ABB CP-A RU 1SVR427071R0000

Installation & Verification Guide

ABB CP-A RU 1SVR427071R0000 decouples two 24 V DC power supplies to sustain a shared load when one source fails. The base unit has two input channels and a common output.

01 Record the installed dual-source circuit

Exact unit	CP-A RU 1SVR427071R0000
Source 1	Record power-supply model, circuit protection, terminal polarity and source phase.
Source 2	Record an independent source and its complete-load capacity.
Protected load	Measure normal and peak current at the common output.
Optional monitor	Note whether CP-A CM 1SVR427075R0000 is fitted and photograph its settings.

02 Prepare safe isolation

Both input feeds	Isolate and prove both 24 V DC sources de-energized.
Load output	Protect the downstream circuit from unintended energization.
As-found wiring	Photograph INPUT 1, INPUT 2, OUTPUT and cable markers.
Accessory	Unclip CP-A CM only after recording its wiring and threshold settings.

03 Fit the exact replacement

DIN rail	Mount on IEC/EN 60715 35 mm rail horizontally, input terminals at top.
Convection space	Keep at least 10 mm side clearance and 50 mm vertically.
Conductors	Use the applicable cross section and 12 mm strip length.
Terminal torque	Tighten input and output conductors to 1.2–1.5 N·m.
Polarity	Match each source to its dedicated input and the load to OUTPUT.

04 Pre-energization checks

Identity	Label identifies CP-A RU and 1SVR427071R0000.
Current budget	Either source can independently carry the full measured load.
Cabinet temperature	Use 40 A rating to 60 °C; derate above 60 °C.
Output wiring	Conductor and protection selected for the complete load.
CP-A CM	If installed, confirm separate order identity and channel threshold settings.

05 Controlled failover proof

Both sources on	Record each input and the loaded output voltage.
Source 1 lost	Verify source 2 holds the load; record the output dip and monitor status.
Source 1 restored	Confirm no reverse feed into the isolated source path.
Source 2 lost	Repeat with source 1 carrying the complete load.
Both restored	Confirm polarity, source voltages and the expected load condition.

06 Troubleshooting matrix

Output low on both feeds	Compare each input voltage, measured current and diode voltage drop.
One source cannot carry load	Check that source rating and wiring support full critical current.
Monitor alarm only	Compare fitted CP-A CM threshold and channel voltage.
Excessive heat	Check cabinet spacing, ambient, load and terminal torque.
Unexpected backfeed	Isolate and inspect the wiring and decoupling function.

07 Handover record

Before/after photos	Retain label, polarity, accessory and terminal images.
Measured values	Record dual-input and output readings under load.
Failover result	Document each source-loss test and any observed voltage dip.
Approval	Record technician, date, equipment ID and approved operating baseline.

08 Related ABB model references

ABB CP-A CM 1SVR427075R0000	Optional plug-on input-monitoring module for the CP-A RU; confirm whether it is fitted and ordered.
ABB CP-C.1 24/10.0 1SVR360663R1001	A 24 V DC source model. Each source must be capable of the entire installed load; a 10 A unit suits only an appropriately limited load.
ABB CP-T 24/20.0 1SVR427056R0000	A 24 V DC source model. Check the complete load, source rating and approved cabinet design before pairing.
Selection boundary	These are related ABB references for engineering review, not automatic replacements for CP-A RU 1SVR427071R0000.

09 Source-loss acceptance worksheet

Source 1 / Source 2	Record full ABB source models, input-voltage readings and independent protection.
Normal loaded output	Record output voltage, measured steady load and cabinet ambient.
Source 1 isolated	Record remaining input, output voltage and load continuity.
Source 2 isolated	Repeat in the opposite direction; compare the output dip.
Optional CP-A CM	If present, record channel thresholds, LED states and relay indications.
As-left approval	Record final label photographs, terminal torque and responsible sign-off.

Discuss the CP-A RU marking, two supply paths and installed load with Apter Power.

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Technical basis: ABB CP-A RU Data Sheet 2CDC114036D0202; companion codes from ABB CP-C.1 and CP-T range documents. Apply the approved site procedure.