B&R 5AC901.BUPS-01

01 UPS pairing checks

1 Identify the compatible UPS module

Read the UPS label before connecting the battery pack. The 5AC901.IUPS-01 is the designated partner; a similar connector or a nominal 24 V rating does not establish compatibility with another UPS.

2 Separate backup energy from normal power

Place the PC and process in an approved shutdown state. Remember that disconnecting the normal supply alone may leave the UPS powered from its battery; follow the PC service isolation sequence before touching connections.

UPS pairing	5AC901.IUPS-01
Battery arrangement	Two series-connected 12 V units
Pack rating	24 V, 2.2 Ah

02 Temperature supervision checks

1 Retain temperature sensing

Keep the NTC sensor connection with the battery power connection. The UPS uses this temperature information to determine whether charging and backup are permitted, so a power-only connection does not establish readiness.

2 Check the battery environment

Measure temperature at the battery location rather than relying on cabinet-room temperature. Keep the pack within 0 to 40°C in operation and avoid condensation; thermal alarms can remove both charging and backup capability.

Temperature supervision	NTC sensor
Permitted operation	0 to 40°C
Alarm hysteresis	5°C

03 Charging interval checks

1 Allow the charging interval

After installing a discharged pack, allow the specified five-hour charging interval before evaluating backup performance. A partially charged battery can pass a connection check while still being unable to sustain the required PC shutdown.

2 Test a representative shutdown load

Use a controlled loss-of-input test only when the process can tolerate it. Observe the PC shutdown completion and UPS status with the actual connected load; do not infer available runtime from the 2.2 Ah label alone.

Charging interval	5 hours
Typical charging current	0.88 A
Runtime criterion	Actual load and completed shutdown

04 Ageing assessment checks

1 Interpret the temperature alarm

Investigate a temperature alarm before releasing the UPS to service. The alarm has 5°C hysteresis; cooling or warming just to the limit may not immediately restore charging and backup operation.

2 Separate ageing from a charger fault

Review battery age, operating temperature and discharge history when runtime declines. A reduced reserve can be caused by an ageing lead-acid pack even when the charger and normal input supply remain operational.

Ageing assessment	Temperature and discharge history
Design life context	Up to five years at 20°C
Alarm consequence	Charging and backup disabled

5AC901.BUPS-01

05 Storage maintenance checks

1 Schedule storage recharging

Set a recharge date for spare packs at intervals no longer than six months. Keep storage between -15 and 40°C, and reassess the charge state before fitting a stored battery to a working UPS.

2 Record the demonstrated reserve

Retain the installed UPS identity, charge interval, test load and shutdown result in the service record. Use the observed reserve and the process shutdown requirement to determine whether the backup system is ready.

Technical basis: B&R Automation PC 3100 User Manual V2.17.

Related product navigation

B&R 3CP360.60-1

B&R 3CP340.60-2

These are related references, not confirmed substitutes or an automatically approved assembly.