



# Model TP100-II

Tier II Compliant



## Standard Enclosed Generator Set Features

- Perkins Diesel Engine Model 1104C.44TAG2
- 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	98 (98)	90 (90)	310	416	4
120/240	1	60	92 (92)	90 (90)	100	383	12
120/208	3	60	100 (125)	90 (113)	280	347	12
120/240	3	60	100 (125)	90 (113)	280	301	12
277/480	3	60	100 (125)	90 (113)	280	150	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 ).

## Standard Open Generator Set Features

- Perkins Diesel Engine Model 1104C.44TAG2
- Single Bearing Direct Coupled Alternator With Class 'H' insulation, Sized for 150°F Temperature Rise
- Vertical Industrial Exhaust Muffler with Rain Cap, (Loose)
- Sub-base Fuel Tank (Steel) Sized for 8 Hours Operation with Flexible Fuel Supply and Return Lines, Tank Drain, Mechanical Fuel Gauge, 2" Filler Neck w/Lockable Cap, Electrical Stub-up Area, Four (4) Corner Lifting Eyes, and four (4) Vibration Isolators
- 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 | ? Automatic Paralleling packages | ? Generator Drip Covers               |
| ? Single & Dual Wall Sub-base Fuel Tanks           | ? Remote Annunciators.           | ? ISO Container "Mipco Type Plugs"    |
| ? Cylindrical Skid Mounted Fuel Tanks              | ? Standard Load Centers          | ? Day Tanks                           |
| ? Main Line Generator Circuit Breakers             | ? Automatic Transfer Switches    | ? Starting Batteries                  |
| ? Critical Rated Exhaust Silencers                 | ? Automatic Battery Chargers     | ? Street Legal Trailers               |
| ? PMG Generators and Special Voltage Regulators    | ? Water Separator Fuel Filters   | ? Custom Colors for Gen and Enclosure |

## Engine Specifications - Tier II Compliant

### Model: Perkins 1104C.44TAG2

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 - 8.88 quarts (8.4 liters)  
Oil Filter - Dry type, Spin-on  
Coolant capacity - quarts ( liters)

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

25% load - 2.7 (10.3)      75% load - 5.3 (20.2)  
50% load - 3.7 (14.1)      100% load - 7.8 (29.7)

## 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)  
Can bus 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

### Vibration tested to:

BS EN 60068-2-6

### Electromagnetic compatibility:

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

Electrical Safety tested to: BS EN 60950

## Dimensional and Mounting Specifications

### Open Style Unit

L x W x H inches / (mm): 110" (2794) x 40" (1016) x 54" (1372)  
Overall Dry Weight lb. (kg): 2400 (1089)

### Enclosed Style Unit

L x W x H inches / (mm) 110" (2794) x 40" (1016) x 58" (1473)  
Dry Weight lb. (kg): 3050 (1383)

### 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:

Specifications are subject to change without notice

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