GE Service Manual

IS200TRLYH1B

1. Description

IS200TRLYH1B Technical Specifications

2. Specifications

Specification	Value
Feedback	**Voted Coil Drive**
Manufacturer	**GE Energy**
Power	**Distribution 6 Fused Branches, 1 Special Unfused**
Relays	**12 Form C Relays, 24 DC 3A, 125 DC .6A, 120/240 AC 3A**
Part	**Number IS200TRLYH1B**
Product	**Type Relay Terminal Board**
Personal	**I/O Pack Redundancy Triple Module Redundant**
Instruction	**Manual GEH-6421Q**
Mounting	**Strategy DIN Rail-Based**
About	**the IS200TRLYH1B**
Basic	**Functional Components**
The	**IS200TRLYH1B is a termination relay card for the Mark VI turbine control system manufactured by GE. This board is the "B" revision of the TRLY terminal relay board and features the following characteristics:**

3. Product Information

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About the IS200TRLYH1B

Basic Functional Components

The IS200TRLYH1B is a termination relay card for the Mark VI turbine control system manufactured by GE. This board is the "B" revision of the TRLY terminal relay board and features the following characteristics:

Voted Coil Drive Feedback

Socketed Sealed Mechanical Relay

MOV Suppression

48 Barrier Terminals

Hardware Tips and Specifications

The IS200TRLYH1B contains:

two (2) large black terminal block on its left edge

each with twenty-four (24) metal terminals which are silver

four (4) connector ports placed on the right border of the IS200TRLYH1B

a long line of relays which are white and black with transparent covers shaped like cubes

on both sides of each relay is a black transistor which is circular

paired together with every transistor is a round red MOV or metal oxide varistor

Five (5) of these relays are lined up vertically on the top half of the IS200TRLYH1B. Five (5) additional relays have been aligned on the PCB’s lower half.

Specifications

Manufacturer: General Electric

Series: Mark VIe

Product Type: Relay Output Terminal Board

Number of Channels: 16

Number of Relay Channels: 4, 8

Relay Type: SPDT

Relay Contact Rating: 10A

Relay Switching Current: Max 10A

Input Voltage Range: 12V, 24V

Output Resolution: 12-bit

Output Impedance: 10 Ohm

Analog Outputs: 0-20 mA

Mounting Type: DIN rail

Size: 17.8 cm wide x 33.02 cm

Operating Temperature: -30 to 65°C

Technology: Surface Mount

Repair Time: 3-7 Days

Availability: In Stock

Country of Origin: United States

Manual: GEH-6721D

Functional Description

The IS200TRLYHIB is a Relay Output Terminal Board for the Mark VIe series in GE Distributed Turbine Control Systems. It provides 12 contact-voted relay outputs, utilizing 12 sealed relays per TMR section for a total of 36 relays. It supports 24/125 V DC or 115 V AC applications. While the board lacks native power distribution, the IS200WPDFH1A can be added for field solenoid power, and the IS200WPDFH2A provides single fusing for AC applications where neutral return wire fusing is undesirable. The TRLY2F variant functions similarly but provides Form B (NC) output, and both boards are suitable for Class 1 Division 2 applications.

Installation

Wires for 12 solenoids connect directly to two I/O terminal blocks on the board. Each block has 24 terminals that accept up to #12 AWG wires and is secured by two screws. A shield termination strip is attached to the chassis ground on the left side of each block. Solenoid power can be provided via the WPDF daughterboard or by wiring customer power directly to the terminal block. Power for the relay coils and logic (28 V DC) is supplied by three I/O processors connected at JR1, JS1, and JT1.

Operation

The board supports TMR (Triple Modular Redundant) applications, with relay control signals routed from three I/O processors (R, S, and T) through plugs JR1, JS1, and JT1. Each section

receives power for its relay coils independently from its own I/O processor. The relay outputs include a failsafe feature that de-energizes the corresponding relay if communication is lost or a cable is unplugged. TRLY features TMR contact voting, where relay contacts from R, S, and T combine to form a voted Form A (NO) contact; TRLY2F provides a Form B (NC) output.