VLB30040A480

VARIABLE SPEED DRIVE, VLB3... TYPE, THREE-PHASE SUPPLY 400-480VAC 50/60HZ. EMC SUPPRESSOR BUILT-IN, CAT. C2, 4KW

General characteristics		
Rated power supply voltage		400…480VAC 50/60Hz
Rated output voltage	VAC	Three-phase 0… 480VAC 0-599Hz
Rated output current	A	9.5
Rated output power	kW	4
Rated output power	HP	5 (Heavy load) / 7.5 (Standard 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		12.5 (heavy load) / 14 (standard load)
Rated mains current with mains choke		9 (heavy load) / 11 (standard load)
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		6.4 (heavy load) / 8 (standard load)
Power loss		4kHz: 110W (heavy load) / 133 (standard 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)

The characteristics described in this document are subject to updates or modifications at any time. The descriptions, technical and functional information, illustrations and instructions in this brochure are purely illustrative, and are consequently not contractually binding

		Category C1	m	3
		Category C2	m	20
		Category C3	m	35
	Unshielded			
		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 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 potentiometer Fieldbus
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

The characteristics described in this document are subject to updates or modifications at any time. The descriptions, technical and functional information, illustrations and instructions in this brochure are purely illustrative, and are consequently not contractually binding

Favorite parameters menu			Yes
Autotuning			No
Safe torque Off (STO) safety function			Optional
PTC probe input			Yes
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

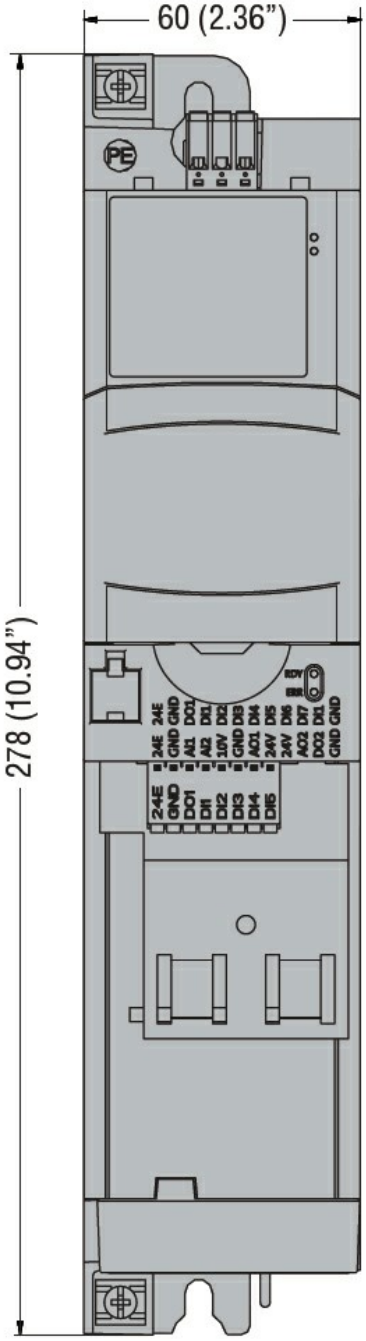
The characteristics described in this document are subject to updates or modifications at any time. The descriptions, technical and functional information, illustrations and instructions in this brochure are purely illustrative, and are consequently not contractually binding

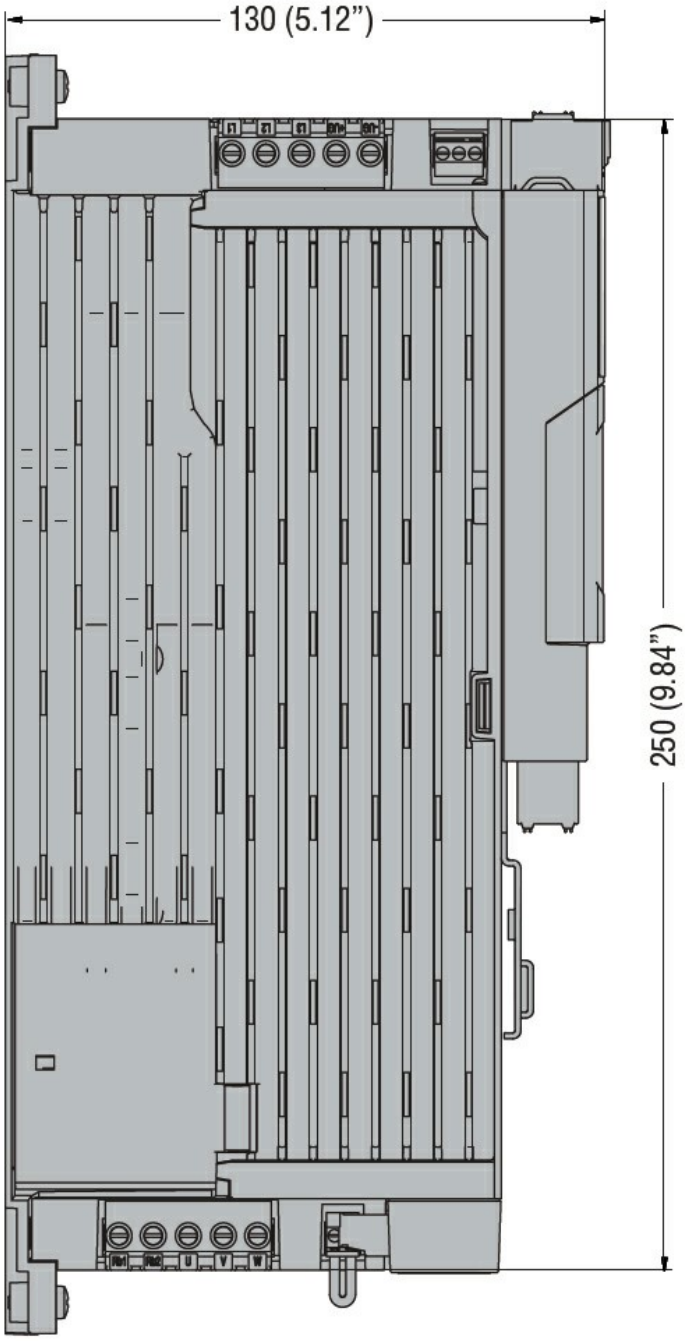
		Current derating		Switching frequency 2 or 4kHz: 2.5%/°C over 45°C switching frequency 8 or 16kHz: 2.5%/°C over 40°C
	Storage temperature			
		min	°C	-25
		max	°C	+60
Relative humidity			%	5...95% (with no condensing)
Max altitude			m	4000m (over 1000m derate the rated current by 5%/1000m)
Maximum Pollution 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	90 x 278 x 130
Weight			Kg	2.45
Dimensions				

The characteristics described in this document are subject to updates or modifications at any time. The descriptions, technical and functional information, illustrations and instructions in this brochure are purely illustrative, and are consequently not contractually binding

VLB30040A480

VARIABLE SPEED DRIVE, VLB3... TYPE, THREE-PHASE SUPPLY 400-480VAC 50/60HZ. EMC SUPPRESSOR BUILT-IN, CAT. C2, 4KW



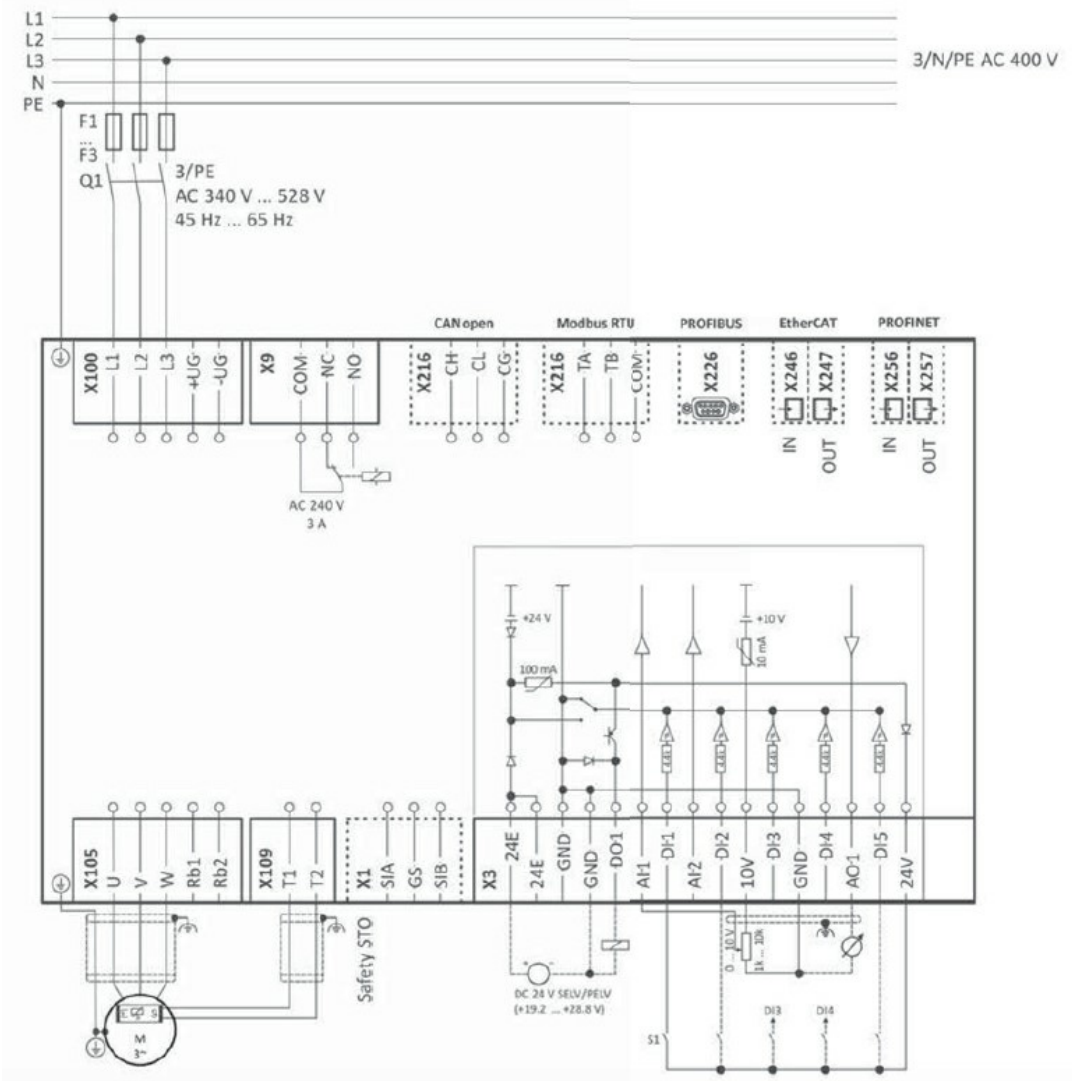


Wiring diagrams

The characteristics described in this document are subject to updates or modifications at any time. The descriptions, technical and functional information, illustrations and instructions in this brochure are purely illustrative, and are consequently not contractually binding

VLB30040A480

VARIABLE SPEED DRIVE, VLB3... TYPE, THREE-PHASE SUPPLY 400-480VAC 50/60HZ. EMC SUPPRESSOR BUILT-IN, CAT. C2, 4KW



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

The characteristics described in this document are subject to updates or modifications at any time. The descriptions, technical and functional information, illustrations and instructions in this brochure are purely illustrative, and are consequently not contractually binding