



Product type designation VLB3 General characteristics 400480VAC 50/60Hz Rated power supply voltage VAC Rated output voltage VAC Rated output voltage VAC Rated output current A Rated output power KW Rated output power HP Solic factor Solic factor EMC filter Sulfix EMC EMC filter Sulfix EMC Input type Three-phase Rated mains voltage VAC 400480 Operating mains voltage range VAC 340528 Rated mains frequency range Hz Operating mains voltage range VAC Querupt voltage range VAC	Product designation			Variable speed drives
General characteristics 400480VAC Rated power supply voltage VAC Rated output voltage VAC Rated output voltage A Rated output current A Rated output power KW Rated output power HP S0 (Standard load) Built-in EMC EMC filter Suppressor cat. C2 Three-phase Input type Three-phase Rated mains voltage VAC VAC 400480 Operating mains voltage VAC A0 400480 Operating mains voltage range VAC Rated mains voltage range VAC A0480 50.650 Operating mains frequency range Hz A5065 54.9 (heavy load) Output type Three-phase Current overload VAC Output type Three-phase Current overload VAC Apparent output power Hz Association 50.650 Current overload %/s Power loss (feavy load) / (heavy load) Brake chopper Yes Switching frequency 216kHz Max motor cable length Yes <	Product type designation			
Rated power supply voltage 400480/AC 50/60Hz Rated output voltage VAC Rated output current A Rated output power KW Rated output power HP Sol (Standard load) 50 (Standard load) EMC filter Built-in EMC EMC filter Suppressor cat. C2 Technical features VAC Hput type Three-phase 0. Rated mains voltage range VAC Qperating mains voltage range VAC Rated mains voltage range VAC Qutput type HZ Operating mains requency range HZ Asted mains current with mains choke 54.9 (heavy load) Output type Three-phase Output otage range VAC Output type Three-phase Output type Three-phase Output type Three-phase				VEDO
Rated output voltage VAC 480VAC 0-599f Rated output power A 61 Rated output power BV 50 (Standard Lead) EMC filter BVC EMC filter BVC EMC filter BVC EMC filter C 2 Technical features Three-phase Rated mains voltage range VAC 400480 Operating mains voltage range VAC 400480 Operating mains requency ange Hz 4565 Coursent with mains choke /69 (standard Output type Three-phase S4.9 (heavy load) Cutput type Three-phase S4.9 (heavy load) Coursent with mains choke /69 (standard Output type Three-phase S4.9 (heavy load) Cutput type Three-phase S4.9 (heavy load) Apparent output power 441 (heavy load) Apparent output power 441 (heavy load) Apparent output power 441 (heavy load) Brake chopper Yes Stitching frequency 216kHz Max motor cable length Shielded Without EMC category m 100 Category C2 m 20	Rated power supply voltage			
Rated output power kW 30 Rated output power HP 50 (Standard load) EMC filter Built-in EMC suppressor cat. C2 Technical features Three-phase Rated mains voltage VAC 40480 Operating mains voltage range VAC 340528 Rated mains frequency Hz 50/60 Operating mains frequency range Hz 49 (heavy load) Rated mains current with mains choke /69 (standard load) 69 (standard load) Output type Three-phase Qutput voltage range VAC 0480 Output type Three-phase Rated mains current with mains choke /69 (standard load) Output type Three-phase Current overload %/s 200% for 3s Output type Three-phase Quere loss 41 (heavy load) Power loss 41 (heavy load) Brake chopper Yes Switching frequency Yes Switching frequency 216kHz Max motor cable length 30 Without EMC category m Shielded Without EMC category	Rated output voltage		VAC	Three-phase 0 480VAC 0-599Hz
Rated output power 40 (Heavy load) 50 (Standard load) EMC filter Built-in EMC suppressor cat. C2 Technical features Three-phase Input type Three-phase Rated mains voltage operating mains voltage range VAC Operating mains voltage range VAC Querating mains voltage range VAC Rated mains requency Hz 50/60 54.9 (heavy load) Operating mains current with mains choke /66 (standard load) Output type Three-phase Quiptu type Three-phase Quiptu type Three-phase Quiptu type 41 (heavy load) Output type Three-phase Quiptu type 150% for 60s; 200% for 3s 150% for 60s; Quiptu solidage range 9% standard Quiptu solidage range Yes Quiptu solidage range Yes<	Rated output current		А	61
Rated output power HP 50 (Standard load) EMC filter Built-in EMC suppressor cat. C2 Technical features Input type Input type Three-phase Rated mains voltage VAC Operating mains voltage range VAC Operating mains voltage range VAC Operating mains voltage range HZ Stated mains frequency range HZ Operating mains current with mains choke /69 (standard load) Output type Three-phase Output type Three-phase Output type Three-phase Output type 54.9 (heavy load Output type Three-phase Output traper ange VAC Output type Three-phase Output traper output power 150% for 60s; 200% for 3s 200% for 3s Apparent output power 41 (heavy load) Noad 10ad) Brake chopper Yes Switching frequency 216kHz	Rated output power		kW	30
EMC filter suppressor cat. C2 Technical features Input type Three-phase Rated mains voltage or VAC 400480 Operating mains voltage range VAC 340528 Rated mains frequency ange Hz 50/60 Operating mains frequency range Hz 4565 Rated mains current with mains choke / 69 (standard load) Output type Three-phase Output voltage range VAC 0480 Output frequency range Hz 0599 Current overload %/s Apparent output power Hz 0599 Furrent overload %/s Forward Standard load load load load load load load loa	Rated output power		HP	· ·
Input type Three-phase Rated mains voltage VAC 400480 Operating mains voltage range VAC 340528 Rated mains frequency Hz 50/60 Operating mains frequency range Hz 4565 Rated mains current with mains choke / 69 (standard load) / 00404 Output type Three-phase / 69 (standard load) / 00404 Output type Three-phase / 69 (standard load) / 00404 Output type Three-phase / 69 (standard load) / 00404 Output trequency range VAC 0480 / 0480 Output frequency range Hz 0599 / 0480 Current overload %/s 150% for 60s; 200% for 3s / 10 (heavy load) / 49 (standard load) Apparent output power	EMC filter			suppressor cat.
Rated mains voltage VAC 400480 Operating mains voltage range VAC 340528 Rated mains frequency Hz 50/60 Operating mains frequency range Hz 4565 Rated mains current with mains choke 54.9 (heavy load load) Output type Three-phase Output type Three-phase Output frequency range Hz 0480 Output frequency range VAC 0480 Output frequency range VAC 0480 Output frequency range Hz 0599 Current overload %/s 150% for 60s; 200% for 3s Apparent output power 49 (standard load) Power loss 41 (heavy load) / 49 (standard load) Brake chopper Yes Switching frequency 216kHz Max motor cable length Shielded Without EMC category m 100 Category C1 m 3 Category C2 m 20 20	Technical features			
Operating mains voltage range VAC 340528 Rated mains frequency Hz 50/60 Operating mains frequency range Hz 4565 Rated mains current with mains choke 54.9 (heavy load Output type Three-phase Output type VAC 0480 Output frequency range Hz 0599 Current overload %/s 150% for 60s; 200% for 35 Apparent output power 41 (heavy load) 49 (standard load) Power loss 150% for 60s; 200% for 35 200% for 35 Brake chopper Yes Switching frequency 216kHz Max motor cable length Shielded Without EMC category m 100 Category C1 m 3 Category C2 m 20 20 20 20	Input type			-
Rated mains frequency Hz 50/60 Operating mains frequency range Hz 4565 Stated mains current with mains choke / 69 (standard load) Output type Three-phase Output type VAC 0480 Output frequency range Hz 0599 Current overload %/s 150% for 60s; 200% for 3s Apparent output power 49 (standard load) 200% for 3s Power loss 41 (heavy load) / 810 (standard load) 810 (standard load) Brake chopper Yes 216kHz Switching frequency Yes 216kHz Max motor cable length Shielded Without EMC category m 33 Category C1 m 3 Category C2 m 20 20 20	Rated mains voltage			
Operating mains frequency range Hz 4565 Rated mains current with mains choke / 69 (standard load) Output type Three-phase Output voltage range VAC 0480 Output frequency range Hz 0599 Current overload %/s 150% for 60s; 200% for 3s Apparent output power 49 (standard load) Power loss 41 (heavy load) / 49 (standard load) Brake chopper Yes Switching frequency Yes Switching frequency 216kHz Max motor cable length Shielded Without EMC category C1 m 3 3 Category C2 m 20 20			VAC	
A rest of the second	Rated mains frequency		Hz	
Rated mains current with mains choke / 69 (standard load) Output type Three-phase Output voltage range VAC 0480 Output frequency range Hz 0599 Current overload %/s 150% for 60s; 200% for 3s Apparent output power 41 (heavy load) Power loss 441 (heavy load) Brake chopper Yes Switching frequency 216kHz Max motor cable length Shielded Without EMC category m 100 Category C1 m 3 Category C2 m 20	Operating mains frequency range		Hz	4565
Output voltage range VAC 0480 Output frequency range Hz 0599 Current overload %/s 150% for 60s; 200% for 3s Apparent output power 41 (heavy load) 49 (standard load) Power loss 4kHz: 680W (heavy load) / 810 (standard load) Brake chopper Yes Switching frequency 216kHz Max motor cable length Shielded Without EMC category m 100 Category C1 m Category C2 m 20	Rated mains current with mains choke			
Output frequency range Hz 0599 Current overload %/s 150% for 60s; 200% for 3s Apparent output power 41 (heavy load) 49 (standard load) Power loss 4kHz: 680W (heavy load) / 810 (standard load) Brake chopper Yes Switching frequency 216kHz Max motor cable length Shielded Without EMC category Category C1 100 m 3 Category C2	Output type			Three-phase
Current overload %/s 150% for 60s; 200% for 3s Apparent output power 41 (heavy load) Apparent output power 49 (standard load) Power loss 4kHz: 680W (heavy load) / 810 (standard load) Brake chopper Yes Switching frequency 216kHz Max motor cable length Shielded Without EMC category m 100 Category C1 m Category C2 m 20	Output voltage range		VAC	0480
Current ovendad %/s 200% for 3s Apparent output power 41 (heavy load) Apparent output power 49 (standard load) Power loss 4kHz: 680W (heavy load) / 810 (standard load) Brake chopper Yes Switching frequency 216kHz Max motor cable length Shielded Without EMC category m 100 Category C1 m Category C2 m 20	Output frequency range		Hz	0599
Apparent output power 49 (standard load) 4kHz: 680W (heavy load) / 810 (standard load) Brake chopper Yes Switching frequency 216kHz Max motor cable length Shielded Without EMC category m 100 Category C1 m 3 Category C2 m 20	Current overload		%/s	-
Power loss (heavy load) / 810 (standard load) Brake chopper Yes Switching frequency 216kHz Max motor cable length Shielded Without EMC category m 100 Category C1 m 3 Category C2 m 20	Apparent output power			•
Switching frequency 216kHz Max motor cable length Shielded Without EMC category m 100 Category C1 m 3 Category C2 m 20	Power loss			(heavy load) / 810 (standard
Max motor cable length Shielded Without EMC category m 100 Category C1 m 3 Category C2 m 20	Brake chopper			Yes
Shielded Without EMC category m 100 Category C1 m 3 Category C2 m 20	Switching frequency			216kHz
Without EMC category m 100 Category C1 m 3 Category C2 m 20	Max motor cable length			
Category C1 m 3 Category C2 m 20	Shielded			
Category C2 m 20		C ,	m	100
			m	
Category C3 m 35			m	
		Category C3	m	35

Unshielded



POWER UNIT, VLB3... TYPE, THREE-PHASE SUPPLY 400-480VAC 50/60HZ. EMC SUPPRESSOR BUILT-IN, CAT. C2, 30KW

VLB30300A480XX

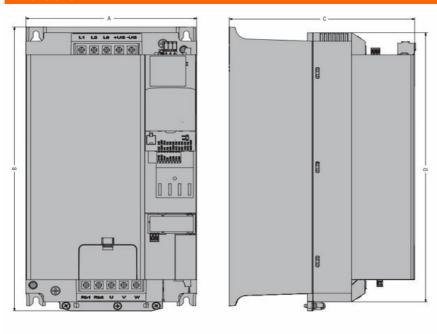
	Without EMC category	m	200
Functions Motor control modes			V/f linear, quadratic torque, sensorless vector control, ECO mode, servo control with encoder feedback, multipoint V/f curve, V/f closed loop control with encoder feedback, torque setpoint, sensorless control for synchronous motors up to 22kW
Speed reference signals			External potentiometer 010kΩ Voltage signals: 0 10VDC or -10 +10VDC Current signals: 0/4 20mA Buttons on front keyboard Door-mount installation kit 15 preset speeds via digital inputs Motor potentiometer Fieldbus
3-wire control			Yes
S-shape curves			Yes
Slip compensation			Yes
Flying restart			Yes
Access to DC bus			Yes
DC braking			Yes Yes
DC injection at start			Yes, with sleep
PID control			and rinse function
Sequencer (programmable frequency/time cycles)			Yes
Preset speeds			Yes
Motorpotentiometer			Yes
Different parameter configuration sets			Yes
Parameters changeover function			Yes
Favorite parameters menu			Yes
Autotuning			No
Safe torque Off (STO) safety function			Optional
PTC probe input			Yes



			Overcurrent
			Output short
			circuit and
			earth/ground
			leakage
Protections			Overvoltage
			Undervoltage
			Phase loss Motor
			heat overload
			(i2t) Overspeed
			Speed reverse
			Multi-pump PID
			control (1 main
			pump frequency
			regulated + 2
Special funct.			auxiliary pumps
			activated in direct
			mode in case of
			necessity)
Input and Output			,,
Number of digital input		Nr.	5
Digital input type			Selectable PNP
			or NPN logic
Number of digital output		Nr.	2
			1 relay output
			with changeover
Digital output arrangement			contact (C/O-
			SPDT) + 1 digital
			output
			Relay output: 3A
Output contacts ratings			250VAC Digital
			output: 100mA
Number of analog input		Nr.	max 30VDC 2
		INI.	Configurable
			0/210VDC,
Analog input type			-10+10VDC,
			05VDC, 0/4
			20mA
Number of analog output		Nr.	1
			configurable as
			010VDC, 0
Analog output type			5VDC, 2
			10VDC, 0/4
			20mA
Ambient conditions			
Temperature			
Operating temperature		_	
	min	°C	-10
	max	°C	+55



	Current derating		switching frequency 2 or 4kHz: 2.5%/°C over 45°C switching frequency 8 or 16kHz: 2.5%/°C over 40°C
Storage temperature			
	min	°C	-25
	max	°C	+60
Relative humidity		%	595% (with no condensing)
Max altitude		m	4000m (over 1000m derate the rated current by 5%/1000m)
Maximum Pollution degree			2
Overvoltage category			III up to 2000m altitude (II above 2000m)
Housing			
Installation position			Vertical
IP degree of protection			IP20
Dimensions (W x H x D)		mm	Batch <=D 250 x 520 x 230 Batch >=E 180 x 384 x 165
Weight		Kg	17.2
Dimensions			



Batch number	A	В	С	D
letter D or lower	250	520	230	450
letter E or greater	180	384	165	342

Wiring diagrams



VLB30300A480XX POWER UNIT, VLB3... TYPE, THREE-PHASE SUPPLY 400-480VAC 50/60HZ. EMC SUPPRESSOR BUILT-IN, CAT. C2, 30KW

L1 L2 L3 3/N/PE AC 400 V N PE F1 F3 3/PE Q1 AC 340 V ... 528 V 45 Hz ... 65 Hz PROFINET CANopen Modbus RTV PROFIBUS EtherCAT 는 X246 X216 X256 X257 ٢ X100 X216 -13-+UGt 5 9 2 X226 6X A .DO Q COM NC ON ÐD 00 6 6 6 è Ó ≧ ≧ OUT OUT AC 240 \ 3 A +24 \ CHORD I C-COPE 100 - GND -24E -- GND -DH2 DH3 015 DH1 04 X105 X109 GND Rb2 : 24E AH1 10 A01 24V AI-2 Rb1 X1 SIA GS SIB X3 E 2 2 1 5

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Certifications and co	mpliance
Compliance	
	CSA 22.2 n°274
	EN 61800-5-1
	UL61800-5-1
Certificates	
	CSA
	cULus
	EAC
	RCM

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ETIM classification

ETIM 8.0

EC001857 -Frequency converter =< 1 kV