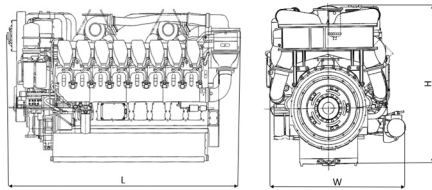


# SERIES 4000 CX1

for Mining applications



Optional equipment and finishing shown.  
Standard may vary.

Engine	Dimensions (LxWxH) mm (in)	Mass, dry kg (lbs)
12V	2538 x 1588 x 1736 (99.9 x 62.5 x 68.4)	6044 (13325)
16V	3008 x 1588 x 1736 (118.4 x 62.5 x 68.4)	7363 (16233)

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






Engine		
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		Diesel fuel, biodiesel blends, synthetic fuels *

\* See fluids & lubricants specification A001061 for details

Application	Power definition	Operating profile
5A	Continuous operation with 100% load	Load factor: ≥ 60 %, operating hours: unrestricted, overload: fuel stop (ICFN)
5B	Continuous operation with variable load	Load factor: < 60 %, operating hours: unrestricted, overload: fuel stop (ICFN)

All 5A ratings can be used in 5B applications but not vice versa.

ICFN = ISO standard (continuous) fuel stop power. For detailed information regarding engine performance under non-standard boundary conditions, please, contact your local **mtu** service partner.

Application	Vehicle type	Rated power ICFN			Peak torque			Optimization
		kW	bhp	rpm	Nm	lb-ft	rpm	
<b>Heavy duty operation (5A)</b>								
12V 4000 C11R		1193	1600	1800/1900	7611	5614	1500	Fuel consumption opt., non-cert.; EPA Nonroad T1 Comp (40CFR89)
12V 4000 C11		1286	1725	1800/1900	8187	6039	1500	Fuel consumption opt., non-cert.; EPA Nonroad T1 Comp (40CFR89)
16V 4000 C11R		1600	2146	1800	9492	7001	1500	EPA Nonroad T1 Comp (40CFR89)
16V 4000 C11		1715	2300	1800/1900	10146	7485	1500	Fuel consumption opt., non-cert.; EPA Nonroad T1 Comp (40CFR89)
<b>Medium duty operation (5B)</b>								
12V 4000 C21R		1398	1875	1800/1900	8200	6048	1500	Fuel consumption opt., non-cert.; EPA Nonroad T1 Comp (40CFR89)
12V 4000 C21		1510	2025	1800/1900	8739	6446	1650	Fuel consumption opt., non-cert.; EPA Nonroad T1 Comp (40CFR89)
16V 4000 C21R		1492	2001	1900	10186	7513	1500	EPA Nonroad T1 Comp (40CFR89)
16V 4000 C21		1864	2500	1800/1900	10932	8063	1650	Fuel consumption opt., non-cert.; EPA Nonroad T1 Comp (40CFR89)
16V 4000 C21L		2013	2700	1800/1900	11078	8170	1650	Fuel consumption opt., non-cert.; EPA Nonroad T1 Comp (40CFR89)
16V 4000 C31		2125	2850	1800/1900	11273	8315	1800	Fuel consumption opt., non-cert.; EPA Nonroad T1 Comp (40CFR89)

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	
Base engine system	SAE 00 flywheel housing with SAE 21 isolated flywheel, 3-point engine mount (Trunnion)
Starting system	Dual electric starter
Lube oil system	Oil filter housing with centrifuge and spin-on filters
Fuel system	Common rail injection system, double-walled fuel lines, 3-stage fuel filtration, priming pump
Cooling system	Separate high temperature (HTC) and low temperature (LTC) coolant circuits with separate pumps
Turbocharging system	Single-stage, four exhaust turbochargers
Accessory drives (PTO)	Engine-mounted fan clutch
Electronics	Electronic engine control and management system, CAN J1939 integration, 4G/LTE data logger ( <b>mtu</b> Go!)
Documentation	FAT* protocol, performance diagram, application guidebook, installation drawings, operation manual, fluids and lubricants specification, maintenance schedule, <b>mtu</b> Go! system documentation (* Factory Acceptance Test (FAT))
Optional equipment	
Base engine system	Flywheel, flywheel housing options
Starting system	Pneumatic starter, without starter
Lube oil system	Oil pan and oil dipstick options, engine pre-lube system
Exhaust system	Exhaust bellows
Accessory drives (PTO)	Battery charging alternators, air compressor, A/C compressor drives, fan drive options (clutches, drive ratios, spacers, cooling fans)
Electronics	Electronic foot pedal assembly, frequency converters, customer-specific calibration settings
Miscellaneous	High altitude kit for 16V FCO ratings, paints, packing, certificates, multilingual documentation, torsional vibration calculation

Reference conditions:

- > Intake-air temperature: 25°C (77°F)
- > Altitude above sea level: 100 m (328 ft)
- > Ambient air pressure: 1000 mbar (14.5 psi)
- > Charge air coolant temperature: depending on ratings and conditions

All information is subject to change. Errors, changes and typographical errors excepted. Engine illustrated in this document may feature optional equipment.