 4006-E23TRS3 Spark Ignited Gas Engine

322 kWm @ 1500 rpm

Features and benefits

Economic power

- Utilises advanced combustion technology to deliver durable and reliable power
- High commonality of components with other engines in the 4000 Series family for reduced stocking levels
- Individual large valve cylinder heads with matched deep bowl pistons for greater swirl, achieve high mechanical efficiency

Reliable power

- Developed and tested using the latest engineering techniques
- Piston temperatures controlled by an advanced gallery jet cooling system
- Extended durability and attention to reducing servicing with extended component life add benefit of the reduced whole life cost
- Robust to varying gas quality

Compact, clean and efficient power

- Exceptional power-to-weight ratio and compact size give optimum power density for ease of transportation and installation
- In excess of 40% mechanical efficiency
- Designed to provide excellent service access for ease of maintenance
- Engines to comply with major international standards
- All engines in the 4000 Series family are capable of meeting the NOx requirements of TA Luft

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 a class leading warranty for the 4000 Series engine range - one year unlimited hours; two years 6,000 hours or three years 1,500 hours
  These are supported by Perkins Platinum Protection cover that can be purchased additionally
  Discover more: https://www.perkins.com/en_GB/aftermarket/perkins-platinum-protection.html
- To find your local distributor: www.perkins.com/distributor

*Engine specification suitable for running on landfill gas, digester gas and coal bed mine gas. (Please contact your account manager or nearest distributor for more information)

Publication No. PN3186/04/18 Produced in England ©2018 Perkins Engines Company Limited

Perkins®

THE HEART OF EVERY GREAT MACHINE

4000 Series 4006-E23TRS3 Spark Ignited Gas Engine

322 kWm @ 1500 rpm

Technical information

Air inlet and exhaust

- Mounted air filter – replaceable cartridge type
- Dry exhaust manifolds
- Exhaust manifold shielding
- High efficiency turbocharger
- Upgraded air filters – Powercore Filter for improved component life

Governing, gas and ignition system

- Air/Fuel mixer with zero pressure regulator and mixture adjustment screw
- Metal braided flexible gas connection
- Woodward L-ECM Series ignition system with individual cylinder ignition coils, spark plugs
- Digital governing system, governing to ISO8528-5 class G2

Lubrication system

- Gear driven, externally mounted lubricating oil pump
- Wet sump with filler and dipstick
- Full-flow replaceable canister type oil filters
- Jacket water cooled shell and tube oil cooler/stabiliser
- Closed circuit crankcase ventilation system – natural gases only

Electrical equipment

- 24 volt starter motor
- High coolant temperature switch
- Low oil pressure switch
- High manifold pressure switch
- Digital knock detection

Flywheel and housing

- High inertia flywheel to SAE J620 Size 18
- SAE ‘0’ flywheel housing

Mountings

- Front and rear engine mounting support

Literature

- Operation and Maintenance Manual

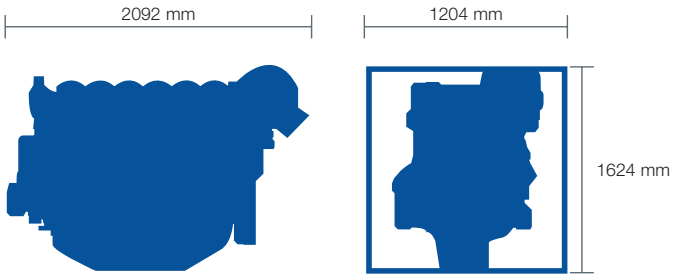
Publication No. PN3186/04/18 Produced in England ©2018 Perkins Engines Company Limited

Perkins®

THE HEART OF EVERY GREAT MACHINE

4000 Series 4006-E23TRS3 Spark Ignited Gas Engine

322 kWm @ 1500 rpm



Engine package weights and dimensions		
	Cogeneration unit	
Length	2092 mm	82.4 in
Width	1204 mm	47.4 in
Height	1624 mm	63.9 in
Weight (dry)	2459 kg	5421 lb

Speed rpm	Type of operation	Typical generator output (Gross)	Engine power (Gross)
		kWe	kWm
4006-E3TRS3	Continuous operating power	310	322

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 an average alternator efficiency and a power factor (cos. θ) of 1.
Fuel specification: Natural gas having a Lower Calorific Value of 34.71 MJ/m^3.

Rating definitions
Continuous operating power: Power available for true Base load, rating as defined in ISO 8528/1, BS 5514/1 – No overload permitted.

Designation	Cogeneration unit
Fuel consumption gross at 1500 rpm	kJ/kW
Continuous baseload rating	2.40
75% of prime power rating	2.44
50% of prime power rating	2.55
25% of prime power rating	2.90

Fuel consumption figures are for TA Luft compliant engines at ISO 8528/1 in “Cogen” engine specification, running on British natural gas with LCV 34.71 MJ/Sm^3

www.perkins.com

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.

Publication No. PN3186/04/18 Produced in England

Perkins®
THE HEART OF EVERY GREAT MACHINE