



*"Your Complete Generator Solution"*



**EPA Certified / Stationary Emergency**

OUTPUT POWER					sKVA
Voltage	Phase	Hertz	kW/kVA	Amps	30% Voltage Dip
120/240	1	60	100/100	417	310

Information on optional alternators available upon request.

Overall Size: 81"L x 36"W x 69"H  
Weight: 2,500 lbs.

**Standard Features:**

- Heavy Duty Steel Base
- Vibration Isolators
- Battery Rack & Cables
- High Ambient Unit Mounted Radiator
- 15 ft. Fuel Line Set
- Spark Arrestor Muffler
- Battery Charging Alternator
- 5 Amp Battery Charger
- PMG Pilot Exciter
- 120V/1500W Water Jacket Heater
- Factory Test Prior to Shipment
- Owner's Manual

**Miscellaneous Options:**

- Automatic Transfer Switch
- Fuel Tanks 150-1000 Gallons

**Warranty**

2 Year Standard Limited



**Analog Controller with Emergency Bypass Key Switch**

- Automatic CANBUS Engine Control
- Oil Pressure, Water Temperature, Battery Voltage and RPM Gauges
- Automatic Gauge Zeroing on Shutdown
- AC Voltage, Frequency, Percent of Load, and Run-Time Metering
- 3-Position Auto-Off-Manual Control Switch
- LED Status Lights: Low Oil Pressure, High Temperature, Overcrank, Overspeed, and Engine Start
- Impact-Resistant Polycarbonate Bezel and Epoxy Encapsulated

**GENERAL GUIDELINES FOR DERATION:** Altitude: Derate 0.5% per 100m (328 ft.) Elevation above 1000m (3279 ft.) Temperature: Derate 1.0% per 10°C (18°F) temperature above 25°C (77°F)

**RATINGS:** All single-phase units are rated at 1.0 power factor.

**STATIONARY EMERGENCY STANDBY:** Applies to installations served by a reliable utility source. The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. Ratings are in accordance with ISO-3046/1, BS 5514, AS 2789, and DIN 6271.



## Engine Data

Manufacturer	Perkins
Model	1104D-E44TAG2
Aspiration	Turbocharged
EPA Tier	3
Charge Air Cooling System	Air-to-Air
Arrangement	Vertical Inline, 4-Cycle
Firing Order	1-3-4-2
Displacement: L (in. <sup>3</sup> )	4.4 (268.50)
Bore: mm (in.)	105.00 (4.13)
Stroke: mm (in.)	127.00 (5.00)
Compression Ratio	16.2:1
BMEP: psi (kPa)	256.86 (1771.00)
Net Horsepower	148.74
Rated RPM	1800
Governor	Isochronous
Speed Regulation	±3.0%

## Engine Liquid Capacity

Oil System: qt. (L)	8.45 (8.00)
Cooling System Capacity: gal (L)	4.49 (17.00)

## Engine Electrical

Electric Volts: DC	12
Cold Cracking Amps	925
Battery(s) Required	1

## Exhaust System

Gas Temperature: °F (°C)	942.80 (506.00)
Gas Flow: CFM (m <sup>3</sup> /min)	706.29 (20.00)
Max Exhaust Back Pressure: in. H <sub>2</sub> O (kPa)	60.20 (15.00)
Spark Arrestor Outlet Size: in. (mm)	3.0 (76.2)

## Alternator Data

Manufacturer	Marathon
Type	PMG
Insulation NEMA Rise/Temp	NEMA H/150°C
Hertz	60
Phase	1
RPM	1800
Leads	4
Amortisseur Windings	Full
CFM Cooling Required	700
Voltage Regulator	PM500
Sensing	Single Phase
Voltage Regulation, No Load - Full Load	0.5%

## Air Requirements

Air Filter(s) Type	Dry
Combustion Air Flow: CFM (m <sup>3</sup> /min)	300.18 (8.50)
Cooling Fan Air Flow: CFM (m <sup>3</sup> /min)	7013.5 (198.6)
Maximum Air Intake Restriction	
Clean: in. H <sub>2</sub> O (kPa)	20.07 (5.00)
Dirty: in. H <sub>2</sub> O (kPa)	32.11 (8.00)

## Sound Level

Open Unit Without Exhaust: dBA 3.2 ft (1M)	105.5
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## Filters and Quantity

Air Cleaner Quantity	1
Oil Filter(s) Quantity	1
Fuel Filter(s) Quantity	2

## Fuel Consumption

At 100% of Power Rating: gal/hr (L/hr)	7.34 (27.77)
At 75% of Power Rating: gal/hr (L/hr)	5.82 (22.04)
At 50% of Power Rating: gal/hr (L/hr)	4.25 (16.07)
At 25% of Power Rating: gal/hr (L/hr)	N/A

## Fuel System

Fuel Injection Type	Direct
Fuel Pump Rate: gal/hr (L/hr)	34.34 (130.00)
Pump Pressure: in. H <sub>2</sub> O (kPa)	40.13 (10.00)
Recommended Fuel	Low Sulfur Diesel

## Cooling System

Rejection to Charge Cooler: kW (BTUM)	18.0 (1023.6)
Rejection to Coolant & Oil: kW (BTUM)	61.0 (3469.0)
Coolant Flow: gal/min (L/min)	44.65 (169.00)

## Alternator Features

- NEMA MG1-32, BS5000, and IEC 34-1 compliant; CE & CSA Certified and UL Listed
- Self-ventilated and drip proof construction
- Two-thirds pitch stator and skewed rotor
- Wet wound, epoxied field windings
- Designed to withstand overspeeds of up to 125%
- Hybrid analog/digital voltage regulator
- Under frequency protection
- Under frequency indication light
- Less than one cycle response time
- Over excitation protection
- Over excitation indication light
- Easy access front-panel adjustments
- Over voltage protection shutdown
- Analog input for paralleling