

81001-451-61-R

Single 1500 A SGCT

Allen-Bradley 81001-451-61-R is the exact manufacturer-listed single 1500 a sgct for the documented installed system.

BRAND	Allen-Bradley	FAMILY	Allen-Bradley PowerFlex 7000
PART	81001-451-61-R	SYSTEM ROLE	Uses the official 1500 A SGCT execution

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81001-451-61-R

MANUFACTURER SOURCE RECORD

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

Product Overview

SYSTEM FUNCTION

Allen-Bradley 81001-451-61-R is the exact manufacturer-listed single 1500 a sgct for the documented installed system.

FUNCTION 1

Uses the official 1500 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 1500 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	1500 A	Drive family	PowerFlex 7000

Related Products on Apter Power

MODEL	SYSTEM ROLE	APTER POWER PAGE
Allen-Bradley 2711P-RDT12H	Allen-Bradley product	View Allen-Bradley 2711P-RDT12H page
Allen-Bradley 1503VC-BMC5-MC1	Allen-Bradley product	View Allen-Bradley 1503VC-BMC5-MC1 page
Allen-Bradley 2711P-K10C4D8	Allen-Bradley product	View Allen-Bradley 2711P-K10C4D8 page
Allen-Bradley 333299-A01	Allen-Bradley product	View Allen-Bradley 333299-A01 page
Allen-Bradley 193-EC2CB	Allen-Bradley product	View Allen-Bradley 193-EC2CB page
Allen-Bradley 150-C30NBR	Allen-Bradley product	View Allen-Bradley 150-C30NBR page
Allen-Bradley 74101-371-52	Allen-Bradley product	View Allen-Bradley 74101-371-52 page
Allen-Bradley 1756-L81E	Allen-Bradley product	View Allen-Bradley 1756-L81E page

ENGINEERING BOUNDARY

Confirm Allen-Bradley 81001-451-61-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 1500 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 81001-451-61-R, the 1500 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 81001-451-61-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	81001-451-61-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 is Allen-Bradley 81001-451-61-R identified in the official PowerFlex 7000 spare-parts record?

The exact article is listed as a single 1500 A SGCT device.

Q3 Is Allen-Bradley 81001-451-61-R supplied as a complete matched set?

No. The official description is a single 1500 A SGCT; the matched three-device execution uses 81001-451-63-R.

Q5 Which safety sequence applies before accessing Allen-Bradley 81001-451-61-R?

Isolate the medium-voltage drive, lock out all sources and prove the stored energy discharged under the PowerFlex 7000 procedure.

Q7 Which controlled checks follow installation of Allen-Bradley 81001-451-61-R?

Verify the as-left connections and mechanical installation, then observe PowerFlex 7000 diagnostics during the approved energization sequence.

Q2 Why must the 1500 A marking be checked on Allen-Bradley 81001-451-61-R?

It confirms the documented current-class execution and prevents substitution of a visually similar SGCT with another rating.

Q4 What should be photographed before removing Allen-Bradley 81001-451-61-R?

Photograph the single SGCT position, gate lead, power interfaces, clamping parts, insulation clearances and cooling path.

Q6 What should be inspected around the Allen-Bradley 81001-451-61-R position?

Inspect the associated gate path, adjacent power components, cooling condition and mechanical interfaces without borrowing identity from another execution.

Q8 What service evidence is specific to Allen-Bradley 81001-451-61-R?

Retain the full catalog number, single-device and 1500 A confirmation, position record, diagnostics and controlled drive-test results.

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