2098-DSD-010X

Ultra3000 controlled installation and commissioning

Use the complete catalog marking, actual drive series and machine-approved axis record throughout this sequence. The source rating table covers the 2098-DSD-010 class; exact connector and setup figures are in the manufacturer excerpts.

System paths

AC LINE

100–240 V AC; single phase

POWER STAGE

1 kW at 230 V; 5 A continuous

MOTOR

Matched feedback and shielded cable

CONTROL

CN1 I/O and CN3 setup

Variant check before work

This full -010X suffix identifies the indexing unit without DeviceNet hardware. If the machine uses a DeviceNet link, compare the full -DN variant and controller design before fitting a drive.

Isolation and baseline record

Record	Field evidence
Marking	Drive model, series, motor and feedback labels
Power	AC rating, protective device, PE and bus-discharge state
Control	CN1 assignment, parameter backup and travel limits
Interface	CN3 serial setup and controller I/O plan

Connect the axis

Hardware and configuration checks before torque

Connection map

Path	Location	Verification
AC and motor	TB1 / motor power	Earth ground, voltage, shield and cable route
User I/O	CN1, 44-pin	Enable, limits, command and machine interlocks
Feedback	CN2, 15-pin	Motor selection, connector and shield continuity
Setup	CN3, 9-pin	Ultraware connection and saved parameter file

Setup sequence

1 Identify series — Apply the series-specific inrush and power-cycle limits.

2 Select motor — Compare catalog code and feedback with the installed motor.

3 Save parameters — Preserve the baseline before tuning or changing index data.

4 Confirm I/O — Check CN1 enable, limits and fault assignments.

5 Plan first motion — Restrict the load and agree safe direction and test range.

Configuration values to capture

Item	Read back from the installed axis
Motor and feedback	Selected motor code, feedback type and connector record
Index profile	Distance, direction, speed and acceleration limits
Digital I/O	Enable, travel limit, fault and reset assignments
Communication	CN3 host settings and controller I/O mapping

Prove motion

Controlled acceptance matrix and fault response

Stage-by-stage acceptance

Stage	Observe	If unexpected
No motion	Drive status and saved motor file	Check line, faults and motor selection
Enable	CN1 input and interlocks	Trace source, logic and limit state
First move	Low-risk non-indexing direction	Stop; compare feedback and motor wiring
Index move	Commanded distance and repeatability	Review index setup and limits
Protection	Fault/reset and machine stop	Capture code and correct before release

Rating and duty gate

The 2098-DSD-010 class is 5 A continuous and 15 A intermittent, both zero-to-peak. Output power is 1.0 kW at 230 V AC and 0.5 kW at 115 V AC. Confirm motor thermal duty; do not use the intermittent figure as a steady-state target.

Power cycling gate

The 2098-DU003B update distinguishes Series A/B and Series C inrush behavior and contactor-cycle limits. Read the actual series marking and observe its limit while diagnosing a start fault.

Handover evidence

Record the full drive and motor codes, series, saved parameters, supply, I/O and feedback tests, fault history and signed motion acceptance. Record the non-DeviceNet controller wiring boundary.

Stop and escalate when

Observation	Required controlled response
Unexpected direction	Inhibit torque; compare command polarity and feedback wiring
Unstable feedback	Isolate; inspect CN2 cable, shield and motor record
Repeated inrush fault	Stop power cycling; verify series limit and upstream protection

Service decisions

Model-specific checks and portfolio navigation

First diagnostic branch

Symptom	Evidence	Next step
Dark status	AC path and protective device	Isolate, inspect and restore safely
No enable	CN1 signal and interlock state	Compare wiring to saved I/O setup
Wrong direction	Command and feedback sense	Inhibit and re-test restrained
Early limit	Duty and drive/motor selection	Read current and thermal record

Manufacturer source set

Rockwell Automation Ultra3000 Digital Servo Drives Installation Manual 2098-IN003E-EN-P with 2098-DU003B update, and Commissioning Your Ultra3000 Drive 2098-IN005C-EN-P. Check exact series and installed system before action.

More Allen-Bradley catalogue references

These are navigation choices; confirm complete catalog numbers and system fit.

Allen-Bradley 1746-HSCE
SLC 500 counter

Allen-Bradley 1794-IV16
FLEX I/O sourcing input

Allen-Bradley 1398-DDM-009
ULTRA 100 drive

Allen-Bradley 1756-L62
ControlLogix CPU

Allen-Bradley 1756-DNB
DeviceNet bridge

Allen-Bradley 1756-OV32E
Output module

Maintenance handover record

Retain	Why it matters on the next service visit
Complete catalog + series	Separates -DN network hardware and inrush behavior
Saved motor + index file	Lets the next engineer reproduce the accepted motion
Fault and test log	Distinguishes wiring, setup and load conditions

Product enquiry

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