

# Series 4000

## Pump/Compressor Power Packages for the Oil & Gas Industry - Variable Speed -



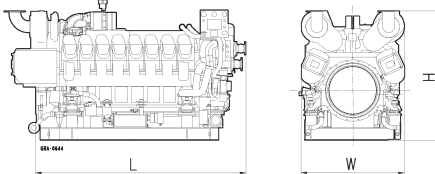
### Dimensions and Masses

Engine	Dimensions LxWxH mm (in)	Mass, dry kg (lbs)
12V	2400x1520x1930 (100x63x69)	6550 (14440)
16V	2850x1520x1930 (119x63x69)	7750 (17086)

All dimensions are approximate; for complete information refer to the installation drawing.

### Engine Model

Bore/stroke	mm (in)	165/190 (6.5/7.5)
Cylinder configuration		90°V
Displacement/cylinder	l (cu in)	4.06 (248)
Displacement, total	l (cu in)	12V: 48.7 (2972 ); 16V: 65.0 (3967 )
Fuel specification		EN 590, Grade No.1-D/2-D



Engine Type	Rated Power ICFN kW	bhp	rpm
Optimization	⑥		
Application	Heavy duty operation (4A)		
12V 4000 P11	1320	1770	1800
16V 4000 P11	1760	2360	1800
Optimization	⑥		
Application	Short-time duty operation (4C)		
12V 4000 P91	1740	2330	2000
16V 4000 P91	2320	3110	2000

Optimization: ⑥ Exhaust emission IMO



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Application	Power Definition	
4A	Continuous operation w/100% load	Load factor: $\geq 60\%$ , Operating hours: unrestricted, Overload: Fuel stop (ICFN)
4C	Short-time operation w/variable load	Load factor: $< 75\%$ , Operating hours: unrestricted, Overload: Fuel stop (ICFN)

Power output within 5% tolerance at standard conditions. Power definition according to ISO 3046 (ratings also correspond to SAE J 1995 and SAE J 1349 standard conditions)  
Consult your MTU distributor/dealer for the rating that will apply to your specific application.

Standard Equipment	
Starting System	Electric starter 15 kW
Fuel System	Common rail injection system, Double-walled high pressure fuel lines, Fuel main filters with changeover valves
Lube Oil System	Multi-stage lube oil filters with changeover valve, Closed crankcase breather system
Combustion Air System	Horizontal Air inlet
Exhaust Gas System	Horizontal Exhaust Gas Outlet, Water-cooled exhaust gas manifold and turbochargers providing $< 220^{\circ}\text{C}$ skin temperature
Cooling System	HT (JW) and LT (CAC) coolant circuit with separate coolant pumps and thermostats
Flywheel/Housing	SAE 00 Flywheel Housing
Engine Mounting	Resilient engine mounts at engine front and rear, Supporting base frame
Electronics and Instrumentation	MDEC (12V/16V), ADEC (20V) engine control and management systems with extended sensor scope for off-shore applications

Optional Equipment	
Starting System	Redundant starting systems (electric, pneumatic, hydraulic)
Fuel System	Fuel pre-filter with water separator
Lube Oil System	Lube oil centrifugal filters, Special oil sump for inclinations up to $25^{\circ}$ in all directions, Hand pump for waste oil removal
Combustion Air System	Air filters engine mounted, Heavy duty air filters (shipped loose), Electrically operated air shut-off flaps
Coolant System	Coolant connecting parts (flex. hoses and rubber bellows), Front crank PTO for radiator fan drive, Coolant preheating
Power Transmission	Resilient type coupling
Accessory Drives	28 VDC battery charging alternator, Auxiliary PTO`s for hydraulic pump drives
Certification	3 <sup>rd</sup> party certification available upon request

Reference conditions:

> Intake-air temperature:  $25^{\circ}\text{C}$  ( $77^{\circ}\text{F}$ )

> Ambient air pressure: 1000 mbar (14,5 psi)

> Rated power available up to  $40^{\circ}\text{C}$  ( $104^{\circ}\text{F}$ ) and 400 m (1312 ft)

> Charge air coolant temp.:  $55^{\circ}\text{C}$  ( $131^{\circ}\text{F}$ )

> Altitude above sea level: 100 m (328 ft)

Subject to change without notice. Customization possible. Engines illustrated in this document may feature options not fitted as standard.