General Electric IS230TNTRH1C

INSTALLATION & COMMISSIONING GUIDE / EXACT-MODEL ENGINEERING FILE

General Electric IS230TNTRH1C is a tmr primary turbine protection module for the GE Mark VIe control platform. The complete marking and installed hardware arrangement must be matched before replacement.

01 Job scope and safe-work boundary

Offered assembly	General Electric IS230TNTRH1C
Installed system	GE Mark VIe control platform
Work boundary	Apply the site procedure before touching terminal-board wiring, I/O packs or DIN-rail hardware.
As-found record	Send the complete IS230TNTRH1C marking, installed-system context and required quantity.

Readiness controls

Verify the complete catalog number
Check every letter and number against the offered label and the approved Mark VIe hardware record.

Isolate field and control power
Apply the site procedure before touching terminal-board wiring, I/O packs or DIN-rail hardware.

Record pack and board positions
Photograph IONet ports, pack positions, terminal wiring, shields and connector orientation before removal.

Preserve configuration evidence
Archive the controller database, diagnostics and I/O mapping that identify the installed signal path.

Related product references

- General Electric IS220PPROH1A
- General Electric DS200TBCAG1AAB
- General Electric 531X123PCHACG1
- General Electric 531X303MCPBCG1
- Bently Nevada 3300/47
- Bently Nevada 330101-00-28-10-02-CN
- Hirschmann M4-FAST-8-SFP
- General Electric IC695PNC001

Engineering record prompts

Connector record	Photograph every used connector, cable label, keying feature and shield termination.
Host record	Identify the carrier, rack, drive, chassis or operator station that owns the installed position.
Configuration record	Archive the applicable project, address, parameter, firmware or hardware-setting evidence.

02 Replacement sequence

01 Record	Send the complete IS230TNTRH1C marking, installed-system context and required quantity.
02 Verify	Compare every token in IS230TNTRH1C with the installed label and the applicable manufacturer document.
03 Isolate	Apply the site procedure before touching terminal-board wiring, I/O packs or DIN-rail hardware.
04 Compare	Check terminal-board connectors, I/O-pack seating, field terminals and Ethernet cabling before replacing the assembly.
05 Reconnect	Photograph IONet ports, pack positions, terminal wiring, shields and connector orientation before removal.
06 Configure	Archive the controller database, diagnostics and I/O mapping that identify the installed signal path.
07 Prove	Use an approved signal or protection test and retain as-left diagnostics with the maintenance record.
08 Handover	Retain the IS230TNTRH1C label, PTUR/IS200TTURH1C composition, connection photographs, diagnostics and controlled-test result.

Stop conditions

Identity mismatch
Stop if any complete-model token or revision marker differs.

Interface mismatch
Stop if keying, connector count or installed position does not match.

Missing baseline
Stop if the installed configuration or cable map cannot be recovered.

Related product references

- General Electric DS200TBCAG1AAB
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Engineering record prompts

Host record	Identify the carrier, rack, drive, chassis or operator station that owns the installed position.
Configuration record	Archive the applicable project, address, parameter, firmware or hardware-setting evidence.
Supply-scope record	List terminal blocks, carriers, plugs, cables and accessories separately in the quotation.
Baseline result	Record initial indications, diagnostics and the controlled-system condition before work.

03 Interface restoration and application fit

Complete identity	Use IS230TNTRH1C as one complete reference in the quotation, service record and acceptance file.
Installed position	Record the exact host position and functional ownership within the GE Mark VIe control platform.
Physical execution	Compare artwork, connectors, keying, terminal hardware and orientation with the removed assembly.
Configuration boundary	Preserve the applicable project, address, firmware or hardware-setting record before removal.
Acceptance evidence	Retain initial and as-left diagnostics plus the controlled functional-test result.
Unstated values	Do not assign electrical or compatibility values that are not established by the exact-model evidence.

Application acceptance

Mark VIe I/O replacement
Replace the documented DIN-rail module only after matching the complete catalog number and terminal-board execution.

Planned outage maintenance
Capture the installed I/O mapping, pack positions and field wiring before disturbing the assembly.

Controlled commissioning
Restore the approved Mark VIe configuration and prove the exact input, output or protection path.

Spare qualification
Retain catalog number, redundancy, included terminal board and I/O-pack quantity with the spare record.

Applicable technical data

Catalog number	IS230TNTRH1C
Product type	TMR Primary Turbine Protection Module
Control platform	GE Mark VIe
GE notice mapping	No-price-impact catalog number corresponding to IS230TTURH1C
I/O pack redundancy	TMR
I/O pack family	PTUR

Related product references

General Electric 531X303MCPBCG1

Bently Nevada 3300/47

Bently Nevada 330101-00-28-10-02-CN

Hirschmann M4-FAST-8-SFP

General Electric IC695PNC001

General Electric IS220PPROH1A

04 Commissioning and fault isolation

Identity	Confirm the complete marking, artwork and installed position.
Interface map	Restore connectors and cables only from the approved as-found record.
Controlled power-up	Observe host and unit indications before enabling the process function.
Functional proof	Test the intended tmr primary turbine protection module role and retain diagnostics with the handover.

Diagnostic questions

How should the field wiring for IS230TNTRH1C be verified?	Trace every used terminal on IS200TTURH1C to the approved field drawing before reconnecting IS230TNTRH1C.
What should be checked before energizing IS230TNTRH1C?	Confirm pack seating, terminal torque, shield handling, IONet connection and the approved tmr architecture for IS230TNTRH1C.
How can a suspected IS230TNTRH1C fault be separated from an external fault?	Check terminal-board wiring, pack power, IONet status and controller diagnostics before controlled substitution of IS230TNTRH1C.
What proves that IS230TNTRH1C is operating correctly after installation?	A controlled primary turbine protection test must produce the expected field response and clean Mark VIe diagnostics for IS230TNTRH1C.

Result record matrix

Baseline	Record the pre-test state and host position.
Stimulus	Apply only the approved command, signal or diagnostic action.
Observation	Capture unit indication, host diagnostic and field response together.
Disposition	Accept, correct and retest, or record the exception with its owner.

Related product references

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- General Electric IS220PPROH1A
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Engineering record prompts

Nameplate record	Capture the complete marking, visible revision and installed position before removal.
Connector record	Photograph every used connector, cable label, keying feature and shield termination.

05 Handover and service record

Identity evidence
Offered and removed markings plus installed position.

Configuration evidence
As-found and as-left project, address or setting record.

Test evidence
Diagnostics, controlled functional result and open exceptions.

Supply evidence
Included items and separately supplied accessories confirmed in the quotation.

Close-out checks

Identity closed	The as-left record names IS230TNTRH1C without a shortened family reference.
Interfaces closed	Every restored connection is traceable to the pre-work record.
Function closed	The intended tmr primary turbine protection module role has a recorded controlled-test result.
Exceptions closed	Outstanding issues have an owner and documented action.

Ordering checks

Match the complete marking	Compare every token in IS230TNTRH1C with the installed label and the applicable manufacturer document.
Verify the assembly boundary	Confirm the terminal board, I/O pack, connector, carrier or matched-system components that belong with IS230TNTRH1C.

Related product references

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Engineering record prompts

Baseline result	Record initial indications, diagnostics and the controlled-system condition before work.
Identity decision	Approve only the complete order code and observed execution; do not shorten the family name.
Interface decision	Confirm connector count, orientation, pin ownership and field wiring against the as-found map.

Discuss the complete IS230TNTRH1C marking with Apter Power.

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Scan the WhatsApp QR to share nameplate and installed-system evidence.