

NOARK

Ex9VF77T40520BC

VFD - 1330307 - Ex9VF7 - V7 frame - w/ STO - 52A - 575Vac (3-phase) - 50HP

Variable Speed/Frequency Drive (VSD/VFD) / Inverter with integrated braking chopper - Safe Torque Off (STO) - NOARK (Ex9VF7 series) - 447-660Vac (525Vac / 575Vac / 600Vac nom.) (3-phase / 3P) input voltage - 52A rated output current - 37kW / 50HP rated power - IP20 / NEMA 1 - frame size V7 - equivalent to 1330307

Specifications

Primary brand	NOARK
Main function	Variable Speed/Frequency Drive (VSD/VFD) / Inverter
Product series / family name	Industrial controls > Variable Frequency Drives (VFD)
Sub-range name	Ex9VF7 series
Network frequency	(input) 50/60 Hz (output) 0.5-590 Hz (output in SVC control mode) max. 500 Hz (carrier frequency; F159 parameter) 800-16000 Hz

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Functions	Variable Speed/Frequency Drive (VSD/VFD) / Inverter Control modes -- PMM (Surface & Internal) Control modes -- SYNCHRONOUS RELUCTANCE (Software option) Control modes -- CLOSED LOOP / FOUR QUADRANT Control modes -- SVC/FOC Control modes -- Classic V/Hz Start torque -- 0.5Hz/150% (SVC) Start torque -- 0Hz/180% (VC) Start torque -- 5% of Rated Speed/100% of Rated Torque (PMSM SVC) Speed-range ratios -- 1□100 (SVC) / 1□1000 (CLVC) / 1□20 (in PMSM SVC) Speed resolution -- +/-0.5% (SVC) / +/-0.02% (CLVC) Torque control precision -- +/-5% Overload capacity -- 150% of rated current (60sec) (adjustable) Torque elevating/profile -- auto torque curve adjustment / manual torque curve adjustment includes 1-20 curve options V/Hz curve -- Linear (CT/HD) mode / Quadratic (VT/ND squared curves menu) mode / User-Defined V/Hz mode Startup mode -- Direct Startup or Flying-Load Catch DC injection braking -- 0.2-50Hz; 0-30s (braking time) Auto Voltage Regulation (AVR) -- if supply voltage changes, modulation rate can be adjusted automatically to maintain output voltage Auto circulating speed run -- up to 15-stage speeds Multi-stage speed run -- up to 15-stage speeds control terminal dis Built-in PID -- closed loop process control / PID Parameters Frequency setting -- potentiometer / external analog signals (0-5V/0-10V/0-20mA) / Keypad Keys / external control logic and/or automatic circulation settings Source of start/stop control -- control terminals / keypad / fieldbus communication Source of speed ref. -- keypad / potentiometer / analog voltage / analog current / fieldbus Accessorial Hz source -- 7 kinds of accessorial frequency Display -- Inverter status LED indication Display -- Parameter levels LED indication Display -- Live Output Display Data Available (Hz; RPM; current; voltage; linear velocity; faults and more as customized) Display -- Programming/parameters□ set-up / operation & monitoring
Design	integrated braking chopper Safe Torque Off (STO)
Supply voltage (AC)	447-660Vac (525Vac / 575Vac / 600Vac nom.)
Display	Inverter status LED indication Parameter levels LED indication Live output data display
Type of network	3-phase / 3P
Rated current	52A
Rated active power (kW)	37kW
Rated power (HP)	50HP
Rated voltage (AC)	600Vac (3-phase) output

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Protection functions	Input phase loss Output phase loss Input under-voltage DC over-voltage Over-current VFD overload Motor overload Protections current stall Over-heat External disturbance Under-load Pressure control AI/AO disconnected Encoder line loss Keypad disconnection CAN protection STO and STO1
Communication protocol	BACnet Ethernet/IP Ethernet Modbus
Digital inputs	1 x digital input (5Vdc; external power supply) 1 x digital input (DI1; JOG FWD (terminal 11) / F316 parameter) 1 x digital input (DI2; External fault/stop (terminal 9) / F317 parameter) 1 x digital input (DI3; FWD run (terminal 15) / F318 parameter) 1 x digital input (DI4; REV run (terminal 16) / F319 parameter) 1 x digital input (DI5; Fault reset (terminal 7) / F320 parameter) 1 x digital input (DI6; Coast-to-stop (terminal 8) / F321 parameter) 1 x digital input (DI7; no function assign (terminal 0) / F322 parameter) 1 x digital input (DI8; no function assign (terminal 0) / F333 parameter) -- DI7 / DI8 are not in VFDs with 600V <22kW / 480V <45kW / 230V <3kW -- 0.01Hz (digital input frequency setting) -- Jog control - min. frequency to max. frequency; 0.1-3000s (jogging acceleration/deceleration time)
Digital outputs	1 x digital output (24Vdc; programmable DO1; RUN enabled) 1 x digital output (24Vdc; programmable DO2; no function assigned) 1 x digital output (SPDT programmable rly. contact 125Vac/10A; 250Vac/3A; 30Vdc/3A; FAULT activated)
Analog inputs	1 x analog input (AI1; 0-10Vdc; F400-F405 parameters) 1 x analog input (AI2; 0-20mA; F406-F411 parameters) -- AI1 only accepts voltage signal for VFDs with 600V <22kW / 480V <45kW / 230V <3kW -- 0.1% max. frequency (analog input frequency setting)
Analog outputs	1 x analog output (AO1; 0-10Vdc; RUN frequency) 1 x analog output (AO2; 0-20mA; RUN current)
Degree of protection	IP20 NEMA 1
Dimensions	frame size V7 H476mm x W315mm x D250mm H18.74" x W12.4" x D9.84" W274mm x L460mm (mounting size) M6 (mounting bolt)
Material	metal housing

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Ambient air temperature for operation	14˚F...+122˚F / -10˚C...+50 ˚C
GTIN code	840352744760
Application type	3280ft / 1000m max. height above sea level Installation location -- indoors / no direct sunlight / dust free area/panel / safe atmosphere only
Order code / Manufacturer SKU	Ex9VF77T40520BC 1330307
Manufacturer product status	Commercialized
Equivalent to	1330307
Compliant with standard(s)	UL 61800-5-1 cULus listed Vibration resistance -- less than 0.5g

Benefits

Noark's Variable Frequency Drives are designed to control the speed and torque of an electric motor by varying the frequency and voltage of its power supply.
It helps improve energy efficiency and provides precise control in applications like pumps, fans, and conveyors.
Ex9VF7's operational voltage ranges from Single phase 110V to Three phase 600V.

Features
- Available from 0.4kW-185kW (0.25HP-250HP)
- High-tech motor control concept, based on advanced DSP-technology
- Compact and advanced VFD design for Panel/MCC integration
- Flexible inverter control, high resolution analogue inputs, free mapping for all I/O channels
- Automated carrier wave oscillation for audible noise reduction
- Automated torque profiling for high-torque at low-speed applications.
- NEMA 1 Enclosure (IP20 protection level)
- EMC filter (C3 class) integrated up to 150hp at ≤480V and 25hp at 600V
- BACnet, Ethernet IP, Ethernet CANopen and Modbus communication options available
- Wide range of accessories keypad, mounting kit and more.

Standards and certifications
- UL 61800-5-1
- Certified for US and Canada.

Other Peripherals
- Built-in EMI filter
- Built-in braking unit
- Modbus
- Remote keypad kit
- NEMA 1 Kit
- Option Cards & More

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Documents

NOARK - Ex9VF7 variable frequency drives - Catalog.pdf

NOARK - Ex9VF7 variable frequency drives - Quick start guide.pdf

NOARK - Ex9VF7 variable frequency drives - Instruction manual.pdf

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