

# SIERS integrated electrical racking system

## For SIMOVAC™ non-arc-resistant and SIMOVAC-AR™ arc-resistant medium-voltage motor controllers

Siemens SIERS integrated electrical isolation switch operating system provides additional personnel protection against arc-flash exposure for operators by providing a means of remotely operating the non-load disconnect between the ON and OFF position for Siemens SIMOVAC non-arc-resistant and SIMOVAC-AR arc-resistant medium-voltage controllers.

Type SIERS for SIMOVAC and SIMOVAC-AR delivers a safe, easy-to-use, cost-effective, reliable and flexible way to remotely operate the non-load isolation switch while standing outside of the arc-flash zone. This reduces the need for personal protective equipment (PPE) per the NFPA-70E® standard.

### Safety features:

- Maintains all of the safety interlocks as required by UL 347 and CSA 22.2 No. 253
- If interference is experienced while closing the non-load isolation switch, the SIERS system will attempt to return to the OFF position

- The control pendant (hand-held controller) is the same as used for GM-SG or GM-SG-AR metal-clad switchgear and provides clear light-emitting diode indication of the position of the non-load isolation switch in the ON (CONNECT) and OFF (DISCONNECT) positions
- When plugged into a specific controller compartment, the control pendant will override any electronic control system (HMI, SCADA or similar).

### Easy to use and operate:

- User-friendly control pendant with easy to read display and controls
- Provisions for energizing SIERS with an external 120 Vac power supply with an extension cord (optional)
- The fixed-mounted motor integrated in the controller compartment provides smooth and efficient movement of the non-load isolation switch between the OFF position and the ON position.

### Reliable:

- Logic to sense interference issue during open and close operations when moving from ON to OFF or vice-versa
- Operation is smooth and consistent
- Control pendant is industrial class
- Factory installed and tested as an integrated remote switch operating system.

### Flexible:

- Powered by stationary-mounted distribution transformer located in the controller lineup or powered from a 120 Vac or 125 Vac external source
- Controls can be integrated into the switchgear secondary control circuits interface with the protection relay to provide interface with SCADA systems, local HMI or discrete wiring
- Available as a field retrofit for existing Siemens types SIMOVAC and SIMOVAC-AR medium-voltage motor controllers
- Lineups of SIMOVAC and GM-SG non-arc-resistant or SIMOVAC-AR and GM-SG-AR arc-resistant equipment can be furnished with SIERS.

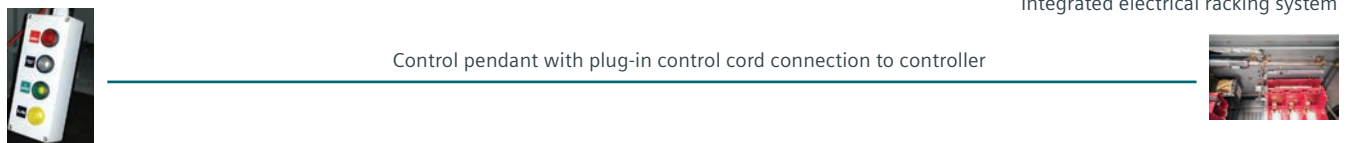
### Control options:

- Type SIERS device is available in three control configurations: basic version, local HMI version (Sm@rtGear™ power distribution solution), and custom version, e.g., SCADA or other systems.

Type	Configuration	Description
Basic	1	Each controller cell is equipped with an SIERS integrated electrical isolation switch operating system, which includes a fixed-mounted motor, logic-control module, control-pendant connector powered by control power in the controller or an external supply (either 120 Vac or 125 Vdc) when necessary. Typically, one control pendant is supplied per lineup. <ul style="list-style-type: none"> <li>■ Type SIERS integrated non-load isolation switch operating system; one per main contactor cell</li> <li>■ Control pendant – one per lineup.</li> </ul>
Local HMI	2	Basic type plus local HMI panel PC interface with SIMOVAC, SIMOVAC-AR, GM-SG, GM-SG-AR or GM38 lineup(s) in the electrical room: <ul style="list-style-type: none"> <li>■ Panel PC display HMI with easy-to-use graphic interface.</li> </ul>
Remote SCADA	3	Basic type plus custom interface with SCADA or other system: <ul style="list-style-type: none"> <li>■ Local HMI (optional).</li> </ul>

**Configurations:**

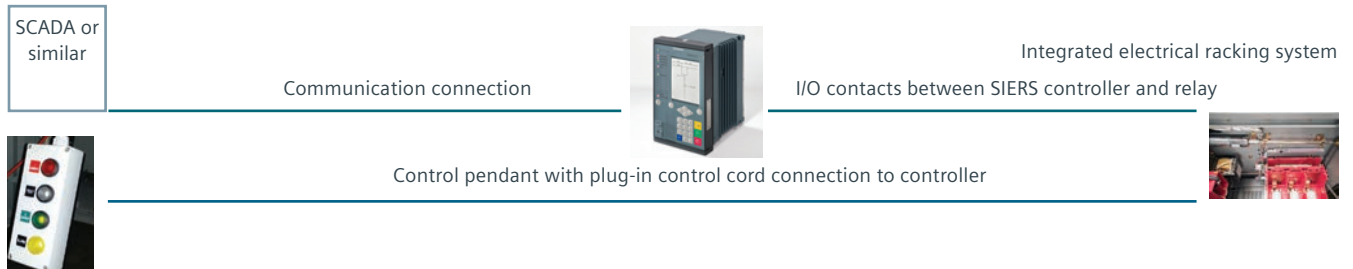
**Configuration 1: Basic type**



**Configuration 2: Local HMI type**



**Configuration 3: Remote SCADA type**



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Siemens Industry  
 7000 Siemens Road  
 Wendell, North Carolina 27591

For more information, including service or parts,  
 please contact our Customer Support Center.  
 Phone: 1-800-333-7421

[www.usa.siemens.com/SIMOVAC](http://www.usa.siemens.com/SIMOVAC)

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