

VARISPEED

PRODUCT BROCHURE

ELECTRONIC MOTOR CONTROL SOLUTIONS

ALPHA 
DRIVE-VDE66

**LOW VOLTAGE
ECONOMY DRIVE:**

0,4 kW - 90 kW



WATER



OIL & GAS



INDUSTRY



MINING



MARINE



HVAC



AGRICULTURE

a member of the **Hudaco** group

Designed to approved international standards



The Alpha Drive-VDE66 comes with all standard inverter functions build in, to make it suitable for various applications in industrial and civil area, and for retrofit as well.



- **Intelligent autotuning functions for quick and easy set-up**
- **Rugged, reliable and compact**
- **Excellent cost/benefit ratio**

FEATURES & BENEFITS

- DSP based high-tech motor control concept, suitable for V/Hz, SENSORLESS VECTOR, PMM synchronous motor control, SPEED/TORQUE control mode
- Rugged construction, IP66/NEMA 4
- Flexible configurable 4 line character display – ready for any common field bus
- Removable cable conduit plate, including vent with humidity barrier
- Space inside the drive, for customer options, like main/emergency switch, start/stop selectors, potentiometer and brake resistor
- Optional BYPASS switch built in
- C3 class filter standard – optional C1 EMC filter build in for 1. Environment (residential area)
- All standard inverter functions built in, to make it suitable for various applications in industrial and civil areas, and for retrofit as well
- Smart PC-tools, for inverter control, parametrization and troubleshooting. parameter-duplication stick



LCD REMOTE KEYPAD IP66



PARAMETER COPY STICK



MAIN SWITCH



C1 EMC FILTER



ROOM FOR BUILT-IN OPTIONALS

SMARTER AUTOMATION

Built for the worldwide market

TECHNICAL DATA

POWER INPUT	Rated input voltage	3-Phase 380V-460V (+/-15%) 3-phase 220V-240V(+/-15%) 1-Phase 220V ~ 240V (+/-15%)
	Input frequency	44...67 Hz
	EMC filter	Integrated C3 class filter as standard (2. environment - industrial area) (optional internal C1 class filter kit available)
MOTOR OUTPUT	Output voltage	0.....V-input
	Output frequency	0.....650 Hz (1500HZ OPTION)
	Frequency resolution	0,01 Hz
	Overload capability	150% - 60 sec. / 10 min
CONTROL-MODE	Motor control algorithm	V/Hz-SpaceVector, SLV-SENSORLESS Vector control, Torque/Speed control mode, CLV-CLV vector, PMSM Permanent Magnet Synchronous Motor SENSORLESS control
	Chopper frequency	0.8...16 kHz (fixed / random)
	V/Hz curve	Linear, exponential, and user-programmable curve
	Starting torque	150% rated torque at 0.5 Hz (in SLV Mode)
	Torque compensation	Automatic / Manual
	Motor data input	Manual, from nameplate / AUTOTUNING
	Control range	1:100 in SLV mode, 1:1000 in CLV mode, 1:20 in PMSM mode
	Speed precision	+/- 0,5% (SLV), +/- 0,02% (CLV)
	Torque precision	+/- 5% (SLV)
	DC-Brake	Programmable in duration and intensity
Brake chopper	Chopper transistor integrated	
DISPLAY	4 Line character display	To display configuration parameters, Inverter status and various operating parameters - all programmable, easy and flexible
I/O CHANNELS, CONTROL FUNCTIONS	Inverter control	Via terminals / Keypad / Serial link (or combination of all)
	Digital inputs	6 (8) Dig. inputs (NPN-PNP selectable) pulstrain-input
	Speed reference input	Potentiometer, analogue signal (terminals), keypad (INC/DEC), pulstrain, via serial link
	Analogue channels	2 analogue inputs - 12 BIT: 0...10V, 0...5V, -10V...0...10V, 0...(4)20 mA, all free scalable in gain and offset, and mathematically concatenable
	Analogue outputs	1 (2) analogue outputs, programmable in gain and function (0...10V, 0(4)...20 mA)
	Digital outputs	1 (2) digital OC outputs (free mapping to different functions)
	Relais output	1 switchover contact 5 A 230 V (programmable function assignment)
	Data link	Serial link RS 485 (MODBUS ASCII/RTU)
	Special functions	24V / 50 mA auxiliary power supply on terminals, 10V potentiometer power supply, 5V/100 mA power supply on modbus connector Simple PTC / KLIXON motor protection
	ELECTRONIC PROTECTIONS WITH FAULT HISTORY	Electrical
Thermal		Inverter overtemperature, Ixt motorprotection PTC/LIXON read in
OPTIONS	Display	IP66 Remote display / keypad unit
	Dynamic brake	Braking resistors for different load characteristics
	Power control options	Main switch, emergency switch, BYPASS switch
	Inverter control options	Potentiometer, inverter control selector switches
	PC-software / Parameter Stick	Configuration-, control- an diagnosis-tool, Parameter copy/duplicating stick
ENVIRONMENTAL & OPERATING CONDITIONS	Protection class	IP66 / NEMA4
	Operating temperature	-10.....+40 °C (-40 with optional antifreeze control)
	Humidity	0 to 98% non-corrosive
	Altitude	1000 m, above 1% derating / 100m
Vibration	Max. 1,0 g	
POWER RANGE	0,4.....90 kW	
STANDARDS	Electromagnetic compatibility	EN61800-3(2004)
	Safety	EN61800-5-1 2003

THE VARISPEED QUALITY ASSURANCE

We refuse to cut corners when it comes to quality; and support our customers throughout the entire lifecycle with superb products and tailored services.

At the core of Varispeed's competitiveness is an all-encompassing commitment to high standards and sophisticated quality controls. With many years of expertise in the field, and in-house coverage of all areas, we are able to offer comprehensive service that truly deserves the name "Total Customer Support". Automating with us is simply the smarter way to automate.



VERSATILE



REPUTABLE



RELIABLE



EFFECTIVE



VALUE-DRIVEN



COMPETENT



CERTIFIED

Certified service & repair centres with industry-leading warranties.



AVAILABLE

24/7/365 expert service & technical support.



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