

81001-450-53-R

Matched Set of Three 800 A SGCTs

Allen-Bradley 81001-450-53-R is the exact manufacturer-listed matched set of three 800 a sgcts for the documented installed system.

BRAND	Allen-Bradley	FAMILY	Allen-Bradley PowerFlex 7000
PART	81001-450-53-R	SYSTEM ROLE	Uses the official 800 A SGCT execution

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81001-450-53-R

MANUFACTURER SOURCE RECORD

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

Product Overview

SYSTEM FUNCTION

Allen-Bradley 81001-450-53-R is the exact manufacturer-listed matched set of three 800 a sgcts for the documented installed system.

FUNCTION 1

Uses the official 800 A SGCT execution

FUNCTION 2

Supplies 3 devices 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	3
Current rating	800 A	Drive family	PowerFlex 7000

Related Products on Apter Power

MODEL	SYSTEM ROLE	APTER POWER PAGE
Allen-Bradley 1794-IB16	Allen-Bradley product	View Allen-Bradley 1794-IB16 page
Allen-Bradley 1336-PB-SP5A	Allen-Bradley product	View Allen-Bradley 1336-PB-SP5A page
Allen-Bradley 1756-OV32E	Allen-Bradley product	View Allen-Bradley 1756-OV32E page
Allen-Bradley 1762-MM1	Allen-Bradley product	View Allen-Bradley 1762-MM1 page
Allen-Bradley 2094-AC09-M02-S	Allen-Bradley product	View Allen-Bradley 2094-AC09-M02-S page
Allen-Bradley 1771-A4B	Allen-Bradley product	View Allen-Bradley 1771-A4B page
Allen-Bradley 2711P-B15C22D9P	Allen-Bradley product	View Allen-Bradley 2711P-B15C22D9P page
Allen-Bradley 1771-DS	Allen-Bradley product	View Allen-Bradley 1771-DS page

ENGINEERING BOUNDARY

Confirm Allen-Bradley 81001-450-53-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 3-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 81001-450-53-R, the 800 A marking and 3-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 81001-450-53-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	81001-450-53-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 What does the official description of Allen-Bradley 81001-450-53-R require me to preserve?

It identifies a matched set of three 800 A SGCT devices, so the set identity and all three installed positions must be preserved together.

Q3 Which three-position information must be captured before replacing Allen-Bradley 81001-450-53-R?

Record each device position, orientation, gate connection, power connection, clamping arrangement and cooling relationship.

Q5 What handling control applies to the matched Allen-Bradley 81001-450-53-R set?

Use ESD-safe handling, keep the three devices identified as one set and protect all semiconductor and gate interfaces.

Q7 How should Allen-Bradley 81001-450-53-R be energized after installation?

Use the approved PowerFlex 7000 commissioning sequence and monitor all applicable converter and gate-driver diagnostics.

Q2 May one device from Allen-Bradley 81001-450-53-R be mixed with unrelated 800 A SGCT stock?

Do not break the documented matched-set identity unless the manufacturer procedure for the installed drive explicitly permits it.

Q4 How is Allen-Bradley 81001-450-53-R distinguished from 81001-450-51-R?

81001-450-53-R is the matched set of three 800 A SGCT devices; 81001-450-51-R is the single-device spare.

Q6 What must be compared across the three Allen-Bradley 81001-450-53-R positions?

Compare hardware, clamping, cooling and gate-path installation against the documented three-position PowerFlex 7000 arrangement.

Q8 What proves the Allen-Bradley 81001-450-53-R replacement is complete?

A complete record covers the matched-set marking, three as-left positions, connection checks, diagnostics and controlled motor-system test.

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