GE Service Manual

DS200ITXSG1ABB

1. Description

DS200ITXSG1ABB Technical Specifications

2. Specifications

Specification	Value
Manufacturer	GE General Electric
Series	Mark V
Part	Number DS200ITXSG1ABB
Product	Type Inverter Snubber Card
Mark	V Series Grouping Group 1
Product	Revisions Made 1 Revision
Assembly	Type Normal Assembly
About	the DS200ITXSG1ABB
This	DS200ITXSG1ABB Inverted Snubber Board is a crucial member of the Mark V Turbine Control System Series developed by General Electric. With this in mind, it is important to contextualize each individual hardware component made available to the DS200ITXSG1A Inverter Snubber Board within the greater intended functionality of the Mark V Series product offering. Luckily enough for our sake, this DS200ITXSG1A Inverter Snubber Board has a plethora of available instructional manual materials detailing its specific function. The Mark V Series that this Hardware Tips and Specifications printed circuit board product offering exists as a component member of has specific applications in the control and management systems of compatible and popular wind, steam, and gas tu

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Hardware Tips and Specifications

According to these GE materials, this DS200ITXSG1A Inverter Snubber Board was specifically manufactured for use in A frame drives, as it helps to provide both dv and dt suppression for IGBT modules in IGBT-led drive assemblies. In ordered to achieve its intended functionality, this DS200ITXSG1A Inverter Snubber Board makes use of an elevated number of hardware components.

The GE Inverter Snubber Board DS200ITXSG1ABB features:

one 8-pin connector

two 2-pin connectors

multiple test points

four capacitors

Additionally, a singular 12-pin connector seems to have been adopted for use with this Mark V Series product offering, specifically in order to interface with the IIBD board within the same Mark V Series drive assembly.

Different specifications exist for this DS200ITXSG1A device's AT Frame Drives, given their various different applications. When applied in constant torque applications, this DS200ITXSG1A PCB's AT Frame Drive will have a different set of specifications as compared to its placement in a variable torque application.

Before making a purchase decision on this DS200ITXSG1A Inverter Snubber Board, it is important to realize that this is a modified General Electric product, as it has been changed from its original DS200ITXSG1 parent product status through its insertion of a singular, A-rated functional product revision. This piece of information was revealed upon a breakdown of the functional DS200ITXSG1A product number, which includes other details such as:

A DS200 normal assembly type

A Salem, Virginia original factory location

The ITXS functional acronym

A normal style of PCB coating

A group one Mark V Series grouping

The GE Inverter Snubber Board DS200ITXSG1A generates heat, that if allowed to build up, can cause sensors in the drive to produce an error condition to keep the drive from overheating. The electrical components or the motor might be damaged if the drive is allowed to overheat. Also, a safety hazard that leads to fire can occur. If the overheat condition occurs, the drive is automatically shut off and you must take action to rectify the situation. When the drive is automatically shut off to prevent an overheat condition, it is called a trip condition. A trip condition causes an error message that displays on the control panel display.

This DS200SDCIG1A printed circuit board's internal processes are crucially supported by another Mark V Series device available to our extended new and reconditioned inventory here. To be specific, this DS200SDCIG1A Inverter Snubber Board's entire operation is controlled through the use of pieces of circuitry available on the base printed circuit board of the IMCP Power Supply and Interface Board.

As determined once again in the DS200SDCIG1A instructional manual made available above, this DS200SDCIG1A device makes use of four total stab-style connectors in its assembly; each of which should be accompanied by their own individual factory-printed nomenclature labels. This DS200SDCIG1A PCB's stab-style connectors include the EU, GU, EL, and GL connectors connected to upper and lower Insulated Gate Bipolar Transistor gate emitter circuits.

Part No.: DS200ITXSG1ABB

Manufacturer: General Electric

Country of Manufacture: United States of America (USA)

Technology: Surface-mount

Temperature Operating: -30 to 65oC

Product Type: Inverter Snubber Board

Availability: In Stock

Series: Drive Control

Functional Description

DS200ITXSG1ABB is an inverter snubber board developed by GE. It is a part of the Drive Control series. It is an interface board designed to be mounted onto the power modules for each phase leg in a three-phase application. In total, three of these boards are used, one for each phase leg (A, B, and C). The primary function is to reduce the inductance between the power modules and the subsequent suppression circuits. This reduction in inductance is critical for enhancing the efficiency and performance of the power conversion process by minimizing energy losses and improving the stability of the power system.

Features

Inductance Reduction: By mounting directly onto the power modules, it effectively shortens the electrical path between the power modules and the suppression circuits. This shortening minimizes the inductance, which is beneficial for reducing energy losses and improving the overall efficiency of the power system.

Suppression Circuit Integration: The board works in conjunction with suppression circuits to mitigate transients and electromagnetic interference (EMI). This ensures that the power delivery is smooth and stable, protecting both the power modules and connected loads from potential damage caused by voltage spikes and other disturbances.

Connector Details

APL: This connector is used when the board is serving the A leg of the three-phase cycle. It establishes a direct connection to the power module associated with the A phase, ensuring precise control and communication.

BPL: The BPL connector is utilized when the board is assigned to the B leg of the cycle. Similar to the APL, it provides a direct interface with the B phase power module, facilitating the reduction of inductance and integration with suppression circuits.

CPL: For the C leg of the cycle, the CPL connector is used. It connects the board to the C phase power module, completing the setup for the three-phase system and ensuring that each phase benefits from reduced inductance and effective suppression.