

81001-451-63-R

Matched Set of Three 1500 A SGCTs

Allen-Bradley 81001-451-63-R is the exact manufacturer-listed matched set of three 1500 a sgcts for the documented installed system.

BRAND	Allen-Bradley	FAMILY	Allen-Bradley PowerFlex 7000
PART	81001-451-63-R	SYSTEM ROLE	Uses the official 1500 A SGCT execution

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81001-451-63-R

MANUFACTURER SOURCE RECORD

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

Product Overview

SYSTEM FUNCTION

Allen-Bradley 81001-451-63-R is the exact manufacturer-listed matched set of three 1500 a sgcts for the documented installed system.

FUNCTION 1

Uses the official 1500 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 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	3
Current rating	1500 A	Drive family	PowerFlex 7000

Related Products on Apter Power

MODEL	SYSTEM ROLE	APTER POWER PAGE
Allen-Bradley 1783-CMS10DP	Allen-Bradley product	View Allen-Bradley 1783-CMS10DP page
Allen-Bradley 2711-K6C16	Allen-Bradley product	View Allen-Bradley 2711-K6C16 page
Allen-Bradley 1756-RM	Allen-Bradley product	View Allen-Bradley 1756-RM page
Allen-Bradley 150-F135NBDB	Allen-Bradley product	View Allen-Bradley 150-F135NBDB page
Allen-Bradley 1797-ACNR15	Allen-Bradley product	View Allen-Bradley 1797-ACNR15 page
Allen-Bradley 80190-440-02-R	Allen-Bradley product	View Allen-Bradley 80190-440-02-R page
Allen-Bradley 1766-L32BXBA	Allen-Bradley product	View Allen-Bradley 1766-L32BXBA page
Allen-Bradley 1756-OA16	Allen-Bradley product	View Allen-Bradley 1756-OA16 page

ENGINEERING BOUNDARY

Confirm Allen-Bradley 81001-451-63-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 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 81001-451-63-R, the 1500 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 81001-451-63-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	81001-451-63-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 is supplied under Allen-Bradley 81001-451-63-R?

The official PowerFlex 7000 record identifies a matched set of three 1500 A SGCT devices.

Q3 Which catalog check prevents confusing Allen-Bradley 81001-451-63-R with a single SGCT?

Confirm the -63-R ending and the matched-set-of-three description; the single 1500 A SGCT is 81001-451-61-R.

Q5 What handling practice protects Allen-Bradley 81001-451-63-R?

Use ESD-safe handling, protect all semiconductor faces and gate terminals, and prevent devices from being mixed with another set.

Q7 How are the three Allen-Bradley 81001-451-63-R positions commissioned?

Check every position before controlled energization, then monitor converter and gate-driver diagnostics through the approved sequence.

Q2 How should the three Allen-Bradley 81001-451-63-R devices be tracked during service?

Keep their matched-set identity intact and map every device to its documented converter position before disassembly.

Q4 What as-found data is needed for Allen-Bradley 81001-451-63-R?

Capture all three orientations, gate paths, power interfaces, clamping hardware, clearances and cooling relationships.

Q6 What installation comparison is required for Allen-Bradley 81001-451-63-R?

Compare each of the three installed positions with the approved PowerFlex 7000 mechanical, cooling and connection arrangement.

Q8 What final record closes an Allen-Bradley 81001-451-63-R replacement?

Record the matched-set identity, all three as-left positions, connection and cooling checks, diagnostics and controlled functional test.

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