ATV930C22N4C

Schneider Electric · Altivar Process ATV930

Three-phase variable speed drive for 380...480 V supply, IP00 version for cabinet mounting, dual ND/HD rating, without built-in braking unit (external braking unit required for C11 and above).

Hardware

Motor power (ND Normal Duty): 220 kW (350 HP), overload up to 120% for 60 s
Motor power (HD Heavy Duty): 160 kW (250 HP), overload up to 150% for 60 s
Drive rating: Dual-rated ND/HD per official catalog table (catalog p.2/6)
Enclosure: IP00, designed for mounting in electrical enclosure; conformity kit required for IP21/UL Type 1 wall mounting
Switching frequency: 2.5 kHz nominal (automatic derating above nominal frequency)
Output frequency: 0.1...599 Hz
Motor control: Asynchronous motor — standard constant torque, variable standard torque, optimized torque mode (open-loop sensorless flux vector and closed-loop with encoder); Synchronous PM motor and synchronous reluctance motor — open-loop and closed-loop vector control per catalog p.10-12
Integrated safety: 1 STO (Safe Torque Off) function, SIL3 / Cat. PL e per IEC 61508 and ISO 13849-1
Braking: External braking unit required (no built-in brake chopper; entire N4C page (catalog p.26) is wall-mounting without braking unit)
Minimum external brake resistor: Not applicable (no built-in brake chopper; external braking unit required per catalog p.26)

I/O Specifications

Analog inputs (integrated): 3 inputs: 2 configurable as 0...10 V or 0/4-20 mA (with PTC/PT100/PT1000/KTY84 probe input); 1 configurable as 0...±10 V
Digital inputs (integrated): 8 inputs, 24 V DC, positive or negative logic
Digital output (integrated): 1 assignable, configurable as Pulse Train Output (PTO)
Analog outputs (integrated): 2 outputs configurable as 0...10 V or 0/4-20 mA
Relay outputs (integrated): 3 outputs: 1 NO/NC + 2 NO
Safety function inputs: 2 inputs for STO function
I/O expansion (optional): Up to 3 additional I/O modules per catalog

Communication

Built-in ports: 1 Ethernet dual-port switch (RJ45); 1 Modbus serial port (RJ45)
Protocols: EtherNet/IP and Modbus TCP (dual-port, built-in); Modbus RTU/TCP serial
Communication expansion: 1 option slot for fieldbus modules (PROFINET, PROFIBUS DP V1, CANopen, DeviceNet, EtherCAT, POWERLINK)
Cybersecurity: Achilles Level 2 certified

Electrical

Supply voltage: 380...480 V three-phase (-15%/+10%), 50/60 Hz
ND Normal Duty — maximum input current: 397 A at 380 V; 324 A at 480 V
ND Normal Duty — apparent power: 247 kVA at 380 V
ND Normal Duty — maximum continuous output current In: 427 A maximum at nominal switching frequency
ND Normal Duty — maximum transient output current for 60 s: 512 A (120% of In)
HD Heavy Duty — maximum input current: 296 A at 380 V; 246 A at 480 V
HD Heavy Duty — apparent power: 187 kVA at 380 V
HD Heavy Duty — maximum continuous output current In: 302 A maximum at nominal switching frequency
HD Heavy Duty — maximum transient output current for 60 s: 453 A (150% of In)
SCCR (prospective line short-circuit current): 50 kA maximum per catalog table
EMC filter: Category C3 integrated EMC filter per catalog footnote (6)

Environmental

Environmental class: IEC 60721-3-3 class 3C3 / 3S3 / 3M3 (except frame size 7) per installation manual NHA80932 p.44
Certifications: UL 508C, UL61800-5-1, EN/IEC 61800-3 (category C2/C3), EN/IEC 61800-5-1, IEC 61508, IEC 13849-1, Achilles Level 2, REACH, SEMI F47-0706 per catalog p.9
Altitude derating: up to 1000 m no derating; 1000-3000 m, derate nominal current by 1% per additional 100 m per installation manual NHA80932
Operating temperature: 0 to +40 °C standard, derating from 40 to 50 °C per catalog p.17 (IP00 cabinet version)
Storage temperature: -40 to +70 °C per catalog p.17
Relative humidity: 5 to 95% non-condensing per IEC 60068-2-3, catalog p.17
Protection rating: IP00 (for cabinet mounting; conformity kit available for IP21/UL Type 1)

Physical

Power dissipation: 5214 W total (ND Normal Duty) / 3735 W total (HD Heavy Duty) at nominal load per installation manual NHA80932 p.125-127
Required minimum air flow: 860 m3/h per installation manual NHA80932 p.125-127
Dimensions (H×W×D): 1195 x 440 x 380 mm (per official catalog p.84/85/86 dimension table, converted from W×H×D)
Weight: 172.000 kg (319.195 lb) — kg/lb pair transcribed exactly as printed in the official Altivar Process ATV930 catalog weight table, p.26 — published kg/lb pair is not mutually consistent, transcribed as printed; see the dual-unit consistency note below
Dual-unit consistency note: the kg and lb figures printed side by side in the official catalog weight column are not mutually consistent for this row (172.000 kg converts to 379.195 lb, while 319.195 lb converts to 144.780 kg). The same catalog prints 172.000/379.195 for the air-cooled ATV930C22N4 on p.25, so the p.26 pound figure looks like a catalog misprint. Both values are transcribed exactly as published by Schneider Electric; no correction has been applied. Treat the pound figure as unreliable.
Terminal tightening torque: 41 N·m (360 lbf·in) M10 supply/output/DC busbar per installation manual NHA80932 p.190 (Frame 7A/7B)
Installation clearance: 200 mm above, 150 mm below, 10 mm front per installation manual NHA80932 p.122 (Frame 7)

Lifecycle

Current: Altivar Process ATV930 IP00 cabinet-mounting drive; official Schneider Electric catalog active (catalog Nov **2019). (Last verified:** 2026-10)