GE Service Manual

IS200EDEXG1ADA

1. Description

IS200EDEXG1ADA Technical Specifications

2. Specifications

Specification	Value
Alphanumeric	**Catalog Number IS200EDEXG1ADA**
Common	**Revisions ABA**
Configurable	**Jumpers JP1, JP2, JP3, JP4, JP5, JP6**
Functional	**Acronym (Abbreviation) EDEX**
Manual	**GEI-100466 (Series Manual GEH-6632)**
Manufacturer	**GE Industrial Systems, General Electric Company USA**
Product	**Type De-Excitation Module Main Board**
Repairable	**Y/N Yes**
Series	**EX2100 Excitation Control System**
Shipping	**Weight 3.5 lb**
Version	**Group 1 (G1) - Designed for SCR De-Excitation**
About	**the IS200EDEXG1ADA**
IS200EDEXG1ADA	**Exciter De-Excitation Board (EDEX).**
System:	**Part of the EX2100 Excitation Control System Series.**
Function:	**Bridge and protection board; dissipates generator energy upon shutdown.**
Revision:	**Modified version of IS200EDEXG1, with an A-rated functional revision.**
Key	**Features & Operation**
Control:	**Typically controlled by the EXTB module.**
Conduction	**Sensing: Provides conduction sensing feedback.**
Voltage	**Retention: Ensures operation during power failure, enabling SCR de-excitation firing.**
SCR	**Firing: Fires when two contr**

3. Product Information

IS200EDEXG1ADA Technical Specifications

Alphanumeric Catalog Number IS200EDEXG1ADA

Common Revisions ABA

Configurable Jumpers JP1, JP2, JP3, JP4, JP5, JP6

Functional Acronym (Abbreviation) EDEX

Manual GEI-100466 (Series Manual GEH-6632)

Manufacturer GE Industrial Systems, General Electric Company USA

Product Type De-Excitation Module Main Board

Repairable Y/N Yes

Series EX2100 Excitation Control System

Shipping Weight 3.5 lb

Version Group 1 (G1) - Designed for SCR De-Excitation

About the IS200EDEXG1ADA

IS200EDEXG1ADA Exciter De-Excitation Board (EDEX).

System: Part of the EX2100 Excitation Control System Series.

Function: Bridge and protection board; dissipates generator energy upon shutdown.

Revision: Modified version of IS200EDEXG1, with an A-rated functional revision.

Key Features & Operation

Control: Typically controlled by the EXTB module.

Conduction Sensing: Provides conduction sensing feedback.

Voltage Retention: Ensures operation during power failure, enabling SCR de-excitation firing.

SCR Firing: Fires when two control inputs are true, or anode-to-cathode voltage exceeds a set value.

Versions:

Group 1 EDEX boards: For SCR de-excitation.

Group 2 EDEX boards: For diode de-excitation.

Sensors: Equipped with Hall effect conduction sensors for field current discharge.

Electrical & Hardware Details

Power Input: Receives 24 VDC from the ESPM module, then converts it to 125 VDC.

Voltage Protection: Heavily populated with electrolytic drum-style capacitors and other voltage-limiting components (resistors, transistors, diodes, ICs).

Coating: Normal PCB coating style.

Manufacturing Origin: GE Energy's Salem, Virginia factory.

Revision A: Denotes an A-rated primary functional revision.

Role in EX2100 System

Central Component: Acts as the central component of the EX2100 Series' de-excitation module.

Provides: SCR de-excitation firing, conduction sense feedback reporting, and failsafe voltage protection.

Related Products: One of many EX2100/EX2100e Series exciter bridge and protection products (e.g., IS200EXAM, crowbar module).

Specifications

* **Part Number:** IS200EDEXG1ADA
* **Manufacturer:** General Electric
* **Series:** EX2100
* **Availability:** In Stock
* **Product Type:** De-Excitation Module Main Board
* **Weight:** 3 lbs 6 oz
* **Origin of Product:** United States

Functional Description

The IS200EDEXG1ADA is an Exciter De-Excitation Board manufactured by General Electric as part of the EX2100 series used in excitation control systems. This board serves as the primary printed circuit board (PCB) in an EX2100 De-Excitation Module, facilitating conduction sensing feedback, voltage retention during power outages, and de-excitation firing. The board receives power from the EPSM module, which converts 125 V DC to 24 V DC. Within the de-excitation module, the EDEX board is central to ensuring operational continuity during power outages by providing de-excitation SCR (Silicon Controlled Rectifier) firing, conduction sense feedback, and voltage retention.

Operation

The EMIO on the EXTB board initiates the de-excitation process. The EXTB board opens the 41 DC contractor (41A/41B) or breaker and then passes the excitation signals from the auxiliary contacts to the EDEX's SCR firing circuits.

The EDEX board is categorized into two types:

* **Group 1:** Designed for SCR de-excitation.
* **Group 2:** Designed for diode de-excitation.

While the EDEX board is typically controlled by the EXTB, it possesses the capability to initiate de-excitation independently if the primary control fails.