

INDUSTRIAL AUTOMATION PRODUCT

ATV630C16N4

160 kW Altivar Process Variable Speed Drive

Schneider Electric ATV630C16N4 is an IP00 Altivar Process ATV600 variable speed drive rated 160 kW normal duty or 132 kW heavy duty for 380–480 V three-phase supplies. It is intended for process and utility motor control and can reach IP21 with Schneider kit VW3A9704.

IDENTITY	VERIFIED VALUE
Manufacturer	Schneider Electric
Complete model	ATV630C16N4
Product role	160 kW Altivar Process Variable Speed Drive
System family	Altivar Process ATV600
Country of origin	France

DOCUMENT SCOPE

Exact identity, manufacturer-supported technical data, installation checks, applications, precautions and controlled verification records.

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ATV630C16N4

Technical Specifications

PARAMETER	VERIFIED VALUE
Rated supply voltage	380–480 V AC, -15/+10%
Network phases	3 phases
Supply frequency	50–60 Hz, -5/+5%
Motor power — normal duty	160 kW / 250 hp
Motor power — heavy duty	132 kW / 200 hp
Continuous output current — normal duty	302 A at 2.5 kHz
Continuous output current — heavy duty	250 A at 2.5 kHz
Maximum transient current	332.2 A for 60 s normal duty; 375 A for 60 s heavy duty
Output frequency	0.0001–0.5 kHz
Protection	IP00; IP21 with VW3A9704
Safety function	STO, SIL 3

Model-Specific Engineering Note

ENGINEERING BOUNDARY

Install ATV630C16N4 vertically within $\pm 10^\circ$ and provide the documented cabinet airflow and clearances; the base drive is IP00. Verify the 380–480 V three-phase supply, selected normal- or heavy-duty rating, VW3A9704 enclosure requirement, motor data, STO circuit, logic-input mode and parameter backup before commissioning.

Pre-Installation Checks

NO.	REQUIRED CHECK
1	Confirm the complete ATV630C16N4 marking, 380–480 V supply and selected duty rating before work.
2	Treat ATV630C16N4 as IP00 unless the documented VW3A9704 IP21 kit and enclosure arrangement are present.
3	Isolate line, motor, control and external 24 V sources and verify the DC bus is discharged before touching terminals.
4	Mount the drive vertically within $\pm 10^\circ$ and maintain at least 250 mm above and below plus 100 mm at each side for documented clearance.
5	Confirm the motor nameplate and select the 160 kW normal-duty or 132 kW heavy-duty rating deliberately.

System Role and Architecture

Schneider Electric ATV630C16N4 is an IP00 Altivar Process ATV600 variable speed drive rated 160 kW normal duty or 132 kW heavy duty for 380–480 V three-phase supplies. It is intended for process and utility motor control and can reach IP21 with Schneider kit VW3A9704.

FUNCTION 1

160 kW normal-duty and 132 kW heavy-duty motor ratings

FUNCTION 2

302 A normal-duty and 250 A heavy-duty continuous output current

FUNCTION 3

IP00 base construction with IP21 available using kit VW3A9704

FUNCTION 4

Embedded Ethernet, Modbus serial, Modbus TCP and STO SIL 3

Common Applications

APPLICATION	ENGINEERING CONTEXT
High-power process pumping	Controls large asynchronous or synchronous motors in process pumping duties using the documented 160 kW normal-duty or 132 kW heavy-duty rating.
Large utility fan systems	Provides variable-speed control for high-power utility fans with embedded energy measurement and process monitoring.
Cabinet-integrated motor control	Installs as an IP00 wall-mount drive in a designed enclosure, with VW3A9704 used when the documented IP21 arrangement is required.
Networked process drive	Exchanges commands and diagnostic data through embedded Ethernet, Modbus TCP or Modbus serial interfaces.

CONTROLLED ACCEPTANCE DUTY

Confirm identity, physical interface, companion hardware, configured values and functional response against the installed-system record before release.

Engineering Precautions

NO.	PRECAUTION
1	Confirm the complete ATV630C16N4 marking, 380–480 V supply and selected duty rating before work.
2	Treat ATV630C16N4 as IP00 unless the documented VW3A9704 IP21 kit and enclosure arrangement are present.
3	Isolate line, motor, control and external 24 V sources and verify the DC bus is discharged before touching terminals.
4	Mount the drive vertically within $\pm 10^\circ$ and maintain at least 250 mm above and below plus 100 mm at each side for documented clearance.
5	Confirm the motor nameplate and select the 160 kW normal-duty or 132 kW heavy-duty rating deliberately.
6	Protect the STOA and STOB circuit and prove the safety function before releasing the driven machine.
7	Record large-conductor terminal assignments, Ethernet and Modbus settings, ramp values and the approved parameter backup before replacement.
8	Prove cooling airflow, motor rotation, current, process feedback, protections and controlled stopping before service release.

Model-Specific FAQ — Part 1

QUESTION	ANSWER
Why is Schneider Electric ATV630C16N4 listed with two motor-power ratings?	ATV630C16N4 is rated 160 kW or 250 hp for normal duty and 132 kW or 200 hp for heavy duty; the selection depends on the required overload profile.
What continuous currents apply to Schneider Electric ATV630C16N4?	The product data sheet specifies 302 A at 2.5 kHz for normal duty and 250 A at 2.5 kHz for heavy duty.
Is Schneider Electric ATV630C16N4 supplied as IP21?	No. The base model is IP00; Schneider lists IP21 when the VW3A9704 kit is fitted in the documented arrangement.
What cabinet clearances are required around Schneider Electric ATV630C16N4?	The product data sheet shows at least 250 mm above and below and at least 100 mm at the side positions for the documented mounting arrangement.

Model-Specific FAQ — Part 2

QUESTION	ANSWER
What supply should be verified for Schneider Electric ATV630C16N4?	Verify a 380–480 V AC three-phase source with the published -15/+10% voltage tolerance and 50–60 Hz frequency range.
Which motor-control profiles are published for Schneider Electric ATV630C16N4?	The data sheet lists constant torque, variable torque and optimized torque modes for asynchronous motors plus permanent-magnet motor control.
How should Schneider Electric ATV630C16N4 logic inputs be matched to a PLC?	Set the drive's source, sink or external logic-input arrangement to the controller output technology and verify the terminal wiring before energizing.
What acceptance evidence is important after installing Schneider Electric ATV630C16N4?	Record enclosure and cooling status, duty selection, supply and motor current, STO proof, communication settings, parameter backup, rotation and protective-test results.

Related Products on Apter Power

MODEL	APTER POWER PAGE
MC-4/11/01/400	View MC-4/11/01/400
AP4423	View AP4423
DRIVE-PS-5	View DRIVE-PS-5
NHA75769_02	View NHA75769_02
ME4U07AAA	View ME4U07AAA
MPCYT90NAN00N	View MPCYT90NAN00N
RM1XA315	View RM1XA315
CAD32MD	View CAD32MD

MANUFACTURER SOURCE RECORD

ATV630C16N4 Product Data Sheet
Schneider Electric SQD-ATV630C16N4, 15 December 2016, 14 pages

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