GE GE □□□ Series Service Manual

IS420PPNGH1A

1. Description

SPECIFICATIONS:

2. Specifications

Specification	Value
Model	**Number IS420PPNGH1A**
Weight	**2.4 lbs.**
Series	**Mark VIe/Mark VIeS**
Product	**Type PROFINET Gateway Module**
Processor	**Type 1066 MHz EP80579 Intel**
Operating	**Temperature 22 to 149°F**
Manufacturer	**General Electric**
Manual	**GEH-6725**
Functional	**Abbreviation PPNG**
About	**the IS420PPNGH1A**
The	**IS420PPNGH1A is a PROFINET Gateway module device designed to fit into a Mark VIe system. The Mark VIe was one of the final Speedtronic turbine control systems developed by General Electric. It is typically used for gas, hydro, and steam turbine systems.**

3. Product Information

SPECIFICATIONS:

Part Number: IS420PPNGH1A

Manufacturer: General Electric

Series: Mark VIe

Function: PROFINET Controller Gateway Module

Size: 13.0 x W: 4.0 (in)

Voltage 24 VDC

Operating Temperature: 22 to 149°F

Processor Type: 1066 MHz EP80579 Intel

OS: QNX Neutrino

Memory: 256 DDR2 SDRAM

Country of Manufacture: United States (USA)

Availability: In Stock

Manual: GEH-6725

FUNCTIONAL DESCRIPTION:

IS420PPNGH1A is a PROFINET Controller Gateway Module manufactured and designed by General Electric as part of the Mark VIe Series used in GE Distributed Control Systems. A PROFINET Controller Gateway Module is a device or component used in industrial automation and control systems. PROFINET is a widely used industrial Ethernet communication protocol that allows different devices, such as programmable logic controllers (PLCs), sensors, and drives, to communicate with each other within an industrial network. The role of a PROFINET Controller Gateway Module is to act as an interface between a PROFINET network and other communication protocols or systems. Here's a breakdown of its key functions:

PROFINET Controller: The module serves as a PROFINET controller, which means it can establish connections and communicate with other PROFINET devices in the network. It can exchange data, and control signals, and information with these devices.

Gateway: The term "gateway" implies that the module can also translate or bridge communication between the PROFINET network and other networks or protocols. This is particularly useful in scenarios where different types of devices or systems need to exchange data but use different communication standards. The gateway module can facilitate this communication by translating the data between the two protocols.

Data Routing: The module may also provide routing capabilities, ensuring that data from one part of the PROFINET network can reach its intended destination efficiently. It manages the routing of data packets to ensure proper communication flow within the network.

Data Processing: In some cases, the gateway module might perform data processing tasks, such as filtering, data conversion, or data enrichment. This processing can help optimize data exchange between the PROFINET network and other systems.

IS420PPNGH1A Technical Specifications

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About the IS420PPNGH1A

The IS420PPNGH1A is a PROFINET Gateway module device designed to fit into a Mark VIe system. The Mark VIe was one of the final Speedtronic turbine control systems developed by General Electric. It is typically used for gas, hydro, and steam turbine systems.

The IS420PPNGH1A is a powerful gateway that connects Mark VIe controllers to a PROFINET LAN (local area network). This allows high-speed communication to occur between the controller and PROFINET I/O devices.

The IS420PPNGH1A is a single-module component that is designed to be air-cooled. It has no installed battery or fan. The unit should be installed where fans are not blocked and airflow is not impeded. This model will need to be panel mounted vertically.

It is important to note that IONet and PROFINET cannot be supported simultaneously by the same switch. Each network must be connected to an independent switch. PPNG boards typically use ESWA 8-port unmanaged switches or ESWB 16-port unmanaged switches. Cabling can be anywhere from three to eighteen feet.

The IS420PPNGH1A is built upon a 1066 MHz Intel processor (EP80579.) It runs upon a QNX Neutrino operating system and has 256 DDR2 SDRAM. You must use ControlST V05.04 or higher. The weight of this unit is 2.4 pounds. The maximum PROFINET data rate that can be used with this model is 6 KB per ms.