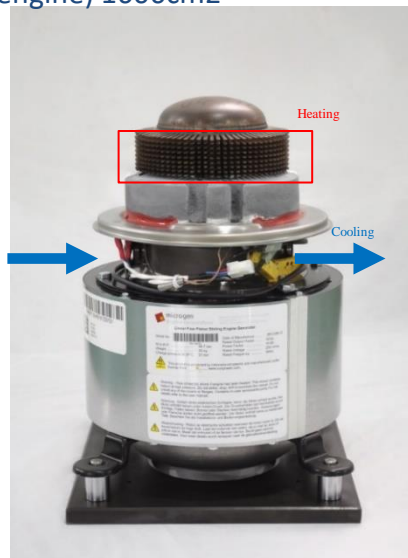


# MICROGEN'S 1kW and 2kW Linear Free Piston Stirling Engines

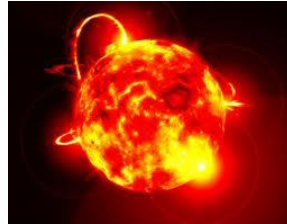
## GAS ENGINE



Fin diameter 165+/-1  
Fin heat accepting surface (8 fin engine) 1606cm<sup>2</sup>



## SOLAR ENGINE



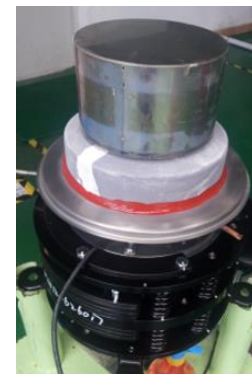
Solar – Diameter 201+/-1



## BIOMASS /BIOGAS ENGINE



Round – Diameter 150+/-1mm, effective area 623cm<sup>2</sup>  
Diamond – Diameter 235+/-1mm, effective area 753cm<sup>2</sup>  
Bullet – Diameter 150+/-1mm, effective area 625cm<sup>2</sup>



Round



Diamond

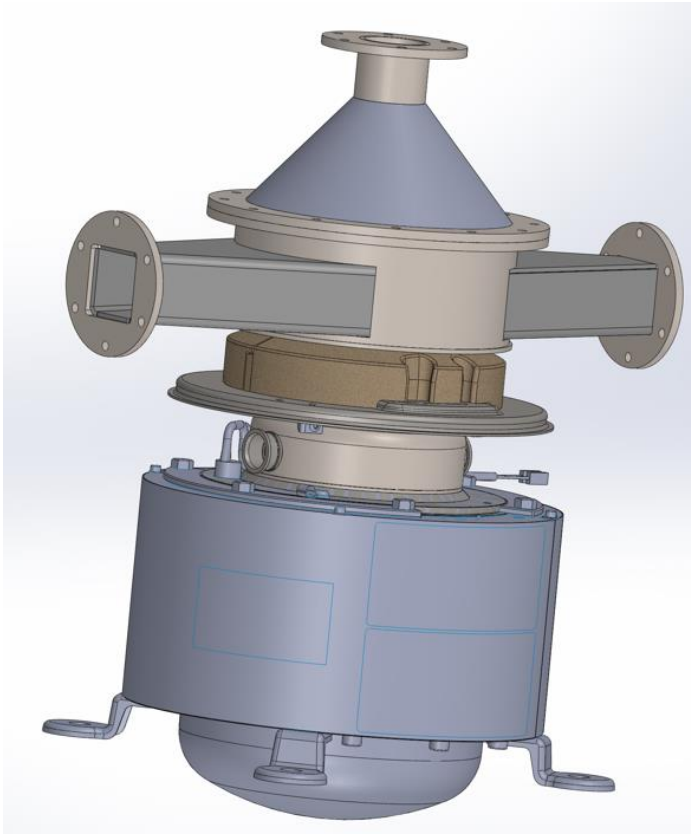


Bullet

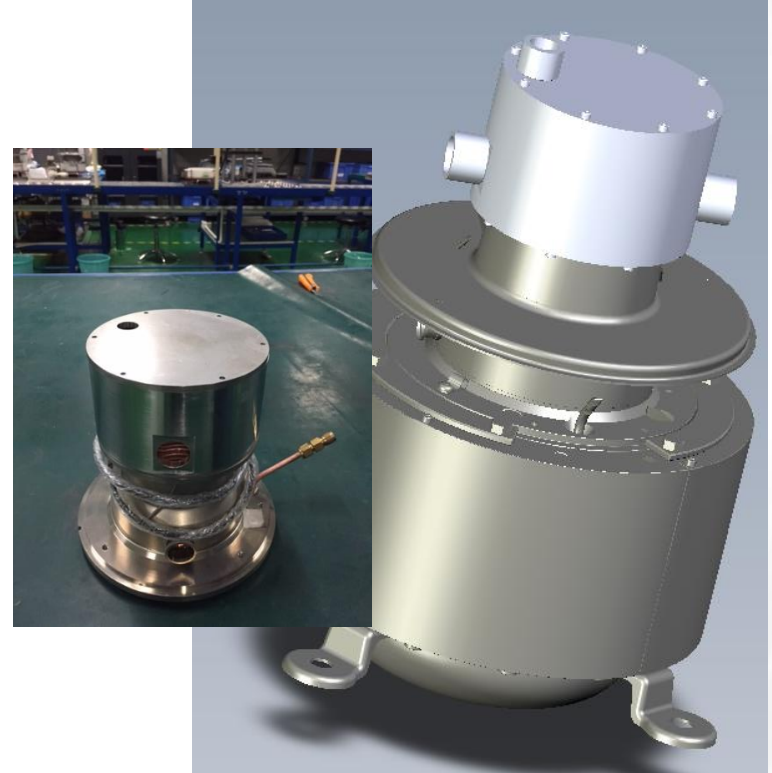


# MICROGEN'S 1kW and 2kW Linear Free Piston Stirling Engines

## HOT AIR ENGINE

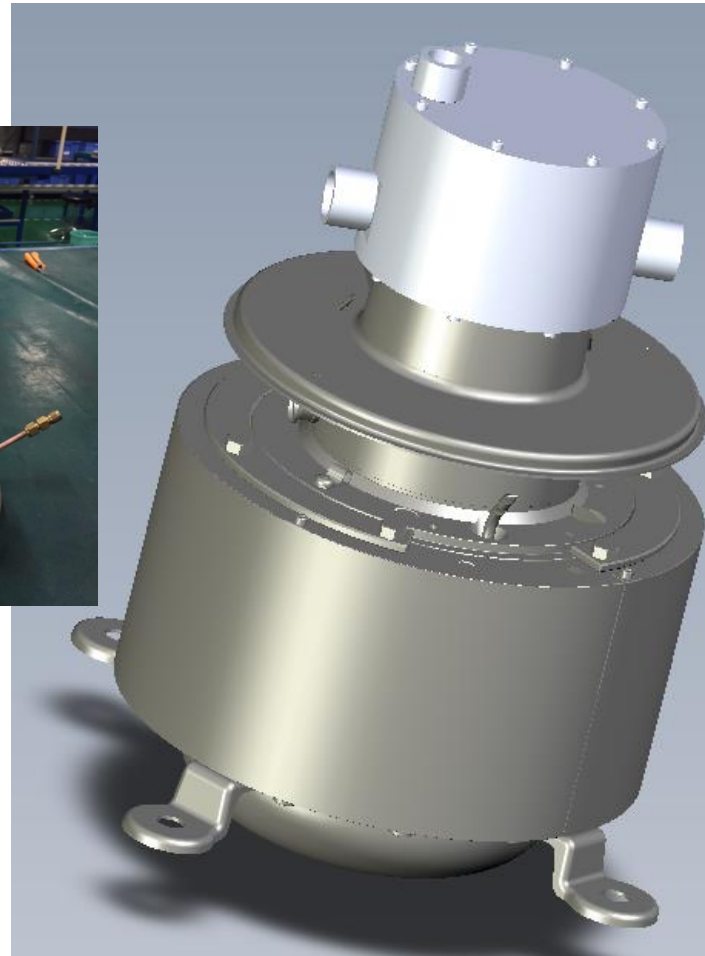
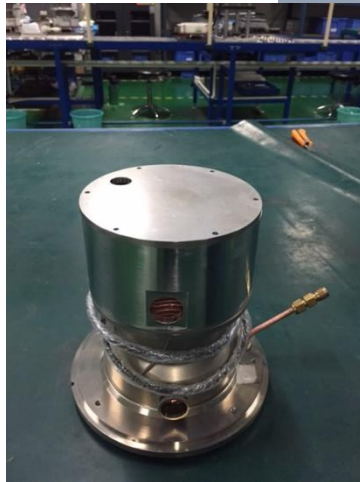


## HOT LIQUID ENGINE



# MICROGEN'S 1kW and 2kW Linear Free Piston Stirling Engines

## CRY COOLER



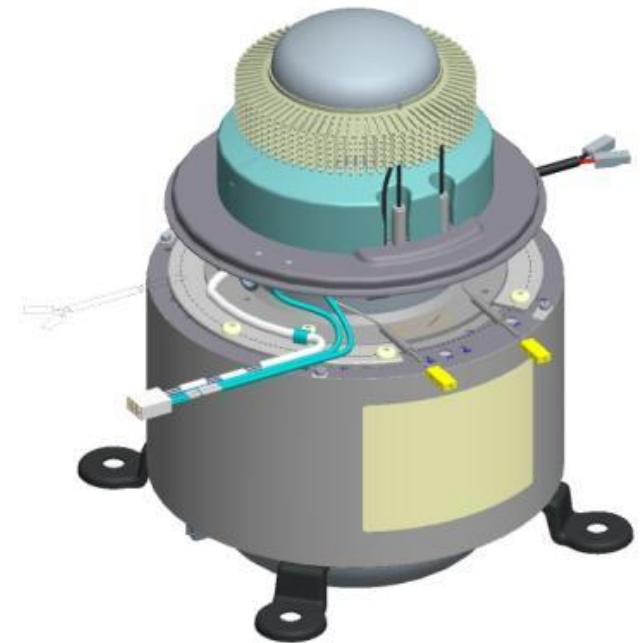
# MEC LFPSE E1 Engine – Basic Specification for the 1kW engine

## Main Functions

- 1kw rated power
- Efficiency at nominal conditions engine only: approx 25%
- Weight: 49kg gas engine. Solar/biomass around 60kg
- Dimensions: round 300mm x 450mm high gas engine, biomass/solar/diesel 50mm higher

## Operating Conditions

- Voltage: Min 186V, Max 264V, nominal 230V
- Frequency 50Hz engine
  - Min 49.5hz, max 50.5hz, nominal 50hz
- Frequency 60Hz engine
  - Min 59.5hz, max 60.5hz, nominal 60hz
- Water flow: minimum 7L/min
- Water temps: 6 to 75°C
- Ambient temps: 6°C to 70°C
- Maximum casing vibration movement: 80 microns
- The engine is certified for sale in Europe under the Machinery Directive.
- Heat output to coolant: 3+/-0.5KW nominal



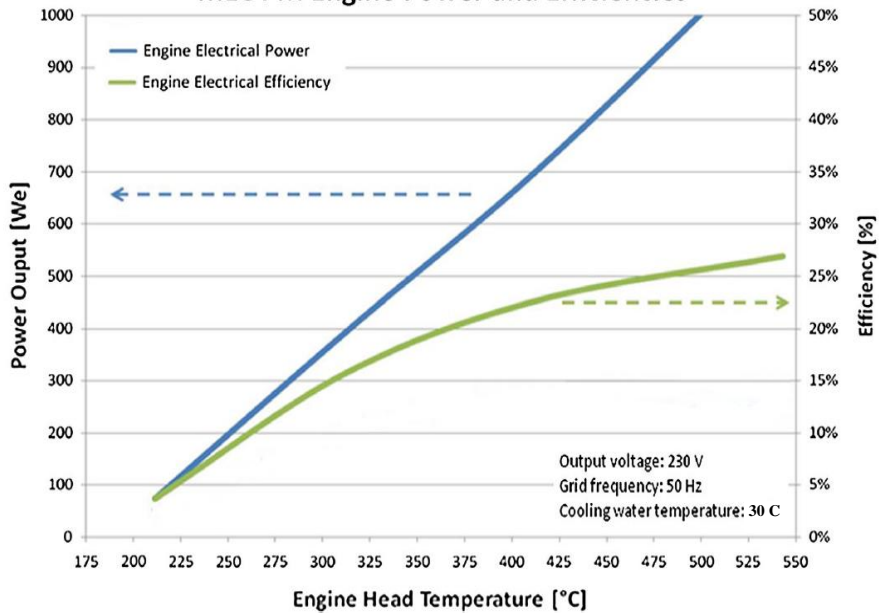
For 2kW details see 2kW  
engine spec



# Efficiencies

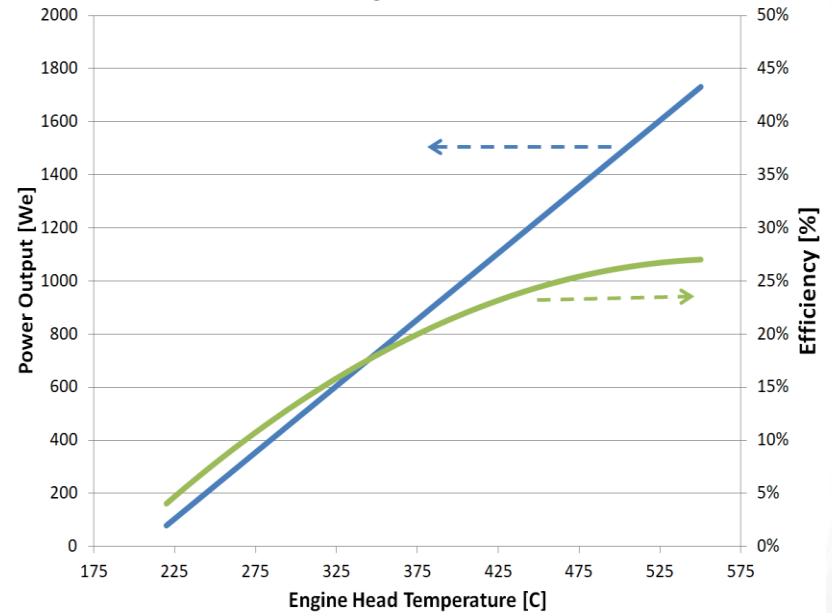
## 1kW engines

### MEC PM Engine Power and Efficiencies



## 2kW engines

### MEC Engine Performance



# Power variation with coolant at 31°C and 70°C

