



VLT® 8000 AQUA Series



The VLT 8000 AQUA Series Designed for Water / Wastewater Applications 1.5 – 600HP

The longest experience in the industry

Danfoss introduced the worlds first commercial VFD in 1968. One of the first production units went into a Pumping Station at a nearby Water Plant. We have been gathering experience ever since.

One Drive series for the entire plant

The 8000 series combine the needs for VT performance with additional CT performance for your more demanding applications. The 8000 series offers:

- Selectable VT or CT performance up to 110% of nominal load within same drive.
- One user interface w. HOA across the entire product range.
- Unbeatable energy savings performance through AEO (Automatic Energy Optimizer) for VT applications.
- AMA (Automatic Motor Adaptation) ensures optimal usage of any motor.

Uncompromised performance

The VLT 8000 AQUA series provides solid reliable performance for everyday use.

- Line voltage variation tolerance up to +10/-15%.
- Built in line transient protection.
- Unlimited switching on the output making motor disconnects easy.
- Chassis, NEMA1 or NEMA12 enclosures.
- Galvanically isolated Control I/O's (PELV).
- High Power Factor and low harmonics via Dual DC link chokes.
- Optional built in RFI filters (except 575V range).
- Optional Conformal Coating.
- Up to 1000 ft motor cable run without tripping.

Maximized for uptime

Maintaining operation under adverse conditions. The VLT 8000 AQUA allows continued operation at reduced output under the following conditions:

- Elevated ambient temperature.
- Loss of an input phase or phase imbalance.

Should total power loss occur, the drive can be programmed to perform an automatic restart.

Functions and Features which make sense

The VLT 8000 AQUA drives all come with features and functions dedicated to the industry:

- PID controller programmable in 39 real process units (GPM, PSI, Bar, ppm etc.)
- Keypad with HOA and speed bar graph.
- Sleep mode function allows for stand-by, when demand is low.
- 3 wire latched start / stop.

User Friendly programming

- All HP sizes use same keypad.
- Keypad can be remote mounted.
- Upload parameters from one drive, download in the next.
- All parameters are factory preset.
- All display readings are in plain text.
- Quick Menu gets you going in minutes.

Pump Control

The VLT 8000 AQUA offers a number of features built for better pump control:

- Motor Alternation control of 2 pumps (1 lead, 1 stand-by)
- Sleep Mode with pressure boost function for 1-pump systems.
- Optional Cascade Pump Controller card operates up to 5 pumps in parallel. Either configured for mixed Variable and Fixed Speed pumps or for "Best Efficiency Staging" for an all variable speed pump system.

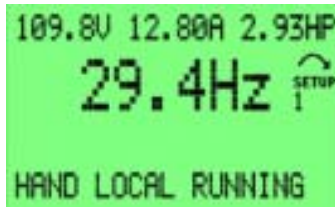


Contact Esys for more information about this product:
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Multi Meter Display



The example displays output voltage, amperage and power in the top line. Center line displays output frequency, while bottom line shows status. The output readings are selectable from a long list of items. The list include SETPOINT and FEEDBACK readouts from the integral PID controller.

Technical Specifications:

Voltage range (+10/-15%): 200-240V, 380-480V or 550-600V
 Overload (VT/CT): 110% (60 sec.)
 True Powerfactor / cos phi: 0.9 / ~ 1.00
 Input/Output frequency range: 50 or 60Hz / 0 – 120 Hz
 Enclosure ratings: Chassis, NEMA 1 or NEMA12
 Temperature range: 32 – 104 °F (0 – 40 °C)

Inputs/Outputs:

8 Digital inputs Programable
 2 Analog inputs 0(2) - 10 V
 1 Analog input 0(4) - 20 mA
 2 Analog outputs 0(4) - 20 mA
 2 Digital outputs 0/24 V active
 2 Relays 240 V 2A Form C; 40 V Form A
 RS485 port

Serial Communications Option cards (all integral mount):

DeviceNet, ProfiBus or ModBus RTU

Other Options:

Integral RFI filters, Cascade Controller or 4 Relay option. Conformal Coating. External LC filters, Line Reactors, Remote Keypad, PC software, Fuses and/or disconnects, bypass arrangements etc. N3R and N4/4X packaging available.

Protective Functions:

- Short circuit and Ground fault protection.
- Line or Motor phase loss.
- Line imbalances outside of spec.
- Over and under voltage
- Overtemperature
- Electronic Thermal Motor protection

Technical Data

200 – 240 V AC / 380-480 V AC / 550-600 V AC Amp. Ratings

VLT Type	Typical HP	Continuous Output 208V	Continuous Output 460V	Continuous Output 575V
8002	1.5	Not available Use VLT 2800		2.4
8003	2			2.7
8004	3			3.9
8005	4.			4.9
8006	5	16.7	8.2	6.1
8008	7.5	24.2	11	9
8011	10	30.8	14	11
8016	15	46	21	17
8022	20	59.4	27	22
8027	25	74.8	34	27
8032	30	88	40	32
8042	40	104	52	41
8052	50	130	65	52
8062	60	154	77	62
8072	75	-	106	77
8100	100	-	130	99
8125	125	-	160	125
8150	150	-	190	144
8200	200	-	240	192
8250	250	-	302	242
8300	300	-	361	289
8350	350	-	443	-
8450	450	-	540	-
8500	500	-	590	-
8600	600	-	678	-



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