

# Series 4000 Gx3

for Power Generation Continuous/Peak Applications  
with water-to-air charge air cooling



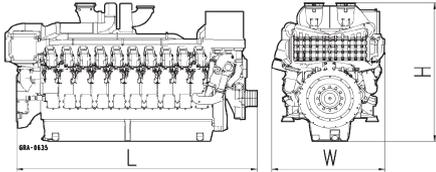
## Dimensions and Masses

| Engine | Dimensions (LxWxH) mm (in)         | Mass, dry kg (lbs) |
|--------|------------------------------------|--------------------|
| 12V    | 2490 x 1610 x 1870 (98 x 63 x 74)  | 6200 (13670)       |
| 16V    | 2865 x 1660 x 1810 (113 x 65 x 71) | 7700 (16975)       |
| 20V    | 3410 x 1615 x 2050 (134 x 64 x 81) | 9640 (21255)       |

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

## Engine Model

|                        |           |  |
|------------------------|-----------|--|
| 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)              |



## Application group

## Power definition

Continuous Power (3A)

Heavy duty service, unrestricted

Load factor: ≤ 100%, Operating hours: unrestricted,  
Overload: 10% capability (ICXN)

Prime Power (3B)

Continuous service, variable load,  
ICXN

Load factor: ≤ 75%, Operating hours: unrestricted,  
Overload: 10% capability (ICXN)

Grid Stability Power (3G)

Heavy duty intermittent service,  
ICXN

Load factor: ≤ 100%, Operating hours: max. 1000 h/year -  
500 h with 100% load w/o interruption,  
Overload: 10% capability (ICXN)

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.

**Rated power is without fan drive. The power consumption of any fan drive has to be deducted during designing of a generator set.**



Power. Passion. Partnership.

## Continuous Power (3A)

| Engine Type   | Rated power kW (bhp) at 1500 rpm (50Hz) | Optimization               |  |
|---------------|---|----------------------------|--|
|               |   | <input type="checkbox"/>   |  |
|               |   | Fuel consumption optimized |  |
| 12V 4000 G63  | 1310 (1757)                             | x                          |  |
| 16V 4000 G63  | 1635 (2193)                             | x                          |  |
| 20V 4000 G63  | 2000 (2682)                             | x                          |  |
| 20V 4000 G63L | 2200 (2950)                             | x                          |  |

Fan power requirement not considered

| Engine Type   | Rated power kW (bhp) at 1800 rpm (60Hz) | Optimization               |  |
|---------------|---|----------------------------|--|
|               |   | <input type="checkbox"/>   |  |
|               |   | Fuel consumption optimized |  |
| 12V 4000 G43  | 1190 (1596)                             | x                          |  |
| 12V 4000 G83  | 1420 (1904)                             | x                          |  |
| 16V 4000 G43  | 1680 (2253)                             | x                          |  |
| 16V 4000 G83  | 1950 (2615)                             | x                          |  |
| 20V 4000 G83  | 2290 (3071)                             | x                          |  |
| 20V 4000 G83L | 2490 (3339)                             | x                          |  |

Fan power requirement not considered

reference to emission level in price list

## Prime Power (3B)

| Engine Type   | Rated power kW (bhp) at 1500 rpm (50Hz) | Optimization               |   |                        |                                     |
|---------------|---|----------------------------|---|------------------------|-------------------------------------|
|               |   | ☒                          | ①   | ②④                     | ③①                                  |
|               |   | Fuel consumption optimized | TA-Luft optimized (NOx < 1700 mg/m <sup>3</sup> ) | NEA Singapore for ORDE | China NRRM Stage III (GB20981-2014) |
| 12V 4000 G23R | 1205 (1616)                             | x                          | x   | x                      | x                                   |
| 12V 4000 G23  | 1420 (1904)                             | x                          | x   | x                      | x                                   |
| 12V 4000 G63  | 1575 (2112)                             | x                          | x   | x                      |                                     |
| 16V 4000 G23  | 1798 (2411)                             | x                          | x   | x                      | x                                   |
| 16V 4000 G63  | 1965 (2635)                             | x                          | x   | x                      | x                                   |
| 20V 4000 G23  | 2200 (2950)                             | x                          | x   | x                      | x                                   |
| 20V 4000 G63  | 2420 (3245)                             | x                          | x   | x                      | x                                   |
| 20V 4000 G63L | 2590 (3473)                             | x                          | x   | x                      | x                                   |

Fan power requirement not considered

| Engine Type   | Rated power kW (bhp) at 1800 rpm (60Hz) | Optimization               |  |   |
|---------------|---|----------------------------|--|---|
|               |   | ☒                          | ③  | ⑱   |
|               |   | Fuel consumption optimized | US EPA Stationary EMERG Tier 2 (40 CFR 60) | US EPA Nonroad Tier 2 compliant (40 CFR 89) |
| 12V 4000 G43  | 1520 (2038)                             | x                          | x  | x   |
| 12V 4000 G83  | 1736 (2328)                             | x                          | x  | x   |
| 16V 4000 G43  | 2020 (2709)                             | x                          | x  | x   |
| 16V 4000 G83  | 2280 (3058)                             | x                          | x  | x   |
| 20V 4000 G43  | 2490 (3339)                             | x                          | x  | x   |
| 20V 4000 G83  | 2740 (3674)                             | x                          | x  | x   |
| 20V 4000 G83L | 3010 (4036)                             | x                          | x  | x   |

Fan power requirement not considered

☒ ① ③ ⑱ ②④ ③① reference to emission level in price list

## Grid Stability Power (3G)

| Engine Type   | Rated power kW (bhp) at 1500 rpm (50Hz) | Optimization               |   |                        |                                     |
|---------------|---|----------------------------|---|------------------------|-------------------------------------|
|               |   | ☒                          | ①   | ②④                     | ③①                                  |
|               |   | Fuel consumption optimized | TA-Luft optimized (NOx < 1700 mg/m <sup>3</sup> ) | NEA Singapore for ORDE | China NRRM Stage III (GB20981-2014) |
| 12V 4000 G23  | 1420 (1904)                             | x                          | x   | x                      | x                                   |
| 12V 4000 G63  | 1575 (2112)                             | x                          | x   | x                      |                                     |
| 16V 4000 G23  | 1798 (2411)                             | x                          | x   | x                      | x                                   |
| 16V 4000 G63  | 1965 (2635)                             | x                          | x   | x                      | x                                   |
| 20V 4000 G23  | 2200 (2950)                             | x                          | x   | x                      | x                                   |
| 20V 4000 G63  | 2420 (3245)                             | x                          | x   | x                      | x                                   |
| 20V 4000 G63L | 2590 (3473)                             | x                          | x   | x                      | x                                   |

Fan power requirement not considered

| Engine Type   | Rated power kW (bhp) at 1800 rpm (60Hz) | Optimization               |   |
|---------------|---|----------------------------|---|
|               |   | ☒                          | ①⑨  |
|               |   | Fuel consumption optimized | US EPA Nonroad Tier 2 compliant (40 CFR 89) |
| 12V 4000 G43  | 1520 (2038)                             | x                          | x   |
| 12V 4000 G83  | 1736 (2328)                             | x                          | x   |
| 16V 4000 G43  | 2020 (2709)                             | x                          | x   |
| 16V 4000 G83  | 2280 (3058)                             | x                          | x   |
| 20V 4000 G43  | 2490 (3339)                             | x                          | x   |
| 20V 4000 G83  | 2740 (3674)                             | x                          | x   |
| 20V 4000 G83L | 3010 (4036)                             | x                          | x   |

Fan power requirement not considered

☒ ① ①⑨ ②④ ③① reference to emission level in price list

| Standard Equipment    |   |
|-----------------------|---|
| Starting System       | 2 electric starters (24 VDC/2-pole)   |
| Fuel System           | “Common-Rail“ fuel injection system, with low and high pressure fuel pumps, fuel pressure accumulator, high pressure fuel lines and electronically controlled injection |
| Lube Oil System       | Forced feed lubrication system with piston cooling, lube oil circulation pump with safety valve, lube oil multi-stage filter, lube oil heat exchanger                   |
| Combustion Air System | Exhaust turbochargers, intercooler  |
| Cooling System        | Coolant circulation pump and coolant thermostat for jacket water cooling circuit, coolant circulation pump and coolant thermostat for charge air cooling circuit        |
| Engine Mounting       | Set of engine mounting brackets at engine free and driving end  |
| Engine Management     | Integrated electronic engine control and monitoring system ADEC   |

| Optional Equipment    |  |
|-----------------------|--|
| Starting System       | Compressed air starter, redundant starting system  |
| Fuel System           | Fuel pre-filter, special fuel pre-filter with water separator                            |
| Lube Oil System       | Centrifugal lube oil filter, oil replenishment system                                    |
| Combustion Air System | Heavy duty air filters   |
| Cooling System        | Electric coolant pre-heating unit with circulating pump, thermoastat and non-return flap |
| Engine Mounting       | Resilient engine mounts (rubber elements), rigid engine mounts                           |

## Reference conditions:

- Intake-air temperature: 25°C (77°F)
- Ambient air pressure: 1 bar (14.5 psi)
- 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.