General Electric 8115-DO-DC-01

Engineering Installation, Diagnostic and Acceptance Guide

8115-DO-DC-01 is an eight-channel, 2-60 Vdc PAC8000 discrete output module for switching relays, solenoids and other DC loads. Its shared field supply and current limits must be checked against both steady-state and inrush demand.

01 Job scope and identity

Complete model	8115-DO-DC-01
Product type	PAC8000 8-Channel DC Discrete Output Module
Manufacturer	General Electric
Technical source	GE Intelligent Platforms PAC8000 8115-DO-DC datasheet

Field decisions

1 Verify the delivered identity

Record the complete 8115-DO-DC-01 marking and the installed assembly before removal.

2 Preserve the decisive interface

Match the B6 keyed slot, selected terminal unit, 2-60 Vdc supply, eight output loads and stored fail-safe/pulse parameters.

3 Check the selected limits

Eight 2-60 Vdc channels rated 1 A continuous each with defined short inrush limits

4 Prove the intended function

With actuators placed safe, command every used channel and record load voltage, current, timing, feedback and module diagnostics.

5 Retain the acceptance record

Record command, terminal voltage, process feedback and diagnostic result per channel.

Installation relationships

Current audit	Record continuous and inrush current for each output plus the worst simultaneous module total.
Fail-safe proof	Remove the commanded data path under the approved test and confirm the configured fallback state.
Pulse proof	Measure momentary output duration on every channel using timed control.

Pre-work evidence

Verified field	Output channels: 8
Verified field	Load-voltage range: 2 to 60 Vdc
Verified field	Output isolation: Non-isolated
Verified field	Continuous current per channel: 1 A
Verified field	Inrush per channel: 4 A below 100 ms; 6 A below 20 ms
Verified field	Module continuous-current total: 6 A
Verified field	Module inrush total: 10 A below 100 ms; 18 A below 20 ms

02 Pre-installation readiness

Model-specific installation decisions

Exact identity

8115-DO-DC-01 and every delivered revision or approval marking must be recorded before removal.

Installed system

GE PAC8000 Remote I/O discrete output modules companion components, channel assignment and approved machine reference must remain traceable.

Mechanical baseline

Record the as-found mounting datum, reach, lock position, target clearance, routing and connector support.

Electrical baseline

Record the applicable stopped-machine gap, bias, continuity or channel value together with test conditions.

As-left configuration

Document the final mechanical position, cable protection, connector condition and complete companion-component identities.

Functional release

Compare the final monitor indication and controlled operating response with the approved baseline before handover.

Installation precautions

Calculate inrush

Check each load and the simultaneous module total against the 20 ms and 100 ms limits.

Verify load voltage

Keep the field supply within 2-60 Vdc and confirm polarity before energizing.

Recover fail-safe states

Export initialization, fallback, pulse mode and duration for all used channels.

Match the terminal family

Use B6 keying and the terminal unit approved for the panel classification.

Control unexpected motion

Isolate actuators or place equipment in a safe state before forcing outputs.

Prove all loads

Command each used channel and record voltage drop, current and process feedback.

Pre-installation release gates

Release gate	Calculate inrush: Check each load and the simultaneous module total against the 20 ms and 100 ms limits.
Release gate	Verify load voltage: Keep the field supply within 2-60 Vdc and confirm polarity before energizing.
Release gate	Recover fail-safe states: Export initialization, fallback, pulse mode and duration for all used channels.
Release gate	Match the terminal family: Use B6 keying and the terminal unit approved for the panel classification.
Release gate	Control unexpected motion: Isolate actuators or place equipment in a safe state before forcing outputs.
Release gate	Prove all loads: Command each used channel and record voltage drop, current and process feedback.

03 Installation and commissioning

Controlled installation sequence

01 Relay and solenoid switching	Drive 2-60 Vdc coils whose continuous and inrush demand remains within channel and module limits.
02 Momentary command outputs	Use the 2 ms to 130 s timing range for documented start, reset or trip pulses.
03 Fail-safe actuator states	Restore the predefined or last-value fallback required by the process risk assessment.
04 PAC8000 DC load banks	Allocate simultaneous outputs so the shared field supply and 6 A module total are not exceeded.

Commissioning acceptance criteria

Acceptance point	Current audit: Record continuous and inrush current for each output plus the worst simultaneous module total.
Acceptance point	Fail-safe proof: Remove the commanded data path under the approved test and confirm the configured fallback state.
Acceptance point	Pulse proof: Measure momentary output duration on every channel using timed control.

04 Diagnostics and escalation

How many outputs are provided by 8115-DO-DC-01?	The base module provides eight DC output channels.
What load-voltage range applies to 8115-DO-DC-01?	The published range is 2 to 60 Vdc.
What continuous current can one channel of 8115-DO-DC-01 switch?	Each channel is rated 1 A continuous, subject to the 6 A module total.
What inrush limits apply to 8115-DO-DC-01?	Per channel: 4 A below 100 ms or 6 A below 20 ms; module totals are 10 A and 18 A respectively.

Additional diagnostic decisions

What pulse range is available on 8115-DO-DC-01?	Momentary or continuous pulse timing is configurable from 2 ms to 130 s.
Which key identifies 8115-DO-DC-01?	The published mechanical key is B6.
What does suffix -01 mean on 8115-DO-DC-01?	It remains part of the offered identity; no unsupported electrical meaning is assigned.

How should 8115-DO-DC-01 be commissioned?	Prove each load, current, timing, fail-safe state, process feedback and Railbus diagnostics.

05 Handover and evidence package

Model-specific handover evidence

Source revision	Record the revision of GE Intelligent Platforms PAC8000 8115-DO-DC datasheet used for the review.
Applicability	The public datasheet defines the 8115-DO-DC base module; -01 is preserved as the complete offered identity without inventing an option decode.
Installed evidence	Match the B6 keyed slot, selected terminal unit, 2-60 Vdc supply, eight output loads and stored fail-safe/pulse parameters.
Functional evidence	With actuators placed safe, command every used channel and record load voltage, current, timing, feedback and module diagnostics.

Model-specific application limits

Load schedule	Record voltage, steady current and inrush for every connected output.
Logic schedule	Archive initialization, fallback, pulse mode and duration.
Functional test	Record command, terminal voltage, process feedback and diagnostic result per channel.

Product-specific acceptance records

Selected engineering value	ON-state voltage drop: 0.25 V maximum
Selected engineering value	OFF-state leakage: 1 mA maximum
Selected engineering value	Pulse duration range: 2 ms to 130 s
Selected engineering value	Output response: 1 ms maximum
Selected engineering value	Railbus current: 45 mA typical; 70 mA maximum
Selected engineering value	Module key: B6
Acceptance record	Current audit: Record continuous and inrush current for each output plus the worst simultaneous module total.
Acceptance record	Fail-safe proof: Remove the commanded data path under the approved test and confirm the configured fallback state.
Acceptance record	Pulse proof: Measure momentary output duration on every channel using timed control.
Lifecycle decision	Exact offered identity: The complete marking is 8115-DO-DC-01; published electrical data is for base module 8115-DO-DC.
Lifecycle decision	Evidence boundary: Suffix -01 is not decoded beyond the supplied marking without an exact GE option record.
Lifecycle decision	Replacement rule: Match voltage/current limits, B6 keying, terminal class, fail-safe state and pulse behavior.

Verified related product references

Related product	General Electric IS220PTURH1A
Related product	General Electric 531X133PRUALG1
Related product	General Electric IS420ESWBH3AX
Related product	General Electric DS200DSPCH1AEA

Engineering contact

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