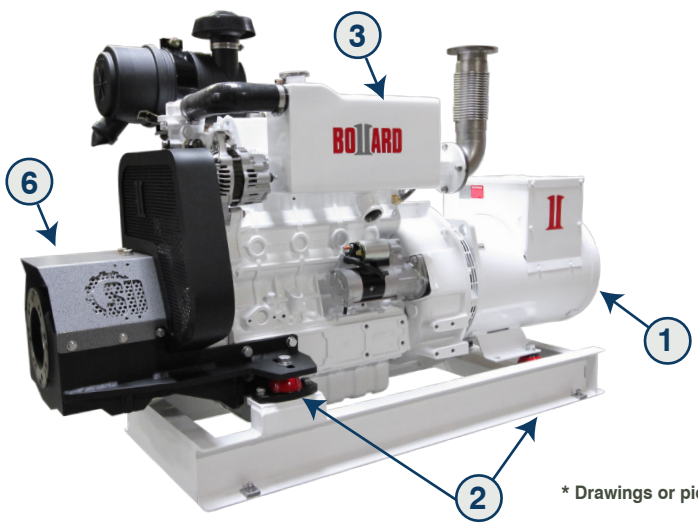
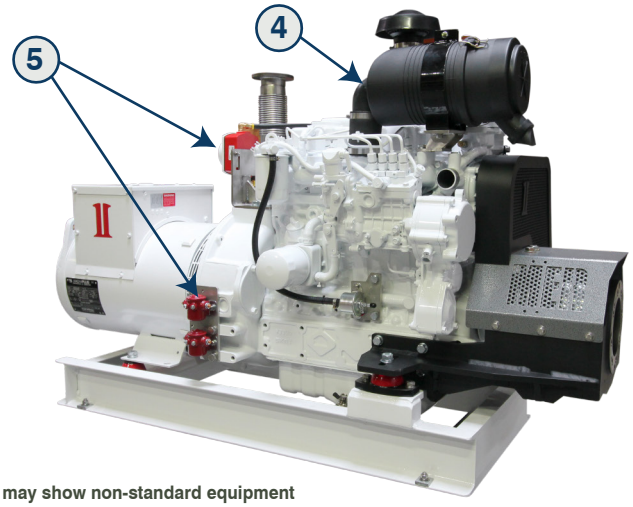
# BOLLARD™ MG28 Series

28kW Marine Generator Specifications

28kW




*** Drawings or pictures may show non-standard equipment**

## Features and Benefits

**Unsurpassed Quality & Reliability**
- BOLLARD™ Generators are designed and built in the USA specifically for the rugged conditions of commercial use. The expected time between overhauls on the BOLLARD™ packaged generator set is 20 to 50 thousand hours.

**1: High Efficiency Generators**
- Heavy Duty windings engineered for 80°C rise of 40°C ambient yield extended insulation service life, high electrical efficiency for maximum fuel economy, and superior motor starting at all voltages. PMG dedicated excitation is optional, resulting in even higher motor starting together with 300% sustained short circuit capacity along with VFD and paralleling compatibility.

**Emissions**
- The Bollard MG-20-28 Gen-Sets are EPA certified Tier 3 Marine, CARB, EU, and MOC. They meet the lowest emissions levels available on the market today without exhaust after-treatment resulting in reduced maintenance and operating costs while preserving our clean air and water quality.

**Keel Cooling, Heat Exchange, or Radiator Compatibility**

**Premium Marine Grade Protection**
- Bollard generators feature Imron™ 2 part marine epoxy overcoats on the engine, generator, and baseframe. Accessory brackets are typically powder coated, and fasteners are primarily stainless steel to protect your investment from the harsh marine environment.

**2: Heavy Duty Structural Steel Base Frame & Reduced Noise**
- For ease of installation, added structural integrity, safety and durability. Superior vibration and noise dampening with a high mass flywheel, polyurethane vibration isolators, mass loaded & stiffened baseframe, and de-noised engine.

**3: Water Jacketed Exhaust Manifold and Expansion Tank**
- Provides low engine room temperatures and greatly reduces fire hazard

**4: Heavy Duty Air Intake Filtration & Silencing**
- For increased performance, extended engine life, and quiet operation.

**5: Controls, Gauges & Instrumentation**
- Standard enclosed prewired digital auto start control panel with push button start/stop. Safety shutdowns are programmed for high water temp, low oil pressure, and over-speed. Panels include LED readouts of oil pressure, engine hours, DC system voltage, water temperature, engine speed in RPM, Generator Voltage and Frequency. Custom panels offer, auto-start/stop function for inverter or paralleling interface, load sharing, digital generator KW output LEDs and full function electrical distribution switchboards.

**6: Optional SEADRIVE™ Front Power Take Off System**
- Compact and heavy duty, pre aligned, easy to install, service friendly, integrated torsional coupling, and available with or without a clutch.

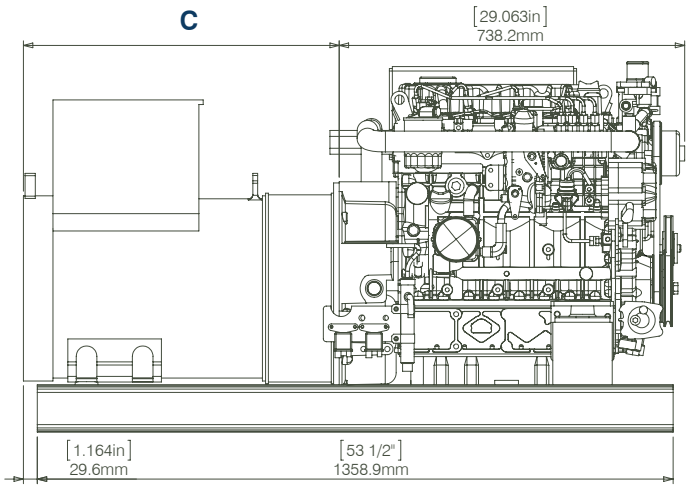
## General Specifications

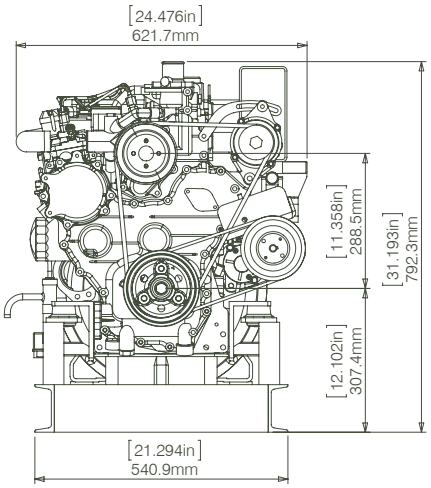
| | |
|---|---|
| Engine Model | V3300-E-3BG |
| Engine Type | In-Line \| 4 Cycle \| 4 Cylinder \| Diesel |
| Displacement - L (cu.in) | 3.3 (203) |
| Bore x Stroke - mm (in) | 98 (3.85) x 110 (4.33) |
| Aspiration | Naturally Aspirated |
| Oil Sump Capacity - qts (L) | 14 (13.24) |
| Emission Regulation | Marine Tier 3 |
| Prime - 60hz, 1800RPM (HP) | 28kW (37.52) |
| Standby - 60Hz, 1800RPM (HP) | 30.8 kW (41.27) |
| Motor Starting Range - HP | 14.6 - 28 (Code G Motor @ 208VAC) |
| Voltage Regulation | +/-1% |
| Starter | 12v \| 2.5 kW |
| Alternator | 12v \| 45 Amp |
| Operating Angle | 20° (Constant) \| 30° (Intermittent) |
| Dry Weight - lbs | 1147 (engine, 284-1 gen, skid, manifold) |
| Length x Width x Height - inches | 52 x 21.5 x 31 (dependant- details on back) |

## Fuel Performance


BOLLARD
ENGINES & GENERATORS

## Dimensions




| Alternate Dimensions | C - Length - In | Total Weight |
|---|---|---|
| 284-1508 | 22.8" (27.4" w/ PMG) | 405 |
| 284-1542 | 22.8" (27.4" w/ PMG) | 420 |
| PI144J | 26.6 (29.8" w/ EBS) | 405 |
| PI144K | 27.2 (30.4" w/ EBS) | 425 |

*** Drawings or pictures may show non-standard equipment**

*** Dimensions are subject to change without notice and or with the use of alternate generators and cooling systems.**

*** Please confirm exact configuration if dimensions are critical.**

| Load Performance | 25% | 50% | 75% | 100% |
|---|---|---|---|---|
| Load in kW | 7.49 | 14.99 | 22.49 | 30 |
| Pounds Per Hour | 4.1 | 8.2 | 12.3 | 16.4 |
| Gallons Per Hour | .58 | 1.15 | 1.73 | 2.31 |
| kW Per Gallons Per Hour | 12.89 | 12.89 | 12.89 | 12.89 |
| Pounds Per Gallon | 7.1 | 7.1 | 7.1 | 7.1 |
| Continuous kW Output | 28 | 28 | 28 | 28 |
| Horsepower At Load | 10.25 | 20.5 | 30.75 | 41 |
| Horsepower Continuous | 41 | 41 | 41 | 41 |
| Pounds Per Horsepower Per Hour | .40 | .40 | .40 | .40 |

## Customizable Options and Accessories

**Engine**
- Single Circuit Keel Cooling Package
- Single Circuit Heat Exchange Package
- Single Circuit Marine Radiator Package

**Motor Starting Upgrade Options (Code G Motor @ 208VAC)**
- Up to 1:1 HP per kW

**Air Intake & Filtration**
- K&N Air Filters
- Donaldson Air Silencer
- Closed Crank Case Vent Loop

**Controls & Instrumentation**
- Control Panel
- Custom Harness Length
- Auxiliary Start Panel
- Auto Start/Stop
- Pre-Alarm Senders
- AC Meter Panel
- Low Coolant Level Shutdown
- High Water Temp. Shutdown
- Low Oil Pressure Shutdown
- Low Oil Level Gauge/Shutdown
- Overspeed Shutdown
- Paralleling & Load Share
- Over-Voltage Alarm
- Over-Current Alarm
- Under-Current Alarm

**DC Electrical System**
- Battery: 12v | 24v
- Battery Rack & Cables
- Battery Isolation Switch

**Fuel-Lube Oil System**
- SCOR™ Oil Regeneration System
- Oil Drain Extension W/ Valve
- Oil Drain Pump To Engine
- Move Dipstick To Opposite Side
- High/Low Oil Level Shut Down
- Custom Oil Drain Hose Length
- Single Side Service
- Lube Oil Drip Pan

**Exhaust**
- SS Wet Exhaust Mixing Elbow
- Dry Exhaust Matching Flange
- SUPERFLEX™ Exhaust Bellows
- Cowl & EM Exhaust Silencers
- Heat Recovery Silencer

**Power Take Off**
- SEADRIVE™ Clutched Front PTO
- Clutch: Air | Oil | Electric
- SEADRIVE™ Direct Drive Front PTO
- Aux. A/B 2 Sheave Universal Pulley
- Aux. A/B 4 Sheave Universal Pulley
- Additional Belts

**Additional Options**
- Sea Trial Start Up
- MER Site Start-Up w/ Load Bank
- Custom Frame / Skid
- Crank Vent Filtration Kit
- Dual Vibration Isolation Mounts
- Custom Sound Enclosure
- Galvanized or Powder Coated Skids & Accessories
- Racor Fuel Water Separator

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