Russelectric®
A Siemens Business

Switchgear advantages

Controls for Emergency Power, Peak Shaving, Utility Paralleling, and Prime Power/Cogeneration

www.russelectric.com

Russelectric, A Siemens Business designs and builds both low and medium voltage power control systems. These customized switchgear solutions meet the stringent performance and reliability requirements of data centers, hospitals, and airports; as well as other mission critical facilities in the communications, energy, and defense segments.

- **Manual control for backup redundancy**
  Circuitry is included, independent of the redundant PLC controls, that allow the operators to start generators, parallel generators and perform transfers in the event of catastrophic PLC failure.

- **Discrete metering and control components**
  In addition to the Operator Interface Panel (OIP), separate and independent, individual meters are provided to give the operators a quick visual of major system operational parameters as well as providing redundant metering to the OIP. Heavy duty selector switches provide hard-wired control interface.

- **Fail-safe designs**
  Control logic is developed based on years of experience in the design and control of emergency backup generators and transfer switchgear. Meticulous detail consideration is given to logic design that provides fail safe control logic.

- **1558 construction with 200KA bus withstand**
  Russelectric pioneered UL listing for 200KA withstand ratings. The UL 1558 standard is most stringent and requires full testing of prototype switchgear. All Russelectric Switchgear is built to UL 1558 (cUL / CSA standard).

- **Industry leading field service**
  Russelectric has the highest degree of qualified field engineers, with over 80 factory direct field service engineers deployed nationwide in 15 service center locations.

- **Most robust operator interface for control and monitoring**
  Standard operator interface panel provides high resolution graphics, with a 23 inch “Touchscreen” LCD display for metering, alarms and status, with event recording of 2048 events and alarms. Three modes of engine demand operation are standard, providing a greater degree of flexibility. Events can be sorted and viewed under different criteria. Smart Load control is standard. Touch screen is provided with a maintenance mode to allow the operator to clean the screen without affecting the operation of the system.

- **Training simulators and advanced training simulators**
  Russelectric developed the first industry switchgear simulation to provide operators a way to train without operating the actual live switchgear.

- **Run reports**
  The operator interface panel is programmed to provide a comprehensive run report. When a utility failure occurs the system automatically will go into a run report mode that monitors ATS operation, engine operation monitoring the available engine parameters such as exhaust temperature, graphical chart recording of engine loading levels achieved during the outage as well as electrical parameters.

- **Robust DC control system design**
  The DC control voltage is critical to system operation. Separate individual power supplies provide separation of DC control power for each of the redundant PLCs, I/O racks, Operator interface panel.

- **Dead bus, random generator paralleling**
  True first up closing logic allows the first generator to achieve operating voltage and frequency to close its’ breaker to the bus, independent of other generators.

- **Three types of selectable generator demand operation**
  Generator demand can be selected based on site specific requirements. Generators can be selected to operate based on KW spinning reserve, percent KW engine loading or N+1 operation.

- **Smart load control**
  Dynamic load controls enable the assignment of individual loads such that system will allow lower priority loads to be added when generation capacity is adequate, regardless of the number of machines connected to the bus.

- **Heavy duty construction**
  Complete isolation of control sections, breaker compartments and bus sections, welded construction of control sections, heavy duty selector switches.

- **2 year, 100% parts and labor warranty**

- **Full documentation**
  Final “As-Built” Operation and Maintenance manuals are furnished after field installation, start up and commissioning. Manuals include all schematic and wiring diagrams, PLC ladder logic control diagrams and communication network drawings. A System Description with full Sequence of Operation section is provided, including all individual sub-component sheets.

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