

DUAL FUEL GENSET



POWERED BY HYDROGEN

H₂ DUAL FUEL TECHNOLOGY

CMB.TECH has developed a hydrogen dual fuel genset capable of 200kVA, saving up to 1.8tonnes of CO₂ per day (24-hour operation), displacing diesel on an energy basis (up to 60%). The unit has both 230V outputs and 400V three-phase output. It can be also made available as a Combined Heat and Power (CHP) unit, giving thermal efficiencies in excess of 70%.

Once operating and up to temperature, the genset will automatically switch to the dual fuel mode, ensuring maximum emissions reduction without requiring operator intervention. Dual fuel engines offer the added advantage of full diesel back-up in case hydrogen is not available.



SAFETY

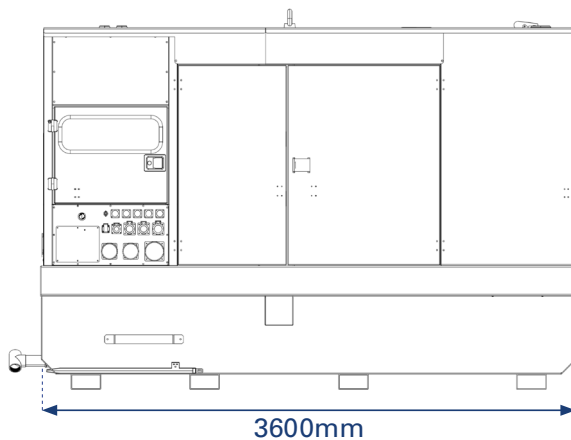
Within the engine, a pressure sensor detects any hydrogen pre-ignition, and if it is detected, the engine is shut down. An additional mechanical fail safe is provided by the CMB.TECH developed thermal fuse; should burning hydrogen exist in the inlet manifold, the thermal fuse melts (at 110°C) cutting off the power to the hydrogen injectors, stopping the engine and preventing any damage. Additionally, a shut-off solenoid in the hydrogen low pressure line is linked to ignition and E-stop, so the low-pressure hydrogen is isolated at power down, or in the event.



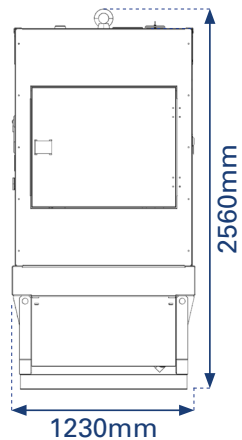
PERFORMANCE

The hydrogen dual fuel genset is Stage V emissions compliant, featuring integrated Diesel Particulate Filter (DPF) and Selective Catalytic Reduction (SCR) systems to reduce diesel particulates and NO_x emissions. The system has been developed to offer seamless transition between dual fuel and diesel only operation. The control system ensures that the engine delivers same power and response to the customer when operating in either fuel mode. The load response times of the dual fuel genset are the same as that of other Internal Combustion Engine (ICE) gensets.

FRONT VIEW

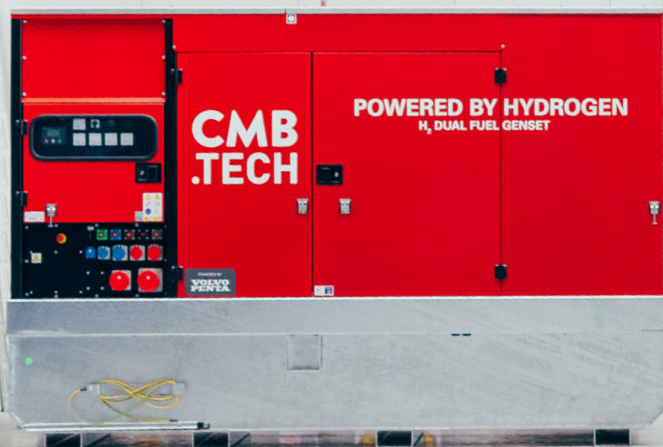


SIDE VIEW



SPECIFICATION

Power	-	200 kVA
Frequency	-	50 Hz
Voltage options	-	230 V & 400 V
Socket outlets	-	63A & 32A (Choice of 3-phase and/or 1-phase outlets)
H ₂ consumption	-	5 kg/h
H ₂ Purity Grade	-	>99 %
Weight inc. oil, coolant & diesel	-	4320 kg



**WE BRING HYDROGEN
TO THE INDUSTRY**

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