

4012-46TWG Electric Power Engines

Power range 1500 rpm 891-1396 kWm (engine gross power)

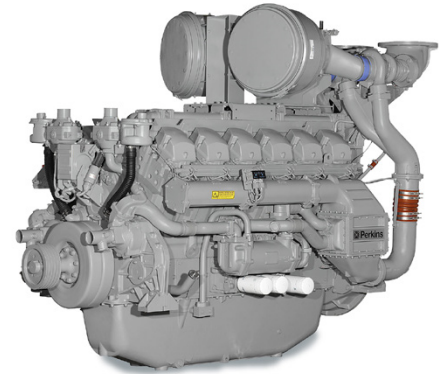
Power range 1800 rpm 891-1396 kWm (engine gross power)

Emissions Fuel optimised

The 4012-46TWG engine has been developed using the latest engineering techniques and builds on the strengths of the already very successful 4012 Series family and addresses today's uncompromising demands within the power generation industry.

Developed from a proven heavy-duty industrial base these products offer superior performance and reliability. Turbocharged and air-to-water chargecooled, 12 cylinder diesel engines which offer a choice of temperate or tropical cooling. Its premium features provide exceptional power-to-weight ratio resulting in exceptional fuel consumption.

The overall performance and reliability characteristics makes this one of the prime choices for today's power generation industry.



Features and benefits

- Individual 4 valve cylinder heads giving optimised gas flows and unit fuel injectors ensure ultra fine fuel atomisation and hence controlled rapid combustion **maximising productivity**.
- Commonality of components with other engines in the 4000 Series family for reduced stocking levels
- Designed to provide **low cost of ownership**, simple maintenance and reduced downtime.
- Perkins engines are designed and developed with our customer in mind. Keeping service cost to a minimum ensures **low periodic running costs**. This is achieved through 500 hour service intervals for oil and fuel as standard under all operating conditions.
- The **long productive life** of our products is supported through the Perkins 12 month warranty as standard for prime power applications, and the 1500 hour or two year emissions warranty. For further peace of mind, there is also the option to purchase Extended Service Contracts through **Perkins Platinum Protection**. Contact your local distributor or visit www.perkins.com/en_GB/aftermarket/perkins-platinum-protection.
- Perkins takes pride in manufacturing all products globally to the same **high quality standard**. All of our products are manufactured in world class facilities to ensure highest quality for your peace of mind.

4012-46TWG Electric Power Engines

Power range 1500 rpm 891-1396 kWm (engine gross power)

Power range 1800 rpm 891-1396 kWm (engine gross power)

Emissions Fuel optimised

Specification

	Model		
	4012-46TWG2A	4012-46TWG3A	4012-46TWG4A
Configuration	Electropak		
Cylinders	12 60° vee		
Displacement, litres (in ³)	45.8 (2797)		
Aspiration	Turbocharged and air-to-water chargecooled		
Bore and stroke, mm (in)	160 x 190 (6.3 x 7.5)		
Combustion system	Direct injection		
Compression ratio	13:1		
Exhaust aftertreatment	N/A		
Rotation (viewed from flywheel)	Anti-clockwise, viewed from flywheel end		
Total lubricating oil capacity, litres (US gal)	177 (47)		
Cooling system	Watercooled		
Total coolant capacity, litres (US gal)	201 (53)		

Technical information

Model	Speed	Type of Operation	Engine Power		Typical Generator Output* (Net)		Prime Fuel Consumption				
			Gross	Net			110%	100%	Baseload	75%	50%
	rpm		kWm (hp)	kWm (hp)	kVA	kWe	g/kWh	g/kWh	g/kWh	g/kWh	g/kWh
4012-46TWG2A	1500	Baseload	891 (1194)	833 (1117)	989	791	203	201	200	203	209
		Prime	1113 (1492)	1055 (1414)	1250	1000					
		Standby	1224 (1641)	1166 (1563)	1385	1108					
	1800	Baseload	891 (1194)	833 (1117)	989	791	210	196	204	205	209
		Prime	1113 (1492)	1055 (1414)	1250	1000					
		Standby	1224 (1641)	1166 (1563)	1385	1108					
4012-46TWG3A	1500	Baseload	967 (1296)	909 (1218)	1079	864	217	212	213	213	226
		Prime	1207 (1618)	1149 (1540)	1364	1092					
		Standby	1321 (1772)	1263 (1694)	1500	1200					
	1800	Baseload	967 (1296)	909 (1218)	1079	864	222	218	215		
		Prime	1207 (1618)	1149 (1540)	1364	1092					
		Standby	1321 (1772)	1263 (1694)	1500	1200					
4012-46TWG4A	1500	Prime	1308 (1762)	1254 (1682)	1500	1200	211	208		205	211
		Standby	1396 (1931)	1342 (1800)	1600	1280					
	1800	Prime	1308 (1762)	1254 (1682)	1500	1200	222	222		220	225
		Standby	1396 (1931)	1342 (1800)	1600	1280					

*Generator powers are typical and based on typical alternator efficiencies and a power factor (cos θ) or 0.8.

4012-46TWG Electric Power Engines

Power range 1500 rpm 891-1396 kWm (engine gross power)

Power range 1800 rpm 891-1396 kWm (engine gross power)

Emissions Fuel optimised

Standard equipment

	Model		
	4012-46TWG2A	4012-46TWG3A	4012-46TWG4A
Electro unit or electropaK	ElectropaK	ElectropaK	ElectropaK
Radiator fitted	✓	✓	✓
Fuel filter, engine mounted	✓	✓	✓
Water separator	✓	✓	✓
Fuel priming pump (manual/electric)	Manual	Manual	Manual
Fuel cooler	✓	✓	✓
Air filter, engine mounted	✓	✓	✓
Engine ECM, engine mounted	N/A	N/A	N/A
Wiring harness to ECM	N/A	N/A	N/A
Wiring harness (all connectors to single customer interface)	N/A	N/A	N/A
Starter motor	✓	✓	✓
Battery charging alternator	✓	✓	✓
Flywheel housing	✓	✓	✓
Flywheel	✓	✓	✓
Fan	✓	✓	✓
Fan guard	✓	✓	✓
Temp and oil pressure for automatic stop/alarm configurable	✓	✓	✓

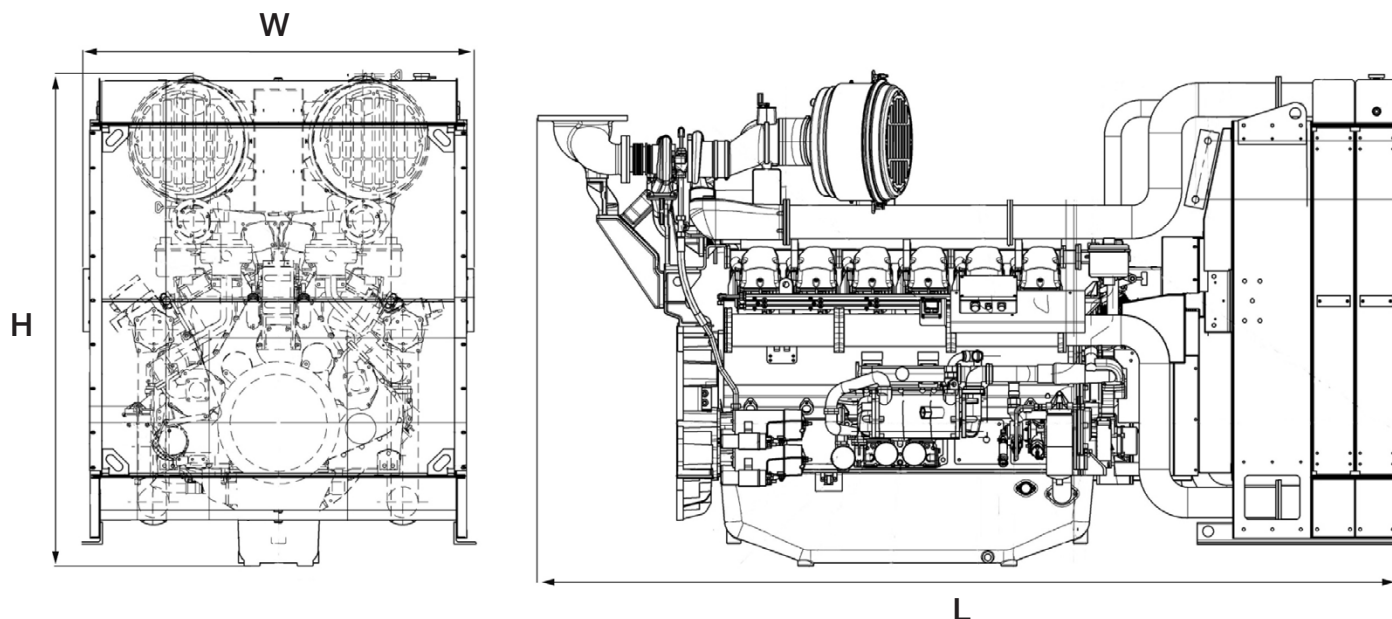
4012-46TWG Electric Power Engines

Power range 1500 rpm **891-1396 kWm** (engine gross power)

Power range 1800 rpm **891-1396 kWm** (engine gross power)

Emissions **Fuel optimised**

Engine package weights and dimensions



	Model		
	4012-46TWG2A	4012-46TWG3A	4012-46TWG4A
Configuration	Electropak		
Temperate dimensions, H x L x W, mm (in)	2255 x 3714 x 1780 (89 x 146 x 70)		
Temperate dry weight, kg (lb)	5220 (11508)		
Tropical dimensions, H x L x W, mm (in)	2255 x 3714 x 1 978 (89 x 146 x 79)		
Tropical dry weight, kg (lb)	5283 (11647)		

Baseload: Unlimited hours usage with an average load factor of 100% of the published baseload power rating.

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 of operation.

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

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.
Information subject to selected configuration, and subject to change without notice.