



Model TP60-II

Tier II Compliant

Generator Sets



Standard Enclosed Generator Set Features

- Perkins Diesel Engine Model 1104C.44TG1
- 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	60 (60)	54.5 (68)	130	250	4
120/240	1	60	60 (60)	54.5 (68)	112	250	12
120/208	3	60	60 (75)	54.5 (68)	105	208	12
120/240	3	60	60 (75)	54.5 (68)	105	180	12
277/480	3	60	60 (75)	54.5 (68)	140	90	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.44TG1
- 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 - For Stationary Use Only

Model: Perkins 1104C.44TG1

Max. Power: 127.3 hp / 95kW @ 1800 rpm
 243 cu. in. / 3.99 L - Bore & Stroke: 3.94" x 5.0" (103 x 127mm)
 Turbocharged, 4 cylinder in-line
 Direct injected
 Governor type - Mechanical
 Freq. Regulation: Isochronous, Steady-State
 Electrical system: Starter, 12-volt. Alternator 51 amp
 Recommended Battery size: 640 CCA

Fluids:

Oil capacity - 8.6 quarts (8.1liters)
 Oil Filter - Dry type, Spin
 Coolant capacity- 19.75 quarts (18.7 liters)

Fuel Consumption (US gal. per hour / Liters per hour:

25% load - 1.9 (7.1) 75% load - 3.3 (12.6)
 50% load - 2.4 (9.0) 100% load - 4.7 (17.8)

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 downline 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

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 48" (1219)
 Overall Dry Weight lb. (kg): 1925 (873)

Enclosed Style Unit

L x W x H inches / (mm) 110" (2794) x 40" (1016) x 58" (1473)
 Dry Weight lb. (kg): 2575 (1168)

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: