



## EMCP 4.1 GENERATOR SET CONTROLLER

Caterpillar is leading the power generation market place with power solutions engineered to deliver unmatched performance, reliability, durability and cost-effectiveness.

### FEATURES

#### GENERAL DESCRIPTION

The Cat<sup>®</sup> EMCP 4.1 offers AC metering, protective relaying and engine and generator control and monitoring. Engine and generator controls, diagnostics, and operating information are accessible via the control panel keypads.

#### BASIC RANGE OF ATTACHMENTS

- Flexible packaging options for easy and cost effective installation.

#### WORLD WIDE PRODUCT SUPPORT

- Cat dealers provide extensive pre sale and post sale support.
- Cat dealers have over 1,600 dealer branch stores operating in 200 countries.

#### FEATURES

- A 33 x 132 pixel, 3.8 inch, graphical display denotes text alarm/event descriptions, set points, engine and generator monitoring, and is visible in all lighting conditions.
- Textual display with support for 28 languages, including character languages such as Arabic, Chinese, and Japanese.

- Integration with the CDVR provides enhanced system performance.
- Protective relaying engine and generator parameter viewing, and AC metering are all integrated into this controller.
- Up to 40 diagnostic events are stored in the non-volatile memory.
- Set points and software stored in nonvolatile memory, preventing loss during a power outage.
- Reduced power mode offers a low power state to minimize battery requirements.
- Three levels of security allow for configurable operator privileges.
- Selectable units
  - Temperature: °C or °F
  - Pressure: psi, kPa, bar

## STANDARD FEATURES

Generator Monitoring	<ul style="list-style-type: none"> <li>• Voltage (L-L, L-N)</li> <li>• Current (Phase)</li> <li>• Average Volt, Amp, Frequency</li> </ul>
Generator Protection	<ul style="list-style-type: none"> <li>• Generator phase sequence</li> <li>• Over/Under voltage (27/59)</li> <li>• Over/Under frequency (81 O/U)</li> </ul>
Engine Monitoring	<ul style="list-style-type: none"> <li>• Coolant temperature</li> <li>• Oil pressure</li> <li>• Engine speed (RPM)</li> <li>• Battery voltage</li> <li>• Run hours</li> <li>• Crank attempt and successful start counter</li> </ul>
Engine Protection	<ul style="list-style-type: none"> <li>• Control switch not in auto (alarm)</li> <li>• High coolant temp (alarm and shutdown)</li> <li>• Low coolant temp (alarm)</li> <li>• Low coolant level (alarm)</li> <li>• High engine oil temp (alarm and shutdown)</li> <li>• Low, high, and weak battery voltage</li> <li>• Overspeed</li> <li>• Overcrank</li> </ul>
Control	<ul style="list-style-type: none"> <li>• Run / Auto / Stop control</li> <li>• Speed and voltage adjust</li> <li>• Local and remote emergency stop</li> <li>• Remote start/stop</li> <li>• Cycle crank</li> </ul>
Inputs & Outputs	<ul style="list-style-type: none"> <li>• Two dedicated digital inputs</li> <li>• Six programmable digital inputs</li> <li>• Six form A dry contacts</li> </ul>
Communications	<ul style="list-style-type: none"> <li>• Primary CAN data link</li> </ul>
Language Support	Arabic, Bulgarian, Chinese, Czech, Danish, Dutch, English, Estonian, Finnish, French, German, Greek, Hungarian, Icelandic, Italian, Latvian, Lithuanian, Japanese, Norwegian, Polish, Portuguese, Romanian, Russian, Slovak, Slovene, Spanish, Swedish, Turkish
Environmental	<ul style="list-style-type: none"> <li>• Control module operating temperature: -40°C to 70°C</li> <li>• Display operating temperature: -20°C to 70°C</li> <li>• Humidity: 100% condensing 30°C to 60°C</li> <li>• Storage temperature: -40°C to 85°C</li> <li>• Vibration: Random profile, 24-1000 Hz, 4.3G rms</li> </ul>

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