

WPP500 Power Module



Frequency	Voltage	Standby kW (kVA)	Prime kW (kVA)
60 Hz	480 V	500 (625)	455 (568)

FEATURES

EMISSIONS

- EPA Tier 2 Emissions Certified for non-road mobile applications

CATERPILLAR C15 ATAAC DIESEL ENGINE

- Utilizes ACERT[®] Technology
- Reliable, rugged, durable design
- Field-proven in multiple applications worldwide
- Four-stroke-cycle diesel engine combines durability with minimum weight while providing dependability and economy

CAT SR4B GENERATOR

- Designed to match performance and output characteristics of Caterpillar diesel engines
- Caterpillar 499 Frame – 480V Only
- UL1446 Recognized Class H Insulation

ENCLOSURE

- 20Ft High Cube Acoustic ISO Container
- Sound Attenuated
- Mineral Wool and perforated Galvanized steel sheet insulation.
- Two-layer paint finish

ENVIRONMENTALLY FRIENDLY DESIGN

- Sound attenuated for low noise operation
- OSHA compliant safe design
- 110% spill containment for coolant and oil
- 805-gallon UL 142 certified dual wall fuel tank

PRODUCT SUPPORT

- Parts availability through WPP and Caterpillar dealer network.
- 99.7% of parts orders filled within 48 hours.

Design Criteria

- Accepts 100% rated load in one step per NFPA110 and meets ISO 8528-5 Transient response

FACTORY INSTALLED STANDARD EQUIPMENT

Air Inlet System	Air cleaner, dual element Turbocharger
Charging System	Battery charger Heavy duty charging alternator
Control Panel	Generator monitoring Fuel tank monitoring Engine controls and monitoring Digital displays
Cooling System	Fan and belt guards Engine mounted radiator ATAAC (Air to Air Aftercooler)
Distribution Panel	15 degree camlock connections - 3 per phase / 3 neutral / 1 ground camlock with grounding lug Motorized Circuit breaker with 24 VDC shunt trip Remote start/stop contacts 120v shore power receptacle for battery charger 240V shore power receptacle for block heater External E-Stop Indicator Light for live buss
Containerized Power Module	20FT High Cube Acoustic Container 12-gauge steel Lockable doors Exterior oil, water, and fuel drains with valves. Mineral Wool and perforated galvanized steel sheet insulation Two-Layer Paint Finish 2-axle 20' ISO Container Chassis
Fuel System	Racor fuel filter/water separators UL 142 dual wall fuel tank, 3047 L (805 g) 15GPM External Fuel Control Pump System
Generator	Brushless, Self-Excited Coastal corrosion protection Shock mounted VR6 voltage regulator 499 Frame - Single Bearing SAE 14/1 Flywheel & Housing Single Bearing – 2/3 pitch
Mounting System	Generator soft mounted to base Skidable structural steel design 110% oil and coolant spill containment
Starting System	Electric starting motor Battery set with disconnect switch Jacket water heater with thermostat, shut- off valves

<p><u>CAT Generator</u></p> <p>Frame size.....499</p> <p>Type.....self-excited brushless</p> <p>Construction single bearing, close coupled</p> <p>Insulation.....Class H with Coastal insulation protection</p> <p>IP rating 22</p> <p>Alignment Pilot shaft</p> <p>Voltage regulator ...3-phase sensing with Volts-per-Hertz</p> <p>Voltage regulation $\pm 1/2\%$ steady state/$\pm 1/2\%$ No load to full load</p> <p>TIF Less than 50</p> <p>THD Less than 40%</p> <p>Leads..... 6 leads – 480V Only</p>	<p><u>CAT ENGINE</u></p> <p>C15 ATAAC, 4-stroke-cycle water-cooled diesel</p> <p>Power(hp).....693hp</p> <p>Compression ratio16.1:1</p> <p>AspirationTurbocharged- ATAAC</p> <p>Engine control.....ADEM™ Control System</p> <p><u>CAT CONTROL PANEL – EMCP 3.1</u></p> <p>24 Volt DC Control NEMA</p> <p>IP22 drip proof enclosure</p> <p>Lockable hinged door</p> <p>16 light alarm module with alarm horn</p> <p>EMCP4.4 Paralleling Panel (Available at additional cost)</p>
---	--

Distribution Panel

1. 800A motorized breaker for paralleling capability with adjustable trip and 24V DC shunt trip
2. 15 deg color coded camlocks per phase (brown, orange, yellow, white, and green)
3. 3 camlocks per phase, 3 neutral, and 1 ground camlock with ground lug
4. 120V shore power receptacle for battery charger
5. 120V shore power connection for block heater
6. Indication light for live buss
7. Emergency E-Stop
8. Remote start/stop contacts
9. Caterpillar EMCP3.1 Control Panel (EMCP 4.4 Panel available at additional cost)

Dimensions and Weight

Length	6096 mm	240 in
Width	2438.4 mm	96 in
Height	4230 mm	166.5 in
Approximate Weight – Including Container	14,000 kg	30,870 lbs.
Approximate Weight with chassis	16,700 kg	36,900 lbs.

Additional Photos



Shore Power, E-Stop, Auto-Start, Live Bus Indication



Camlock Distribution Panel



LED Interior Lighting



Breaker Cabinet



10A Battery Charger



Racor Fuel Filters

TECHNICAL DATA

	Units	Prime
Power Rating	kW (kVA)	455 (568)
Performance Spec		DM8154
Fuel System		
Fuel Consumption		
100% Load	gal/hr	33.8
75% Load	gal/hr	26.1
Running time at 75% Load	hours	31
Fuel Tanks Capacity	gallons	805
Cooling System		
Ambient Capability	°C (°F)	43 (109.4)
Engine and Radiator Coolant Capacity	L (gal)	101 (27)
Engine Coolant Capacity	L (gal)	27 (7)
Noise Rating		
@ 7 meters (23 feet)	dB(A)	72
Emissions (with fan at 455kW)	EPA Tier 2	EPA Tier 2
NOx	g/hr	2,978
CO	g/hr	997
HC	g/hr	39
PM	g/hr	45.8

Rating Definitions and Conditions

Meets or Exceeds International Specifications:

NEMA MG1-32, IEC 60034, CSA, 98/37/EEC, 72/23/EEC, UL508, UL142, ISO3046/1, ISO8528, 89/336/EEC

Standby- Output available with varying load for the duration of the interruption of the normal source power. Standby power in accordance with ISO8528.

Prime- Output available with varying load for an unlimited time. Prime power in accordance with ISO8528. 10% overload power in accordance with ISO3046/1

Fuel rates are based on fuel oil of 35° API [@ 16° C (60° F)] gravity having an LHV of 42 780 kJ/kg (18,390 Btu/lb) when used at 29 C (85 F) and weighing 838.9 g/liter (7.001 lbs./U.S gal)