

INDUSTRIAL AUTOMATION PRODUCT

6RA8075-6DS22-0AA0

Siemens SINAMICS DCM Two-Quadrant DC Converter

6RA8075-6DS22-0AA0 is a Siemens SINAMICS DCM DC converter for two-quadrant drives with a B6C armature bridge. It converts a 400 V three-phase input at 174 A into a rated 485 V DC, 210 A output and includes a controllable field rectifier.

IDENTITY	VERIFIED VALUE
Manufacturer	Siemens
System family	SINAMICS DCM
Part number	6RA8075-6DS22-0AA0
Product role	Provides a rated DC armature power path
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 6RA8075-6DS22-0AA0 with the documented armature, field, electronics and protective-conductor connections and maintain the required forced-air path. Before enabling the motor, confirm parameter-set identity, speed feedback, current-control behavior, field current, rotation and two-quadrant operating sequence under controlled conditions.

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6RA8075-6DS22-0AA0

Technical Specifications

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

PARAMETER	VALUE	PARAMETER	VALUE
Drive family	SINAMICS DCM	Fan supply	24 V DC, internal
Operation / bridge	Two-quadrant / B6C	Cooling air requirement	300 m3/h
Armature input	400 V, 3 AC; 174 A	Sound pressure level	52.4 dB(A)
Rated armature output	485 V DC; 210 A	Rated ambient temperature	0 to 40 deg C
Field rectifier	Controllable	Storage / transport temperature	-40 to 70 deg C
Rated frequency	45 to 65 Hz	Rated installation altitude	Up to 1000 m
Electronics supply	380-480 V, 2 AC, 1 A or 190-240 V, 2 AC, 2 A		

Verified Product Record

DATA GROUP	VERIFIED VALUE
Installed host / carrier	SINAMICS DCM
Primary system role	Provides a rated DC armature power path
Connection boundary	Install 6RA8075-6DS22-0AA0 with the documented armature, field, electronics and protective-conductor connections and maintain the required forced-air path. Before enabling the motor, confirm parameter-set identity, speed feedback, current-control behavior, field current, rotation and two-quadrant operating sequence under controlled conditions.
Controlled acceptance duty	Industrial DC-motor speed control

ENGINEERING BOUNDARY

Confirm 6RA8075-6DS22-0AA0, B6C two-quadrant bridge, 400 V / 174 A armature input, 485 V DC / 210 A output, motor and field ratings, electronics and fan supplies, feedback device, grounding, firmware, parameter backup, interlocks and controlled rotation and braking tests before commissioning.

Pre-Installation Checks

1	Confirm the complete 6RA8075-6DS22-0AA0 marking and B6C two-quadrant execution.	2	Isolate the 400 V armature supply, electronics supply and field circuits; prove the DC link discharged.
3	Record armature, field, fan, feedback, control and protective-conductor connections.	4	Maintain the required 300 m3/h cooling path and cabinet clearances.

Documented Service Record

RECORD ITEM	REQUIRED ENTRY
As-found article	6RA8075-6DS22-0AA0
Installed host	SINAMICS DCM
Connection record	Capture before removal
Controlled release	Diagnostics and functional proof

System Role and Architecture

6RA8075-6DS22-0AA0 is a Siemens SINAMICS DCM DC converter for two-quadrant drives with a B6C armature bridge. It converts a 400 V three-phase input at 174 A into a rated 485 V DC, 210 A output and includes a controllable field rectifier.

FUNCTION 1 Provides a rated DC armature power path	FUNCTION 2 Controls the connected DC-motor field circuit
FUNCTION 3 Coordinates speed and current control in the SINAMICS DCM platform	FUNCTION 4 Supports staged diagnostics and drive recommissioning

Matched System Components

NO.	DOCUMENTED COMPONENT / ROLE
1	SINAMICS DCM
2	Two-quadrant / B6C
3	Industrial DC-motor speed control
4	Install 6RA8075-6DS22-0AA0 with the documented armature, field, electronics and protective-conductor connections and maintain the required forced-air path. Before enabling the motor, confirm parameter-set identity, speed feedback, current-control behavior, field current, rotation and two-quadrant operating sequence under controlled conditions.

System Integration Record

INTEGRATION ITEM	DOCUMENTED ROLE
Host identity	SINAMICS DCM
Interface role	Provides a rated DC armature power path
Field / power context	The converter uses a B6C armature bridge with a separate controllable field rectifier and requires the documented electronics supply, forced-air flow, motor feedback and commissioning sequence. Applications include controlled DC-motor speed and torque operation where motoring is required in two quadrants.
Commissioning evidence	Review converter diagnostics and complete a staged functional test before production release.

Installation and Connection Checks

1	Verify motor, field winding and speed-feedback data against the approved drive project.	2	Restore the validated SINAMICS DCM parameter set and interlock logic.
3	Check phase sequence, armature polarity, field current and rotation at controlled output.	4	Review converter diagnostics and complete a staged functional test before production release.

MANUFACTURER SOURCE RECORD

SINAMICS DCM DC Converter Catalog and Operating Instructions
Catalog D 23.1, November 2024; Siemens article record 6RA8075-6DS22-0AA0

Applications and Engineering Context

Industrial DC-motor speed control

Supplies and regulates the armature and field circuits of a matched DC motor.

Two-quadrant conveyor drives

Supports forward motoring and controlled electrical braking in the engineered machine sequence.

Winder and line-drive modernization

Provides a documented SINAMICS DCM platform for an existing DC motor and control project.

DC-drive cabinet replacement

Restores a 210 A converter position while preserving feedback, field and interlock records.

TECHNICAL NOTE

Install 6RA8075-6DS22-0AA0 with the documented armature, field, electronics and protective-conductor connections and maintain the required forced-air path. Before enabling the motor, confirm parameter-set identity, speed feedback, current-control behavior, field current, rotation and two-quadrant operating sequence under controlled conditions.

Model-Specific Acceptance Evidence

CHECK	ACCEPTANCE CONDITION
Identity	6RA8075-6DS22-0AA0 recorded
Host / carrier	SINAMICS DCM
Physical interface	Provides a rated DC armature power path
Configuration	Check phase sequence, armature polarity, field current and rotation at controlled output.
Functional proof	Review converter diagnostics and complete a staged functional test before production release.

IMPORTANT NOTICE

Confirm 6RA8075-6DS22-0AA0, B6C two-quadrant bridge, 400 V / 174 A armature input, 485 V DC / 210 A output, motor and field ratings, electronics and fan supplies, feedback device, grounding, firmware, parameter backup, interlocks and controlled rotation and braking tests before commissioning.

Controlled Release Summary

RELEASE ITEM	MODEL-SPECIFIC CONDITION
Article identity	6RA8075-6DS22-0AA0
Approved role	Industrial DC-motor speed control
Final validation	Review converter diagnostics and complete a staged functional test before production release.

Engineering Precautions

- 1

Confirm the complete 6RA8075-6DS22-0AA0 marking and B6C two-quadrant execution.
- 2

Isolate the 400 V armature supply, electronics supply and field circuits; prove the DC link discharged.
- 3

Record armature, field, fan, feedback, control and protective-conductor connections.
- 4

Maintain the required 300 m3/h cooling path and cabinet clearances.
- 5

Verify motor, field winding and speed-feedback data against the approved drive project.
- 6

Restore the validated SINAMICS DCM parameter set and interlock logic.
- 7

Check phase sequence, armature polarity, field current and rotation at controlled output.
- 8

Review converter diagnostics and complete a staged functional test before production release.

Related Products on Apter Power

MODEL	SYSTEM ROLE	APTER POWER PAGE
6SL3362-0AG00-0AA1	drive component	View 6SL3362-0AG00-0AA1 page
6SL3352-1AE37-5BA1	replacement power block	View 6SL3352-1AE37-5BA1 page
6AU1455-2AD00-0AA0	SIMOTION controller	View 6AU1455-2AD00-0AA0 page
6ES7223-1BL22-0XA0	digital I/O module	View 6ES7223-1BL22-0XA0 page
6SE7041-8HK85-1HA0	PER2 interface	View 6SE7041-8HK85-1HA0 page
6SE7041-8EK85-0HA0	PER3 interface	View 6SE7041-8EK85-0HA0 page
6SE7041-8GK85-0HA0	PER3 interface	View 6SE7041-8GK85-0HA0 page
6SL3200-0SP01-0AA0	CIM PM-IF assembly	View 6SL3200-0SP01-0AA0 page

MANUFACTURER SOURCE RECORD

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