GE GE □□□ Series Service Manual

IS200EPDMG1BAA

1. Description

SPECIFICATIONS

3. Product Information

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Part No.: IS200EPDMG1BAA

Manufacturer: General Electric

Country of Manufacture: United States of America (USA)

Size: 17.8 cm high x 33.02 cm wide

Technology: Surface mount

Product Type: Exciter Power Distribution Module

Availability: In Stock

Series: EX2100

Functional Description

IS200EPDMG1BAA is a Exciter Power Distribution Module developed by GE. It is a part of EX2100 control system. The EPDM module is the backbone of power supply, receiving 125 V dc from the station battery and accommodating one or two 120 V ac inputs for backup scenarios. Through its board-mounted terminal block (TB1), power inputs undergo filtration before distribution.

Features

Ac to Dc Conversion and Voltage Regulation: Externally, Ac to Dc Converters (DACA) rectify ac inputs to 125 V dc, ensuring stable power conversion. The resulting dc voltages, P125V and R125V, are diode-coupled through external diodes, maintaining nominal values of +62.5 V and 62.5 V to ground.

Grounding and Safety Measures: To guarantee stability and safety, the module is chassis and safety grounded through specific board mounting holes, mitigating electrical risks and ensuring smooth operation.

Seamless Connection Interfaces: JDACA1 and JDACA2 connectors enable effortless connection of ac power sources to external DACA units, completing a streamlined power distribution process.

Convenient Power Output Features: Individual power outputs to exciter boards are equipped with fuses, on/off toggle switches, and green LED indicators, offering users convenient monitoring and control options.

Comprehensive Component Coverage: The EPDM module caters to multiple exciter boards, including Exciter Gate Pulse Amplifier Boards (EGPA), Exciter Terminal Board (EXTB), and Exciter Power Supply Modules (EPSM), ensuring comprehensive power supply coverage.

Terminal Block and Connectors

Equipped with a 24-point terminal block and ten plug connectors, the EPDM module offers ample connectivity options for power distribution.

Rated at 600 V ac or dc, these connectors ensure safe and reliable connections for various system components.

Switches and Fuses

With seven switches and fourteen fuses, the EPDM module provides granular control and protection for power distribution.

Each switch is rated at 125 V dc and 6 A, offering precise control over power output to different components.

Grounding and Mounting Holes

Featuring four grounded mounting holes, the module ensures stable and secure installation, minimizing the risk of electrical issues.

This robust grounding mechanism enhances system stability and safety during operation.

LED Indicators and Adjustable Jumper

Eight LED indicators offer visual feedback on power availability and status, allowing for quick and easy monitoring of the module's operation.

Additionally, the adjustable jumper (BJS) provides flexibility for isolating ground references in systems with external references, enhancing system compatibility and adaptability.

About the IS200EPDMG1BAA

The IS200EPDMG1BAA is a rectangular board component made by General Electric as part of the Mark VI gas/steam turbine control system. The Mark VI is one of several turbine control systems marketed under the Speedtronic name since the 1960s. This iteration includes Ethernet capabilities and can be built to offer Simplex or TMR (triple modular redundant) control depending on the size and complexity of the associated turbine system.

The IS200EPDMG1BAA is built with two terminal blocks located in the bottom corner. Other board components include multiple female plug connectors, the previously-mentioned toggle switches, and multiple fuses to protect all throughput. The board also has metal oxide varistors, capacitors, and resistors. There are eight green LED indicators lined up along one long edge of the board that will let users know when the board is energized.