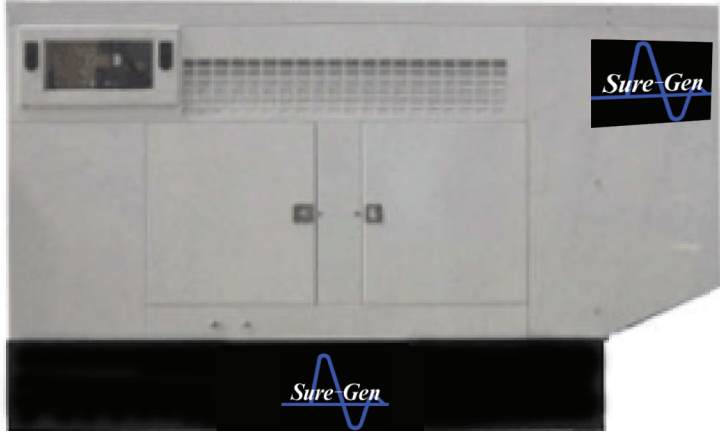




# Model TP80-II

## Tier II Compliant Generator Sets



### Standard Enclosed Generator Set Features

- Perkins Diesel Engine Model 1104C.44TAG1
- Single Bearing Direct Coupled Alternator With Class 'H' insulation, Sized for 150°F Temperature Rise.
- Weather Protective Sound Attenuated Enclosure constructed of Marine Grade Aluminum with White Powder Coat Paint Finish & Stainless Steel Hardware. Enclosure includes:
  - Critical Rated Interior Mounted Exhaust Silencer & Stainless Steel Flex Connection
  - Oil & Coolant Drain Lines w/ Ball Valves
  - Hinged / Removable / Keyed Alike Doors
- Control Panel (NFPA/UL Approved) Mounted to Enclosure with access door to allow exterior viewing.
- Mounted on Steel Sub-Base with four (4) vibration isolators, Corner Lifting Eyes and opening for Electrical Stub-up. Optional Single and Dual Wall Fuel Tanks for 12 and 24 hour operation.
- Radiator sized for 120°F Ambient Clearance
- Dry Type Air Cleaner
- 12-Volt Starter, Engine Mounted Battery Charging Alternator, Battery Cables, and Rack along with Grounding Strap.
- Full Load Factory Test with Safety Shutdown.
- One Complete Operation and Maintenance Manual.

### Generator Set Ratings - Stand-by

Voltage	PH	Hz	Standby Output kW (kVA)	Prime Output kW (kVA)	Max Alt SkVA	Standby Max Amp Output	# of Wires
120/240	1	60	80 (80)	72 (72)	230	333	4
120/240	1	60	80 (80)	72 (72)	160	333	12
120/208	3	60	80 (100)	72 (90)	175	277	12
120/240	3	60	80 (100)	72 (90)	175	240	12
277/480	3	60	80 (100)	72 (90)	235	120	12

Stand-by ratings are applicable for the duration of any power outage. No overload is available at these ratings. Prime ratings are continuous per BS 5514, DIN 6271, ISO3046 & IEC 34-1. Overload capacity on prime-power ratings is 10% for one hour in each twelve hours of operation. All single phase ratings are based on a 1.0 power factor, three (3) phase ratings based on a .8 power factor. Ratings are established based on 85°F ( 29°C ) and an elevation of 1,000 feet (305 meters ). Please consult your Tradewinds representative for information concerning derates for temperature, altitude & humidity.

### Standard Open Generator Set Features

- Perkins Diesel Engine Model 1104C.44TAG1
- Single Bearing Direct Coupled Alternator With Class 'H' insulation, Sized for 150°F Temperature Rise
- Vertical Industrial Exhaust Muffler with Rain Cap, (Loose)
- Mounted on Steel Sub-Base with four (4) vibration isolators, Corner Lifting Eyes and opening for Electrical Stub-up. Optional Single and Dual Wall Fuel Tanks for 12 and 24 hour operation.
- Radiator sized for 120°F Ambient Clearance.
- Control Panel (NFPA/UL Approved) Mounted to Alternator with Auto Start/Stop.
- Dry Type Air cleaner
- 12-Volt Starter, Engine Mounted Battery Charging Alternator, Battery Cables, and Rack
- Full Load Factory Run Test With Safety Shutdown.
- One Complete Operation and Maintenance Manual.

### Optional Equipment

Thermostatically Controlled Jacket Water Heaters  
 Single & Dual Wall Sub-base Fuel Tanks  
 Cylindrical Skid Mounted Fuel Tanks  
 Main Line Generator Circuit Breakers  
 Shunt Trip for Circuit Breakers  
 Critical Rated Exhaust Silencers  
 Oversized Generator Ends for Motor Starting  
 PMG Generators and Special Voltage Regulators

Automatic Paralleling packages  
 Remote Annunciators.  
 Standard Load Centers Mounted in NEMA 3R Enclosures with Plugs.  
 Automatic Transfer Switches  
 Automatic Battery Chargers  
 Water Separator Fuel Filters

Special Insulation for Generators  
 Generator Drip Covers  
 ISO Container "Mipco Type Plugs"  
 Day Tanks  
 Starting Batteries  
 Street Legal Trailers  
 Custom Colors for Gen and Enclosure

## Engine Specifications - Tier II Compliant

### Model: Perkins 1104C.44TAG1

Max. Power: 150hp / 112kW @ 1800 rpm  
 268.5 cu. in. / 4.41 L - Bore & Stroke: 4.13" x 5.0" (105 x 127mm)  
 Turbocharged - air to air charged cooled  
 Direct injected , 4 cylinder in-line  
 Governor type - Mechanical  
 Freq. Regulation: Isochronous, Steady-State  
 Electrical system: Starter, 12-volt. Alternator 51 amp  
 Recommended Battery size: 640 CCA

### Fluids:

Oil capacity - 8.45quarts (8.0 liters)  
 Oil Filter - Dry type, Spin-on  
 Coolant capacity - 13.3 quarts (12.6liters)

### Fuel Consumption (US gal. per hour / Liters per hour)

25% load - 2.1 (8.1)      75% load - 4.5 (17.0)  
 50% load - 3.1 (11.7)      100% load - 6.4 (24.1)

## Alternator Specifications

**Marathon Electric Alternator:** Brushless, 4-Pole Rotating Field, Self-ventilating drip-proof construction.  
 Voltage Regulator: Solid State: Volts/Hertz  
 Insulation: Class 'H' to NEMA MG-1-1.66  
 Rated Temperature Rise: 150 C°, Standby  
 Bearing Type / Number: Sealed / Single  
 Coupling: Direct Coupled, Flexible Disc  
 Voltage regulation: + / - 1%, Solid State  
 Load acceptance: One Step, 100% per NFPA 110

### Features:

Superior voltage waveform achieved by a two-thirds pitch and skewed rotor.  
 Vacuum-impregnated windings with fungus-resistant epoxy for dependability and long-life.  
 Compliance with NEMA, IEEE and ANSI standards for temp rise.  
 Sustained short-circuit capability enabling down-line circuit breakers to trip without collapsing the generator field.  
 No load to full-load regulation of +/- 2%.

## Panel Specifications and Functions

### Digital Control with auto-start logic:

J1939 Compatible (as required)  
 Canbus RS485 & RS232 interface connections  
 Graphic Icon based LCD lighted Display

### Operational features:

- Alternator over/under voltage warning & shutdown
- Alternator over/under frequency warning & shutdown
- Engine over/under speed warning & shutdown
- Low oil pressure warning & shutdown
- High engine temperature warning & shutdown
- High/Low battery voltage warning
- Over-current warning/electrical trip/shutdown
- Built-in adjustable exercise scheduler
- Event logging of shutdown events
- External remote start input (on or off load)
- Magnetic pick-up or alternator monitoring
- 6 digital inputs—fully user configurable
- 3 configurable relay outputs

### Electromagnetic Compatibility

BS EN 50081-2: 1992 and  
 EN 6100-6-4: 2000 EMC  
 EN 6100006-2:1999 EMC Immunity

### Temperature tested to:

Cold: BS EN 60068-2-1  
 Hot: BS EN 60068-2-2

### Humidity tested to:

BS EN 20011 part2.1  
 BS EN 60068-2-27

Electrical Safety tested to: BS EN 60950

### Vibration tested to:

BS EN 60068-2-6

### Electromagnetic compatibility:

BS EN 50081-2, 1992  
 EN6100-6-4, 2000 EMC  
 EN6100006-2, 1999 EMC

## Dimensional and Mounting Specifications

### Open Style Unit

L x W x H inches / (mm): 110" (2794) x 40" (1016) x 48" (1219)  
 Overall Dry Weight lb. (kg): ( )

### Enclosed Style Unit

L x W x H inches / (mm) 110" (2794) x 40" (1016) x 58" (1473)  
 Dry Weight lb. (kg): lbs ( )

### Note:

Electrical Stub area is positioned at the rear of the sub-base fuel tanks. Spacing from rear access cover to the tank is approximately 9 inches (228.6 mm). This dimension is for both UL rated and single wall fuel tanks.

### Authorized Dealer: