

Gendrive

SERIES 4000 GX4

for power generation continuous/prime/grid stability applications with water-to-air charge air cooling





Engine - Gx4	Dimensions (LxWxH) mm (in)	Mass, dry kg (lbs)
12V	2495 x 1611 x 2182 (98 x 65 x 86)	6200 (13669)
16V	2981 x 1661 x 2182 (117 x 65 x 86)	7700 (16976)
20V	3486 x 1701 x 2172 (137 x 67 x 86)	9290 (20481)
Engine - G34/44F	Dimensions (LxWxH) mm (in)	Mass, dry kg (lbs)
Engine - G34/44F 12V	Dimensions (LxWxH) mm (in) 2495 x 1611 x 2182 (98 x 65 x 86)	Mass, dry kg (lbs) 6200 (13669)
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12V	2495 x 1611 x 2182 (98 x 65 x 86)	6200 (13669)

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 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), HVO & GtL in acc. to EN15940 and <i>mtu</i> fluids and lubricants specification

Application group	Power definition	
Continuous power (3A)	Heavy duty, unrestricted, ICXN	Load factor: ≤ 100%, operating hours: unrestricted, overload capability: 10% (ICXN)
Prime power (3B)	Continuous service, variable load, ICXN	Load factor: ≤ 75%, operating hours: unrestricted, overload capability: 10% (ICXN)
Grid stability power (3G)	Heavy duty, intermittent, ICXN	Load factor: ≤ 100%, operating hours: max. 1000 h/year - 500 h with 100% load w/o interruption, overload capability: 10% (ICXN)

Power definition according to ISO 3046 (ratings also correspond to SAE J 1995 and SAE J 1349 standard conditions). Consult your *mtu* distributor 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.



Continuous power (3A)

Engine type	Rated power kW (bhp) at	Optimization
	1500 rpm (50Hz)	x
12V 4000 B24F	1310 (1757)	X
16V 4000 B24F	1635 (2193)	X
20V 4000 B24F	2000 (2682)	x
20V 4000 B34F	2200 (2950)	X
	1800 rpm (60Hz)	x
12V 4000 B14S	1190 (1596)	x
12V 4000 B24S	1420 (1904)	X
16V 4000 B14S	1680 (2253)	x
16V 4000 B24S	1950 (2615)	x
20V 4000 B24S	2230 (2990)	X
20V 4000 B44S	2490 (3339)	x

Fan power requirement not considered, reference to emission level in price list x Fuel consumption optimized

Prime power (3B)

Engine type	Rated power kW (bhp) at	Optimization					
	1500 rpm (50Hz)	x	1	24	31	36	
12V 4000 G14RF	1205 (1616)	х	х	х	X*		
12V 4000 G14F	1420 (1904)	х	х	х	X*		
12V 4000 G24F	1575 (2112)	х	х	х	X*		
16V 4000 G14F	1798 (2411)	х	х	х	X*		
16V 4000 G24F	1965 (2635)	х	х	х	X*		
20V 4000 G14F	2200 (2950)	x	х	х	X*		
20V 4000 G24F	2420 (3245)	х	х	х	X*		
20V 4000 G34F	2590 (3473)	X	х	х	X*		
20V 4000 G44F	2807 (3764)	х		х		Х	
	1800 rpm (60Hz)	x	19				
12V 4000 G14S	1520 (2038)	х	х				
12V 4000 G24S	1736 (2328)	х	х				
16V 4000 G14S	2020 (2709)	х	х				
16V 4000 G24S	2280 (3058)	x	х				
20V 4000 G14S	2490 (3339)	x	х				
20V 4000 G24S	2740 (3674)	х	х				
20V 4000 G44S	3010 (4036)	x	х				

Fan power requirement not considered, reference to emission level in price list

Fuel consumption optimized Х

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NOx emission optimized US EPA Nonroad Tier 2 compliant (40 CFR 89) NEA Singapore for ORDE 19

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China NRMM Stage III (GB20981-2014) US EPA Nonroad Tier 2 compliant Emission certification in progress 31

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Grid stability power (3G)

Engine type	Rated power kW (bhp) at	Optimization					
	1500 rpm (50Hz)	x	1	24	31		
12V 4000 G14F	1420 (1904)	х	х	х	Х*		
12V 4000 G24F	1575 (2112)	х	х	х	Х*		
16V 4000 G14F	1798 (2411)	x	х	х	Х*		
16V 4000 G24F	1965 (2635)	x	х	х	Х*		
20V 4000 G14F	2200 (2950)	X	х	х	Х*		
20V 4000 G24F	2420 (3245)	x	х	х	X*		
20V 4000 G34F	2590 (3473)	х	х	х	Х*		
	1800 rpm (60Hz)	x	19				
12V 4000 G14S	1520 (2038)	x	х				
12V 4000 G24S	1736 (2328)	х	х				
16V 4000 G14S	2020 (2709)	x	х				
16V 4000 G24S	2280 (3058)	x	х				
20V 4000 G14S	2490 (3339)	х	х				
20V 4000 G24S	2740 (3674)	x	х				
20V 4000 G44S	3010 (4036)	x	х				

Fan power requirement not considered, reference to emission level in price list

Fuel consumption optimized NOx emission optimized Х

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24 NEA Singapore for ORDE

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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, oil centrifugal filter
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

Resilient engine mounts (rubber elements), rigid engine mounts

Engine mounting

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)

Customization possible. Engines illustrated in this document may feature options not fitted as standard. For more information please contact your *mtu* dealer.