

# 12.5kW<sub>60Hz</sub> 10kVA<sub>50Hz</sub>

## **norpro**

A Global Power Solutions Company

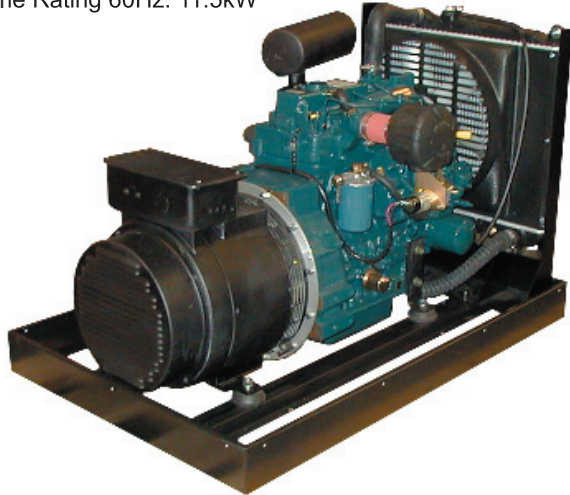
# Power Max Series

8/20/07

## 12PMK

Standby Rating 60Hz: 12.5kW

Prime Rating 60Hz: 11.5kW



### 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 value in the industry

### More For Your Money

Norpro has been a leader in generator technology since we began operations in 1986. We strive to provide the best in terms of durability, performance, and value in the generator market. Using only world-class engines and components, we hand build the highest quality generators possible. By using high grade materials including, epoxy paint, stainless hardware, and powder coat, you can rest assured your generator will look good for many years to come. Our sound shields were developed using input from the aerospace industry. The results speak quietly on their own with sound canceling effects decreasing noise on average by 50%. We are very committed and proud of our product which is why we offer one of the most extensive warranties available. With the support of an experienced warranty representative, and a multi-million dollar inventory, all your generator needs are just a phone call away. Sales and services are handled by factory trained distributors and dealers reaching across the country and around the world. Everything is done to help us meet your needs and exceed your expectations.

### Standard Features

- Radiator Cooled Genset
- Muffler
- Air Filter
- Steel Skid Base
- Rubber Isolation Mounts
- Battery Tray
- Battery Cables and Hold Down
- Battery Charger (3 amp)
- Oil Drain Kit
- Digitec 300 Control Panel
- ABS Molded Fan Guard
- Hand Built in the USA
- Prototype and Production Tested
- Meets or Exceeds Tier 2 Nonroad Emissions Regulations
- 5 Year 5,000 Hour Warranty

### Digitec 300 Controller

- Programmable microprocessor panel
- Engine start up with an automatic preheat system
- Digital display
  - water temperature
  - oil pressure
  - tamper proof hour meter
  - battery voltage
- Safety systems
  - automatic shutdown for low oil pressure
  - high water temperature
  - over speed
  - over frequency
- Three onboard replaceable 40AMP fuses for fuel, crank, and timer outputs
- 5.5" x 4.3" x 2.16" (L x H x D)
- Conforms to 12V or 24V operations



Complete details

also available on our  
website.

Please visit:

[www.4norpro.com](http://www.4norpro.com)

**Engine Specifications**

|                              | 60Hz                    | 50Hz |
|------------------------------|-------------------------|------|
| Manufacturer                 | Kubota                  |      |
| Engine model                 | D1703                   |      |
| Cylinder arrangement         | 3 in line 4-cycle       |      |
| Displacement, cu.in. (cc)    | 100.51 (1647)           |      |
| Bore and stroke, in. (mm)    | 3.43 (87) x 3.64 (92.4) |      |
| Compression ratio            | 23:1                    |      |
| Rated rpm                    | 1800                    | 1500 |
| Max power at rated rpm (bhp) | 24.3                    | 20.1 |
| Cylinder head material       | Cast Iron               |      |
| Block material               | Cast Iron               |      |
| Governor type                | Mechanical              |      |
| Frequency regulation         | 3-5%                    |      |
| Air cleaner 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                           | 1.2      |

**Generator Specifications**

|                                  |                |         |
|----------------------------------|----------------|---------|
| Manufacturer                     | Marathon       |         |
| Type                             | 4 Pole         |         |
| Exciter type                     | Brushless      |         |
| Leads: Quantity                  | 4              |         |
| Voltage regulator                | AVR            |         |
| Insulation material              | H type         |         |
| Temperature rise                 | 105° C         |         |
| Bearing type                     | Sealed         |         |
| Coupling                         | Direct bolt-up |         |
| Voltage regulation               | 1%             |         |
| Phase type                       | 1              |         |
| Power factor                     | 1.0            |         |
| Power rating kW (kVA)            | 12.5 (12.5)    | 10 (10) |
| Mainline breaker (amps) optional | 40             | 40      |

**Generator Ratings**

|            |     |    |
|------------|-----|----|
| Amps @ 120 | 104 | 82 |
| Amps @ 240 | 52  | 41 |

**Weights and Dimensions**

|                  | Length in. (cm) | Height in. (cm) | Width in. (cm) | Dry Weight lbs. (kg) | Wet Weight lbs. (kg) |
|------------------|-----------------|-----------------|----------------|----------------------|----------------------|
| Open Unit        | 45.5 (116)      | 31.0 (78.7)     | 30.0 (76)      | 690 (313)            | 704 (319.3)          |
| Enclosed         | 46.0 (117)      | 33.0 (83.8)     | 30.5 (77.5)    | 740 (335.7)          | 754 (342)            |
| Open w/Sub. Tank | 46.0 (117)      | 42.0 (106.7)    | 30.5 (77.5)    |                      |                      |

**Stand Alone Fuel Tanks**

|                |          |          |         |          |            |
|----------------|----------|----------|---------|----------|------------|
| 165 gal./620L  | 29 (74)  | 61 (155) | 28 (72) | 132 (60) | 1287 (584) |
| 275 gal./1000L | 51 (130) | 54 (137) | 30 (76) | 208 (94) | 2133 (968) |

**Lubrication System**

|                                      | 60Hz          | 50Hz |
|--------------------------------------|---------------|------|
| Type                                 | Full Pressure |      |
| Engine oil capacity w/filter, qt.(L) | 1.95 (1.85)   |      |
| Oil filter type                      | Spin-on       |      |

**Fuel System**

|                        |            |
|------------------------|------------|
| Fuel shutoff solenoid  | Electric   |
| Fuel pump              | Mechanical |
| Fuel pump priming      | Mechanical |
| Fuel type              | #2 Diesel  |
| Fuel pump lift, ft (m) | 3.28 (1)   |
| Fuel line supply       | 5/16       |
| Fuel line return       | 3/16       |

**Cooling System**

|                                   |                |
|-----------------------------------|----------------|
| Engine coolant capacity, qt.(L)   | .74 (.7)       |
| Radiator coolant capacity, qt.(L) | 3.5 (3.3)      |
| Water pump type                   | Centrifugal    |
| Fan diameter, in.(cm)             | 15 (38)        |
| Fan & Alternator (hp)             | 1.7            |
| Fan type                          | 6 Blade Pusher |
| Fan rotation from front of engine | Clockwise      |

**Air Requirements**

|                                    |         |
|------------------------------------|---------|
| Engine combustion air intake (cfm) | 45.6    |
| Generator end cooling (cfm)        | 220     |
| Sound shield air space, in. (cm)   | 18 (46) |

**Exhaust System**

|                                     |                     |
|-------------------------------------|---------------------|
| Exhaust type                        | Residential Muffler |
| Max allowable back pressure (in.hg) | 2.09                |
| Exhaust outlet size, in.(cm)        | 1.5 (3.81)          |

**Fuel Consumption**

|                      |           |             |
|----------------------|-----------|-------------|
| 100% Load, gph (lph) | 1.6 (6.1) | 1.33 (5.08) |
| 75% Load, gph (lph)  | 1.3 (4.9) | 1.08 (4.08) |
| 50% Load, gph (lph)  | 1.0 (3.8) | 0.83 (.70)  |

**Sound Tables****dB(A) Without Sound Shield**

| Load | 100% | 75% | 50% |
|------|------|-----|-----|
| 3'   | 87   | 86  | 85  |
| 10'  | 82   | 79  | 80  |
| 21'  | 74   | 73  | 71  |

**dB(A) With Sound Shield**

| Load | 100% | 75% | 50% |
|------|------|-----|-----|
| 3'   | 80   | 80  | 79  |
| 10'  | 72   | 71  | 70  |
| 21'  | 70   | 68  | 67  |

## OPTIONAL EQUIPMENT

### Analog 200 Control Panel

- Three gauge panel
- Water temperature, oil pressure, battery voltage
- Hour meter and preheat
- Ten second oil pressure bypass timer
- Emergency shutdowns for high water temperature and low oil pressure
- 12-volt breaker protection
- 6.75" x 5.5" x .1875" (L x H x D)
- Black over white ABS faceplate

### Remote Start Panel

- Starting and stopping capabilities from a remote location
- Start/Stop switch
- Unit hour meter
- 3"H x 6"L ABS plate
- Includes "Y" harness

### Digitec 400 Controller

Includes all features on the Digitec 300

- Most vivid LCD screen available
- Automatic battery recharge
- Real time clock
- Eight digital programmable inputs
- Twenty-five programmable digital outputs
- Automatic shutdown for any discrepancy in:
  - current
  - speed
  - voltage
  - frequency
  - battery levels
- Password protected
- Fully programmable engine exerciser
- 100 event failure log
- Connection for six industry standard analog senders
- Sleep mode to conserve battery
- 5.47" x 4.45" x 2.56" (L x H x D)

### Color Options

- Bonsai Blue
- Zodiac Blue
- Midnight Black
- Anthracite Gray
- Soft Silver

### Remote Extension Cables

- Mount your panel virtually anywhere
- Eight or twelve pin rubber molded connectors
- Extension harness, 5' (1.5 m)
- Extension harness, 10' (3 m)
- Extension harness, 20' (6 m)
- Extension harness, 50' (15.2 m)

### Fuel Tanks

- Sub-base mounted, UL Listed, double wall tank
- Stand alone, UL Listed, double wall tank, 165 gal. (620 L)
- Stand alone, UL Listed, double wall tank, 275 gal. (1000 L)

### Dual Station Instrumentation

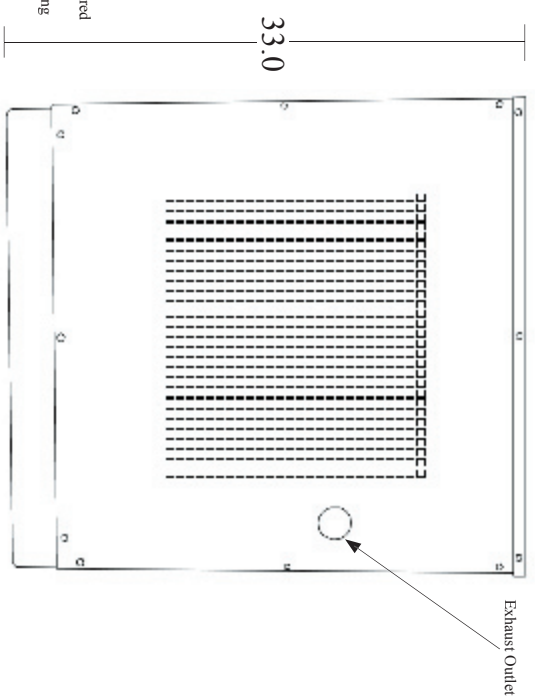
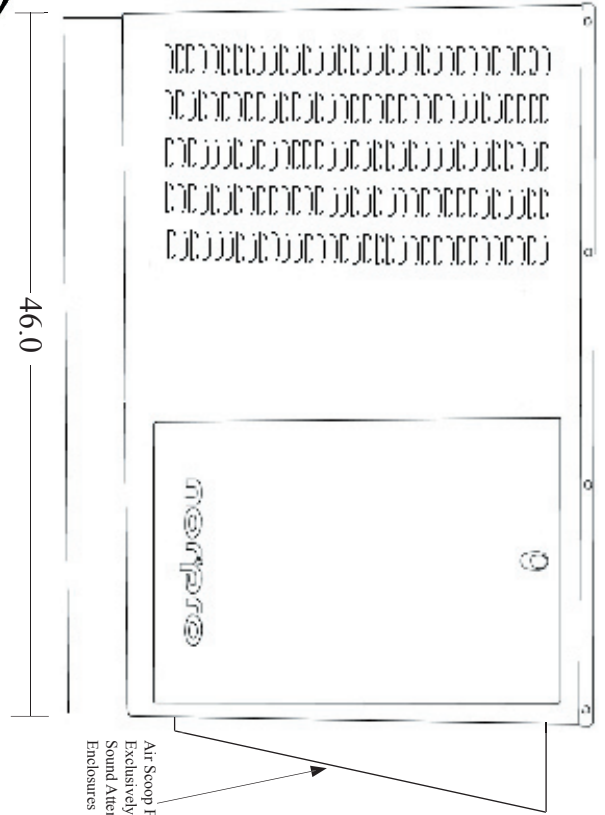
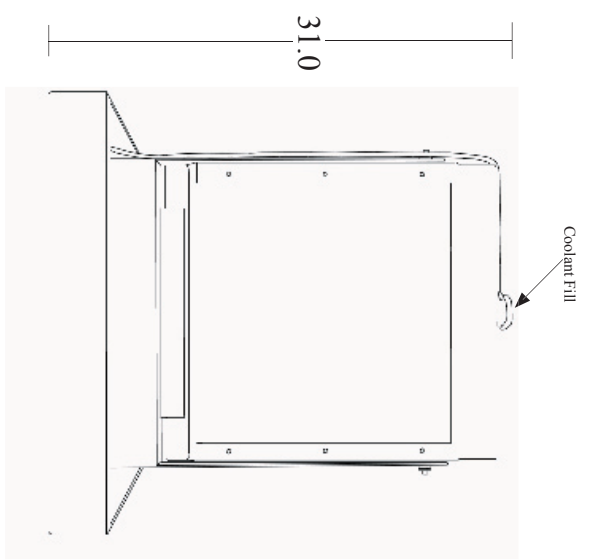
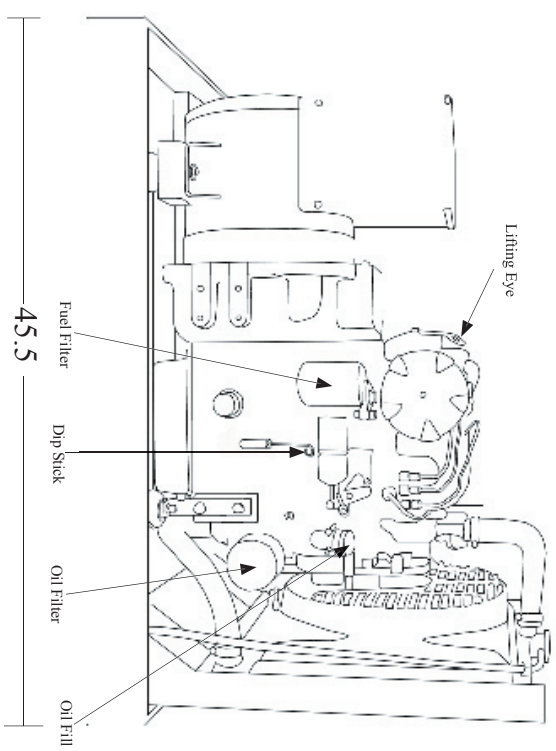
- Analog panel system
  - Full instrumentation at two locations
  - Start and stop capability

### Enclosure

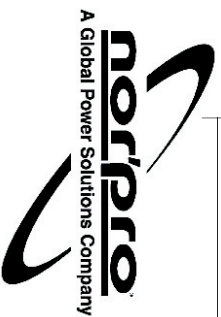
- Protects from the elements
- Decrease noise while maintaining airflow
- All aluminum
- 5052 .080 aluminum
- Powder coated to ensure a long lasting finish
- Complete teardown in minutes using only a # 2 Philips screwdriver
- Doors come off/open via durable Southco latches
- Sophisticated polyether foam adds further sound deadening on sound enclosures
- Foam is UL 94 HF1 listed for flammability testing

### More Options

- Battery
- Critical muffler kit
- 24V kit
- D.O.T. trailer
- Interlocking mounts
- Manual transfer switch
- Automatic transfer switch
- Mainline breaker
- Inline style block heater
- Cartridge type air filter
- Electronic governing
- "Y" harness



Air Scoop Featured Exclusively on Sound Attenuating Enclosures



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