

Capabilities and Features:

The PU500 is a trailer-mounted, diesel engine driven, prime power generator unit that produces 500 kilowatts, 480 volts line-to-line at 60 Hz with a 0.8 power factor, lagging. The PU500 is configured to operate alone or in parallel with other PU500 generators as prime power generators.

The PU500 is a diesel engine driven, prime power rated generator factory rated at 500KW, but environmental condition rated to produce 500 kilowatts at 480 VAC, 60 Hz with a 0.8 lagging power factor. The generator is rated to deliver 601 amps at rated output voltage.

The engine is a Volvo TAD1642GA, EPA Tier II certified engine. The engine is a 16-liter, in-line, 6-cylinder, 4-stroke electronic engine capable of producing 724 horsepower at 1800 RPM operating on DF-2 diesel fuel. To maintain a controlled working temperature in cylinders and combustion chambers, the engine is equipped with piston cooling. The engine is also fitted with replaceable cylinder liners and valve seats/guides to ensure maximum durability and service life of the engine.

The alternator is a Marathon MagnaMax® series alternator. The alternator meets NEMA MG1-22, BS500, CSA C22.2, IEC 34-1, and VDE 0530 requirements. Optimized windings provide low reactances and utilizing a 2/3 pitch, minimizes harmonic distortion and facilitates parallel operation. Class H insulation is used along with unsaturated polyesther varnish for optimal insulation life and moisture protection.

POWER UNIT - 500KW (PU500)



Output Breaker - The output breaker is a molded case circuit breaker with an electronic trip unit. The breaker is manually operated and has a shunt trip device installed for remote tripping.

Generator Controller - The generator digital controller provides all the start/stop, monitoring and protection for the engine and generator. The controller allows paralleled operations between up to (32) PU500 generator sets.

DC Control Power Switch - The DC Control Power switch is a maintained, 2-position toggle switch. The "Off" position removes all DC control power to the engine and controls, de-energizing the PU. The "On" position energizes the DC control power allowing the engine and generator to operate normally.

Emergency Stop Pushbutton - The Emergency Stop button is a maintained position switch. It sends a stop command to the Generator Controller to turn off the engine. It also immediately sends a shunt trip command to trip the breaker.

A shunt trip command places the breaker operator in the trip-free position, requiring the breaker be moved to the open position before it may be reclosed.

GENERAL EQUIPMENT DATA

Manufacturer	PD SYSTEMS
PD Systems Part Number	PDS-PU500
NSN	TBD
Operating Temperature	-25°F to +125°F
Storage Temperature range	-65°F to +150°F