

**Features:**

- ☒ small design
- ☒ easy programming and connection
- ☒ precise and reliable control for IE2, IE3 & IE4 motors
- ☒ induction motors, PM motors,  
brushless DC motors, synchronous reluctance motors
- ☒ 14 parameters for basic settings
- ☒ precise digital control via push of a button
- ☒ application macros (industrial-, pumps- and fan operation)
- ☒ PTC input
- ☒ max. rotating field frequency 500Hz
- ☒ integrated braking chopper (up from 2,2kW)
- ☒ degree of protection IP20
- ☒ integrated mains filter
- ☒ serial communication with Modbus RTU and CANopen



AC drive

VD i E3 [0,37 – 2,2kW]

VD i 3E3 [0,75 – 22kW]

**Function:**

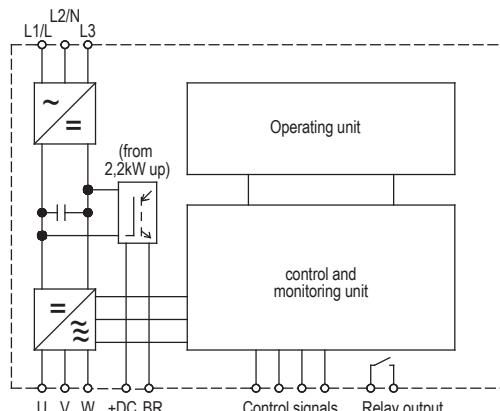
- ☒ control and setpoint entry via terminals, operating unit and Bus-systems
- ☒ PWM clock frequency 4 - 32kHz
- ☒ DC braking
- ☒ potential-free control and signalling contacts
- ☒ 150% overload for 6s
- ☒ detailed trouble check via parameter „o“
- ☒ integrated PI controller
- ☒ U/f characteristics control
- ☒ Open Loop vector speed control
- ☒ Open Loop speed control for synchronous motors
- ☒ BLDC vector control
- ☒ synchronous reluctance motor

**Options:** (please see accessories)

- ☒ memory stick with copying function
- ☒ remote control module (LED or OLED display)
- ☒ RJ45 cable and cable splitter
- ☒ braking resistors
- ☒ software for parameterization

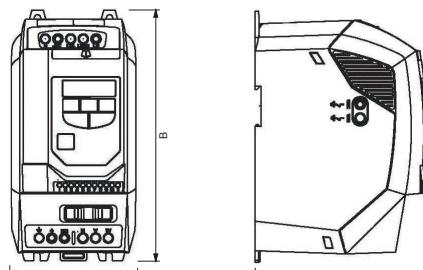
**Typical Application:**

electric pumps, heat pumps, vacuum pumps  
ventilators and fans, travelling cranes, extraction systems  
compressors, stirrers, centrifuges, saws, conveyors  
woodworking machines, grinding machines  
textile machines, packaging machines  
printing machines, other



Typical designation	VD i .../E3				VD i.../3E3									
	037	075	150	220	075	150	220	400	550	750	1100	1500	1850	2200
<b>motor shaft power / kW</b>	0,37	0,75	1,5	2,2	0,75	1,5	2,2	4,0	5,5	7,5	11,0	15,0	18,5	22
<b>mains voltage according to DIN EN 50160 (IEC 38)</b>	single-phase 200-240V, 48-62Hz				three-phase 380-480V, 48-62Hz									
<b>output current / A</b>	2,3	4,3	7	10,5	2,2	4,1	5,8	9,5	14	18	24	30	39	46
<b>order number: 21300 ...</b>	23037	23075	23150	23220	40075	40150	40220	40004	40005	40007	40011	40015	40018	40022
<b>recommended mains filter (class C1)</b>	27012.24016				27012.24030				27114.48006				27114.48016	
									27114.48030				27114.48055	

Technical data	VD i ... /E3				VD i ... /3E3									
	037	075	150	220	075	150	220	400	550	750	1100	1500	1850	2200
<b>motor shaft power / kW</b>	0,37	0,75	1,5	2,2	0,75	1,5	2,2	4,0	5,5	7,5	11,0	15,0	18,5	22,0
<b>mains voltage according to DIN EN 50160 (IEC 38)</b>	single-phase 200-240V, 48-62Hz				three-phase 380-480V, 48-62Hz									
<b>output current / A</b>	2,3	4,3	7	10,5	2,2	4,1	5,8	9,5	14	18	24	30	39	46
<b>peak current for 1min./ A</b>	3,5	6,5	10,5	15,7	3,3	6,2	8,7	14,3	21	27	36	45	58	69
<b>control functions</b>														
<b>frequency setting range</b>	0 – 500Hz													
<b>torque boost</b>	sensorless vector speed control, PM vector control, BLDC vector control, synchronous reluctance motor													
<b>ramp-up and ramp-down time</b>	0 ... 600s													
<b>frequency setpoint</b>	potentiometer >= 1kΩ, analogue signals, keypad, fixed frequencies, motor potentiometer, Modbus RTU, CANopen													
<b>ambient / storage temperature</b>	-10 ... 50°C, -40 ... 60°C													
<b>design size</b>	1	2	1	2	3								4	
<b>weight / kg</b>	1	1,7	1	1,7	3,2								9,1	

**Dimensions:**

size	A	B	C
1	82	173	123
2	109	221	150
3	131	261	175
4	171	420	212

All dimensions indicated in mm

**Connection Diagram:**