

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.

IDENTITY	VERIFIED VALUE
Manufacturer	Allen-Bradley
System family	Allen-Bradley PowerFlex 7000
Part number	81001-450-51-R
Product role	Uses the official 800 A SGCT execution
Lifecycle	Installed product record

DOCUMENT SCOPE

Exact-article identity, technical data, host role, installation checks, applications, precautions and engineering verification.

MODEL-SPECIFIC ENGINEERING 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.

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WHATSAPP / PHONE +86 180 3023 5313
EMAIL sales13@apterpower.com
WEBSITE www.apterpower.com



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Technical Specifications

Technical values below are limited to the named Allen-Bradley product record and directly applicable manufacturer documentation.

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

Verified Product Record

DATA GROUP	VERIFIED VALUE
Installed host / carrier	Allen-Bradley PowerFlex 7000
Primary system role	Uses the official 800 A SGCT execution
Connection boundary	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.
Controlled acceptance duty	PowerFlex 7000 converter maintenance

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.

Pre-Installation Checks

- 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.

Documented Service Record

RECORD ITEM	REQUIRED ENTRY
As-found article	81001-450-51-R
Installed host	Allen-Bradley PowerFlex 7000
Connection record	Capture before removal
Controlled release	Diagnostics and functional proof

System Role and Architecture

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

Matched System Components

NO.	DOCUMENTED COMPONENT / ROLE
1	Allen-Bradley PowerFlex 7000
2	800 A
3	PowerFlex 7000 converter maintenance
4	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.

System Integration Record

INTEGRATION ITEM	DOCUMENTED ROLE
Host identity	Allen-Bradley PowerFlex 7000
Interface role	Uses the official 800 A SGCT execution
Field / power 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 evidence	Complete controlled drive tests before returning the motor system to automatic service.

Installation and Connection Checks

- 1

Inspect the cooling path and adjacent power components without transferring identity from another drive execution.
- 2

Reproduce the documented gate and power connections with the approved hardware arrangement.
- 3

Energize only through the PowerFlex 7000 commissioning sequence and monitor diagnostics.
- 4

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

MANUFACTURER SOURCE RECORD

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

Applications and Engineering Context

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.

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.

Model-Specific Acceptance Evidence

CHECK	ACCEPTANCE CONDITION
Identity	81001-450-51-R recorded
Host / carrier	Allen-Bradley PowerFlex 7000
Physical interface	Uses the official 800 A SGCT execution
Configuration	Energize only through the PowerFlex 7000 commissioning sequence and monitor diagnostics.
Functional proof	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.

Controlled Release Summary

RELEASE ITEM	MODEL-SPECIFIC CONDITION
Article identity	81001-450-51-R
Approved role	PowerFlex 7000 converter maintenance
Final validation	Complete controlled drive tests before returning the motor system to automatic service.

Engineering 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.

Related Products on Apter Power

MODEL	SYSTEM ROLE	APTER POWER PAGE
Allen-Bradley 80190-220-01-R	Allen-Bradley product	View Allen-Bradley 80190-220-01-R page
Allen-Bradley 81000-199-51-R	Allen-Bradley product	View Allen-Bradley 81000-199-51-R page
Allen-Bradley 80190-640-02-R	Allen-Bradley product	View Allen-Bradley 80190-640-02-R page
Allen-Bradley 80190-600-01-R	Allen-Bradley product	View Allen-Bradley 80190-600-01-R page
Allen-Bradley 80190-540-05-R	Allen-Bradley product	View Allen-Bradley 80190-540-05-R page
Allen-Bradley 80190-540-02-R	Allen-Bradley product	View Allen-Bradley 80190-540-02-R page
Allen-Bradley 80190-099-01-7	Allen-Bradley product	View Allen-Bradley 80190-099-01-7 page
Allen-Bradley 80190-100-01-R	Allen-Bradley product	View Allen-Bradley 80190-100-01-R page

MANUFACTURER SOURCE RECORD

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

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