



ADVANCED POWER
TECHNOLOGIES

Caterpillar Power Module PLC Upgrade Kit



CMP100 Kits & Accessories Solutions Brochure

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**SAFE SMART SERVICEABLE SWITCHGEAR &
ENGINEERED POWER SYSTEM SOLUTIONS**



ALN: 503 Rev. 03

PLC Upgrade Kit Applications

Product Benefits

This upgrade kit replaces the obsolete Siemens PLC/HMI based automatic loading controllers used in Caterpillar Utility Grade and Utility Convertible Power Module switchgear produced approximately between 1995 and 2001. The kit utilizes current technology PLC and HMI system programmed for the application, ensuring customer genset assets can continue to operate well into the future.

Removal of the existing Siemens PLC components, installation and some wiring inside the switchgear is required and can usually be accomplished in less than one day by a qualified technician. Three days to complete five upgrades is typical. Much of the existing wiring can be utilized in the new installation, saving time. No door cut-out modifications are required.

Switchgear goes
inside enclosure

Utility Grade CAT PM Upgrade Kit.
Touchscreen HMI & Cable go near the top
front of switchgear. PLC goes on the top
center of the switchgear interior

What's in the Box?

HMI Door Mounting Plate and hardware (fits existing Siemens Cut-Out for both OP5 and OP7 HMI Units)

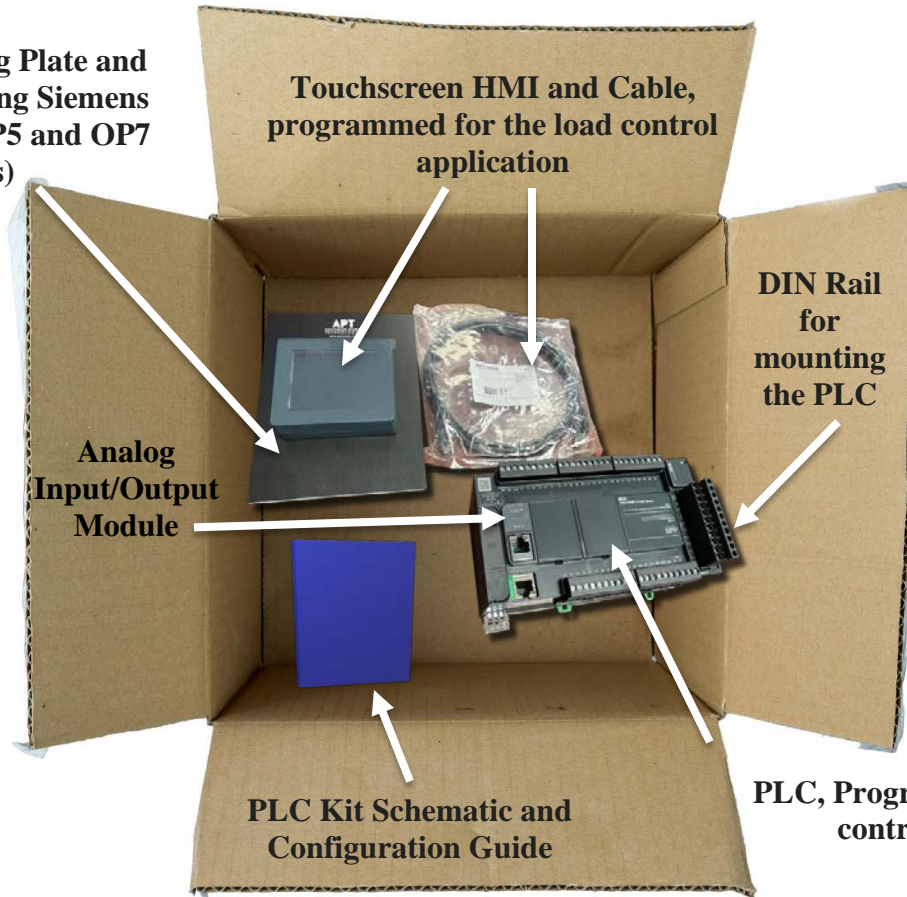
Touchscreen HMI and Cable, programmed for the load control application

DIN Rail for mounting the PLC

Analog Input/Output Module

PLC Kit Schematic and Configuration Guide

PLC, Programmed for the load control application



Functionality & Features

- ⦿ NEMA 4X (IP 65) Touch-sensitive color graphical display screen. HMI screen is backlit with automatic screensaver
- ⦿ Event Log of every PLC input and output (including generator and utility circuit breaker positions, Lock-out Relay, Start and Stop Inputs and Start Output)
- ⦿ Generator set Start/Load and Stop/Unload from the HMI touchscreen
- ⦿ Large display of generator KW
- ⦿ Capability to interface with site SCADA systems*

Customer Support

APT tech support provided by phone to help with kit installation and check-out. We have service parts in stock and can quickly ship programmed replacement parts if a failure occurs in the future.

About Advanced Power Technologies



Advanced Power Technologies (APT) is on the cutting edge of the latest engineered power system smart technologies, as it relates to microgrid & storage management, renewable & conventional energy source deployment, demand peak shaving, and facility back-up and co-generation power systems. Located in the central United States and headquartered in Lafayette, Indiana with solutions development engineers around the country, APT provides domestic and international products and services to industry leading companies from around the world. APT engineers have decades of power system experience from working with some of the largest companies in industry. Over the last two decades, we have produced successful solutions for hundreds of large-scale electric power projects involving utility/generator paralleling, transfer, peak shaving, and distribution. We pride ourselves in providing electrical power systems that are engineered and custom built, utilizing state-of-the-art technologies to fit our customer's exact needs. The core of our business is low & medium voltage engineered power systems for a wide range of indoor & outdoor applications, such as:

- ⊙ Utility(ies) and Generator(s) Paralleling/Transfer/Peak Shaving/Distribution Switchgear
- ⊙ Microgrids, Microgrid Master Control Panels, SCADA systems
- ⊙ Containerized Battery Energy Storage Systems (BESS)
- ⊙ Photovoltaic (PV) Solar Power Collection/Distribution & Renewable Energy Storage Systems
- ⊙ Low & High Resistance Grounding Systems, Grounding Systems for Photovoltaic Effective Grounding
- ⊙ High Efficiency Combined Heat and Power Switchgear & Control Systems (CHP, Co-generation)
- ⊙ Outdoor Walk-In Electrical Houses (E-Houses) & Skid-Mounted Switchgear
- ⊙ Motor Control Centers & Motor Control Switchgear
- ⊙ Automatic & Manual Load Transfer Switchgear
- ⊙ Bypass/Isolation & Power Distribution Circuit Breaker Switchboards
- ⊙ Generator/Loadbank Quick Connection Switchgear, Switchboards, & Tap Boxes
- ⊙ Industrial Control Panels

Please see our product webpages on www.appt-power.com for product brochures and relevant information. Actual products may look different from images shown on the website and in brochures, based on actual specifications. APT cares and understands that each power system is different. We will evaluate various solutions to develop the best solution for a site. APT focuses on our ability to a combine several traditional pieces of equipment/functionality into as little of a footprint possible. This saves on space, the cost of equipment, cost of installation, and accomplishes the most optimal/state-of-the-art design your facilities. APT's desires to foster and grow a culture of continued open communication with each customer. Let APT be your source to provide fully engineered power system equipment solutions for the full customer facility on time, on or under budget, and in the smallest footprint possible. We are always available to assist customers and engineers representing customers in the development of complex power solutions for all facility types.