

Series 4000

Generator/Pump Power Packages for the Oil & Gas Industry - constant speed -



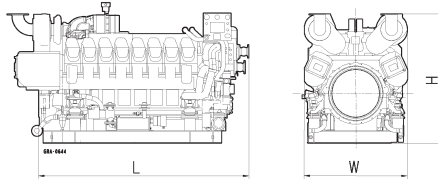
Dimensions and Masses

| Engine | Dimensions LxWxH mm (in) | Mass, dry kg (lbs) |
|--------|----------------------------|--------------------|
| 12V | 2400x1520x1930 (100x63x69) | 6410 (14132) |
| 16V | 2850x1520x1930 (119x63x69) | 7610 (16777) |
| 20V | 3470x1510x2050 (137x60x81) | 10680 (23545) |

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

Engine Model

| | | |
|------------------------|-----------|--|
| Bore/stroke | mm (in) | 12V/16V: 165/190 (6.5/7.5), 20V: 170/210 (6.7/8.3) |
| Cylinder configuration | | 90°V |
| Displacement/cylinder | l (cu in) | 12V/16V: 4.06 (248), 20V: 4.77 (291) |
| Displacement, total | l (cu in) | 12V: 48.7 (2972); 16V: 65.0 (3967), 20V: 95.4 (5822) |
| Fuel specification | | EN 590, Grade No.1-D/2-D |



| Application Group | Continuous Power 3A | Prime Power 3B | Prime Power Limited 3C |
|--------------------|---|-------------------|---------------------------|
| Optimization | ⑥ | ⑥ | ⑥ |
| Engine Type | Rated Power kW (bhp) at 1500 rpm - (50 Hz) | | |
| 12V 4000 P61 * | 1140 (1528) | 1320 (1770) | 1320 (1770) |
| 16V 4000 P61 * | 1520 (2038) | 1760 (2360) | 1760 (2360) |
| 20V 4000 P63 | 2245 (3011) | 2600 (3487) | 2600 (3487) |
| Optimization | ②⑥ | ②⑥ | ②⑥ |
| Engine Type | Rated Power kW (bhp) at 1800 rpm - (60 Hz) | | |
| 12V 4000 P81 * | 1380 (1850) | 1600 (2145) | 1600 (2145) |
| 16V 4000 P81 * | 1840 (2465) | 2105 (2820) | 2105 (2820) |
| 20V 4000 P83 | 2425 (3250) | 2800 (3755) | 2800 (3755) |

Optimization: ② Exhaust emission EPA 40 CFR 89/Tier 1 ⑥ Exhaust emission IMO
* ATEX Zone 2 classification available



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| Application | Power Definition | |
|-------------|--------------------------------------|--|
| 3A | Continuous operation w/100% load | Load factor: ≤ 100 %, Operating hours: unrestricted, Overload: 10% capability (ICXN) |
| 3B | Continuous operation w/variable load | Load factor: < 75%, Operating hours: unrestricted, Overload: 10% capability (ICXN) |
| 3C | Standby operation w/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 MTU distributor/dealer for the rating that will apply to your specific application.

| Standard Equipment | |
|---------------------------------|---|
| Starting System | Electric starter |
| Fuel System | Common rail injection system, Double-walled high pressure fuel lines, Duplex fuel 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 |
| Cooling System | HT (JW) and LT (CAC) coolant circuit with coolant pumps, Water cooled exhaust gas manifolds and turbochargers < 220°C |
| Flywheel/Housing | SAE 00 flywheel and flywheel housing |
| Engine Mounting | Resilient engine mounts at engine front and rear |
| Electronics and Instrumentation | MDEC (12V/16V), ADEC (20V) engine control and management systems with extended sensor scope for offshore applications |

| Optional Equipment | |
|-----------------------|--|
| Starting System | Redundant starting system (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° in all directions, Hand pump for waste oil removal |
| Combustion Air System | Engine mounted air filters, Heavy duty air filters (shipped loose), Electrically operated air shut-off flaps |
| Coolant System | Coolant connecting parts (flex. hoses and rubber bellows), Radiator fan drive, Coolant preheating |
| Power Transmission | Resilient type coupling |
| Accessory Drives | Battery charging alternator, 28VDC, Auxiliary PTO`s for hydraulic pump drives |
| Certification | 3 rd party certification available upon request |

Reference conditions:

> Intake-air temperature: 25°C (77°F)

> Ambient air pressure: 1000 mbar (14.5 psi)

> Rated power available up to 40°C (104°F) and 400 m (1312 ft)

> Charge air coolant temp.: 45°C (113° 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.