GE GE □□□ Series Service Manual

IS200EROCH1A

1. Description

SPECIFICATIONS:

2. Specifications

Specification	Value
Alphanumeric	**Catalog Number IS200EROCH1A**
Board	**Description Exciter Regulator Options Card**
Function	**To Find Leakage Resistances**
Functional	**Acronym/Abbreviation EROC**
Number	**of Backplane Connectors Two**
Number	**of High-Voltage Electrolytic Capacitors 4**
About	**the IS200EROCH1A**
The	**IS200EROCH1A model is part of the EX2100 series produced by General Electric Industrial Systems. The EROC acronym in the part stands for Exciter Regulator Options Card. The board will typically support regulator options, third-party GE ground detector, and terminal board power connection.**

3. Product Information

SPECIFICATIONS:

Part Number: IS200EROCH1A

Manufacturer: General Electric

Series: Excitation

Product Type: Exciter Regulator Options Card

Number of channels: 24 channels

Operating temperature: 0 to +45°C

Size: 15.9 cm high x 17.8 cm

Repair: 3-7 Day

Availability: In Stock

Country of Origin: United States

Manual: GEI-100526A

FUNCTIONAL DESCRIPTION:

IS200EROCH1A is an Exciter Regulator Options Card manufactured and designed by General Electric as part of the EX2100 Series used in GE Excitation Turbine Control Systems. The IS200EROCH_A Exciter Regulator Options Card (EROC) is used in EX2100 regulator control systems (simplex and redundant) to provide support for the regulator functions. The EROC mounts in a single slot of the IS200ERBP Exciter Regulator Backplane (ERBP) and IS200ERRB Exciter Regulator Redundant Backplane (ERRB). The EROC includes a board identification (ID) device that interfaces to the M1 or M2 control associated with the specific backplane slot. The ID device includes the barcode serial number, board type, and hardware revision. A green LED on the EROC faceplate illuminates when power is applied. There are two versions or groups of the EROC board, EROCH1 and EROCH2. The differences are described in the following sections. Functions include GE and third-party ground detectors, keypad interface, tool interface, and terminal board power connection. Other functions of the EROC are only used in redundant applications that are described separately in this section. Simplex functions are shown below.

FUNCTIONS AND FEATURES:

A Keypad Connector: It’s provided on the EROC faceplate and another on the backplane (ERBP simplex and ERRB redundant). The EROC provides keypad data transmission to both connectors. Only one keypad can be connected at a time. The keypad connectors support the bezel-mounted keypad(s). The two locations are to support mounting variations of the EX2100 regulator control.

The Tool Connector: The EROC faceplate interfaces an external computer to the IS200DSPX Digital Signal Processor Control board (DSPX) through a 9-pin plug connector. The tool connector supports M1/M2 and uses RS-232C (1200 to 38.4 K baud).

The ECTB Connector: supplies positive 70 V DC power to the contact output section of the IS200ECTB Exciter Contact Terminal board (ECTB).

Ground Detector: The GE ground detector may be used as a simplex ground detector in other exciter applications. The ground detector connector supports connecting a GE ground detector or a third-party ground detector.

GE Simplex Ground Detector: is controlled by the M1 DSPX. This configuration uses the ERBP backplane, the M1 EROC, and the M1 IS200EPSM Exciter Power Supply Module (EPSM).

GE Redundant Ground Detector: is controlled by the M2 DSPX. This configuration uses the ERRB backplane, the M2 EROC, and the M2 EPSM. The 9-pin ground detector cable is connected to the EROC in the redundant rack. No cable is connected to the M1 EROC ground detector connector.

IS200EROCH1A Technical Specifications

Alphanumeric Catalog Number IS200EROCH1A

Board Description Exciter Regulator Options Card

Function To Find Leakage Resistances

Functional Acronym/Abbreviation EROC

Number of Backplane Connectors Two

Number of High-Voltage Electrolytic Capacitors 4

About the IS200EROCH1A

The IS200EROCH1A model is part of the EX2100 series produced by General Electric Industrial Systems. The EROC acronym in the part stands for Exciter Regulator Options Card. The board will typically support regulator options, third-party GE ground detector, and terminal board power connection.

The IS200ERGTH1A model connects to the IS200EROCH1A module and will be used to detect resistance leakages to ground any point within the generator's field current. On the front faceplate of the IS200EROCH1A model, there is a keypad connector that can be used to connect an RS-232 cable. Another keypad connector is located on the backplane of this model.

The IS200EROCH1A has the capability to transmit data from two locations on the regulator rack. On the faceplate of the model, there is a power LED located at the top of the board near the plate which has GE Energy on it. Underneath the power LED there are two ISBUS connectors along with a tool d-pin connector. The model has several circuits integrated into it.