GE GE □□□ Series Service Manual

IS200GGXDG1ABB

1. Description

IS200GGXDG1ABB Technical Specifications

2. Specifications

Specification	Value
Original	**Manufacturer General Electric**
Series	**Mark VI Speedtronic**
Functional	**Part Number IS200GGXDG1ABB**
Product	**Type Expander Diode/Source Board**
Revision	**Quantity 3 Revisions**
Functional	**Abbreviation GGXD**
Mark	**Series Assembly Type Normal Assembly**
Frequently	**Asked Questions about IS200GGXDG1ABB**
Where	**in specific was this IS200GGXDG1ABB product manufactured?**
Part/Model	**Number IS200GGXDG1A**
Abbreviation	**GGXD**
Country	**of Manufacture United States**
Weight	**13 ounces**
Shipping	**Dimensions 22 inches by 18 inches by 18 inches**
Revision	**Quantity 1 Revision**
Assembly	**Type Normal Assembly**
Frequently	**Asked Questions about IS200GGXDG1A**
Where	**specifically was this IS200GGXDG1A device manufactured?**

3. Product Information

IS200GGXDG1ABB Technical Specifications

Original Manufacturer General Electric

Series Mark VI Speedtronic

Functional Part Number IS200GGXDG1ABB

Product Type Expander Diode/Source Board

Revision Quantity 3 Revisions

Functional Abbreviation GGXD

Mark Series Assembly Type Normal Assembly

Frequently Asked Questions about IS200GGXDG1ABB

Where in specific was this IS200GGXDG1ABB product manufactured?

This IS200GGXDG1ABB PCB was first made in General Electric's Salem, Virginia factory plant location.

Does this IS200GGXDG1ABB PCB device mount in a standard VME Rack Mounting Assembly?

No.This IS200GGXDG1ABB product's lack of a characteristic metallic installation faceplate means that it will not mount properly in the Mark VI Series' VME Rack Assembly.

About the IS200GGXDG1ABB

The IS200GGXDG1ABB is an Expander Diode Source Board that was first made for the Mark VI system, as should have been mentioned above in our convenient manuals tab laden with original instructional manual materials. The Mark VI is part of the Speedtronic series that has provided gas/steam turbine management through different systems since the late 1960s. The MKVI is one of the last of these systems and includes a Windows-based PC operator interface and Ethernet communications. This IS200GGXDG1ABB device's greater Mark VI Turbine Control System Series' overall value on greater automated industrial promotional markets must be defined as inflated given its status as one of the final-developed GE Mark product series to incorporate the patented Speedtronic technology into many of its offerings. This IS200GGXDG1ABB device's Mark VI Series also must be considered quite the massive functional upgrade upon the existing Mark V Turbine Control System Series of a similar full extended series title, as the Mark V Series' established gas and steam-based functional environments added the alternative energy-focused wind turbine setting with the introduction of the Mark VI here.

Hardware Tips and Specifications

The IS200GGXDG1ABB provides analog and fiber-optic feedback hardware needed between the BICI (Bridge Interface Control Board) and a diode source or dynamic braking circuit. The IS200GGXDG1ABB is mounted in the control cabinet. Interfacing of gating commands between the IS200GGXDG1ABB and the BICI board occur via RS-422 transceivers. The IS200GGXDG1ABB receives high-frequency voltage inputs from the GDPA (Gate Driver Power Assembly) board. Seven stab-on connectors are used for grounding. The IS200GGXDG1ABB is built with three LED indicators, fifteen TP test points, six 3-terminal connectors and three 2-terminal connectors, and four pin connectors. These include a twenty-pin connector (J1) for connection to a NATO board, a six-pin connector (J2,) for connection to a GDPA board, a two-pin connector (J3) for 115 VAC control power, and a fifty-pin connector (PRSC) that functions as an I/O connector with the BICI board. Four duplex connectors (DB1 through DB4) are used for status feedback or firing commands of the DB IGCTs. More information on the board components and their uses may be found through GE publication GEI-100301.

Please review manufacturer publications referencing the IS200GGXDG1ABB for installation procedures. Manuals, user guides, and data sheets were provided by GE. Please follow all safety precautions and handling procedures recommended by the manufacturer. This I200GGXDG1ABB printed circuit board product offering from General Electric in specific is actually not the originally-developed product of its specific GE Mark product series functionality. In truth, that would have to be considered the IS200GGXDG1 parent Expander Diode/Source Board notably not utilizing this IS200GGXDG1ABB device's full three-fold significant revision history. According again to the IS200GGXDG1ABB datasheet provided above, this IS200GGXDG1ABB PCB is relatively customizable, offering both Berg and wire jumpers in its normal assembly. This IS200GGXDG1ABB device includes several LED indicators for functional fault condition diagnosis. Some of this IS200GGXDG1ABB device's LEDs include its:

DS1 LED that activates for P5 OK signal

DS2 LED that activates for GDPA OK signal

DS4 LED that activates for 115V OK signal

IS200GGXDG1A Technical Specifications

Part/Model Number IS200GGXDG1A

Abbreviation GGXD

Country of Manufacture United States

Weight 13 ounces

Shipping Dimensions 22 inches by 18 inches by 18 inches

Revision Quantity 1 Revision

Assembly Type Normal Assembly

Frequently Asked Questions about IS200GGXDG1A

Where specifically was this IS200GGXDG1A device manufactured?

This IS200GGXDG1A PCB was originally manufactured in General Electric's Salem, Virginia factory plant location.

Are any of this device's jumpers jumpered together for normal operation?

Yes. This IS200GGXDG1A product's E3 and E4 jumpers are jumpered together during normative IS200GGXDG1A Board processing.

About the IS200GGXDG1A

The IS200GGXDG1A is a board component of the Mark VI system from General Electric. The Mark VI Series that this IS200GGXDG1A printed circuit board belongs to is really known as the Mark VI Turbine Control System Series in length, as it truly exists with specific functional applications in the control and management systems of General Electric-compatible gas, wind, and steam turbines, specifically. This does represent a significant functional upgrade upon the Mark V Turbine Control System Series of the same that originally preceded this IS200GGXDG1A device's Mark VI Turbine Control System Series, as the Mark V Serie's possible functional applications were restricted to gas and steam turbine assemblies alone. With this being the case, this IS200GGXDG1A printed circuit board product offering's Mark VI Turbine Control System Series is separately seen as a desirable GE Mark product series for its status as one of the final-developed GE Mark product series to incorporate the patented Speedtronic control system technology across a range of its differently-functioning PCB product offerings.

Hardware Tips and Specifications

This board functions as an Expander Diode Source Board. The board provides fiber-optic and analog feedback hardware necessary for interfacing between the BICI board and a dynamic braking circuit. The IS200GGXDG1A is mounted within the control cabinet. Gating commands and status signals are interfaced using RS-422 transceivers. The IS200GGXDG1A uses power (high-frequency) from the GDPA board. The board's seven stab-on connectors are used for grounding. This IS200GGXDG1A product is surrounded by at least some amount of originally-printed instructional manual materials online for the purposes of this IS200GGXDG1A personalized product page, which is somewhat atypical to the rest of Mark VI Series products available here. Three total types of signals are accepted in the special modular Mark VI Series assembly of this IS200GGXDG1A printed circuit board product offering. These are the source current transformers current feedback signals, the GDPA board power supply OK signal, which is octo-coupled, and finally the opto-coupled circuit continuity checking signal, which as delegated above, was included to indicate normative Voltage Feedback Attenuator or NATO Board plugging. This IS200GGXDG1A Expander Diode Source Board makes use of three total LED indicators, including the:

DS1 ON for P5 OK signal LED

DS2 ON for GDPA OK signal LED

DS4 ON for 115V OK signal LED

The IS200GGXDG1A has multiple components mounted on its surface. This includes 3 LED indicators, 6 3-terminal connectors, 15 test points, 3 2-terminal connectors, and a 4-pin connector. The board also has a J1 and J2 connector (20 pins and 6 pins respectively) for connections to the NATO and GDPA boards as well as a 50-pin connector that interfaces with the BICI. The IS200GGXDG1A uses berg and wire jumpers. Berg jumpers are used for burden resistor selection. Wire jumpers control selective grounding. In a typical operation configuration, E1 and E4 will be jumpered together, E2 and E5 will be jumpered together, and E3 and E6 will not be jumpered together. E7 always ties to chassis.