

VARISPEED

PRODUCT BROCHURE

ELECTRONIC MOTOR CONTROL SOLUTIONS

VDRIVE -PLUS

LOW VOLTAGE
ECONOMY DRIVE:

0,4 kW - 400 kW



WATER



OIL & GAS



INDUSTRY



MINING



MARINE



HVAC



AGRICULTURE

a member of the **Hudaco** group

Built for the worldwide market



The VDrive-Plus is an exceptional economy drive offering the best cost/performance ratio without compromising on quality and reliability.



- **Approved & certified for worldwide standards by independent bodies**
- **Intelligent autotuning functions for easy setup**

FEATURES & BENEFITS

- High-tech motor control concept, based on advanced DSP-technology - ready for V/Hz, SENSORLESS VECTOR, CLV and permanent magnet synchronous motor control PMSM
- Flexible inverter control, dual high resolution analogue inputs, free mapping for all I/O channels
- Ready for all commonly used fieldbus systems
- Universal parameter-set for all kind of industrial and residential applications, including integrated PID/ controller routine
- Smart PC-tools for inverter control, parametrization and troubleshooting
- Parameter-duplication stick
- EMC filter(C3 class) integrated, optional C1 footprint filter



**LCD REMOTE KEYPAD
FOR CABINET IP66**



**PARAMETER
COPY STICK**

SMARTER AUTOMATION

Compact in size, modular in concept

TECHNICAL DATA

| | | |
|---|---|--|
| POWER INPUT | Rated input voltage | 3-Phase 380V-460V (+/-15%) 1-Phase 220V ~ 240V (+/-15%) |
| | Input frequency | 44...67 Hz |
| | EMC filter | Integrated for 2. environment (C3) – C1 footprint filter as option |
| 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,Torque/Speed control mode, CLV-Closed loop vector, Sensorless permanentmagnet synchro motor control PMSM |
| | Chopper frequency | 0.8..16 kHz (fixed / random pattern) |
| | 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 | User programmable functions |
| Brake chopper | Chopper transistor integrated (up to 110 KW) | |
| DISPLAY | 7 segment, 4 characters | Config-Parameters and -value, programmable to display various work parameters |
| 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 (on keypad unit, external), analogue signal (terminals), Keypad control, pulsetrain, serial link |
| | Analogue channels | 2 analogue channels - 12 BIT: 0..10V, 0..5V, -10V..0..10V, 0..(4)20 mA, a free scalable in gain and offset, and mathematically concatenable |
| | Analogue outputs | 2 analogue outputs, programmable in gain and function (0..10V, 0(4)..2 |
| | Digital outputs | 1(2) digital OC outputs (free mapping to different functions) |
| | Relais output | 1 switchover contact 3A 250VAC/30VDC (programmable assignment) |
| | Data link | Serial link RS 485 (MODBUS ASCII/RTU) |
| | Specials | 24V / 50 mA auxiliary power supply on terminals, 10V potentiometer p supply, 5V/100 mA power supply on modbus connector Simple PTC / KLIXON motor protection |
| | ELECTRONIC PROTECTIONS WITH FAULT MEMORY | Electrical |
| Thermal | | Inverter over temperature, motor-overload I ² t simple PTC read-in |
| OPTIONS | Display | Remote display / keypad unit |
| | Brake chopper | Brake resistors for all kind of applications |
| | PC-software | Configuration-, control- and diagnosis-tools, parameter duplicating stic IP66 remote keypad with 4 line |
| | Parameter stick | Character display |
| ENVIRONMENTAL & OPERATING CONDITIONS | Protection class | IP20 / IP21(optional) |
| | working temperature | -10.....+50 °C |
| | Humidity | 0 to 95% RH, non-condensing, non-corrosive |
| | Altitude | 1000 m, above 1% derating / 100m |
| Vibration | Max. 0,5 g | |
| POWER RANGE | 0,4.....400 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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