

81001-450-51-R

Single 800 A SGCT

Allen-Bradley 81001-450-51-R is the exact manufacturer-listed single 800 a sgct for the documented installed system.

BRAND	Allen-Bradley	FAMILY	Allen-Bradley PowerFlex 7000
PART	81001-450-51-R	SYSTEM ROLE	Uses the official 800 A SGCT execution

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81001-450-51-R

MANUFACTURER SOURCE RECORD

PowerFlex 7000 Medium Voltage AC Drives Troubleshooting Guide
7000-TG002L-EN-P, February 2020

Product Overview

SYSTEM FUNCTION

Allen-Bradley 81001-450-51-R is the exact manufacturer-listed single 800 a sgct for the documented installed system.

FUNCTION 1

Uses the official 800 A SGCT execution

FUNCTION 2

Supplies 1 device under one exact spare-part number

FUNCTION 3

Supports the PowerFlex 7000 power-electronics section

FUNCTION 4

Retains device identity during controlled drive maintenance

System Components

COMPONENT	DOCUMENTED ROLE
Host / carrier	Allen-Bradley PowerFlex 7000
Primary interface	Uses the official 800 A SGCT execution
Engineering context	Install only after the medium-voltage drive is isolated and the stored energy is proven discharged. Preserve the installed device position, cooling arrangement, gate connections and mechanical clamping record, then complete the manufacturer commissioning sequence before motor operation.
Commissioning duty	Complete controlled drive tests before returning the motor system to automatic service.

TECHNICAL NOTE

Install only after the medium-voltage drive is isolated and the stored energy is proven discharged. Preserve the installed device position, cooling arrangement, gate connections and mechanical clamping record, then complete the manufacturer commissioning sequence before motor operation.

Technical Data

PARAMETER	VALUE	PARAMETER	VALUE
Device type	SGCT	Supplied device count	1
Current rating	800 A	Drive family	PowerFlex 7000

Related Products on Apter Power

MODEL	SYSTEM ROLE	APTER POWER PAGE
Allen-Bradley 1746-OW16	Allen-Bradley product	View Allen-Bradley 1746-OW16 page
Allen-Bradley 22B-D4P0N104	Allen-Bradley product	View Allen-Bradley 22B-D4P0N104 page
Allen-Bradley 22B-D6P0N104	Allen-Bradley product	View Allen-Bradley 22B-D6P0N104 page
Allen-Bradley 1794-OE4XT	Allen-Bradley product	View Allen-Bradley 1794-OE4XT page
Allen-Bradley 1794-IE4XOE2	Allen-Bradley product	View Allen-Bradley 1794-IE4XOE2 page
Allen-Bradley 2711P-RC3	Allen-Bradley product	View Allen-Bradley 2711P-RC3 page
Allen-Bradley 2711-B6C1	Allen-Bradley product	View Allen-Bradley 2711-B6C1 page
Allen-Bradley 1794-IE8	Allen-Bradley product	View Allen-Bradley 1794-IE8 page

ENGINEERING BOUNDARY

Confirm Allen-Bradley 81001-450-51-R, the complete PowerFlex 7000 or MV SMC Flex host identity, installed hardware execution, board or semiconductor position, connectors, wiring, grounding, cooling path, firmware or configuration where applicable, companion components and controlled commissioning results before service.

Applications and Precautions

Common Applications

PowerFlex 7000 converter maintenance

Restores the documented SGCT position in the medium-voltage converter power section.

Planned semiconductor replacement

Uses the exact 800 A and 1-device supply configuration during controlled maintenance.

Drive power-stack restoration

Returns the approved power-electronics assembly to its documented component identity.

Post-repair functional verification

Supports controlled checks of gate connections, cooling condition and drive diagnostics.

Product Precautions

- 1

Confirm Allen-Bradley 81001-450-51-R, the 800 A marking and 1-device supply configuration before work.
- 2

Isolate the medium-voltage input and follow the documented discharge and lockout sequence.
- 3

Use ESD-safe handling and protect the semiconductor surfaces and gate connection points.
- 4

Record the installed orientation, hardware, clamping arrangement and connection positions before removal.
- 5

Inspect the cooling path and adjacent power components without transferring identity from another drive execution.
- 6

Reproduce the documented gate and power connections with the approved hardware arrangement.
- 7

Energize only through the PowerFlex 7000 commissioning sequence and monitor diagnostics.
- 8

Complete controlled drive tests before returning the motor system to automatic service.

IMPORTANT NOTICE

Confirm Allen-Bradley 81001-450-51-R, the complete PowerFlex 7000 or MV SMC Flex host identity, installed hardware execution, board or semiconductor position, connectors, wiring, grounding, cooling path, firmware or configuration where applicable, companion components and controlled commissioning results before service.

ACCEPTANCE CHECK	REQUIRED EVIDENCE
Identity	81001-450-51-R
Configuration	Energize only through the PowerFlex 7000 commissioning sequence and monitor diagnostics.
Functional release	Complete controlled drive tests before returning the motor system to automatic service.

Engineer FAQ

Q1 How do I verify that Allen-Bradley 81001-450-51-R is the single 800 A SGCT required by the installed PowerFlex 7000?

Match the full 81001-450-51-R marking and the official single 800 A SGCT description to the installed drive record before removing the existing device.

Q3 Which installed position should be recorded before removing Allen-Bradley 81001-450-51-R?

Record the exact converter position, orientation, gate lead, power connection and adjacent cooling hardware assigned to the single device.

Q5 What mechanical details matter when fitting Allen-Bradley 81001-450-51-R?

Preserve the documented clamping hardware, contact surfaces, orientation and cooling arrangement for the installed 800 A SGCT position.

Q7 Which checks distinguish Allen-Bradley 81001-450-51-R from nearby SGCT spares?

Confirm the complete catalog number, 800 A rating and single-device supply configuration; do not infer compatibility from appearance.

Q2 Can Allen-Bradley 81001-450-51-R be treated as a matched three-device SGCT kit?

No. The official record identifies 81001-450-51-R as one 800 A SGCT; a matched set of three uses a different catalog number.

Q4 What isolation is required before handling Allen-Bradley 81001-450-51-R?

Follow the PowerFlex 7000 medium-voltage isolation, lockout and stored-energy discharge procedure before accessing the power-electronics section.

Q6 How should the gate connection for Allen-Bradley 81001-450-51-R be checked?

Reproduce the as-found gate connection without forcing the terminal and inspect the associated gate-driver path before controlled energization.

Q8 What acceptance record should be retained after installing Allen-Bradley 81001-450-51-R?

Retain identity, clamping, cooling, connection, diagnostic and controlled drive-test results for the serviced converter position.

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