

AP

PRODUCT TECHNICAL REFERENCE

6AU1455-2AD00-0AA0

SIMOTION D455-2 DP/PN

Drive-based programmable multi-axis motion control unit for SINAMICS S120

128

maximum motion-control axes

24 V DC

nominal control supply

6

DRIVE-CLiQ interfaces

388 MB

working RAM

IDENTIFICATION

Manufacturer: Siemens | Product family: SIMOTION | Type: D455-2 DP/PN | Article:
6AU1455-2AD00-0AA0

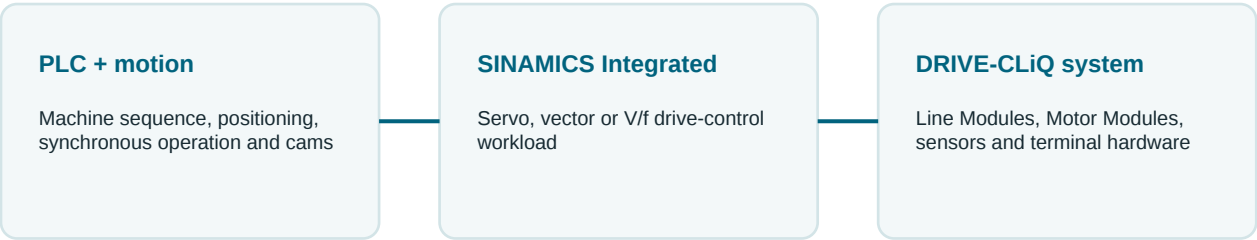
Prepared from exact-article Siemens technical data and the D4x5-2 commissioning manual.

Identification and technical parameters

Only dimensions and weight are intentionally omitted from this Apter Power document.

Product type	SIMOTION D455-2 DP/PN
Motion control system	Multi-axis
Performance class	ULTRA-HIGH Performance
Maximum motion-control axes	128
Minimum PROFIBUS cycle	1 ms
Minimum PROFINET send cycle	0.25 ms
Minimum interpolation cycle	0.25 ms
Minimum servo cycle	0.25 ms
Integrated drive axes	6 servo / 6 vector / 12 V/f, alternative modes
Supply voltage	24 V DC nominal; 20.4-28.8 V
Current consumption, typical	1900 mA
Inrush current, typical	5 A
Power loss, typical	46 W
Working RAM	388 MB
Additional Java RAM	20 MB
RAM disk	90 MB
Retentive memory	512 KB
Persistent user data on CF	1.5 GB
Digital inputs	12
Configurable digital I/O	16

Control architecture



Communications and environmental data

DRIVE-CLiQ interfaces	6
PROFIBUS interfaces	2
PROFINET interface	1 interface with 3 ports; RT/IRT
Industrial Ethernet interfaces	2
USB interfaces	2
Option slots	1
Operating ambient	0 to 55 °C
Storage ambient	-25 to 55 °C
Transport ambient	-40 to 70 °C
Relative humidity, operation	5-95 %
Air pressure	620-1060 hPa
Protection rating	IP20 / UL open type
Digital input isolation	Yes; groups of 6
Output current per channel, max.	500 mA
Resistive output frequency, max.	4 kHz
Output short-circuit protection	Yes

System pairing and applications

Drive power

SINAMICS S120 Line and Motor Modules

Project media

Compatible SIMOTION CompactFlash card

Engineering

Matching SIMOTION engineering project, kernel and licenses

Expansion

CX32-2 or supported SINAMICS control units where engineered

Manufacturer-supported application contexts

6AU1455-2AD00-0AA0 coordinated packaging motion

Runs sequenced machine logic and coordinated motion for packaging equipment whose axes must remain synchronized through production cycles.

6AU1455-2AD00-0AA0 printing and converting lines

Supports registration, synchronous operation and cam-based motion in printing and web-converting machines with tightly timed material movement.

6AU1455-2AD00-0AA0 textile and polymer processing

Coordinates machine sections in textile, plastics and rubber equipment where several drive axes and the process sequence share one control project.

6AU1455-2AD00-0AA0 handling and distributed drives

Connects centralized motion tasks with distributed drive stations for material handling systems that require synchronized transport and positioning.

Related SIMOTION product	Apter navigation only (not technical evidence)
6AU1435-2AD00-0AA0 - SIMOTION D435-2 DP/PN	Open verified product page

Replacement and commissioning validation

- 1 Match the full article number and installed hardware product version.
- 2 Confirm mounting position, fan/battery module and ventilation clearances.
- 3 Verify 24 V supply, grounding, shields, terminals and reference potentials.
- 4 Reproduce DRIVE-CLiQ, PROFIBUS and PROFINET topology and port assignments.
- 5 Match CompactFlash, kernel, firmware, project and runtime licenses.
- 6 Review diagnostics before enabling drives; then test axes in controlled stages.

OFFICIAL SOURCE RECORD

Siemens Technical Data Sheet for 6AU1455-2AD00-0AA0, generated 2025-12-23.

SIMOTION D4x5-2 Commissioning and Hardware Installation Manual, 04/2023, A5E33441636B.

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