

Product Group
PERFORMANCE
AC Variable Speed Drives



Quality is our Drive.

PERFORMANCE

AC Variable Speed Drives "VersiDrive i...Pro"

World Leading Motor Control

The VersiDrive i Pro provides world leading control for both standard induction motors and permanent magnet synchronous motors – open and closed loop.

- Open loop vector control of standard induction motors provides up to 200% torque from zero speed
- Open and closed loop control of the latest generation of high efficiency PM motors
- Closed loop encoder feedback capability for standard induction motors

Extensive I/O and communications interface capabilities ensure the drive can be integrated quickly and efficiently into a wide variety of control systems. A simple parameter structure and carefully selected factory settings ensure fast and easy commissioning.

Key Features

Safe Torque Off meets IEC 61508 SIL2

Pluggable control terminals

Internal RFI filter for compliance with the latest EMC standards

Just 14 basic parameters allow fast commissioning of powerful features

32kHz Output Switching Frequency for ultra quiet motor operation

VersiDrive i...PRO compliant with international standards.
Manufactured in Europe.



RoHS



UL / cUL NorthAmerica



CE EUROPA



C TICK Australasia



ISO 9001:2008



Gost/Russia

Technical Data Overview

Input Ratings	Supply Voltage	200-240V±10%	
		380-480V±10%	
Output Ratings	Supply Frequency	48-62Hz	
	Output Power	230V 1-Phase Input (1-3 HP): 0,75-2,2kW 400V 3-Phase Input: 0,75-160kW	
	Overload Capacity	150% for 60 seconds, 200% for 2 seconds	
	Output Frequency	Up to 500Hz, 0,1Hz resolution	
Ambient Conditions	Typical Efficiency	98%	
	Temperature	Storage: -40 to 60°C Operating: -10 to 50°C	
	Altitude	Up to 1000m without Derating (Derate by 1%/100m per 1000m) Up to 2000m max. UL Approved Up to 4000m max. (non UL)	
	Humidity	95% max., not condensing	
Enclosure	Ingress Protection	Size 2 & 3: IP 20 up to 11kW, IP 66 up to 7,5kW Size 4, 5, 6 & 7: IP 55 standard, up to 160kW	
Programming	Keypad	Yes	
	PC	Yes	
Control Specification	Control Method	V/F Voltage Vector Energy Optimiser V/F Sensorless Vector Speed/Torque Control Closed Loop (Encoder) Speed/Torque Control Open and Closed Loop PM	
	PWM Frequency	4-32kHz Effective	
	Stopping Mode	Ramp to Stop User Adjustable 0,1 - 600 seconds	
	Brake	Dynamic DC Brake with extern resistor	
	Skip Frequency	Single point, user adjustable	
	Setpoint Control	Analogsignal 0-10V, 10-0V, -10-10V 0-20mA, 20-0mA, 4-20mA, 20-4mA	
		Digital Motorised Potentiometer (Keypad), Modbus RTU, CANopen	
		Optional Profibus DP, DeviceNet, EthernetIP, Modbus TCP, EtherCat, Profinet	
	I/O Specification	Power Supply	24VDC, 100mA, Short Circuit Protected 10VDC, 5mA for Potentiometer
		Programmable Inputs	5 Total as standard (Optional additional 3) 3 x Digital (Optional additional 3) 2 x Analog/digitally selectable
Digital Inputs		10-30V DC, int. oder ext. supply, PNP Response time: < 4ms	
Analog Inputs		Resolutions: 12 bits Response time: < 4ms Accuracy: < ±2% full scale adjustable scaling and offset	
Programmable Outputs		4 Total (Optional additional 3) 2 x Analog/Digital 2 x Relays (Optional additional 3)	
Relays Outputs		Maximum Voltage: 250V AC, 30V DC Switching Current Capacity: 6A AC	
AnalogOutputs		0-10V, 4-20mA, 0-20mA	
Control Features		Hoist Operation	Dedicated Hoist Operation Mode
		PID-Control	Internal PID Control with feedback display
Maintenance & Diagnostics		Fault Memory	Last 4 Trips stored with time stamp
	Data Logging	Logging of data prior to trip for diagnostic purposes: Output Current, Drive Temperature, DC Bus Voltage	
	Maintenance Indicator	Maintenance Indicator with user adjustable Maintenance internal Onboard service life monitoring	
	Monitoring	Hours Run Meter Resettable & Non Resettable kWh meters	
Standards Compliance	EN 61800-3:2004	Adjustable speed electrical power drive systems, EMC requirements	

IP 20 at a Glance ...

VersiDrive i ...Pro/3Pro/IP20

VD i ...Pro from 0,75kW to 2,2kW - 230V

VD i ...3Pro from 0,75kW to 11,0kW - 400V



PLC included



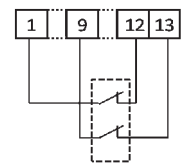
Modbus and
CANopen
built-in



Convenient
Help Card



DIN rail
mounting



Powerful Presence with IP 55 ...

VersiDrive i ... 3Pro/IP55

VD i ... 3Pro from 11,0kW to 16,0kW - 400V



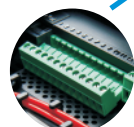
EMC-filter and
braking chopper
integrated



IP 55 / NEMA 12



Pluggable
Control Terminals



Through-hole
Mounting Kit
available



DC choke
built-in



Integrated
Cable Management



Degree of protection: IP66, for use in harsh ambient conditions ...

VersiDrive i ... Pro/3Pro/IP66

VD i ... Pro from 0,75kW to 2,2kW - 230V






VD i ... 3Pro from 0,75kW to 7,5kW - 400V



-  Fully protected against dust and accidental contact
-  Also available without switches
-  Withstands strong jets of water
-  Local operation via potentiometer, forward/reverse switch and power isolator switch
-  Suited for installation close to machines

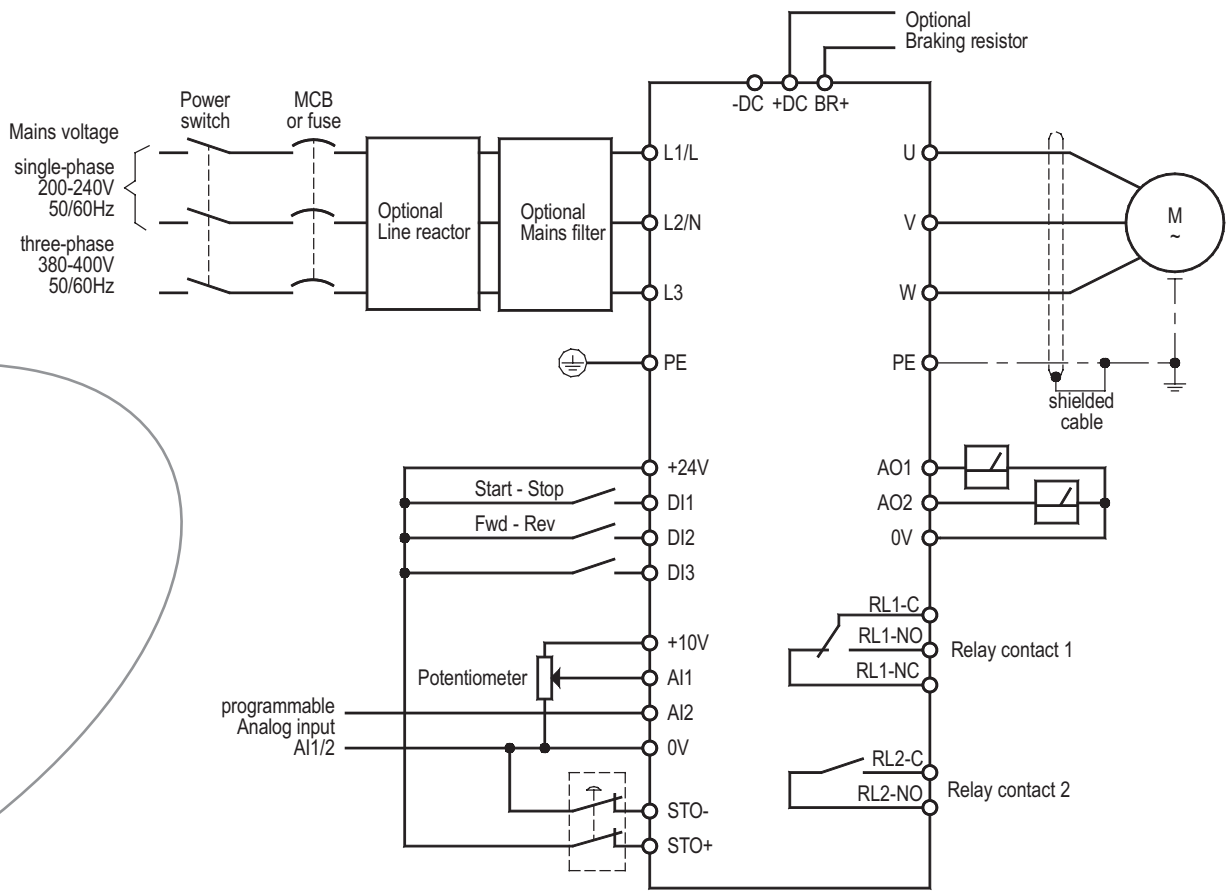


Intuitive Keypad Controls

START	RESET / STOP	NAVIGATE	UP	DOWN
				
Used to start a stopped drive, when in keypad mode or to reverse the direction of rotation if bi-directional keypad mode is enabled.	Used to reset a tripped drive or stop a running drive, when in keypad mode.	Used to display real-time information, to access and exit parameter edit mode and to store parameter changes.	Used to increase speed in real-time mode or to increase parameter values in parameter edit mode.	Used to decrease speed in real-time mode or to decrease parameter values in parameter edit mode.

Technical Details

Connection Diagram



Dimensions

Size	2	2/IP66	3	3/IP66	4	5	6	7
Height (mm)	221	257	261	310	440	540	865	1280
Width (mm)	112	188	131	211	173	235	330	330
Depth (mm)	185	239	205	251	230	270	340	370



Size 2 3 2/IP66 3/IP66 4 5 6 7

Accessories



VersiStick Bluetooth®

Allows rapid copying of parameters between multiple drives.
Provides Bluetooth wireless interface to a PC running VersiTools Studio.
Backup and restore of drive parameters



Brand-new software for the complete VersiDrive i series ...

- Parameter upload/download
- Display of changed parameters
- Customer-specific parameters
- Real-time oscilloscope
- PLC program (requires a license key)
- Bluetooth connection
- and many others ...



OLED-Remote Keypad

- Full-text display
- Real-time information display (up to 4 at a time)
- Local Hand/Remote switchover
- Multi-language display:
German, English, French, Italian, Spanish, Swedish



Plug-in Expansion Modules

VersiDrive i PRO is a range of plug-in modules that can be used to increase network compatibility or extend a drive's standard functionality

- Communication Interfaces
(PROFIBUS, DeviceNet, EtherNet/IP, Modbus TCP, EtherCat, Profinet)
- Encoder Feedback
- 3x Additional I/O
- 3x Additional Relays

Our range of products:

Soft Starters

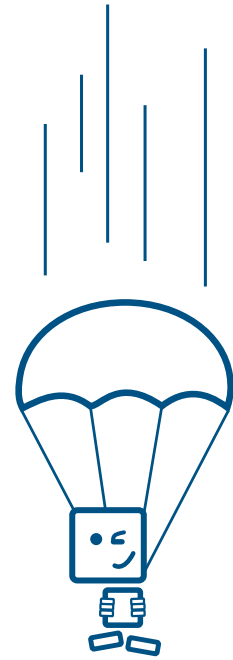
Braking Devices

Combined Motor Start and Braking Devices

Variable Speed Drives

DC-Controllers

Monitoring Modules



Stand 01/2018



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