GE GE □□□ Series Service Manual

IS200IGPAG2AED

1. Description

SPECIFICATIONS

2. Specifications

Specification	Value
Manufacturer	**General Electric**
Series	**Mark VI Speedtronic**
Part	**Number IS200IGPAG2AED**
Product	**Type IS200IGPAG2AED Gate Drive Power Supply Board**
Revision	**Total 3 Revisions**
Assembly	**Type Normal Assembly**
Mark	**VI Series Grouping Group 2**
About	**the IS200IGPAG2AED**
The	**IS200IGPAG2AED has two distinct sides of the board. One side is full of components while the other is nearly empty. The nearly empty side of the board has markings drawn on the board surface where components might be placed, but the components are not on the board. The few components that are located on this side include a 9-pin vertical male header connector, several terminal connectors drilled through the surface of the board, and two LED indicators placed side-by-side on the board edge. These LEDs:**

3. Product Information

SPECIFICATIONS

Part No.: IS200IGPAG2AED

Manufacturer: General Electric

Country of Manufacture: United States of America (USA)

Number of Plug Connectors: 8

Number of Terminal Connectors: 2

Product Type: Gate Drive Power Supply Board

Availability: In Stock

Series: EX2100

Functional Description

IS200IGPAG2AED is a Gate Drive Power Supply Board developed by GE. It is a part of EX2100 excitation system. It provide power supply functionalities to the gate drive, thereby enabling precise and controlled power delivery to the system's critical components. This board's design and functionalities are meticulously crafted to meet the stringent performance requirements and operational demands of the EX2100 excitation system.

IGPA Features

LED Indicators: Features two sets of LEDs positioned on opposite sides. Each set includes one amber LED and one green LED, providing visual status indicators essential for monitoring operational states.

Right Side Configuration: The right side of the board primarily hosts the LEDs, several terminal connectors, and a single vertical 9-pin male header connector. It includes outlined positions for additional components that are not populated on the board.

Inductors and Capacitors

Safety and Compliance

EN 50081-2: Generic Emissions Standards

EN 50082-2:1994: Generic Immunity Industrial Environment

EN 50178: Gas Contaminants codes

EN 50178:1994: Elevation code

IEC 529:1989-11 (IP-20): Dust Contaminants code

System Features

The exciter stands as a versatile and adaptable modular system capable of diverse configurations to cater to various output currents and ensure multiple levels of system redundancy. This adaptability facilitates assembling the exciter system in a manner that suits specific requirements. Notably, this system offers a spectrum of available output currents and several redundancy levels, with options that encompass power drawn from potential, compound, or auxiliary sources.

These flexible configurations encompass choices such as employing single or multiple bridges, warm backup bridges, as well as the availability of simplex or redundant controls. Such variability allows for customization based on operational needs and preferences, ensuring a tailored approach to system design.

An illustrative overview of the turbine generator excitation system is provided in Figure 1-1, depicting the architecture's key components and their interconnections. To power the exciter, there are two primary sources: either from a power potential transformer linked to the generator terminals or via an excitation transformer connected to an auxiliary bus. Feedback mechanisms within the exciter system rely significantly on two primary inputs: generator line current and stator output voltage. These inputs serve as pivotal feedback parameters, guiding and influencing the exciter's operations. In response, the exciter regulates its output in terms of DC voltage and current, effectively controlling the exciter field.

An additional layer of sophistication in the exciter system architecture involves its compatibility with Ethernet LAN (Unit Data Highway) communication. This communication capability allows seamless interaction and integration with other GE equipment. These include the GE Control System Toolbox (commonly referred to as "toolbox") used for configuration purposes, the turbine control system, the LCI Static Starter, and the HMI (operator interface).

This compatibility with an Ethernet LAN facilitates streamlined communication and coordination between the exciter system and other integral components within the larger operational framework. It enables efficient data exchange, thereby enhancing overall system functionality and performance. This interconnectedness signifies a holistic approach to system design, emphasizing interoperability and collaboration among various elements within the broader operational setup.

IS200IGPAG2AED Technical Specifications

Manufacturer General Electric

Series Mark VI Speedtronic

Part Number IS200IGPAG2AED

Product Type IS200IGPAG2AED Gate Drive Power Supply Board

Revision Total 3 Revisions

Assembly Type Normal Assembly

Mark VI Series Grouping Group 2

About the IS200IGPAG2AED

The IS200IGPAG2AED has two distinct sides of the board. One side is full of components while the other is nearly empty. The nearly empty side of the board has markings drawn on the board surface where components might be placed, but the components are not on the board. The few components that are located on this side include a 9-pin vertical male header connector, several terminal connectors drilled through the surface of the board, and two LED indicators placed side-by-side on the board edge. These LEDs:

are mirrored on the other side of the board by two other LEDs

include one green and one amber LED per pair

the ‘full’ side of the IS200IGPAG2AED includes an inductor coil, four electrolytic capacitors, several ceramic capacitors and some capacitors made of polyester vinyl. The board has six heat sink components located in two lines. Resistors located on the IS200IGPAG2AED tend to be made of metal film material. The board has few integrated circuits.

Further IS200IGPAG2AED LED Specifications

Whether you need your order shipped to your overnight or need the most economical shipping option available, AX Control offers shipping options to meet your needs. This

IS200IGPAG2AED Gate Drive Power Supply Board device's IS200IGPAG2AED Gate Drive Power Supply Board functional product number codes for a number of important IS200IGPAG2AED Gate Drive Power Supply Board device details through its series of consecutive functional naming chunks, including this IS200IGPAG2AED Gate Drive Power Supply Board product's normal Mark VI Series assembly, its normal style of PCB protective coating, and its full three-fold product revision table. This IS200IGPAG2AED Gate Drive Power Supply Board product offering's LEDs mentioned above are all accompanied by their own factory-printed nomenclature labels, with each LED displaying their own important Mark VI Series diagnoses. This IS200IGPAG2AED Gate Drive Power Supply Board product offerings include the:

DS1 Gating LED that glows green

DS2 Gating LED that glows yellow

The DS3 5 V dc ON LED

The DS4 5 V dc ON LED

The DS5 Gating ON LED

The DS6 Gating ON LED

The DS7 20 V dc ON LED

The DS8 20 V dc ON LED