Bently Nevada 3300/53

Installation & Commissioning Guide

Bently Nevada 3300/53 is a multi-channel overspeed protection system that accepts speed inputs from proximity transducers or magnetic pickups.

PRODUCT ROLE AND TECHNICAL FEATURES

Feature 1

Uses two or three independent speed channels.

Feature 2

Accepts proximity or magnetic-pickup speed signals.

Feature 3

Provides configured voting for overspeed protection.

Feature 4

Supports stand-alone or rack-mounted application.

TECHNICAL DATA SNAPSHOT

System family	3300 overspeed protection
Protection channels	Two or three
Supported inputs	Proximity transducer or magnetic pickup
Primary measurement	Rotational speed

SYSTEM RELATIONSHIP

Field device → **Product interface** → **System channel** → **Verified response**

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Scan the approved WhatsApp code for model-specific support.

Pre-installation readiness

READINESS GATE

Identity

Compare the complete marking with the approved work order and installed record.

System match

Confirm the receiving channel, mating components and controlled configuration.

Physical condition

Inspect mounting surfaces, connectors, terminals, cable and support hardware.

Work controls

Apply authorized isolation, bypass, access and restoration procedures.

TECHNICAL PROFILE FOR THE WORK

System family 3300 overspeed protection	**Protection channels** Two or three
Supported inputs Proximity transducer or magnetic pickup	**Primary measurement** Rotational speed
Protection function Overspeed trip voting	**Installation modes** Stand-alone or 3300 rack
Configuration control Trip setpoints and channel voting logic	**Acceptance method** Independent speed simulation for every channel and trip output

IMPORTANT NOTICE Resolve every unmatched interface, configuration or receiving-system condition before removal or installation.

DOCUMENT AND WORK CONTROLS

Manufacturer document	ApterPower product-specific technical reference
Application scope	The values below apply to the identified product and its documented system relationship.
Selection rule	Use the complete ordering string and confirm the installed interfaces before selection.

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Installation sequence

CONTROLLED WORK STEPS

01	Confirm the complete 3300/53 marking and the documented overspeed protection system position.
02	Place the affected machine protection channel in the approved maintenance state.
03	Record the installed system family, protection channels and supported inputs before removal.
04	De-energize the associated monitor, sensor supply or field circuit as the procedure requires.
05	Label every connector, conductor and shield before separation.
06	Inspect mating contacts, mounting hardware and cable condition before installation.
07	Restore the retained configuration and verify signal polarity and proportional response.
08	Function-test the complete alarm, indication and shutdown path before returning the machine to service.

CONNECTION RECORD

As found	Photograph and label every connection and installed orientation before removal.
Mechanical	Record mounting position, support, clearance and connector engagement.
Electrical	Record polarity, common, shield, channel assignment and cable route.
Configuration	Preserve approved settings, scaling, alarm logic and acceptance limits.
As left	Record the final physical condition and any controlled deviation.

Field device → **Product interface** → **System channel** → **Verified response**

WORK HOLD POINTS

Before removal	Identity, position, wiring, orientation and controlled settings recorded.
Before connection	Mating interfaces, condition and routing reviewed.
Before power-up	Mechanical work, wiring, shielding and configuration independently checked.
Before release	Static value, dynamic response and protection behavior accepted.

Commissioning and functional proof

COMMISSIONING SEQUENCE

Initial state

Observe status at power-up and check for unexpected fault or alarm indication.

Static value

Verify the expected bias, gap, loop, contact or channel value for the application.

Dynamic response

Apply the approved machine or test stimulus and confirm response and scaling.

Protection path

Verify the configured alarm, relay, data or receiving-system behavior.

APPLICATION-SPECIFIC CHECKS

Turbine overspeed protection

Trips on confirmed excessive shaft speed.

Compressor trains

Adds redundant speed protection to critical drivers.

Stand-alone protection

Operates without a complete 3300 monitoring rack.

Trip-system proof test

Verifies channel inputs, voting and final outputs.

ACCEPTANCE RECORD

Identity	Complete marking and final installed position recorded.
Physical inspection	Mounting, connectors, terminals and routing checked.
Channel status	Expected status and configured measurement confirmed.
Functional test	Required output or protection response demonstrated.
Restoration	Bypasses removed and operating state approved.

COMMISSIONING QUESTIONS

Where is system family used by Bently Nevada 3300/53?	The documented system family is 3300 overspeed protection; confirm it against the installed record.
What controls protection channels on Bently Nevada 3300/53?	The documented protection channels is Two or three; confirm it against the installed record.

Release record and technical references

CLOSEOUT QUESTIONS

How is supported inputs tested on Bently Nevada 3300/53?	The documented supported inputs is Proximity transducer or magnetic pickup; confirm it against the installed record.
Which record preserves primary measurement for Bently Nevada 3300/53?	The documented primary measurement is Rotational speed; confirm it against the installed record.
Which protection function applies to Bently Nevada 3300/53?	The documented protection function is Overspeed trip voting; confirm it against the installed record.
How is installation modes set on Bently Nevada 3300/53?	The documented installation modes is Stand-alone or 3300 rack; confirm it against the installed record.
What configuration control belongs to Bently Nevada 3300/53?	The documented configuration control is Trip setpoints and channel voting logic; confirm it against the installed record.
Why verify acceptance method for Bently Nevada 3300/53?	The documented acceptance method is Independent speed simulation for every channel and trip output; confirm it against the installed record.

RELATED MODELS FOR INSTALLATION PLANNING

Bently Nevada TACH100-01 174652-01	Installation-planning reference. Review the complete ordering string before selection.
Bently Nevada 330400-01-05	Installation-planning reference. Compare the required interface and system position.
Bently Nevada 330505-02-02-02	Installation-planning reference. Confirm the execution independently for the intended task.

MANUFACTURER DOCUMENT AND FINAL CONTROL

Manufacturer document	ApterPower product-specific technical reference
Application scope	The values below apply to the identified product and its documented system relationship.
Selection rule	Use the complete ordering string and confirm the installed interfaces before selection.

IMPORTANT NOTICE	Release the equipment only after the responsible site authority accepts the recorded result.

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