ENGINEERING
TOMORROW

NEMA 4X VLT® AutomationDrive

Mount your drive where you ***want*** to...not where you ***have*** to

Suitable for installations that require protection against windblown dust and rain or splashing water, NEMA 4X/ IP66-rated variable frequency drives can be installed directly at the equipment location without a protective enclosure. All cast aluminium parts are powder coated with a durable epoxy that can stand up to most corrosive chemicals.

Power range

- 1.5–30 HP: 200 - 240V 1 ph
- 10–50 HP: 380- 480V 1 ph
- 1–60 HP: 200–240V
- 1–125 HP: 380–480V
- 1–125 HP: 525–690V

The VLT® AutomationDrive withstands harsh environments. A NEMA 4X rated enclosure, and standard 1,000-foot motor cable runs, provide maximum mounting flexibility.

Features	Benefits
All cast aluminium parts are powder coated with a durable epoxy coating	No need for separate cover or enclosure*
Conformal coated circuit board option	Additional protection in corrosive environments
All stainless steel screws	Improved corrosion resistance
Fan designed to withstand corrosion	Reliable operation
Can be installed near the motor or blower	Facilitates modular plant design
1000' motor cable runs (unshielded)	Short motor cables reduce EMI/RFI
Reliable	Maximum uptime
Robust, single enclosure	Reduced cost and maintenance
Unique cooling concept with no ambient air flow through electronics housing	Reliable operation in harsh environments
Max. ambient temp. 50° C without derating	No external cooling or oversizing necessary
User friendly	Simplified operation and lower costs
Award-winning LCP keypad design	Reduced space requirements and commissioning time
Easy installation	Lower startup costs
Watertight USB plug can be mounted in the bottom of the drive	Drive enclosure can remain closed while making setup or programming changes

** For outdoor installations: The drive must be installed under a suitable cover with weather shield to protect from direct exposure to sun, snow and ice.*

Perfect

match for:
- Lift stations
- Pump stations
- Irrigation
- other outdoor applications

Cabinet SIzes

Power range (normal overload)	(200-240 V)	1/3 - 3 HP	.33–5 HP	7.5–10 HP	15–20 HP	25–30 HP	40–60 HP
	(380-480 V)	1/2 - 5 HP	0.5–10 HP	15–25 HP	30–40 HP	50–75 HP	100–125 HP
	(525-690 V)		1–10 HP	15–25 HP	30–40 HP	50–60 HP	75–125 HP
Enclosure name		**A4**	**A5**	**B1**	**B2**	**C1**	**C2**
Height		14.17	16.5	18.9	25.6	26.8	30.3
Width		7.87	9.5	9.5	9.5	12.1	14.6
Depth		7.5	7.9	10.3	10.3	12.2	13.2

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Outdoor weather shield
Designed to be mounted above FC 322 to protect from direct sun and falling debris.

Stainless steel back plate
For panel or wall mounting, a stainless steel back plate is available to direct the air from the fan through the rear heatsink.

Watertight USB plug
A USB plug can be mounted in the bottom of the enclosure, allowing the drive to stay closed while making setup or programming changes using MCT 10 setup software.

Mains supply (L1, L2, L3)	
Supply voltage	200–240 V ±10%, 380–480 V ±10%, 525–690 V ±10%
Supply frequency	50/60 Hz
Displacement Power Factor (cos φ) near unity	(> 0.98)
Switching on input supply L1, L2, L3	1–2 times/min.
Output data (U, V, W)	
Output voltage	0-100% of supply
Switching on output	Unlimited
Ramp times	1–3600 sec.
Closed loop	0–132 Hz
Digital inputs/outputs	
Programmable digital inputs (standard)	6 (two can be used as digital outputs)
General purpose I/O card (option)	Additional 3 digital inputs, 2 digital outputs
Logic	PNP or NPN
Voltage level	0–24 VDC
Analog inputs	
Analog inputs (standard)	2
General purpose I/O card (option)	2 additional analog inputs
Advanced analog I/O card (option)*	3 additional analog inputs
Modes	Voltage or current
Voltage level	-10 to +10 V (scaleable)
Current level	0/4 to 20 mA (scaleable)
Pulse inputs	
Programmable pulse inputs (standard)	2 (two of the digital inputs can be used as pulse inputs)
Voltage level	0–24V DC (PNP positive logic)
Pulse input accuracy	(0.1–110 kHz)
Analog outputs	
Programmable analog outputs (standard)	1
General purpose I/O card (option)	1 additional analog current output
Advanced analog I/O card (option)*	3 additional analog outputs
Current range at analog output	0/4-20 mA
Relay outputs	
Programmable relay outputs (standard)	2 (240 VAC, 2 A and 400 VAC, 2 A)
Relay card (option)	3 additional dry contact relays (240 VAC, Form C)
Voltage level	0–24V DC (PNP positive logic)
Pulse input accuracy	(0.1–110 kHz)
External DC supply	
External 24V DC supply card (option)	Provides backup power for control and option cards
Fieldbus communication	
FC Protocol and Modbus RTU built in (LonWorks, DeviceNet, Profibus modules optional)	
Ambient temperature	
Minimum 0° C, Maximum 50° C	

** Advanced analog I/O option card also provides 24V DC backup power for the VLT® AutomationDrive's real-time clock.*

PC software tools
- **MCT 10—**ideal for starting up and servicing the drive
- **MCT 31**—harmonics calculations tool

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