

X20BC8084

Expandable POWERLINK bus controller

POWERLINK network frames and X20 I/O process data

PRODUCT SNAPSHOT

BRAND

B&R

FAMILY

B&R X20 distributed I/O

PART

X20BC8084

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PRODUCT OVERVIEW

POWERLINK network frames and X20 I/O process data

1

Operates as a POWERLINK controlled node

2

Provides two shielded RJ45 ports

3

Transfers X20 data with 200-microsecond minimum cycles

4

Supports link selection and redundancy

SYSTEM COMPONENTS

X20 bus base and I/O slices

POWERLINK cable and switch

24 V DC station supply

Automation Studio hardware configuration

TECHNICAL NOTE

Record the node number, cable port order and X2X configuration before replacement; verify both link directions and I/O diagnostics after startup.

TECHNICAL DATA

PARAMETER	VALUE
B&R ID	0x2674
POWERLINK role	V1/V2 controlled node; Type 2
Ports	2 shielded RJ45
Physical layer	100BASE-TX

PARAMETER	VALUE
Data rate	100 Mbit/s
Maximum segment	100 m
Minimum fieldbus/X2X cycle	200 us
Bus power consumption	2 W

ENGINEERING NOTE

Record the node number, cable port order and X2X configuration before replacement; verify both link directions and I/O diagnostics after startup.

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
84661-55	Related industrial automation product	View 84661-55 page
330880-00-00-000-03-02	Related industrial automation product	View 330880-00-00-000-03-02 page
330101-00-60-90-01-05	Related industrial automation product	View 330101-00-60-90-01-05 page
330104-11-25-10-02-00	Related industrial automation product	View 330104-11-25-10-02-00 page
330102-04-25-10-02-00	Related industrial automation product	View 330102-04-25-10-02-00 page
330910-00-07-05-02-CN	Related industrial automation product	View 330910-00-07-05-02-CN page
330910-00-07-05-02-05	Related industrial automation product	View 330910-00-07-05-02-05 page
3HAC5954-1	Related industrial automation product	View 3HAC5954-1 page

APPLICATIONS & PRECAUTIONS

COMMON APPLICATIONS

Remote X20 I/O station

Operates as a POWERLINK controlled node

POWERLINK line topology

Provides two shielded RJ45 ports

Redundant distributed-I/O link

Transfers X20 data with 200-microsecond minimum cycles

Bus-controller replacement

Supports link selection and redundancy

PRODUCT PRECAUTIONS

- 1 Verify the full X20BC8084 marking and its assigned B&R X20 distributed I/O position before work.
- 2 Place the connected machine or process in the approved maintenance state.
- 3 Isolate the applicable supply and powerlink network frames and x20 i/o process data field energy before disconnecting conductors.
- 4 Record connector, conductor, address and software identities before removal.
- 5 Use ESD controls and protect keyed interfaces, exposed contacts and electronic assemblies.
- 6 Confirm the installed X20 bus base and I/O slices and POWERLINK cable and switch against the approved project.
- 7 Restore power in a controlled sequence and review device, network and host diagnostics.
- 8 Prove the intended remote x20 i/o station function and retain the final test result.

ENGINEER FAQ

Q1 Does X20BC8084 match X20 bus base and I/O slices in a Remote X20 I/O station installation?

Verify the complete X20BC8084 marking, the documented B&R X20 distributed I/O position and the installed X20 bus base and I/O slices before fitting the assembly.

Q3 Which B&R X20 distributed I/O records should be captured before removing X20BC8084?

Record the as-found wiring, installed position, active configuration and diagnostic state associated with X20BC8084 before disconnection.

Q5 Which POWERLINK cable and switch condition should be checked when X20BC8084 reports an abnormal state?

Check the POWERLINK cable and switch supply, seating and connection first, then compare channel diagnostics with the recorded X20BC8084 baseline.

Q7 What maintenance evidence is required after X20BC8084 is used for Redundant distributed-I/O link?

Retain the nameplate record, corrective action, final diagnostics and a controlled redundant distributed-i/o link functional-test result for X20BC8084.

Q2 How should X20BC8084 be wired when it must operates as a powerlink controlled node?

Isolate the circuit, identify every terminal and reproduce the approved polarity, shield and channel assignment for X20BC8084; then continuity-test the affected path.

Q4 What controlled test confirms that X20BC8084 can provides two shielded rj45 ports?

Apply the approved field or simulated stimulus, observe the B&R X20 distributed I/O indication and confirm the intended response without bypassing the normal interlocks.

Q6 Can X20BC8084 be moved directly into POWERLINK line topology without validating Automation Studio hardware configuration?

No. Confirm the Automation Studio hardware configuration, revision, connection scheme and B&R X20 distributed I/O configuration before transferring X20BC8084 to that duty.

Q8 How should X20BC8084 be returned to service in Bus-controller replacement?

Restore power under control, verify transfers x20 data with 200-microsecond minimum cycles, exercise the intended signal path and release X20BC8084 only after the B&R X20 distributed I/O remains in its approved operating state.

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