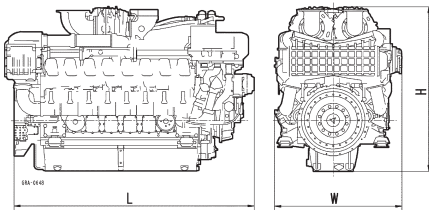
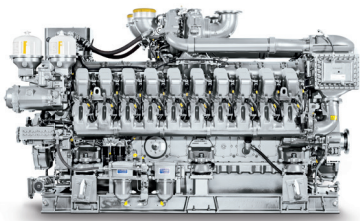




Oil & Gas

SERIES 4000

GenDrive engines for the Oil & Gas Industry



Optional equipment and finishing shown. Standard may vary.

Engine	Dimensions (LxWxH) mm (in)	Mass, dry kg (lbs)
12V	2530 x 1590 x 2065 (100 x 63 x 81)	7300 (16093)
16V	3000 x 1590 x 2065 (118 x 63 x 81)	8800 (19400)
20V	3470 x 1590 x 2065 (137 x 63 x 81)	10680 (23545)

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

Engine		
Bore/stroke	mm (in)	170/210 (6.7/8.3)
Cylinder configuration		90°V
Displacement/cylinder	l (cu in)	4.77 (291)
Displacement, total	l (cu in)	12V: 57.2 (3491); 16V: 76.3 (4655); 20V: 95.4 (5822)
Fuel specification		EN 590, Grade No.1-D/2-D (ASTM D975-00), DMA

Application	Power definition	
3A	Continuous operation with 100% load	Load factor: ≤ 100 %, operating hours: unrestricted, overload: 10% capability (ICXN)
3B	Continuous operation with variable load	Load factor: < 75%, operating hours: unrestricted, overload: 10% capability (ICXN)
3C	Standby operation with variable load	Load factor: < 75%, operating hours: max. 1000/yr, overload: 10% capability (ICXN)

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 distributor/dealer for the rating that will apply to your specific application.

	Continuous power 3A	Prime power 3B	Prime power limited 3C
Engine type	Rated power kW (bhp) at1500 rpm - (50 Hz)		
Optimization	1, 7	1, 7	1, 7
12V 4000 P63	1350 (1810)	1560 (2092)	1560 (2092)
Optimization	1, 7	1, 6, 7	1, 6, 7
16V 4000 P63	1800 (2414)	2080 (2789)	2080 (2789)
20V 4000 P63	2245 (3011)	2600 (3487)	2600 (3487)

	Continuous power 3A	Prime power 3B	Prime power limited 3C
Application	Rated power kW (bhp) at1800 rpm - (60 Hz)		
Optimization	7	3, 7	3, 7
12V 4000 P83	1455 (1951)	1680 (2253)	1680 (2253)
Optimization	6, 7	3, 6, 7	3, 6, 7
16V 4000 P83	1940 (2602)	2240 (3004)	2240 (3004)
Optimization	6, 7	2, 6, 7	2, 6, 7
20V 4000 P83	2425 (3252)	2800 (3755)	2800 (3755)

Optimization: 1 Exhaust emission TA Luft (for standby power)
2 Exhaust emission EPA 40 CFR 89, Tier 1 compliant
3 Exhaust emission EPA 40 CFR 89, Tier 2
6 Exhaust emission IMO
7 Exhaust emission IMO-II

Standard equipment	
Starting system	Electric starter motor
Fuel system	Common rail injection system, double-walled high pressure injection pipes with monitoring, duplex fuel filters with changeover valves
Lube oil system	Automatic lube oil filter with lube oil centrifuge, closed crankcase breather system
Combustion air system	Elbow for vertical inlet
Exhaust gas system	Water cooled exhaust gas manifolds and turbo-chargers < 220°C, vertical exhaust gas outlets
Cooling system	HT (JW) and LT (CAC) coolant circuits with coolant pumps, coolant thermostats for HT (JW) and LT (CAC)
Flywheel/housing	Flywheel 21", SAE 00 flywheel housing
Engine mounting	Engine mounting brackets
Electronics and instrumentation	ADEC engine control and management system, extended sensor scope for offshore application

Optional equipment	
Starting system	Redundant starting system (electric, pneumatic, hydraulic)
Fuel system	Duplex fuel pre-filter with water separator
Lube oil system	Special oil sump for increased inclinations up to 25° in all directions
Combustion air system	Air filters engine mounted, heavy duty air filters (shipped loose), electrically operated air shut-off flaps
Exhaust gas system	Horizontal exhaust gas outlet, exhaust gas bellows with counter flanges
Coolant System	Coolant connections (weld on flanges w. rubber bellows), coolant preheating system, 400-480 V
Accessory drives	Add PTO's for hyd. pump drives, battery charging alternator, 28 VDC/120 A
Engine mounting	Height adjustable engine mounts
Electronics and instrumentation	EMU (Engine Monitoring Unit) with extended sensor scope for classification, redundant electronic controller for NFPA20 standard
Certification	3 rd party certification (DNV, LRS, ABS, BV, GL & RS), ATEX (Zone II)

Reference conditions:

- > Intake-air temperature: 25°C (77°F)
- > Charge air coolant temp.: 45°C (113° F)
- > Ambient air pressure: 1000 mbar (14.5 psi)
- > Altitude above sea level: 100 m (328 ft)
- > Rated power available up to 40°C (104°F) and 400 m (1312 ft)

Subject to change without notice. Customization possible.

Engines illustrated in this document may feature options not fitted as standard.