

# 402J and 402F Electric Power Engines

**Power range 1500 rpm** 4.0 kWm (engine gross power)

**Power range 1800 rpm** 3.8 kWm (engine gross power)

**Emissions** EU Stage V, U.S. EPA Tier 4 Final

The Perkins® 400 Series engine family continues to set new standards in the compact engine market. Developed alongside customers to fulfil their needs in the generator set market, they have been designed to comply with stringent emissions regulations for EU and USA.

The 402 Product range offers a highly compact Perkins electro units to provide robust 2 cylinder diesel engines designed to provide economic and durable operation for prime power applications, hitting the key power nodes required by the power generation industry.



## Features and Benefits

- **Maximised productivity** by achieving key power nodes with clean rapid starting in all conditions whilst delivering impressive steady state and transient response. Options between Stage V certified products for the EU mobile genset market and Tier 4 Final certified products for the US mobile genset market ensures flexibility for our customers tailored to their needs.
- The 400 Series offers a range of mechanical engines that are designed to be compact, simple to run under all conditions and easy to maintain. Some features include spin-on filters and cassette-type fuel injection pumps for **ease of integration and service accessibility**.
- The 400 Series mechanical engine range offers optimised fuel consumption and low oil consumption whilst meeting the Stage V and Tier 4 Final emissions standards; all delivered from a reliable mechanical engine to **minimise cost of ownership**.
- 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](http://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.

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	Model	
	402J-05G	402F-05G
	Stage V	Tier 4 Final
Configuration	Electro unit	
Cylinders	2	
Displacement, litres (in <sup>3</sup> )	0.5 (31)	
Aspiration	Naturally aspirated	
Bore and stroke, mm (in)	67 x 72 (2.6 x 2.8)	
Combustion system	Mechanical indirect injection	
Compression ratio	23.5:1	
Exhaust aftertreatment	N/A	
Rotation (viewed from flywheel)	Anti-clockwise	
Total lubricating oil capacity, litres (US gal)	2.0 (0.5)	
Cooling system	Water-cooled	
Total coolant capacity, litres (US gal)	1.1 (0.3)	

## Technical Information

Model	Speed	Type of Operation	Engine Power		Typical Generator Output* (Net)		Prime Fuel Consumption			
			Gross	Net			110%	100%	75%	50%
	rpm		kWm (hp)	kWm (hp)	kVA	kWe	g/kWh	g/kWh	g/kWh	g/kWh
402J-05G	1500	Prime	3.6 (4.8)	3.5 (4.7)	3.5	2.8	268	266	258	292
		Standby	4.0 (5.4)	3.9 (5.2)	3.9	3.2				
402F-05G	1800	Prime	3.4 (4.6)	3.3 (4.4)	3.5	2.8				
		Standby	3.8 (5.1)	3.6 (4.8)	3.9	3.9				

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

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## Standard Equipment

	Model	
	402J-05G	402F-05G
Electro unit or electropaK	Electro unit	Electro unit
Radiator fitted	x	x
Fuel filter, engine mounted	✓	✓
Water separator	N/A	N/A
Fuel priming pump (manual/electric)	Manual	Manual
Fuel cooler (not required for most installations)	N/A	N/A
Air filter, engine mounted	✓	✓
Engine ECM, engine mounted	N/A	N/A
Wiring harness to ECM	N/A	N/A
Wiring harness (all connectors to single customer interface)	N/A	N/A
Starter motor	✓	✓
Battery charging alternator	✓	✓
Flywheel housing	✓	✓
Flywheel	✓	✓
Fan	✓	✓
Fan guard	x	x
Temperature and oil pressure for automatic stop/alarm configurable	✓	✓

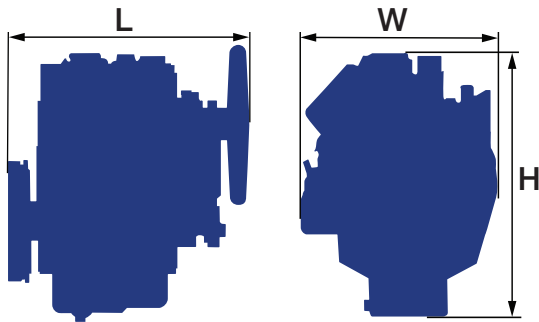
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## Engine Package Weights and Dimensions



Electro Unit

	Model	
	402J-05G	402F-05G
Configuration	Electro unit	
Dimensions, H x L x W, mm (in)	523 x 406 x 371 (20.6 x 16 x 14.6)	
Dry weight, kg (lb)	57 (126)	

**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.

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 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.