B&R 5AC901.BUPS-01

01 Function and selected configuration

Product function

B&R 5AC901.BUPS-01 allows a compatible industrial PC UPS to bridge an interrupted supply while the operating system completes its configured shutdown sequence.

Selected configuration

The unit contains two 12 V, 2.2 Ah valve-regulated lead-acid batteries connected in series. The resulting pack is rated 24 V and 2.2 Ah; series connection increases voltage rather than doubling ampere-hour capacity.

Functional path

Normal DC input	5AC901.IUPS-01	24 V battery reserve	PC shutdown

Battery technology	Valve-regulated lead acid, rechargeable
Battery arrangement	2 x 12 V, connected in series
Pack nominal voltage	24 V DC

An NTC temperature sensor allows the UPS to monitor the battery condition. Operation is specified from 0 to 40°C. Outside the permitted battery temperature range, both charging and backup operation are disabled; the temperature alarm has 5°C hysteresis.

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02 Technical operating envelope

Battery technology	Valve-regulated lead acid, rechargeable
Battery arrangement	2 x 12 V, connected in series
Pack nominal voltage	24 V DC
Pack capacity	2.2 Ah
Battery temperature sensor	NTC
Typical charging current	0.88 A

Charging time, discharged battery	5 hours
Operating temperature	0 to 40°C
Storage temperature	-15 to 40°C
Relative humidity	25 to 85%, non-condensing
Maximum operating altitude	3000 m
Temperature alarm hysteresis	5°C

The technical values apply to this model in the specified installation and configuration.

Signal interpretation

An NTC temperature sensor allows the UPS to monitor the battery condition. Operation is specified from 0 to 40°C. Outside the permitted battery temperature range, both charging and backup operation are disabled; the temperature alarm has 5°C hysteresis.

Interface boundary

This battery unit is intended exclusively for the 5AC901.IUPS-01 UPS module. Backup time depends on the connected load, state of charge, temperature and battery ageing, so no fixed runtime follows from the battery capacity alone.

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03 System integration and applications

Controlled PC shutdown

Provide reserve energy for a configured shutdown when normal DC power is interrupted.

Compatible UPS battery renewal

Replace the battery unit connected to a 5AC901.IUPS-01 without substituting an unrelated battery design.

Temperature-supervised backup

Use the NTC measurement to supervise charging and availability of the backup path.

Stored spare maintenance

Maintain charge and storage conditions so that a spare pack is ready for a planned UPS service.

System and supply context

The ups battery is applied in the Normal DC input / 5AC901.IUPS-01 / 24 V battery reserve / PC shutdown arrangement. Select associated equipment for the actual channel or installation.

Application boundary

The technical values apply to this model in the specified installation and configuration. The examples below address the stated product function.

Which UPS module accepts 5AC901.BUPS-01?

The compatible UPS module is 5AC901.IUPS-01. The battery unit must not be treated as an interchangeable supply for other UPS designs.

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04 Engineering selection decisions

Does 5AC901.BUPS-01 provide 4.4 Ah because it contains two batteries?

No. The two 12 V, 2.2 Ah batteries are connected in series, producing 24 V at 2.2 Ah.

What happens when 5AC901.BUPS-01 becomes too hot or too cold?

Outside its permitted battery temperature range, the UPS disables charging and backup operation. The temperature alarm uses 5°C hysteresis.

Why is the backup duration of 5AC901.BUPS-01 load-dependent?

Runtime changes with PC power demand, available charge, temperature and battery ageing. Capacity alone does not establish a guaranteed shutdown interval.

Can 5AC901.BUPS-01 maintain its maximum service life at elevated temperature?

Service life is specified up to five years at 20°C and depends on operating cycles. Higher temperature and repeated discharge affect battery ageing.

Check the battery environment	Measure temperature at the battery location rather than relying on cabinet-room temperature.
Allow the charging interval	After installing a discharged pack, allow the specified five-hour charging interval before evaluating backup performance.

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05 Configuration boundary and references

Lifecycle and support

The current manufacturing and factory-support phase of 5AC901.BUPS-01 is unconfirmed.

Replacement assessment

Preserve battery technology Valve-regulated lead acid, rechargeable, battery arrangement 2 x 12 V, connected in series, pack nominal voltage 24 V DC. Check battery technology and battery arrangement against the installed configuration.

Document roles

Use the original manufacturer excerpt for its preserved technical tables and drawings. This product brief explains selection and system context. The separate installation guide covers preparation, connection, tests and handover; use it together with the applicable manufacturer instructions.

Technical basis

B&R Automation PC 3100 User Manual V2.17.

Related product navigation

B&R X20DC4395

B&R X20BC0087

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

Product enquiries