

The **PM500-AC** Power Module is a component in a Digital Electricity™ line powering system. When paired with a VoltServer transmitter shelf and a receiver, a Digital Electricity™ (DE) system is formed. If a fault occurs within the DE wiring (such as a person touching the wires), power is disconnected; preventing fire, equipment damage and personal injury. The **PM500-AC** must be used with a listed VoltServer Transmitter shelf.



Digital Electricity™ is a **Limited Power Source** per IEC/UL/Can 62368-1 suitable for supplying a **Class 2 circuit** under **NEC Art. 725** and **CEC Rule 16-200** (NOTE: Always follow local codes).

Specifications

INPUT DATA	
Voltage (nominal)	176 - 277 V _{AC} / 260 - 400 V _{DC}
Voltage (range)	85 - 305 V _{AC} / 260 - 410 V _{DC}
Frequency	45 - 66 Hz / 15 - 18.5 Hz ²⁾ / DC
Current (maximum) @ nominal input, full load	18.2 A _{RMS}
Power Factor	> 0.99 at 50% load or more
Protection	Fuse in L & N. Varistor. Disconnect when V _{IN} is out of range
OUTPUT DATA	
Voltage (nominal)	336 V _{DC}
# Pb cell supported	156 - 168 ³⁾
Power continuous (maximum)	3000 W
Power @ 85 V _{AC} / 85 V _{DC}	1200 W
Current continuous (maximum)	9 A (@V _{OUT} < 336 V _{DC}) / 7.9 A (@ V _{OUT} = 381 V _{DC})
Current sharing (10 - 100% load)	±5% of maximum current from 10 to 100% load
Static Voltage regulation (10 - 100% load)	±0.5%
Dynamic Voltage regulation	±2.0% for 10-90% or 90-10% load variation, regulation time < 10 ms
Hold up time	> 20 ms; output voltage > 300 V _{DC} at 1500 W load
Ripple	< 1000 mV _{P-P} , 30 MHz bandwidth
Protection	Overvoltage shutdown, Hot plug-in - Inrush current limiting, ORing diode, Fuse ⁵⁾ , Short c High temperature protection, Overload shutdown ⁴⁾
OTHER SPECIFICATIONS	
Efficiency @ 230 V _{AC} / 380V _{DC} input	96.2% / 96.6%
Isolation	3.0 kV _{AC} - input to output, 1.5 kV _{AC} - input to earth, 1.5 kV _{DC} - output to earth 3.0 kV _{AC} - CAN to primary, 3.0 kV _{AC} - CAN to secondary
Alarms (Red LED)	Low mains shutdown, High and low temperature shutdown, Rectifier Failure, Overvoltage on output, Fan failure, Low voltage alarm, CAN bus failure
Warnings (Yellow LED)	Rectifier in power derate mode, Remote battery current limit activated, Input voltage o flashing at overvoltage
Normal (Green LED)	Input and output ok
Acoustic noise, at nominal input and full load	< 40dBA @ T _{ambient} < 25°C / < 58dBA @ T _{ambient} > 40°C
MTBF (Telcordia SR-232 Iss.3 Meth. II Case L1)	2 291 210h (@ T _{ambient} = 25 °C)
Operating temperature	-40 to +75°C (-40 to +167°F), humidity 5 - 95% RH non-condensing Output power de-rates linear from 3000W @ 50°C (122°F) to 980W @ 75°C(167°F)
Storage temperature	-40 to +85°C (-40 to +185°F), humidity 0 - 99% RH non-condensing
Dimensions[WxHxD] / Weight	109 x 41.5 x 327 mm (4.25 x 1.69 x 13") / < 1.95 kg (4.3 lbs)

PM500-AC Power Module Installation

For detailed installation instructions, refer to VoltServer Transmitter Quick Start guides or the Best Practices guide.