GE Transportation
Stationary Power

Powerful delivery

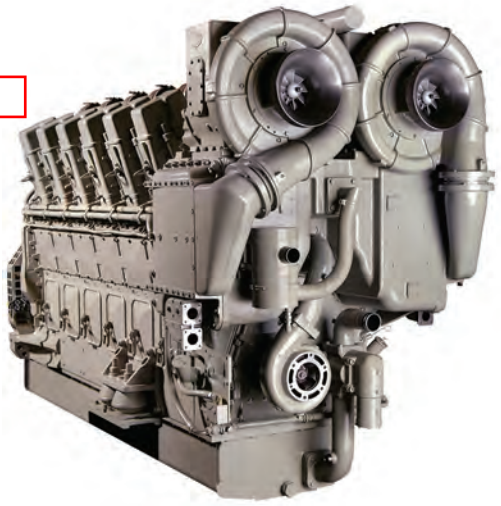
250 Series Engine Family For Stationary Gensets

For more than 40 years, GE Transportation has designed and built high-performance diesel engines and today is one of the world's largest manufacturers of medium-speed diesel engines. When used for continuous and standby power, these advanced engines are not only dependable, long-lasting and efficient, they also perform in the world's most challenging environments.

V250 Series Diesel Engine and Gensets

Key features

- Can be offered for 50 and 60 Hz application
- Lighter-weight, compact footprint accommodates relatively large bore engine design
- Offers continuous power from 2,727 to ~~4,038 bkW~~ 4442 bkw and is available in 12- and 16-cylinder models
- Saves fuel and meets EPA T2 standards & World Bank standards



L250 Series Diesel Engine

ecomagination

Key features

- Improves fuel consumption for an average 9% fuel savings*
- Meets world bank and T2 emissions requirements
- Offers continuous power from 1,498 to 2,219 bkW

L & V250 Series Diesel Engine

Key features for V250 and L250 engine families

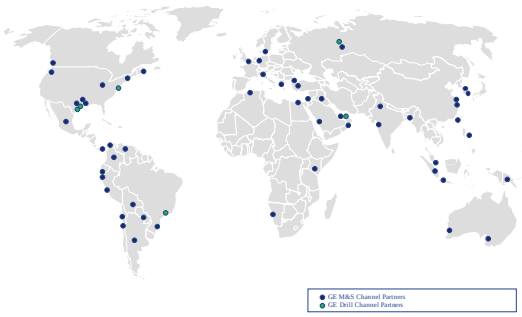
- High power density of Kw/cyl, Lighter weight, Narrow foot print allows flexible repowering and ease of maintenance
- SFC controlled fuel optimized engines and world bank emissions standards available
- Narrow foot print allows flexible re-powering and ease of maintenance.
- Dual turbo chargers allows high transient response during block loading
- GE advanced EC2+ Controller & Electronic Fuel Injection (EFI) optimizes the combustion to improve fuel efficiency
- Unitized power assembly provides quick replacement and ease of maintenance.
- No deration on extreme weather conditions up to 50C & 300 m
- Low Vibration & Noise for specialized and Industrial applications

GE imagination at work

V250 and L250 Series Diesel Engine specifications

Model		6L250	8L250	12V250	16V250
Engine data					
Number of cylinders		6	8	12	16
Stroke cycle		4	4	4	4
Cylinder arrangement		inline	inline	V	V
Bore		250 mm (9.8 in)	250 mm (9.8 in)	250 mm (9.8 in)	250 mm (9.8 in)
Stroke		320 mm (12.6 in)	320 mm (12.6 in)	320 mm (12.6 in)	320 mm (12.6 in)
Compression ratio		16.8:1	16.8:1	16.8:1	16.8:1
Power output at 900 rpm					
Continuous		1,498 bkW	1,998 bkW 2,998 bkW/ 2893 ekW ~~2631 ekW~~		~~3,632 bk~~ 3,995 bkW/ 3855 ekW
Prime		1,498 bkW	1,998 bkW 3,271 bkW/ 3157 ekW ~~2893 ekW~~		~~3,995 bk~~ 4,358 bkW/ 4205 ekW
Limited time running		1,648 bkW	2,198 bkW NA	~~3,271 bkW/ 3157 ekW~~	~~4,358 bkW/ 4205 ekW~~ NA
Emergency standby		1,798 bkW	2,397 bkW	3,543 bkW/ 3419 ekw	4,721 bkW/ 4556 ekW
Power output at 1,000 rpm					
Continuous		1,664 bkW	2,219 bkW 3,330 bkW/ 3213 ekW ~~2922 ekW~~		~~4,038 bkW~~ 4,442 bkW/ 4287 ekW
Prime		1,664 bkW	2,219 bkW 3,633 bkW/ 3506 ekW ~~3213 ekW~~		~~4,442 bkW~~ 4,846 bkW/ 4676 ekW
Limited time running		1,831 bkW	2,441 bkW NA	~~3,633 bkW/ 3506 ekW~~	~~4,846 bkW/ 4676 ekW~~ NA
Emergency standby		1,997 bkW	2,663 bkW	3,936 bkW/ 3798 ekW	5,249 bkW/ 5065 ekW
Engine dimensions					
A	Length	5,054 mm (199 in)	5,949 (234 in)	4,154 mm (164 in)	4,988 mm (196 in)
B	Width	1,950 mm (77 in)	1,950 mm (77 in)	1,708 mm (67 in)	1,708 mm (67 in)
C	Height w/shallow sump	2,962 mm (116 in)	2,962 mm (116 in)	2,717 mm (107 in)	2,717 mm (107 in)
Exhaust diameter		457 mm (18 in)	457 mm (18 in)	610 mm (24 in)	610 mm (24 in)
Dry weight		17,295 kg (38,129 lbs)	19,897 kg (43,865 lbs)	19,967 kg (44,019 lbs)	23,243 kg (51,242 lbs)

GE Marine/Stationary and Drill Channel Partners



To learn more,
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*Depending on configuration and when compared to the V228 Series Diesel Engine.

20202-C

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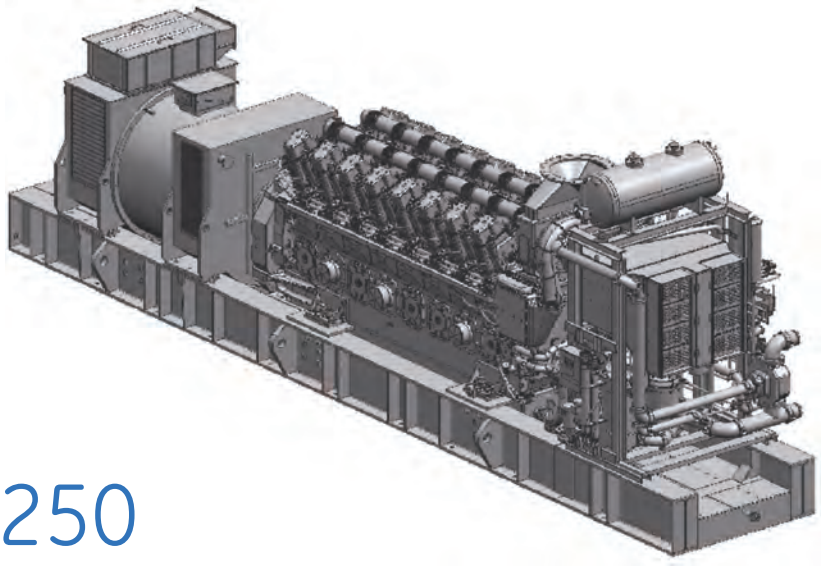


16V250 and 12V250 Diesel Generator Sets

For more than 40 years, GE Transportation has designed and built high-performance diesel engines and today is one of the world's largest manufacturers of medium-speed diesel engines. GE's advanced engines and generator sets not only are dependable, long-lasting and efficient, but also perform in the world's most challenging environments.

	Emergency standby power	Limited time running	Prime power	Continuous power
16V250 GSU 50 Hz ekW (kVA)	5,065 (6,331)	4,676 (5,845)	4,287 (5,359)	3,897 (4,871)
16V250 GSU 60 Hz ekW (kVA)	4,556 (5,695)	4,205 (5,256)	3,855 (4,819)	3,505 (4,379)
12V250 GSU 50 Hz ekW (kVA)	3,798 (4,748)	3,506 (4,383)	3,213 (4,016)	2,922 (3,653)
12V250 GSU 60 Hz ekW (kVA)	3,419 (4,274)	3,157 (3,946)	2,893 (3,616)	2,631 (3,289)

Based on 96.5% efficiency alternator. Power factor = 0.8

Features

GE's heavy-duty four-stroke diesel engine

- Rugged design optimized for fuel efficiency, long service intervals, low lifecycle costs and low emissions

Optimization

- Available in fuel-optimized, World Bank, U.S. EPA Tier 2 and U.S. EPA Tier 4 configurations

Worldwide product support

- More than 15,000 of GE's medium-speed diesel engines in service worldwide
- GE's network of parts distribution centers and service representatives are available 24/7 worldwide
- A leader in on-time delivery of parts and services

GE imagination at work

Scope of supply

Basic engine equipment

- Exhaust gas turbocharger, intercooler
- Electronic fuel injection
- Lubricating oil pump (gear-driven)
- Lubricating oil filters in main circuit
- Lubricating oil sump, lubricating oil heat exchanger
- Jacket water pump
- Flywheel for alternator operation
- Exhaust gas manifold
- Viscous damper
- Segmented camshafts
- Unitized power assemblies

Engine accessories

- Engine combustion air filter
- Pneumatic air starter motor
- Electronic speed monitoring device including starting and over-speed control
- Engine pre-lube
- Transducers and switches for oil pressure and temperature
- One thermocouple per cylinder
- Main bearing temperature sensors
- Closed crankcase breather system
- Accessory rack

Unenclosed genset equipment

- 16V250 or 12V250 stationary diesel engine
- Base frame for genset
- Brushless alternator with automatic voltage regulator
- Flexible coupling
- Engine and genset controls

Documentation

- Operation manual
- Maintenance manual
- Spare parts manual
- Troubleshooting guide
- Installation guide

Generator set specifications	
Performance class	ISO 8528 – G2
Diesel engine	ISO 3046

Engine specifications		
Engine speed	1,000 RPM (50 HZ) / 900 RPM (60 Hz)	
Bore	250 mm (9.8 in)	
Stroke	320 mm (12.6 in)	
Cylinder configuration	V 16	V 12
Displacement	251L	188L
Fuel system	Direct injection	
Acceptable fuel	Diesel fuel (ASTM D-975 Number 2 Diesel) Marine diesel oil (MDO) DMA, DMB, DMX, as defined by ISO 8217:2005(E)	
Fuel filter	2 stage solid particle and water separator	
Air cleaner type	2 stage vortex and bag filters	
Lube oil filter type(s)	Low maintenance, dual filtration, auto back flush filter and centrifugal filter	
Standard cooling system	Remote radiator connections	

Alternator specifications	
Design	Brushless, 6-pole or 8-pole, 4-wire, drip-proof revolving field
Stator	5/6 pitch
Rotor	Two-bearing flexible coupling
Insulation system	Class F on medium voltage
Standard temperature rise	Class B -80°C at 50°C ambient
Number of bearings	2
Exciter type	Auxiliary winding
Phase rotation	A-B-C
Alternator cooling	Self-ventilated (shaft-mounted fan)
AC waveform total harmonic distortion	5%
Standard compliance	IEC 60034 or NEMA MG1
Accessories	Anti-condensation heater Stator and bearing thermal monitoring Star-point mounted CT's for differential protection

Available 50 Hz voltages: 11 kV, 6.6 kV and 3.3 kV
Available 60 Hz voltages: 13.8 kV and 4.16 kV
Additional alternator choices available. Check with factory for details.

Control system operations

- Start/stop
- Synchronizing (live or dead bus)
- Protective relaying (breaker tripping)
- Idle/rated speed control (electronic fuel injection)
- Event monitoring and logging (200+ events)
- Alternator field excitation
- Real and reactive power load sharing
- Hardwire remote control interface
- Off-board communication link — TCP/IP ModBus

Engine protection

- High-temperature exhaust gas warning
- High-temperature lube oil inlet warning and shut down
- High-temperature water outlet warning
- High-temperature water inlet warning and shut down
- High- and low-fuel temperature warning
- High-temperature manifold air warning
- High-temperature inner cooler water warning
- Low-pressure lube oil pump warning
- Low-pressure lube oil inlet warning and shut down
- High crank case pressure shut down
- Low-pressure water inlet warning and shut down
- Low-fuel press warning
- High-pressure manifold air warning and shut down
- High-temperature pre-turbo warning and shut down
- Low-pressure inner cooler water warning
- Engine main bearing high-temperature shut down
- High-speed turbo warning and shut down
- High-speed engine shut down

Protective relaying

- 87 — Differential protective relay
- 50 — Instantaneous overcurrent
- 51 — AC time overcurrent relay
- 81 — Frequency relay
- 27 — Under-voltage relay
- 59 — Over-voltage relay
- 47 — Phase-sequence or phase-balance voltage relay
- 46 — Rev. phase or phase-balance current relay
- 40 — Field (over/under excitation) relay
- 24 — Volts-per-hertz relay
- 32 — Directional power relay
- 32R — Reverse power, real and reactive

Options

- Remote radiator
- Heat-recovery solutions
- Cooling system expansion tank
- Switch gear/breaker
- Outdoor NGR (neutral grounding resistor)
- Auxiliary transformer
- Remote control panel
- Oil and coolant pre-heat system
- Exhaust gas silencer
- Anti-vibration mounts
- Alternator

Rating definitions

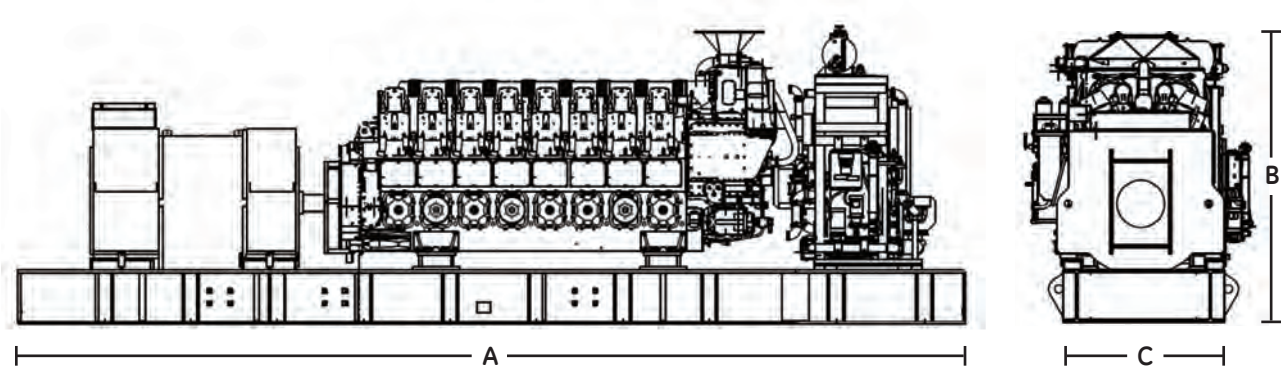
Rating definitions are in accordance with ISO 8528.

Continuous power (COP) — The maximum power which the generating set is capable of delivering continuously while supplying a constant electrical load when operated for an unlimited number of hours per year.

Limited-time running power (LTP) — The maximum power available for which the generating set is capable of delivering for up to 500 hours of operation per year. Load factor may be up to 100%.

Prime power (PRP) — The maximum power which a generating set is capable of delivering continuously while supplying a variable electrical load when operated for an unlimited number of hours per year. Load factor during a 24-hour period is less than 70%.

Emergency standby power (ESP) — The maximum power available during a variable electrical power sequence for which a generating set is capable of delivering in the event of a utility power outage or under test conditions for up to 200 hours of operation per year.



Weight and dimensions

		16V250	12V250
A	Length	488 in (12,395 mm)	488 in (12,395 mm)
B	Height	156 in (3,962 mm)	156 in (3,962 mm)
C	Width	75 in (1,905 mm)	75 in (1,905 mm)
	Weight	139,932 lbs (63,472 kg)	118,949 lbs (53,954 kg)

Weight represents a set with standard features. Specifications may change without notice.

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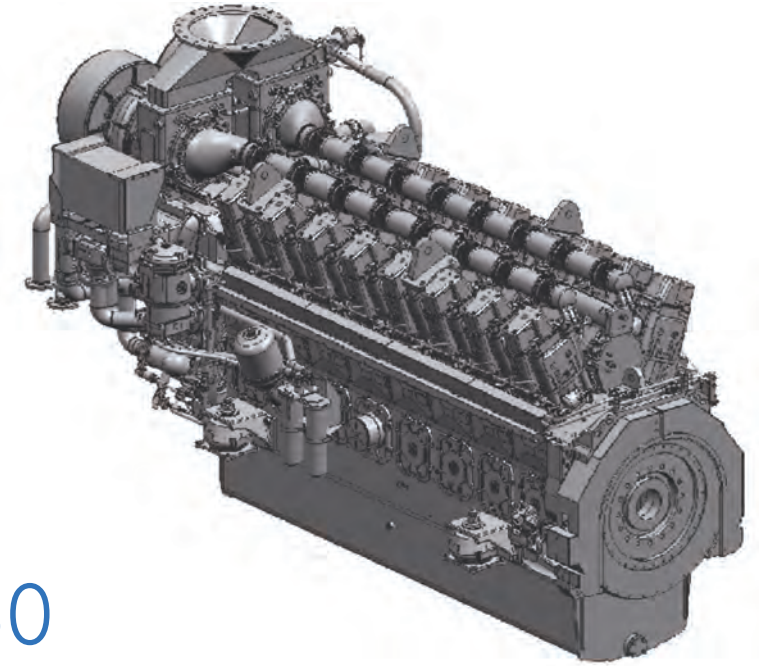


16V250 and 12V250 Generator Drive Engines

For more than 40 years, GE Transportation has designed and built high-performance diesel engines and today is one of the world's largest manufacturers of medium-speed diesel engines. GE's advanced engines and generator sets not only are dependable, long-lasting and efficient, but also perform in the world's most challenging environments.

	Emergency standby power	Limited time running	Prime power	Continuous power
16V250 900 rpm bkW (kVA)	4,721 (5,901)	4,358 (5,448)	3,995 (4,994)	3,632 (4,540)
16V250 1,000 rpm bkW (kVA)	5,249 (6,561)	4,846 (6,058)	4,442 (5,553)	4,038 (5,048)
12V250 900 rpm bkW (kVA)	3,543 (4,429)	3,271 (4,089)	2,998 (3,748)	2,726 (3,408)
12V250 1,000 rpm bkW (kVA)	3,936 (4,920)	3,633 (4,541)	3,330 (4,163)	3,028 (3,785)

Features

GE's heavy-duty four-stroke diesel engine

- Rugged design optimized for fuel efficiency, long service intervals, low lifecycle costs and low emissions

Optimization

- Available in fuel-optimized, World Bank, U.S. EPA Tier 2 and U.S. EPA Tier 4 configurations

Worldwide product support

- More than 15,000 medium-speed diesel engines in service worldwide
- GE's network of parts distribution centers and service representatives are available 24/7 worldwide
- A leader in on-time delivery of parts and services

GE imagination at work

Scope of supply

Basic engine equipment

- Exhaust gas turbocharger, intercooler
- Electronic fuel injection
- Lubricating oil pump (gear-driven)
- Lubricating oil filters in main circuit
- Lubricating oil sump, lubricating oil heat exchanger
- Jacket water pump
- Fuel, lubricating oil and jacket water pipe work on engine
- Flywheel for alternator operation
- Exhaust gas manifold
- Viscous damper
- Segmented camshafts
- Unitized power assemblies
- Engine controls – engine ECU, power supply and HMI (shipped loose)

Engine accessories

- Engine combustion air filter
- Pneumatic air starter motor
- Electronic speed monitoring device including starting and over-speed control
- Transducers and switches for oil pressure and temperature
- One thermocouple per cylinder
- Main bearing temperature sensors
- Closed crankcase breather system
- Accessory rack

Documentation

- Operation manual
- Maintenance manual
- Spare parts manual
- Troubleshooting guide
- Installation guide

Engine specifications		
Engine speed	1,000 RPM (50 Hz) / 900 RPM (60 Hz)	
Bore	250 mm (9.8 in)	
Stroke	320 mm (12.6 in)	
Cylinder configuration	V 16	V 12
Displacement	251L	188L
Fuel system	Direct injection	
Acceptable fuel	Diesel fuel (ASTM D-975 Number 2 Diesel) Marine diesel oil (MDO) DMA, DMB, DMX, as defined by ISO 8217:2005(E)	
Fuel filter	2 stage solid particle and water separator	
Air cleaner type	2 stage vortex and bag filters	
Lube oil filter type(s)	Low maintenance, dual filtration, auto back flush filter and centrifugal filter	
Standard cooling system	Remote radiator connections	
Engine speed regulation	ISO 8528 – G2	

Control system operations

- Start/stop
- Idle/rated speed control (electronic fuel injection)
- Event monitoring and logging (200+ events)
- Off-board communication link — TCP/IP ModBus

Engine protection

- High-temperature exhaust gas warning
- High-temperature lube oil inlet warning and shut down
- High-temperature water outlet warning
- High-temperature water inlet warning and shut down
- High- and low-fuel temperature warning
- High-temperature manifold air warning
- High-temperature inner cooler water warning
- Low-pressure lube oil pump warning
- Low-pressure lube oil inlet warning and shut down
- High crank case pressure shut down
- Low-pressure water inlet warning and shut down
- Low-fuel press warning
- High-pressure manifold air warning and shut down
- High-temperature pre-turbo warning and shut down

Engine protection (con't.)

- Low-pressure inner cooler water warning
- Engine main bearing high-temperature shut down
- High-speed turbo warning and shut down
- High-speed engine shut down

Options

- Remote control panel
- Genset control panel
- Engine coolant pre-heat system
- Exhaust gas silencer
- Heat recovery solutions

Rating definitions

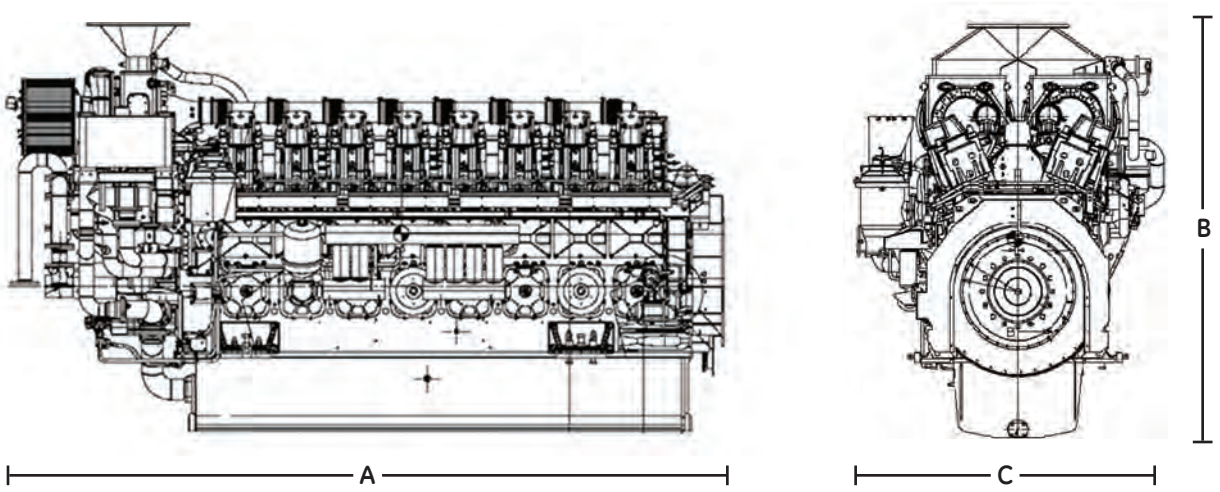
Rating definitions are in accordance with ISO 8528.

Continuous power (COP) — The maximum power which the generating set is capable of delivering continuously while supplying a constant electrical load when operated for an unlimited number of hours per year.

Limited-time running power (LTP) — The maximum power available for which the generating set is capable of delivering for up to 500 hours of operation per year. Load factor may be up to 100%.

Prime power (PRP) — The maximum power which a generating set is capable of delivering continuously while supplying a variable electrical load when operated for an unlimited number of hours per year. Load factor during a 24-hour period is less than 70%.

Emergency standby power (ESP) — The maximum power available during a variable electrical power sequence for which a generating set is capable of delivering in the event of a utility power outage or under test conditions for up to 200 hours of operation per year.



Weight and dimensions

		16V250	12V250
A	Length	201 in (5,105 mm)	179 in (4,547 mm)
B	Height	119 in (3,023 mm)	119 in (3,023 mm)
C	Width	67 in (1,702 mm)	75 in (1,905 mm)
	Weight	56,220 lbs (25,501 kg)	48,297 lbs (21,907 kg)

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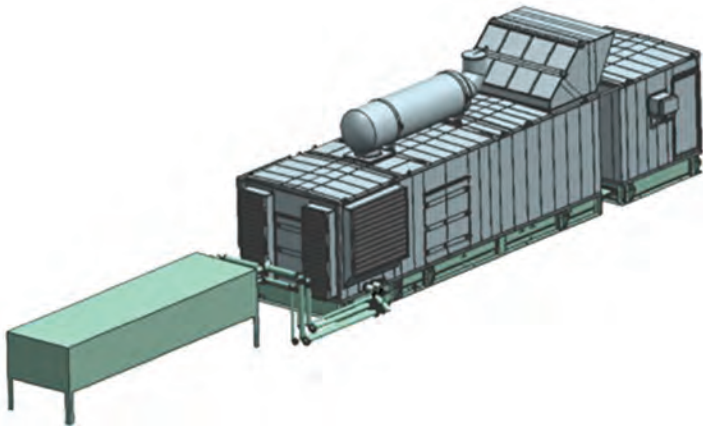

16V228 and 12V228 Enclosed Diesel Generator Sets

For more than 40 years, GE Transportation has designed and built high-performance diesel engines and today is one of the world's largest manufacturers of medium-speed diesel engines. GE's advanced engines and generator sets not only are dependable, long-lasting and efficient, but also perform in the world's most challenging environments.

	Limited time running	Prime power	Continuous power
16V228 GSE 50 Hz ekW (kVA)	3,364 (4,205)	3,084 (3,855)	2,803 (3,504)
16V228 GSE 60 Hz ekW (kVA)	3,027 (3,784)	2,775 (3,469)	2,523 (3,154)
12V228 GSE 50 Hz ekW (kVA)	2,510 (3,138)	2,301 (2,876)	2,092 (2,615)
12V228 GSE 60 Hz ekW (kVA)	2,259 (2,824)	2,071 (2,589)	1,883 (2,354)

16V228 based on 96.5% efficiency alternator. 12V228 based on 96% efficiency alternator. Power factor = 0.8
Emergency standby rating not available for V228 engines

Features

Sound-attenuated walk-in metal enclosure

- Enclosure composed of three modules — engine/alternator, auxiliary and electrical — for improved transportability
- Engine can be serviced from within the enclosure

GE's heavy-duty four-stroke diesel engine

- Rugged design optimized for fuel efficiency, long service intervals, low lifecycle costs and low emissions

Optimization

- Available in fuel optimized and World Bank emissions configurations

Worldwide product support

- More than 15,000 medium-speed diesel engines in service worldwide
- GE's network of parts distribution centers and service representatives are available 24/7 worldwide
- A leader in on-time delivery of parts and services

GE imagination at work

Scope of supply

Enclosed genset equipment

- 16V228 or 12V228 stationary diesel engine
- Base frame
- Brushless alternator with automatic voltage regulator
- Flexible coupling
- Internal fuel oil day tank – 800 U.S. gallons (3,028 L)
- Internal enclosure fluorescent lighting
- 2 electrical convenience receptacles
- Fire detection system
- Service hoist structure
- Service hoist lift
- Battery
- Battery charger
- Starting air tank
- Starting air compressor
- Engine and genset controls
- Motor control center
- White external enclosure paint standard
- DC emergency lighting

Basic engine equipment

- Exhaust gas turbocharger, intercooler
- Electronic fuel injection
- Lubricating oil pump (gear-driven)
- Lubricating oil filters in main circuit
- Lubricating oil sump, lubricating oil heat exchanger
- Jacket water pump
- Flywheel for alternator operation, exhaust gas manifold
- Viscous damper
- Segmented camshafts
- Unitized power assemblies
- Water separator

Engine accessories

- Engine combustion air filter
- Pneumatic air starter motor
- Electronic speed monitoring device including starting and over speed control
- Transducers and switches for oil pressure and temperature
- One thermocouple per cylinder
- Closed crankcase breather system
- Accessory rack

Documentation

- Operation manual
- Maintenance manual
- Spare parts manual
- Troubleshooting guide
- Installation guide

Generator set specifications	
Performance class	ISO 8528 – G2
Fuel tank	UL 142
Starting air receivers	UL Stamp Certified ASME Pressure Vessels
Diesel engine	ISO 3046

Engine specifications		
Engine speed	1,000 RPM (50 Hz) / 900 RPM (60 Hz)	
Bore	228.6 mm (9 in)	
Stroke	266.7 mm (10.5 in)	
Cylinder configuration	V 16	V 12
Displacement	175L	131L
Fuel system	Direct injection	
Acceptable fuel	Diesel fuel (ASTM D-975 Number 2 Diesel) Marine diesel oil (MDO) DMA, DMB, DMX, as defined by ISO 8217:2005(E)	
Fuel filter	2 stage solid particle and water separator	
Air cleaner type	2 stage vortex and bag filters	
Lube oil filter type(s)	Low maintenance, dual filtration, auto back flush filter and centrifugal filter	
Standard cooling system	Remote radiator connections	

Alternator specifications	
Design	Brushless, 6-pole or 8-pole, 4-wire, drip-proof revolving field
Stator	5/6 pitch
Rotor	Two-bearing flexible coupling
Insulation system	Class F on medium voltage
Standard temperature rise	Class B -80°C at 50°C ambient
Number of bearings	2
Exciter type	Auxiliary winding
Phase rotation	A-B-C
Alternator cooling	Self-ventilated (shaft-mounted fan)
AC waveform total harmonic distortion	5%
Standard compliance	IEC 60034 or NEMA MG1
Accessories	Anti-condensation heater Stator and bearing thermal monitoring Star-point mounted CT's for differential protection

Available 50 Hz voltages: 11 kV, 6.6 kV and 3.3 kV
Available 60 Hz voltages: 13.8 kV and 4.16 kV
Additional alternator choices available. Check with factory for details.

Control system operations

- Start/stop
- Synchronizing (live or dead bus)
- Protective relaying (breaker tripping)
- Idle/rated speed control (electronic fuel injection)
- Event monitoring and logging (200+ events)
- Alternator field excitation
- Real and reactive power load sharing
- Hardwire remote control interface
- Off-board communication link — TCP/IP ModBus

Engine protection

- High-temperature exhaust gas warning
- High-temperature lube oil inlet warning and shut down
- High-temperature water outlet warning
- High-temperature water inlet warning and shut down
- High- and low-fuel temperature warning
- High-temperature manifold air warning
- High-temperature inner cooler water warning
- Low-pressure lube oil pump warning
- Low-pressure lube oil inlet warning and shut down
- High crank case pressure shut down
- Low-pressure water inlet warning and shut down
- Low-fuel press warning
- High-pressure manifold air warning and shut down
- High-temperature pre-turbo warning and shut down
- Low-pressure inner cooler water warning
- Engine main bearing high-temperature shut down
- High-speed turbo warning and shut down
- High-speed engine shut down

Protective relaying

- 87 — Differential protective relay
- 50 — Instantaneous overcurrent
- 51 — AC time overcurrent relay
- 81 — Frequency relay
- 27 — Under-voltage relay
- 59 — Over-voltage relay
- 47 — Phase-sequence or phase-balance voltage relay
- 46 — Rev. phase or phase-balance current relay
- 40 — Field (over/under excitation) relay
- 24 — Volts-per-hertz relay
- 32 — Directional power relay
- 32R — Reverse power, real and reactive

Options

- Remote radiator
- Heat recovery solutions
- Cooling system expansion tank
- Switch gear/breaker
- Outdoor NGR (neutral grounding resistor)
- Auxiliary transformer
- Remote control panel
- Oil and coolant pre-heat system
- Exhaust gas silencer
- Anti-vibration mounts
- Alternator
- Fire suppression system
- Air conditioning unit

Rating definitions

Rating definitions are in accordance with ISO 8528.

Continuous power (COP) — The maximum power which the generating set is capable of delivering continuously while supplying a constant electrical load when operated for an unlimited number of hours per year.

Limited-time running power (LTP) — The maximum power available for which the generating set is capable of delivering for up to 500 hours of operation per year. Load factor may be up to 100%.

Prime power (PRP) — The maximum power which a generating set is capable of delivering continuously while supplying a variable electrical load when operated for an unlimited number of hours per year. Load factor during a 24-hour period is less than 70%.

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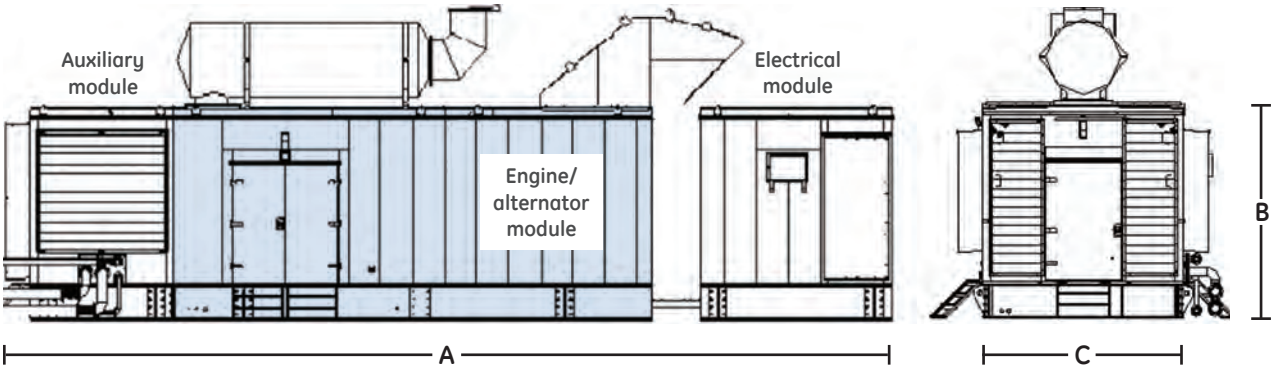

Weight

Module	16V228	12V228
Electrical	25,000 lbs (11,340 kg)	25,000 lbs (11,340 kg)
Engine/alternator	137,000 lbs (62,142 kg)	130,200 lbs (59,058 kg)
Auxiliary	15,000 lbs (6,804 kg)	15,000 lbs (6,804 kg)
Total weight	177,000 lbs (80,286 kg)	170,200 lbs (77,201 kg)

Weight represents a set with standard features. Specifications may change without notice.

Dimensions

A	Length	648 in (16,459 mm)
B	Height	181 in (4,597 mm)
C	Width	154 in (3,912 mm)

GE Transportation
Stationary Power

2901 East Lake Road
Erie, Pennsylvania 16531
Email: diesel.powergen@ge.com

To learn more,
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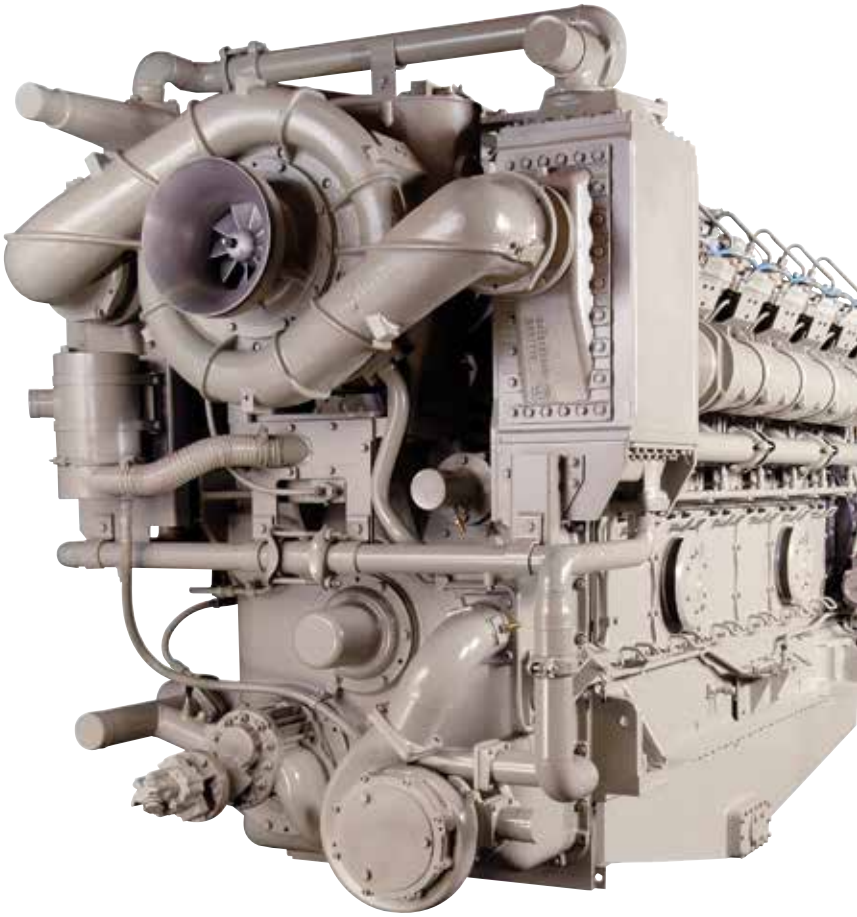
Powerful, dependable, fuel-efficient

V228 Series Diesel Engines for stationary gensets



As one of the world's leading makers of medium-speed diesel engines, GE Transportation's proven technology also is used for continuous and standby power in stationary gensets. These advanced diesel engines deliver a powerful, dependable and fuel-efficient power source even in the world's harshest conditions.

V228 Series Diesel Engine

For dependability, fuel efficiency and lower life-cycle costs, GE Transportation's V228 Series Diesel Engine is among the best in its class. An alternative to high-speed, high-cost power, this engine delivers a 3 to 5% fuel savings and nearly double the mean time between maintenance cycles in a typical power operation. Its high-capacity turbocharger, electronic fuel injection and efficient combustion management make fuel and lube oil consumption among the lowest in the industry.

Key features

- Available in 8-, 12- and 16-cylinder models
- Offers continuous power from 1,307 to 2,905 kw
- Modularized construction provides maintenance ease
- Rugged construction and quality-assured parts allow engine to run cost effectively for 20 years or more

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V228 Series Diesel Engine specifications

Model	8V228	12V228	16V228
Power output at 900 rpm			
Continuous	1,307 bkW	1,961 bkW	2,614 bkW
Prime	1,438 bkW	2,157 bkW	2,876 bkW
Limited time running	1,569 bkW	2,353 bkW	3,137 bkW
Power output at 1,000 rpm			
Continuous	1,453 bkW	2,179 bkW	2,905 bkW
Prime	1,598 bkW	2,397 bkW	3,196 bkW
Limited time running	1,743 bkW	2,615 bkW	3,486 bkW
Engine data			
Number of cylinders	8	12	16
Stroke cycle	4	4	4
Cylinder arrangement	45-degree V	45-degree V	45-degree V
Bore	228.6 mm (9 in.)	228.6 mm (9 in)	228.6 mm (9 in)
Stroke	266.7 mm (10.5 in.)	266.7 mm (10.5 in)	266.7 mm (10.5 in)
Compression ratio	15.7:1	15.7:1	15.7:1
Engine dimensions			
Height w/shallow pan	2,258 mm (89 in)	2,258 mm (89 in)	2,258 mm (89 in)
Length	3,222 mm (127 in)	4,059 mm (160 in)	2,258 mm (89 in)
Width	1,725 mm (68 in)	1,725 mm (68 in)	1,725 mm (68 in)
Dry weight	13,691 kg (30,185 lbs)	17,780 kg (39,200 lbs)	22,135 mm (48,800 lbs)

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20201-B

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Transportation
Stationary Power

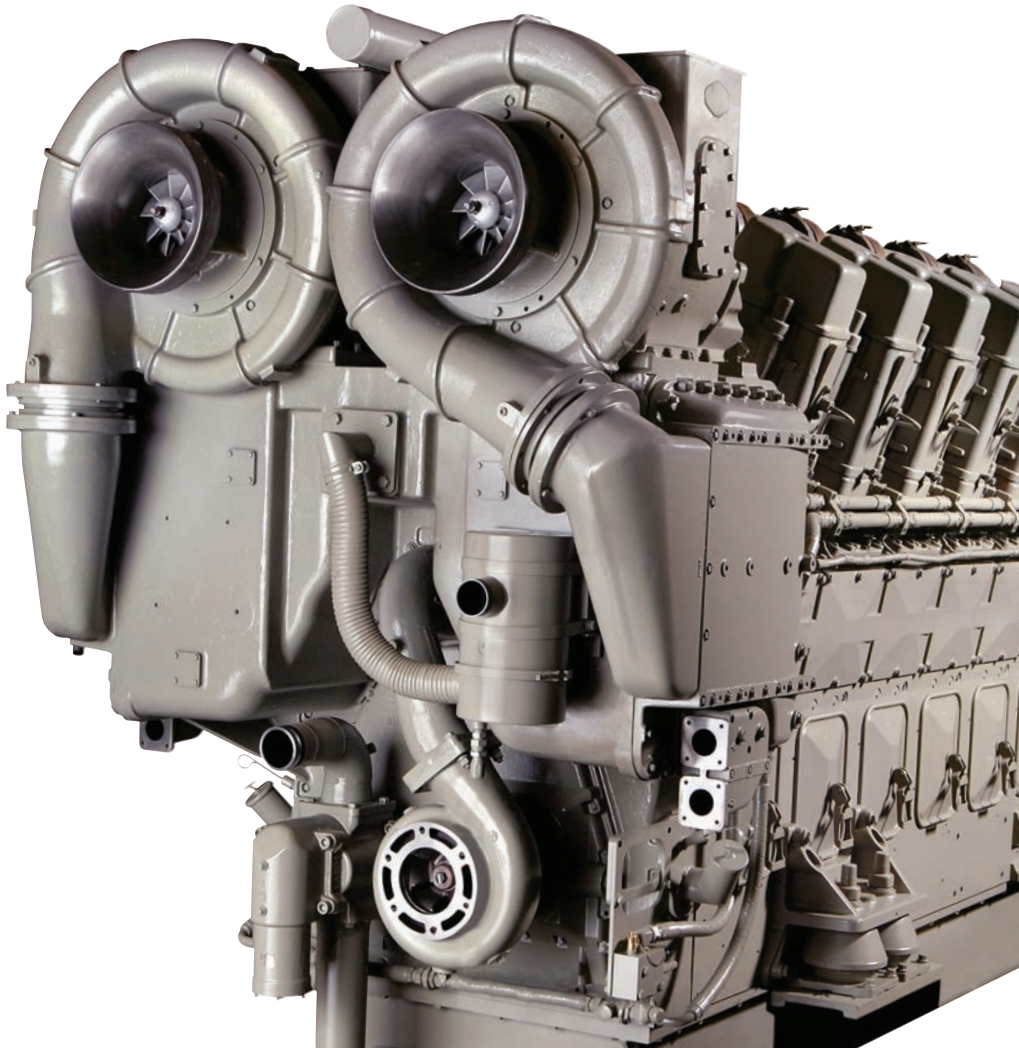
Command performance

GE's new advanced V250 diesel engines

It's our best engine yet—the most technologically advanced, fuel-efficient, environmentally compatible diesel engine ever built by GE. In the new V250, we've combined key features of earlier engine designs with enhancements proven to deliver performance and operating advantages.

- Improved fuel management, a new combustion system design and refined cooling that together provide greater fuel savings while meeting the latest emissions requirements.
- A relatively large bore engine design with a narrow overall width and lighter weight, packing a lot of power into a compact footprint.
- Designed-in reliability and maintainability—every critical component engineered, manufactured and tested for dependability and with features that simplify maintenance.

A complete V250 gen set package can be provided in a fully enclosed or skid-mounted unenclosed configuration, based on each customer's unique operating requirements.



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V250 engine specifications

	Electronic Fuel Injected (EFI)	
Item	**12V250**	**16V250**
Engine Data		
Number of cylinders	12	16
Stroke cycle	4	4
Cylinder arrangement	45-degree V	45-degree V
Bore	250 mm (9.8 in)	250 mm (9.8 in)
Stroke	320 mm (12.6 in)	320 mm (12.6 in)
Compression ratio	16.8:1	16.8:1
Full Rated Speed	1050 rpm	1050 rpm
Power Output at 1000 rpm		
Continuous	2907 kWe	3876 kWe
Maximum	3197 kWe	4263 kWe
Power Output at 900 rpm		
Continuous	2617 kWe	3487 kWe
Maximum	2878 kWe	3837 kWe
Engine Dimensions		
Height w/shallow pan	2717mm (107 in)	2717 mm (107 in)
Length	4154 mm (164 in)	4988 mm (196 in)
Width	1708 mm (67 in)	1708 mm (67 in)
Dry Weight	19,563 kg (43,310 lbs)	23,491 kg (51,790 lbs)

V250 engine components

Proven performance and operating advantages

Advanced EFI

Precise fuel control, increased pressure capability and refined timing for greater efficiency at varying speeds and loads

Higher-efficiency turbocharger

Improved bearing strength, better rotor dynamics, a cooled housing and integrated packaging for higher performance and reliability

Sturdy mainframe

High-strength, ductile-iron construction with improved ribbing in cross-bolt area

Heavy-duty crankshaft

Forged steel, nitride-hardened, single-piece construction

Improved power assembly

Refined flow path for enhanced combustion, better fuel efficiency and lower emissions
Easy removal of cylinder head, liner, piston and connecting rod as a single assembly

Segmented camshaft

Arranged in individual sections for easy inspection and maintenance

To learn more

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