8271-467

01 / Product identity and electrical data

Woodward 8271-467 is a 2301 load sharing and speed control for a prime-mover governor system. It works with a magnetic pickup, actuator, load-sensor circuits and the installed paralleling arrangement; the site wiring drawing controls final terminal use.

Control family	Woodward 2301 LSSC
Power terminals	12 (+) and 13 (−) in Woodward test procedure
Selector connection	Terminal 25 in the internal-diode scheme
Load-sensor CT input pairs	Terminals 4–5, 6–7 and 8–9 in bench test
Magnetic-pickup primary	Terminals 18–19; approximately 200 Ω bench check
Load-signal check	0 V at full counterclockwise LOAD GAIN for 8271-467
Speed setting	RATED SPEED adjustment in loop-test procedure
Low-idle setting	LOW IDLE SPEED adjustment in loop test

Control function	Load sharing and speed control
Internal selector diode	Yes; 8271-467 is listed in Manual 25070 Table 1
Newer-control terminal legend	20–40 VDC at terminals 12 and 13
CT burden pre-check	Each pair ≤0.30 Ω in Manual 55011 procedure
Bench-test jumpers	20–21, 26–27 and 29–30 in Appendix 3 setup
Gain and stability	Adjustable in 2301 loop-test procedure
Droop mode	DE-DROOP and DROOP adjustments in loop test
Ramp setting	RAMP TIME adjustment in loop test

Source boundary

Woodward Manual 25070 provides exact 8271-467 internal-diode identification and general 2301 installation guidance. Manual 55011 Appendix 3 explicitly includes 8271-467 in a grouped bench-test procedure; its test values are not universal installed operating setpoints.

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02 / Application and compatibility

Generator load sharing

Coordinate multiple 2301 controls through the documented paralleling lines and common-return power arrangement.

Prime-mover speed control

Use magnetic-pickup feedback and the matched actuator to regulate the machine within site-approved speed settings.

Controlled service replacement

Retain the original CT wiring, terminal map, actuator polarity and setting record when exchanging the exact 8271-467 unit.

Workshop functional verification

Use the Woodward 55011 Appendix 3 procedure with the approved portable speed-loop tester before field installation.

Field precautions

Keep overspeed protection independent

An engine or turbine requires a separate overspeed shutdown device; the governor controller is not that protective device.

Follow the plant drawing

Isolate power and trace every CT, pickup, actuator and paralleling connection against the actual installation before moving conductors.

Check the charging voltage

Compare the actual 12–13 terminal legend and worst-case battery-charger voltage with the allowed 20–40 VDC newer-control range.

Switch all selector conductors

In the internal-diode high-voltage-selector scheme, disconnect terminal 25 as well as positive and negative power when isolating a control.

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03 / Technical decisions and support

Why does Woodward 8271-467 appear in the internal-diode control list?

Manual 25070 Table 1 lists the exact 8271-467 code among 2301 controls with an internal diode for the high-voltage-selector scheme. Compare the installed terminal legend and figure 5 wiring before altering a paralleling circuit.

How are the 8271-467 load-sensor CT inputs pre-checked?

Woodward Manual 55011 Appendix 3 specifies resistance checks across terminal pairs 4–5, 6–7 and 8–9, each no greater than 0.30 Ω in the bench-test setup. Isolate and follow the complete procedure before measuring.

How should a high-voltage-selector circuit be isolated around 8271-467?

The Woodward guide says to switch terminal 25 together with the positive and negative power input in the internal-diode arrangement. Use the approved plant schematic and lockout sequence; opening only the supply pair may leave an unintended path.

What does the 8271-467 magnetic-pickup pre-check measure?

In the cited 2301 bench procedure, terminals 18–19 should read approximately 200 Ω across the pickup isolation-transformer primary. A field fault still requires checking pickup wiring and the actual machine drawing.

What supply check matters before energizing 8271-467?

Read the 12–13 terminal marking and measure the supply at normal and charging extremes. Manual 25070 identifies newer internal-diode controls with a 20–40 VDC legend and warns that a 36 V battery charged to 42 V can damage such a control.

Why should 8271-467 load-sharing lines be reviewed before a replacement?

Woodward explains that mixed 2301 generations, excessive contact resistance or long paralleling leads can unbalance steady-state sharing. Retain each unit’s connection and switching arrangement from the plant drawing.

Technical basis: Woodward Electronic Control Installation Guide, Manual 25070 Rev. D, pp. 4–10; Woodward Portable Speed Loop Tester, Manual 55011 Rev. J, Appendix 3, pp. 25–26.

Technical enquiry

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