

# SP-450



## 15.2L Perkins Powered Generator— Diesel

SP Series 450kW



EPA Emissions Compliant



Sample unit shown w/ exhaust silencer

### Standard Features

- Perkins Diesel Engine Model 2506D-E15TAG1
- 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—10 Amp
- Complete set owner/operator, engine, alternator and accessory manuals



### Generator Ratings—1800 RPM Diesel

Voltage	Ph	Hz	Standby Output kW (kVA)	Prime Output kW (kVA)	Standby Max Amp Output	Wires
120/208	3	60	450 (562)	405 (506)	1561	12
120/240	3	60	450 (562)	405 (506)	1353	12
277/480	3	60	450 (562)	405 (506)	677	12

### Optional Equipment

#### Deluxe Enclosure—Features

- Weather Protective Enclosure constructed of 0.125" marine grade aluminum
- Sound attenuating insulation
- Weather proof and high wind resistant construction
- Powder coat finished exterior and interior (standard grey)
- Removable, hinged doors (pictured) with keyed alike locks
- Interior mounted, residential grade exhaust silencer
- Battery Charger—10 Amp
- 120V Receptacle for battery charger and / or coolant heater
- Vertical radiator and exhaust discharge
- Oil & coolant drain lines with brass ball valves



Sample Deluxe model shown

#### 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)

\*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](http://www.statelinepower.com)

# SP-450 Technical Data



## Engine Specifications

**Model: Perkins Diesel Engine 2506D-E15TAG1**  
*Direct injection, Vertical In-line 4 cycle, 6 Cylinder*  
*Turbocharged & Air Cooled, Dry type Air Cleaner*  
 Max. Power.....490 kWm (657 bhp) @ 1800 RPM  
 Cubic Capacity.....15.2 L  
 Bore & Stroke.....5.39" x 6.73" (137mm x 171mm)  
 Compression Ratio.....16.0:1  
 Governor type.....Electronic  
 Frequency Regulation.....Isochronous, Steady-State ± 0.5%  
 Oil capacity Total system.....65.5 Qts. (62 liters)  
 Coolant capacity w/ Radiator.....15.3 Gal. (58 liters)

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

### Fuel Consumption:

Load Percentage (%)	50	75	100
US Gal. / h	17.7	24.5	29.9

Fuel Supply Line inlet.....1/2" NPT  
 Pressure.....7-11 in. H<sub>2</sub>O  
 Fuel Type.....BS2869: Part 2 1998 Class A2 or ASTM D975 D2

### Installation Data

**Air requirement:**  
 Air Flow for Rad CFM (m<sup>3</sup>/min.).....N/A (N/A)  
**Exhaust System:**  
 Recommended Outlet size.....6" (152.4mm)

### General:

24V Starter, 70 Amps Alternator DC output Electric System  
 Recommended Battery.....12V, 1400 CCA  
 Recommended Oil.....SAE 15W-40 to API CI4

## Alternator Specifications

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

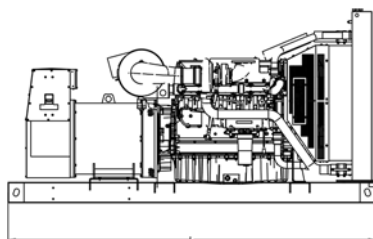
- Microprocessor Based, Navigation key with large LCD display
- Event Recording
- Transfer Switch Control (main failures)
- SAE J1939 CANBUS Communication
- Multilingual Capability
- Suitable for Rental application
- Remote Communication capability

### Operational features

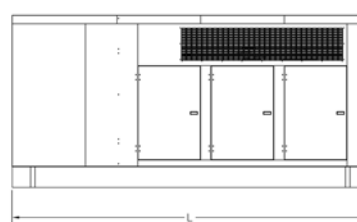
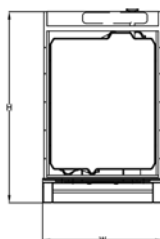
- Alternator Protection: under/over voltage, under/over frequency and Over Load
- Engine Protection: Low oil pressure, High coolant temperature, Over speed & over crank, Sender Unit failure, Fuel Leak / Fuel sender Failure, Battery Charger Failure
- All protections are programmable as Alarms or Pre-alarms
- 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

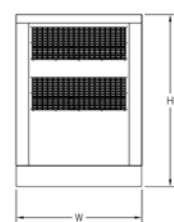
## Dimensions & Weight



**Open:** (inches) 168L x64W x78H Weight (lbs.) 10,150



**Deluxe:** (inches) 228L x64W x82H



Weight (lbs.) 13,200