GE IS200VTURH1BAC

Turbine I/O Board

GE IS200VTURH1BAC is a Mark VI turbine I/O processor for pulse-rate speed inputs, generator and bus potential-transformer signals, automatic synchronizing and fast overspeed trip logic.

Job objective

Replace, install or verify the exact module without changing unrelated wiring, configuration, dimensions, weight or other stored product data.

Safe-work boundary

Identify Match the complete model and every suffix or secondary code.	**Isolate** Apply the plant-approved electrical and process isolation procedure.
Preserve Back up configuration and photograph all connections.	**Control** Use ESD protection and revision-controlled documentation.

Required evidence before work

Nameplate photo; slot/rack record; connector map; project backup where applicable; fault history; approved acceptance procedure.

Model-specific release focus

- Four pulse-rate magnetic-pickup input channels
- Generator and bus PT inputs for synchronization
- Automatic breaker-close timing with adaptive compensation
- Fast overspeed trip path with 30 ms-or-less relay dropout

Readiness checklist

Exact identity	GE IS200VTURH1BAC matches the work order and physical unit
System position	Rack, slot and functional assignment are recorded
Configuration	Parameters, firmware or project data are backed up when applicable
Connections	Every cable, terminal, jumper and shield is labeled
Condition	Connector, board and packaging condition are inspected
Test plan	Expected states and acceptance evidence are agreed

Interface preparation

TTUR	Terminates pulse-rate, generator PT, bus PT and breaker-control circuits
K25 path	Automatic synchronizing relay command with breaker close-time compensation
Signal space	Exchanges permissives, breaker status, voltage status and diagnostic variables
Trip relays	Links local fast-overspeed logic to the configured protective relay outputs

Interface evidence for acceptance

- TTUR: Terminates pulse-rate, generator PT, bus PT and breaker-control circuits
- K25 path: Automatic synchronizing relay command with breaker close-time compensation
- Signal space: Exchanges permissives, breaker status, voltage status and diagnostic variables
- Trip relays: Links local fast-overspeed logic to the configured protective relay outputs

03 / INSTALLATION SEQUENCE

Controlled replacement workflow

1	Confirm isolation and absence of hazardous energy
2	Compare old and replacement identities and revisions
3	Photograph and label all connections
4	Remove the existing module using ESD-safe handling
5	Inspect slot, connector, grounding and cooling path
6	Install the exact replacement without forcing connectors
7	Restore cables, jumpers and settings from the controlled record
8	Perform a final visual and continuity check before energization

STOP POINT

Do not energize if the model, slot, connector orientation, grounding, jumper state or documented system assignment is unresolved.

Configuration-control record

- Synchronization PT inputs: Generator and bus
- Auto-synchronizing breakers: 2 configurable breaker timing sets
- Fast-trip modes: PR_Single and PR_Max
- Fast overspeed response: 30 ms or less from input to completed relay dropout

Staged return to service

Stage	Action	Acceptance
Stage 1	Visual inspection and isolation release	Expected controlled result
Stage 2	Apply control power under observation	Expected controlled result
Stage 3	Confirm module recognition or status	Expected controlled result
Stage 4	Verify communication and affected signal paths	Expected controlled result
Stage 5	Exercise the documented function	Expected controlled result
Stage 6	Archive measured results and as-left configuration	Expected controlled result

Product-specific acceptance focus

1

Verify generator and bus PT polarity, scaling and frequency before arming auto synchronizing.

2

Confirm every speed-pickup channel, tooth-wheel scaling and fast-trip enable before testing.

3

Do not force K25 or trip outputs unless the breaker and turbine protection test boundaries are established.

4

Complete trend-based synchronization and overspeed-trip evidence before returning the unit to service.

Commissioning decision points

- Verify generator and bus PT polarity, scaling and frequency before arming auto synchronizing.
- Confirm every speed-pickup channel, tooth-wheel scaling and fast-trip enable before testing.
- Do not force K25 or trip outputs unless the breaker and turbine protection test boundaries are established.
- Complete trend-based synchronization and overspeed-trip evidence before returning the unit to service.

Fault isolation and final record

1	Unexpected state: stop and capture evidence
2	Recheck identity, power, slot and connectors
3	Compare configuration and revision records
4	Test surrounding system before condemning the module
5	Restore a safe state and document the outcome

Apter Power handover record

Model identity	Keep the complete GE model code and every suffix in purchasing, installation and acceptance records.
Verification boundary	Confirm the physical nameplate, installed position and revision-controlled project documents before field work.
Apter Power support	Use the contact details and Apter Power website links in this document for product and sourcing support.

Related Apter Power references	Scope note
GE IS200TRTDH1CCC	Portfolio reference only; verify compatibility independently.
GE IS200TREAH1A	Portfolio reference only; verify compatibility independently.
GE IS200TDBTH2ACD	Portfolio reference only; verify compatibility independently.

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Handover evidence to retain

- Exact identity retained: GE IS200VTURH1BAC
- TTUR terminal board
- IS200VTURH1BAC turbine algorithms
- Archive as-left checks and measured results before release.