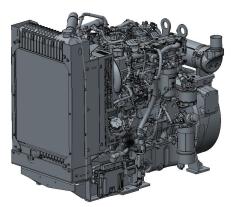
# 850 Series 854F-E34TG1 Diesel Engine - ElectropaK

55.4 kWm @ 1800 rpm

Building on its strong Tier 4 Final range, Perkins is pleased to announce the introduction of the new Perkins<sup>®</sup> 850 Series ElectropaK.

This product brings you class-leading power density while meeting the toughest emission standards. Building on more than 80 years of Perkins innovation and customer insights, the 854F-E34TG1 is designed to deliver U.S. EPA Tier 4 Final emissions legislation in North America while offering competitive performance.

No additional fluids or additives are required, which lowers your operating costs.



**88** Perkins®

THE HEART OF EVERY GREAT MACHINE

#### Emissions

Designed to meet U.S. EPA Tier 4 Final

| Specification              |                                    |                       |  |
|----------------------------|------------------------------------|-----------------------|--|
| Number of cylinders        | 4 vertical in-line                 |                       |  |
| Bore and stroke            | 99 x 110 mm                        | 3.9 x 4.3 in          |  |
| Displacement               | 3.4 litres                         | 207.5 in <sup>3</sup> |  |
| Aspiration                 | Turbocharged                       |                       |  |
| Cycle                      | 4 stroke                           |                       |  |
| Combustion system          | Direct injection                   |                       |  |
| Compression ratio          | 17:1                               |                       |  |
| Rotation                   | Anti-clockwise, viewed on flywheel |                       |  |
| Total lubricating capacity | 9.5 litres                         | 2.5 US gal            |  |
| Cooling system             | Liquid                             |                       |  |
| Total coolant capacity     | 12.05 litres                       | 3.18 US gal           |  |

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# Features and benefits

#### Dependable power

- World-class manufacturing capability and processes coupled with proven core engine designs assure reliability, quiet operation, and many hours of productive life
- Turbocharging with smart wastegate available on all ratings

# Lifetime of low cost

- Fuel consumption optimized prime power and continuous running applications
- Low ownership costs are enabled by a 3,000 hour service interval for the multi vee belts, service-free tappets and no requirement for aftertreatment ash servicing

# Local support, global coverage

- Perkins recognise that the customer relationship is important to machine manufacturers and we can offer a range of flexible solutions to help provide appropriate support, either to the OEM's network or directly to the machine customer
- Perkins information systems enable our distributors to quickly diagnose engine faults and identify the right parts. The Perkins logistics operation is able to dispatch more than 45,000 different parts from stock, reaching the customer within 24 hours
- To find your local distributor: www.perkins.com/distributor

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# Technical information

#### Air inlet

• Standard air cleaners

# Control system

- Full electronic control system
- All connectors and wiring looms waterproof and designed to withstand harsh off-highway environments
- Flexible and configurable software features and J1939 standard communications I/O

#### Cooling system

- Engine mounted radiator with top tank temperature of 108°C
- 50:50 water glycol mix
- Detailed guidance on cooling system design and validation available to ensure machine reliability

#### Standard emissions control equipment

• NRS – NOx Reduction System

# Flywheels and flywheel housing

• Wide choice of drivetrain interfaces, supplied with SAE3 configuration as standard

#### Fuel system

- Electronic high pressure common rail
- Engine-mounted fuel filters

# General

• Pusher fan as standard

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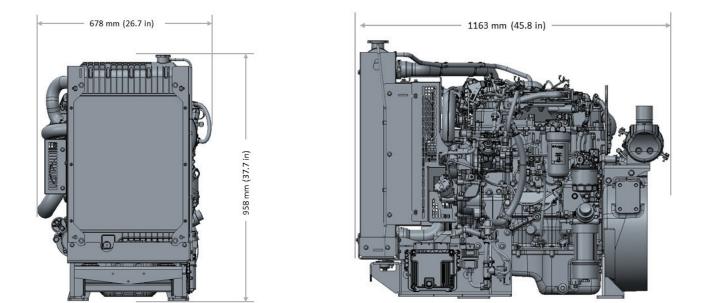
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| Engine package weights and dimensions |          |          |  |  |  |
|---------------------------------------|----------|----------|--|--|--|
| Length                                | 1163 mm  | 45.8 in  |  |  |  |
| Width                                 | 678 mm   | 26.7 in  |  |  |  |
| Height                                | 958 mm   | 37.7 in  |  |  |  |
| Weight (dry)                          | 404.5 kg | 891.8 lb |  |  |  |

Aftertreatment module factory fitted to engine as standard.

# Aftertreatment

- DOC Diesel Oxidation Catalyst
- DPF Diesel Particulate Filter
- No ash service requirement, low temperature regeneration

#### Power

Using our advanced research and development techniques, we have perfectly matched the aftertreatment system to the engine. The engine performance has then been optimised to give the application maximum productivity whilst the aftertreatment remains invisible to the equipment operator when in use.

#### Mounting

Engine mounted installation simplifies customers integration and manufacturing requirements.

#### Service

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Service free for the life of the engine.



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|              | Type of operation | Generator output |     | Engine power |    |     |    |
|--------------|-------------------|------------------|-----|--------------|----|-----|----|
| Speed<br>rpm |                   |                  |     | Gross        |    | Net |    |
|              |                   | kVA              | kWe | kWm          | hp | kWm | hp |
| 1800         | Prime power       | 55               | 43  | 50.3         | 68 | 48  | 64 |
|              | Standby power     | 59               | 47  | 55           | 74 | 53  | 71 |

| Percent of prime power | Fuel consumption at 1800 rpm<br>g/kWh | Fuel consumption at 1800 rpm<br>I/hr |
|------------------------|---------------------------------------|--------------------------------------|
| 25%                    | 237                                   | 13.1                                 |
| 50%                    | 240                                   | 9.9                                  |
| 75%                    | 245                                   | 6.7                                  |
| 50%                    | 299                                   | 4.1                                  |

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