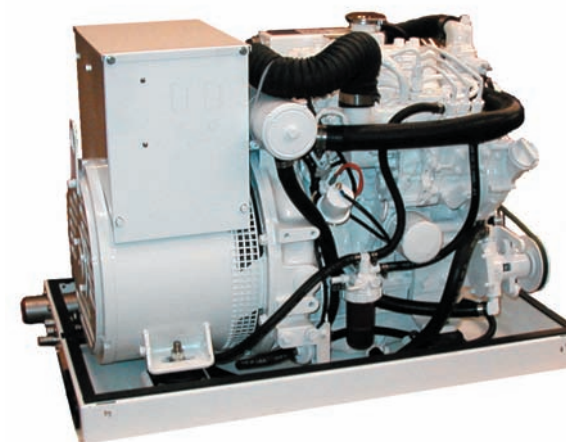


# 9kW

**norpro**<sup>®</sup>  
A Global Power Solutions Company

**NavigatorSeries**  
Marine Generator

## 9NY



### Standard Features:

- Analog 200 Panel \*see controller for details
- Aqua Shield™ Patent Pending Exhaust Manifold Cover
- Marine Grade Epoxy Paint (Ultra White – Std.)
- Oil Drain Kit (valve type w/safety lock)
- Washable Long-Life Air Filter
- 10' Remote Extension Harness
- Buddy Box (spare parts kit)
- ABS Molded Belt Guard
- Coolant Overflow Bottle
- Rubber Isolation Mounts
- Heat Exchanger Cooling
- Stainless Steel Drip Pan
- Single Lifting Point
- 12 Volt Breaker

### Generator Specifications:

Manufacturer.....	SKG
Type.....	4 pole
Exciter type .....	brushless
Leads: (Qty.) .....	4
Voltage regulator.....	solid state (basler)
Insulation Material.....	H type
Temperature rise.....	105 c
Bearing type.....	sealed
Coupling.....	direct bolt-up
Voltage regulation.....	1%
Phase type.....	1
Power factor.....	1
kW size.....	9
Mainline breaker (amps) optional.....	40

### Generator Ratings:

Amps @ 120 60hz.....	75
Amps @ 240 60hz.....	37.5

### Philosophy at Norpro:

- Build a reliable product for the harshest of operating environments.
- Supply a product which is simple to operate and easy to maintain
- Use the best technology and materials available
- Provide the best pricing in the industry

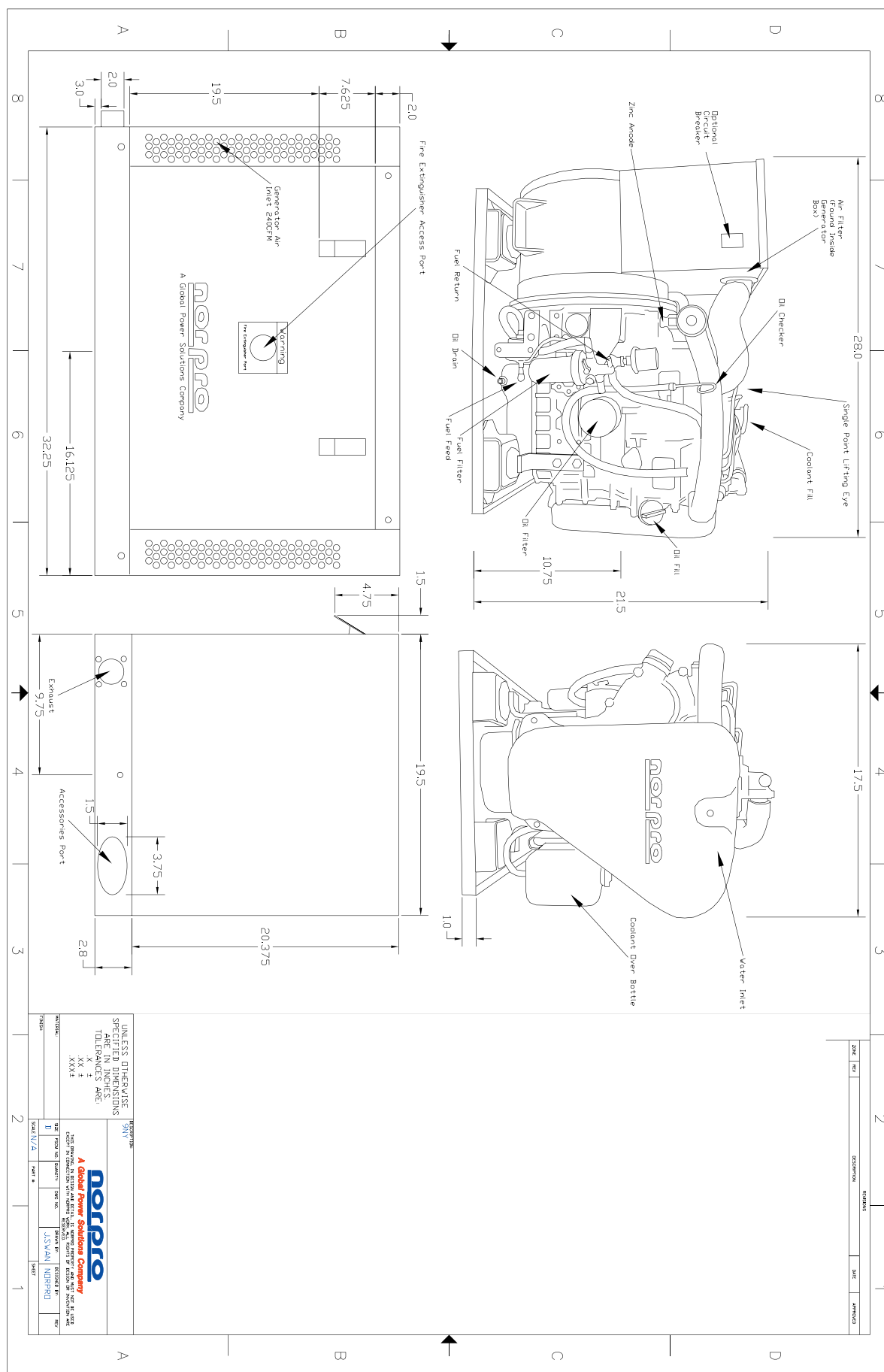
### Weights and Dimensions:

length (in.).....	28
Height (in.).....	21.5
Width (in.).....	17.5
Weight Dry (lbs).....	433
Weight Wet (lbs).....	443
sound shield length (in).....	32.25
sound shield height (in).....	23
sound shield width (in).....	19.5
sound shield weight (lbs).....	45

### More for your money:

Norpro has been a leader in Genset technology since it began operations in 1986, striving to provide the best in terms of durability, longevity in the generator market. By selecting only engines and components from the best manufacturers, we hand build each with the finest just as you would. By using high quality materials such as epoxy paint and stainless hardware you can rest assured your genset will look good as it runs well for years to come. We sought input from the aerospace industry during the development of our sound shields and the results speak quietly on their own. Norpro generator sets are backed by one of the most extensive warranties available. Sales and service are handled by factory trained distributors and dealers reaching across the country and around the world. All this results in our commitment to meeting your needs.

All information subject to change without notice and without any information or liability whatsoever. kW rating published in this document are standby ratings only. All db(A) measurements were taken with a muffler in an open air environment at the measured amount listed above (see sound table) with an 8 point average taken. Generator testing done under, and not to exceed, conditions of 110° ambient air temperature and raw water temperature of 120°.



## Engine Specifications:

Manufacturer.....Yanmar  
 Engine: model type.....3TNV76  
 Cylinder arrangement..... 3 in line 4-cycle  
 Displacement (cu.in).....68.1  
 Bore and stroke, (in.).....2.99 x 3.23  
 Compression ratio.....23.5:1  
 Rated rpm.....1800  
 Max power at rated rpm (bhp)..... 14.3  
 Cylinder head material.....Cast Iron  
 Block material.....Cast Iron  
 Governor type.....Mechanical  
 Frequency regulation.....3-5%  
 Air filter type.....Replaceable Element

## Engine Electrical System:

Ignition system.....Electric  
 Battery charging system voltage (DC)..... 12V  
 Battery charging system(amps).....40  
 Starter system voltage (DC).....12V  
 Battery recommendation (CCA).....500  
 Battery voltage (DC).....12V  
 Starter kW.....1.1

## Fuel System:

Fuel shutoff solenoid.....Electric  
 Fuel pump priming.....Electric  
 Fuel pump.....Electric  
 Fuel type..... #2 diesel  
 Fuel pump lift (ft).....3.28  
 Fuel line supply .....5/16  
 Fuel line return.....5/16

## Fuel Consumption:

100% Load (gph).....0.9  
 75% Load (gph) .....0.67  
 50% Load (gph).....0.45

## Cooling System:

Manifold.....Water jacketed  
 Engine coolant capacity (qts).....0.951  
 Heat exchanger type.....3" 2 pass cupronickel  
 Sea water pump type.....Belt Driven  
 Sea water pump flow rate.....15gpm  
 Water pump type .....Centrifugal  
 Fan diameter (in.)\*.....9.5"  
 Fan & Alternator (hp)\*.....1  
 Fan type\*.....5 Blade Pusher  
 Fan rotation (from front of engine) .....Clockwise

\* Used only on sound shield models

## Sound Table:

dB(A) Without Sound Shield			
Load	100%	75%	50%
3'	83	82	81
10'	80	79	79
21'	78	74	73
dB(A) With Sound Shield			
Load	100%	75%	50%
3'	70	69	69
10'	66	65	64
21'	62	61	61

## Lubrication System:

Type.....Full Pressure  
 Engine oil capacity w/filter (qts).....3.7  
 Oil filter type.....Cartridge

## Exhaust system:

Exhaust type.....Water Cooled  
 Max allowable back pressure (in.hg).....3.48  
 Exhaust outlet size (in.).....2

## Air Requirements:

Engine combustion air intake requirements (CFM).....29  
 Generator end cooling requirements (CFM).....250  
 Sound shield air space requirements.....4"

## Warranty:

5 year / 5,000 hour generator set warranty.  
 For full warranty information, please refer to the Warranty document.

## Analog 200 Control Panel

3 gauge cluster panel featuring water temperature, oil pressure, battery voltage gauges with an hour meter, preheat, start and light switches with 12 volt breaker protection, mounted all in a 5.375"H x 6.625"L, 3/16", black over white ABS face plate for maximum durability. Controlled by a 10 second oil pressure bypass timer for quicker start up. Emergency shutdowns for high water temp and low oil pressure.



## OPTIONAL EQUIPMENT

### Digi-tec 300 Controller:

Engine start-up with automatic preheat system , Programmable microprocessor with digital display featuring: water temperature, oil pressure, tamper proof hour meter, battery voltage, Automatic fault shutdowns for low oil pressure, high water temp, undercurrent/overcurrent, underspeed/overspeed, undervoltage/overvoltage, underfrequency/over frequency. All in an easy to read and operate, 4.25"H x 5.5"L, multilingual panel. 12 or 24 volt operation with audiovisual enunciation capability.

### Digi-tec 100 controller:

Engine start-up with automatic preheat system, Programmable microprocessor logic with digital display featuring: water temperature, oil pressure, tamper proof hour meter, battery voltage, current time, kW output, Automatic fault shutdowns for: low oil pressure, high water temp, undercurrent/overcurrent, underspeed/overspeed, undervoltage/overvoltage, underfrequency/over frequency, and battery high/battery weak with service reminders in real time for oil life, oil filter life, belt life, battery life, fuel filter life, air filter life, over haul life. All in an easy to read and operate 6.25"H x 7.5"L panel. 12 or 24 volt operation with audiovisual enunciation capability.

### Remote Start Panel:

Provides starting and stopping capabilities from a remote location. Includes start/stop switch unit hour meter all mounted on a 3"H x 6"L ABS plastic plate for maximum durability with "y" connector to connect into the harness.

### Remote Extension Cables:

Provides additional harnessing between all secondary panels. 8 or 12 pin harnesses with rubber molded connectors provide maximum corrosion protection ( when connecting any low voltage cables together it is recommended to use die-electric grease or equivalent to help prevent against corrosion). Harness lengths available in 5' 10' 20' and 50' and multiples of but not to exceed 100' without optional relays.

### Dual Station Instrumentation:

Provides the ability to have full instrumentation at two locations with start and stop capability. This is available with the Digi-tec 100 controller and in the Analog panel system. The analog system requires a set of dual station senders to be mounted on the engine.

### Sound Shield:

Provides maximum generator silencing in a weather resistant enclosure, made of 5052 0.80 aluminum, e-coated and powder coated for long life and lasting finish in harsh marine environments. Utilizing a baffle system and crankshaft driven fan, air is turned 90 degrees 5 times before entering and exiting the enclosure creating a noise cancelling effect, providing the quietest generator set operation possible (see Sound Table on previous page for generator results). Complete teardown to the base tray can be done in a matter of minutes with a #2 Philips screwdriver. With 3 snap-on/snap-off access panels, general maintenance and cleaning is quick and easy. Connections at the back of the sound shield for exhaust, water inlet, fuel feed, fuel return, battery cables and panel connection port make for a neat, clean, easy and safe installation.

### Exhaust Attenuation:

Provides lower generator noise during operation, can be mounted in and above or with a siphon break below water line application. Made of injection molded plastic for maximum life and durability, this component will dramatically reduce sound coming from the exhaust pipe. Siphon break is needed in below water line application to prevent water from backing up the exhaust pipe and entering into the generator system.

### Generator Parameter Gauges:

Digi-tec 100 controller provides the ability to read the generator output, such as: kW, hertz, cycles, frequency, and amps, all in real time format on the same digital display your engines parameters are on. A must for the engineer in you.

### Color Selection:

The Navigator line comes standard in epoxy coated Ultra White paint, but with 5 other colors to choose from, Norpro provides more than any other manufacturer in the industry. Other optional colors include: Bonsai Blue, Zodiac blue, Midnight black, Anthracite gray, and Soft silver.

### Mainline Breaker:

Magnetic contact provides 120/240 power shut-off with the flip of a switch.