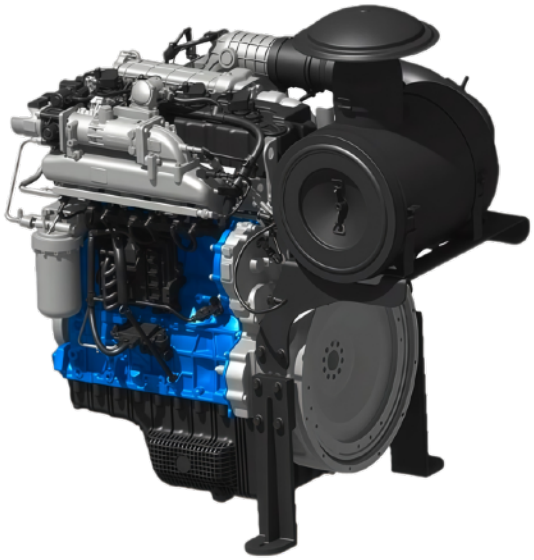
VMAN ENGINE

2026

HMM06F METHANOL ENGINE TECHNICAL DATA SHEET

HMM06F Methanol Engine



HMM06F is a turbocharged, inter-cooled methanol engine designed for power generation. Available in 1500rpm and 1800rpm models, it delivers 122kW of engine power and 100kW of electrical output. Key features include manifold injection for M100 methanol fuel, a compact four-cylinder design, and a comprehensive electronic management system. Its high efficiency is demonstrated by a fuel consumption of 49 kg/h at full load, making it a sustainable solution for prime or standby power applications.

Ratings Of Engine	1500rpm	1800rpm
	HMM06FA	HMM06FB
Engine Power	122kW	122kW
Electrical Power (COP)	100kWe	100kWe

GENERAL ENGINE DATA

Engine Model	HMM06FA	HMM06FB
Engine Type	Line-type 4-Cylinder, Water-cooling, Turbocharged, Inter-cooled	
Speed	1500 rpm	1800 rpm
Bore x stroke	112 × 150 mm	
Displacement	5.91 L	
Compression ratio	12.5:1	
Rotation {Looking at flywheel}	Counter clockwise {CCW}	
Firing order	1-3-2-4	
Dry weight {W/O cooling system}	560 kg	
Dimension {L x W x H}	1332 x 828 x 1209 mm	
Flywheel housing	SAE 1#	
Flywheel	SAE 14#	
Fuel system	Manifold injection	
Fuel type	M100 Methanol	
Injector Advance Angle	Electronic	
Combustion Strategy	Stoichiometric Combustion	

HMM06F Methanol Engine

INTAKE SYSTEM		
Charge temperature @rated output	50°C	
Intake depression	3.6 kPa	
Intercooled pressure loss @rated output	≤ 10 kPa	
Inlet flow @rated output	520 kg/h	
Maximum intake resistance with clean filter element	3.5 kPa	
Maximum intake resistance with dirty filter element	6.5 kPa	

EXHAUST SYSTEM		
Exhaust back pressure loss @rated output	10 kPa	
Exhaust flow @rated output	580 kg/h	
Maximum exhaust temperature (Before turbo)	750°C	
Maximum exhaust temperature (After turbo)	650°C	

COOLING SYSTEM		
Engine Model	HMM06FA	HMM06FB
Maximum coolant temperature	100°C	
Thermostat(Modulating) range	85 to 95°C	
Heat loss from the cooling system	80 kW	
Coolant flow rate	236 L/min	262 L/min
Intercooler dissipates heat	13 kW	
Allowable intake air temperature of intercooler	170°C	
Maximum air intake of intercooler	520 kg/h	

LUBRICATION SYSTEM	
Maximum oil temperature	120°C
Oil pressure @ idle speed	100 kPa
Oil pressure @ rated speed	700 kPa
Oil pan allows dip Angle	5°
Oil capacity	18 - 22 L

HMM06F Methanol Engine

FUEL SYSTEM

Methanol pump injection pressure	500 kPa	
Methanol Maximum supply fuel pressure	13.5 kPa	
Governor	Electric type	
Fuel pump	Electrical	
Fuel filter	Methanol filter	
Methanol consumption of generator set	Loading (kWe)	Methanol consumption (kg/h)
25% load	25	16
50% load	50	29
75% load	75	40
100% load	100	49
Fuel consumption of HMM06F methanol engine	410 g/kWh (methanol) at 100% load	

ELECTRICAL SYSTEM

Generator	2.24kW / 28V (80A)
Voltage regulator	Inline, Integrated circuit regulator
Starting motor	7 kW / 24V
Battery voltage	24 V
Battery capacity	2×150 AH

VALVE SYSTEM

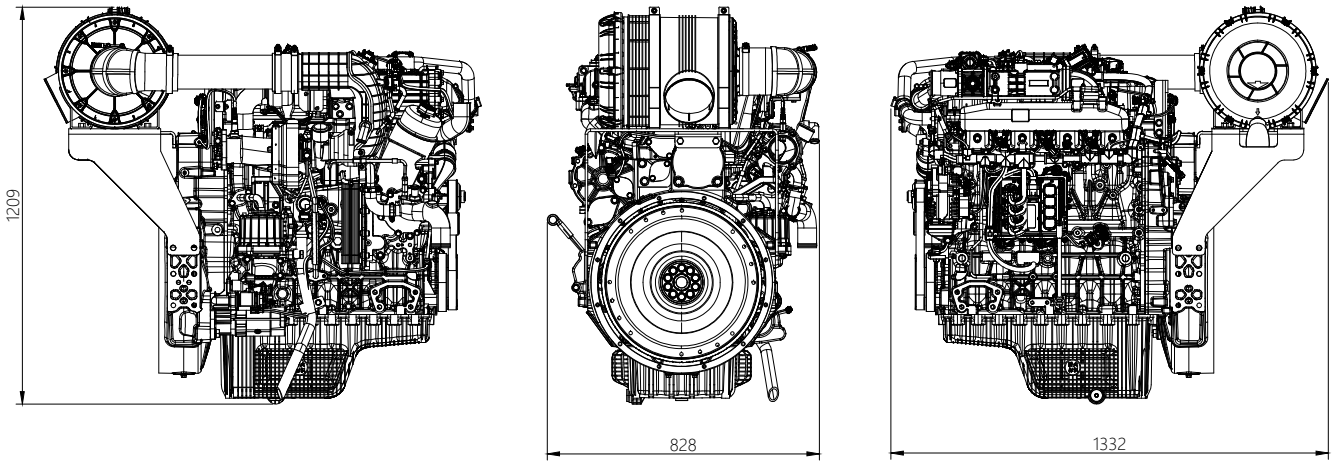
Type	Overhead valve type
Number of valve	Intake 2, Exhaust 2 per cylinder
Valve lashes at cold	Intake 0.4±0.05 mm, Exhaust 0.6±0.05 mm

TECHNOLOGY BULLETIN OF HMM06F METHANOL ENGINE EMISSION DATA

After-Treatment Device: Three-Way Catalytic								
Weighting Factor	0.05	0.25	0.3	0.3	0.1	Σ(weighted val.)	Emission (val.)	StageV (val.)
Power_kW	100	75	50	25	10	47.25	g/kWh	g/kWh
CO_g/h	14.25	11.17	8.73	6.78	5.34	8.692	0.184 ↓	3.5
THC_g/h	4.27	3.77	2.66	1.23	0.53	2.376	0.050 ↓	0.19
Nox_g/h	17.31	9.62	5.72	6.41	3.11	7.221	0.153 ↓	0.4

Demonstrating exceptional environmental performance, the engine's emissions are **62–95% below EU Stage V limits**, ensuring full compliance with a substantial future-ready margin.

HMM06F SERIES METHANOL ENGINE DRAWING



** All ratings are based on operating conditions specified in ISO 8528-1:2018. Performance tolerance: ±4%.*

** Reference test conditions: 100 kPa atmospheric pressure, 25°C air inlet temperature, 30% relative humidity, as defined in ISO 3046-1. Derating may be required under non-standard ambient conditions; please consult the manufacturer for site-specific performance adjustments*

**. Engine output power represent net engine power per ISO 3046-1, including essential auxiliaries (fuel injection pump, water pump, and lubricating oil pump). Excluded: battery charging alternator, cooling fan, and optional equipment;*

**. Exhaust emissions comply with EU Stage V requirements under Regulation (EU) 2016/1628 (or specify other applicable standard, e.g., U.S. EPA Tier 4 Final)*

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