ABB BSFC-02C 3AXD50000011461

Installation & Verification Guide

ABB BSFC-02C 3AXD50000011461 is a charging controller for an ACS880 multidrive DC-link charging arrangement. It supervises the charging and inverter power-switch sequence through its electrical and optical interfaces.

01 Record the as-found arrangement

Exact identity	BSFC-02C 3AXD50000011461
Material number	3AXD50000011461
Cabinet reference	Record drive lineup, cabinet, compartment and installed controller position.
Electrical terminals	Photograph X4 switch feedback and X5 supply/solenoid wiring with wire numbers.
Optical map	Label V1–V6 and the corresponding inverter-module destinations.
Front selections	Record S1–S3 switch positions and status indicators before isolation.

02 Establish the electrical boundary

Approved maintenance state	Place the drive and connected machinery in the site-approved maintenance condition.
X5 supply	Isolate the AC source and prove absence of voltage at approved test points.
DC link	Follow the drive discharge procedure and verify residual energy before contact.
Switch circuit	Prevent unexpected operation of charging and inverter power switches.
Reference record	Retain the original connection photographs and cabinet drawing.

03 Confirm mechanical and optical fit

Mounting	Fit to a 35 mm DIN rail in the permitted vertical or horizontal orientation.
Free air	Keep the controller within the specified 0–70 °C ambient range with free circulation.
Fiber length	Keep controller-to-inverter plastic optical fiber within 4 m.
Bend radius	Maintain at least 35 mm. Handle connector bodies; do not pull the cable.
Fiber ends	Inspect optical end faces for contamination, moisture and damage.

04 Restore X5, X4 and V1–V6

X5 source	Compare selected 115/230 V AC supply, frequency and wire positions with the cabinet schematic.
X5 fuse	Check the specified slow 2 A microfuse before controlled re-energization.
X5 solenoid	Restore coil and switch conductors without bypassing an interlock.
X4 feedback	Seat the four-position terminal and compare feedback labels with the original record.
V1–V6	Reattach each labeled optical branch to its recorded destination.

05 Pre-power acceptance

Identity	BSFC-02C and 3AXD50000011461 match the approved order and installed drawing.
Connections	X4/X5 plugs fully seated; conductors and optical branches follow the as-found map.
Switch state	Charging and inverter power switches have the documented initial positions.
Safety release	Site permits and lockout removal are authorized by responsible personnel.

06 Controlled charge and stop observations

Initial power	Record measured X5 supply, PWR indication and controller status.
Charge stage	Record command, switching indication and observed DC-link rise under the approved procedure.
Feedback	Compare X4 input with physical switch movement; stop for disagreement.
Inverter ready	Confirm the assigned optical branches and expected module response.
Stop stage	Compare controlled-stop command, inverter-off response and switch feedback.
Residual energy	Verify approved safe DC-link state before further maintenance.

07 Diagnostic decision paths

No PWR indication	Check the X5 source, slow 2 A fuse and cabinet interlocks.
Unexpected switch position	Compare coil command, X4 feedback and actual contact state.
No inverter-ready response	Inspect the corresponding V1–V6 branch and inverter module.
Intermittent optical command	Check bend radius, connector seating and end-face cleanliness.
Repeat fault after exchange	Compare S1–S3, wiring and recorded charging sequence.

08 As-left record and handover

Full marking	Photograph BSFC-02C and 3AXD50000011461 with visible revision.
Before / after	Retain X4/X5 wiring, V1–V6 map, settings and front indicators.
Measured values	Record AC supply and feedback test conditions.
Function proof	Keep charge, inverter enable and controlled stop observations.
Approval	Record technician, date, supervisor and maintenance release.

Discuss the exact BSFC-02C material number, electrical interfaces and installed application with Apter Power.

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Technical basis: ABB BSFC-02C hardware manual 3AXD50000027498 Rev C. Use the complete ABB manual and approved cabinet drawings for authorized work.