

ATTACHMENT K

Photo Plates

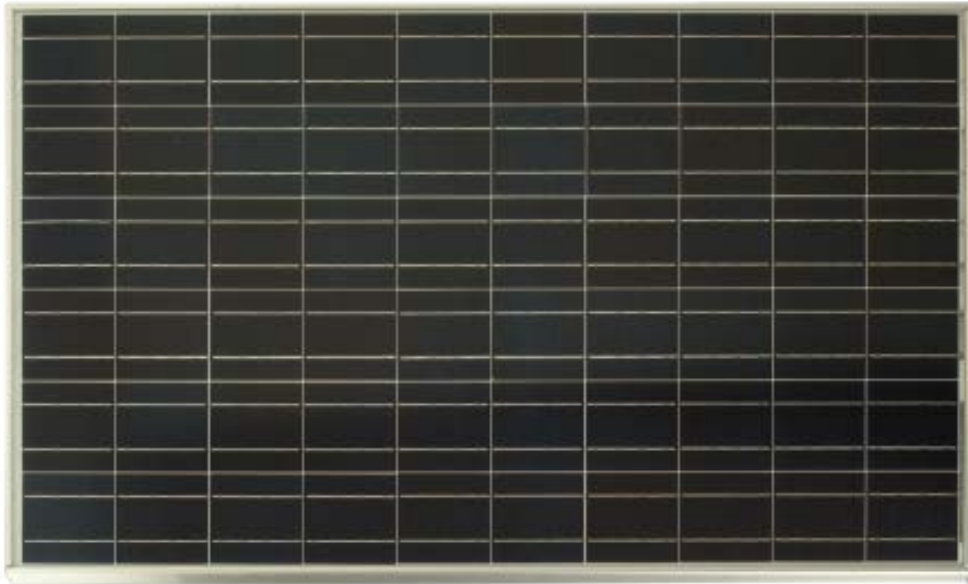


Photo Plate 1: Representative Solar Module (Source: Sharp Electronics Corporation)



Photo Plate 2: Single-Axis Tracking System by RayTracker (Source: Array Technologies)



Photo Plate 3: Proposed Fixed Tilt Mounting Structure (Source: Dreamstime.com, used with permission)



PowerGate® Plus 1 MW

PVS – 1000 (MVT)

Unparalleled Performance

With their advanced system intelligence, next-generation Edge™ MPPT technology, and industrial-grade engineering, PowerGate Plus inverters maximize system uptime and power production, even in cloudy conditions.

Power Efficiency (Inverter Only)

Power Level	Output Power	Efficiency
10%	100 kW	96.2%
20%	200 kW	97.4%
30%	300 kW	97.6%
50%	500 kW	97.8%
75%	750 kW	97.7%
100%	1000 kW	97.5%

Measured at 420V

Edge MPPT

Provides rapid and accurate control that boosts PV plant kilowatt yield

Provides a wide range of operation across all photovoltaic cell technologies

Printed Circuit Board Durability

Wide thermal operating range: -40° C (-40° F) to 85° C (185° F)

Conformal coated to withstand extreme humidity and air-pollution levels

Proven Reliability

Rugged and reliable, PowerGate Plus PV inverters are engineered from the ground up to meet the demands of large-scale installations.

Low Maintenance

Modular components make service efficient

Dual cooling fans

Safety

UBC Seismic Zone 4 compliant

Built-in DC and AC disconnect switches

Integrated DC two-pole disconnect switch isolates the inverter (with the exception of the GFDI circuit) from the photovoltaic power system to allow inspection and maintenance

Protective covers over exposed power connections

PV Inverters | PowerGate® Plus 1 MW



PowerGate Plus 1 MW Specifications		UL/CSA	CE
Input Parameters			
Maximum Array Input Voltage	900 VDC	•	•
	Floating	•	•
Input Voltage Range (MPPT; Full Power)	420–815 VDC	•	•
Maximum Input Current	2,442 ADC	•	•
Output Parameters			
Nominal Output Voltage to Transformer	265 VAC	•	•
Output Frequency Range	59.3–60.5 Hz	•	
	49.3–50.5 Hz		•
AC Voltage Range (Standard)	-12%/+10%	•	•
Nominal Output Frequency	60 Hz	•	
	50 Hz		•
Number of Phases	3	•	•
Maximum Output Current per Phase	2,178 A	•	•
CEC Weighted Efficiency (Inverter/System)	97.5%/96% ¹	•	•
Maximum Continuous Output Power	1000 kW (1000 kVA)	•	•
Power Factor at Full Load	>0.99	•	•
Harmonic Distortion	<3% THD	•	•

- Standard
- Optional

¹ System efficiency is calculated as combination of measured inverter efficiency and typical transformer efficiency.

Photo Plate 4: Specifications for a Typical Inverter (Source: Satcon Technology Corporation, 2010)

COMPONENTS

For the ultimate in value and reliability, the Central Moloney Components Operation produces the majority of the components used on Central Moloney's three-phase padmounted transformers. For over 30 years, Central Moloney Components has been a leader in the design and manufacture of transformer components. You can be assured that the primary and secondary bushings, primary switch, dual voltage switch, tap changer, current limiting fuse holders, drip shields, etc. will have the Central Moloney logo of quality on them.



PRODUCT FEATURES

Three-Phase Padmounted Transformers

Central Moloney, Inc. produces three-phase padmounted distribution transformers, oil filled, 45 kVA and above, up to 34.5 kV voltage class. Our three-phase padmounted distribution transformers are designed and manufactured in compliance with all applicable ANSI and RUS industry standards for installation on three-phase underground systems.

TESTING

Our three-phase transformers undergo rigorous testing outlined by IEEE/ANSI Standards.

These tests include:

- Impulse
- Hipot
- No-Load Loss (Core Loss)
- Load Loss (Copper Loss) & Impedance
- Phase Relation
- Induce
- Ratio
- Other tests as required by customer or specification.

QUALITY ASSURANCE

Central Moloney's quality management system has earned ISO-9001 certification. ISO certification at Central Moloney provides the basis for control and continuous improvement. We believe that making quality products requires the full understanding and commitment of each employee. Employees are made aware of the company objectives and quality policy by training, quality assurance procedures and quality audits.



Recessed handle closed.



Recessed handle open.



3-point latching mechanism.



Handhole with tamper-proof cover.

STANDARD FEATURES & ACCESSORIES

- Cabinet secured to tank with 300 series stainless studs
- Removable doors and sill
- Three point door-latching mechanism with penta head bolt
- Steel barrier separating high and low voltage compartments
- Access to high voltage compartment via penta head bolt(s)
- Tank equipped with four (4) lifting lugs
- Jacking provisions
- Tank and cabinet painted Munsell 7GY3.29/1.5 Green
- Zinc epoxy primer
- High voltage bushings are externally clamped universal wells
- Low voltage bushings are externally clamped with ANSI spades
- Removable neutral ground strap on low voltage neutral bushing
- One-inch oil fill plug
- Drain valve with sampling device
- 25°C liquid level plug
- Automatic pressure relief valve
- Externally operated HO Disconnect (WYE-WYE)
- Accessory parking stands (Dead-Front Only)
- Door stop rods
- Tank grounding provisions (1 in HV, 1 in LV)

OPTIONAL ACCESSORIES

- Draw-out expulsion fuses with isolation links or internal expulsion fuses
- Non-metallic drip shield
- Draw-out full range current limiting fuse
- Internal partial range current limiting fuse with internal or draw-out expulsion fuses
- Draw-out, non-loadbreak current limiting fuses, with interlocking loadbreak switch
- Loadbreak or non-loadbreak high voltage bushing inserts
- Integral high voltage bushings
- Low voltage bushing connectors or non-standard ANSI spades
- Dual voltage switch
- Delta-WYE switch
- Tap changer switch
- Loadbreak sectionalizing switch
- Pressure/vacuum gauge
- Temperature gauge
- Liquid level gauge
- Handhole(s) with tamper-resistant cover
- Additional support for low voltage spades

Check with a factory sales representative for availability of other optional accessories not listed.

Photo Plate 5:A Typical Transformer Cabinet (Source: Central Maloney, Inc.)



Photo Plate 6: Example of Cabling Being Installed in Trenches for Interconnection to Grid



Photo Plate 7: Example of Cabling Being Installed in Trenches for Interconnection to Grid