SP-100

4.4L Perkins Powered Generator—Diesel

SP Series 100kW

EPA Emissions Compliant

Standard Features

- Perkins Diesel Engine Model 1104D-E44TAG2
- AC, Single Bearing direct coupled Alternator with Class 'H' insulation, Sized for 130°C Temperature Rise
- Control Panel with Auto-Start -Stop Basler DGC-2020
- Engine and Alternator mounted to steel base on vibration isolators
- Radiator sized for 120°F ambient clearance
- Thermostatically controlled Jacket Water Heater
- High Coolant Temp., Low Oil pressure safety shutdowns
- Dry Type Air Cleaner
- 12-VDC Starter, Engine mounted Battery Charging Alternator, Battery Cables and Rack along with Grounding Strap
- Battery Charger—6 Amp
- Complete set owner/operator, engine, alternator and accessory manuals

Generator Ratings—1800 RPM Diesel

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Ph</th>
<th>Hz</th>
<th>Standby Output (kW)</th>
<th>Prime Output (kVA)</th>
<th>Standby Max Amp Output</th>
<th>Wires</th>
</tr>
</thead>
<tbody>
<tr>
<td>120/240</td>
<td>1</td>
<td>60</td>
<td>100 ( 100 )</td>
<td>90 ( 90 )</td>
<td>416</td>
<td>12</td>
</tr>
<tr>
<td>120/208</td>
<td>3</td>
<td>60</td>
<td>100 ( 125 )</td>
<td>90 ( 112 )</td>
<td>346</td>
<td>12</td>
</tr>
<tr>
<td>120/240</td>
<td>3</td>
<td>60</td>
<td>100 ( 125 )</td>
<td>90 ( 112 )</td>
<td>300</td>
<td>12</td>
</tr>
<tr>
<td>277/480</td>
<td>3</td>
<td>60</td>
<td>100 ( 125 )</td>
<td>90 ( 112 )</td>
<td>150</td>
<td>12</td>
</tr>
</tbody>
</table>

Optional Equipment

Deluxe Enclosure—Features

- Weather Protective Enclosure constructed of 0.125" marine grade aluminum
- Sound attenuating insulation
- Weather proof and wind resistant up to 150mph
- Powder coat finished exterior and interior (standard grey)
- Removable, hinged doors (pictured) with keyed alike locks
- Interior mounted, residential grade exhaust silencer
- Battery Charger—6 Amp
- 120V Receptacle for battery charger and / or coolant heater
- Vertical radiator and exhaust discharge
- Oil & coolant drain lines with brass ball valves

Deluxe Enclosure—Options

- Custom color options
- Exterior mounted Emergency stop button with clear cover
- Exterior accessible GFCI outlet (s) with weather protective cover

Additional Gen-set Options

- Mainline circuit breaker (s)
- Permanent Magnet Generators (PMG) with Voltage Regulator upgrade
- Low coolant level switch
- Starting batteries
- 17 Light remote enunciator panel
- 120V Receptacle for battery charger and / or coolant heater
- Sub-base fuel tank
- "Stand-Alone" fuel tank (s)
- Transfer switches
- UL 2200 Certification (Ask your representative for availability)

Sample Deluxe model shown

*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 0.8 power factor. Ratings are established based on 85°F (29°C) and an elevation of 1,000 feet (305 meters). Please consult your Stateline representative for information concerning derates for temperature, altitude & humidity.

Manufactured by:
Stateline Power Corp • 650 Pine Street • Greenville, OH 45331 • 800-524-8344 www.statelinepower.com
SP-100 Technical Data

Engine Specifications

Model: Perkins Diesel Engine 1104D-E44TAG2
Direct injection, Vertical In-line 4 cycle, 4 Cylinder Turbocharged & Air Cooled, Dry type Air Cleaner.
Max. Power..............111.0 kWm (148.8 bhp) @ 1800 RPM
Cubic Capacity.........................269 in³ / 4.41 L
Bore & Stroke......................4.13” x 5.00” (105mm x 127mm)
Compression Ratio.........................16.2:1
Governor type......................................Electronic Frequency Regulation..................Isochronous, Steady-State ± 0.5%
Oil capacity Total system..................8.88 Qts. (8.4 liters)
Coolant capacity w/ Radiator........4.49 Gal. (17.0 liters)

Installation Data
Air requirement: Air Flow for Rad CFM (m³/min.)……………….N/A (N/A)
Exhaust System: Recommended Outlet size.........................4” (101.6mm)

Filtration:
Oil Filter....................................................Spin-on type
Air Filter....................................................Dry element type

Fuel Consumption:
Load Percentage (%)...50 75 100
US Gal. / h........3.7 5.3 7.1

Fuel Supply Line inlet........................................3/8” NPT
Pressure........................................7-11 in. H₂O
Fuel Type..............BS2869: Part 2 1998 Class A2 or ASTM D975 D2

General:
12V Starter, 65 Amps Alternator DC output Electric System
Recommended Battery.................................12V, 1190 CCA
Recommended Oil......................................SAE 5W-30 for 0°F and above

Alternator Specifications

<table>
<thead>
<tr>
<th>Type</th>
<th>Pole</th>
<th>Voltage Regulation</th>
<th>Class Insulation</th>
<th>Rated Temp. Standby</th>
<th>Coupling</th>
<th>Load Acceptance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brushless</td>
<td>4 Pole Rotating Field</td>
<td>+/- 1%, Volts/Hz, Electronic, EMI filtered</td>
<td>'H' to NEMA MG-1 -1.66</td>
<td>130°C Rise / 40°C Ambient</td>
<td>SAE Adapter, Flexible Disc, Direct.</td>
<td>One Step, 100% per NFPA 110</td>
</tr>
</tbody>
</table>

Features
Self ventilated drip-proof construction. Superior voltage waveform achieved by a 2/3 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%.

Control Panel Specifications

DGC2020
- Microprocessor Based, Navigation key with large LCD display
- Event Recording
- Transfer Switch Control (main failures)
- SAE J1939 CANBUS Communication
- Multilingual Capability
- Suitable for Rental application
- Remote Communication capability

Operational features
- Alternator Protection: under/over voltage, under/over frequency and Over Load
- Engine Protection: Low oil pressure, High coolant temperature, Over speed & over crank, Sender Unit failure, Fuel Leak / Fuel sender Failure, Battery Charger Failure
- All protections are programmable as Alarms or Pre-alarms
- Operating Power: Nominal 12-24 Vdc
- Consumption 14.2W run Mode
- Metering (ample range):
  - Volts, Current, Hz, Watts, VA, Pf
  - Oil Pressure, Coolant Temperature, RPM, DC Volts, Fuel Level, Engine running time
- Engine Control with Timers
- External remote start input (on or off load)
- 16 programmable contact inputs
- 4 Contact outputs

Dimensions & Weight

Open: (inches) 84L x 36W x 53H  Weight (lbs.) 2578
Deluxe: (inches) 103L x 36W x 57H  Weight (lbs.) 2994