VLB30015A480

VARIABLE SPEED DRIVE, VLB3... TYPE, THREE-PHASE SUPPLY 400-480VAC 50/60HZ. EMC SUPPRESSOR BUILT-IN, CAT. C2, 1.5KW



Product designation			Variable speed drives
Product type designation			VLB3
General characteristics			
Rated power supply voltage			400…480VAC 50/60Hz
Rated output voltage		VAC	Three-phase 0…480VAC 0-599Hz
Rated output current		A	3.9
Rated output power		kW	1.5
Rated output power		HP	2 (heavy load)
EMC filter			Built-in EMC suppressor cat. C2
Communication port			RS485, Modbus-RTU
Technical features			
Input type			Three-phase
Rated mains voltage		VAC	400...480
Operating mains voltage range		VAC	340…528
Rated mains frequency		Hz	50/60
Operating mains frequency range		Hz	45…65
Rated mains current without mains choke			5.4
Rated mains current with mains choke			3.7
Output type			Three-phase
Output voltage range		VAC	0…480
Output frequency range		Hz	0…599
Current overload		%/s	150% for 60s; 200% for 3s
Apparent output power			2.6 (heavy load)
Power loss			4kHz: 48W (heavy load)
Brake chopper			Yes
Switching frequency			2…16kHz
Max motor cable length			
	Shielded		
		Without EMC category	m	50m / 100m (40°C max, switching frequency 4kHz max)
		Category C1	m	3
		Category C2	m	20
		Category C3	m	35
	Unshielded		
		Without EMC category	m	200

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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
Speed reference signals	External potentiometer 0…10kΩ 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 potentiom
3-wire control	Yes
S-shape curves	Yes
Slip compensation	Yes
Flying restart	Yes
Access to DC bus	Yes
DC braking	Yes
DC injection at start	Yes
PID control	Yes, with sleep 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

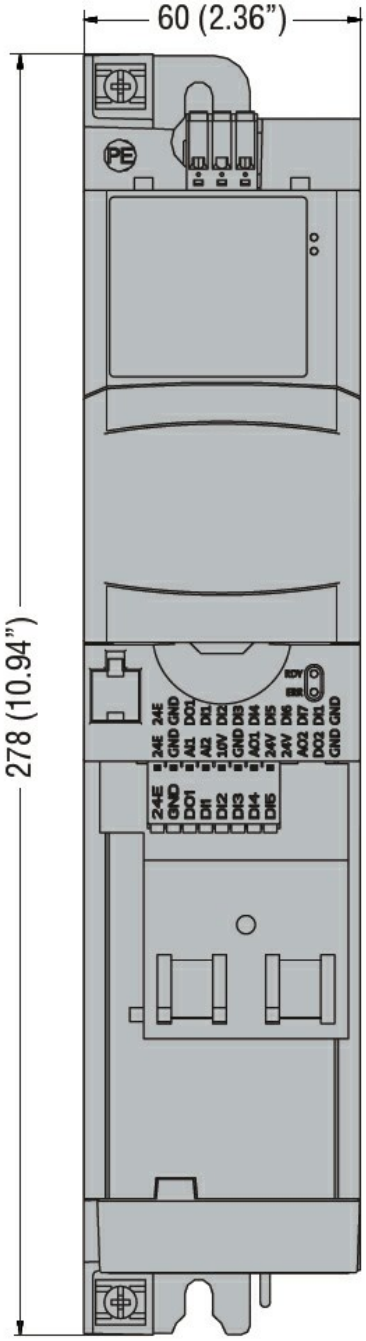
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Protections		Overcurrent Output short circuit and earth/ground leakage Overvoltage Undervoltage Phase loss Motor heat overload (i2t) Overspeed Speed reverse
Special funct.		Multi-pump PID control (1 main pump frequency regulated + 2 auxiliary pumps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

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		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			%	5...95% (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	60 x 278 x 130
Weight			Kg	1.38
Dimensions				

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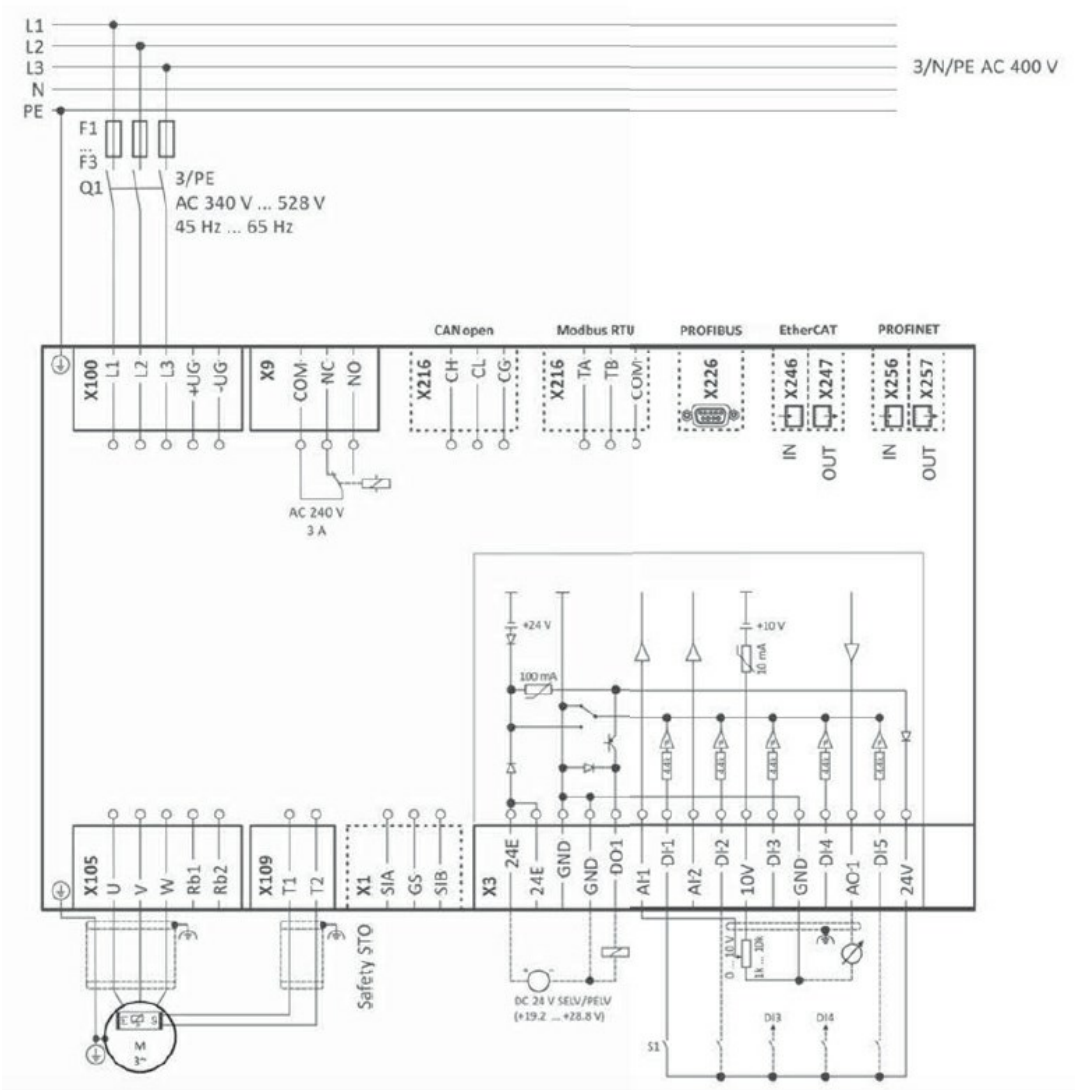


Wiring diagrams

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Certifications and compliance

Compliance

EN 61800-5-1
UL61800-5-1

Certificates

cULus
EAC
RCM

ETIM classification

ETIM 8.0	EC001857 - Frequency converter =< 1 kV

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