GE GE □□□ Series Service Manual

IS200BPIBG1AEB

1. Description

IS200BPIBG1AEB Technical Specifications

2. Specifications

Specification	Value
GE	**Functional Product Number IS200BPIBG1AEB**
Product	**Series Mark VI IS200 Turbine Control System**
Manufacturer	**General Electric Industrial Systems**
Functional	**Acronym/Abbreviation BPIB**
Functional	**Description IGBT Drive Bridge Personality Interface Board**
DC	**Link Voltage Feedback VCO Range 0-20 MHz**
Power	**Requirements 17.7 VAC or 5 VDC**
IGBT	**Driver Card Interface Supply Output Isolated 5 VDC, max. 500 Ma**

3. Product Information

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About the IS200BPIBG1AEB

Model IS200BPIBG1AEB is an IGBT Drive Bridge Personality Interface Board manufactured by General Electric and used in the Mark VI IS2000 series. The Mark VI Turbine Control System Series that this IS200BPIBG1AEB printed circuit board or PCB for short belongs to, as it is known at length, exist with a specific series of possible functional product applications in the management and control systems of General Electric-compatible gas, steam, and wind turbine automated drive assemblies. This actually must be treated as a significant functional upgrade upon the previously-developed Mark V Turbine Control System Series of a full extended series name, as the Mark V Series existed with gas and steam-based functional applications possible alone. This IS200BPIBG1AEB device's greater Mark VI Turbine Control System Series is additionally desired on greater relevant promotional markets for its quality as one of the final GE Mark Series iterations to utilize the patented Speedtronic control system technology in many of its products.

Hardware Tips and Specifications

When the model is being used, it will supply signal conditioning to the P1 connector logic level digital control signals to three or potentially six Gate Driver/Shunt Feedback boards as well as isolated VCO feedback circuits, which will, in turn, monitor the DC link and VBC and VAB phase output voltages. Another feature of the IS200BPIBG1AEB model is that it can capture faults uncovered by the Gate Driver boards and then reports the fault information. The logic signals that are sent to or from the attached Gate Drive board will be double optocoupled with an isolated voltage of 5 V interim supply which is derived from the 17.7 Vac feed. There are six available power supplies on the IS200BPIBG1AEB model; these power supplies are derived from the secondaries of three transformers, one per phase. There is a voltage alternating current of 17.7 Vac; this Vac is a square wave input and will be supplied to the transformer primaries supplied from the P1 connector. A second secondary can also rectify and filter a fullwave to provide an isolated voltage of 12 V that is required by the voltage feedback VCO circuitry. There is a control logic on the BPIB model that is 5 V and will be supplied through the P1 connector.

This model can control faults for upper and lower gate drivers and is individually latched per phase. When an adjoining IGBT has been commanded to turn ON, the latched faults associated with the driver circuit will be enunciated on the suitable phase P fault line. For more information concerning the IS200BPIBG1AEB fault controls, refer to page three of the GEI-100266 Instruction Manual. According to these originally-printed instructional manual materials, this IS200BPIBG1AEB Bridge Personality Interface Board device's normal Mark VI Turbine Control System Series assembly's base printed circuit board is pockmarked by a series of EPLD devices. According to the same materials, each of these EPLD or Electronically Programmable Logic Devices have been installed for each of this IS200BPIBG1AEB Bridge Personality Interface Board's three total machine phases. The following specific functions are controlled independently with the use of the EPLD devices:

The Up or Down Driver Control Function

The Soft Shutdown on Fault Driver Function

The Fault Latch Shutdown Function

The Latch Parallel Bridge Fault Report Function

The VCO Feedback Parallel Bridge Output Sum Function