

X20AP3131

Three-Phase Power and Energy Metering Module

CONTROLLED ENGINEERING COPY

B&R X20AP3131 is a three-phase power and energy metering module for the documented X20 System installation.

INSTALLATION IDENTITY	REQUIRED VALUE
Complete model	X20AP3131
Manufacturer	B&R
System family	X20 System
Record scope	Installation, application and verification

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APTER POWER SALES TEAM

WHATSAPP / PHONE

+86 180 3023 5313

EMAIL

sales13@apterpower.com

WEBSITE

www.apterpower.com



01 PRE-INSTALLATION PLAN

- 1

Confirm the complete B&R X20AP3131 marking and installed X20 System position before work.
- 2

Place the machine or process in the approved maintenance state and isolate every applicable energy source.
- 3

Record three voltage phases, current-transformer inputs, X20BM32 and X20TB32, terminal assignments, shielding and protective-ground connections before removal.
- 4

Use ESD controls and protect keyed connectors, terminals and exposed electronics from contamination.
- 5

Verify function (3-phase power and energy metering) against the installed project and connected hardware.

MATCHED HARDWARE

- X20AP3131 with complete identity
- X20 I/O station with current transformers
- three voltage phases, current-transformer inputs, X20BM32 and X20TB32
- Controlled commissioning and acceptance record

INSTALLATION CONTROL RECORD

CONTROL ITEM	REQUIRED RECORD
Identity	X20AP3131 recorded
Physical interface	Probe, cable and sensor matched
Functional proof	Static gap and dynamic response

02 WIRING & INTERFACE CHECKS

CHECK ITEM	REQUIRED VALUE
Function	3-phase power and energy metering
Voltage phase-to-phase	Maximum 480 VAC
Voltage phase-to-neutral	Maximum 277 VAC
Frequency range	45 to 65 Hz
Frequency resolution	0.01 Hz
Calculated values	Active, reactive and apparent power
Bus module	X20BM32
Terminal block	X20TB32
Module width	25 mm

FIELD NOTE

Confirm B&R X20AP3131, X20 I/O station with current transformers, three voltage phases, current-transformer inputs, X20BM32 and X20TB32, wiring, grounding, configuration, companion accessories and controlled commissioning results before service release.

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03 COMMISSIONING WORKFLOW



COMMISSIONING ACCEPTANCE EVIDENCE

EVIDENCE ITEM	ACCEPTANCE CONDITION
Identity	X20AP3131
Physical interface	three voltage phases, current-transformer inputs, X20BM32 and X20TB32 matched
Configuration	Exact installed configuration and assignments restored
Functional proof	Controlled three-phase power and energy measurement response recorded

04 RETURN-TO-SERVICE RECORD

- ☐ Verify function (3-phase power and energy metering) against the installed project and connected hardware.
- ☐ Verify voltage phase-to-phase (Maximum 480 VAC) and restore only the approved configuration.
- ☐ Energize in the prescribed sequence and review module, host and network diagnostics.
- ☐ Complete a controlled three-phase power and energy measurement test and retain the acceptance result before production release.

VERIFICATION RECORD

PRODUCT IDENTITY	X20AP3131
INSTALLED POSITION	Documented X20 I/O station with current transformers position
VERIFICATION METHOD	Controlled inspection and functional test
RELEASE RECORD	Final diagnostic state retained before service

FUNCTIONAL ACCEPTANCE CHECKLIST

- ☐ Confirm the exact model remains assigned to the documented host position.
- ☐ Verify every mating interface and field connection against the as-found record.
- ☐ Exercise the intended product function under controlled conditions.
- ☐ Retain the diagnostic and functional-test result before release.

SOURCE IDENTIFIERS

B&R X20AP3131 product data | Data sheet X20(c)AP31xx