ATV930D75N4

Schneider Electric · Altivar Process ATV930

Three-phase variable speed drive for 380...480 V supply, dual ND/HD rating, with built-in braking unit (dynamic brake transistor).

Hardware

Motor power (ND Normal Duty): 75 kW (100 HP), overload up to 120% for 60 s
Motor power (HD Heavy Duty): 55 kW (75 HP), overload up to 150% for 60 s
Drive rating: Dual-rated ND/HD per official catalog table (catalog p.2/5)
Switching frequency: 4 kHz nominal for U07N4...D45N4; 2.5 kHz for D55N4...C22N4 (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: Built-in dynamic brake transistor (chopper) per catalog; external braking resistor required
Minimum external brake resistor: 2.5 Ω minimum per installation manual NHA80932 p.90-91

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 (analog in, digital in, relay out) 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: 131.3 A at 380 V; 112.7 A at 480 V
ND Normal Duty — apparent power: 93.7 kVA at 380 V
ND Normal Duty — maximum continuous output current In: 145.0 A maximum at nominal switching frequency
ND Normal Duty — maximum transient output current for 60 s: 174.0 A (120% of In)
HD Heavy Duty — maximum input current: 98.9 A at 380 V; 86.9 A at 480 V
HD Heavy Duty — apparent power: 72.2 kVA at 380 V
HD Heavy Duty — maximum continuous output current In: 106.0 A maximum at nominal switching frequency
HD Heavy Duty — maximum transient output current for 60 s: 159.0 A (150% of In)
SCCR (prospective line short-circuit current): 50 kA maximum per catalog table
EMC filter: Category C2 EMC filter for U07N4...D45N4; category C3 EMC filter above D45N4 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: -15 to +50 °C standard, derating up to 60 °C per catalog p.17 (wall-mount IP21, ≤160 kW)
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: IP21/UL Type 1

Physical

Power dissipation: 1785 W total (ND Normal Duty) / 1143 W total (HD Heavy Duty) at nominal load per installation manual NHA80932 p.125-127
Required minimum air flow: 295 m3/h per installation manual NHA80932 p.125-127
Dimensions (H×W×D): 922 x 290 x 325.5 mm (per official catalog p.84/85/86 dimension table, converted from W×H×D)
Weight: 59.000 kg (125.663 lb) — kg/lb pair transcribed exactly as printed in the official Altivar Process ATV930 catalog weight table, p.25 — 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 (59.000 kg converts to 130.073 lb, while 125.663 lb converts to 57.000 kg; the adjacent ATV930D55N4 row prints 57.500/126.766, which is consistent). Both values are transcribed exactly as published by Schneider Electric; no correction has been applied. Treat the pound figure as unreliable.
Terminal tightening torque: 25 N·m per installation manual NHA80932 p.179 (Frame 5 power terminals)
Installation clearance: 100 mm above and below, 10 mm front per installation manual NHA80932 p.122 (Frame 1-5)

Lifecycle

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